20250829020076

FASTSTÄLLELSEINTYG TILL ÅRSREDOVISNING

Intyg om att balansräkningen och resultaträkningen har fastställts
Certification that the balance sheet and income statement have been adopted

Undertecknad styrelseledamot i Johnson Controls Holding Sweden AB, org.nr 556706–0347, intygar, dels att denna kopia av årsredovisningen stämmer överens med originalet, dels att resultaträkningen och balansräkningen har fastställts på årsstämma den 21/8- 2025. Årsstämman beslutade att godkänna styrelsens förslag till hur resultatet ska disponeras.
The undersigned board member of Johnson Controls Holding Sweden AB, reg.no 556706-0347, hereby certifies that this copy of the annual report conforms to the original and that the income statement and balance sheet were adopted on 21-8- 2025. The annual general meeting resolved to adopt the board's proposal regarding the allocation of the company's profits.

Stockholm den 21-8- 2025

Peter Schieser

20250829020065

Styrelsen för

Johnson Controls Holding Sweden AB

Org nr 556706-0347

får härmed avge

Årsredovisning

för räkenskapsåret 2023-10-01 - 2024-09-30

Innehåll	Sida
Förvaltningsberättelse	2
Resultaträkning	4
Balansräkning	5
Tilläggsupplysningar	7
Underskrifter	11

Jag intygar att detta är
en sann kopia av orginalet
Erik Ahlund
0700803944

20250829020066

Johnson Controls Holding Sweden AB
556706-0347

Förvaltningsberättelse

Ägarförhållanden och information om verksamheten

Bolagets säte är i Stockholm och det är ett helägt holdingbolag till Johnson Controls International plc, med säte i Cork, Irland.

Bolaget bedriver ingen annan verksamhet än att äga och förvalta aktierna i Johnson Controls Systems & Service AB och Tyco Building Services Products (Sweden) AB.

Bolaget har ingen anställd personal. Förekommande ärenden har handlagts av personal anställd inom Johnson Controls Systems & Service AB.

Väsentliga händelser under räkenskapsåret

Det finns inga väsentliga händelser att rapportera under räkenskapsåret.

Väsentliga händelser efter räkenskapsårets utgång

Det finns inga väsentliga händelser att rapportera efter räkenskapsårets utgång.

Framtida utveckling

Verksamheten kommer även i framtiden att vara förvaltning av koncerninterna lån samt aktier i dotterbolag.

Flerårsöversikt (Tkr)	2023/2024	2022/2023	2021/2022	2020/2021	2019/2020
Resultat efter finansnetto	25 379	21 158	-65 882	8 283	9 004
Soliditet (%)	70,3	69,4	93,6	94,1	93,8

Förändring av eget kapital

(kr)	Aktie kapital	Över kursfond	Balanserat resultat	Årets resultat	Totalt
Belopp vid årets ingång	110 000	942 687 945	-185 519 230	-180 804 938	576 473 777
Disposition enligt beslut vid årsstämma	0	0	-180 804 938	180 804 938	0
Årets resultat	0	0	0	25 379 412	25 379 412
Belopp vid årets utgång	**110 000**	**942 687 945**	**-366 324 168**	**25 379 412**	**601 853 189**

20250829020067

Johnson Controls Holding Sweden AB
556706-0347

Förslag till vinstdisposition (SEK)

Styrelsen föreslår att till förfogande stående vinstmedel:

Överkursfond	942 687 945
Balanserat resultat	-366 324 168
Årets resultat	25 379 412
kronor	**601 743 189**

Disponeras så att

I ny räkning överförs	601 743 189

Bolagets resultat och ställning i övrigt framgår av efterföljande resultat- och balansräkningar och tilläggsupplysningar.

Belopp inom parentes avser föregående år. Om inte särskilt anges redovisas alla belopp i kronor.

UHP

20250829020068

Johnson Controls Holding Sweden AB
556706-0347

Resultaträkning

Kr	Not	2023-10-01 -2024-09-30	2022-10-01 -2023-09-30
Rörelsens kostnader			
Övriga externa kostnader	3	-155 307	-55 844
Rörelseresultat		**-155 307**	**-55 844**
Övriga ränteintäkter och liknande resultatposter	4	25 534 758	21 249 470
Räntekostnader och liknande resultatposter	5	-39	-36 056
Resultat efter finansiella poster		**25 379 412**	**21 157 570**
Bokslutsdispositioner			
Koncernbidrag		0	-201 962 508
		0	**-201 962 508**
Resultat före skatt		**25 379 412**	**-180 804 938**
Skatt på årets resultat	6	0	0
Årets resultat		**25 379 412**	**-180 804 938**

20250829020690

Johnson Controls Holding Sweden AB
556706-0347

Balansräkning

Kr	Not	2024-09-30	2023-09-30
TILLGÅNGAR			
Anläggningstillgångar			
Finansiella anläggningstillgångar			
Aktier i svenska dotterbolag	7	268 888 696	268 888 696
Långfristiga fordringar hos koncernföretag	8	429 294 480	429 396 149
Summa finansiella anläggningstillgångar		**698 183 176**	**698 284 845**
Summa anläggningstillgångar		**698 183 176**	**698 284 845**
Omsättningstillgångar			
Kortfristiga fordringar			
Fordringar hos koncernföretag	9	3 415 402	3 389 374
Summa kortfristiga fordringar		**3 415 402**	**3 389 374**
Kassa och bank		154 248 281	128 762 066
Summa omsättningstillgångar		**157 663 683**	**132 151 440**
SUMMA TILLGÅNGAR		**855 846 859**	**830 436 285**

20250829020700

Balansräkning

Kr	Not	2024-09-30	2023-09-30
EGET KAPITAL OCH SKULDER			
Eget kapital			
Bundet eget kapital			
Aktiekapital	10	110 000	110 000
Summa bundet eget kapital		**110 000**	**110 000**
Fritt eget kapital			
Överkursfond		942 687 945	942 687 945
Balanserat resultat		-366 324 168	-185 519 230
Årets resultat		25 379 412	-180 804 938
Summa fritt eget kapital		**601 743 189**	**576 363 777**
Summa eget kapital		**601 853 189**	**576 473 777**
Långfristiga skulder			
Skulder till koncernföretag	11	253 962 508	253 962 508
Summa långfristiga skulder		**253 962 508**	**253 962 508**
Kortfristiga skulder			
Leverantörsskulder		31 162	0
Summa kortfristiga skulder		**31 162**	**0**
Summa skulder		**253 993 670**	**253 962 508**
SUMMA EGET KAPITAL OCH SKULDER		**855 846 859**	**830 436 285**

20250829020711

TILLÄGGSUPPLYSNINGAR

Not 1 Redovisnings och värderingsprinciper

Allmänna redovisningsprinciper

Johnson Controls Holding Sweden ABs årsredovisning har upprättats enligt årsredovisningslagen och Bokföringsnämndens allmänna råd BFNAR 2012:1 Årsredovisning och koncernredovisning (K3).

Redovisningsprinciperna är oförändrade mot föregående år.

Uppgifter om moderbolag och koncernredovisning

Moderföretag i den största koncern där Johnson Controls Holding Sweden AB ingår och där koncernredovisning upprättas är Johnson Controls International plc, Cork, Irland.

Med stöd av Årsredovisningslagen 7 kap 2§ upprättar inte Johnson Controls Holding Sweden AB någon egen koncernredovisning.

Tillgångar och skulder
Bolagets tillgångar och skulder har upptagits till anskaffningsvärden respektive nominella belopp om ej annat framgår. Tillgångar och skulder som ska återvinnas/betalas inom ett år klassificeras i årsredovisningen som kortfristiga fordringar alternativt kortfristiga skulder.
Fordringar och skulder i utländsk valuta har omräknats till balansdagens kurs.

Kursdifferenser har belastat årets resultat och redovisas under räntekostnader/ränteintäkter och liknande poster.

Periodisering av inkomster och utgifter har skett enligt god redovisningssed.
Redovisade inkomstskatter innefattar skatt som skall betalas eller erhållas avseende aktuellt år samt justeringar avseende tidigare års aktuella skatt.

Värdering av samtliga skatteskulder/-fordringar sker till nominella belopp och görs enligt de skatteregler och skattesatser som är beslutade eller som är aviserade och med stor säkerhet kommer att fastställas.

Uppskjuten skatt beräknas enligt balansräkningen på alla temporära skillnader som uppkommer mellan redovisade och skattemässiga värden på tillgångar och skulder. Uppskjuten skattefordran avseende underskottsavdrag eller andra framtida skattemässiga avdrag redovisas i den utsträckning det är sannolikt att avdraget kan avräknas mot överskott vid framtida beskattning. Övriga inkomster och utgifter rörande pågående projekt resultatförs löpande.

Aktier i dotterbolag

Andelar i dotterföretag redovisas till anskaffningsvärde med avdrag för eventuella nedskrivningar.
Som utdelning från dotterföretag redovisas endast erhållen utdelning av vinstmedel som intjänats efter förvärvet.

UHP

20250829020720

Koncernbidrag

Koncernbidrag redovisas över resultatet som bokslutsdisposition.

Koncernföretag

Med koncernföretag avses samtliga företag som ingår i den koncern vari Johnson Controls International plc är moderbolag.

Nyckeltalsdefinitioner

Resultat efter finansiella poster

Resultat efter finansiella intäkter och kostnader men före skatt.

Soliditet

Justerat eget kapital (Eget kapital + Obeskattade reserver efter skatt) i procent av balansomslutning

Not 2 Uppskattningar och bedömningar

Bolaget gör uppskattningar och bedömningar om framtiden. De uppskattningar som görs för redovisningsändamål som blir följden av dessa kommer, definitionsmässigt, sällan att motsvara det verkliga resultatet. Finns det uppskattningar och antaganden som innebär en betydande risk för väsentliga justeringar i redovisade värden för tillgångar och skulder under nästkommande år så kommer de att behandlas i huvuddrag nedan.

Not 3 Ersättning till revisorer

	2023/2024	2022/2023
Revisionsuppdraget		
Öhrlings PricewaterhouseCoopers AB	30 600	30 000
	30 600	**30 000**

Med revisionsuppdrag avses revisors arbete för den lagstadgade revisionen och med revisionsverksamhet olika typer kvalitetssäkringstjänster. Övriga tjänster är sådant som inte ingår i revisionsuppdrag, revisionsverksamhet eller skatterådgivning.

Not 4 Övriga ränteintäkter och liknande resultatposter

	2023/2024	2022/2023
Övriga ränteintäkter	4 855 057	2 650 751
Övriga ränteintäkter från koncernföretag	20 679 701	18 598 719
	25 534 758	**21 249 470**

UHP

20250829020730

Not 5 Räntekostnader och liknande resultatposter

	2023/2024	2022/2023
Räntekostnader	0	-36 003
Övriga finansiella kostnader	-38	-51
Valutakursförlust	-1	-2
	-39	**-36 056**

Not 6 Skatt på årets resultat

	2023/2024	**2022/2023**
Aktuell skatt	0	0
Skatt hänförlig till tidigare år	0	0
Skatt på årets resultat	**0**	**0**
Redovisat resultat före skatt	25 379 412	-180 804 938
Skatt beräknad enligt gällande skattesats (20,6%)	-5 228 159	37 245 817
Skatteeffekt av ej avdragsgilla kostnader	0	0
Skatteeffekt av ej utnyttjade underskottsavdrag	0	-37 245 817
Skatteeffekt av utnyttjade underskottsavdrag	5 228 159	0
Redovisad skattekostnad	**0**	**0**
Outnyttjat underskott	264 028 023	221 512 080

Not 7 Aktier i svenska dotterbolag

	2024-09-30	**2023-09-30**
Ingående anskaffningsvärden	268 888 696	268 888 696
Bokfört värde	**268 888 696**	**268 888 696**

	Röst andel	**Kapital andel**	**Bokfört värde**	**Org nummer**	**Säte**
Johnson Controls Systems & Service AB	100 %	100 %	148 728 000	556417-4091	Norrköping
Tyco Building Services Products (Sweden) AB	100 %	100 %	120 160 696	556494-4824	Växjö
			268 888 696		

20250829020074

Not 8 Långfristiga fordringar hos koncernföretag

	2024-09-30	2023-09-30
Ingående anskaffningsvärde	429 396 149	429 354 089
Tillkommande fordringar	0	42 060
Avgående fordringar	-101 669	0
Utgående ackumulerade anskaffningar	429 294 480	429 396 149
Utgående redovisat värde	**429 294 480**	**429 396 149**

Not 9 Kortfristiga fordringar hos koncernföretag

	2024-09-30	2023-09-30
Cash pool	3 415 402	3 389 374
	3 415 402	**3 389 374**

Not 10 Upplysningar om aktiekapital

	Antal aktier	Kvotvärde per aktie
Antal/värde vid årets ingång	1 100	100
Antal/värde vid årets utgång	1 100	100

Not 11 Långfristiga skulder till koncernföretag

	2024-09-30			2023-09-30		
	Mellan 1 och 5 år	Senare än 5 år	Summa	Mellan 1 och 5 år	Senare än 5 år	Summa
Koncern-bidrag	0	253 962 508	253 962 508	0	253 962 508	253 962 508
	0	**253 962 508**	**253 962 508**	**0**	**253 962 508**	**253 962 508**

Det finns ingen amorteringsplan för koncernbidragen.

20250829020750

Johnson Controls Holding Sweden AB
556706-0347

Not 12 Förslag till vinstdisposition

Till årsstämmans förfogande står följande vinstmedel:

	2023/2024
Överkursfond	942 687 945
Balanserat resultat	-366 324 168
Årets resultat	25 379 412
kronor	**601 743 189**

Styrelsen föreslår att vinstmedlen disponeras så att:

i ny räkning överförs	601 743 189
kronor	**601 743 189**

Stockholm 30-06-2025

Peter Schieser

Vår revisionsberättelse har lämnats den 30 juni 2025

Öhrlings PricewaterhouseCoopers AB

Anne-Louise Palm
Auktoriserad revisor

Jag intygar att detta är en
Sann kopia av orginalet
Erik Åhlund
070080 39 44

20250829020777

Revisionsberättelse

Till bolagsstämman i Johnson Controls Holding Sweden AB, org.nr 556706-0347

Rapport om årsredovisningen

Uttalanden

Vi har utfört en revision av årsredovisningen för Johnson Controls Holding Sweden AB för räkenskapsåret 1 oktober 2023 till 30 september 2024.

Enligt vår uppfattning har årsredovisningen upprättats i enlighet med årsredovisningslagen och ger en i alla väsentliga avseenden rättvisande bild av Johnson Controls Holding Sweden ABs finansiella ställning per den 30 september 2024 och av dess finansiella resultat för året enligt årsredovisningslagen. Förvaltningsberättelsen är förenlig med årsredovisningens övriga delar.

Vi tillstyrker därför att bolagsstämman fastställer resultaträkningen och balansräkningen för Johnson Controls Holding Sweden AB.

Grund för uttalanden

Vi har utfört revisionen enligt International Standards on Auditing (ISA) och god revisionssed i Sverige. Vårt ansvar enligt dessa standarder beskrivs närmare i avsnittet Revisorns ansvar. Vi är oberoende i förhållande till Johnson Controls Holding Sweden AB enligt god revisorssed i Sverige och har i övrigt fullgjort vårt yrkesetiska ansvar enligt dessa krav.

Vi anser att de revisionsbevis vi har inhämtat är tillräckliga och ändamålsenliga som grund för våra uttalanden.

Styrelsens ansvar

Det är styrelsen som har ansvaret för att årsredovisningen upprättas och att den ger en rättvisande bild enligt årsredovisningslagen. Styrelsen ansvarar även för den interna kontroll som de bedömer är nödvändig för att upprätta en årsredovisning som inte innehåller några väsentliga felaktigheter, vare sig dessa beror på oegentligheter eller misstag.

Vid upprättandet av årsredovisningen ansvarar styrelsen för bedömningen av bolagets förmåga att fortsätta verksamheten. De upplyser, när så är tillämpligt, om förhållanden som kan påverka förmågan att fortsätta verksamheten och att använda antagandet om fortsatt drift. Antagandet om fortsatt drift tillämpas dock inte om styrelsen avser att likvidera bolaget, upphöra med verksamheten eller inte har något realistiskt alternativ till att göra något av detta.

Revisorns ansvar

Våra mål är att uppnå en rimlig grad av säkerhet om huruvida årsredovisningen som helhet inte innehåller några väsentliga felaktigheter, vare sig dessa beror på oegentligheter eller misstag, och att lämna en revisionsberättelse som innehåller våra uttalanden. Rimlig säkerhet är en hög grad av säkerhet, men är ingen garanti för att en revision som utförs enligt ISA och god revisionssed i Sverige alltid kommer att upptäcka en väsentlig felaktighet om en sådan finns. Felaktigheter kan uppstå på grund av oegentligheter eller misstag och anses vara väsentliga om de enskilt eller tillsammans rimligen kan förväntas påverka de ekonomiska beslut som användare fattar med grund i årsredovisningen.

En ytterligare beskrivning av vårt ansvar för revisionen av årsredovisningen finns på Revisorsinspektionens webbplats: www.revisorsinspektionen.se/revisornsansvar. Denna beskrivning är en del av revisionsberättelsen.

Rapport om andra krav enligt lagar och andra författningar

Uttalanden

Utöver vår revision av årsredovisningen har vi även utfört en revision av styrelsens förvaltning för Johnson Controls Holding Sweden AB för räkenskapsåret 1 oktober 2023 till 30 september 2024 samt av förslaget till dispositioner beträffande bolagets vinst eller förlust.

Vi tillstyrker att bolagsstämman disponerar vinsten enligt förslaget i förvaltningsberättelsen och beviljar styrelsens ledamot ansvarsfrihet för räkenskapsåret.

20250829020078

Grund för uttalanden

Vi har utfört revisionen enligt god revisionssed i Sverige. Vårt ansvar enligt denna beskrivs närmare i avsnittet Revisorns ansvar. Vi är oberoende i förhållande till Johnson Controls Holding Sweden AB enligt god revisorssed i Sverige och har i övrigt fullgjort vårt yrkesetiska ansvar enligt dessa krav.

Vi anser att de revisionsbevis vi har inhämtat är tillräckliga och ändamålsenliga som grund för våra uttalanden.

Styrelsens ansvar

Det är styrelsen som har ansvaret för förslaget till dispositioner beträffande bolagets vinst eller förlust. Vid förslag till utdelning innefattar detta bland annat en bedömning av om utdelningen är försvarlig med hänsyn till de krav som bolagets verksamhetsart, omfattning och risker ställer på storleken av bolagets egna kapital, konsolideringsbehov, likviditet och ställning i övrigt.

Styrelsen ansvarar för bolagets organisation och förvaltningen av bolagets angelägenheter. Detta innefattar bland annat att fortlöpande bedöma bolagets ekonomiska situation, och att tillse att bolagets organisation är utformad så att bokföringen, medelsförvaltningen och bolagets ekonomiska angelägenheter i övrigt kontrolleras på ett betryggande sätt.

Revisorns ansvar

Vårt mål beträffande revisionen av förvaltningen, och därmed vårt uttalande om ansvarsfrihet, är att inhämta revisionsbevis för att med en rimlig grad av säkerhet kunna bedöma om någon styrelseledamot i något väsentligt avseende:

- företagit någon åtgärd eller gjort sig skyldig till någon försummelse som kan föranleda ersättningsskyldighet mot bolaget, eller
- på något annat sätt handlat i strid med aktiebolagslagen, årsredovisningslagen eller bolagsordningen.

Vårt mål beträffande revisionen av förslaget till dispositioner av bolagets vinst eller förlust, och därmed vårt uttalande om detta, är att med rimlig grad av säkerhet bedöma om förslaget är förenligt med aktiebolagslagen.

Rimlig säkerhet är en hög grad av säkerhet, men ingen garanti för att en revision som utförs enligt god revisionssed i Sverige alltid kommer att upptäcka åtgärder eller försummelser som kan föranleda ersättningsskyldighet mot bolaget, eller att ett förslag till dispositioner av bolagets vinst eller förlust inte är förenligt med aktiebolagslagen.

En ytterligare beskrivning av vårt ansvar för revisionen av förvaltningen finns på Revisorsinspektionens webbplats: www.revisorsinspektionen.se/revisornsansvar. Denna beskrivning är en del av revisionsberättelsen.

Anmärkning

Årsredovisningen har inte upprättats i sådan tid att det varit möjligt att, enligt 7 kap. 10 § aktiebolagslagen, hålla årsstämma inom sex månader efter räkenskapsårets utgång.

Norrköping den 30 juni 2025

Öhrlings PricewaterhouseCoopers AB

Anne-Louise Palm
Auktoriserad revisor

Jag intygar att detta är en sann kopia av orginalet
Erik Åhlund
070 080 39 44

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended September 30, 2024

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period From _____ To _____

Commission File Number 001-13836

JOHNSON CONTROLS INTERNATIONAL PLC

(Exact name of registrant as specified in its charter)

Ireland	**98-0390500**
(Jurisdiction of Incorporation)	(I.R.S. Employer Identification No.)
One Albert Quay, Cork, Ireland, T12 X8N6	**(353) 21-423-5000**
(Address of Principal Executive Offices and Postal Code)	(Registrant's Telephone Number)

Securities Registered Pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Ordinary Shares, Par Value $0.01	JCI	New York Stock Exchange
1.375% Notes due 2025	JCI25A	New York Stock Exchange
3.900% Notes due 2026	JCI26A	New York Stock Exchange
0.375% Senior Notes due 2027	JCI27	New York Stock Exchange
3.000% Senior Notes due 2028	JCI28	New York Stock Exchange
5.500% Senior Notes due 2029	JCI29	New York Stock Exchange
1.750% Senior Notes due 2030	JCI30	New York Stock Exchange
2.000% Sustainability-Linked Senior Notes due 2031	JCI31	New York Stock Exchange
1.000% Senior Notes due 2032	JCI32	New York Stock Exchange
4.900% Senior Notes due 2032	JCI32A	New York Stock Exchange
4.250% Senior Notes due 2035	JCI35	New York Stock Exchange
6.000% Notes due 2036	JCI36A	New York Stock Exchange
5.70% Senior Notes due 2041	JCI41B	New York Stock Exchange
5.250% Senior Notes due 2041	JCI41C	New York Stock Exchange
4.625% Senior Notes due 2044	JCI44A	New York Stock Exchange
5.125% Notes due 2045	JCI45B	New York Stock Exchange
6.950% Debentures due December 1, 2045	JCI45A	New York Stock Exchange
4.500% Senior Notes due 2047	JCI47	New York Stock Exchange
4.950% Senior Notes due 2064	JCI64A	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Exchange Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report ☑

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

As of March 31, 2024, the aggregate market value of Johnson Controls International plc Common Stock held by non-affiliates of the registrant was approximately $43.9 billion based on the closing sales price as reported on the New York Stock Exchange. As of October 31, 2024, 662,185,383 ordinary shares, par value $0.01 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the annual general meeting of shareholders to be held on March 12, 2025 are incorporated by reference into Part III.

JOHNSON CONTROLS INTERNATIONAL PLC

Index to Annual Report on Form 10-K

Year Ended September 30, 2024

		Page
CAUTIONARY STATEMENTS FOR FORWARD-LOOKING INFORMATION		3
	PART I.	
ITEM 1.	BUSINESS	3
ITEM 1A.	RISK FACTORS	12
ITEM 1B.	UNRESOLVED STAFF COMMENTS	26
ITEM 1C.	CYBERSECURITY	27
ITEM 2.	PROPERTIES	28
ITEM 3.	LEGAL PROCEEDINGS	28
ITEM 4.	MINE SAFETY DISCLOSURES	28
	EXECUTIVE OFFICERS OF THE REGISTRANT	29
	PART II.	
ITEM 5.	MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES	30
ITEM 6.	[RESERVED]	31
ITEM 7.	MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	32
ITEM 7A.	QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	50
ITEM 8.	FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA	51
ITEM 9.	CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE	112
ITEM 9A.	CONTROLS AND PROCEDURES	112
ITEM 9B.	OTHER INFORMATION	113
ITEM 9C.	DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS	113
	PART III.	
ITEM 10.	DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE	113
ITEM 11.	EXECUTIVE COMPENSATION	114
ITEM 12.	SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS	114
ITEM 13.	CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE	115
ITEM 14.	PRINCIPAL ACCOUNTING FEES AND SERVICES	115
	PART IV.	
ITEM 15.	EXHIBIT AND FINANCIAL STATEMENT SCHEDULES	116
ITEM 16.	FORM 10-K SUMMARY	116
	INDEX TO EXHIBITS	117
	SIGNATURES	122

CAUTIONARY STATEMENTS FOR FORWARD-LOOKING INFORMATION

Unless otherwise indicated, references to "Johnson Controls," the "Company," "we," "our" and "us" in this Annual Report on Form 10-K refer to Johnson Controls International plc and its consolidated subsidiaries.

The Company has made statements in this document that are forward-looking and therefore are subject to risks and uncertainties. All statements in this document other than statements of historical fact are, or could be, "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. In this document, statements regarding the Company's future financial position, sales, costs, earnings, cash flows, other measures of results of operations, synergies and integration opportunities, capital expenditures, debt levels and market outlook are forward-looking statements. Words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "should," "forecast," "project" or "plan" and terms of similar meaning are also generally intended to identify forward-looking statements. However, the absence of these words does not mean that a statement is not forward-looking. The Company cautions that these statements are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond the Company's control, that could cause the Company's actual results to differ materially from those expressed or implied by such forward-looking statements, including, among others, risks related to: The Company's ability to develop or acquire new products and technologies that achieve market acceptance and meet applicable quality and regulatory requirements; the ability of the company to execute on its operating model and drive organizational improvement; the Company's' ability to successfully execute and complete portfolio simplification, including the completion of the divestiture of the Residential and Light Commercial business, as well as the possibility that the expected benefits of such actions will not be realized or will not be realized within the expected time frame; the ability to hire and retain senior management and other key personnel, including successfully executing the Company's Chief Executive Officer succession plan; the ability to innovate and adapt to emerging technologies, ideas and trends in the marketplace, including the incorporation of technologies such as artificial intelligence; the ability to manage general economic, business and capital market conditions, including the impact of recessions, economic downturns and global price inflation; fluctuations in the cost and availability of public and private financing for the Company's customers; the ability to manage macroeconomic and geopolitical volatility, including supply chain shortages and the conflicts between Russia and Ukraine and Israel and Hamas; managing the risks and impacts of potential and actual security breaches, cyberattacks, privacy breaches or data breaches, maintaining and improving the capacity, reliability and security of the Company's enterprise information technology infrastructure; the ability to manage the lifecycle cybersecurity risk in the development, deployment and operation of the Company's digital platforms and services; changes to laws or policies governing foreign trade, including economic sanctions, tariffs, foreign exchange and capital controls, import/export controls or other trade restrictions; fluctuations in currency exchange rates; changes or uncertainty in laws, regulations, rates, policies, or interpretations that impact the Company's business operations or tax status; the ability to adapt to global climate change, climate change regulation and successfully meet the Company's public sustainability commitments; risks and uncertainties related to the settlement with a nationwide class of public water systems concerning the use of AFFF; the outcome of litigation and governmental proceedings; the risk of infringement or expiration of intellectual property rights; the Company's ability to manage disruptions caused by catastrophic or geopolitical events, such as natural disasters, armed conflict, political change, climate change, pandemics and outbreaks of contagious diseases and other adverse public health developments; any delay or inability of the Company to realize the expected benefits and synergies of recent portfolio transactions; the tax treatment of recent portfolio transactions; significant transaction costs and/or unknown liabilities associated with such transactions; labor shortages, work stoppages, union negotiations, labor disputes and other matters associated with the labor force; and the cancellation of or changes to commercial arrangements. A detailed discussion of risks related to Johnson Controls' business is included in the section entitled "Risk Factors" (refer to Part I, Item 1A, of this Annual Report on Form 10-K). The forward-looking statements included in this document are made only as of the date of this document, unless otherwise specified, and, except as required by law, Johnson Controls assumes no obligation, and disclaims any obligation, to update such statements to reflect events or circumstances occurring after the date of this document.

PART I

ITEM 1 BUSINESS

General

Johnson Controls International plc, headquartered in Cork, Ireland, is a global leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

Johnson Controls was originally incorporated in the state of Wisconsin in 1885 as Johnson Electric Service Company to manufacture, install and service automatic temperature regulation systems for buildings and was renamed Johnson Controls, Inc. in 1974. In 2005, Johnson Controls acquired York International, a global supplier of heating, ventilating and air-conditioning ("HVAC") and refrigeration equipment and services. Following this acquisition, Johnson Controls continued to expand its portfolio of building related product and service offerings for residential and commercial customers. In 2016, Johnson Controls, Inc. and Tyco International plc ("Tyco") completed their combination (the "Merger"), combining Johnson Controls' portfolio of building efficiency solutions with Tyco's portfolio of fire and security solutions. Following the Merger, Tyco changed its name to "Johnson Controls International plc."

In 2016, the Company completed the spin-off of its automotive business into Adient plc, an independent, publicly traded company. In 2019, the Company closed the sale of its Power Solutions business, completing the Company's transformation into a pure-play building technologies and solutions provider.

In 2024, the Company announced that it was evaluating its non-core product lines in connection with its objective to be a pure-play provider of technologies and solutions for commercial buildings. During the fourth quarter of fiscal 2024, the Company completed the sale of its Air Distribution Technologies business included within its Global Products segment. During the fourth quarter of fiscal 2024, the Company entered into a definitive agreement to sell its Residential and Light Commercial ("R&LC") HVAC business to Robert Bosch GmbH ("Bosch"). The R&LC HVAC business includes the Company's North America ducted business and Johnson Controls-Hitachi Air Conditioning Holding (UK) Ltd., the Company's global residential joint venture with Hitachi Global Life Solutions, Inc. ("Hitachi"), of which the Company owns 60% and Hitachi owns 40%. The sale of the R&LC HVAC business is expected to be completed in the fourth quarter of fiscal 2025.

The Company is a global leader in engineering, manufacturing, commissioning and retrofitting building products and systems, including residential and commercial HVAC equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, security and fire-protection space), and energy-management consulting. The Company's OpenBlue digital software platform enables enterprises to better manage their physical spaces by combining the Company's building products and services with cutting-edge technology and digital capabilities to enable data-driven "smart building" services and solutions. The Company partners with customers by leveraging its broad product portfolio and digital capabilities powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency, enhance security, create healthy environments and reduce greenhouse gas emissions.

Business Segments

The Company conducts its business through four business segments:

- *Building Solutions North America* which operates in the United States and Canada;
- *Building Solutions EMEA/LA* which operates in Europe, the Middle East, Africa and Latin America;
- *Building Solutions Asia Pacific* which operates in Asia Pacific; and
- *Global Products* which operates worldwide.

The Building Solutions segments:

- Design, sell, install and service HVAC, controls, building management, refrigeration, integrated electronic security and integrated fire-detection and suppression systems; and
- Provide energy-efficiency solutions and technical services, including data-driven "smart building" solutions as well as inspection, scheduled maintenance, and repair and replacement of mechanical and controls systems.

The Global Products segment designs, manufactures and sells:

- HVAC equipment, controls software and software services;
- Refrigeration equipment and controls;
- Fire protection and suppression; and
- Security products, including intrusion security, anti-theft devices, access control, and video surveillance and management systems.

The Company's segments provide products and services primarily to commercial, institutional, industrial, data center, and governmental customers.

For more information on the Company's segments, refer to Note 19, "Segment Information," of the notes to consolidated financial statements.

Products, Systems, Services and Solutions

The Company sells and installs its commercial HVAC equipment and systems, control systems, security systems, fire-detection and fire suppression systems, equipment and services primarily through its extensive direct channel, consisting of a global network of sales and service offices. Significant sales are also generated through global third-party channels, such as distributors of air-conditioning, controls, security and fire-detection and suppression products. The Company's large base of current customers leads to significant repeat business for the maintenance, retrofit and replacement markets. The Company is also able to leverage its installed base to generate sales for its service business. Trusted building brands, such as YORK®, Metasys®, Ansul, Frick®, FM:Systems®, PENN®, Sabroe®, Silent-Aire®, Simplex® and Grinnell®, together with the breadth and depth of the products, systems and solutions offered by the Company, give it what it believes to be the most diverse portfolio in the building technology industry.

The Company has developed software platforms, including on-premises platforms and cloud-based software services, and integrated its products and services with digital capabilities to provide data-driven solutions to create smarter, safer and more sustainable buildings. The Company's OpenBlue platform enables enterprises to better manage their physical spaces delivering sustainability, new occupant experiences, safety and security by combining the Company's building expertise with cutting-edge technology, including artificial intelligence and machine learning-powered service solutions such as remote diagnostics, predictive maintenance, workplace management, compliance monitoring and advanced risk assessments. The Company leverages its product portfolio and service network, together with digital and data-driven technologies to offer integrated and customizable solutions focused on delivering outcomes to customers, including OpenBlue Buildings-as-a-Service, OpenBlue Net Zero Buildings-as-a-Service and OpenBlue Healthy Buildings. These services are generally designed to generate recurring revenue for the Company as it supports its customers in achieving their desired outcomes.

In fiscal 2024, products and systems accounted for 70% of sales from continuing operations and services accounted for 30% of sales from continuing operations.

Competition

The Company conducts its operations through a significant number of individual contracts that are either negotiated or awarded on a competitive basis. Key factors in the award of contracts include system and service performance, quality, price, design, reputation, technology, application engineering capability, availability of financing and construction or project management expertise. Competitors for HVAC equipment, security, fire-detection, fire suppression and controls in the residential and non-residential marketplace include many local, regional, national and international providers. Larger competitors include Honeywell International, Inc.; Siemens Smart Infrastructure, an operating group of Siemens AG; Schneider Electric SA; Carrier Global Corporation; Trane Technologies plc; Daikin Industries, Ltd.; Lennox International, Inc.; GC Midea Holding Co, Ltd. and Gree Electric Appliances, Inc. In addition, the Company competes in a highly fragmented building services market. The Company also faces competition from a diverse range of established companies, start-ups and other emerging entrants to the buildings industry in the areas of digital services, software as a service and the Internet of Things. The loss of any individual contract or customer would not have a material adverse effect on the Company.

Business Strategy

The Company's business strategy is to sustain and expand its position as a leader in commercial building technology and solutions by offering a full spectrum of products and solutions for commercial customers across the globe. In 2024, the Company acted to optimize its core commercial buildings portfolio with the sale of its Air Distribution Technologies business and the entry into a definitive agreement to sell its R&LC HVAC business. Following these portfolio optimization actions, the Company's core strategy remains focused on creating growth platforms, driving operational improvements and creating a high-performance, customer-centric culture.

The Company has strong positions in attractive and growing end-markets across HVAC, controls, fire, security and services, enhanced by its comprehensive product portfolio and substantial installed base. The Company believes that it is well positioned to capitalize on the emerging and prevalent trends in the commercial buildings industry, including data centers, sustainable buildings, healthy buildings/indoor environmental quality and smart buildings. To capitalize on these trends, the Company

remains focused on maintaining leading positions in delivering commercial building products, systems and solutions through its direct and indirect channels, as well as enabling growth through digital, to develop and leverage the breath of its portfolio to drive attachment, offer differentiated services and solutions over the building lifecycle and generate recurring revenue. In furtherance of these goals, the Company has four strategic priorities:

Capitalize on Key Growth Vectors: Data centers, sustainable buildings, healthy buildings/indoor environmental quality and smart buildings represent key growth opportunities for the Company. The Company seeks to leverage its existing portfolio breadth and investments in product development, combined with the expansion of its digital products and capabilities powered by OpenBlue, to offer differentiated solutions and innovative deal structures to help customers achieve their objectives. The Company intends to expand its capabilities by investing in products and technologies, as well as expanding its partnerships, to power innovation that will allow it to provide differentiated services that are tailored to its customers' desired outcomes.

Bringing Value Across the Building Lifecycle: The Company provides system and service solutions that maximize the opportunities around the lifecycle of the building, delivering outcomes to the customer that save energy, reduce emissions and optimize building lifecycle costs while improving the overall occupant experience. The Company's ability to drive direct, integrated solutions within multiple domains enables opportunities for attachment, cross-selling, recurring revenue, and developing long term relationships with customers from installation to service, retrofit, and replacement.

Accelerate in High Growth Digital Services, Regions and Verticals: The Company is focused on transforming its large service business through digital technology, further enabled by the Company's installed base, domain expertise and global coverage. The Company is focused on developing and deploying connected equipment, systems and controls that will support the provision of digital services and solutions. The Company further intends to expand its presence in high growth regions and invest in high growth verticals within the markets it serves, including healthcare, commercial offices/campus, education and data centers.

Sustain a High-Performance, Customer-Centric Culture: The Company recognizes that developing talent and creating positive customer experiences is central to accomplishing its business strategies. The Company is investing in its talent to build a diverse workforce that is digital capable, solutions oriented and focused on continuous learning and growth. The Company aims to leverage its talent capabilities and training to create a customer-focused culture to drive customer loyalty and decisions.

To realize these priorities, the Company is leveraging its technology leadership, comprehensive product portfolio, global presence, substantial installed base and strong channels to monetize the lifecycle opportunities of systems, service, retrofit and replacement which are established and delivered by the Company's direct field businesses and third-party channels across the globe. The Company is augmenting its strategic priorities with disciplined execution, productivity enhancements and sustainable cost management to create a path to realize expanded margins and enhanced profitability.

Backlog and Orders

Backlog and orders are additional metrics that are meant to provide management with a deeper level of insight into the progress of specific strategic and growth initiatives. Backlog is applicable to sales of products and systems and services and totaled $15.2 billion at September 30, 2024, including both the Building Solutions and Global Products segments. Orders provide management with a signal of customer demand for the Company's products and services, as well as an indication of future revenues and performance. However, the timing and conversion of backlog and orders are subject to numerous uncertainties and risks and are not necessarily indicative of the amount of revenue to be earned in the upcoming fiscal year.

The following table summarizes backlog and orders for the Building Solutions segments:

	Backlog		Orders	
(in billions)	September 30, 2024	Year-over-Year Change [1]	Year ended September 30, 2024	Year-over-Year Change [1]
Building Solutions North America	$ 9.1	10 %	$ 12.3	9 %
Building Solutions EMEA/LA	2.5	10 %	4.6	9 %
Building Solutions Asia Pacific	1.5	(10)%	2.5	(8)%
Total Building Solutions	$ 13.1	7 %	$ 19.4	7 %

[1] Change is compared to September 30, 2023 (backlog) and the year ended September 30, 2023 (orders) and excludes the impact of mergers, acquisitions, dispositions and foreign currency.

Remaining performance obligations were $21.1 billion at September 30, 2024. Differences between the Company's remaining performance obligations and backlog are primarily due to:

- Remaining performance obligations include large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which are services to be performed over the building's lifetime with average initial contract terms of 25 to 35 years for the entire term of the contract versus backlog which includes only the lifecycle period of these contracts which approximates five years;
- Remaining performance obligations exclude service contracts with an original expected duration of one year or less and contracts that are cancellable without substantial penalty versus backlog which includes short-term and cancellable contracts; and
- Remaining performance obligations include the full remaining term of service contracts with substantial termination penalties versus backlog which includes only one year for all outstanding service contracts.

The Company reports backlog, which it believes is a useful measure of evaluating the Company's operational performance and relationship to total orders.

Raw Materials

Raw materials used by the Company's businesses in connection with their operations include steel, aluminum, brass, copper, polypropylene and certain fluorochemicals used in fire suppression agents. The Company also uses semiconductors and other electronic components in the manufacture of its products. During fiscal 2022 and portions of fiscal 2023, the Company experienced material cost increases due to global inflation, supply chain disruptions, labor shortages, increased demand and other regulatory and macroeconomic factors. The collective impact of these trends were favorable to revenue due to increased demand and price increases to offset inflation, while negatively impacting margins due to supply chain disruptions and cost pressures. However, throughout fiscal 2023 and 2024, the Company experienced improved margins as supply chain disruptions eased and higher priced backlog was converted to sales, as discussed in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations. Although the Company has seen its supply chain normalize, the Company could experience further disruptions, shortages and price inflation in the future, the effect of which will depend on the Company's ability to successfully mitigate and offset the impact of these events. In fiscal 2025, commodity prices and availability could fluctuate throughout the year and could significantly affect the Company's results of operations. For a more detailed description of the risks related to the availability of raw materials, components and commodities, see Item 1A. Risk Factors.

Intellectual Property

Generally, the Company seeks statutory protection for strategic or financially important intellectual property developed in connection with its business. The Company protects its intellectual property investments in a variety of ways. The Company works actively in the U.S. and internationally to ensure the enforcement of copyright, trademark, trade secret, and other protections that apply to the Company's products, services, software, solutions, and branding. Certain intellectual property, where appropriate, is protected by contracts, licenses, confidentiality or other agreements.

The Company owns numerous U.S. and non-U.S. patents (and their respective counterparts), the more important of which cover those technologies and inventions embodied in current products or which are used in the manufacture of those products. Internal development allows the Company to maintain competitive advantages that come from product differentiation and closer technical control over its products and services. While the Company believes patents are important to its business operations and in the aggregate constitute a valuable asset, no single patent, or group of patents, is critical to the success of the business. The Company, from time to time, grants licenses under its patents and technology and receives licenses under patents and technology of others.

The Company's trademarks, certain of which are material to its business, are registered or otherwise legally protected in the U.S. and many non-U.S. countries where products and services of the Company are sold. The Company, from time to time, becomes involved in trademark licensing transactions.

Most works of authorship produced for the Company, such as computer programs, catalogs and sales literature, carry appropriate notices indicating the Company's claim to copyright protection under U.S. law and appropriate international treaties.

Environmental, Health and Safety Matters

Laws addressing the protection of the environment and workers' safety and health govern the Company's ongoing global operations. They generally provide for civil and criminal penalties, as well as injunctive and remedial relief, for noncompliance or require remediation of sites where Company-related materials have been released into the environment.

A portion of the Company's products consume energy and use refrigerants. Increased public awareness and concern regarding global climate change has resulted in more regulations designed to reduce greenhouse gas emissions. These regulations tend to be implemented under global, national and sub-national climate objectives or policies, and target the global warming potential ("GWP") of refrigerants, equipment energy efficiency, and the combustion of fossil fuels as a heating source. The Company continues to invest in its product portfolio to meet or exceed emerging emissions regulations and standards.

The Company has expended substantial resources globally, both financial and managerial, to comply with environmental laws and worker safety laws and maintains procedures designed to foster and ensure compliance. Certain of the Company's businesses are, or have been, engaged in the handling or use of substances that may impact workplace health and safety or the environment. The Company is committed to protecting its workers and the environment against the risks associated with these substances.

The Company's operations and facilities have been, and in the future may become, the subject of formal or informal enforcement actions or proceedings for noncompliance with environmental laws and worker safety laws or for the remediation of Company-related substances released into the environment. Such matters typically are resolved with regulatory authorities through commitments to compliance, abatement or remediation programs and, in some cases, payment of penalties. In addition, governments in the United States and internationally have increasingly been regulating perfluorooctane sulfonate ("PFOS"), perfluorooctanoic acid ("PFOA"), and/or other per- and poly-fluoroalkyl substances ("PFAS"), which were contained in certain of the Company's legacy firefighting foam products. These regulations include declining emission standards and limits set as to the presence of certain compounds. See Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for further discussion of environmental matters.

Government Regulation and Supervision

The Company's operations are subject to numerous federal, state and local laws and regulations, both within and outside the United States, in areas such as consumer protection, government contracts, international trade, environmental protection, labor and employment, tax, licensing and others. For example, most U.S. states and non-U.S. jurisdictions in which the Company operates have licensing laws directed specifically toward the alarm and fire suppression industries. The Company's security businesses currently rely extensively upon the use of wireline and wireless telephone service to communicate signals. Wireline and wireless telephone companies in the U.S. are regulated by the federal and state governments. In addition, government regulation of fire safety codes can impact the Company's fire businesses. The Company's businesses may also be affected by changes in governmental regulation of refrigerants, PFAS, energy efficiency standards, noise regulation and product safety regulations, including changes related to hydro fluorocarbons/emissions reduction efforts, energy conservation standards and the regulation of fluorinated gases. These and other laws and regulations impact the manner in which the Company conducts its business, and changes in legislation or government policies can affect the Company's worldwide operations, both favorably and unfavorably. For a more detailed description of the various laws and regulations that affect the Company's business, see Item 1A. Risk Factors.

Regulatory Capital Expenditures

The Company's efforts to comply with numerous federal, state and local laws and regulations applicable to its business and products often results in capital expenditures. The Company makes capital expenditures to design and upgrade its fire and security products to comply with or exceed standards applicable to the alarm, fire suppression and security industries. The Company also makes capital expenditures to meet or exceed energy efficiency standards and comply with applicable regulations, including the regulation of refrigerants, hydro fluorocarbons/emissions reduction efforts and the regulation of fluorinated gasses, particularly with respect to the Company's HVAC products and solutions. The Company's ongoing environmental compliance program also results in capital expenditures. Regulatory and environmental considerations are a part of all significant capital expenditure decisions; however, expenditures in fiscal 2024 related solely to regulatory compliance were not material. It is management's expectation that the amount of any future capital expenditures related to compliance with any individual regulation or grouping of related regulations will not have a material adverse effect on the Company's financial results or competitive position in any one year. See Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for further discussion of environmental matters.

Human Capital Management

Overview and Governance

The development of a High-Performance Culture enables the Company to achieve its purpose to build smarter, healthier, and more sustainable tomorrows. The Company's strategic drivers provide the direction that guides its workforce toward a culture of continuous improvement and innovation to exceed customers' expectations and provide solutions for global challenges in the building systems industry.

The responsibility to develop and maintain a High-Performance Culture is owned, embedded and executed throughout the Company. The Chief Human Resources Officer ("CHRO") is responsible for establishing the Company's strategy to drive a High-Performance Culture and ensuring its execution across the Company. The Compensation and Talent Development Committee of the Board of Directors is the primary overseer of the Company's High-Performance Culture strategy and execution, ensuring that the Company presents an employee value proposition that supports retention and the attraction of external talent. The Governance and Sustainability Committee is the primary overseer of employee health and safety. The Chief Executive Officer ("CEO"), the CHRO, the General Counsel, the Vice President of Global Environment Health & Safety, the Vice President of Diversity, Equity and Inclusion and other senior leaders within the Company are responsible for the execution of the strategy and engage with the Compensation and Talent Development Committee, the Governance and Sustainability Committee and the full Board of Directors on the critical components driving the Company's High-Performance Culture, including discussions of future of work, human capital trends, processes and practices, diversity, equity and inclusion, health and safety, talent development, company culture and succession planning. Key components driving the Company's High-Performance Culture include:

Health and Safety

Health and Wellness, Safety and Environment are the three pillars of the Company's Zero Harm vision. The Company's health and safety programs are designed around global standards with appropriate variations addressing multiple jurisdictions and regulations, specific hazards and unique working environments of the Company's manufacturing, service, systems, and headquarter operations.

The Company requires each of its locations to perform regular safety audits to ensure proper safety policies, program procedures, analyses and training are in place. In addition, the Company engages an independent third-party conformity assessment and certification vendor to audit selected operations for adherence to its global health and safety standards. Cultural and values-based safety initiatives have been deployed within the Company to sustain and further enhance performance.

The Company utilizes a mixture of leading and lagging indicators to assess the health and safety performance of its operations. Lagging indicators include the OSHA Total Recordable Incident Rate ("TRIR") and the Lost Time (or Lost Workday) Incident Rate ("LTIR") based upon the number of incidents per 100 employees (or per 200,000 work hours). In fiscal 2024, the Company had a TRIR of 0.34 and a LTIR of 0.13.

Diversity, Equity and Inclusion

The Company is dedicated to creating a workplace where diversity is celebrated, where every employee feels included and valued, and where equitable practices are the norm. The Company aims to foster a culture of innovation, collaboration, and respect that drives its success in the global marketplace. Diversity, equity, and inclusion ("DEI") is a component of the Company's strategy to drive a High-Performance Culture, recognized as adding value to the Company's creation and delivery of innovative high performing products and enabling solutions to its customers' toughest problems. The Company has elevated its focus on 'equity' to enable all employees to have access to the opportunities, resources, support and networks they need to develop and succeed. The Company empowers employees to take an active role in creating a culture that values uniqueness, celebrates creativity and drives innovation. The Company encourages employees to enable an inclusive culture through active participation in Business Resource Groups ("BRGs") - employee-led voluntary organizations of people with similar interests, experiences, or demographic characteristics. The Company continues to increase participation in its BRG chapters worldwide across eleven categories: African American, Asia Pacific, LGBTQ+, Emerging Leaders, Hispanic, Disabilities, Veterans, Women, Sustainability, Parents and Caregivers, and Mindful Living. Each BRG is open to all employees and sponsored and supported by senior leaders across the enterprise. The Company's BRG structure includes monthly learning series, an active recruitment platform, an innovation hub, community engagement and feedback sessions. The Company also engages BRGs to support the acquisition and development of diverse talent internally and externally.

The Company is committed to enabling employees to bring their authentic selves to work each day, which in turn adds value, fosters creativity, and inspires change across the organization. The Company recognizes that it is its people that make the Company exceptional. The Company has developed robust policies and strategies to support this vision in its operations and its communities, including strategies addressing social impact and employee experience. The Company is committed to the implementation of its DEI mission, vision and roadmap including a focus on employee experience, business resource groups, learning and development and external impact.

The Company recognizes that fostering a diverse, equitable, and inclusive environment requires ongoing commitment, accountability, and continuous improvement. The Company regularly assesses its progress, recognizes employee contributions, and holds leaders accountable for driving DEI initiatives. The Company also creates mechanisms for open dialogue and feedback from employees to ensure that everyone's voices are heard.

The Company has implemented several measures that focus on ensuring accountabilities exist for fostering a diverse, equitable and inclusive environment:

- **Diversity Objectives:** The CEO and other senior leaders have diversity and inclusion objectives in their annual performance goals.

- **Attracting Diverse Talent:** BRGs are instrumental in positively impacting the attraction of diverse talent to the Company. BRGs support these efforts through external engagement and support of talent acquisition sourcing initiatives. The Company's global flagship Future Leaders Internship Program continues to expand the diversity of its outreach and focus on the skills needed to advance the Company's growth initiatives. In 2024, the Company, in response to employee feedback, launched the Mindful Living and Parents and Caregivers Together ("PACT") BRG groups. Interest and enthusiasm has been strong, and the new BRGs are growing membership at the fastest pace of any BRG group.

- **Honoring Employee Contributions:** The Company's Diversity Distinction Awards serve as a recognition and encouragement for workforce contributions to the Company's DEI efforts. Awarded to eight employees three times per year, the nomination driven Diversity Distinction Awards have become a highly regarded recognition of employee's contribution to the progress of the Company's DEI journey.

Talent Development

The Company must ensure the continued development and advancement of its employees to maintain a High-Performance Culture. The Company has adopted a continuous improvement approach to talent development, working to support employees' growth while defining the skills and capabilities the organization will need in future years. To assess current enterprise capabilities and define future needs, strategic talent reviews and succession planning occur on a planned cadence annually – globally and across all business areas. The Company continues to provide opportunities for its employees to grow their careers, with more than half of open management positions filled internally during fiscal 2024.

The Company believes that high performance is an outcome of an employee's ability to change, adapt, and grow their capabilities throughout their career. This talent development approach includes self and multi-rater assessments, functional and leadership competency models, providing employees a personalized approach to their development planning and skill acquisition. The Company emphasizes real-life, real-time learning that enables each employee to meet the demands of challenging and changing work and focuses on reinforcing key principles that are designed to support an individual's effectiveness in his or her current job and in their future development. The Company provides technical and leadership training to employees, customers and suppliers who work for or with the Company's products and services.

The Company's focus on employee development has been structured over the last several years through programs designed to imbed essential skills with employees and reinforce strategic goals aligning with the Company's culture, including:

- **Digital Transformation:** In support of Company's growth strategy, the Company is investing in developing digital leadership with personalized and targeted training programs designed to create digitally capable leaders, salespersons, engineers and technicians.

- **Diversity and Inclusion:** The Company has developed a structured diversity and inclusion education curriculum across the levels and stages of individuals' careers to develop and align employees with the Company's diversity and inclusion strategy and values. The Dimensions training program is designed to develop careers of under-represented talent and a toolkit for managers to guide their self-led inclusion efforts. In fiscal 2024, the program was expanded

beyond North America to a global audience. The Company's flagship Women in Leadership ("WIL") program continues to grow in participation with a total increase of 162% since inception in 2022. The program is demonstrating measurable impact with 28% of original cohort participants being promoted since program completion.

In fiscal 2024, the Company offered a robust curriculum of almost 225,000 activities that were completed by employees, consisting of videos, courses, e-learning, documentation, articles and books, including over 4,000 active (in person or virtual) learning courses. In fiscal 2024, over 1.17 million learning activities were completed by over 81,000 employees (excluding non-wired). The total learning hours consumed by employees was 1.58 million hours, averaging almost 20 hours per employee including time invested in formal learning and standard time invested in self-paced reading or video consumption.

Organizational Engagement

The Company measures the engagement of its employees using a quarterly pulse survey initially launched in fiscal 2023. The engagement survey provides managers with their own data dashboard to view their own engagement results and can be utilized by managers at all levels to understand how to improve the Company's culture and employee engagement. Managers are provided with resources to interpret their results and plan their actions following each survey.

Employee Population and Demographics

As of September 30, 2024, the Company employed approximately 94,000 people worldwide, of which approximately 35,000 were employed in the United States and approximately 59,000 were outside the United States. Approximately 22,000 employees are covered by collective bargaining agreements or works councils and the Company believes that its relations with its labor unions are generally positive.

Employee Diversity as of September 30, 2024

	Male	Female	Minority [1]
Total employees	77%	23%	31%
Managers	79%	21%	22%

[1] Male and female data represents all employees globally. Minority data represents U.S. employees only.

Seasonal Factors

Certain of the Company's sales are seasonal as the demand for residential air conditioning equipment and services generally increases in the summer months. This seasonality is mitigated by the other products and services provided by the Company that have no material seasonal effect.

Research and Development Expenditures

Refer to Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements for research and development expenditures. The Company has committed to invest a substantial portion of its new product research and development in climate and efficiency-related innovation to develop sustainable products and services. The Company invests in enhancements to the capabilities of its product lines and services to support its strategy, meet consumer preferences and achieve regulatory compliance. This includes investments in the development of the Company's OpenBlue platform and related service offerings, digital product capabilities, energy efficient products, and low GWP refrigerants and technology.

Available Information

The Company's filings with the U.S. Securities and Exchange Commission ("SEC"), including annual reports on Form 10-K, quarterly reports on Form 10-Q, definitive proxy statements on Schedule 14A, current reports on Form 8-K, and any amendments to those reports filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, are made available free of charge through the Investor Relations section of the Company's Internet website at http://www.johnsoncontrols.com as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC. Copies of any materials the Company files with the SEC can also be obtained free of charge through the SEC's website at http://www.sec.gov. The Company also makes available, free of charge, its Code of Ethics, Corporate Governance Guidelines, Board of Directors committee charters and other information related to the Company on the Company's Internet website or in printed form upon request. The Company is not including the information contained on the Company's website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K.

ITEM 1A RISK FACTORS

Provided below is a cautionary discussion of what we believe to be the most important risk factors applicable to the Company. Discussion of these factors is incorporated by reference into and considered an integral part of Part II, Item 7, "Management's Discussion and Analysis of Financial Conditions and Results of Operations." The disclosure of a risk should not be interpreted to imply that such risk has not already materialized. Additional risks not currently known to the Company or that the Company currently believes are immaterial may also impair the Company's business, financial condition, results of operations and cash flows.

Risks Related to Our Business Operations

Our future growth is dependent upon our ability to develop or acquire new products, services and technologies that achieve market acceptance with acceptable margins.

Our future success depends on our ability to develop or acquire, manufacture and bring competitive, and increasingly complex, products and services to market quickly and cost-effectively. Our ability to develop or acquire new products, services and technologies requires the investment of significant resources. These acquisitions and development efforts divert resources from other potential investments in our businesses, and they may not lead to the development of new technologies, products or services on a timely basis. Further, we must continue to effectively adapt our products and services to a changing technological and regulatory environment to drive growth and defend against disruption caused by competitors, regulators or other external forces impacting our business and operations. If we are unable to be agile and responsive to disruption in the development of new products, services and technologies, including technologies such as artificial intelligence and machine learning, our business, financial condition, results of operations and cash flows could be adversely affected.

Even after introduction, new or enhanced products may not satisfy customer preferences and product failures may cause customers to reject our products. Further, as we integrate emerging and rapidly evolving technologies, including artificial intelligence and machine learning into our products and services, we may not be able to anticipate or identify vulnerabilities, design flaws or security threats resulting from the use of such technology and develop adequate protection measures. As a result, these products may not achieve market acceptance and our brand image could suffer. We must also attract, develop and retain individuals with the requisite technical expertise and understanding of customers' needs to develop new technologies and introduce new products, particularly with respect to our digital services and solutions business and OpenBlue software platform. The laws and regulations applicable to our products, and our customers' product and service needs, change from time to time, and regulatory changes may render our products and technologies noncompliant or result in new or enhanced regulatory scrutiny. In addition, the markets for our products, services and technologies may not develop or grow as we anticipate. The failure of our technology, products or services to gain market acceptance due to more attractive offerings by our competitors, the introduction of new competitors to the market with new or innovative product offerings or the failure to address any of the above factors could significantly reduce our revenues, increase our operating costs or otherwise materially and adversely affect our business, financial condition, results of operations and cash flows.

Failure to increase organizational effectiveness through the execution of our operating model and organizational improvements may reduce our profitability or adversely impact our business.

Our results of operations, financial condition and cash flows are dependent upon our ability to execute on our operating model and drive organizational improvement. We seek to develop and maintain a high-performance, customer centric culture and commercial organization characterized by continuous efficient and timely customer service, customer support, and customer intimacy enabling long-term customer loyalty. Our ability to successfully implement our operating model includes our ability to organize our operations around our commercial strategy through organizational improvements and implementing incentive programs that promote and reward the effective execution of our strategy. If we are unable to successfully implement and execute our operating model, our business, financial condition, results of operations and cash flows could be adversely affected.

We seek to drive organizational improvement through a variety of actions, including restructuring and integration activities, digital transformation, strategic initiatives, business portfolio reviews, productivity initiatives, functionalization, incentive programs, training, executive management changes, and business and operating model assessments. During the fourth quarter of fiscal year 2024, the Company committed to a multi-year restructuring plan to address stranded costs and further right-size its global operations as a result of previously announced portfolio optimization transactions. The Company's ability to execute the most significant aspects of the restructuring plan will be dependent on the timing of the close of the R&LC HVAC business divestiture transaction. Risks associated with these actions include delays in execution, including a delay in the completion of the R&LC HVAC business divestiture, additional unexpected costs, loss of customer relationships, realization of fewer than

estimated productivity improvements, increased change fatigue, organizational strain and adverse effects on employee morale. We may not realize the full operational or financial benefits we expect, the recognition of these benefits may be delayed, and these actions may potentially disrupt our operations. In addition, our failure to effectively implement our operating model and manage organizational changes may lead to increased attrition of customers and employees and harm our ability to attract and retain key talent.

Our business success depends on attracting and retaining qualified personnel.

Our ability to sustain and grow our business requires us to hire, retain and develop a high-performance, customer-centric and diverse management team and workforce. Continuous efficient and timely customer service, customer support and customer intimacy are essential to enabling customer loyalty and driving our financial results. Our growth strategies require that we pivot to new talent capability investments and build the workforce of the future, with an emphasis on developing skills in digital and consultative, outcome-based selling. Failure to ensure that we have the leadership and talent capacity with the necessary skillset and experience could impede our ability to deliver our growth objectives, execute our strategic plan and effectively transition our leadership. Any unplanned turnover or inability to attract and retain key employees could have a negative effect on our results of operations.

The nature of our business requires us to maintain a labor force that is sufficiently large enough to support our manufacturing operations to meet customer demand, as well as provide on-site services and project support for our customers. This includes recruiting, hiring and retaining skilled trade workers to support our direct channel field businesses. We have in the past, and could in the future, experience shortages for skilled or unskilled labor. The impacts of such labor shortages could limit our ability to scale our operations to meet increased demand and convert backlog into revenue, which could negatively impact our growth and results of operations.

In July 2024, we announced that George Oliver, our Chief Executive Officer, had informed the Board of his plan to retire and requested that the Board initiate the Company's Chief Executive Officer succession plan. If we are unable to identify and retain a qualified successor for Mr. Oliver and successfully implement our Chief Executive Officer succession plan, then we could experience disruption in the setting and execution of our operational and strategic objectives, which could have a material adverse effect on our results of operations, financial condition and cash flows. We also may have difficulty attracting and recruiting, or retaining, qualified senior leadership during the pendency of our search for a new Chief Executive Officer.

Failure to achieve and maintain a high level of product and service quality could damage our reputation with customers and negatively impact our results.

Product and service quality issues could harm customer confidence in our company and our brands. If certain of our product and service offerings do not meet applicable safety standards or our customers' expectations regarding quality, safety or performance, we could experience lost sales and increased costs and we could be exposed to legal, financial and reputational risks. In addition, when our products fail to perform as expected, we are exposed to warranty, product liability, personal injury and other claims. We have experienced such quality issues in the past and may experience such issues in the future.

We cannot be certain that our quality controls and procedures will reveal defects in our products or their raw materials, which may not become apparent until after the products have been placed in use in the market. Accordingly, there is a risk that products will have defects, which could result in loss of sales or delays in market acceptance and require a product recall or field corrective action. Such remedial actions can be expensive to implement and may damage our reputation, customer relationships and market share. We have conducted product recalls and field corrective actions in the past and may do so again in the future.

In many jurisdictions, product liability claims are not limited to any specified amount of recovery. If any such claims or contribution requests or requirements exceed our available insurance or if there is a product recall, there could be an adverse impact on our results of operations. In addition, a recall or claim could require us to review some or all of our product portfolio to assess whether similar issues are present in other products, which could result in a significant disruption to our business and which could have a further adverse impact on our business, financial condition, results of operations and cash flows. There can be no assurance that we will not experience any material warranty or product liability claims in the future, that we will not incur significant costs to defend such claims or that we will have adequate reserves to cover any recall, repair and replacement costs.

Cybersecurity incidents impacting our IT systems and digital products could disrupt business operations, result in the loss of critical and confidential information, and materially and adversely affect our reputation and results of operations.

We rely upon the capacity, reliability and security of our IT and data security infrastructure and our ability to expand and continually update this infrastructure in response to the changing needs of our business. As we implement new systems or integrate existing systems, they may not perform as expected. We also face the challenge of supporting our older systems, which are vulnerable to increased risks, including the risk of security breaches, system failures and disruptions, and implementing necessary upgrades. In addition, certain of our employees work remotely at times, which increases our vulnerability to cybersecurity and other IT risks. If we experience a problem with the functioning of an important IT system as a result of increased burdens placed on our IT infrastructure or a security breach of our IT systems, the resulting disruptions could have a material adverse effect on our business.

Global cybersecurity threats and incidents can range from uncoordinated individual attempts to gain unauthorized access to IT systems to sophisticated and targeted measures known as advanced persistent threats directed at the Company, its products, its customers and/or its third-party service providers, including cloud providers. These threats and incidents originate from many sources globally, including threats from sophisticated nation-state actors and organized criminal groups, and include malware in the form of computer viruses, ransomware, worms, Trojan horses, spyware, adware, scareware, rogue software, and programs that act against the computer user. Techniques used to obtain unauthorized access to, or to sabotage, IT systems or networks are constantly evolving and may not be recognized until launched against a target. We and third parties utilize vendors to support our business and operations have experienced, and expect to continue to experience, these types of threats and incidents, which add to the risks to our IT systems (including our cloud services providers' systems), internal networks, our customers' systems and the information that they store and process. In September 2023, we experienced a cybersecurity incident consisting of unauthorized access, data exfiltration and deployment of ransomware by a third party to a portion of our internal IT infrastructure. We have and may continue to incur significant costs in connection with the cybersecurity incident, including infrastructure investments or remediation efforts. The incident could also cause reputational damage, exposure to legal claims or enforcement actions and fines levied by governmental organizations, which in turn could materially and adversely affect our results of operations. There can be no assurance that additional unauthorized access or cyber incidents will not occur or that we will not suffer material losses in the future. We could also experience similar consequences from future cybersecurity incidents. Other potential consequences could include the theft of intellectual property and the diminution in the value of our investment in research, development and engineering, which in turn could materially and adversely affect our competitiveness and results of operations.

Our customers, including the U.S. government, are increasingly requiring cybersecurity protections and mandating cybersecurity standards in our products, and we may incur additional costs to comply with such demands. We deploy countermeasures to deter, prevent, detect, respond to and mitigate cybersecurity threats, including identity and access controls, data protection, vulnerability assessments, product software designs which we believe are less susceptible to cyber-attacks, monitoring of our IT networks and systems, maintenance of backup and protective systems and the incorporation of cybersecurity design throughout the lifecycle of our products. Despite these efforts, we have experienced, and will likely continue to experience, attacks and resulting breaches or breakdowns of our, or our third-party service providers', databases or systems. Cybersecurity incidents, depending on their nature and scope, have resulted, and may in the future result, in the misappropriation, destruction, corruption or unavailability of critical data and confidential or proprietary information (our own or that of third parties) and the disruption of business operations. Such incidents have remained, and could in the future remain, undetected for an extended period of time, and the losses arising from such incidents could exceed our available insurance coverage for such matters. In addition, security breaches impacting our IT systems have in certain cases resulted in, and in the future could result in, a risk of loss or unauthorized disclosure or theft of information, which could lead to enforcement actions, litigation, regulatory or governmental audits, investigations and possible liability.

An increasing number of our products, services and technologies, including our OpenBlue software platform, are delivered with digital capabilities and accompanying interconnected device networks, which include sensors, data, building management systems and advanced computing and analytics capabilities. If we are unable to manage the lifecycle cybersecurity risk in development, deployment and operation of our digital platforms and services, they could become susceptible to cybersecurity incidents and lead to third-party claims that our product failures have caused damages to our customers. This risk is enhanced by the increasingly connected nature of our products and the role they play in managing building systems.

Data privacy, identity protection and information security compliance may require significant resources and presents certain risks.

We collect, store, have access to and otherwise process certain confidential or sensitive data, including proprietary business information, customer data, personal data or other information that is subject to privacy and security laws, regulations and/or customer-imposed controls. Despite our efforts to protect such data, our business and our products may be vulnerable to security incidents, theft, misplaced or lost data, programming errors, or errors that could potentially lead to compromising such data, improper use of our products, systems, software solutions or networks, unauthorized access, use, disclosure, modification or destruction of information, defective products, production downtimes and operational disruptions. During September 2023, we experienced a cybersecurity event consisting of unauthorized access, data exfiltration and deployment of ransomware by a third party to a portion of our internal IT infrastructure. The actual or perceived risk of theft, loss, fraudulent use or misuse of customer, employee or other data as a result of the cybersecurity incident, as well as non-compliance with applicable industry standards or our contractual or other legal obligations or privacy and information security policies regarding such data, could result in costs, fines, litigation or regulatory actions. We could face similar consequences in the future if we, our suppliers, channel partners, customers or other third parties experience the actual or perceived risk of theft, loss, fraudulent use or misuse of data, including as a result of employee error or malfeasance, or as a result of the imaging, software, security and other products we incorporate into our products. Such an event could lead customers to select the products and services of our competitors. Both the cybersecurity incident and similar future incidents could harm our reputation, cause unfavorable publicity or otherwise adversely affect certain potential customers' perception of the security and reliability of our services as well as our credibility and reputation, which could result in lost sales.

We operate in an environment in which there are different and potentially conflicting data privacy laws in effect in the various U.S. states and foreign jurisdictions in which we operate and we must understand and comply with each law and standard in each of these jurisdictions while ensuring the data is secure. For example, proposed regulations restricting the use of biometric security technology could impact the products and solutions offered by our security business. Government enforcement actions can be costly and interrupt the regular operation of our business, and violations of data privacy laws can result in fines, reputational damage and civil lawsuits, any of which may adversely affect our business, reputation and financial statements.

Some of our contracts do not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security obligations. While we maintain general liability insurance coverage and coverage for errors or omissions, such coverage might not be adequate or otherwise protect us from liabilities or damages with respect to claims alleging compromises of customer data, that such coverage will continue to be available to us on acceptable terms or at all, or that such coverage will pay future claims. The successful assertion of one or more large claims against us that exceeds our available insurance coverage, or results in changes to our insurance policies (including premium increases or the imposition of large deductible or co-insurance requirements), could have an adverse effect on our business.

We are incorporating artificial intelligence technologies into our products, services and processes. These technologies may present business, compliance and reputational risks.

Recent technological advances in artificial intelligence ("AI") and machine-learning technology both present opportunities and pose risks to us. If we fail to keep pace with rapidly evolving technological developments in AI, our competitive position and business results may suffer. The introduction of these technologies, particularly generative AI, into internal processes and/or new and existing offerings may result in new or expanded risks and liabilities, including due to enhanced governmental or regulatory scrutiny, litigation, compliance issues, ethical concerns, confidentiality or security risks, as well as other factors that could adversely affect our business, reputation, and financial results. In addition, our personnel could, unbeknownst to us, improperly utilize AI and machine learning-technology while carrying out their responsibilities. The use of AI in the development of our products and services could also cause loss of intellectual property, as well as subject us to risks related to intellectual property infringement or misappropriation, data privacy and cybersecurity. The use of artificial intelligence can lead to unintended consequences, including generating content that appears correct but is factually inaccurate, misleading or otherwise flawed, or that results in unintended biases and discriminatory outcomes, which could harm our reputation and business and expose us to risks related to inaccuracies or errors in the output of such technologies. We also face risks of competitive disadvantage if our competitors more effectively use AI to drive internal efficiencies or create new or enhanced products or services that we are unable to compete against.

Infringement or expiration of our intellectual property rights, or allegations that we have infringed upon the intellectual property rights of third parties, could negatively affect us.

We rely on a combination of trademarks, trade secrets, patents, copyrights, know-how, confidentiality provisions and licensing arrangements to establish and protect our proprietary rights. We cannot guarantee that the steps we have taken to protect our intellectual property will be adequate to prevent infringement of our rights or misappropriation or theft of our technology, trade secrets or know-how. For example, effective patent, trademark, copyright and trade secret protection may be unavailable or limited in some of the countries in which we operate. While we generally enter into confidentiality agreements with our employees and third parties to protect our trade secrets, know-how, business strategy and other proprietary information, such confidentiality agreements could be breached or otherwise may not provide meaningful protection for our trade secrets and know-how related to the design, manufacture or operation of our products. From time to time, we resort to litigation to protect our intellectual property rights. Such proceedings can be burdensome and costly, and we may not prevail. Further, adequate remedies may not be available in the event of unauthorized use or disclosure of our trade secrets and manufacturing expertise. For those products in our portfolio that rely on patent protection, once a patent has expired, the product is generally open to competition. Products under patent protection usually generate significantly higher revenues than those not protected by patents. If we fail to successfully enforce our intellectual property rights, our competitive position could suffer, which could harm our business, financial condition, results of operations and cash flows.

In addition, we are, from time to time, subject to claims of intellectual property infringement by third parties, including practicing entities and non-practicing entities. Regardless of the merit of such claims, responding to infringement claims can be expensive and time-consuming. The litigation process is subject to inherent uncertainties, and we may not prevail in litigation matters regardless of the merits of our position. Intellectual property lawsuits or claims may become extremely disruptive if the plaintiffs succeed in blocking the trade of our products and services and they may have a material adverse effect on our business, financial condition, results of operations and cash flows.

We rely on our global direct installation channel for a significant portion of our revenue. Failure to maintain and grow the installed base resulting from direct channel sales could adversely affect our business.

Unlike many of our competitors, we rely on a direct sales channel for a substantial portion of our revenue. The direct channel provides for the installation of fire and security solutions, and HVAC equipment manufactured by us. This represents a significant distribution channel for our products, creates a large installed base of our fire and security solutions and HVAC equipment, and creates opportunities for longer term service, monitoring, solutions and retrofit revenue over the lifecycle of the building. If we are unable to maintain or grow this installation business, whether due to changes in economic conditions, a failure to anticipate changing customer needs, a failure to introduce innovative or technologically advanced solutions, or for any other reason, our installation revenue could decline, which could in turn adversely impact our product pull-through and our ability to grow service, monitoring, solutions and retrofit revenue.

Global climate change and related regulations could negatively affect our business.

The effects of climate change create financial and operational risks to our business. For example, the effects of climate change could impact the availability and cost of materials needed for manufacturing, exacerbate existing risks to our supply chain and increase insurance and other operating costs. These factors may impact our decisions to construct new facilities or maintain existing facilities in areas most prone to physical climate risks. We could also face indirect financial risks passed through the supply chain and disruptions that could result in increased prices for our products and the resources needed to produce them.

Increased public awareness and concern regarding global climate change has resulted in more regulations designed to reduce greenhouse gas emissions. These regulations tend to target the global warming potential ("GWP") of refrigerants, equipment energy efficiency, and the combustion of fossil fuels. Many of our products consume energy and use refrigerants. Regulations which seek to reduce greenhouse gas emissions present a risk to our global products business, predominantly our HVAC business, if we do not adequately prepare and refresh our product portfolio. As a result, we have and may in the future be required to make increased research and development and other capital expenditures to meet new regulations and standards. Further, our customers and the markets we serve may impose emissions or other environmental standards through regulation, market-based emissions policies or consumer preference that we may not be able to timely meet due to the required level of capital investment or technological advancement. While we have been committed to continuous improvements to our product portfolio to meet and exceed anticipated regulations and preferences, there can be no assurance that our commitments will be successful, that our products will be accepted by the market, that proposed regulation or deregulation will not have a negative competitive impact or that economic returns will reflect our product development investments.

There continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. Such regulatory uncertainty extends to incentives, which if discontinued, could adversely impact the demand for energy efficient buildings, and could increase costs of compliance. These factors may impact the demand for our products, obsolescence of our products and our results of operations.

Failure to achieve our public sustainability commitments could negatively affect our reputation and business.

As of the date of this filing, we have made several public commitments regarding our intended reduction of carbon emissions, including commitments to achieve net zero carbon emissions for Scope 1 and 2 by 2040 and the establishment of science-based targets to reduce Scope 1 and 2 carbon emissions from our operations and Scope 3, category 11 emissions from the use of sold products in the operations of our customers. Although we intend to meet these commitments, we may be required to expend significant resources to do so, which could increase our operational and capital costs. Further, there can be no assurance of the extent to which any of our commitments will be achieved, or that any future investments we make in furtherance of achieving such targets and goals will meet investor expectations or any binding or non-binding legal standards regarding sustainability performance. We may determine that it is in the best interest of our company and our shareholders to prioritize other business, social, governance or sustainable investments over the achievement of our current commitments based on economic, regulatory and social factors, business strategy or pressure from investors, activist groups or other stakeholders. If we are unable to meet these commitments, we could incur adverse publicity and reaction from investors, activist groups and other stakeholders, which could adversely impact the perception of our brand and our products and services by current and potential customers, as well as investors, which could in turn adversely impact our financial condition and results of operations.

The ability of suppliers to deliver raw materials, parts and components to our manufacturing facilities, and our ability to manufacture and deliver services without disruption, could affect our results of operations.

We use a wide range of materials (primarily steel, copper and aluminum) and components (including semiconductors and other electronic components) in the global production of our products, which come from numerous suppliers around the world. Because not all of our business arrangements provide for guaranteed supply and some key parts may be available only from a single supplier or a limited group of suppliers, we are subject to supply and pricing risk. Our operations and those of our suppliers are subject to disruption for a variety of reasons, including supplier plant shutdowns or slowdowns, transportation delays, work stoppages, labor relations, labor shortages, global geopolitical instability, price inflation, governmental regulatory and enforcement actions, intellectual property claims against suppliers, financial issues such as supplier bankruptcy, information technology failures, and hazards such as fire, earthquakes, flooding, or other natural disasters. For example, during 2022 and 2023 we experienced the following supply chain issues, due to economic, political and other factors largely beyond our control: increased input material costs and component shortages; supply chain disruptions and delays and cost inflation. In addition, some of our subcontractors have experienced supply chain and labor disruptions, which have and could in the future impact our ability to timely complete projects and convert our backlog. Such disruptions have and could in the future interrupt our ability to manufacture or obtain certain products and components, thereby adversely impacting our ability to provide products to customers and realize expected profit margins. We could experience the reoccurrence of similar or new disruptions in the future, the effect of which will depend on our ability to successfully mitigate the impact of these disruptions. Any such disruption could materially and adversely affect our business, financial condition, results of operations and cash flows.

Material supply shortages and delays in deliveries, along with other factors such as price inflation, can also result in increased pricing. While many of our customers permit quarterly or other periodic adjustments to pricing based on changes in component prices and other factors, we may bear the risk of price increases that occur between any such repricing or, if such repricing is not permitted, during the balance of the term of the particular customer contract. The inability to timely convert our backlog due to supply chain disruptions subjects us to pricing risk due to cost inflation occurring between the generation of backlog and its conversion into revenue. If we are unable to effectively manage the impacts of price inflation and timely convert our backlog, our results of operations, financial condition and cash flows could materially and adversely be affected.

A material disruption of our operations due to catastrophic or geopolitical events, particularly at our monitoring and/or manufacturing facilities, could materially and adversely affect our business.

If our operations, particularly at our monitoring facilities and/or manufacturing facilities, were to be disrupted as a result of significant equipment failures, natural disasters, pandemics, climate change, cybersecurity incidents, power outages, fires, explosions, abrupt political change, armed conflict, terrorism, sabotage, adverse weather conditions, public health crises, labor disputes, labor shortages or other reasons, we may be unable to effectively respond to alarm signals, fill customer orders, convert our backlog, collect revenue and otherwise meet obligations to or demand from our customers, which could adversely affect our financial performance. These events may also cause us to experience increased costs and reduced productivity. For

example, our recent cybersecurity incident caused disruptions to our operations, adversely affecting our financial performance in early fiscal 2024. Further, the occurrence or reoccurrence of regional epidemics or a global pandemic, such as COVID-19, may adversely affect our operations, financial condition, and results of operations.

Interruptions to production could increase our costs and reduce our sales. Any interruption in production capability could require us to make substantial capital expenditures or purchase alternative material at higher costs to fill customer orders, which could negatively affect our profitability and financial condition. We maintain property damage insurance that we believe to be adequate to provide for reconstruction of facilities and equipment, cybersecurity insurance to mitigate losses resulting from cybersecurity incidents, as well as business interruption insurance to mitigate losses resulting from significant production interruption or shutdown caused by an insured loss. However, any recovery under our insurance policies may not offset the lost sales or increased costs that may be experienced during the disruption of operations, which could adversely affect our business, financial condition, results of operations and cash flows.

Our business may be adversely affected by work stoppages, union negotiations, labor disputes and other matters associated with our labor force.

We employ approximately 94,000 people worldwide. Approximately 23% of these employees are covered by collective bargaining agreements or works councils. Although we believe that our relations with the labor unions and works councils that represent our employees are generally good and we have experienced no material strikes or work stoppages recently, no assurances can be made that we will not experience in the future these and other types of conflicts with labor unions, works councils, other groups representing employees or our employees generally, or that any future negotiations with our labor unions will not result in significant increases in our cost of labor. Additionally, a work stoppage at one of our suppliers could materially and adversely affect our operations if an alternative source of supply were not readily available. Work stoppages by employees of our customers could also result in reduced demand for our products.

Risks Relating to Strategic Transactions

We may not realize the benefits of our ongoing efforts to simplify our portfolio.

We continually evaluate the performance and strategic fit of all of our businesses and may sell businesses or product lines. Recently, we have been engaged in a strategic evaluation of our non-core product lines, leading to the divestiture of our Air Distribution Technologies business and the entry into a definitive agreement to divest our R&LC HVAC business. Divestitures such as these involve risks, including difficulties in the separation of operations, services, products and personnel, the diversion of management's attention from other business concerns, the disruption of our business, the potential loss of key employees and the retention of uncertain environmental or other contingent liabilities related to the divested business. We may also experience unfavorable reaction to the divestiture by customers, competitors, suppliers and employees, making it more difficult to maintain business and operational relationships. Some divestitures, including the divestiture of our R&LC HVAC business, are or may be dilutive to earnings and we may not be successful in executing restructurings and other actions to minimize or offset dilution. We may also fail to successfully complete divestitures, achieve the strategic objectives of divestitures or not realize such objectives within the expected time frame, including our objective to simplify our portfolio to be a pure-play provider of comprehensive solutions for commercial buildings. With respect to the R&LC HVAC business divestiture, there can be no assurance whether and when the closing conditions will be satisfied or waived, and whether the strategic benefits and expected financial impact of the divestiture will be achieved. In addition, divestitures may result in significant asset impairment charges, including those related to goodwill and other intangible assets, which could have a material adverse effect on our financial condition and results of operations. In the event we are unable to successfully divest a business or product line, we may be forced to wind down such business or product line, which could materially and adversely affect our results of operations and financial condition. We cannot provide assurance as to whether we will be successful in managing these or any other significant risks that we encounter in divesting a business or product line, and any divestiture we undertake could materially and adversely affect our business, financial condition, results of operations and cash flows, and may also result in a diversion of management attention, operational difficulties and losses.

We may be unable to successfully execute or effectively integrate acquisitions or joint ventures.

We expect acquisitions of businesses and assets, as well as joint ventures (or other strategic arrangements), to play a role in our future growth and our ability to build capabilities in our products and services. We cannot be certain that we will be able to identify attractive acquisition or joint venture targets, obtain financing for acquisitions on satisfactory terms, successfully acquire identified targets or form joint ventures, or manage the timing of acquisitions with capital obligations across our

businesses. Competition for acquisition opportunities may rise, thereby increasing our costs of making acquisitions or causing us to refrain from making further acquisitions.

Acquisitions and investments may involve significant cash expenditures, debt incurrences, equity issuances, operating losses and expenses and may be dilutive to earnings. Acquisitions involve numerous other risks, including: the diversion of management attention to integration matters; difficulties in integrating operations and systems; challenges in conforming standards, controls, procedures and accounting and other policies, business cultures and compensation structures; difficulties in assimilating employees and in attracting and retaining key personnel; challenges in successfully integrating and operating businesses with different characteristics than our current core businesses; challenges in keeping existing customers and obtaining new customers; difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects; contingent liabilities (including contingent tax liabilities and earn-out obligations) that are larger than expected; and potential unknown liabilities, adverse consequences and unforeseen increased expenses associated with acquired companies. The goodwill and intangible assets recorded in past acquisitions were significant, and in future acquisitions could be significant, and impairment of such assets could result in a material adverse impact on our financial condition and results of operations.

Many of these factors are outside of our control, and any one of them could result in increased costs, decreased expected revenues and diversion of management time and energy, which could materially and adversely impact our business, financial condition and results of operations.

Risks associated with joint venture investments may adversely affect our business and financial results.

We have entered into several joint ventures and we may enter into additional joint ventures in the future. Our joint venture partners may at any time have economic, business or legal interests or goals that are inconsistent with our goals or with the goals of the joint venture. In addition, we may compete against our joint venture partners in certain of our markets. Disagreements with our business partners may impede our ability to maximize the benefits of our partnerships. Our joint venture arrangements may require us, among other matters, to pay certain costs or to make certain capital investments or to seek our joint venture partner's consent to take certain actions. Our joint venture partners may be unable or unwilling to meet their economic or other obligations under the operative documents, and we may be required to either fulfill those obligations alone to ensure the ongoing success of a joint venture or to dissolve and liquidate a joint venture. Additionally, the financial performance of our joint ventures has resulted in, and in the future could result in, the Company having to record losses or impairments of our investment. These risks could result in a material adverse effect on our business and financial results.

Risks Related to Macroeconomic and Political Conditions

Some of the industries in which we operate are cyclical and, accordingly, demand for our products and services could be adversely affected by downturns in these industries.

Much of the demand for our products, services and solutions is driven by commercial, institutional, industrial, data center, governmental and residential construction, industrial facility expansion, retrofit activity, maintenance projects and other capital investments in buildings within the sectors that we serve. Construction and other capital investment projects are heavily dependent on general economic conditions, localized demand for real estate and availability of credit, public funding or other sources of financing. Some of the real estate markets we serve are prone to significant fluctuations in supply and demand. In addition, most real estate developers rely heavily on project financing in order to initiate and complete projects. Declines in real estate values and increases in prevailing interest rates could lead to significant reductions in the demand for and availability of project financing, even in markets where demand may otherwise be sufficient to support new construction. These factors could in turn temper demand for new building products and solutions and have a corresponding impact on our financial condition, results of operations and cash flows.

Levels of industrial capital expenditures for facility expansions and maintenance are dependent on general economic conditions, economic conditions within specific industries we serve, expectations of future market behavior and available financing. The businesses of many of our industrial customers are to varying degrees cyclical and have experienced periodic downturns. During such economic downturns, customers in these industries tend to delay major capital projects, including greenfield construction, maintenance projects and upgrades. Additionally, demand for our products and services may be affected by volatility in energy, component and commodity prices, commodity and component availability and fluctuating demand forecasts, as our customers may be more conservative in their capital planning, which may reduce demand for our products and services as projects are postponed or cancelled. Increases in prevailing interest rates or disruptions in financial markets and banking systems could make credit and capital markets difficult for our customers to access and could significantly raise the cost of new debt for our customers. Any difficulty in accessing these markets and the increased associated costs can have a

negative effect on investment in large capital projects, including necessary maintenance and upgrades, even during periods of favorable end-market conditions.

Many of our customers inside and outside of the industrial and commercial sectors, including governmental and institutional customers, have experienced budgetary constraints as sources of revenue have been negatively impacted by adverse or stagnant economic conditions, including sustained increases in interest rates. These budgetary constraints have in the past, and may in the future, reduce demand for our products and services among governmental and institutional customers.

Reduced demand for our products and services could result in the delay or cancellation of existing orders or lead to excess capacity, which unfavorably impacts our absorption of fixed costs. This reduced demand may also erode average selling prices in the industries we serve. Any of these results could materially and adversely affect our business, financial condition, results of operations and cash flows.

Risks associated with our non-U.S. operations could adversely affect our business, financial condition and results of operations.

We have significant operations in a number of countries outside the U.S., some of which are located in emerging markets. Long-term economic and geopolitical uncertainty in any of the regions of the world in which we operate, such as Asia, South America, the Middle East, Europe and emerging markets, could result in the disruption of markets and negatively affect cash flows from our operations to cover our capital needs and debt service requirements. During fiscal year 2024, our results of operations were impacted by continued softening of economic conditions in China, negatively impacting the performance of the Building Solutions Asia Pacific segment. The continuation of economic weakness in China or in other regions could adversely impact our financial performance in such regions, as well as our consolidated financial performance.

In addition, as a result of our global presence, a significant portion of our revenues and expenses is denominated in currencies other than the U.S. dollar. We are therefore subject to non-U.S. currency risks and non-U.S. exchange exposure. While we employ financial instruments to hedge some of our transactional foreign exchange exposure, these activities do not insulate us completely from those exposures. Exchange rates can be volatile and a substantial weakening of foreign currencies against the U.S. dollar could reduce our profit margin in various locations outside of the U.S. and adversely impact the comparability of results from period to period. During 2022 through 2024, we experienced a reduction in revenue and profits as a result of the significant strengthening of the U.S. dollar against foreign currencies. The continued strength of the U.S. dollar could continue to adversely impact our revenue and profit in non-U.S. jurisdictions.

There are other risks that are inherent in our non-U.S. operations, including the potential for changes in socio-economic conditions, laws and regulations, including anti-trust, labor and environmental laws, and monetary and fiscal policies; the ability to enforce rights, collect revenues and protect assets in foreign jurisdictions; protectionist measures that may prohibit acquisitions or joint ventures, or impact trade volumes; unsettled or unstable political conditions; international conflict; government-imposed plant or other operational shutdowns; backlash from foreign labor organizations related to our restructuring actions; corruption; natural and man-made disasters, hazards and losses; violence, civil and labor unrest, and possible terrorist attacks. These and other factors may have a material adverse effect on our business and results of operations.

Changes in U.S. or foreign trade policies and other factors beyond our control may adversely impact our business and operating results.

Geopolitical tensions and trade disputes can disrupt supply chains and increase the cost of our products. This could cause our products to be more expensive for customers, which could reduce the demand for or attractiveness of such products. In addition, a geopolitical conflict in a region where we operate could disrupt our ability to conduct business operations in that region. Countries also could adopt restrictive trade measures, such as tariffs, laws and regulations concerning investments and limitations on foreign ownership of businesses, taxation, foreign exchange controls, capital controls, employment regulations and the repatriation of earnings and controls on imports or exports of goods, technology, or data, any of which could adversely affect our operations and supply chain and limit our ability to offer our products and services as intended. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products or from where we import products or raw materials (either directly or through our suppliers) could have an impact on our competitive position, business operations and financial results. For example, the U.S., China and other countries continue to implement restrictive trade actions, including tariffs, export controls, sanctions, legislation favoring domestic investment and other actions impacting the import and export of goods, foreign investment and foreign operations in jurisdictions in which we operate. These kinds of restrictions could be adopted with little to no advanced notice, and we may not be able to effectively mitigate the adverse impacts from such measures. Political uncertainty

surrounding trade or other international disputes also could have a negative impact on customer confidence and willingness to spend money, which could impair our future growth. Any of these events could increase the cost of our products, create disruptions to our supply chain and impair our ability to effectively operate and compete in the countries where we do business.

Economic, political, credit and capital market conditions could adversely affect our financial performance, our ability to grow or sustain our business and our ability to access the capital markets.

We compete around the world in various geographic regions and product markets. Global economic and political conditions affect each of our primary businesses and the businesses of our customers and suppliers. Recessions, economic downturns, price instability, inflation, slowing economic growth and social and political instability in the industries and/or markets where we compete could negatively affect our revenues and financial performance in future periods, result in future restructuring charges, and adversely impact our ability to grow or sustain our business. For example, recent and ongoing macroeconomic and political instability caused by rising interest rates, global supply chain disruptions, inflation, ongoing conflicts between Russia and Ukraine as well as Israel and Hamas, geopolitical tensions and the strengthening of the U.S. dollar, have and could continue to adversely impact our results of operations. Other consequences arising from ongoing conflicts, the further escalation of geopolitical tensions globally and their effect on our business and results of operations as well as the global economy, cannot be predicted. This may include economic sanctions, embargoes, regional instability, geopolitical shifts, expansion of current conflicts, energy instability, retaliatory action by governments, supply chain disruptions, disruption to local markets, increased cybersecurity attacks against us, our third-party service providers and customers, collateral consequences from cyber conflicts between nation-states or other politically motivated actors targeting critical technology infrastructure. and increased tensions among countries in which we operate. Our failure to adequately react to these and other political and economic conditions could materially and adversely affect our results of operations, financial condition or liquidity.

The capital and credit markets provide us with liquidity to operate and grow our business beyond the liquidity that operating cash flows provide. A worldwide economic downturn and/or disruption of the credit markets could reduce our access to capital necessary for our operations and executing our strategic plan. In addition, we have experienced, and could continue to experience, increased capital costs due to increases in global interest rates. If our access to capital were to become significantly constrained, or if costs of capital increased significantly due to increased interest rates, lowered credit ratings, prevailing industry conditions, the volatility of the capital markets or other factors; then our financial condition, results of operations and cash flows could be adversely affected.

Volatility in commodity prices may adversely affect our results of operations.

Increases in commodity costs can negatively impact the profitability of orders in backlog as prices on such orders are typically fixed; therefore, in the short-term, our ability to adjust for changes in certain commodity prices is limited. In these cases, if we are not able to recover commodity cost increases through price increases to our customers on new orders, then such increases will have an adverse effect on our results of operations. In cases where commodity price risk cannot be naturally offset or hedged through supply-based fixed-price contracts, we use commodity hedge contracts to minimize overall price risk associated with our anticipated commodity purchases. Unfavourability in our hedging programs during a period of declining commodity prices could result in lower margins as we reduce prices to match the market on a fixed commodity cost level. Additionally, to the extent we do not or are unable to hedge certain commodities and the commodity prices substantially increase, such increases will have an adverse effect on our results of operations.

During fiscal 2022 and 2023, we at times experienced increased commodity costs as a result of global macroeconomic trends, including global price inflation, supply chain disruption and international conflict. We could experience further cost fluctuations in the future, which could negatively impact our results of operations to the extent we are unable to successfully mitigate and offset the impact of increased costs.

Risks Related to Government Regulations

Our businesses operate in regulated industries and are subject to a variety of complex and continually changing laws and regulations.

Our operations and employees are subject to various U.S. federal, state and local licensing laws, codes and standards and similar foreign laws, codes, standards and regulations. Changes in laws or regulations could require us to change the way we operate or to utilize resources to maintain compliance, which could increase costs or otherwise disrupt operations. In addition, failure to comply with any applicable laws or regulations could result in substantial fines or revocation of our operating permits and licenses. Competition or other regulatory investigations can continue for several years, be costly to defend and can result in

substantial fines. If laws and regulations were to change or if we or our products failed to comply, our business, financial condition and results of operations could be adversely affected.

Due to the international scope of our operations, the system of laws and regulations to which we are subject is complex and includes regulations issued by the U.S. Customs and Border Protection, the U.S. Department of Commerce's Bureau of Industry and Security, the U.S. Treasury Department's Office of Foreign Assets Control and various non U.S. governmental agencies, including applicable export controls, anti-trust, customs, currency exchange control and transfer pricing regulations, laws regulating the foreign ownership of assets, and laws governing certain materials that may be in our products. No assurances can be made that we will continue to be found to be operating in compliance with, or be able to detect violations of, any such laws or regulations.

We are also subject to a complex network of tax laws and tax treaties that impact our effective tax rate. For more information on risks related to tax regulation, see "Risks Related to Tax Matters" below.

We cannot predict the nature, scope or effect of future regulatory requirements to which our operations might be subject or the manner in which existing laws might be administered or interpreted.

We are subject to requirements relating to environmental and safety regulations and environmental remediation matters which could adversely affect our business, results of operation and reputation.

We are subject to numerous federal, state and local environmental laws and regulations governing, among other things, solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. There are significant capital, operating and other costs associated with compliance with these environmental laws and regulations. Environmental laws and regulations may become more stringent in the future, which could increase costs of compliance, decrease demand for our products, create reputational harm or require us to manufacture with alternative technologies and materials. For example, our Tyco Fire Protection Products business discontinued the production and sale of fluorinated firefighting foams in fiscal 2024, including Aqueous Film-Forming Foam ("AFFF") and related products, and has transitioned to non-fluorinated foam alternatives.

Federal, state and local authorities also regulate a variety of matters, including, but not limited to, health, safety laws governing employee injuries, and permitting requirements in addition to the environmental matters discussed above. If we are unable to adequately comply with applicable health and safety regulations and provide our employees with a safe working environment, we may be subject to litigation and regulatory action, in addition to negatively impacting our ability to attract and retain talented employees. New legislation and regulations may require us to make material changes to our operations, resulting in significant increases to the cost of production. Additionally, violations of environmental, health and safety laws are subject to civil, and, in some cases, criminal sanctions. As a result of these uncertainties, we may incur unexpected interruptions to operations, fines, penalties or other reductions in income which could adversely impact our business, financial condition and results of operations.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery laws around the world.

The U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to government officials or other persons for the purpose of obtaining or retaining business, and require that companies maintain accurate books and records. Our policies mandate compliance with these laws. We operate in many parts of the world that are recognized as having governmental and commercial corruption and local customs and practices that can be inconsistent with anti-bribery laws. We cannot provide assurance that our internal control policies and procedures will preclude reckless or criminal acts committed by our employees or third-party intermediaries. Where we believe or have reason to believe that our employees or agents have or may have violated applicable anti-corruption laws, or if we are subject to allegations of any such violations, we have and will investigate the allegations and from time to time as necessary may engage outside counsel to investigate the relevant facts and circumstances, which can be expensive and require significant time and attention from senior management. Violations of these laws may result in criminal or civil sanctions, which could disrupt our business and result in a material adverse effect on our reputation, business, financial condition, results of operations and cash flows. In addition, we could be subject to commercial impacts such as lost revenue from customers who decline to do business with us as a result of such compliance matters, which also could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

We are subject to risks arising from regulations applicable to companies doing business with the U.S. government.

Our customers include many U.S. federal, state and local government authorities. Doing business with the U.S. federal, state and local governments subjects us to certain particular risks, including dependence on the level of government spending and compliance with and changes in governmental procurement and security regulations. Agreements relating to the sale of products to government entities may be subject to termination, reduction or modification, either at the convenience of the government or for failure to perform under the applicable contract. We are subject to potential government investigations of business practices and compliance with government procurement and security regulations, which can be expensive and burdensome. If we were charged with wrongdoing as a result of an investigation, we could be suspended from bidding on or receiving awards of new government contracts, which could have a material adverse effect on our results of operations. In addition, various U.S. federal and state legislative proposals have been made in the past that would deny governmental contracts to U.S. companies that have moved their corporate location abroad. We are unable to predict the likelihood that, or final form in which, any such proposed legislation might become law, the nature of regulations that may be promulgated under any future legislative enactments, or the effect such enactments and increased regulatory scrutiny may have on our business.

Risks Related to Litigation

Potential liability for environmental contamination could result in substantial costs.

We have projects underway at multiple current and former manufacturing and testing facilities to investigate and remediate environmental contamination resulting from past operations by us or by other businesses that previously owned or used the properties, including our Fire Technology Center and Stanton Street manufacturing facility located in Marinette, Wisconsin. These projects relate to a variety of activities, including arsenic, solvent, oil, metal, lead, PFOS, PFOA and/or other per- and polyfluorinated substances ("PFAS") and other hazardous substance contamination cleanup; and structure decontamination and demolition, including asbestos abatement. Governments in the United States and internationally have increasingly been regulating PFAS, which is contained in certain of the Company's legacy firefighting foam products. These regulations include declining emission standards and limits set as to the presence of certain compounds. Because of uncertainties associated with environmental regulation and environmental remediation activities at sites where we may be liable, future expenses that we may incur to remediate identified sites and resolve outstanding litigation could be considerably higher than the current accrued liability on our consolidated statements of financial position, which could have a material adverse effect on our business, results of operations and cash flows.

In addition, we have been named, along with others, in a number of class action and other lawsuits relating to the use of fire-fighting foam products by the U.S. Department of Defense, the U.S. military and others for fire suppression purposes and related training exercises. It is difficult to predict the outcome or ultimate financial exposure represented by these matters. Such claims may also negatively affect our reputation. See Note 21, “Commitments and Contingencies,” of the notes to consolidated financial statements for additional information on these matters.

We are party to asbestos-related product litigation that could adversely affect our financial condition, results of operations and cash flows.

We and certain of our subsidiaries, along with numerous other third parties, are named as defendants in personal injury lawsuits based on alleged exposure to asbestos containing materials. These cases typically involve product liability claims based primarily on allegations of manufacture, sale or distribution of industrial products that either contained asbestos or were used with asbestos containing components. We cannot predict with certainty the extent to which we will be successful in litigating or otherwise resolving lawsuits on satisfactory terms in the future and we continue to evaluate different strategies related to asbestos claims filed against us including entity restructuring and judicial relief. Unfavorable rulings, judgments or settlement terms could have a material adverse impact on our business and financial condition, results of operations and cash flows. See Note 21, “Commitments and Contingencies,” of the notes to consolidated financial statements for additional information on these matters.

Legal proceedings in which we are, or may be, a party may adversely affect us.

We are currently, and may in the future, become subject to legal proceedings and commercial or contractual disputes. These are typically claims that arise in the normal course of business including, without limitation, commercial or contractual disputes with our suppliers or customers, intellectual property matters, third party liability, including product liability claims, and employment claims. In addition, we may be exposed to greater risks of liability for employee acts or omissions, or system failure, in our fire and security businesses than may not be inherent in other businesses. In particular, because many of our fire and security products and services are intended to protect lives and real and personal property, we may have greater exposure to

litigation risks than other businesses. The nature of the services we provide exposes us to the risks that we may be held liable for employee acts or omissions or system failures. As a result, such employee acts or omissions or system failures could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Risks Related to Tax Matters

Future potential changes to the tax laws could adversely affect us and our affiliates.

Legislative and regulatory action may be taken in the U.S. and other jurisdictions in which we operate, which, if ultimately enacted, could result in an increase in our effective tax rate. For example, if the U.S or other jurisdictions override tax treaties upon which we rely, or broaden the circumstances under which we would be considered a U.S. resident, each of which could materially and adversely affect our effective tax rate. We cannot predict the outcome of any specific legislative or regulatory proposals and such changes could have a prospective or retroactive application. However, if proposals were enacted that had the effect of disregarding our incorporation in Ireland or limiting Johnson Controls International plc's ability, as an Irish company, to take advantage of tax treaties with the U.S., we could be subject to increased taxation, potentially significant expense, and/or other adverse tax consequences.

In October 2021, the Organization for Economic Co-operation and Development ("OECD")/G20 inclusive framework on Base Erosion and Profit Shifting (the Inclusive Framework) published a statement updating and finalizing the key components of a two-pillar plan on global tax reform which has now been agreed upon by the majority of OECD members. Pillar One allows countries to reallocate a portion of residual profits earned by multinational enterprises ("MNE"), with an annual global revenue exceeding €20 billion and a profit margin over 10%, to other market jurisdictions. The adoption of Pillar One and its potential effective date remain uncertain. Pillar Two requires MNEs with an annual global revenue exceeding €750 million to pay a global minimum tax of 15%. The OECD has since issued administrative guidance providing transition and safe harbor rules around the implementation of the Pillar Two global minimum tax. A number of countries, including Ireland, have enacted legislation to implement the core elements of Pillar Two, which will be effective for the Company beginning in fiscal 2025. We are continuing to evaluate the impact on future periods of Pillar Two, including legislative updates and adoption by additional countries, which could result in an increase in our effective tax rate.

Future potential changes to the U.S. tax laws could result in us being treated as a U.S. corporation for U.S. federal tax purposes, and the Internal Revenue Service ("IRS") may not agree that we should be treated as a non-U.S. corporation for U.S. federal tax purposes.

Because Johnson Controls International plc is organized under the laws of Ireland, it would generally be classified as a foreign corporation under the general rule that a corporation is considered tax resident in the jurisdiction of its organization or incorporation for U.S. federal income tax purposes. However, Section 7874 of the Code ("Section 7874") provides an exception to this general rule under which a non-U.S. incorporated entity may, in certain circumstances, be treated as a U.S. corporation for U.S. federal tax purposes. The IRS may assert that, as a result of the Merger, Johnson Controls International plc should be treated as a U.S. corporation (and, therefore, a U.S. tax resident) for U.S. federal income tax purposes pursuant to Section 7874 of the Internal Revenue Code. The IRS may also assert that the ability of our U.S. affiliates to utilize U.S. tax attributes, such as net operating losses and certain tax credits, to offset U.S. taxable income resulting from certain transactions may be limited under Section 7874. The application of these rules could result in significant additional U.S. tax liability. In addition, a retroactive change to U.S. tax laws in this area could change the tax classification of Johnson Controls International plc. If it were to be treated as a U.S. corporation for federal tax purposes, we could be subject to substantially greater U.S. tax liability than currently contemplated as a non-U.S. corporation.

Based on the terms of the Merger, we currently expect that Section 7874 does not apply to us or our affiliates as a result of the Merger. However, determining the applicability of Section 7874 is complex and is subject to factual and legal uncertainties. Thus, there can be no assurance that the IRS will agree with the position that Johnson Controls International plc should not be treated as a U.S. corporation for U.S. federal tax purposes or that Section 7874 does not otherwise apply.

Changes to the U.S. model income tax treaty could adversely affect us.

On February 17, 2016, the U.S. Treasury released a revised U.S. model income tax convention (the "new model"), which is the baseline text used by the U.S. Treasury to negotiate tax treaties. If any or all of the modifications to the model treaty are adopted in the main jurisdictions in which we do business, they could, among other things, cause double taxation, increase audit risk and substantially increase our worldwide tax liability. We cannot predict the outcome of any specific modifications to the model treaty, and we cannot provide assurance that any such modifications will not apply to us.

Negative or unexpected tax consequences could adversely affect our results of operations.

Adverse changes in the underlying profitability and financial outlook of our operations in several jurisdictions could lead to additional changes in our valuation allowances against deferred tax assets and other tax reserves on our statement of financial position, and the future sale of certain businesses could potentially result in the reversal of outside basis differences that could adversely affect our results of operations and cash flows. Additionally, changes in tax laws in the U.S., Ireland or in other countries where we have significant operations could materially affect deferred tax assets and liabilities on our consolidated statements of financial position and our income tax provision in our consolidated statements of income.

We are also subject to tax audits by governmental authorities. Negative unexpected results from one or more such tax audits could adversely affect our results of operations.

Risks Relating to Our Jurisdiction of Incorporation

Irish law differs from the laws in effect in the U.S. and may afford less protection to holders of our securities.

It may not be possible to enforce court judgments obtained in the U.S. against us in Ireland based on the civil liability provisions of the U.S. federal or state securities laws. In addition, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on the civil liabilities provisions of the U.S. federal or state securities laws or hear actions against us or those persons based on those laws. We have been advised that the U.S. currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. Therefore, a final judgment for the payment of money rendered by any U.S. federal or state court based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not automatically be enforceable in Ireland.

As an Irish company, Johnson Controls is governed by the Irish Companies Acts, which differ in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of Johnson Controls International plc securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a jurisdiction of the U.S.

Transfers of Johnson Controls ordinary shares may be subject to Irish stamp duty.

For the majority of transfers of Johnson Controls ordinary shares, there is no Irish stamp duty. However, Irish stamp duty is payable for certain share transfers. A transfer of Johnson Controls ordinary shares from a seller who holds shares beneficially (i.e., through the Depository Trust Company ("DTC")) to a buyer who holds the acquired shares beneficially is not subject to Irish stamp duty (unless the transfer involves a change in the nominee that is the record holder of the transferred shares). A transfer of Johnson Controls ordinary shares by a seller who holds shares directly (i.e., not through DTC) to any buyer, or by a seller who holds the shares beneficially to a buyer who holds the acquired shares directly, may be subject to Irish stamp duty (currently at the rate of 1% of the price paid or the market value of the shares acquired, if higher) payable by the buyer. A shareholder who directly holds shares may transfer those shares into his or her own broker account to be held through DTC without giving rise to Irish stamp duty provided that the shareholder has confirmed to Johnson Controls transfer agent that there is no change in the ultimate beneficial ownership of the shares as a result of the transfer and, at the time of the transfer, there is no agreement in place for a sale of the shares.

We currently intend to pay, or cause one of our affiliates to pay, stamp duty in connection with share transfers made in the ordinary course of trading by a seller who holds shares directly to a buyer who holds the acquired shares beneficially. In other cases, Johnson Controls may, in its absolute discretion, pay or cause one of its affiliates to pay any stamp duty. Johnson Controls Memorandum and Articles of Association provide that, in the event of any such payment, Johnson Controls (i) may seek reimbursement from the buyer, (ii) may have a lien against the Johnson Controls ordinary shares acquired by such buyer and any dividends paid on such shares and (iii) may set-off the amount of the stamp duty against future dividends on such shares. Parties to a share transfer may assume that any stamp duty arising in respect of a transaction in Johnson Controls ordinary shares has been paid unless one or both of such parties is otherwise notified by Johnson Controls.

Dividends paid by us may be subject to Irish dividend withholding tax.

In certain circumstances, as an Irish tax resident company, we will be required to deduct Irish dividend withholding tax (currently at the rate of 25%) from dividends paid to our shareholders. Shareholders that are residents in the U.S., European Union countries (other than Ireland) or other countries with which Ireland has signed a tax treaty (whether the treaty has been ratified or not) generally should not be subject to Irish withholding tax so long as the shareholder has provided certain Irish dividend withholding tax forms. However, some shareholders may be subject to withholding tax, which could adversely affect the price of our ordinary shares.

Dividends received by investors could be subject to Irish income tax.

Dividends paid in respect of Johnson Controls ordinary shares generally are not subject to Irish income tax where the beneficial owner of these dividends is exempt from dividend withholding tax, unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in Johnson Controls.

Johnson Controls shareholders who receive their dividends subject to Irish dividend withholding tax generally will have no further liability to Irish income tax on the dividend unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in Johnson Controls.

General Risk Factors

The potential insolvency or financial distress of third parties could adversely impact our business and results of operations.

We are exposed to the risk that third parties to various arrangements who owe us money or goods and services, or who purchase goods and services from us, will not be able to perform their obligations or continue to place orders due to insolvency or financial distress. If third parties fail to perform their obligations under arrangements with us, we may be forced to replace the underlying commitment at current or above market prices or on other terms that are less favorable to us. In such events, we may incur losses, or our results of operations, financial condition or liquidity could otherwise be adversely affected.

Risks related to our defined benefit retirement plans may adversely impact our results of operations and cash flow.

Significant changes in actual investment return on defined benefit plan assets, discount rates, mortality assumptions and other factors could adversely affect our results of operations and the amounts of contributions we must make to our defined benefit plans in future periods. Because we mark-to-market our defined benefit plan assets and liabilities on an annual basis, large non-cash gains or losses could be recorded in the fourth quarter of each fiscal year or when a remeasurement event occurs. Generally accepted accounting principles in the U.S. require that we calculate income or expense for the plans using actuarial valuations. These valuations reflect assumptions about financial markets and interest rates, which may change based on economic conditions. Funding requirements for our defined benefit plans are dependent upon, among other factors, interest rates, underlying asset returns and the impact of legislative or regulatory changes related to defined benefit funding obligations.

A variety of other factors could adversely affect the results of operations of our business.

Any of the following could materially and adversely impact the results of operations of our business: loss of, changes in, or failure to perform under guaranteed performance contracts with our major customers; cancellation of, or significant delays in, projects in our backlog; delays or difficulties in new product development; our ability to recognize the expected benefits of our restructuring actions, downgrades in the ratings of our debt, material increases to our level of indebtedness, products and services that we are unable to pass on to the market; changes in energy costs or governmental regulations that would decrease the incentive for customers to update or improve their building control systems; and natural or man-made disasters or losses that impact our ability to deliver products and services to our customers.

ITEM 1B UNRESOLVED STAFF COMMENTS

The Company has no unresolved written comments regarding its periodic or current reports from the staff of the SEC.

ITEM 1C CYBERSECURITY

Cybersecurity Strategy and Risk Management

The Company faces a wide variety of cybersecurity threats ranging from uncoordinated individual attempts to gain unauthorized access to information technology ("IT") systems to sophisticated and targeted measures known as advanced persistent threats directed at the Company, its products, its customers, supply chain and/or its third-party service providers, including cloud providers. These threats and incidents originate from many sources globally.

The Company's cybersecurity policies, standards, and procedures apply to all users, creating awareness of threats and the importance of information security and cybersecurity across the Company's workforce. The policies and standards were created using elements of recognized standards such as ISO 27001 and the NIST Cybersecurity Framework for the overall enterprise and ISA/IEC 62443 for automation and control system products. The Company has implemented cybersecurity policies throughout its operations, including designing and incorporating cybersecurity into the development process for its products and services. The Company's enterprise risk management ("ERM") process considers cybersecurity threat risks alongside other significant risks as part of the Company's overall risk assessment process.

The Company leverages multiple channels to promote cybersecurity topics, deliver targeted initial and refresher training for all users, and conduct an annual mandatory global information security training campaign with certification, which is translated into 20 languages, and ongoing awareness campaigns. These elements are designed to maintain a risk aware culture.

The Company maintains a 24 x 7 operations center that monitors the Company's IT environment, and coordinates the investigation and remediation of alerts. As cybersecurity events occur, the cybersecurity team focuses on responding to and containing the threat and minimizing impact. In the event of an incident, the cybersecurity team assesses, among other factors, supply chain and manufacturing disruption, data and personal information loss, business operations disruption, projected cost and potential for reputational harm, with participation from technical, legal and law enforcement support, as appropriate.

The Company's vulnerability management program conducts assessments with specified frequencies for specific asset types to validate system health against known threats. The Company leverages multiple tools, which are routinely updated with new threat signatures, to continually respond to evolving threats identified as part of its threat detection capability. The Company also maintains a cybersecurity insurance policy.

The Company engages with third parties to perform security assessments of its technology environment to perform penetration testing and maturity assessment as well as providing services to support threat analysis and incident detection and response.

Cybersecurity considerations affect the selection and oversight of the Company's third-party product and service providers. The Company performs due diligence on third parties that have access to its critical systems and data and whose products and services are integrated into the Company's products. Contractual undertakings and oversight are put in place, based on the results of the risk assessment to manage and reduce the cybersecurity risk associated with such third-party providers. Such undertakings may include requirements to comply with administrative, technical and physical safeguards to provide notification of cyber incidents involving the Company's systems or data and agreements to be subject to cybersecurity audits, which the Company conducts as appropriate. The Company requires compliance with appropriate certifications (e.g., SOC 2, ISO 27001, etc.) depending on the offering, region of use, and other factors.

During the weekend of September 23, 2023, the Company experienced a cybersecurity incident impacting its internal IT infrastructure and applications. The incident caused disruptions and limitation of access to portions of the Company's business applications supporting aspects of the Company's operations and corporate functions. The impact of the incident included lost and deferred revenues, primarily attributable to order processing and logistics disruptions and delays, and expenses associated with the response to, and remediation of, the incident. Further, the cybersecurity incident caused disruptions to certain of the Company's billing systems, which negatively impacted cash provided from continuing operations primarily during the first quarter of fiscal 2024. The overall impact of the cybersecurity incident did not have a material impact on net income, net of insurance recoveries, or cash flows from operations for the full year fiscal 2024.

Cybersecurity Governance

The Company's Board of Directors (the "Board") has oversight of the management of the most significant risks facing the Company, including cybersecurity. The Board receives information technology and cybersecurity updates from senior management, including the Chief Information Officer, Chief Information Security Officer ("CISO") and Chief Technology Officer, several times per year. These updates cover the cybersecurity risks facing the Company's enterprise information

technology environment, as well as the Company's digital products and services. Regular oversight of cybersecurity matters is further delegated by the Board to the Governance and Sustainability Committee. The Governance and Sustainability Committee provides a deeper level of oversight through quarterly engagements with senior management, including the Chief Information Officer and CISO, to review the Company's cybersecurity program, including the highest risk areas and key mitigation strategies.

The Company maintains a Cybersecurity Steering Committee ("CSC") designed to ensure effective governance of risks associated with the Company's use of information and technology assets and demonstrate effective governance of cybersecurity risk. The CSC is chaired by the CISO, and includes the Company's Chief Financial Officer, General Counsel, Chief Information Officer, and other senior representatives from the Company's business segments and functions. The CSC meets quarterly to monitor the current risk landscape and active risk reduction efforts. Through this review and monitoring activity, the CSC oversees effective governance of IT Risk Management in the Enterprise IT Portfolio, drives accountability and transparency of control effectiveness, and facilitates risk remediation and mitigation in a coordinated and comprehensive manner.

The CISO is appointed by the Chief Information Officer and is responsible for cybersecurity risk management across the Company. The CISO leads a global enterprise security team responsible for enterprise-wide security strategy, architecture, engineering, and operations. The Cybersecurity Steering Committee has granted authority to the CISO to pause or stop business processes during the execution of cybersecurity incident response duties if they deem it necessary. The CSC maintains approval authority for the Company's Enterprise Information Security Policy. The CISO has over 20 years of technology experience including cybersecurity, infrastructure, architecture, and data and analytics in highly regulated industries including healthcare and aviation and defense. The CISO has an undergraduate degree in Computer Information Systems.

ITEM 2 PROPERTIES

The Company has properties in over 60 countries throughout the world, with its world headquarters located in Cork, Ireland and its North American operational headquarters located in Milwaukee, Wisconsin USA. The Company's wholly- and majority-owned facilities primarily consist of manufacturing, sales and service offices, research and development facilities, monitoring centers, and assembly and/or warehouse centers. At September 30, 2024, properties related to continuing operations totaled approximately 24 million square feet of floor space of which 6 million square feet are owned and 18 million square feet are leased. The Company considers its facilities to be suitable for their current uses and adequate for current needs. The majority of the facilities are operating at normal levels based on capacity. The Company does not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities.

ITEM 3 LEGAL PROCEEDINGS

Gumm v. Molinaroli, et al.

In May 2024, stockholders of Johnson Controls, Inc., filed a putative class action Complaint against Johnson Controls, Inc., certain former officers and directors of Johnson Controls, Inc., and two related entities (Jagara Merger Sub LLC and Johnson Controls International plc) in Wisconsin state court relating to the 2016 merger of Johnson Controls and Tyco (Gumm et al. v. Molinaroli et al., Case No. 30106, filed May 23, 2024 in the Circuit Court for Milwaukee County, Wisconsin). The filing of the state court Complaint follows the dismissal of a related lawsuit originally filed in federal court in 2016, which dismissal was affirmed on appeal in November 2023. The 12-count state court Complaint asserts claims for (1) breach of fiduciary duty; (2) aiding and abetting breach of fiduciary duty; (3); unjust enrichment; (4) violations of Wisconsin Business Corporation Law §§ 180.1101-.1103; (5) breach of JCI's Articles of Incorporation; (6) conversion; (7) violations of Wisconsin Securities Act §§ 551.501 and 551.509; (8) breach of covenant of good faith and fair dealing; (9) promissory estoppel; (10) tortious interference with contract; (11) negligent or intentional misrepresentation/equitable fraud; and (12) statutory fraud. On September 13, 2024, defendants moved to dismiss the Complaint. A hearing on the motion is expected to take place in March 2025.

Refer to Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for discussion of environmental, asbestos, insurable liabilities and other litigation matters, which is incorporated by reference herein and is considered an integral part of Part I, Item 3, "Legal Proceedings."

ITEM 4 MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Pursuant to General Instruction G(3) of Form 10-K, the following list of executive officers of the Company as of November 19, 2024 is included as an unnumbered Item in Part I of this report in lieu of being included in the Company's Proxy Statement relating to the annual general meeting of shareholders to be held on March 12, 2025.

Julie Brandt, 50, has served as Vice President and President, Building Solutions, North America since April 2023. Prior to joining Johnson Controls, Ms. Brandt served as Executive Vice President and General Manager, North America Western Region at Otis Worldwide Corp, an elevator and escalator manufacturing, installation and service company, from September 2020 until April 2023. While at Otis, Ms. Brandt also served in roles of increasing responsibility from 2000 until 2020, including Executive Vice President and Chief Transformation Officer, from January 2019 until August 2020 and Managing Director, Hong Kong, Macau and Taiwan, from January 2016 until December 2018.

John Donofrio, 62, has served as Executive Vice President and General Counsel of the Company since November 2017. He previously served as Vice President, General Counsel and Secretary of Mars, Incorporated, a global food manufacturer from October 2013 to November 2017. Before joining Mars in October 2013, Mr. Donofrio was Executive Vice President, General Counsel and Secretary for The Shaw Group Inc., a global engineering and construction company, from October 2009 until February 2013. Prior to joining Shaw, Mr. Donofrio was Senior Vice President, General Counsel and Chief Compliance Officer at Visteon Corporation, a global automotive supplier, a position he held from 2005 until October 2009. Mr. Donofrio has been a Director of FARO Technologies, Inc., a designer, developer, manufacturer and marketer of software driven, 3D measurement, imaging and realization systems, since 2008.

Richard Lek, 58, has served as Vice President and President, Building Solutions, Europe, Middle East, Africa and Latin America since November 2024. Mr. Lek has served in roles of increasing responsibility at Johnson Controls since 2002, including Vice President and General Manager, Continental Europe, from March 2023 until November 2024, Chief Operating Officer and Business Transformation Leader Asia Pacific from August 2021 until March 2023, Vice President Business Transformation Global Products from August 2019 until March 2023, and Vice President Business Transformation EMEA/LA from January 2018 until August 2019. Earlier in his career, Mr. Lek held various Vice President and General Manage roles in the Middle East and Africa.

Nathan Manning, 48, has served as Vice President and Chief Operations Officer, Global Field Operations, since December 2022. He previously served as Vice President and President, Building Solutions, North America from October 2020 until March 2023. He also served as Vice President and General Manager, Field Operations, from March 2020 to October 2020 and Vice President and General Manager, HVAC and Controls Building Solutions North America, from January 2019 to March 2020. Prior to joining Johnson Controls, he served in various roles at General Electric, a diversified industrial and technology company, where he held the position of General Manager, Operational Excellence for General Electric's GE Power segment from August 2017 until December 2018 and the position of General Manager, Services of GE Energy Connections, a division of GE Power, from November 2015 until August 2017. Prior to joining General Electric, Mr. Manning served as Vice President, General Manager of Eaton Aerospace, a segment of Eaton Corporation plc, a provider of power management technologies and services, from February 2014 until November 2015. Prior to joining Eaton, Mr. Manning served in a number of roles with increasing responsibility in General Electric from his hire in January 2000, including as President and Chief Executive Officer of Aviage Systems, a joint venture between General Electric and Aviation Industry Corporation of China, from July 2012 until February 2014.

Daniel C. "Skip" McConeghy, 58, has served as Vice President, Chief Accounting and Tax Officer since June 2022. Mr. McConeghy previously served as Vice President, Global Tax from October 2020 until June 2022 and as interim Controller from February 2022 until June 2022. He also served as Vice President, Corporate Tax Planning, from July 2012 through October 2020. Prior to joining Johnson Controls, Mr. McConeghy was a Tax Partner at PricewaterhouseCoopers, from July 1999 through June 2012.

George R. Oliver, 64, has served as Chief Executive Officer and Chairman of the Board since September 2017. He previously served as our President and Chief Operating Officer following the completion of the merger of Johnson Controls and Tyco in September 2016. Prior to that, Mr. Oliver was Tyco's Chief Executive Officer, a position he held from September 2012 until the completion of the Johnson Controls/Tyco merger in September 2016. He joined Tyco in July 2006, and served as President of a number of operating segments from 2007 through 2011. Before joining Tyco, he served in operational leadership roles of increasing responsibility at several General Electric divisions. Mr. Oliver also serves as a director on the board of RTX Corporation, an aerospace and defense company.

Anu Rathninde, 54, has served as Vice President and President, Building Solutions, Asia Pacific since May 2022. Prior to joining Johnson Controls, Mr. Rathninde served as President, Electrical Distribution Systems and Advanced Safety & User Experience, Asia Pacific at Aptiv plc, and mobility architecture company primarily serving the automotive sector, from November 2021 until May 2022 and as President, Electrical Distribution Systems from May 2016 until November 2021. Prior to joining Aptiv, Mr. Rathninde served as Vice President of the Automotive Products Group at Johnson Electric, manufacturer of electric motors, actuators, motion subsystems and related electro-mechanical components. Earlier in his career, Mr. Rathninde held progressive leadership positions at Aptiv in general management, engineering, business development, strategy and business planning.

Lei Zhang Schlitz, 58, has served as Vice President and President, Global Products, since November 2022. Prior to joining Johnson Controls, Ms. Schlitz served as Executive Vice President, Automotive OEM of Illinois Tool Works Inc. ("ITW"), a global manufacturer of a diversified range of industrial products and equipment, from 2019 until October 2022. Prior to serving as Vice President, Automotive OEM, Ms. Schlitz served in various leadership roles at ITW, including Executive Vice President, ITW Food Equipment Segment, from September 2015 until January 2020, Group President, Global Ware-Wash and Refrigeration Businesses and Food Equipment Asia Pacific, from January 2014 until August 2015, Group President, Worldwide Refrigeration & Weigh Wrap Business, from May 2011 until December 2013 and as Vice President, ITW Technology Center from October 2008 until April 2011. Prior to joining ITW, Ms. Schlitz served in roles of increasing responsibility at Siemens Energy & Automation from September 2001 until September 2008 and General Electric from 1998 until September 2001. Ms. Schlitz serves on the Board of Directors for Archer Daniels Midland Company, a leader in human and animal nutrition and agricultural origination and processing.

Marlon Sullivan, 50, has served as Executive Vice President and Chief Human Resources Officer since September 2021. Prior to joining Johnson Controls, he served as the Senior Vice President of Human Resources at Delta Airlines from January 2021 to September 2021. Prior to joining Delta, Mr. Sullivan served in various human resources and talent development leadership roles at Abbott Laboratories from December 2007 through December 2020. Earlier in his career, Mr. Sullivan held a variety of human resources roles at The Home Depot.

Marc Vandiepenbeeck, 46, has served as Executive Vice President and Chief Financial Officer since January 2024. He previously served as Vice President and President, Building Solutions, Europe, Middle East, Africa and Latin America from August 2023 until November 2024. From 2005 until 2023, Mr. Vandiepenbeeck served in roles of increasing responsibility at Johnson Controls, including Vice President, Finance in 2023, Vice President of Finance, Building Solutions North America, from 2021 through 2023, Vice President and Treasurer, from 2019 until 2021 and Treasurer, Asia Pacific, Middle East, Hong Kong/Shanghai and China, from 2012 until 2015.

There are no family relationships, as defined by the instructions to this item, among the Company's executive officers.

PART II

ITEM 5 MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The shares of the Company's ordinary shares are traded on the New York Stock Exchange under the symbol "JCI."

Title of Class	Number of Record Holders as of October 31, 2024
Ordinary Shares, $0.01 par value	27,065

As of September 30, 2024, approximately $1.7 billion remains available under the share repurchase program which was authorized by the Company's Board of Directors in March 2021. The share repurchase authorization does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. During fiscal 2024, the Company repurchased $1.2 billion of its ordinary shares on the open market.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of the publicly announced program during the three months ended September 30, 2024.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of the Publicly Announced Program	Approximate Dollar Value of Shares that May Yet be Purchased under the Programs
7/1/24 - 7/31/24	1,160,452	$ 68.56	1,160,452	$ 2,033,972,948
8/1/24 - 8/31/24	3,009,247	68.30	3,009,247	1,828,447,394
9/1/24 - 9/30/24	1,195,769	70.80	1,195,769	1,743,792,876

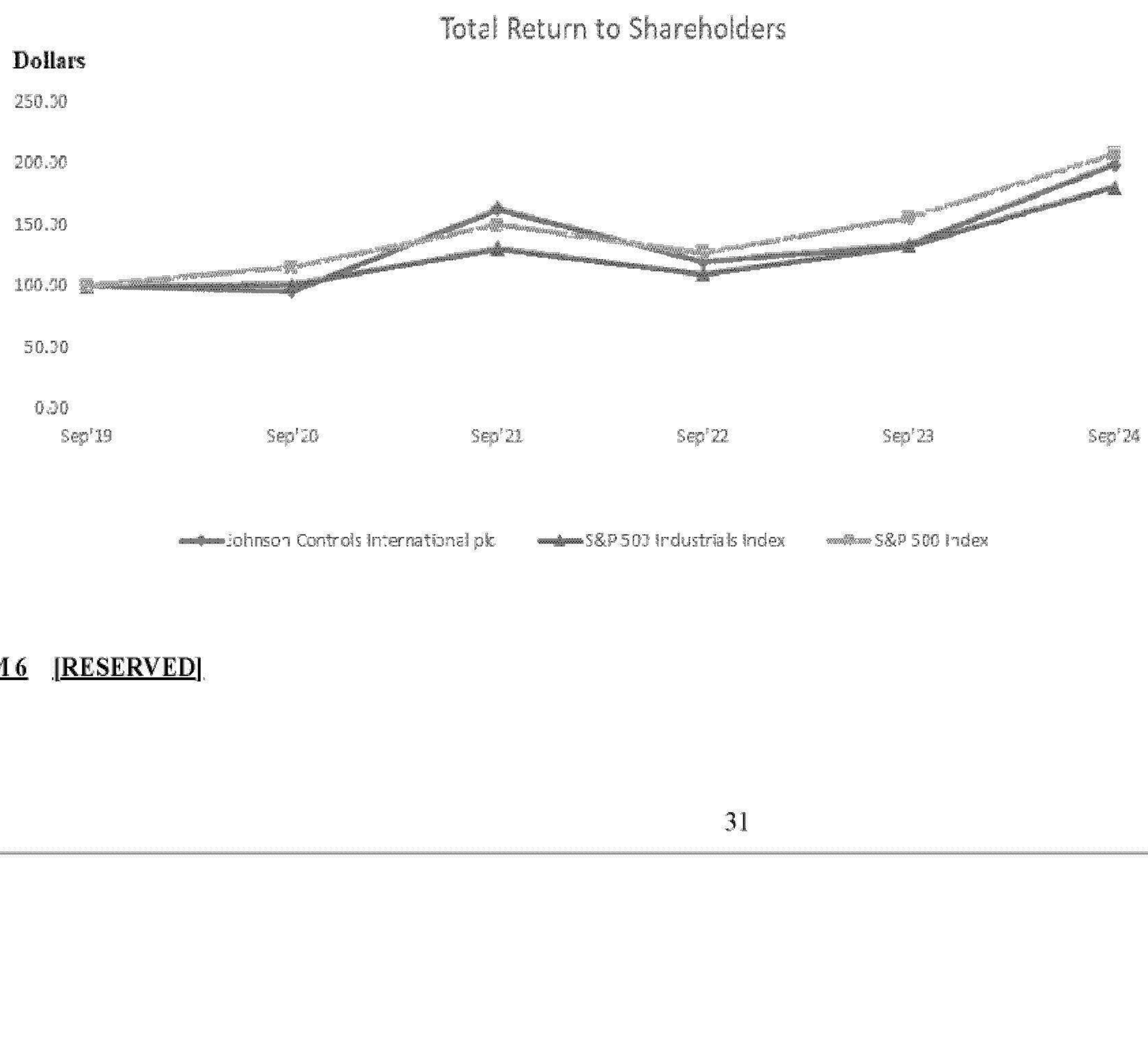
During the three months ended September 30, 2024, acquisitions of shares by the Company from certain employees in order to satisfy employee tax withholding requirements in connection with the vesting of restricted shares were not material.

Equity compensation plan information is incorporated by reference from Part III, Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," of this document and should be considered an integral part of this Item 5.

The following information in Item 5 is not deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 ("Exchange Act") or to the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent the Company specifically incorporates it by reference into such a filing.

The line graph below compares the cumulative total shareholder return on the Company's ordinary shares with the cumulative total return of companies on the Standard & Poor's ("S&P's") 500 Stock Index and the companies on the S&P 500 Industrials Index. This graph assumes the investment of $100 on September 30, 2019 and the reinvestment of all dividends since that date.

COMPANY/INDEX	Sep'19	Sep'20	Sep'21	Sep'22	Sep'23	Sep'24
Johnson Controls International plc	100.00	95.74	162.45	120.37	133.25	198.82
S&P 500 Industrials Index	100.00	101.29	130.61	109.84	132.91	180.49
S&P 500 Index	100.00	115.15	149.70	126.80	155.20	207.65



ITEM 6 [RESERVED]

ITEM 7 MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

General

Johnson Controls International plc, headquartered in Cork, Ireland, is a global leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

The Company is a global leader in engineering, manufacturing, commissioning and retrofitting building products and systems, including residential and commercial HVAC equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, controls, security and fire-protection space), energy-management consulting. The Company's OpenBlue digital software platform enables enterprises to better manage their physical spaces by combining the Company's building products and services with cutting-edge technology and digital capabilities to enable data-driven "smart building" services and solutions. The Company partners with customers by leveraging its broad product portfolio and digital capabilities, powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency, enhance security, create healthy environments and reduce greenhouse gas emissions.

The Company's fiscal year ends on September 30. Unless otherwise stated, references to years in this report relate to fiscal years rather than calendar years. This discussion summarizes the significant factors affecting the consolidated operating results, financial condition and liquidity of the Company on a continuing operations basis for the year ended September 30, 2024 and should be read in conjunction with Item 8, the consolidated financial statements and the notes to consolidated financial statements.

Macroeconomic Trends

Much of the demand for the Company's products and solutions is driven by construction, facility expansion, retrofit and maintenance projects within the commercial, institutional, industrial, data center, governmental and residential sectors. Construction projects are heavily dependent on general economic conditions, localized demand for real estate and the availability of credit, public funding or other financing sources. Positive or negative fluctuations in construction, industrial facility expansion, retrofit activity, maintenance projects and other capital investments in buildings within the sectors that the Company serves, as well as availability of credit, financing or funding for such projects, could have a corresponding impact on the Company's financial condition, results of operations and cash flows. During fiscal 2024, the Company observed continued softening of economic conditions in China, negatively impacting the performance of the Building Solutions Asia Pacific segment. The Company expects economic conditions in China to stabilize in fiscal 2025, however, if conditions do not stabilize, results of the Building Solutions Asia Pacific segment could be negatively impacted.

As a result of the Company's global presence, a significant portion of its revenues and expenses is denominated in currencies other than the U.S. dollar. The Company is therefore subject to non-U.S. currency risks and non-U.S. exchange exposure. While the Company employs financial instruments to hedge some of its transactional foreign exchange exposure, these activities do not insulate it completely from those exposures. In addition, the currency exposure from the translation of non-U.S. dollar functional currency subsidiaries are not able to be hedged. Exchange rates can be volatile and a substantial weakening or strengthening of foreign currencies against the U.S. dollar could increase or reduce the Company's profit margin, respectively, and impact the comparability of results from period to period. During fiscal 2024, revenue and profits were negatively impacted by movements in foreign exchange rates against the U.S. dollar.

The Company continues to observe trends demonstrating increased interest and demand for its products and services that enable smart, safe, efficient and sustainable buildings, particularly within verticals including data centers, government, healthcare and higher education. This demand is driven in part by capital investment, government tax incentives, building performance standards and regulations designed to limit emissions and combat climate change. In particular, legislative and regulatory initiatives such as the U.S. Climate Smart Buildings Initiative, U.S. Inflation Reduction Act and EU Energy Performance of Buildings Directive include provisions designed to fund and encourage investment in decarbonization and digital technologies for buildings. This demand is supplemented by an increase in commitments in both the public and private sectors to reduce emissions and/or achieve net zero emissions. The Company seeks to capitalize on these trends to drive growth by developing

and delivering technologies and solutions to create smart, sustainable and healthy buildings. The Company is investing in new digital and product capabilities, including its OpenBlue platform, to enable it to deliver sustainable, high-efficiency products and tailored services to enable customers to achieve their objectives. The Company is leveraging its install base, together with data-driven products and services to offer outcome-based solutions to customers with a focus on generating accelerated growth in services and recurring revenue.

The Company has experienced, and could continue to experience, increased material cost inflation and component shortages, as well as disruptions and delays in its supply chain, as a result of global macroeconomic trends, including increased global demand, geopolitical and economic tensions, including the conflict between Russia and Ukraine and Israel and Hamas, and labor shortages. Actions taken by the Company to mitigate supply chain disruptions and inflation, including expanding and redistributing its supplier network, supplier financing, price increases and productivity improvements, have historically been successful in offsetting some, but not all, of the impact of these trends. The collective impact of these trends has been favorable to revenue due to increased demand and price increases to offset inflation, while negatively impacting margins primarily due to ongoing cost pressures. Although the Company has experienced recent stabilization, it could experience further disruptions, and shortages and cost increases could occur in the future, the effect of which will depend on the Company's ability to successfully mitigate and offset the impact of these events.

The extent to which the Company's results of operations and financial condition are impacted by these and other factors in the future will depend on developments that are highly uncertain and cannot be predicted. See Part I, Item 1A, of this Annual Report on Form 10-K for an additional discussion of risks.

Portfolio Simplification Transactions

The Company has been engaged in an ongoing evaluation of its non-core product lines in connection with its objective to be a pure-play provider of comprehensive solutions for commercial buildings. During the fourth quarter of fiscal 2024, the Company completed the sale of its Air Distribution Technologies business included within the Global Products segment. During the fourth quarter of fiscal 2024, the Company entered into a definitive agreement to sell its Residential and Light Commercial ("R&LC") HVAC business to Robert Bosch GmbH ("Bosch") for approximately $8.1 billion in cash with the Company's portion of the aggregate consideration being approximately $6.7 billion, inclusive of an upfront royalty payment for the licensing of the York tradename. The R&LC HVAC business includes the Company's North America Ducted business and Johnson Controls-Hitachi Air Conditioning Holding (UK) Ltd., the Company's global residential joint venture with Hitachi Global Life Solutions, Inc. ("Hitachi"), of which the Company owns 60% and Hitachi owns 40%. The R&LC HVAC business, which was previously reported in the Global Products segment, meets the criteria to be classified as a discontinued operation and, as a result, its historical financial results are reflected in the consolidated financial statements as a discontinued operation, and assets and liabilities were reclassified as held for sale for all periods presented. The Company expects that the sale of the R&LC HVAC business will close in the fourth quarter of fiscal 2025.

Cybersecurity Incident

During the weekend of September 23, 2023, the Company experienced a cybersecurity incident impacting its internal information technology ("IT") infrastructure and applications. The cybersecurity incident consisted of unauthorized access, data exfiltration and deployment of ransomware by a third party to a portion of the Company's internal IT infrastructure. The incident caused disruptions and limitation of access to portions of the Company's business applications supporting aspects of the Company's operations and corporate functions, which disruptions and limitations continued into the first quarter of fiscal 2024.

The Company's investigation and remediation efforts remain ongoing, including the analysis of data accessed, exfiltrated or otherwise impacted during the cybersecurity incident. Based on the information reviewed to date, the Company has not observed evidence of any impact to its digital products, services and solutions, including OpenBlue and Metasys.

The overall impact of the cybersecurity incident did not have a material impact on net income, net of insurance recoveries, or cash flows from operations in fiscal 2024.

The Company maintains insurance covering certain losses associated with cybersecurity incidents. A substantial portion of direct costs incurred related to containing, investigating and remediating the incident, as well as business interruption losses, have been or are expected to be reimbursed through insurance recoveries. The timing of recognizing insurance recoveries may differ from the timing of recognizing the associated expenses.

Restructuring and Cost Optimization Initiatives

During the fourth quarter of fiscal 2024, the Company committed to a multi-year restructuring plan to address stranded costs and further right-size its global operations as a result of previously announced portfolio simplification actions. It is expected that one-time restructuring costs, including severance and other employee termination benefits, contract termination costs, and certain other related cash and non-cash charges, of approximately $400 million will be incurred over the course of fiscal 2025, 2026 and 2027, resulting in expected annual cost savings of approximately $500 million upon full completion of the plan. The Company's ability to execute the most significant aspects of the restructuring plan will be dependent on the timing of the close of the R&LC HVAC business divestiture transaction. Accordingly, the Company is unable to estimate the specific costs to be incurred and savings to be achieved in fiscal 2025; however, depending on the timing of the closing of the transaction and the ability to execute more significant aspects of the planned restructuring actions, the impact of costs on net income could be material in fiscal 2025. Restructuring costs will be incurred across all segments and Corporate functions.

FISCAL YEAR 2024 COMPARED TO FISCAL YEAR 2023

Net Sales

	Year Ended September 30,		
(in millions)	2024	2023	Change
Net sales	$ 22,952	$ 22,331	3 %

The increase in net sales was due to higher organic sales ($790 million), partially offset by the negative impact of foreign currency translation ($98 million) and the net impact of acquisitions and divestitures ($71 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 4% over the prior year, as strong growth in Products and Systems in the Building Solutions North America segment and growth in Services in all Building Solutions segments were partially offset primarily by weakness in China's Systems/Install business. Refer to the "Segment Analysis" below within Item 7 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

	Year Ended September 30,		
(in millions)	2024	2023	Change
Cost of sales	$ 14,875	$ 14,527	2 %
Gross profit	8,077	7,804	3 %
% of sales	35.2 %	34.9 %	

The increase in gross profit was primarily due to higher gross profit in the Systems/Install and Services businesses of the Building Solutions segments, partially offset by the Global Products segment. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment earnings before interest, taxes and amortization ("EBITA").

Selling, General and Administrative Expenses

	Year Ended September 30,		
(in millions)	2024	2023	Change
Selling, general and administrative expenses	$ 5,661	$ 5,387	5 %
% of sales	24.7 %	24.1 %	

The increase in selling, general and administrative expenses ("SG&A") was primarily due to the net impact of the water systems AFFF settlement agreement costs net of insurance recoveries ($383 million), partially offset by the year-over-year impact of net mark-to-market adjustments ($100 million) and productivity improvements. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment EBITA.

Restructuring and Impairment Costs

(in millions)	Year Ended September 30, 2024	2023
Goodwill and other intangible asset impairments	$ 296	$ 212
Held for sale impairments	35	498
Long-lived and other tangible asset impairments	36	78
Restructuring and related costs	143	261
Restructuring and impairment costs	$ 510	$ 1,049

Refer to Note 2, "Acquisitions and Divestitures," "Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations," Note 7, "Property, Plant and Equipment," Note 8, "Goodwill and Other Intangible Assets," and Note 17, "Restructuring and Related Costs," of the notes to consolidated financial statements for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

	Year Ended September 30, 2024	2023
Interest expense, net of capitalized interest costs	$ 381	$ 297
Other financing charges	38	50
Gain on debt extinguishment	(25)	(25)
Interest income	(17)	(17)
Net foreign exchange on financing activities	(35)	(47)
Net financing charges	$ 342	$ 258

* Measure not meaningful

Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for further disclosure related to the Company's debt.

Income Tax Provision (Benefit)

(in millions)	Year Ended September 30, 2024	2023	Change
Income tax provision (benefit)	$ 111	$ (468)	*
Effective tax rate	7 %	(42)%	

* Measure not meaningful

The fiscal 2024 effective tax rate was higher than fiscal 2023 primarily due to the establishment of a deferred tax liability on the outside basis difference of the Company’s investment in certain subsidiaries as a result of the planned divestiture of its R&LC HVAC business, partially offset by lower tax reserve adjustments as the result of tax audit resolutions and expired statute of limitations for certain tax years, valuation allowance adjustments and the benefits of continuing global tax planning initiatives. Refer to Note 18, "Income Taxes," of the notes to consolidated financial statements for further details.

In October 2021, the Organization for Economic Co-operation and Development ("OECD")/G20 inclusive framework on Base Erosion and Profit Shifting (the Inclusive Framework) published a statement updating and finalizing the key components of a two-pillar plan on global tax reform which has now been agreed upon by the majority of OECD members. Pillar One allows countries to reallocate a portion of residual profits earned by multinational enterprises ("MNE"), with an annual global revenue exceeding €20 billion and a profit margin over 10%, to other market jurisdictions. The adoption of Pillar One and its potential effective date remain uncertain. Pillar Two requires MNEs with an annual global revenue exceeding €750 million to pay a

global minimum tax of 15%. The OECD has since issued administrative guidance providing transition and safe harbor rules around the implementation of the Pillar Two global minimum tax. A number of countries, including Ireland, have enacted legislation to implement the core elements of Pillar Two, which will be effective for the Company beginning in fiscal 2025. The Company continues to evaluate the impact on future periods of Pillar Two, including legislative updates and adoption by additional countries, which could result in an increase to the effective tax rate.

Income From Discontinued Operations, Net of Tax

	Year Ended September 30,		
(in millions)	2024	2023	Change
Income from discontinued operations, net of tax	$ 489	$ 452	8 %

The increase in income from discontinued operations, net of tax was primarily due to decreased SG&A as a result of productivity improvements. Refer to Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations," of the notes to consolidated financial statements for further information.

FISCAL YEAR 2023 COMPARED TO FISCAL YEAR 2022

Net Sales

	Year Ended September 30,		
(in millions)	2023	2022	Change
Net sales	$ 22,331	$ 20,637	8 %

The increase in net sales was due to higher organic sales ($1,947 million) and the net impact of acquisitions and divestitures ($113 million), partially offset by the negative impact of foreign currency translation ($366 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 9% over the prior year, attributable to increased pricing in response to inflation pressures. Refer to the "Segment Analysis" below within Item 7 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

	Year Ended September 30,		
(in millions)	2023	2022	Change
Cost of sales	$ 14,527	$ 13,547	7 %
Gross profit	7,804	7,090	10 %
% of sales	34.9 %	34.4 %	

Gross profit increased due to organic sales growth and favorable price/cost, partially offset by the negative impact of foreign currency translation and the year-over-year impact of net pension mark-to-market adjustments ($42 million). Refer to the "Segment Analysis" below within Item 7 for a discussion of segment earnings before interest, taxes and amortization ("EBITA").

Selling, General and Administrative Expenses

	Year Ended September 30,		
(in millions)	2023	2022	Change
Selling, general and administrative expenses	$ 5,387	$ 5,078	6 %
% of sales	24.1 %	24.6 %	

The increase in SG&A was primarily due to certain investments to support growth, transaction and separation costs, the year-over-year impact of net mark-to-market adjustments ($71 million) and a loss associated with a fire at a leased warehouse facility ($40 million), partially offset by the absence of non-recurring environmental remediation charges in the prior year ($255

million) and positive foreign currency translation. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment EBITA.

Restructuring and Impairment Costs

(in millions)	Year Ended September 30, 2023	2022
Goodwill and other intangible assets impairments	$ 212	$ 310
Held for sale impairments	498	229
Long-lived asset impairments	78	—
Restructuring and related costs	261	162
Restructuring and impairment costs	$ 1,049	$ 701

Refer to Note 2, "Acquisitions and Divestitures," Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations," Note 7, "Property, Plant and Equipment," Note 8, "Goodwill and Other Intangible Assets," and Note 17, "Restructuring and Related Costs," of the notes to consolidated financial statements for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

	Year Ended September 30, 2023	2022
Interest expense, net of capitalized interest costs	$ 297	$ 221
Other financing charges	50	27
Gain on debt extinguishment	(25)	—
Interest income	(17)	(6)
Net foreign exchange results for financing activities	(47)	(37)
Net financing charges	$ 258	$ 205

Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for further disclosure related to the Company's debt.

Income Tax Provision (Benefit)

(in millions)	Year Ended September 30, 2023	2022	Change
Income tax provision (benefit)	$ (468)	$ (182)	*
Effective tax rate	(42)%	(16)%	

* Measure not meaningful

The statutory tax rate in Ireland of 12.5% is being used as a comparison since the Company is domiciled in Ireland.

For fiscal 2023, the effective tax rate for continuing operations was (42)% and was lower than the statutory tax rate primarily due to the favorable tax impacts of intellectual property tax adjustments, tax reserve adjustments as the result of tax audit resolutions and remeasurements, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by the unfavorable impact of impairment and restructuring charges.

For fiscal 2022, the effective tax rate for continuing operations was (16%) and was lower than the statutory tax rate primarily due to the favorable impact of tax reserve adjustments as the result of expired statute of limitations for certain tax years and the benefits of continuing global tax planning initiatives, partially offset by the unfavorable impact of impairment and restructuring charges and the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries as a result of the planned divestitures.

Income From Discontinued Operations, Net of Tax

	Year Ended September 30,		
(in millions)	2023	2022	Change
Income from discontinued operations, net of tax	$ 452	$ 429	5 %

The increase in income from discontinued operations, net of tax was primarily due to decreased SG&A as a result of productivity improvements. Refer to Note 3, "Assets and Liabilities Held for Sale & Discontinued Operations," of the notes to consolidated financial statements for further information.

SEGMENT ANALYSIS

Management evaluates the performance of its segments primarily on segment earnings before interest, taxes and amortization ("EBITA"), which represents income from continuing operations before income taxes and noncontrolling interests, excluding amortization of intangible assets, corporate expenses, restructuring and impairment costs, the water systems AFFF settlement costs and AFFF insurance recoveries, net financing charges, loss on divestiture and net mark-to-market gains and losses related to pension and postretirement plans and restricted asbestos investments.

	Net Sales for the Year Ended September 30,			Segment EBITA for the Year Ended September 30,		
(in millions)	2024	2023	Change	2024	2023	Change
Building Solutions North America	$ 11,348	$ 10,330	10 %	$ 1,663	$ 1,394	19 %
Building Solutions EMEA/LA	4,296	4,096	5 %	391	316	24 %
Building Solutions Asia Pacific	2,237	2,746	(19)%	261	343	(24)%
Global Products	5,071	5,159	(2)%	1,403	1,317	7 %
	$ 22,952	$ 22,331	3 %	$ 3,718	$ 3,370	10 %

Net Sales

- The increase in Building Solutions North America was due to organic growth ($957 million), incremental sales related to business acquisitions ($48 million) and the positive impact of foreign currency translation ($13 million). Excluding the impacts of foreign currency translation and business acquisitions, sales growth was led by growth in Applied HVAC & Controls.

- The increase in Building Solutions EMEA/LA was due to organic growth, including higher prices ($233 million) and the net impact of business acquisitions and divestitures ($6 million), partially offset by the negative impact of foreign currency translation ($39 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, sales growth was led by growth in Services.

- The decrease in Building Solutions Asia Pacific was primarily due to organic sales declines ($440 million), the negative impact of foreign currency translation ($62 million) and the net impact of business acquisitions and divestitures ($7 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, sales decreased as Services growth was more than offset by weakness in the China Systems business.

- The decrease in Global Products was due to the net impact of business acquisitions and divestitures ($118 million) and the negative impact of foreign currency translation ($10 million), partially offset by organic growth ($40 million). Excluding the impacts of foreign currency translation and business acquisitions and divestitures, sales increased as growth in Commercial HVAC was more than offset by declines in Fire & Security and Industrial Refrigeration.

Segment EBITA

- The increase in Building Solutions North America was primarily due to higher margin backlog conversion and continued growth in Services. A favorable earn-out liability adjustment also contributed to the increase.

- The increase in Building Solutions EMEA/LA was primarily due to growth in higher margin Services and productivity improvements.
- The decrease in Building Solutions Asia Pacific was primarily due to continued weakness in the Systems business in China.
- The increase in Global Products was primarily driven by operational efficiencies leading to productivity improvements.

(in millions)	Net Sales for the Year Ended September 30, 2023	2022	Change	Segment EBITA for the Year Ended September 30, 2023	2022	Change
Building Solutions North America	$ 10,330	$ 9,367	10 %	$ 1,394	$ 1,122	24 %
Building Solutions EMEA/LA	4,096	3,845	7 %	316	358	(12)%
Building Solutions Asia Pacific	2,746	2,714	1 %	343	332	3 %
Global Products	5,159	4,711	10 %	1,317	970	36 %
	$ 22,331	$ 20,637	8 %	$ 3,370	$ 2,782	21 %

Net Sales

- The increase in Building Solutions North America was due to organic growth, including higher prices ($979 million) and incremental sales related to business acquisitions ($29 million), partially offset by the negative impact of foreign currency translation ($45 million). Excluding the impacts of business acquisitions and foreign currency translation, sales growth was led by growth in HVAC & Controls and Fire & Security.
- The increase in Building Solutions EMEA/LA was due to organic growth, including higher prices ($324 million) and the net impact of business acquisitions and divestitures ($29 million), partially offset by the negative impact of foreign currency translation ($102 million). Excluding the impacts of foreign currency translation and business acquisitions and divestitures, sales growth was led by growth in Fire & Security and HVAC & Controls.
- The increase in Building Solutions Asia Pacific was due to organic growth, including higher prices ($182 million) and the net impact of business acquisitions and divestitures ($19 million), partially offset by the negative impact of foreign currency translation ($169 million). The economic conditions in China, specifically challenges in real estate, began negatively impacting the Building Solutions Asia Pacific segment in the fourth quarter of fiscal 2023, but had an insignificant impact on results for the full year. Excluding the impacts of foreign currency translation and business acquisitions and divestitures, sales growth was led by continued demand for HVAC & Controls.
- The increase in Global Products was due to the net impact of higher prices and lower volumes ($462 million) and incremental sales related to business acquisitions ($36 million), partially offset by the negative impact of foreign currency translation ($50 million). Excluding the impacts of foreign currency translation and business acquisitions, sales growth was driven by strong price realization and growth in Commercial HVAC and Industrial Refrigeration products.

Segment EBITA

- The increase in Building Solutions North America was primarily due to favorable price/cost, volume leverage and productivity savings, partially offset by unfavorable project mix.
- The decrease in Building Solutions EMEA/LA reflects the negative impact of foreign currency translation ($13 million) and higher expenses, partially offset by favorable price/cost.
- The increase in Building Solutions Asia Pacific was primarily due to favorable price/cost and productivity savings, partially offset by the negative impact of foreign currency translation ($25 million).

- The increase in Global Products was primarily due to favorable price/cost and productivity savings, partially offset by unfavorable mix, lower gross margin due to lower manufacturing absorption, an uninsured loss associated with a fire at a leased warehouse facility and the negative impact of foreign currency translation.

LIQUIDITY AND CAPITAL RESOURCES

Working Capital

	September 30,		
(in millions)	2024	2023	Change
Current assets	$ 11,179	$ 10,737	
Current liabilities	(11,955)	(11,084)	
	(776)	(347)	*
Less: Cash and cash equivalents	(606)	(828)	
Add: Short-term debt	953	361	
Add: Current portion of long-term debt	536	645	
Less: Current assets held for sale	(1,595)	(1,552)	
Add: Current liabilities held for sale	1,431	1,375	
Working capital (as defined)	$ (57)	$ (346)	*
Accounts receivable - net	$ 6,051	$ 5,494	10 %
Inventories	1,774	1,872	(5)%
Accounts payable	3,389	3,498	(3)%

* Measure not meaningful

- The Company defines working capital as current assets less current liabilities, excluding cash and cash equivalents, short-term debt, the current portion of long-term debt, and current assets and liabilities held for sale (when applicable). Management believes that this measure of working capital, which excludes financing-related items and businesses to be divested, provides a more useful measurement of the Company's operating performance.

- The increase in working capital (as defined) at September 30, 2024 as compared to September 30, 2023 was primarily due to an increase in accounts receivable primarily due to discontinuing the receivable factoring program during the current year, partially offset by an increase in deferred revenue and accrued compensation and benefits.

Cash Flows From Continuing Operations

	Year Ended September 30,	
(in millions)	2024	2023
Cash provided by operating activities	$ 1,568	$ 1,856
Cash used by investing activities	(184)	(1,093)
Cash used by financing activities	(1,948)	(2,059)

- The decrease in cash provided by operating activities reflects lower net income and the impact of higher accounts receivable and other asset balances, which was partially offset by the timing of accounts payable and accrued liabilities payments.

- The decrease in cash used by investing activities was primarily due to the net impact of proceeds from the ADTi divestiture in fiscal 2024 and cash paid for the FM:Systems acquisition in fiscal 2023. Refer to Note 2, "Acquisitions and Divestitures," of the notes to the consolidated financial statements for further disclosure related to acquisitions and divestitures.

- The decrease in cash used by financing activities was primarily due to changes in short- and long-term borrowing activity and stock repurchase activity. The net impact of debt proceeds and repayments generated cash of $405 million

in fiscal 2024 and used cash of $457 million in fiscal 2023. This increase in cash used was substantially offset by higher stock repurchases.

Capitalization

	September 30,	
(in millions)	2024	2023
Short-term debt	$ 953	$ 361
Current portion of long-term debt	536	645
Long-term debt	8,004	7,818
Total debt	9,493	8,824
Less: Cash and cash equivalents	606	828
Net debt	$ 8,887	$ 7,996
Shareholders' equity attributable to Johnson Controls ("Equity")	$ 16,098	$ 16,545
Total capitalization (Total debt plus Equity)	25,591	25,369
Net capitalization (Net debt plus Equity)	24,985	24,541
Total net debt as a % of Total capitalization	34.7 %	31.5 %
Total net debt as a % of Net capitalization	35.6 %	32.6 %

- Net debt and net debt as a percentage of total capitalization are non-GAAP financial measures. The Company believes the percentage of total net debt to total capitalization is useful to understanding the Company's financial condition as it provides a view of the extent to which the Company relies on external debt financing for its funding and is a measure of risk to its shareholders.

- The Company's material cash requirements primarily consist of working capital requirements, repayments of long-term debt and related interest, operating leases, dividends, capital expenditures, potential acquisitions and share repurchases.

- Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information on debt obligations and maturities. Interest payable on long-term debt outstanding as of September 30, 2024 is $299 million in the twelve months following September 30, 2024 and $3.4 billion thereafter.

- Refer to Note 9, "Leases," of the notes to consolidated financial statements for additional information on lease obligations and maturities.

- As of September 30, 2024, the Company had purchase obligations which were payable in the next twelve months of approximately $2 billion and payable thereafter of approximately $120 million, substantially all of which relate to continuing operations. These purchase obligations represent commitments under enforceable and legally binding agreements, and do not represent all future expected purchases.

- As of September 30, 2024, the Company expects to contribute $25 million and $204 million, of which $22 million and $179 million relates to continuing operations, to the global pension and postretirement plans in the next twelve months and thereafter, respectively.

- As of September 30, 2024, approximately $1.7 billion remains available under the Company's share repurchase authorization, which does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. The Company expects to repurchase outstanding shares from time to time depending on market conditions, alternate uses of capital, liquidity and economic environment.

- The Company declared dividends of $1.48 per share in fiscal 2024 and intends to continue paying quarterly dividends in fiscal 2025.

- The Company believes its capital resources and liquidity position, including cash and cash equivalents of $606 million at September 30, 2024, are adequate to fund operations and meet its obligations for the foreseeable future. The Company expects requirements for working capital, capital expenditures, dividends, minimum pension contributions,

debt maturities and any potential acquisitions or stock repurchases in fiscal 2025 will be funded from operations, supplemented by short- and long-term borrowings, if required.

- The Company manages its short-term debt position in the U.S. and euro commercial paper markets and bank loan markets. Commercial paper outstanding was $350 million as of September 30, 2024 and $200 million as of September 30, 2023.

- The Company maintains a shelf registration statement with the SEC under which it may issue additional debt securities, ordinary shares, preferred shares, depository shares, warrants, purchase contracts and units that may be offered in one or more offerings on terms to be determined at the time of the offering. The Company anticipates that the proceeds of any offering would be used for general corporate purposes, including repayment of indebtedness, acquisitions, additions to working capital, repurchases of ordinary shares, dividends, capital expenditures and investments in the Company's subsidiaries.

- The Company has the ability to draw on its syndicated $2.5 billion committed revolving credit facility, which is scheduled to expire in December 2028, and a syndicated $500 million committed revolving credit facility, which is scheduled to expire in December 2024. There were no draws on the facilities as of September 30, 2024.

• The Company's ability to access the global capital markets and the related cost of financing is dependent upon, among other factors, the Company's credit ratings. As of September 30, 2024, the Company's credit ratings and outlook were as follows:

Rating Agency	Short-Term Rating	Long-Term Rating	Outlook
S&P	A-2	BBB+	Stable
Moody's	P-2	Baa2	Positive

The security ratings set forth above are issued by unaffiliated third-party rating agencies and are not a recommendation to buy, sell or hold securities. The ratings may be subject to revision or withdrawal by the assigning rating organization at any time.

• The Company entered into the following debt transactions in fiscal 2024:

- Repaid $924 million of debt including the following:
  - $484 million Senior Notes due 2024 with interest rates of 3.625%
  - €300 million term loans with interest rates of Euro Interbank Offered Rate (" EURIBOR") plus 0.4% to 0.7%
  - Tendered $119 million of its Notes due 2045 with an interest rate of 5.125%

- Issued $1.3 billion of debt including the following:
  - Together with its wholly owned subsidiary, Tyco Fire & Security Finance S.C.A., co-issued $700 million in 5.50% Senior Notes due in April 2029
  - €450 million short-term term loans with interest rates of EURIBOR plus 0.65% to 0.78% due in the first quarter of fiscal 2025
  - $100 million short-term term loan with an interest rate of 5.9% which is due in December 2024

• The Company expects to receive net cash proceeds related to the sale of its R&LC HVAC business of approximately $5.0 billion after tax and transaction-related expenses when the transaction closes, likely in the fourth quarter of fiscal 2025. Consistent with its capital allocation policy, the Company expects to use a portion of the proceeds to pay down debt to the extent required to retain its investment grade rating, with the remaining proceeds expected to be returned to shareholders through share repurchases.

• On April 12, 2024, Tyco Fire Products agreed to a settlement with a nationwide class of public water systems that detected PFAS in their drinking water systems that they allege to be associated with the use of AFFF. Under the terms of the agreement, Tyco Fire Products agreed to contribute $750 million to resolve these PFAS claims. Tyco Fire Products contributed an initial payment of $250 million in June 2024, with the remaining $500 million due by the first quarter of fiscal 2025. Prior to the date of the final contribution, Tyco Fire Products has agreed to contribute any applicable insurance recoveries in excess of the initial $250 million payment, up to the remaining $500 million due, within a specified period following the receipt of such recovery. During fiscal 2024, the Company recorded expected insurance recoveries of $371 million in selling, general and administrative expenses in the consolidated statements of income and collected insurance recoveries of $349 million. In accordance with its agreement and recent insurance

recovery, Tyco Fire Products made an additional payment during the fourth quarter of fiscal 2024 of approximately $85 million, reducing its final payment to approximately $415 million. The amounts and timing of any additional insurance recoveries are uncertain. Refer to Note 21, "Commitments and Contingencies," of the notes to the consolidated financial statements for additional discussion of the water systems settlement.

- Financial covenants in the Company's revolving credit facilities require a minimum consolidated shareholders' equity attributable to Johnson Controls of at least $3.5 billion at all times. The revolving credit facility also limits the amount of debt secured by liens that may be incurred to a maximum aggregated amount of 10% of consolidated shareholders' equity attributable to Johnson Controls for liens and pledges. For purposes of calculating these covenants, consolidated shareholders' equity attributable to Johnson Controls is calculated without giving effect to (i) the application of ASC 715-60, "Defined Benefit Plans - Other Postretirement," or (ii) the cumulative foreign currency translation adjustment. As of September 30, 2024, the Company was in compliance with all financial covenants set forth in its credit agreements and the indentures governing its outstanding notes, and expects to remain in compliance for the foreseeable future. None of the Company's debt agreements limit access to stated borrowing levels or require accelerated repayment in the event of a decrease in the Company's credit rating.

- The Company earns a significant amount of its income outside of the parent company. Outside basis differences in these subsidiaries are deemed to be indefinitely reinvested except in limited circumstances. However, in fiscal 2024, the Company recorded income tax expense related to a change in the Company's assertion over the outside basis differences of the Company's investment in certain subsidiaries as a result of the planned divestiture of its R&LC HVAC business. The Company currently does not intend nor foresee a need to repatriate undistributed earnings included in the outside basis differences other than in tax efficient manners. The Company's intent is to reduce basis differences only when it would be tax efficient. The Company expects existing U.S. cash and liquidity to continue to be sufficient to fund the Company's U.S. operating activities and cash commitments for investing and financing activities for at least the next twelve months and thereafter for the foreseeable future. In the U.S., should the Company require more capital than is generated by its operations, the Company could elect to raise capital in the U.S. through debt or equity issuances. The Company has borrowed funds in the U.S. and continues to have the ability to borrow funds in the U.S. at reasonable interest rates. In addition, the Company expects existing non-U.S. cash, cash equivalents, short-term investments and cash flows from operations to continue to be sufficient to fund the Company's non-U.S. operating activities and cash commitments for investing activities, such as material capital expenditures, for at least the next twelve months and thereafter for the foreseeable future. Should the Company require more capital at the Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in tax efficient methods, the Company could also elect to raise capital through debt or equity issuances. These alternatives could result in increased interest expense or other dilution of the Company's earnings.

- The Company may from time to time purchase its outstanding debt through open market purchases, privately negotiated transactions or otherwise. Purchases or retirement of debt, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.

Co-Issued Securities: Summarized Financial Information

The following information is provided in compliance with Rule 13-01 of Regulation S-X under the Securities Exchange Act of 1934 with respect to the following unsecured, unsubordinated senior notes (collectively, "the Notes") which were issued by Johnson Controls International plc ("Parent Company") and Tyco Fire & Security Finance S.C.A. ("TFSCA"):

- €500 million aggregate principal amount of 0.375% Senior Notes due 2027
- €600 million aggregate principal amount of 3.000% Senior Notes due 2028
- $700 million aggregate principal amount of 5.500% Senior Notes due 2029
- $625 million aggregate principal amount of 1.750% Senior Notes due 2030
- $500 million aggregate principal amount of 2.000% Sustainability-Linked Senior Notes due 2031
- €500 million aggregate principal amount of 1.000% Senior Notes due 2032
- $400 million aggregate principal amount of 4.900% Senior Notes due 2032
- €800 million aggregate principal amount of 4.25% Senior Notes due 2035

TFSCA is a corporate partnership limited by shares (*société en commandite par actions*) incorporated and organized under the laws of the Grand Duchy of Luxembourg ("Luxembourg") and is a wholly-owned consolidated subsidiary of the Company that is 99.924% owned directly by the Parent Company and 0.076% owned by TFSCA's sole general partner and manager, Tyco Fire & Security S.à r.l., which is itself wholly-owned by the Company. The Parent Company is incorporated and organized under the laws of Ireland. TFSCA is incorporated and organized under the laws of Luxembourg. The bankruptcy, insolvency,

administrative, debtor relief and other laws of Luxembourg or Ireland, as applicable, may be materially different from, or in conflict with, those of the United States, including in the areas of rights of creditors, priority of governmental and other creditors, ability to obtain post-petition interest and duration of the proceeding. The application of these laws, or any conflict among them, could adversely affect noteholders' ability to enforce their rights under the Notes in those jurisdictions or limit any amounts that they may receive.

The following table presents the net loss attributable to the Parent Company and TFSCA (collectively, the "Obligor Group") and the net income (loss) attributable to intercompany transactions between the Obligor Group and subsidiaries of the Parent Company other than TFSCA (collectively, the "Non-Obligor Subsidiaries") which are excluded from the Net loss attributable to the Obligor Group (in millions):

	Year Ended September 30, 2024
Net loss attributable to the Obligor Group	$ 609
Net income attributable to intercompany transactions	511

The following table presents summarized balance sheet information as of September 30, 2024 (in millions):

	Obligor Group	Intercompany Balances
Current assets	$ 1,339	$ 823
Noncurrent assets	243	7,522
Current liabilities	6,726	2,789
Noncurrent liabilities	7,836	9,028

The same accounting policies as described in Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements are used by the Parent Company and each of its subsidiaries in connection with the summarized financial information presented above.

CRITICAL ACCOUNTING ESTIMATES

The Company prepares its consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). This requires management to make estimates and assumptions that affect reported amounts and related disclosures. Actual results could differ from those estimates. The following estimates are considered by management to be the most critical to the understanding of the Company's consolidated financial statements as they require significant judgments that could materially impact the Company's results of operations, financial position and cash flows.

Revenue Recognition

The Company recognizes revenue from certain long-term contracts on an over time basis, with progress towards completion measured using a cost-to-cost input method based on the relationship between actual costs incurred and total estimated costs at completion. Total estimated costs at completion are based primarily on estimated purchase contract terms, historical performance trends and other economic projections. Factors that may result in a change to these estimates include unforeseen engineering problems, construction delays, cost inflation, the performance of subcontractors and major material suppliers, and weather conditions. As a result, changes to the original estimates may be required during the life of the contract. Such estimates are reviewed monthly and any adjustments to the measure of completion are recognized as adjustments to sales and gross profit using the cumulative catch-up method. Estimated losses are recorded when identified.

For agreements with multiple performance obligations, the Company allocates the transaction price of the contract to each performance obligation using the best estimate of the relative standalone selling price of each distinct good or service in the contract. In order to estimate relative standalone selling price, market data and transfer price studies are utilized. If the standalone selling price is not directly observable, the Company estimates the standalone selling price using an adjusted market assessment approach or expected cost plus margin approach.

The Company assesses variable consideration that may affect the total transaction price, including discounts, rebates, refunds, credits or other similar sources of variable consideration, when determining the transaction price of each contract. The Company includes variable consideration in the estimated transaction price when it is probable that significant reversal of

revenue recognized would not occur when the uncertainty associated with variable consideration is subsequently resolved. These estimates are based on the amount of consideration that the Company expects to be entitled to.

Goodwill and Indefinite-Lived Intangible Assets

The Company performs impairment reviews for its reporting units, which have been determined to be the Company's operating segments or one level below the operating segments, using a qualitative assessment or a quantitative test. A qualitative assessment is performed when prior quantitative assessments have resulted in significant excess of fair value over the carrying value of a reporting unit, and consideration of qualitative factors allow the Company to conclude it is more likely than not that the fair value of the reporting unit remains greater than its carrying value. When performing a quantitative goodwill impairment test, the fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. To estimate the fair value, the Company uses a discounted cash flow model or estimated sales price for reporting units held for sale. The assumptions included in the impairment tests require judgment, and changes to these inputs could impact the results of the calculations. The key assumptions used in the impairment test were management's projections of future cash flows, weighted-average cost of capital and long-term growth rates. Although the Company's cash flow forecasts are based on assumptions that are considered reasonable by management and consistent with the plans and estimates management is using to operate the underlying business, there are significant judgments in determining the expected future cash flows attributable to a reporting unit.

Management completed its fiscal 2024 annual impairment test as of July 31, which included a qualitative assessment of all but one of its reporting units. The Company did not identify any qualitative factors that suggest that it is more likely than not that the fair value of its reporting units is less than their carrying amount, including goodwill, and as such, a quantitative impairment test was not necessary. The Company performed a quantitative goodwill impairment test of one reporting unit in the Building Solutions EMEA/LA segment with $214 million of goodwill, and its fair value was in excess of its carrying value. However, for this reporting unit, a 200 basis point increase in the discount rate, or a 200 basis point decrease in the revenue growth rates, would cause the fair value to be less than the carrying value. While no impairment was recorded, it is possible that future changes in circumstances could result in a non-cash impairment charge. In the second quarter of fiscal 2024, the Company performed an interim goodwill impairment test as a result of a triggering event and impaired $230 million of goodwill in its Building Solutions EMEA/LA segment.

Indefinite-lived intangible assets are also subject to at least annual impairment testing in the fourth fiscal quarter or as events occur or circumstances change that indicate the assets may be impaired. Indefinite-lived intangible assets primarily consist of trademarks and trade names and are tested for impairment using a relief-from-royalty method. A considerable amount of management judgment and assumptions are required in performing the impairment tests. The key assumptions used in the impairment tests were long-term revenue growth projections, weighted-average cost of capital, and the royalty rate. The assumptions included in the impairment tests require judgment, and changes to these inputs could impact the results of the calculations.

The Company continuously monitors for events and circumstances that could negatively impact the key assumptions in determining fair value. While the Company believes the judgments and assumptions used in the goodwill and indefinite-lived intangible impairment tests are reasonable, different assumptions or changes in general industry, market and macro-economic conditions could change the estimated fair values and, therefore, future impairment charges could be required, which could be material to the consolidated financial statements.

Refer to Note 8, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for information regarding the results of goodwill and indefinite-lived intangible assets impairment testing performed in fiscal 2024 and 2023.

Pension Plans

The Company provides a range of benefits, including pensions, to eligible active and former employees. Pension plan assets and obligations are measured annually, or more frequently if there is a significant remeasurement event, using various actuarial assumptions such as discount rates, assumed rates of return and compensation increases as of that date. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when appropriate.

The Company considers expected benefit payments on a plan-by-plan basis when estimating discount rates. Different discount rates are used for each plan depending on the plan jurisdiction and the expected timing of benefit payments. The Company uses country-specific discount rates determined by an independent third party which are based on government and high-quality corporate bond yields.

In estimating the expected return on plan assets, the Company considers historical returns on plan assets, adjusted for forward-looking considerations, inflation assumptions, asset mix and the impact of the active management of the plans' invested assets. For fiscal 2025, the Company believes the long-term rate of return will approximate 6.50% for U.S. pension plans and 5.44% for non-U.S. pension plans. Any differences between actual investment results and the expected long-term asset returns will be reflected in net periodic benefit costs in the fourth quarter of each fiscal year or at the date of a significant remeasurement event. If actual returns on plan assets are less than the Company's expectations, additional contributions may be required.

Based on information provided by its independent actuaries and other relevant sources, the Company believes that the assumptions used are reasonable, however, changes in these assumptions could impact the Company's financial position, results of operations or cash flows. The following chart illustrates the estimated increases (decreases) in projected benefit obligation and future ongoing pension expense, excluding any potential mark-to-market adjustments, assuming an increase of 25 basis points in the key assumptions used for the Company's pension plans (in millions):

	Pension Benefits			
	U.S. Plans		Non-U.S. Plans	
	Change in Projected Benefit Obligation	Change in Ongoing Pension Expense	Change in Projected Benefit Obligation	Change in Ongoing Pension Expense
Discount rate	$ (28)	$ 2	$ (40)	$ 1
Expected return on plan assets	—	(4)	—	(3)

Loss Contingencies

Accruals are recorded for various contingencies including legal proceedings, environmental matters, self-insurance and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarial determined estimates. Additionally, the Company records receivables from third party insurers when recovery has been determined to be probable.

The Company is subject to laws and regulations relating to protecting the environment. It is difficult to estimate the Company's ultimate level of liability at many remediation sites due to the large number of other parties that may be involved, the complexity of determining the relative liability among those parties, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, the uncertainty in the application of law and risk assessment, the various choices and costs associated with diverse technologies that may be used in corrective actions at the sites, and the often quite lengthy periods over which eventual remediation may occur. It is possible that technological, regulatory or enforcement developments, the results of additional environmental studies or other factors could change the Company's expectations with respect to future charges and cash outlays, and such changes could be material to the Company's future results of operations, financial condition or cash flows. Nevertheless, the Company does not currently believe that any claims, penalties or costs in addition to the amounts accrued will have a material adverse effect on the Company's financial position, results of operations or cash flows. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Refer to Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements.

The Company records liabilities for its workers' compensation, product, general and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. The Company records receivables from third party insurers when recovery has been determined to be probable. The Company maintains captive insurance companies to manage its insurable liabilities.

Asbestos-Related Contingencies and Insurance Receivables

The Company and certain of its subsidiaries along with numerous other companies are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present values from the time that the costs are expected to be incurred which in some cases is not until 2068 (which is the Company's reasonable best estimate of the actuarial determined time period through which asbestos-related claims will be filed against Company affiliates). Estimated asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for

resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. At least annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company considers additional quantitative and qualitative factors such as changes in legislation, the legal environment, and the Company's defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable. The Company's estimate of asbestos-related insurance recoveries represents estimated amounts due to the Company for previously paid and settled claims and the probable reimbursements relating to its estimated liability for pending and future claims discounted to present value. In determining the amount of insurance recoverable, the Company considers available insurance, allocation methodologies, solvency and creditworthiness of the insurers. Refer to Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for a discussion on management's judgments applied in the recognition and measurement of asbestos-related assets and liabilities.

Income Taxes

Deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and other loss carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The Company records a valuation allowance that primarily represents non-U.S. operating and other loss carryforwards for which realization is uncertain. Management judgment is required in determining the Company's provision for income taxes, deferred tax assets and liabilities, and the valuation allowance recorded against the Company's net deferred tax assets.

The Company reviews the realizability of its deferred tax assets and related valuation allowances on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset are considered, along with any other positive or negative evidence. Since future financial results may differ from previous estimates, periodic adjustments to the Company's valuation allowances may be necessary. At September 30, 2024, the Company had a valuation allowance of $6.3 billion for continuing operations, of which $5.9 billion relates to net operating and capital loss carryforwards primarily in France, Ireland, Luxembourg, Mexico, and the United Kingdom for which sustainable taxable income has not been demonstrated; and $0.4 billion for other deferred tax assets.

The Company's federal income tax returns and certain non-U.S. income tax returns for various fiscal years remain under various stages of audit by the IRS and respective non-U.S. tax authorities. Although the outcome of tax audits is always uncertain, management believes that it has appropriate support for the positions taken on its tax returns and that its annual tax provisions included amounts sufficient to pay assessments, if any, which may be proposed by the taxing authorities. At September 30, 2024, the Company had recorded a liability of $2.1 billion for its best estimate of the probable loss on certain of its tax positions, the majority of which is included in other noncurrent liabilities in the consolidated statements of financial position. Nonetheless, the amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ materially from the amounts accrued for each year.

The Company does not generally provide additional U.S. or non-U.S. income taxes on outside basis differences of consolidated subsidiaries included in shareholders' equity attributable to Johnson Controls International plc, except in limited circumstances including anticipated taxation on planned divestitures. The reduction of the outside basis differences via the sale or liquidation of these subsidiaries and/or distributions could create taxable income. The Company's intent is to reduce the outside basis differences only when it would be tax efficient. Refer to "Capitalization" within the "Liquidity and Capital Resources" section for discussion of U.S. and non-U.S. cash projections.

Refer to Note 18, "Income Taxes," of the notes to consolidated financial statements for the Company's income tax disclosures.

NEW ACCOUNTING PRONOUNCEMENTS

Refer to the "New Accounting Pronouncements" section within Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements.

RISK MANAGEMENT

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities, and interest rates. All hedging transactions are authorized and executed pursuant to clearly defined policies and procedures, which strictly prohibit the use of financial instruments for speculative purposes. At the inception of the hedge, the Company assesses the effectiveness of the hedge instrument and designates the hedge instrument as a hedge of either a forecasted transaction or of the variability of cash flows to be received or paid related to an unrecognized asset or liability (a cash flow hedge) or a net investment in a non-U.S. operation (a net investment hedge).

The Company performs hedge effectiveness testing on an ongoing basis depending on the type of hedging instrument used. All derivatives not designated as hedging instruments under ASC 815, "Derivatives and Hedging," are revalued in the consolidated statements of income.

For all foreign currency derivative instruments designated as cash flow hedges, retrospective effectiveness is tested on a monthly basis using a cumulative dollar offset test. The fair value of the hedged exposures and the fair value of the hedge instruments are revalued, and the ratio of the cumulative sum of the periodic changes in the value of the hedge instruments to the cumulative sum of the periodic changes in the value of the hedge is calculated. The hedge is deemed as highly effective if the ratio is between 80% and 125%. For commodity derivative contracts designated as cash flow hedges, effectiveness is tested using a qualitative assessment of the critical terms of the hedging instrument and the hedged item. Ineffectiveness is minimal as the Company aligns most of the critical terms of its derivatives with the supply contracts.

For net investment hedges, the Company assesses its net investment positions in the non-U.S. operations and compares it with the outstanding net investment hedges on a quarterly basis. The hedge is deemed effective if the aggregate outstanding principal of the hedge instruments designated as the net investment hedge in a non-U.S. operation does not exceed the Company's net investment positions in the respective non-U.S. operation.

Derivative instruments not designated as hedging instruments under ASC 815 require no assessment of effectiveness.

A discussion of the Company's accounting policies for derivative financial instruments is included in Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements, and further disclosure relating to derivatives and hedging activities is included in Note 11, "Derivative Instruments and Hedging Activities," and Note 12, "Fair Value Measurements," of the notes to consolidated financial statements.

Foreign Exchange

The Company has manufacturing, sales and distribution facilities around the world and thus makes investments and enters into transactions denominated in various foreign currencies. In order to maintain strict control and achieve the benefits of the Company's global diversification, foreign exchange exposures for each currency are netted internally so that only its net foreign exchange exposures are, as appropriate, hedged with financial instruments.

The Company hedges 70% to 90% of the nominal amount of each of its known foreign exchange transactional exposures. The Company primarily enters into foreign currency exchange contracts to reduce the earnings and cash flow impact of the variation of non-functional currency denominated receivables and payables. Gains and losses resulting from hedging instruments offset the foreign exchange gains or losses on the underlying assets and liabilities being hedged. The maturities of the forward exchange contracts generally coincide with the settlement dates of the related transactions. Realized and unrealized gains and losses on these contracts are recognized in the same period as gains and losses on the hedged items. The Company also selectively hedges anticipated transactions that are subject to foreign exchange exposure, primarily with foreign currency exchange contracts, which are designated as cash flow hedges in accordance with ASC 815.

The Company has entered into foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of debt obligations are reflected in the accumulated other comprehensive income ("AOCI") account within shareholders' equity attributable to Johnson Controls ordinary shareholders where they offset gains and losses recorded on the Company's net investments globally.

At September 30, 2024 and 2023, the Company estimates that an unfavorable 10% change in the exchange rates would have decreased net unrealized gains by approximately $144 million and $63 million, respectively.

Interest Rates

Substantially all of the Company's outstanding debt has fixed interest rates, and, therefore, any fluctuation in market interest rates is not expected to have a material effect on the Company's results of operations. A 100 basis point increase/decrease in the average interest rate on the Company's variable rate debt would have an immaterial impact on interest expense.

Commodities

The Company uses commodity hedge contracts in the financial derivatives market in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. As a cash flow hedge, gains and losses resulting from the hedging instruments offset the gains or losses on purchases of the underlying commodities that will be used in the business. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities.

ENVIRONMENTAL, HEALTH AND SAFETY AND OTHER MATTERS

The Company's global operations are governed by environmental laws and worker safety laws. Under various circumstances, these laws impose civil and criminal penalties and fines, as well as injunctive and remedial relief, for noncompliance and require remediation at sites where Company-related substances have been released into the environment.

The Company has expended substantial resources globally, both financial and managerial, to comply with applicable environmental laws and worker safety laws and to protect the environment and workers. The Company believes it is in substantial compliance with such laws and maintains procedures designed to foster and ensure compliance. However, the Company has been, and in the future may become, the subject of formal or informal enforcement actions or proceedings regarding noncompliance with such laws or the remediation of Company-related substances released into the environment. Such matters typically are resolved with regulatory authorities through commitments to compliance, abatement or remediation programs and in some cases payment of penalties. Historically, neither such commitments nor penalties imposed on the Company have been material.

Refer to Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information.

QUARTERLY FINANCIAL DATA

The following tables present selected quarterly financial data from continuing operations:

(in millions, except per share data) (quarterly amounts unaudited)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
2024					
Net sales	$ 5,209	$ 5,597	$ 5,898	$ 6,248	$ 22,952
Gross profit	1,778	1,922	2,109	2,268	8,077
Net income (loss)	340	(318)	851	538	1,411
Net income (loss) attributable to Johnson Controls	340	(321)	852	536	1,407
Earnings (loss) per share					
Basic	0.50	(0.47)	1.26	0.80	2.09
Diluted	0.50	(0.47)	1.25	0.80	2.08
2023					
Net sales	$ 5,155	$ 5,546	$ 5,777	$ 5,853	$ 22,331
Gross profit	1,852	1,916	2,063	1,973	7,804
Net income	101	45	947	488	1,581
Net income attributable to Johnson Controls	97	44	940	481	1,562
Earnings per share					
Basic	0.14	0.07	1.37	0.70	2.28
Diluted	0.14	0.07	1.36	0.70	2.27

ITEM 7A QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See "Risk Management" included in Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations.

ITEM 8 FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements

	Page
Report of Independent Registered Public Accounting Firm (PCAOB ID 238)	52
Consolidated Statements of Income for the years ended September 30, 2024, 2023 and 2022	54
Consolidated Statements of Comprehensive Income for the years ended September 30, 2024, 2023 and 2022	55
Consolidated Statements of Financial Position as of September 30, 2024 and 2023	56
Consolidated Statements of Cash Flows for the years ended September 30, 2024, 2023 and 2022	57
Consolidated Statements of Shareholders' Equity for the years ended September 30, 2024, 2023 and 2022	58
Notes to Consolidated Financial Statements	59
1. Summary of Significant Accounting Policies	59
2. Acquisitions and Divestitures	69
3. Assets and Liabilities Held for Sale and Discontinued Operations	69
4. Revenue Recognition	72
5. Accounts Receivable	73
6. Inventories	73
7. Property, Plant and Equipment	74
8. Goodwill and Other Intangible Assets	74
9. Leases	77
10. Debt and Financing Arrangements	78
11. Derivative Instruments and Hedging Activities	80
12. Fair Value Measurements	83
13. Stock-Based Compensation	85
14. Earnings Per Share	87
15. Equity	87
16. Retirement Plans	88
17. Restructuring and Related Costs	96
18. Income Taxes	97
19. Segment Information	101
20. Guarantees	104
21. Commitments and Contingencies	105

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Johnson Controls International plc

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Johnson Controls International plc and its subsidiaries (the "Company") as of September 30, 2024 and 2023, and the related consolidated statements of income, of comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended September 30, 2024, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of September 30, 2024, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2024 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2024, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition from Certain Contracts with Customers

As described in Notes 1, 3 and 4 to the consolidated financial statements, the Company recognized net sales of $22,952 million from continuing operations and $4,466 million from discontinued operations for the year ended September 30, 2024, of which a majority relates to certain over time and point in time contracts with customers. Revenue from certain long-term contracts to design, manufacture and install building products and systems as well as unscheduled repair or replacement services is recognized on an over time basis, with progress towards completion measured using a cost-to-cost input method based on the relationship between actual costs incurred and total estimated costs at completion. The cost-to-cost input method is used as it best depicts the transfer of control to the customer that occurs as the Company incurs costs. Changes to the original estimates may be required during the life of the contract and estimated losses are recorded when identified. The Company enters into extended warranties and long-term service and maintenance agreements with certain customers. For these arrangements, revenue is recognized over time on a straight-line basis over the respective contract term. Revenue associated with the sale of equipment and related installations are generally recognized over time on a cost-to-cost input method, while the revenue for monitoring and maintenance services are recognized over time as services are rendered. In other cases, the Company recognizes revenue at the point in time when control over the goods or services transfers to the customer.

The principal considerations for our determination that performing procedures relating to revenue recognition from certain contracts with customers is a critical audit matter are a high degree of auditor effort in performing procedures and evaluating audit evidence related to the revenue recognized on certain of the Company's over time and point in time contracts with customers.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process for the Company's over time and point in time contracts with customers. These procedures also included, among others, evaluating the appropriateness of the timing and amount of revenue recognized for a sample of over time and point in time contracts with customers. Evaluating the appropriateness of the timing and amount of revenue recognized for certain over time contracts with customers involved (i) obtaining and inspecting source documents, such as contracts or service tickets, change orders, and evidence of progress towards completion or services delivered; (ii) evaluating the appropriateness of the over time revenue recognition methods; (iii) testing, on a sample basis for certain over time contracts, the costs incurred to date; and (iv) performing a comparison of estimated gross margin in the prior year to gross margin at completion of the arrangement in the current year for certain over time contracts with customers. Evaluating the appropriateness of the timing and amount of revenue recognized for certain point in time contracts with customers involved (i) obtaining and inspecting source documents, such as contracts or purchase orders, evidence of goods delivered, and consideration received in exchange for those goods and (ii) evaluating the appropriateness of the point in time revenue recognition method.

/s/ PricewaterhouseCoopers LLP
Milwaukee, Wisconsin
November 19, 2024

We have served as the Company's auditor since 1957.

Johnson Controls International plc
Consolidated Statements of Income

(in millions, except per share data)	Year Ended September 30, 2024	2023	2022
Net sales			
Products and systems	$ 15,967	$ 15,789	$ 14,612
Services	6,985	6,542	6,025
	22,952	22,331	20,637
Cost of sales			
Products and systems	10,677	10,736	10,124
Services	4,198	3,791	3,423
	14,875	14,527	13,547
Gross profit	8,077	7,804	7,090
Selling, general and administrative expenses	5,661	5,387	5,078
Restructuring and impairment costs	510	1,049	701
Net financing charges	342	258	205
Equity income (loss)	(42)	3	6
Income from continuing operations before income taxes	1,522	1,113	1,112
Income tax provision (benefit)	111	(468)	(182)
Income from continuing operations	1,411	1,581	1,294
Income from discontinued operations, net of tax (Note 3)	489	452	429
Net income	1,900	2,033	1,723
Income from continuing operations attributable to noncontrolling interests	4	19	15
Income from discontinued operations attributable to noncontrolling interests	191	165	176
Net income attributable to Johnson Controls	$ 1,705	$ 1,849	$ 1,532
Amounts attributable to Johnson Controls			
Income from continuing operations	$ 1,407	$ 1,562	$ 1,279
Income from discontinued operations	298	287	253
Net income	$ 1,705	$ 1,849	$ 1,532
Basic earnings per share attributable to Johnson Controls			
Continuing operations	$ 2.09	$ 2.28	$ 1.84
Discontinued operations	0.44	0.42	0.36
Total	$ 2.53	$ 2.70	$ 2.20
Diluted earnings per share attributable to Johnson Controls			
Continuing operations	$ 2.08	$ 2.27	$ 1.83
Discontinued operations	0.44	$ 0.42	0.36
Total	$ 2.52	$ 2.69	$ 2.19

The accompanying notes are an integral part of the consolidated financial statements.

Johnson Controls International plc
Consolidated Statements of Comprehensive Income

(in millions)	Year Ended September 30, 2024	2023	2022
Net income	$ 1,900	$ 2,033	$ 1,723
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	39	(84)	(603)
Realized and unrealized gains (losses) on derivatives	(19)	25	7
Pension and postretirement plans	(4)	(1)	(3)
Other comprehensive income (loss)	16	(60)	(599)
Total comprehensive income	1,916	1,973	1,124
Comprehensive income attributable to noncontrolling interests:			
Net income	195	184	191
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	25	(15)	(123)
Realized and unrealized gains on derivatives	—	(1)	1
Other comprehensive income (loss)	25	(16)	(122)
Comprehensive income attributable to noncontrolling interests	220	168	69
Comprehensive income attributable to Johnson Controls	$ 1,696	$ 1,805	$ 1,055

The accompanying notes are an integral part of the consolidated financial statements.

Johnson Controls International plc
Consolidated Statements of Financial Position

(in millions, except par value and share data)	September 30, 2024	September 30, 2023
Assets		
Cash and cash equivalents	$ 606	$ 828
Accounts receivable - net	6,051	5,494
Inventories	1,774	1,872
Current assets held for sale	1,595	1,552
Other current assets	1,153	991
Current assets	11,179	10,737
Property, plant and equipment - net	2,403	2,374
Goodwill	16,725	16,772
Other intangible assets - net	4,130	4,772
Noncurrent assets held for sale	3,210	3,105
Other noncurrent assets	5,048	4,482
Total assets	$ 42,695	$ 42,242
Liabilities and Equity		
Short-term debt	$ 953	$ 361
Current portion of long-term debt	536	645
Accounts payable	3,389	3,498
Accrued compensation and benefits	1,048	847
Deferred revenue	2,160	1,923
Current liabilities held for sale	1,431	1,375
Other current liabilities	2,438	2,435
Current liabilities	11,955	11,084
Long-term debt	8,004	7,818
Pension and postretirement benefit obligations	217	252
Noncurrent liabilities held for sale	405	407
Other noncurrent liabilities	4,753	4,987
Noncurrent liabilities	13,379	13,464
Commitments and contingencies (Note 21)		
Ordinary shares (par value $0.01; 2.0 billion shares authorized; shares issued: 2024 - 692,964,542; 2023 - 709,968,796)	7	7
Ordinary A shares (par value €1.00; 40,000 shares authorized, none outstanding as of September 30, 2024 and 2023)	—	—
Preferred shares (par value $0.01; 200,000,000 shares authorized, none outstanding as of September 30, 2024 and 2023)	—	—
Ordinary shares held in treasury, at cost (shares held: 2024 - 30,086,539; 2023 - 29,596,724)	(1,268)	(1,240)
Capital in excess of par value	17,475	17,349
Retained earnings	848	1,384
Accumulated other comprehensive loss	(964)	(955)
Shareholders' equity attributable to Johnson Controls	16,098	16,545
Noncontrolling interests	1,263	1,149
Total equity	17,361	17,694
Total liabilities and equity	$ 42,695	$ 42,242

The accompanying notes are an integral part of the consolidated financial statements.

Johnson Controls International plc
Consolidated Statements of Cash Flows

(in millions)	Year Ended September 30, 2024	2023	2022
Operating Activities of Continuing Operations			
Income from continuing operations attributable to Johnson Controls	$ 1,407	$ 1,562	$ 1,279
Income from continuing operations attributable to noncontrolling interests	4	19	15
Income from continuing operations	1,411	1,581	1,294
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	816	745	717
Pension and postretirement benefit expense (income)	(43)	58	(219)
Pension and postretirement contributions	(6)	(48)	(69)
Equity in earnings of partially-owned affiliates, net of dividends received	44	(3)	—
Deferred income taxes	(403)	(602)	(190)
Non-cash restructuring and impairment charges	411	827	555
Equity-based compensation expense	107	107	98
Other - net	(112)	(117)	(59)
Changes in assets and liabilities, excluding acquisitions and divestitures:			
Accounts receivable	(537)	(259)	(409)
Inventories	(17)	(58)	(539)
Other assets	(482)	(187)	(349)
Restructuring reserves	(76)	57	(9)
Accounts payable and accrued liabilities	645	(85)	847
Accrued income taxes	(190)	(160)	(431)
Cash provided by operating activities from continuing operations	1,568	1,856	1,237
Investing Activities of Continuing Operations			
Capital expenditures	(494)	(446)	(487)
Sale of property, plant and equipment	1	30	127
Acquisition of businesses, net of cash acquired	(3)	(726)	(269)
Business divestitures, net of cash divested	345	28	—
Other - net	(33)	21	41
Cash used by investing activities from continuing operations	(184)	(1,093)	(588)
Financing Activities of Continuing Operations			
Net proceeds (payments) from borrowings with maturities less than three months	48	(75)	379
Proceeds from debt	1,281	1,173	1,771
Repayments of debt	(924)	(1,555)	(184)
Stock repurchases and retirements	(1,246)	(625)	(1,441)
Payment of cash dividends	(1,000)	(980)	(916)
Other - net	(107)	3	(4)
Cash used by financing activities from continuing operations	(1,948)	(2,059)	(395)
Discontinued Operations			
Cash provided by operating activities	530	365	753
Cash used by investing activities	(37)	(91)	(105)
Cash used by financing activities	(132)	(115)	(121)
Cash provided by discontinued operations	361	159	527
Effect of exchange rate changes on cash, cash equivalents and restricted cash	59	(5)	(53)
Change in cash, cash equivalents and restricted cash held for sale	(6)	(5)	(3)
Increase (decrease) in cash, cash equivalents and restricted cash	(150)	(1,147)	725
Cash, cash equivalents and restricted cash at beginning of period	917	2,064	1,339
Cash, cash equivalents and restricted cash at end of period	767	917	2,064
Less: Restricted cash	161	89	35
Cash and cash equivalents at end of period	$ 606	$ 828	$ 2,029

The accompanying notes are an integral part of the consolidated financial statements.

Johnson Controls International plc
Consolidated Statements of Shareholders' Equity

(in millions)	Year Ended September 30, 2024	2023	2022
Shareholders' Equity Attributable to Johnson Controls			
Beginning Balance	$ 16,545	$ 16,268	$ 17,562
Ordinary Shares - Beginning and ending balance	7	7	7
Ordinary Shares Held in Treasury, at Cost			
Beginning balance	(1,240)	(1,203)	(1,152)
Employee equity-based compensation withholding taxes	(28)	(37)	(51)
Ending balance	(1,268)	(1,240)	(1,203)
Capital in Excess of Par Value			
Beginning balance	17,349	17,224	17,116
Share-based compensation expense	85	85	88
Other, including options exercised	41	40	20
Ending balance	17,475	17,349	17,224
Retained Earnings			
Beginning balance	1,384	1,151	2,025
Net income attributable to Johnson Controls	1,705	1,849	1,532
Cash dividends declared	(995)	(991)	(965)
Repurchases and retirements of ordinary shares	(1,246)	(625)	(1,441)
Ending balance	848	1,384	1,151
Accumulated Other Comprehensive Loss			
Beginning balance	(955)	(911)	(434)
Other comprehensive loss	(9)	(44)	(477)
Ending balance	(964)	(955)	(911)
Ending Balance	16,098	16,545	16,268
Shareholders' Equity Attributable to Noncontrolling Interests			
Beginning Balance	1,149	1,134	1,191
Comprehensive income attributable to noncontrolling interests	220	168	69
Dividends attributable to noncontrolling interests	(108)	(152)	(131)
Other	2	(1)	5
Ending Balance	1,263	1,149	1,134
Total Shareholders' Equity	$ 17,361	$ 17,694	$ 17,402
Cash Dividends Declared per Ordinary Share	$ 1.48	$ 1.45	$ 1.39

The accompanying notes are an integral part of the consolidated financial statements.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc, a public limited company organized under the laws of Ireland, and its subsidiaries (Johnson Controls International plc and all its subsidiaries, hereinafter collectively referred to as the "Company," "Johnson Controls" or "JCI plc").

The Company's fiscal year ends on September 30. Unless otherwise stated, references to years in this report relate to fiscal years rather than calendar years.

Nature of Operations

Johnson Controls International plc, headquartered in Cork, Ireland, is a global leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

The Company is a global leader in engineering, manufacturing, commissioning and retrofitting building products and systems, including residential and commercial HVAC equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, security and fire-protection space), and energy-management consulting. The Company's OpenBlue digital software platform enables enterprises to better manage their physical spaces by combining the Company's building products and services with cutting-edge technology and digital capabilities to enable data-driven "smart building" services and solutions. The Company partners with customers by leveraging its broad product portfolio and digital capabilities powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency, enhance security, create healthy environments and reduce greenhouse gas emissions.

As discussed in more detail in Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations", the Company has entered into a definitive agreement to sell its Residential and Light Commercial ("R&LC") HVAC business, including the North America Ducted business and the global Residential joint venture with Hitachi Global Life Solutions, Inc. ("Hitachi"), of which Johnson Controls owns 60% and Hitachi owns 40%. The R&LC HVAC business, which was previously reported in the Global Products segment, meets the criteria to be classified as a discontinued operation and, as a result, its historical financial results are reflected in the consolidated financial statements as a discontinued operation, and assets and liabilities were reclassified as held for sale for all periods presented. Unless otherwise noted, all activities and amounts reported in the following footnotes relate to the continuing operations of the Company and exclude activities and amounts related to the R&LC HVAC business.

Principles of Consolidation

The consolidated financial statements include the accounts of Johnson Controls International plc and its subsidiaries that are consolidated in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). All significant intercompany transactions have been eliminated. The results of companies acquired or disposed of during the year are included in the consolidated financial statements from the effective date of acquisition or up to the date of disposal. Investments in partially-owned affiliates are accounted for by the equity method when the Company exercises significant influence, which typically occurs when its ownership interest exceeds 20%, and the Company does not have a controlling interest.

The Company consolidates variable interest entities ("VIE") when it has the power to direct the significant activities of the entity and the obligation to absorb losses or receive benefits from the entity that may be significant. The Company did not have any material consolidated or nonconsolidated VIEs in its continuing operations for the presented reporting periods.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts. Actual results could differ from those estimates.

Fair Value of Financial Instruments

ASC 820, "Fair Value Measurement," defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC 820 also establishes a three-level fair value hierarchy that prioritizes information used in developing assumptions when pricing an asset or liability as follows:

Level 1: Observable inputs such as quoted prices in active markets for identical assets or liabilities;

Level 2: Quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs where there is little or no market data, which requires the reporting entity to develop its own assumptions.

ASC 820 requires the use of observable market data, when available, in making fair value measurements. When inputs used to measure fair value fall within different levels of the hierarchy, the level within which the fair value measurement is categorized is based on the lowest level input that is significant to the fair value measurement.

Acquisitions

The purchase price of acquired businesses is allocated to the related identifiable assets and liabilities based on estimated fair values. The excess of the purchase price over the amount allocated to the assets and liabilities, if any, is recorded as goodwill. In addition, any contingent consideration is recorded at the estimated fair value as of the date of the acquisition and is recorded as part of the purchase price. This estimate is updated in future periods and any changes in the estimate, which are not considered an adjustment to the purchase price, are recorded in the consolidated statements of operations. Payments for contingent earn-out liabilities that are less than or equal to estimates on the acquisition date are reflected as financing cash outflows. Amounts paid in excess of the estimated contingent earn-out liabilities on the acquisition date are reflected as operating cash outflows.

All available information is used to estimate fair values. External valuation specialists are typically engaged to assist in the fair value determination of identifiable intangible assets and any other significant assets or liabilities. The preliminary purchase price allocation is adjusted, as necessary, up to one year after the acquisition closing date as more information is obtained regarding assets acquired and liabilities assumed based on facts and circumstances that existed as of the acquisition date.

The purchase price allocation methodology contains uncertainties because it requires the Company to make assumptions and to apply judgment to estimate the fair value of acquired assets and assumed liabilities. The fair value of assets and liabilities is estimated based upon the carrying value of the acquired assets and assumed liabilities and widely accepted valuation techniques, including discounted cash flows. Unanticipated events or circumstances may occur which could affect the accuracy of fair value estimates, including assumptions regarding industry economic factors and business strategies.

Other estimates used in determining fair value include, but are not limited to, future cash flows or income related to intangibles, market rate assumptions and discount rates. Fair value estimates are based upon assumptions believed to be reasonable, but that are inherently uncertain, and therefore, may not be realized. Accordingly, there can be no assurance that the estimates, assumptions, and values reflected in the valuations will be realized, and actual results could differ materially.

Assets and Liabilities Held for Sale

Assets and liabilities (disposal groups) to be sold are classified as held for sale in the period in which all of the following criteria are met:

- Management, having the authority to approve the action, commits to a plan to sell the disposal group;

- The disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such disposal groups;
- An active program to locate a buyer and other actions required to complete the plan to sell the disposal group have been initiated;
- Sale of the disposal group is probable and transfer of the disposal group is expected to qualify for recognition as a completed sale within one year, except if events or circumstances beyond the Company's control extend the period of time required to sell the disposal group beyond one year;
- The disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and
- Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

The Company initially measures a disposal group that is classified as held for sale at the lower of its carrying value or fair value less any costs to sell in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets." The carrying amount of any assets, including goodwill, that are part of the disposal group, but not in the scope of ASC 360-10, are tested for impairment under the relevant guidance prior to measuring the disposal group at fair value, less cost to sell.

Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. Gains on the sale of a disposal group are not recognized until the date of sale. The Company assesses the fair value of a disposal group, less any costs to sell, each reporting period it remains classified as held for sale and reports any subsequent changes as an adjustment to the carrying value of the disposal group, as long as the new carrying value does not exceed the carrying value of the disposal group at the time it was initially classified as held for sale.

Upon determining that a disposal group meets the criteria to be classified as held for sale, the Company reports the assets and liabilities of the disposal group, if material, in the line items assets held for sale and liabilities held for sale in the consolidated statements of financial position.

Cash and Cash Equivalents

Cash equivalents include all highly liquid investments with an original maturity of three months or less when purchased.

Restricted Cash

Restricted cash relates to amounts restricted for payment of asbestos liabilities and certain litigation and environmental matters and is recorded within other current assets in the consolidated statements of financial position.

Receivables

Receivables consist of billed receivables which are currently due from customers and unbilled receivables where the Company has satisfied its performance obligations, but has not yet issued the invoice to the customer. Incentives are periodically offered to customers, including early payment discounts and extended payment terms of certain receivables. The Company extends credit to customers in the normal course of business and maintains an allowance for expected credit losses resulting from the inability or unwillingness of customers to make required payments. The allowance for expected credit losses is based on historical experience, existing economic conditions, reasonable and supportable forecasts, and any specific customer collection issues the Company has identified. The Company evaluates the reasonableness of the allowance for expected credit losses on a quarterly basis. The allowance for expected credit losses was $210 million as of September 30, 2024 and $88 million as of September 30, 2023.

The Company has previously entered into various factoring agreements to sell certain accounts receivable to third-party financial institutions. The Company collected the majority of the factored receivables on behalf of the financial institutions, but maintained no other continuing involvement with the factored receivables. Sales of accounts receivable were reflected as a reduction of accounts receivable in the consolidated statements of financial position and the proceeds were included in cash flows from operating activities in the consolidated statements of cash flows. The Company discontinued its receivables factoring program in March 2024.

Inventories

Inventories are stated at the lower of cost or net realizable value using the first-in, first-out ("FIFO") method. Finished goods and work-in-process inventories include material, labor and manufacturing overhead costs.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is provided over the estimated useful lives of the respective assets using the straight-line method for financial reporting purposes and accelerated methods for income tax purposes. Estimated useful lives generally range from 3 to 40 years for buildings and improvements, up to 15 years for subscriber systems, and from 3 to 15 years for machinery and equipment. Interest on borrowings is capitalized during the active construction period of major capital projects, added to the cost of the underlying assets and amortized over the useful lives of the assets.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill reflects the cost of an acquisition in excess of the fair values assigned to identifiable net assets acquired. Goodwill is reviewed for impairment during the fourth fiscal quarter (as of July 31) or more frequently if events or changes in circumstances indicate the asset might be impaired. The Company performs impairment reviews for its reporting units, which have been determined to be the Company's operating segments or one level below the operating segments, using a qualitative assessment or a quantitative test. A qualitative assessment is performed when prior quantitative assessments have resulted in significant excess of fair value over the carrying value of a reporting unit, and consideration of qualitative factors allow the Company to conclude it is more likely than not that the fair value of the reporting unit remains greater than its carrying value. When performing a quantitative goodwill impairment test, the fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. To estimate the fair value, the Company uses a discounted cash flow model or estimated sales price for reporting units held for sale. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." The estimated fair value is then compared to the carrying amount of the reporting unit, including recorded goodwill. The Company is subject to financial statement risk to the extent that the carrying amount exceeds the estimated fair value.

Indefinite-lived intangible assets are also subject to at least annual impairment testing in the fourth fiscal quarter or as events occur or circumstances change that indicate the assets may be impaired. Indefinite-lived intangible assets primarily consist of trademarks and trade names and are tested for impairment using a relief-from-royalty method. The Company considers the implications of both external (e.g., market growth, competition and local economic conditions) and internal (e.g., product sales and expected product growth) factors and their potential impact on cash flows related to the intangible asset in both the near- and long-term. The Company considers the profitability of the business, among other factors, to determine the royalty rate for use in the impairment assessment.

While the Company believes that the estimates and assumptions underlying the valuation methodologies are reasonable, different estimates and assumptions could result in different outcomes.

Leases

Lessee arrangements

The Company leases certain administrative, production and other facilities, fleet vehicles, information technology equipment and other equipment under arrangements that are accounted for as operating leases. The Company determines whether an arrangement contains a lease at contract inception based on whether the arrangement involves the use of a physically distinct identified asset and whether the Company has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period as well as the right to direct the use of the asset.

Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. Right-of-use assets and the corresponding lease liabilities are recognized at commencement date based on the present value of lease payments for all leases with terms longer than twelve months. The majority of the Company's leases do not provide an implicit interest rate. To determine the present value of lease payments, the Company uses its incremental borrowing rate based on information available on the lease commencement date or the implicit rate if it is readily determinable. The Company determines its incremental borrowing rate based on a comparable

market yield curve consistent with its credit rating, term of the lease and relative economic environment. The Company has elected to combine lease and nonlease components for its leases.

Most leases contain options to renew or terminate the lease. Right-of-use assets and lease liabilities reflect only the options which the Company is reasonably certain to exercise.

The Company has certain real estate leases that contain variable lease payments which are based on changes in the Consumer Price Index ("CPI"). Additionally, the Company's leases generally require it to pay for fuel, maintenance, repair, insurance and taxes. These payments are not included in the right-of-use asset or lease liability and are expensed as incurred.

Lease expense is recognized on a straight-line basis over the lease term.

Lessor arrangements

The Company has monitoring services and maintenance agreements within its security business that include subscriber system assets for which the Company retains ownership. These agreements contain both lease and nonlease components. The Company has elected to combine lease and nonlease components for these arrangements where the timing and pattern of transfer of the lease and nonlease components are the same and the lease component would be classified as an operating lease if accounted for separately. The Company has concluded that in these arrangements the nonlease components are the predominant characteristic, and as a result, the combined component is accounted for under the revenue guidance.

Impairment of Long-Lived Assets

Long-lived assets, including right-of-use assets under operating leases, other tangible assets and intangible assets with definite lives, are reviewed for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets," ASC 350-30, "General Intangibles Other than Goodwill" and ASC 985-20, "Costs of Software to be Sold, Leased, or Marketed."

Assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and evaluates the asset group against the sum of the undiscounted future cash flows. If the undiscounted cash flows do not indicate the carrying amount of the asset group is recoverable, an impairment charge is measured as the amount by which the carrying amount of the asset group exceeds its fair value based on discounted cash flow analysis or appraisals.

Intangible assets acquired in a business combination that are used in research and development activities are considered indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period that those assets are considered indefinite lived, they are not amortized but are tested for impairment annually and more frequently if events or changes in circumstances indicate that it is more likely than not that the asset is impaired. If the carrying amount of an intangible asset exceeds its fair value, the Company recognizes an impairment loss in an amount equal to that excess.

Unamortized capitalized costs of a computer software product are compared to the net realizable value of the product. The amount by which the unamortized capitalized costs of a computer software product exceed the net realizable value of that asset is written off.

Revenue Recognition

Revenue from certain long-term contracts to design, manufacture and install building products and systems as well as unscheduled repair or replacement services is recognized on an over time basis, with progress towards completion measured using a cost-to-cost input method based on the relationship between actual costs incurred and total estimated costs at completion. The cost-to-cost input method is used as it best depicts the transfer of control to the customer that occurs as the Company incurs costs. Changes to the original estimates may be required during the life of the contract and such estimates are reviewed monthly. If contract modifications result in additional goods or services that are distinct from those transferred before the modification, they are accounted for prospectively as if the Company entered into a new contract. If the goods or services in the modification are not distinct from those in the original contract, sales and gross profit are adjusted using the cumulative catch-up method for revisions in estimated total contract costs and contract values. Estimated losses are recorded when identified. The Company does not adjust the promised amount of consideration for the effects of a significant financing component because at contract inception it expects to receive the payment within twelve months of transfer of goods or services.

The Company enters into extended warranties and long-term service and maintenance agreements with certain customers. For these arrangements, revenue is recognized over time on a straight-line basis over the respective contract term.

The Company also sells certain HVAC and refrigeration products and services in bundled arrangements with multiple performance obligations, such as equipment, commissioning, service labor and extended warranties. Approximately four to twenty-four months separate the timing of the first deliverable until the last piece of equipment is delivered. There may also be extended warranty arrangements with durations of one to five years commencing upon the end of the standard warranty period. In addition, the Company sells security monitoring systems that may have multiple performance obligations, including equipment, installation, monitoring services and maintenance agreements. Revenue associated with the sale of equipment and related installations are generally recognized over time on a cost-to-cost input method, while the revenue for monitoring and maintenance services are recognized over time as services are rendered. The transaction price is allocated to each performance obligation based on the relative standalone selling price method. In order to estimate relative standalone selling price, market data and transfer price studies are utilized. If the standalone selling price is not directly observable, the Company estimates the standalone selling price using an adjusted market assessment approach or expected cost plus margin approach. If the Company retains ownership of the subscriber system asset, fees for monitoring and maintenance services are recognized over the contract term on a straight-line basis. Non-refundable fees received in connection with the initiation of a monitoring contract, along with associated direct and incremental selling costs, are deferred and amortized over the estimated life of the contract.

In all other cases, the Company recognizes revenue at the point in time when control over the goods or services transfers to the customer.

The Company assesses variable consideration that may affect the total transaction price, including discounts, rebates, refunds, credits or other similar sources of variable consideration, when determining the transaction price of each contract. The Company includes variable consideration in the estimated transaction price when it is probable that significant reversal of revenue recognized would not occur when the uncertainty associated with variable consideration is subsequently resolved. These estimates are based on the amount of consideration that the Company expects to be entitled to.

Shipping and handling costs billed to customers are included in sales and the related costs are included in cost of sales when control transfers to the customer. The Company presents amounts collected from customers for sales and other taxes net of the related amounts remitted.

Subscriber System Assets, Dealer Intangibles and Related Deferred Revenue Accounts

The Company considers assets related to the acquisition of new customers in its electronic security business in three asset categories:

- Internally generated residential subscriber systems outside of North America;
- Internally generated commercial subscriber systems; and
- Customer accounts acquired through the ADT dealer program, primarily outside of North America (referred to as dealer intangibles).

Subscriber system assets include installed property, plant and equipment for which the Company retains ownership and deferred costs directly related to the customer acquisition and system installation. Subscriber system assets represent capitalized equipment (e.g., security control panels, touch pad, motion detectors, window sensors, and other equipment) and installation costs associated with electronic security monitoring arrangements under which the Company retains ownership of the security system assets in a customer's place of business or residence. Installation costs represent costs incurred to prepare the asset for its intended use. The Company pays property taxes on the subscriber system assets and may retrieve such assets when the agreement is terminated. These assets embody a probable future economic benefit as they generate future monitoring revenue for the Company.

Costs related to the subscriber system equipment and installation are categorized as property, plant and equipment rather than deferred costs. Deferred costs associated with subscriber system assets represent direct and incremental selling expenses (such as commissions) related to acquiring the customer. Commissions related to up-front consideration paid by customers in connection with the establishment of the monitoring arrangement are determined based on a percentage of the up-front fees and do not exceed deferred revenue. Such deferred costs are recorded as other current and noncurrent assets within the consolidated statements of financial position.

Subscriber system assets and any deferred revenue resulting from the customer acquisition are accounted for over the expected life of the subscriber. In certain geographical areas which have a large number of customers that behave in a similar manner over time, the Company accounts for subscriber system assets and related deferred revenue using pools, with separate pools for the components of subscriber system assets and any related deferred revenue based on the same month and year of acquisition. Pooled subscriber system assets and related deferred revenue are depreciated using a straight-line method with lives up to 12 years and considering customer attrition. Non-pooled subscriber systems (primarily in Europe, Latin America and Asia) and related deferred revenue are depreciated using a straight-line method with a 15-year life, with remaining balances written off upon customer termination.

Certain contracts and related customer relationships result from purchasing residential security monitoring contracts from an external network of independent dealers who operate under the ADT dealer program, primarily outside of North America. Acquired contracts and related customer relationships are recorded at their contractually determined purchase price. During the first 6 months (12 months in certain circumstances) after the purchase of the customer contract, any cancellation of monitoring service, including those that result from customer payment delinquencies, results in a chargeback by the Company to the dealer for the full amount of the contract purchase price. The Company records the amount charged back to the dealer as a reduction of the previously recorded intangible asset. Intangible assets arising from the ADT dealer program are amortized in pools determined by the same month and year of contract acquisition on a straight-line basis over the period of the customer relationship. The estimated useful life of dealer intangibles ranges from 12 to 15 years.

Research and Development Costs

Expenditures for research activities relating to product development and improvement are charged against income as incurred and primarily included within selling, general and administrative expenses in the consolidated statements of income. Such expenditures for the years ended September 30, 2024, 2023 and 2022 were $267 million, $251 million and $236 million, respectively.

Stock-Based Compensation

Restricted (Non-vested) Stock /Units

Restricted stock and restricted stock units are typically settled in shares for employees in the U.S. and in cash for employees not in the U.S. Restricted awards typically vest over a period of three years from the grant date. The Company's Compensation and Talent Development Committee may approve different vesting terms on specific grants. The fair value of each share-settled restricted award is based on the closing market value of the Company's ordinary shares on the date of grant. The fair value of each cash-settled restricted award is recalculated at the end of each reporting period based on the closing market value of the Company's ordinary shares at the end of the reporting period, and the liability and expense are adjusted based on the new fair value.

Performance Share Awards

Performance-based share unit ("PSU") awards are generally contingent on the achievement of predetermined performance goals over a performance period of one to three years and on the award holder's continuous employment until the vesting date. The majority of PSUs are also indexed to the achievement of specified levels of total shareholder return versus a peer group over the performance period.

Upon completion of the performance period, earned PSUs are typically settled with shares of the Company's ordinary shares for employees in the U.S. and in cash for employees not in the U.S.

The fair value of the portion of the PSU which is linked to the achievement of performance goals is based on the closing market value of the Company's ordinary shares on the date of grant. Share-based compensation expense for these PSUs is recognized over the performance period based on the probability of achieving the performance targets.

The fair value of the portion of the PSU that is indexed to total shareholder return is estimated on the date of grant using a Monte Carlo simulation that uses the following assumptions:

- The risk-free interest rate for periods during the contractual life of the PSU is based on the U.S. Treasury yield curve in effect at the time of grant.

- The expected volatility is based on the historical volatility of the Company's stock over the most recent three-year period as of the grant date.

Share-based compensation expense for PSUs which are indexed to total shareholder return is not adjusted for changes in performance subsequent to the grant date because the likelihood of achieving the market condition is incorporated in the grant date fair value of the award.

Stock Options

Stock options are granted with an exercise price equal to the market price of the Company's stock at the date of grant. Stock option awards typically vest between two and three years after the grant date and expire ten years from the grant date.

The fair value of each option is estimated on the date of grant using a Black-Scholes option valuation model that uses the following assumptions:

- The expected life of options represents the period of time that options granted are expected to be outstanding.

- The risk-free interest rate for periods during the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

- For grants in fiscal 2024 and 2023, expected volatility is based on the historical volatility of the Company's stock corresponding to the expected life as of the grant date. For grants in fiscal 2022, expected volatility is based on the historical volatility of the Company's stock since October 2016 and certain peer companies' stock prior to October 2016 over the most recent period corresponding to the expected life as of the grant date.

- The expected dividend yield is based on the expected annual dividend as a percentage of the market value of the Company's ordinary shares as of the grant date.

The Company uses historical data to estimate option exercises and employee terminations within the valuation model.

Earnings Per Share

The Company presents both basic and diluted earnings per share ("EPS") amounts. Basic EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of ordinary shares outstanding during the reporting period. Diluted EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of ordinary shares and ordinary equivalent shares outstanding during the reporting period that are calculated using the treasury stock method for stock options, unvested restricted stock and unvested performance share awards. The treasury stock method assumes that the Company uses the proceeds from the exercise of stock option awards to repurchase ordinary shares at the average market price during the period. The assumed proceeds under the treasury stock method include the purchase price that the grantee will pay in the future and compensation cost for future service that the Company has not yet recognized. For unvested restricted stock and unvested performance share awards, assumed proceeds under the treasury stock method include unamortized compensation cost.

Foreign Currency Translation

Substantially all of the Company's international operations use the respective local currency as the functional currency. Assets and liabilities of international entities have been translated at period-end exchange rates, and income and expenses have been translated using average exchange rates for the period. Monetary assets and liabilities denominated in non-functional currencies are adjusted to reflect period-end exchange rates. Aggregate transaction gains (losses), net of the impact of foreign currency hedges, included in income from continuing operations for the years ended September 30, 2024, 2023 and 2022 were $(10) million, $22 million and $33 million, respectively.

Derivative Financial Instruments

The Company has written policies and procedures that place all derivative financial instruments under the direction of Corporate treasury and restrict all derivative transactions to those intended for hedging purposes. The use of derivatives for speculative purposes is strictly prohibited. The Company selectively uses derivatives to manage the market risk from changes in foreign exchange rates, commodity prices, and interest rates.

The fair values of all derivatives are recorded in the consolidated statements of financial position. The change in a derivative's fair value is recorded each period in current earnings or accumulated other comprehensive income ("AOCI"), depending on whether the derivative is designated as part of a hedge transaction and if so, the type of hedge transaction.

Investments

Investments in debt and equity securities and deferred compensation plan assets are marked to market at the end of each accounting period. Unrealized gains and losses are recognized in the consolidated statements of income.

Pension and Postretirement Benefits

The Company utilizes a mark-to-market approach for recognizing pension and postretirement benefit expenses, including measuring plan assets at fair value and recognizing actuarial gains and losses in the fourth quarter of each fiscal year or at the date of a remeasurement event.

Guarantees

The Company records an estimate for future warranty-related costs based on actual historical claims and other known factors. Based on analysis of return rates and other factors, the Company's warranty provisions are adjusted as necessary. The Company monitors its warranty activity and adjusts its reserve estimates when it is probable that future warranty costs will be different from those estimates.

The Company's product warranty liability is recorded in the consolidated statements of financial position in other current liabilities if the warranty is less than one year and in other noncurrent liabilities if the warranty extends longer than one year.

Loss Contingencies

Accruals are recorded for various contingencies including legal proceedings, environmental matters, self-insurance and other claims that arise in the normal course of business when it is probable a liability has been incurred and the amount of the liability can be reasonably estimated. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarial determined estimates. Additionally, the Company records receivables from third party insurers when recovery has been determined to be probable.

The Company is subject to laws and regulations relating to protecting the environment. Expenses associated with environmental remediation obligations are recognized when such amounts are probable and can be reasonably estimated.

Liabilities and expenses for workers' compensation, product, general and auto liabilities are dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. Receivables from third party insurers are recorded when recovery has been determined to be probable. The Company maintains captive insurance companies to manage its insurable liabilities.

Asbestos-Related Contingencies and Insurance Receivables

The Company and certain of its subsidiaries, along with numerous other companies, are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. The estimated liability and corresponding insurance recovery for pending and future claims and defense costs are based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present values from the time that the costs are expected to be incurred which in some cases is not until 2068 (which is the Company's reasonable best estimate of the actuarial determined time period through which asbestos-related claims will be filed against its affiliates). Estimated asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. At least annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company considers additional quantitative and qualitative factors such as changes in legislation, the legal environment, and its defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines

whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

The Company records asbestos-related insurance recoveries that are probable. Estimated asbestos-related insurance recoveries represent estimated amounts due to the Company for previously paid and settled claims and the probable reimbursements relating to its estimated liability for pending and future claims discounted to present value. In determining the amount of insurance recoverable, the Company considers available insurance, allocation methodologies, solvency and creditworthiness of the insurers.

Income Taxes

Deferred tax liabilities and assets are recognized for the expected future tax consequences of events that have been reflected in the consolidated financial statements. Deferred tax asset and liabilities are determined based on the differences between the book and tax basis of particular assets and liabilities and operating loss carryforwards, using tax rates in effect for the years in which the differences are expected to reverse. A valuation allowance is provided to reduce the carrying or book value of deferred tax assets if, based upon the available evidence, including consideration of tax planning strategies, it is more-likely-than-not that some or all of the deferred tax assets will not be realized.

New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In September 2022, the FASB issued ASU 2022-04, "Disclosure of Supplier Finance Program Obligations," which is intended to enhance the transparency surrounding the use of supplier finance programs. Supplier finance programs may also be referred to as reverse factoring, payables finance, or structured payables arrangements. The amendments require a buyer that uses supplier finance programs to make annual disclosures about the program's key terms, the balance sheet presentation of related amounts, the confirmed amount outstanding at the end of the period, and associated rollforward information. Only the amount outstanding at the end of the period must be disclosed in interim periods. The Company adopted the new disclosures, other than the rollforward disclosure, as required at the beginning of fiscal 2024. The rollforward disclosure will be adopted as required at the beginning of fiscal 2025.

The Company maintains agreements with third-party financial institutions who offer voluntary supply chain financing ("SCF") programs to its suppliers. The SCF programs enable suppliers to sell their receivables to third-party financial institutions and receive payments earlier than the negotiated commercial terms between the suppliers and the Company, which generally range from 90 to 120 days. Suppliers sell receivables to third-party financial institutions on terms negotiated between the supplier and the respective third-party financial institution. The Company remains obligated to make payments under the terms of the original commercial arrangement regardless of whether the supplier receivable is sold, and does not pledge any assets as security or provide other forms of guarantees for the committed payment to the third-party financial institutions.

Amounts outstanding related to SCF programs are included in accounts payable in the consolidated statements of financial position. Accounts payable included in the SCF programs were approximately $703 million and $520 million as of September 30, 2024, and September 30, 2023, respectively.

Recently Issued Accounting Pronouncements

In November 2024, the FASB issued ASU 2024-03, "Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses," which is intended to enhance transparency into the nature and function of expenses. The amendments require that on an annual and interim basis, entities disclose disaggregated operating expense information about specific categories, including purchases of inventory, employee compensation, depreciation, amortization and depletion. The Company expects to adopt the new annual disclosures as required for fiscal 2028 and the interim disclosures as required beginning with the first quarter of fiscal 2029.

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures," which is intended to enhance the transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and income taxes paid information. The amendments require that on an annual basis, entities disclose specific categories in the rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. In addition, the amendments require that entities disclose additional information about income taxes paid as well as additional disclosures of pretax income and income tax expense, and remove the requirement to disclose certain

items that are no longer considered cost beneficial or relevant. The Company expects to adopt the new annual disclosures as required for fiscal 2026.

In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures," which is intended to improve reportable segment disclosures, primarily through enhanced disclosures about significant segment expenses. In addition, the amendments enhance interim disclosure requirements, clarify circumstances in which an entity can disclose multiple segment measures of profit or loss, provide new segment disclosure requirements for entities with a single reportable segment and contain other disclosure requirements. The Company expects to adopt the new annual disclosures as required for fiscal 2025 and the interim disclosures as required beginning with the first quarter of fiscal 2026.

Other recently issued accounting pronouncements are not expected to have a material impact on the Company's consolidated financial statements.

2. ACQUISITIONS AND DIVESTITURES

Fiscal 2024

During fiscal 2024, the Company completed three divestitures, including the divestiture of its Air Distribution Technologies ("ADTi") business which was included within the Global Products segment. The combined selling price, net of cash divested, was $347 million, of which $332 million was received as of September 30, 2024. In connection with the closing of the ADTi transaction, the Company recorded a pre-tax loss of $42 million within selling, general and administrative expenses in the consolidated statements of income. An impairment of $56 million was recorded within restructuring and impairment costs in the consolidated statements of income while the business was classified as held for sale. Net cash proceeds from the divestitures were used for general corporate purposes. The businesses did not meet the criteria to be classified as discontinued operations as the divestitures did not represent a strategic shift that will have a major effect on the Company's operations and financial results.

Fiscal 2023

In July 2023, the Company completed its acquisition of FM:Systems, a leading digital workplace management and Internet of Things ("IoT") solutions provider for facilities and real estate professionals, for $540 million, net of cash acquired, which was comprised of an upfront cash payment of $465 million, and the estimated fair value at the acquisition date of contingent earn-out liabilities which are primarily based upon the achievement of certain defined operating results in the two years following the acquisition. In connection with the acquisition and subsequent measurement period adjustments, the Company recorded goodwill of $407 million in the Building Solutions North America segment. Goodwill is attributable primarily to expected synergies, expanded market opportunities and other benefits that the Company believes will result from integrating the products and capabilities of FM:Systems into its operations. The goodwill created in the acquisition is not deductible for tax purposes.

During fiscal 2023, the Company acquired several other businesses for a combined purchase price, net of cash acquired, of $306 million, of which $260 million was paid as of September 30, 2023. Intangible assets associated with these acquisitions totaled $116 million and primarily relate to customer relationships and technology. The Company recorded goodwill associated with these acquisitions of $119 million in the Global Products segment, $55 million in the Building Solutions Asia Pacific segment and $13 million in the Building Solutions EMEA/LA segment.

3. ASSETS AND LIABILITIES HELD FOR SALE AND DISCONTINUED OPERATIONS

In July 2024, the Company entered into a definitive agreement to sell its R&LC HVAC business, which includes the North America Ducted businesses and the global Residential joint venture with Hitachi, of which Johnson Controls owns 60% and Hitachi owns 40%, to Bosch Group for approximately $8.1 billion in cash with the Company's portion of the aggregate consideration being approximately $6.7 billion, inclusive of an upfront royalty payment for the licensing of the York tradename. The transaction is expected to close in the fourth quarter of fiscal 2025, subject to required regulatory approvals and other customary closing conditions. The R&LC HVAC business, which was previously reported in the Global Products segment, meets the criteria to be classified as discontinued operations as it represents a strategic shift in the Company's operations and results in the exit of substantially all of its residential and light commercial HVAC businesses. As a result, results of the business are presented in discontinued operations for all periods presented.

The Company determined that the assets and liabilities for the R&LC HVAC business met the held for sale criteria during the fourth quarter of 2024. Accordingly, the businesses' assets and liabilities were reclassified in the consolidated balance sheets at September 30, 2024 and 2023 to held for sale, and the Company ceased recording depreciation and amortization for the held for sale assets.

The following table summarizes the results of the R&LC HVAC business which are reported as discontinued operations (in millions):

	Year Ended September 30,		
	2024	2023	2022
Net sales	$ 4,466	$ 4,462	$ 4,662
Cost of goods sold	3,300	3,295	3,409
Gross profit	1,166	1,167	1,253
Selling, general and administrative expenses	761	794	867
Restructuring and impairment costs	34	15	20
Net financing charges	17	23	8
Equity income	276	262	240
Income from discontinued operations before income taxes	630	597	598
Provision for income taxes on discontinued operations	141	145	169
Income from discontinued operations, net of tax	489	452	429
Income from discontinued operations attributable to noncontrolling interest, net of tax	191	165	176
Income from discontinued operations	$ 298	$ 287	$ 253

The following table summarizes the assets and liabilities of the R&LC HVAC business which were classified as held for sale (in millions):

	September 30,	
	2024	2023
Cash	$ 5	$ 7
Accounts receivable - net	592	512
Inventories	876	904
Other current assets	122	129
Current assets held for sale	1,595	1,552
Property, plant and equipment - net	793	762
Goodwill	1,182	1,164
Other intangible assets - net	96	116
Investments in partially-owned affiliates	949	905
Other noncurrent assets	190	158
Noncurrent assets held for sale	3,210	3,105
Total assets classified as held for sale	$ 4,805	$ 4,657
Short-term debt	$ —	$ 24
Accounts payable	917	770
Accrued compensation and benefits	113	111
Deferred revenue	84	73
Other current liabilities	317	397
Current liabilities held for sale	1,431	1,375
Pension and postretirement benefit obligations	28	27
Other noncurrent liabilities	377	380
Noncurrent liabilities held for sale	405	407
Total liabilities classified as held for sale	$ 1,836	$ 1,782

Assets and liabilities classified as held for sale are required to be recorded at the lower of carrying value or fair value less costs to sell. As of September 30, 2024, the estimated fair value less costs to sell of the held for sale businesses exceeded their carrying value, and therefore, no adjustment was necessary.

During the year ended September 30, 2023, the Company recorded impairment charges for the Global Retail business of $438 million and the Building Solutions Asia Pacific segment of $60 million. The impairment charges were primarily due to reductions in the estimated fair values of the businesses to be disposed as a result of negotiations with potential buyers and were recorded within restructuring and impairment costs in the consolidated statements of income. During the third quarter of fiscal 2023, the Company concluded that its Global Retail business no longer met the criteria to be classified as held for sale, as it was no longer probable that it would be sold in the next 12 months. The net assets were reclassified to held and used at the lower of fair value or adjusted carrying value, and due to prior period impairment charges recorded, there was no impact to the consolidated statements of income as a result of this reclassification.

4. REVENUE RECOGNITION

Disaggregated Revenue

The following table presents the Company's revenues disaggregated by segment and by products and systems versus services revenue (in millions):

	Year Ended September 30,					
	2024			2023		
	Products & Systems	Services	Total	Products & Systems	Services	Total
Building Solutions North America	$ 7,099	$ 4,249	$ 11,348	$ 6,368	$ 3,962	$ 10,330
Building Solutions EMEA/LA	2,314	1,982	4,296	2,275	1,821	4,096
Building Solutions Asia Pacific	1,483	754	2,237	1,987	759	2,746
Global Products	5,071	—	5,071	5,159	—	5,159
Total	$ 15,967	$ 6,985	$ 22,952	$ 15,789	$ 6,542	$ 22,331

The following table presents further disaggregation of Global Products revenues by product type (in millions):

	Year Ended September 30,	
	2024	2023
HVAC	$ 2,280	$ 2,358
Fire & Security	2,370	2,446
Industrial Refrigeration	421	355
Total	$ 5,071	$ 5,159

Contract Balances

Contract assets represent the Company's right to consideration for performance obligations that have been satisfied but not billed and consist of unbilled receivables and costs in excess of billings. Contract liabilities are customer payments received before performance obligations are satisfied. Contract balances are classified as assets or liabilities on a contract-by-contract basis at the end of each reporting period.

The following table presents the location and amount of contract balances in the Company's consolidated statements of financial position (in millions):

		September 30,	
	Location of contract balances	2024	2023
Contract assets - current	Accounts receivable - net	$ 1,931	$ 2,339
Contract assets - noncurrent	Other noncurrent assets	11	12
Contract liabilities - current	Deferred revenue	2,160	1,923
Contract liabilities - noncurrent	Other noncurrent liabilities	252	225

The Company recognized revenue that was included in the beginning of period contract liability balance of approximately $1.7 billion and $1.5 billion for the years ended September 30, 2024 and 2023, respectively.

Performance Obligations

A performance obligation is a distinct good, service, or bundle of goods and services promised in a contract. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. When contracts with customers require significant and complex integration, contain goods or services which are highly interdependent or interrelated, or are goods or services which significantly modify or customize other promises in the contracts and, therefore, are not distinct, then the entire contract is accounted for as a single performance obligation. For any contracts with multiple performance obligations, the contract's transaction price is allocated to each performance obligation based on the estimated relative standalone selling price of each distinct good or service in the contract. For product sales, each product sold to a customer typically represents a distinct performance obligation.

Performance obligations are satisfied as of a point in time or over time. The timing of satisfying the performance obligation is typically indicated by the terms of the contract. As of September 30, 2024, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately $21.1 billion, of which approximately 64% is expected to be recognized as revenue over the next two years. The remaining performance obligations expected to be recognized in revenue beyond two years primarily relate to large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which include services to be performed over the building's lifetime, with average initial contract terms of 25 to 35 years. Future contract modifications could affect both the timing and the amount of the remaining performance obligations. The Company excludes the value of remaining performance obligations for service contracts with an original expected duration of one year or less and contracts that are cancellable without substantial penalty.

Costs to Obtain or Fulfill a Contract

The Company recognizes the incremental costs incurred to obtain or fulfill a contract with a customer as an asset when the costs are recoverable. These costs consist primarily of sales commissions and bid/proposal costs. Costs to obtain or fulfill a contract are capitalized when incurred and amortized to expense over the period of contract performance.

The following table presents the location and amount of costs to obtain or fulfill a contract recorded in the Company's consolidated statements of financial position (in millions):

	September 30,	
	2024	2023
Other current assets	$ 265	$ 156
Other noncurrent assets	291	224
Total	$ 556	$ 380

Amortization of costs to obtain or fulfill a contract was $312 million and $251 million during the years ended September 30, 2024 and 2023, respectively. There were no impairment losses recognized in the year ended September 30, 2024 or 2023.

5. ACCOUNTS RECEIVABLE

The Company discontinued its receivable factoring program in March 2024. The Company sold $641 million and $1,717 million of accounts receivable under factoring agreements during the years ended September 30, 2024, and 2023, respectively. The cost of factoring such receivables was not material. Previously sold receivables still outstanding were $16 million and $615 million as of September 30, 2024 and 2023, respectively.

6. INVENTORIES

Inventories consisted of the following (in millions):

	September 30,	
	2024	2023
Raw materials and supplies	$ 765	$ 859
Work-in-process	130	180
Finished goods	879	833
Inventories	$ 1,774	$ 1,872

7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consisted of the following (in millions):

	September 30,	
	2024	2023
Buildings and improvements	$ 1,033	$ 1,042
Subscriber systems	973	823
Machinery and equipment	3,374	3,309
Construction in progress	418	442
Land	48	50
Total property, plant and equipment	5,846	5,666
Less: Accumulated depreciation	(3,443)	(3,292)
Property, plant and equipment - net	$ 2,403	$ 2,374

During the fourth quarter of fiscal 2023, the Company determined that a triggering event had occurred in the asset group comprising the security subscriber business of Argentina, primarily as a result of the significant devaluation of the Argentine peso that occurred during the quarter and the resulting impact on operating results and cash flows. The Company conducted the two-step impairment test required in accordance with ASC 360, "Property, Plant & Equipment" and determined that the carrying amount of the asset group exceeded its fair value. A non-cash impairment charge to the subscriber system assets of $78 million was recorded and is included in restructuring and impairment costs in the consolidated statements of income. The Company used a discounted cash flow model to estimate the fair value of the asset group. The primary assumptions and inputs used in the model included management's internal projections of future cash flows, the weighted-average cost of capital and the long-term growth rate. The fair value measurement is classified as Level 3 within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement" due to the unobservable inputs used.

8. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

The changes in the carrying amount of goodwill in each of the Company's reportable segments were as follows (in millions):

	Year Ended September 30, 2024				
	Building Solutions North America	Building Solutions EMEA/LA	Building Solutions Asia Pacific	Global Products	Total
Goodwill	$ 10,040	$ 1,932	$ 1,179	$ 4,586	17,737
Accumulated impairment loss	(659)	(47)	—	(259)	(965)
Balance at beginning of period	9,381	1,885	1,179	4,327	16,772
Impairments	—	(230)	—	—	(230)
Foreign currency translation and other [1]	10	107	48	18	183
Balance at end of period	$ 9,391	$ 1,762	$ 1,227	$ 4,345	$ 16,725

[1] Includes measurement period adjustments and the allocation of $21 million of goodwill from Global Products to the ADTi disposal group classified as held for sale in June 2024 and subsequently divested in July 2024. Refer to Note 2, "Acquisitions and Divestitures" of the notes to the consolidated financial statements for further information.

	Year Ended September 30, 2023				
	Building Solutions North America	Building Solutions EMEA/LA	Building Solutions Asia Pacific	Global Products	Total
Goodwill	$ 9,630	$ 1,794	$ 1,116	$ 4,416	16,956
Accumulated impairment loss	(659)	(47)	—	(75)	(781)
Balance at beginning of period	8,971	1,747	1,116	4,341	16,175
Acquisitions	399	13	55	119	586
Impairments	—	—	—	(184)	(184)
Foreign currency translation and other	11	125	8	51	195
Balance at end of period	$ 9,381	$ 1,885	$ 1,179	$ 4,327	$ 16,772

Management completed its fiscal 2024 annual impairment test as of July 31, which included a qualitative assessment of all but one of its reporting units. The Company did not identify any qualitative factors that suggest that it is more likely than not that the fair value of its reporting units is less than their carrying amount, including goodwill, and as such, a quantitative impairment test was not necessary. The Company performed a quantitative goodwill impairment test of one reporting unit with $214 million of goodwill, and its fair value was in excess of its carrying value. However, for this reporting unit, a 200 basis point increase in the discount rate, or a 200 basis point decrease in the revenue growth rates, would cause the fair value to be less than the carrying value. While no impairment was recorded, it is possible that future changes in circumstances could result in a non-cash impairment charge.

In the second quarter of fiscal 2024, the Company determined a triggering event had occurred for one of its reporting units in the Business Solutions EMEA/LA segment due to year-to-date results and projections for the remainder of fiscal 2024 being lower than the forecast used in the previous annual goodwill impairment test, and a quantitative test of goodwill for possible impairment was necessary. As a result of the goodwill impairment test, the Company recorded a non-cash impairment charge of $230 million within restructuring and impairment costs in the consolidated statements of income, which was determined by comparing the carrying amount of the reporting unit to its fair value. The Company used a discounted cash flow model to estimate the fair value of the reporting unit. The primary assumptions used in the model were management's internal projections of future cash flows, the weighted-average cost of capital and the long-term growth rate, which are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

In the second quarter of fiscal 2023, management completed an updated comprehensive review of the Silent-Aire reporting unit, which is included in the Global Products segment. Because actual results were lower than planned and the nearer term forecast was revised to reflect lower margins and earnings, the Company determined a triggering event had occurred and a quantitative test of goodwill for possible impairment was necessary. As a result of the goodwill impairment test, the Company recorded a non-cash impairment charge of $184 million within restructuring and impairment costs in the consolidated statements of income in fiscal 2023, which was determined by comparing the carrying amount of the reporting unit to its fair value. During its fiscal 2022 annual impairment test, the Company recorded a non-cash impairment charge of $75 million of Silent Aire goodwill within restructuring and impairment costs in the consolidated statements of income. The Company used a discounted cash flow model to estimate the fair value of the Silent-Aire reporting unit in both fiscal 2023 and 2022. The primary assumptions and inputs used in the model included management's internal projections of future cash flows, the weighted-average cost of capital and the long-term growth rate. The fair value measurement is classified as Level 3 within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement" due to the unobservable inputs used. The Silent-Aire reporting unit had no remaining goodwill balance as of September 30, 2024 and 2023.

During fiscal 2022, the Company concluded it had a triggering event requiring assessment of goodwill impairment for its North America Retail reporting unit in conjunction with classifying its Global Retail business as held for sale. As a result, the Company recorded a non-cash impairment charge of $235 million within restructuring and impairment costs in the consolidated statements of income in fiscal 2022. The North America Retail reporting unit had no remaining goodwill balance as of September 30, 2024 and 2023. The Company used the market approach to estimate the fair value of the reporting unit based on the relative estimated sales proceeds for the planned disposal of the Global Retail business attributable to the North America Retail reporting unit. The inputs utilized in the analysis are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

There were no other triggering events requiring that an impairment assessment be conducted in fiscal 2024, 2023 or 2022. However, it is possible that future changes in circumstances would require the Company to record additional non-cash impairment charges.

Other Intangible Assets

The Company's other intangible assets, primarily from business acquisitions, consisted of (in millions):

	September 30,					
	2024			2023		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Definite-lived intangible assets						
Technology	$ 1,592	$ (955)	$ 637	$ 1,562	$ (795)	$ 767
Customer relationships	2,632	(1,517)	1,115	2,854	(1,380)	1,474
Miscellaneous	886	(480)	406	831	(409)	422
	5,110	(2,952)	2,158	5,247	(2,584)	2,663
Indefinite-lived intangible assets						
Trademarks/tradenames	1,972	—	1,972	2,109	—	2,109
Total intangible assets	$ 7,082	$ (2,952)	$ 4,130	$ 7,356	$ (2,584)	$ 4,772

During the fourth quarter of fiscal 2024, the Company impaired $32 million and $13 million of miscellaneous intangible assets in the Global Products segment and Building Solutions North America segment, respectively. These non-cash charges were recorded within restructuring and impairment costs in the consolidated statement of income.

During the fourth quarter of fiscal 2023, the Company impaired $18 million of miscellaneous intangible assets in the Global Products segment and $10 million of a trademark in the Building Solutions Asia Pacific segment. These non-cash charges were recorded within restructuring and impairment costs in the consolidated statements of income.

There were no impairments of other indefinite-lived intangible assets in any of these years, other than as disclosed above. For all other remaining indefinite-lived intangible assets, the Company estimated fair values were greater than the carrying values, with the exception of two other registered trademarks in which the estimated fair values were consistent with their carrying values which totaled $335 million as of July 31, 2024.

Amortization of other intangible assets included within continuing operations for the years ended September 30, 2024, 2023 and 2022 was $476 million, $426 million and $413 million, respectively.

The following table summarizes estimated amortization of existing definite-lived intangible assets as of September 30, 2024 for each of the next five fiscal years (in millions):

2025	$ 453
2026	400
2027	365
2028	276
2029	183

9. LEASES

The following table presents the Company's lease costs (in millions):

	Year Ended September 30,		
	2024	2023	2022
Operating lease cost	$ 374	$ 365	$ 334
Variable lease cost	170	154	160
Total lease costs	$ 544	$ 519	$ 494

The following table presents supplemental consolidated statement of financial position information (in millions):

		September 30,	
	Location of lease balances	2024	2023
Operating lease right-of-use assets	Other noncurrent assets	$ 1,170	$ 1,301
Operating lease liabilities - current	Other current liabilities	289	298
Operating lease liabilities - noncurrent	Other noncurrent liabilities	921	1,016
Weighted-average remaining lease term		7 years	7 years
Weighted-average discount rate		3.8 %	3.5 %

The following table presents supplemental cash flow information related to operating leases (in millions):

	Year Ended September 30,		
	2024	2023	2022
Cash paid for amounts included in the measurement of lease liability:			
Operating cash outflows from operating leases	$ 377	$ 355	$ 349
Noncash operating lease activity:			
Right-of-use assets obtained in exchange for operating lease liabilities	354	389	358

The following table presents future minimum rental payments for operating lease liabilities as of September 30, 2024 (in millions):

2025	$ 326
2026	265
2027	207
2028	155
2029	106
After 2029	314
Total operating lease payments	1,373
Less: Interest	(163)
Present value of lease payments	$ 1,210

10. DEBT AND FINANCING ARRANGEMENTS

Short-Term Debt

Short-term debt consisted of the following (in millions):

	September 30,	
	2024	2023
Term loans	$ 603	$ 159
Commercial paper	350	200
Bank borrowings	—	2
	$ 953	$ 361
Weighted average interest rate on short-term debt outstanding	4.8 %	4.9 %

Long-Term Debt

Long-term debt consisted of the following (in millions; due dates by fiscal year):

Issuer	Interest Rate	Due Date	September 30, 2024	September 30, 2023
US dollar debt				
JCI plc	3.625%	2024	$ —	$ 453
JCI Inc.	3.625%	2024	—	31
JCI plc	3.90%	2026	487	487
TIFSA[1]	3.90%	2026	51	51
JCI plc and TFSCA[2]	5.50%	2029	700	—
JCI plc and TFSCA[2]	1.75%	2030	625	625
JCI plc and TFSCA[2]	2.00%	2031	500	500
JCI plc and TFSCA[2]	4.90%	2033	400	400
JCI plc	6.00%	2036	342	342
JCI Inc.	6.00%	2036	8	8
JCI plc	5.70%	2041	190	190
JCI Inc.	5.70%	2041	30	30
JCI plc	5.25%	2042	155	155
JCI Inc.	5.25%	2042	6	6
JCI plc	4.625%	2044	444	444
JCI Inc.	4.625%	2044	6	6
JCI plc	5.125%	2045	253	372
TIFSA[1]	5.125%	2045	23	23
JCI plc	6.95%	2046	32	32
JCI Inc.	6.95%	2046	4	4
JCI plc	4.50%	2047	500	500
JCI plc	4.95%	2064	341	341
JCI Inc.	4.95%	2064	15	15
Euro debt				
JCI plc	EURIBOR plus 0.70%	2024	—	159
JCI plc	1.375%	2025	472	448
TIFSA[1]	1.375%	2025	60	57
JCI plc and TFSCA[2]	0.375%	2027	559	530
JCI plc and TFSCA[2]	3.00%	2028	670	636
JCI plc and TFSCA[2]	1.00%	2032	559	530
JCI plc and TFSCA[2]	4.25%	2035	894	849
Japanese yen debt				
JCI plc	TORF plus 0.40%	2027	211	202
Other			31	36
Gross long-term debt			8,568	8,462
Less:				
Debt issuance costs			38	35
Net unamortized discount			38	41
Net purchase accounting adjustments			(48)	(77)
			8,540	8,463
Less: Current portion			536	645
Long-term debt			$ 8,004	$ 7,818

[1] TIFSA = Tyco International Finance S.A.
[2] TFSCA = Tyco Fire & Security Finance S.C.A.

The following table presents maturities of long-term debt as of September 30, 2024 (in millions):

2025	$	536
2026		544
2027		776
2028		676
2029		707
After 2029		5,329
Total	$	8,568

Other

As of September 30, 2024, the Company had syndicated committed revolving credit facilities of $2.5 billion which is scheduled to expire in December 2028 and $500 million which is scheduled to expire in December 2024. There were no draws on the facilities as of September 30, 2024.

As of September 30, 2024, the Company was in compliance with all financial covenants set forth in its credit agreements and the indentures governing its outstanding notes, and expects to remain in compliance for the foreseeable future.

Total interest paid on both short and long-term debt for the years ended September 30, 2024, 2023 and 2022 was $361 million, $288 million and $222 million, respectively.

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Unless otherwise noted, all activities and amounts reported in this footnote include both continuing operations of the Company and activities and amounts related to the R&LC HVAC business. See Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations" for additional details regarding divestiture of the R&LC HVAC business.

Cash Flow Hedges

The Company has global operations and participates in foreign exchange markets to minimize its risk of loss from fluctuations in foreign currency exchange rates. The Company selectively hedges anticipated transactions that are subject to foreign exchange rate risk primarily using foreign currency exchange forward contracts. The Company hedges 70% to 90% of the notional amount of each of its known foreign exchange transactional exposures.

The Company selectively hedges anticipated transactions that are subject to commodity price risk, primarily using commodity hedge contracts, to minimize overall price risk associated with its purchases of copper and aluminum in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities.

As cash flow hedges under ASC 815, "Derivatives and Hedging," the hedge gains or losses due to changes in fair value are initially recorded as a component of AOCI and are subsequently reclassified into earnings when the hedged transactions occur and affect earnings. These contracts were highly effective in hedging the variability in future cash flows attributable to changes in currency exchange rates during the years ended September 30, 2024 and 2023.

The Company had the following outstanding contracts to hedge forecasted commodity purchases (in metric tons):

	Volume Outstanding as of September 30,	
Commodity	2024	2023
Copper	2,676	2,812
Aluminum	2,450	5,976

The Company may enter into forward-starting interest rate swaps in conjunction with anticipated note issuances. The forward-starting interest swaps are terminated when the anticipated notes are issued.

During fiscal 2024, the Company terminated $600 million of forward-starting interest rate swaps related to an anticipated note issuance that was no longer highly likely to occur. Accumulated amounts previously recorded in AOCI were not material and were recognized as net financing charges in the consolidated statements of income when the swaps were terminated.

During fiscal 2023, the Company terminated forward-starting interest rate swaps with a combined notional amount of €400 million when the related anticipated debt was issued. Accumulated amounts recorded in AOCI as of the date of the debt issuance are amortized to interest expense over the life of the respective debt to reflect the difference between the swap's reference rate and the fixed rate of the note.

Net Investment Hedges

The Company may enter into cross-currency interest rate swaps and foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of the cross-currency interest rate swaps and debt obligations are reflected in the AOCI account within shareholders'equity attributable to Johnson Controls ordinary shareholders where they offset gains and losses recorded on the Company's net investments globally.

The following table summarizes net investment hedges (in billions):

	September 30,	
	2024	2023
Euro-denominated bonds designated as net investment hedges in Europe	€ 2.9	€ 2.9
Yen-denominated debt designated as a net investment hedge in Japan	¥ 30	¥ 30
US dollar vs. Yen cross-currency interest rate swap designated as a net investment hedge in Japan	—	¥ 14

Derivatives Not Designated as Hedging Instruments

The Company holds certain foreign currency forward contracts not designated as hedging instruments under ASC 815 to hedge foreign currency exposure resulting from monetary assets and liabilities denominated in nonfunctional currencies. The changes in fair value of these foreign currency exchange derivatives are recorded in the consolidated statements of income where they offset foreign currency transactional gains and losses on the nonfunctional currency denominated assets and liabilities being hedged.

Fair Value of Derivative Instruments

The following table presents the location and fair values of derivative instruments and hedging activities included in the Company's consolidated statements of financial position (in millions):

	Designated as Hedging Instruments		Not Designated as Hedging Instruments	
	September 30, 2024	September 30, 2023	September 30, 2024	September 30, 2023
Other current assets				
Foreign currency exchange derivatives	$ 19	$ 16	$ 1	$ 13
Commodity derivatives	2	—	—	—
Interest rate swaps	—	22	—	—
Other noncurrent assets				
Cross-currency interest rate swap	—	5	—	—
Total assets	$ 21	$ 43	$ 1	$ 13
Other current liabilities				
Foreign currency exchange derivatives	$ 24	$ 20	$ 1	$ 5
Commodity derivatives	1	2	—	—
Long-term debt				
Foreign currency denominated debt	3,424	3,253	—	—
Total liabilities	$ 3,449	$ 3,275	$ 1	$ 5

Counterparty Credit Risk

The use of derivative financial instruments exposes the Company to counterparty credit risk. The Company has established policies and procedures to limit the potential for counterparty credit risk, including establishing limits for credit exposure and continually assessing the creditworthiness of counterparties. As a matter of practice, the Company deals with major banks worldwide having strong investment grade long-term credit ratings. To further reduce the risk of loss, the Company generally enters into International Swaps and Derivatives Association ("ISDA") master netting agreements with substantially all of its counterparties. The Company enters into ISDA master netting agreements with counterparties that permit the net settlement of amounts owed under the derivative contracts. The master netting agreements generally provide for net settlement of all outstanding contracts with a counterparty in the case of an event of default or a termination event. The Company has not elected to offset the fair value positions of the derivative contracts recorded in the consolidated statements of financial position.

The Company's derivative contracts do not contain any credit risk related contingent features and do not require collateral or other security to be furnished by the Company or the counterparties. The Company's exposure to credit risk associated with its derivative instruments is measured on an individual counterparty basis, as well as by groups of counterparties that share similar attributes. The Company does not anticipate any non-performance by any of its counterparties, and the concentration of risk with financial institutions does not present significant credit risk to the Company.

The gross and net amounts of derivative assets and liabilities were as follows (in millions):

	Fair Value of Assets		Fair Value of Liabilities	
	September 30, 2024	September 30, 2023	September 30, 2024	September 30, 2023
Gross amount recognized	$ 22	$ 56	$ 3,450	$ 3,280
Gross amount eligible for offsetting	(12)	(19)	(12)	(19)
Net amount	$ 10	$ 37	$ 3,438	$ 3,261

Derivatives Impact on the Statements of Income and Statements of Comprehensive Income

The following table presents the pre-tax gains (losses) recorded in other comprehensive income (loss) related to cash flow hedges (in millions):

	Year Ended September 30,		
Derivatives in Cash Flow Hedging Relationships	2024	2023	2022
Foreign currency exchange derivatives	$ (1)	$ (13)	$ 26
Commodity derivatives	5	1	(21)
Interest rate swaps	(21)	27	16
Total	$ (17)	$ 15	$ 21

The following table presents the location and amount of the pre-tax gains (losses) on cash flow hedges reclassified from AOCI into the Company's consolidated statements of income (in millions):

Derivatives in Cash Flow Hedging Relationships	Location of Gain (Loss) Reclassified from AOCI into Income	Year Ended September 30,		
		2024	2023	2022
Foreign currency exchange derivatives	Cost of sales	$ 1	$ (4)	$ 25
Commodity derivatives	Cost of sales	—	(8)	(7)
Interest rate swaps	Net financing charges	—	—	(2)
Total		$ 1	$ (12)	$ 16

The following table presents the location and amount of pre-tax gains (losses) on derivatives not designated as hedging instruments recognized in the Company's consolidated statements of income (in millions):

Derivatives Not Designated as Hedging Instruments	Location of Gain (Loss) Recognized in Income on Derivative	Year Ended September 30, 2024	2023	2022
Foreign currency exchange derivatives	Cost of sales	$ (5)	$ (16)	$ 10
Foreign currency exchange derivatives	Net financing charges	43	(103)	85
Foreign currency exchange derivatives	Selling, general and administrative	(1)	—	—
Interest rate swaps	Net financing charges	—	1	—
Equity swap	Selling, general and administrative	—	—	(5)
Total		$ 37	$ (118)	$ 90

The following table presents pre-tax gains (losses) on net investment hedges recorded as foreign currency translation adjustments ("CTA") within other comprehensive income (loss) (in millions):

	Year Ended September 30, 2024	2023	2022
Net investment hedges	$ (173)	$ (223)	$ 470

No gains or losses were reclassified from CTA into income for the years ended September 30, 2024, 2023 and 2022.

12. FAIR VALUE MEASUREMENTS

The following tables present the Company's fair value hierarchy for those assets and liabilities measured at fair value (in millions):

	Total as of September 30, 2024	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 20	$ —	$ 20	$ —
Commodity derivatives	2	—	2	—
Other noncurrent assets				
Deferred compensation plan assets	56	56	—	—
Exchange traded funds (fixed income)[1]	81	81	—	—
Exchange traded funds (equity)[1]	200	200	—	—
Total assets	$ 359	$ 337	$ 22	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 25	$ —	$ 25	$ —
Commodity derivatives	1	—	1	—
Contingent earn-out liabilities	14	—	—	14
Other noncurrent liabilities				
Contingent earn-out liabilities	14	—	—	14
Total liabilities	$ 54	$ —	$ 26	$ 28

[1]Classified as restricted investments for payment of asbestos liabilities. Refer to Note 21, "Commitments and Contingencies" of the notes to consolidated financial statements for further details.

	Total as of September 30, 2023	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 29	$ —	$ 29	$ —
Interest rate swaps	22	—	22	—
Other noncurrent assets				
Cross-currency interest rate swaps	5	—	5	—
Deferred compensation plan assets	45	45	—	—
Exchange traded funds (fixed income)[1]	76	76	—	—
Exchange traded funds (equity)[1]	155	155	—	—
Total assets	$ 332	$ 276	$ 56	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 25	$ —	$ 25	$ —
Commodity derivatives	2	—	2	—
Contingent earn-out liabilities	48	—	—	48
Other noncurrent liabilities				
Contingent earn-out liabilities	76	—	—	76
Total liabilities	$ 151	$ —	$ 27	$ 124

[1]Classified as restricted investments for payment of asbestos liabilities. Refer to Note 21, "Commitments and Contingencies" of the notes to consolidated financial statements for further details.

The following table summarizes the changes in contingent earn-out liabilities, which are valued using significant unobservable inputs (Level 3) (in millions):

Balance at September 30, 2023	$ 124
Payments	(26)
Reduction for change in estimates	(71)
Currency translation	1
Balance at September 30, 2024	$ 28

Valuation Methods

Commodity derivatives: The commodity derivatives are valued under a market approach using publicized prices, where available, or dealer quotes.

Contingent earn-out liabilities: The contingent earn-out liabilities are generally established using a Monte Carlo simulation based on the forecasted operating results and the earn-out formulas specified in the purchase agreements.

Cross-currency interest rate swaps: The fair value of cross-currency interest rate swaps represents the difference between the swap's reference rate and exchange rate and the interest and exchange rates for a similar instrument as of the reporting period. Cross-currency interest rate swaps are valued under a market approach using publicized prices.

Deferred compensation plan assets: Assets held in the deferred compensation plans will be used to pay benefits under certain of the Company's non-qualified deferred compensation plans. The investments primarily consist of mutual funds which are publicly traded on stock exchanges and are valued using a market approach based on the quoted market prices. Unrealized gains (losses) on the deferred compensation plan assets are recognized in the consolidated statements of income where they offset unrealized gains and losses on the related deferred compensation plan liability.

Exchange traded funds: Investments in exchange traded funds are valued using a market approach based on quoted market prices, where available, or broker/dealer quotes of identical or comparable instruments. Refer to Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for further information.

Foreign currency exchange derivatives: The foreign currency exchange derivatives are valued under a market approach using publicized spot and forward prices.

Interest rate swaps: The fair value of interest rate swaps represents the difference between the swap's reference rate and the interest rate for a similar instrument as of the reporting period. Interest rate swaps are valued under a market approach using publicized prices.

The following table presents the portion of unrealized gains recognized in the consolidated statements of income that relate to equity securities still held at September 30, 2024 and 2023 (in millions):

	Year Ended September 30,	
	2024	2023
Deferred compensation plan assets	$ 10	$ 5
Investments in exchange traded funds	58	24

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values.

The fair value of long-term debt was as follows (in billions):

	September 30,	
	2024	2023
Public debt	$ 8.1	$ 7.1
Other long-term debt	0.2	0.4
Total fair value of long-term debt	$ 8.3	$ 7.5

The fair value of public debt was determined primarily using market quotes which are classified as Level 1 inputs within the ASC 820 fair value hierarchy. The fair value of other long-term debt was determined using quoted market prices for similar instruments and are classified as Level 2 inputs within the ASC 820 fair value hierarchy.

13. STOCK-BASED COMPENSATION

Unless otherwise noted, all activities and amounts reported in this footnote include both continuing operations of the Company and activities and amounts related to the R&LC HVAC business. See Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations" for additional details regarding divestiture of the R&LC HVAC business.

The Johnson Controls International plc 2021 Equity and Incentive Plan authorizes stock options, stock appreciation rights, restricted (non-vested) stock/units, performance shares, performance units and other stock-based awards. The Compensation and Talent Development Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards. Annual awards are typically granted in the first quarter of the fiscal year. As of September 30, 2024, there were 55 million shares of the Company's common stock reserved and 36 million shares available for issuance under the 2021 Equity and Incentive Plan.

The following table summarizes stock-based compensation related charges and benefits (in millions):

	Year Ended September 30,		
	2024	2023	2022
Compensation expense	$ 100	$ 101	$ 104
Income tax benefit resulting from share-based compensation arrangements	25	25	26
Tax impact from exercise and vesting of equity settled awards	1	7	12

Compensation expense is recorded in selling, general and administrative expenses. The Company does not settle stock options granted under share-based payment arrangements in cash.

Restricted (Non-vested) Stock / Units

A summary of non-vested restricted stock awards at September 30, 2024, and changes for the year then ended, is presented below:

	Weighted Average Price	Shares/Units Subject to Restriction
Non-vested, September 30, 2023	$ 64.90	2,807,113
Granted	55.05	2,090,092
Vested	63.75	(1,315,306)
Forfeited	61.42	(677,796)
Non-vested, September 30, 2024	$ 59.29	2,904,103

At September 30, 2024, the Company had approximately $120 million of total unrecognized compensation cost related to non-vested restricted stock arrangements granted which is expected to be recognized over a weighted-average period of 1.8 years.

Performance Share Awards (PSU's)

The following table summarizes the assumptions used in determining the fair value of performance share awards granted:

	Year Ended September 30,		
	2024	2023	2022
Risk-free interest rate	4.21%	4.04%	0.99%
Expected volatility of the Company's stock	27.20%	33.50%	30.00%

A summary of the status of the Company's non-vested PSU's at September 30, 2024, and changes for the year then ended, is presented below:

	Weighted Average Price	Shares/Units Subject to PSU
Non-vested, September 30, 2023	$ 71.77	867,524
Granted	54.13	370,307
Vested	50.53	(299,746)
Forfeited	73.83	(142,452)
Non-vested, September 30, 2024	$ 71.20	795,633

At September 30, 2024, the Company had approximately $27 million of total unrecognized compensation cost related to non-vested performance-based share unit awards which is expected to be recognized over a weighted-average period of 1.8 years.

Stock Options

The following table summarizes the assumptions used in determining the fair value of stock options granted:

	Year Ended September 30,		
	2024	2023	2022
Expected life of option (years)	5.7	5.8	6.0
Risk-free interest rate	3.86%	3.59%	1.35%
Expected volatility of the Company's stock	29.80%	29.40%	27.80%
Expected dividend yield on the Company's stock	2.77%	2.10%	1.71%

A summary of stock option activity at September 30, 2024, and changes for the year then ended, is presented below:

	Weighted Average Option Price	Shares Subject to Option	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (in millions)
Outstanding, September 30, 2023	$ 45.44	4,919,916		
Granted	53.52	652,702		
Exercised	40.39	(1,004,234)		
Forfeited or expired	63.47	(323,602)		
Outstanding, September 30, 2024	$ 46.51	4,244,782	5.72	$ 133
Exercisable, September 30, 2024	$ 41.21	3,141,132	4.16	$ 115

The following table summarizes additional stock option information:

	Year Ended September 30,		
	2024	2023	2022
Weighted-average grant-date fair value of options granted	$ 13.74	$ 18.21	$ 18.59
Intrinsic value of options exercised (in millions)	22	27	19

At September 30, 2024, the Company had approximately $9 million of total unrecognized compensation cost related to non-vested stock options which is expected to be recognized over a weighted-average period of 1.6 years.

14. EARNINGS PER SHARE

The following table reconciles the numerators and denominators used to calculate basic and diluted earnings per share (in millions):

	Year Ended September 30,		
	2024	2023	2022
Income Available to Ordinary Shareholders			
Income from continuing operations	$ 1,407	$ 1,562	$ 1,279
Income from discontinued operations	298	287	253
Basic and diluted income available to shareholders	$ 1,705	$ 1,849	$ 1,532
Weighted Average Shares Outstanding			
Basic weighted average shares outstanding	673.8	684.3	696.1
Effect of dilutive securities:			
Stock options, unvested restricted stock and unvested performance share awards	2.2	3.1	3.5
Diluted weighted average shares outstanding	676.0	687.4	699.6
Antidilutive Securities			
Stock options and unvested restricted stock	0.3	0.2	0.4

15. EQUITY

Dividends

The authority to declare and pay dividends is vested in the Board of Directors. The timing, declaration and payment of future dividends to holders of the Company's ordinary shares is determined by the Company's Board of Directors and depends upon many factors, including the Company's financial condition and results of operations, the capital requirements of the Company's businesses, industry practice and any other relevant factors.

Under Irish law, dividends may only be paid (and share repurchases and redemptions must generally be funded) out of "distributable reserves." The creation of distributable reserves was accomplished by way of a capital reduction, which the Irish High Court approved on December 18, 2014 and as acquired in conjunction with the Merger.

Share Repurchase Program

As of September 30, 2024, approximately $1.7 billion remained available under the share repurchase program which was approved by the Company's Board of Directors in March 2021. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice.

Accumulated Other Comprehensive Income

The following table includes changes attributable to both continuing and discontinued operations in AOCI attributable to Johnson Controls (in millions, net of tax):

	Year Ended September 30,		
	2024	2023	2022
Foreign currency translation adjustments			
Balance at beginning of period	$ (970)	$ (901)	$ (421)
Aggregate adjustment for the period	14	(69)	(480)
Balance at end of period	(956)	(970)	(901)
Realized and unrealized gains (losses) on derivatives			
Balance at beginning of period	15	(11)	(17)
Current period changes in fair value	(17)	19	20
Reclassification to income [(1)]	(1)	11	(16)
Net tax impact	(1)	(4)	2
Balance at end of period	(4)	15	(11)
Pension and postretirement plans			
Balance at beginning of period	—	1	4
Reclassification to income	(5)	(1)	(3)
Net tax impact	1	—	—
Balance at end of period	(4)	—	1
Accumulated other comprehensive loss, end of period	$ (964)	$ (955)	$ (911)

[(1)] Refer to Note 11, "Derivative Instruments and Hedging Activities," of the notes to consolidated financial statements for disclosure of the line items in the consolidated statements of income affected by reclassifications from AOCI into income related to derivatives.

16. RETIREMENT PLANS

Unless otherwise noted, all activities and amounts reported in this footnote include both continuing operations of the Company and activities and amounts related to the R&LC HVAC business. See Note 3, "Assets and Liabilities Held for Sale and Discontinued Operations" for additional details regarding divestiture of the R&LC HVAC business.

Pension Benefits

The Company has non-contributory defined benefit pension plans covering certain U.S. and non-U.S. employees. The benefits provided are primarily based on years of service and average compensation or a monthly retirement benefit amount. The Company's U.S. pension plans no longer allow new participants to enter the plans and no longer accrue benefits. Funding for U.S. pension plans equals or exceeds the minimum requirements of the Employee Retirement Income Security Act of 1974.

Funding for non-U.S. plans observes the local legal and regulatory limits. Also, the Company makes contributions to union-trusteed pension funds for construction and service personnel.

The following table includes information for pension plans with accumulated benefit obligations ("ABO") in excess of plan assets (in millions):

	September 30,	
	2024	2023
Accumulated benefit obligation	$ 331	$ 1,834
Fair value of plan assets	149	1,618

The following table includes information for pension plans with projected benefit obligations ("PBO") in excess of plan assets (in millions):

	September 30,	
	2024	2023
Projected benefit obligation	$ 344	$ 1,846
Fair value of plan assets	163	1,633

The Company contributed $25 million to the defined benefit plans in fiscal 2024 and expects to contribute approximately $23 million in cash in fiscal 2025. None of contributions made by the Company were voluntary.

Projected benefit payments from the plans as of September 30, 2024 are estimated as follows (in millions):

2025	$ 269
2026	240
2027	238
2028	231
2029	233
2030 - 2034	1,154

Postretirement Benefits

The Company provides certain health care and life insurance benefits for eligible retirees and their dependents primarily in the U.S. and Canada. Most non-U.S. employees are covered by government sponsored programs. The cost to the Company is not significant.

Eligibility for coverage is based on meeting certain years of service and retirement age qualifications. These benefits may be subject to deductibles, co-payment provisions and other limitations. The Company has reserved the right to modify these benefits.

The health care cost trend assumption does not have a significant effect on the amounts reported.

The following table includes information for postretirement plans with accumulated postretirement benefit obligations ("APBO") in excess of plan assets (in millions):

	September 30,	
	2024	2023
Accumulated postretirement benefit obligation	$ 56	$ 58
Fair value of plan assets	26	24

The Company contributed $2 million to the postretirement benefit plans in fiscal 2024 and expects to contribute approximately $2 million in cash in fiscal 2025.

Projected benefit payments from the plans as of September 30, 2024 are estimated as follows (in millions):

2025	$ 9
2026	9
2027	9
2028	7
2029	6
2030 - 2034	25

Defined Contribution Plans

The Company sponsors various defined contribution savings plans that allow employees to contribute a portion of their pre-tax and/or after-tax income in accordance with plan specified guidelines. Under specified conditions, the Company will contribute to certain savings plans based on predetermined percentages of compensation earned by the employee and/or will match a percentage of the employee contributions up to certain limits. Defined contribution plan contributions charged to expense amounted to $208 million, $209 million and $196 million during the years ended September 30, 2024, 2023 and 2022, respectively.

Multiemployer Benefit Plans

The Company contributes to multiemployer benefit plans based on obligations arising from collective bargaining agreements related to certain of its hourly employees in the U.S. These plans provide retirement benefits to participants based on their service to contributing employers. The benefits are paid from assets held in trust for that purpose. The trustees typically are responsible for determining the level of benefits to be provided to participants as well as for such matters as the investment of the assets and the administration of the plans.

The risks of participating in these multiemployer benefit plans are different from single-employer benefit plans in the following aspects:

- Assets contributed to the multiemployer benefit plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating employer stops contributing to the multiemployer benefit plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- If the Company stops participating in some of its multiemployer benefit plans, it may be required to pay those plans an amount based on its allocable share of the underfunded status of the plan, referred to as a withdrawal liability.

The Company participates in approximately 240 multiemployer benefit plans, none of which are individually significant to the Company. The number of employees covered by the Company's multiemployer benefit plans has remained consistent over the past three years, and there have been no significant changes that affect the comparability of fiscal 2024, 2023 and 2022 contributions. The Company recognizes expense for the contractually-required contribution for each period. The Company contributed $80 million, $67 million and $71 million to multiemployer benefit plans during the years ended September 30, 2024, 2023 and 2022, respectively.

Based on the most recent information available, the Company believes that the present value of actuarial accrued liabilities in certain of these multiemployer benefit plans may exceed the value of the assets held in trust to pay benefits. Currently, the Company is not aware of any significant multiemployer benefit plans for which it is probable or reasonably possible that the Company will be obligated to make up any shortfall in funds. Moreover, if the Company were to exit certain markets or otherwise cease making contributions to these funds, the Company could trigger a withdrawal liability. Currently, the Company is not aware of any multiemployer benefit plans for which it is probable or reasonably possible that the Company will have a significant withdrawal liability. Any accrual for a shortfall or withdrawal liability will be recorded when it is probable that a liability exists and it can be reasonably estimated.

Plan Assets

The Company's investment policies employ an approach whereby a mix of equities, fixed income and alternative investments are used to maximize the long-term return of plan assets for a prudent level of risk. The investment portfolio primarily contains a diversified blend of equity and fixed income investments. Equity investments are diversified across U.S. and non-U.S. stocks, as well as growth, value and small to large capitalization. Fixed income investments include corporate and government issues, with short-, mid- and long-term maturities, with a focus on investment grade when purchased and a target duration close to that of the plan liability. Investment and market risks are measured and monitored on an ongoing basis through regular investment portfolio reviews, annual liability measurements and periodic asset/liability studies. The majority of the real estate component of the portfolio is invested in a diversified portfolio of high-quality, operating properties with cash yields greater than the targeted appreciation. Investments in other alternative asset classes, including hedge funds, diversify the expected investment returns relative to the equity and fixed income investments. As a result of the Company's diversification strategies, there are no significant concentrations of risk within the portfolio of investments.

The Company's actual asset allocations are in line with target allocations. The Company rebalances asset allocations as appropriate, in order to stay within a range of allocation for each asset category.

The expected return on plan assets is based on the Company's expectation of the long-term average rate of return of the capital markets in which the plans invest. The average market returns are adjusted, where appropriate, for active asset management returns. The expected return reflects the investment policy target asset mix and considers the historical returns earned for each asset category.

The Company's plan assets at September 30, 2024 and 2023, by asset category, are as follows (in millions):

Asset Category	Total as of September 30, 2024	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Pension				
Cash and Cash Equivalents	$ 23	$ —	$ 23	$ —
Equity Securities				
Large-Cap	19	19	—	—
Small-Cap	23	23	—	—
International - Developed	45	45	—	—
International - Emerging	8	8	—	—
Fixed Income Securities				
Government	265	265	—	—
Corporate/Other	786	784	2	—
Total Investments in the Fair Value Hierarchy	1,169	$ 1,144	$ 25	$ —
Investments Measured at Net Asset Value[1]				
Alternative	235			
Real Estate	266			
Due to Broker	(79)			
Total Plan Assets	$ 1,591			
Non-U.S. Pension				
Cash and Cash Equivalents	$ 42	$ 42	$ —	$ —
Equity Securities				
Large-Cap	88	9	79	—
International - Developed	64	10	54	—
International - Emerging	3	—	3	—
Fixed Income Securities				
Government	789	26	763	—
Corporate/Other	417	282	135	—
Hedge Fund	22	—	22	—
Real Estate	11	11	—	—
Total Investments in the Fair Value Hierarchy	1,436	$ 380	$ 1,056	$ —
Real Estate Investments Measured at Net Asset Value[1]	89			
Total Plan Assets	$ 1,525			
Postretirement				
Cash and Cash Equivalents	$ 3	$ 3	$ —	$ —
Equity Securities - Global	89	—	89	—
Total Investments in the Fair Value Hierarchy	92	$ 3	$ 89	$ —
Multi-Credit Strategy Investments Measured at Net Asset Value[1]	69			
Total Plan Assets	$ 161			

Asset Category	Total as of September 30, 2023	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Pension				
Cash and Cash Equivalents	$ 61	$ —	$ 61	$ —
Equity Securities				
Large-Cap	60	60	—	—
Small-Cap	65	65	—	—
International - Developed	108	108	—	—
International - Emerging	20	20	—	—
Fixed Income Securities				
Government	225	225	—	—
Corporate/Other	583	583	—	—
Total Investments in the Fair Value Hierarchy	1,122	$ 1,061	$ 61	$ —
Investments Measured at Net Asset Value[1]				
Alternative	211			
Real Estate	295			
Due to Broker	(129)			
Total Plan Assets	$ 1,499			
Non-U.S. Pension				
Cash and Cash Equivalents	$ 52	$ 52	$ —	$ —
Equity Securities				
Large-Cap	52	9	43	—
International - Developed	52	12	40	—
International - Emerging	2	—	2	—
Fixed Income Securities				
Government	701	40	661	—
Corporate/Other	415	271	144	—
Hedge Fund	15	—	15	—
Real Estate	9	9	—	—
Total Investments in the Fair Value Hierarchy	1,298	$ 393	$ 905	$ —
Real Estate Investments Measured at Net Asset Value[1]	90			
Total Plan Assets	$ 1,388			
Postretirement				
Cash and Cash Equivalents	$ 8	$ 8	$ —	$ —
Equity Securities - Global	71	—	71	—
Total Investments in the Fair Value Hierarchy	79	8	71	—
Multi-Credit Strategy Investments Measured at Net Asset Value[1]	65			
Total Plan Assets	$ 144			

[1]The fair value of certain real estate, multi-credit strategy, and alternative investments do not have a readily determinable fair value and require the fund managers to independently arrive at fair value by calculating net asset value ("NAV") per share. In order to calculate NAV per share, the fund managers value the investments using any one, or a combination of, the following methods: independent third party appraisals, discounted cash flow analysis of net cash flows projected to be generated by the investment and recent sales of comparable investments. Assumptions used to revalue the investments are updated every quarter.

Due to the fact that the fund managers calculate NAV per share, the Company utilizes a practical expedient for measuring the fair value of its real estate, multi-credit strategy, and alternative investments, as provided for under ASC 820, "Fair Value Measurement." In applying the practical expedient, the Company is not required to further adjust the NAV provided by the fund manager in order to determine the fair value of its investments as the NAV per share is calculated in a manner consistent with the measurement principles of ASC 946, "Financial Services - Investment Companies," and as of the Company's measurement date. The Company believes this is an appropriate methodology to obtain the fair value of these assets. The fair value amounts presented in these tables are intended to permit reconciliation of total plan assets to the amounts presented in the notes to consolidated financial statements.

The following is a description of the valuation methodologies used for assets measured at fair value. Certain assets are held within commingled funds which are valued at the unitized NAV or percentage of the net asset value as determined by the manager of the fund. These values are based on the fair value of the underlying net assets owned by the fund.

Cash and Cash Equivalents: The fair value of cash and cash equivalents is valued at cost.

Equity Securities: The fair value of equity securities is determined by direct quoted market prices. The underlying holdings are direct quoted market prices on regulated financial exchanges.

Fixed Income Securities: The fair value of fixed income securities is determined by direct or indirect quoted market prices. If indirect quoted market prices are utilized, the value of assets held in separate accounts is not published, but the investment managers report daily the underlying holdings. The underlying holdings are direct quoted market prices on regulated financial exchanges.

Hedge Funds: The fair value of hedge funds is accounted for by the custodian. The custodian obtains valuations from underlying managers based on market quotes for the most liquid assets and alternative methods for assets that do not have sufficient trading activity to derive prices. The Company and custodian review the methods used by the underlying managers to value the assets. The Company believes this is an appropriate methodology to obtain the fair value of these assets.

Real Estate: The fair value of real estate is determined by quoted market prices of the underlying Real Estate Investment Trusts ("REITs"), which are securities traded on an open exchange.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Funded Status

The following table contains the ABO and reconciliations of the changes in the PBO, the changes in plan assets and the funded status (in millions):

	Pension Benefits				Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans			
September 30,	2024	2023	2024	2023	2024	2023
Accumulated Benefit Obligation	$ 1,603	$ 1,564	$ 1,563	$ 1,424	$ 73	$ 76
Change in Projected Benefit Obligation						
Projected benefit obligation at beginning of year	$ 1,564	$ 1,822	$ 1,473	$ 1,471	$ 77	$ 89
Service cost	—	—	17	16	—	—
Interest cost	79	78	69	68	4	4
Plan participant contributions	—	—	3	3	2	3
Actuarial loss (gain)	104	(37)	84	(62)	4	(7)
Benefits and settlements paid	(144)	(299)	(132)	(126)	(13)	(12)
Other	—	—	(3)	(3)	(1)	—
Currency translation adjustment	—	—	106	106	—	—
Projected benefit obligation at end of year	$ 1,603	$ 1,564	$ 1,617	$ 1,473	$ 73	$ 77
Change in Plan Assets						
Fair value of plan assets at beginning of year	$ 1,499	$ 1,730	$ 1,388	$ 1,433	$ 144	$ 144
Actual return on plan assets	234	66	137	(77)	26	7
Employer and employee contributions	2	3	26	55	4	5
Benefits paid	(144)	(85)	(67)	(61)	(13)	(12)
Settlement payments	—	(215)	(65)	(65)	—	—
Other	—	—	1	(2)	—	—
Currency translation adjustment	—	—	105	105	—	—
Fair value of plan assets at end of year	$ 1,591	$ 1,499	$ 1,525	$ 1,388	$ 161	$ 144
Funded status	$ (12)	$ (65)	$ (92)	$ (85)	$ 88	$ 67
Amounts recognized in the consolidated statements of financial position consist of:						
Other noncurrent assets	$ 2	$ 1	$ 62	$ 62	$ 118	$ 101
Noncurrent assets held for sale	—	—	52	35	—	—
Accrued compensation and benefits	(2)	(3)	(12)	(12)	(2)	(2)
Pension and postretirement benefit obligations	(12)	(63)	(166)	(143)	(28)	(32)
Noncurrent liabilities held for sale	—	—	(28)	(27)	—	—
Net amount recognized	$ (12)	$ (65)	$ (92)	$ (85)	$ 88	$ 67
Weighted Average Assumptions [1]						
Discount rate [2]	4.60 %	5.48 %	4.35 %	4.72 %	4.50 %	5.42 %
Rate of compensation increase	N/A	N/A	3.01 %	2.90 %	N/A	N/A
Interest crediting rate	N/A	N/A	1.58 %	1.63 %	N/A	N/A

[1] Plan assets and obligations are determined based on a September 30 measurement date at September 30, 2024 and 2023.

[2] The Company considers the expected benefit payments on a plan-by-plan basis when setting assumed discount rates. As a result, the Company uses different discount rates for each plan depending on the plan jurisdiction, the demographics of participants and the expected timing of benefit payments. For the U.S. pension and postretirement plans, the Company uses a discount rate provided by an independent third party calculated based on an appropriate mix of high quality bonds. For the non-U.S. pension and postretirement plans, the Company consistently uses the relevant country specific benchmark indices for

determining the various discount rates. The Company has elected to utilize a full yield curve approach in the estimation of service and interest components of net periodic benefit cost (credit) for pension and other postretirement for plans that utilize a yield curve approach. The full yield curve approach applies the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows.

The fiscal 2024 net actuarial losses related to changes in the projected benefit obligation were primarily the result of the decrease in discount rates globally. The fiscal 2023 net actuarial gains related to changes in the projected benefit obligation were primarily the result of the increase in discount rates globally.

Net Periodic Benefit Cost

The following table contains the components of net periodic benefit costs, which are recorded in selling, general and administrative expenses or cost of sales consistent with the related employees' salaries in the consolidated statements of income (in millions):

	Pension Benefits								
	U.S. Plans			Non-U.S. Plans			Postretirement Benefits		
Year ended September 30,	2024	2023	2022	2024	2023	2022	2024	2023	2022
Components of Net Periodic Benefit Cost (Credit):									
Service cost	$ —	$ —	$ —	$ 17	$ 16	$ 20	$ —	$ —	$ 1
Interest cost	79	78	56	69	68	39	4	4	2
Expected return on plan assets	(120)	(131)	(150)	(72)	(77)	(81)	(9)	(9)	(9)
Net actuarial (gain) loss	(9)	28	16	22	86	(116)	(14)	(5)	4
Settlement loss	—	1	1	—	6	5	—	—	—
Amortization of prior service credit	—	—	—	—	—	—	(5)	(4)	(4)
Other	—	—	—	1	—	—		—	—
Net periodic benefit cost (credit)	$ (50)	$ (24)	$ (77)	$ 37	$ 99	$ (133)	$ (24)	$ (14)	$ (6)
Expense Assumptions:									
Discount rate	5.48 %	5.08 %	2.52 %	4.72 %	4.36 %	1.79 %	5.42 %	4.92 %	2.30 %
Expected return on plan assets	8.50 %	8.25 %	7.00 %	5.26 %	5.02 %	3.70 %	6.62 %	6.64 %	5.29 %
Rate of compensation increase	N/A	N/A	N/A	2.90 %	3.00 %	2.85 %	N/A	N/A	N/A
Interest crediting rate	6.00 %	N/A	N/A	1.63 %	1.69 %	1.44 %	N/A	N/A	N/A

17. RESTRUCTURING AND RELATED COSTS

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company commits to restructuring plans as necessary. Restructuring activities generally result in charges for workforce reductions, plant closures, asset impairments and other related costs which are reported as restructuring and impairment costs in the Company's consolidated statements of income. The Company expects the restructuring actions to reduce cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense.

During the fourth quarter of fiscal 2024, the Company completed its previous restructuring plan and committed to a new multi-year restructuring plan to address stranded costs and further right-size its global operations as a result of previously announced portfolio simplification actions. It is expected that one-time restructuring costs, including severance and other employee termination benefits, contract termination costs, and certain other related cash and non-cash charges, of approximately $400 million will be incurred over the course of fiscal 2025, 2026 and 2027. Restructuring costs will be incurred across all segments and Corporate functions.

The following table summarizes restructuring and related costs (in millions):

	Year Ended September 30, 2024
Building Solutions North America	$ 12
Building Solutions EMEA/LA	45
Building Solutions Asia Pacific	11
Global Products	38
Corporate	37
Total	$ 143

The following table summarizes changes in the restructuring reserve, which is included within other current liabilities in the consolidated statements of financial position (in millions):

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Restructuring and related costs	$ 191	$ 37	$ 33	$ 261
Utilized—cash	(98)	—	(18)	(116)
Utilized—noncash	—	(37)	(3)	(40)
Balance at September 30, 2023	93	—	12	105
Additional restructuring and related costs	71	41	31	143
Utilized—cash	(138)	—	(25)	(163)
Utilized—noncash	—	(41)	(1)	(42)
Other	32	—	—	32
Balance at September 30, 2024	$ 58	$ —	$ 17	$ 75

18. INCOME TAXES

The components of the Company's income tax provision from continuing operations are as follows (in millions):

	2024	2023	2022
Tax expense at Ireland statutory rate of 12.5%	$ 190	$ 139	$ 139
U.S. state income tax, net of federal benefit	42	30	(26)
Income subject to the U.S. federal tax rate	63	42	(101)
Income subject to rates different than the statutory rate	(204)	44	67
Reserve and valuation allowance adjustments	(139)	(559)	(301)
Intellectual property transactions and adjustments	—	(176)	—
Impact of acquisitions and divestitures	121	—	—
Restructuring and impairment costs	38	12	40
Income tax provision (benefit)	$ 111	$ (468)	$ (182)
Effective tax rate	7 %	(42)%	(16)%

For fiscal 2024, the effective tax rate for continuing operations was 7% and was lower than the statutory tax rate primarily due to tax reserve adjustments as the result of tax audit resolutions and expired statute of limitations for certain tax years, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries as a result of the planned divestiture of its R&LC HVAC business and the unfavorable impact of impairment and restructuring charges.

For fiscal 2023, the effective tax rate for continuing operations was (42)% and was lower than the statutory tax rate primarily due to the favorable tax impacts of intellectual property tax adjustments, tax reserve adjustments as the result of tax audit

resolutions and remeasurements, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by the unfavorable impact of impairment and restructuring charges.

For fiscal 2022, the effective tax rate for continuing operations was (16)% and was lower than the statutory tax rate primarily due to favorable impact of tax reserve adjustments as the result of expired statute of limitations for certain tax years and the benefits of continuing global tax planning initiatives, partially offset by the unfavorable impact of impairment and restructuring charges and the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries as a result of the planned divestitures.

Valuation Allowances

The Company reviews the realizability of its deferred tax assets and related valuation allowances on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset are considered, along with any other positive or negative evidence. Since future financial results may differ from previous estimates, periodic adjustments to the Company's valuation allowances may be necessary.

In fiscal 2024, due to changes in forecasted taxable income, the Company determined that it was more likely than not that certain deferred tax assets of Mexico and Germany would be realized. The valuation allowance adjustment resulted in a tax benefit of $48 million.

In fiscal 2023, due to changes in forecasted taxable income, the Company determined that it was more likely than not that certain deferred tax assets of Canada, Mexico, and Spain would be realized. The valuation allowance adjustment resulted in a tax benefit of $121 million.

The following table summarizes changes in the valuation allowance (in millions):

	2024	2023	2022
Balance at beginning of period	$ 6,279	$ 5,906	$ 5,812
Allowance provision for new operating and other loss carryforwards	215	544	306
Allowance reductions	(236)	(171)	(212)
Balance at end of period	$ 6,258	$ 6,279	$ 5,906

Uncertain Tax Positions

The Company is subject to income taxes in the U.S. and numerous non-U.S. jurisdictions. Judgment is required in determining the worldwide provision for income taxes and recording the related assets and liabilities. In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate tax determination is uncertain. The Company is regularly under audit by tax authorities.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

	2024	2023	2022
Beginning balance, October 1	$ 2,158	$ 2,485	$ 2,678
Additions for tax positions related to the current year	39	59	164
Additions for tax positions of prior years	53	89	31
Reductions for tax positions of prior years	(35)	(23)	(47)
Settlements with taxing authorities	(35)	(6)	(7)
Statute closings and audit resolutions	(127)	(446)	(334)
Ending balance, September 30	$ 2,053	$ 2,158	$ 2,485

The following table summarizes tax effected unrecognized tax benefits that, if recognized, would impact the effective tax rate and the related accrued interest, net of tax benefit (in millions):

	September 30,		
	2024	2023	2022
Tax effected unrecognized tax benefits that, if recognized, would affect the effective tax rate	$ 1,466	$ 1,533	$ 1,935
Net accrued interest	398	329	281

In fiscal 2024, as the result of tax audit resolutions and statute expirations in various jurisdictions, the Company adjusted its reserve for uncertain tax positions which resulted in a $91 million net benefit to income tax expense.

In fiscal 2023, as the result of tax audit resolutions, statute expirations, and remeasurements of ongoing controversy matters in various jurisdictions, the Company adjusted its reserve for uncertain tax positions which resulted in a $438 million net benefit to income tax expense.

In fiscal 2022, the statute of limitations for certain tax years expired, which resulted in a $301 million benefit to income tax expense.

In the U.S., fiscal years 2019 through 2020 are currently under audit and fiscal years 2017 through 2018 are currently under appeal with the Internal Revenue Service ("IRS") for certain legal entities. In addition, fiscal years 2016 through 2019 are also under exam by the IRS in relation to a separate consolidated filing group. Additionally, the Company is currently under exam in the following major non-U.S. jurisdictions for continuing operations:

Tax Jurisdiction	Tax Years Covered
Belgium	2016 - 2017; 2019-2020
Germany	2007 - 2021
Mexico	2016 - 2019
United Kingdom	2014 - 2015; 2018; 2020 - 2021

It is reasonably possible that certain tax examinations and/or tax litigation will conclude within the next twelve months, which could have a material impact on tax expense. Based upon the circumstances surrounding these examinations, the impact is not currently quantifiable.

Other Tax Matters

During fiscal 2024, 2023 and 2022, the Company incurred charges for restructuring and impairment costs of $510 million, $1,049 million and $701 million, which generated tax benefits of $26 million, $120 million and $47 million, respectively.

Impacts of Tax Legislation and Change in Statutory Tax Rates

On December 18, 2023, the president of Ireland signed into law the Finance (No. 2) Bill 2023, which included legislation regarding the implementation of the Pillar Two global minimum tax. The Pillar Two legislation is effective for the Company's fiscal year beginning October 1, 2024.

On September 11, 2023, the Schaffhausen parliament approved a partial revision of the cantonal act on direct taxation: Immediate Minimum Taxation Measure ("IMTM"). On November 19, 2023, IMTM was approved in a public referendum in the canton of Schaffhausen, was published in the cantonal official gazette on December 8, 2023, and was effective starting January 1, 2024. The IMTM increased Switzerland's combined statutory income tax rate to approximately 15%. As a result, in fiscal 2024, the Company recorded a noncash discrete net tax benefit of $80 million due to the remeasurement of deferred tax assets and liabilities related to Switzerland and the canton of Schaffhausen.

On August 16, 2022, the U.S. enacted the Inflation Reduction Act ("IRA") which, among other things, created a new book minimum tax of at least 15% of consolidated GAAP pre-tax income for corporations with average book income in excess of $1 billion. The book minimum tax was first applicable in fiscal 2024 and did not have a material impact on the Company's effective tax rate.

During fiscal 2024, 2023 and 2022, other tax legislation was adopted in various jurisdictions. These law changes did not have a material impact on the Company's consolidated financial statements.

Selected Income Tax Data

Selected income tax data related to continuing operations were as follows (in millions):

	2024	2023	2022
Components of income (loss) from continuing operations before income taxes:			
U.S.	$ (406)	$ (325)	$ (27)
Non-U.S.	1,928	1,438	1,139
Income from continuing operations before income taxes	$ 1,522	$ 1,113	$ 1,112
Components of the provision (benefit) for income taxes:			
Current			
U.S. federal	$ 330	$ (201)	$ (237)
U.S. state	86	94	47
Non-U.S.	102	289	199
	518	182	9
Deferred			
U.S. federal	(299)	(267)	(173)
U.S. state	(26)	(25)	(70)
Non-U.S.	(82)	(358)	52
	(407)	(650)	(191)
Income tax provision (benefit)	$ 111	$ (468)	$ (182)
Income taxes paid	$ 704	$ 294	$ 439

At September 30, 2024 and 2023, the Company recorded within the consolidated statements of financial position in other current assets approximately $100 million and $65 million, respectively, of income tax assets. At September 30, 2024 and 2023, the Company recorded within the consolidated statements of financial position in other current liabilities approximately $211 million and $249 million, respectively, of accrued income tax liabilities.

At September 30, 2024, the Company has not provided U.S. or non-U.S. income taxes on approximately $24.5 billion of outside basis differences of consolidated subsidiaries of Johnson Controls International plc. The Company is indefinitely reinvested in these basis differences. The reduction of the outside basis differences via the sale or liquidation of these subsidiaries and/or distributions could create taxable income. The Company's intent is to reduce the outside basis differences only when it would be tax efficient. Given the numerous ways in which the basis differences may be reduced, it is not practicable to estimate the amount of unrecognized withholding taxes and deferred tax liability on the outside basis differences.

Deferred taxes were classified in the consolidated statements of financial position as follows (in millions):

	September 30,	
	2024	2023
Other noncurrent assets	$ 1,969	$ 1,480
Other noncurrent liabilities	(301)	(316)
Net deferred tax asset	$ 1,668	$ 1,164

Temporary differences and carryforwards which gave rise to deferred tax assets and liabilities included (in millions):

	September 30,	
	2024	2023
Deferred tax assets		
Accrued expenses and reserves	$ 661	$ 469
Employee and retiree benefits	43	88
Property, plant and equipment	729	638
Net operating loss and other credit carryforwards	6,628	6,667
Research and development	219	171
Intangible assets	306	—
Operating lease liabilities	294	341
Other, net	455	269
	9,335	8,643
Valuation allowances	(6,258)	(6,279)
	3,077	2,364
Deferred tax liabilities		
Subsidiaries, joint ventures and partnerships	440	359
Intangible assets	—	248
Operating lease right-of-use assets	294	341
Other liabilities	675	252
	1,409	1,200
Net deferred tax asset	$ 1,668	$ 1,164

At September 30, 2024, the Company had available net operating loss carryforwards of approximately $22.1 billion, of which $11.8 billion will expire at various dates between 2025 and 2044, and the remainder has an indefinite carryforward period. The Company had available U.S. foreign tax credit carryforwards at September 30, 2024 of $35 million which will expire in 2029. The valuation allowance, generally, is for loss and credit carryforwards for which realization is uncertain because it is unlikely that the losses and/or credits will be realized given the lack of sustained profitability and/or limited carryforward periods in certain countries.

19. SEGMENT INFORMATION

ASC 280, "Segment Reporting," establishes the standards for reporting information about segments in financial statements. In applying the criteria set forth in ASC 280, the Company has determined that it has four reportable segments for financial reporting purposes.

The Company conducts its business through four business segments:

- *Building Solutions North America* which operates in the United States and Canada;
- *Building Solutions EMEA/LA* which operates in Europe, the Middle East, Africa and Latin America;
- *Building Solutions Asia Pacific* which operates in Asia Pacific; and
- *Global Products* which operates worldwide.

The Building Solutions segments:

- Design, sell, install and service HVAC, controls, building management, refrigeration, integrated electronic security and integrated fire-detection and suppression systems; and
- Provide energy-efficiency solutions and technical services, including data-driven "smart building" solutions as well as inspection, scheduled maintenance, and repair and replacement of mechanical and controls systems.

The Global Products segment designs, manufactures and sells:

- HVAC equipment, controls software and software services;
- Refrigeration equipment and controls;
- Fire protection and suppression; and

- Security products, including intrusion security, anti-theft devices, access control, and video surveillance and management systems.

The Company's segments provide products and services primarily to commercial, institutional, industrial, data center, and governmental customers.

Management evaluates the performance of its segments primarily on segment earnings before interest, taxes and amortization ("EBITA"), which represents income from continuing operations before income taxes and noncontrolling interests, excluding amortization of intangible assets, corporate expenses, restructuring and impairment costs, the water systems AFFF settlement costs and AFFF insurance recoveries, net financing charges, loss on divestiture and net mark-to-market gains and losses related to pension and postretirement plans and restricted asbestos investments.

Financial information relating to the Company's reportable segments is as follows (in millions):

	Year Ended September 30,		
	2024	2023	2022
Net Sales			
Building Solutions North America	$ 11,348	$ 10,330	$ 9,367
Building Solutions EMEA/LA	4,296	4,096	3,845
Building Solutions Asia Pacific	2,237	2,746	2,714
Global Products	5,071	5,159	4,711
Total net sales	$ 22,952	$ 22,331	$ 20,637

	Year Ended September 30,		
	2024	2023	2022
Segment EBITA			
Building Solutions North America	$ 1,663	$ 1,394	$ 1,122
Building Solutions EMEA/LA [1]	391	316	358
Building Solutions Asia Pacific	261	343	332
Global Products	1,403	1,317	970
Total segment EBITA	3,718	3,370	2,782
Amortization of intangible assets	476	426	413
Corporate expenses	490	429	369
Restructuring and impairment costs	510	1,049	701
Water systems AFFF settlement [2]	750	—	—
AFFF insurance recoveries [2]	(367)	—	—
Net financing charges	342	258	205
Loss on divestiture	42	—	—
Net mark-to-market (gain) loss	(47)	95	(18)
Income from continuing operations before income taxes	$ 1,522	$ 1,113	$ 1,112

[1] EBITA for the Building Solutions EMEA/LA segment includes equity income (loss) of $(39) million, $1 million and $6 million for the years ended September 30, 2024, 2023 and 2022, respectively.

[2] Refer to Note 21, "Commitments and Contingencies," of the notes to the consolidated financial statements for further disclosure related to the water systems AFFF settlement and insurance recoveries.

	September 30,		
	2024	2023	2022
Assets			
Building Solutions North America	$ 16,159	$ 15,603	$ 15,226
Building Solutions EMEA/LA[(1)]	5,072	5,202	4,991
Building Solutions Asia Pacific	2,571	2,645	2,474
Global Products	10,011	10,844	10,620
	33,813	34,294	33,311
Assets held for sale	4,805	4,657	4,700
Unallocated	4,077	3,291	4,147
Total	$ 42,695	$ 42,242	$ 42,158

(1) Assets for the Building Solutions EMEA/LA segment includes investments in partially-owned affiliates of $57 million, $130 million and $115 million, as of September 30, 2024, 2023 and 2022, respectively.

	Year Ended September 30,		
	2024	2023	2022
Depreciation/Amortization			
Building Solutions North America	$ 248	$ 225	$ 213
Building Solutions EMEA/LA	105	101	96
Building Solutions Asia Pacific	19	23	21
Global Products	325	351	348
	697	700	678
Corporate	119	45	39
Total	$ 816	$ 745	$ 717

	Year Ended September 30,		
	2024	2023	2022
Capital Expenditures			
Building Solutions North America	$ 53	$ 104	$ 141
Building Solutions EMEA/LA	105	119	119
Building Solutions Asia Pacific	15	33	22
Global Products	153	140	152
	326	396	434
Corporate	168	50	53
Total	$ 494	$ 446	$ 487

In fiscal 2024, 2023 and 2022, no customer exceeded 10% of consolidated net sales.

Geographic Segments

Financial information relating to the Company's operations by geographic area is as follows (in millions):

	Year Ended September 30,		
	2024	2023	2022
Net Sales			
United States	$ 13,171	$ 12,408	$ 11,337
Europe	4,486	4,366	4,052
Asia Pacific	2,856	3,427	3,319
Other Non-U.S.	2,439	2,130	1,929
Total	$ 22,952	$ 22,331	$ 20,637
Long-Lived Assets (Year-end)			
United States	$ 1,137	$ 1,277	$ 1,285
Europe	613	479	384
Asia Pacific	252	233	235
Other Non-U.S.	401	385	367
Total	$ 2,403	$ 2,374	$ 2,271

Net sales attributed to geographic locations are based on the location of where the sale originated. Long-lived assets by geographic location consist of net property, plant and equipment.

20. GUARANTEES

Certain of the Company's subsidiaries at the business segment level have guaranteed the performance of third-parties and provided financial guarantees for uncompleted work and financial commitments. The terms of these guarantees vary with end dates ranging from the current fiscal year through the completion of such transactions and would typically be triggered in the event of nonperformance. Performance under the guarantees, if required, would not have a material effect on the Company's financial position, results of operations or cash flows.

The Company offers warranties to its customers depending upon the specific product and terms of the customer purchase agreement. A typical warranty program requires that the Company replace defective products within a specified time period from the date of sale.

The changes in the carrying amount of the Company's total product warranty liability were as follows (in millions).

	Year Ended September 30,	
	2024	2023
Balance at beginning of period	$ 91	$ 66
Accruals for warranties issued during the period	85	72
Settlements made (in cash or in kind) during the period	(87)	(46)
Changes in estimates to pre-existing warranties	31	(2)
Accruals from acquisitions and divestitures	—	1
Currency translation	2	—
Balance at end of period	$ 122	$ 91

21. COMMITMENTS AND CONTINGENCIES

Environmental Matters

The following table presents the location and amount of reserves for environmental liabilities in the Company's consolidated statements of financial position (in millions):

	September 30,	
	2024	2023
Other current liabilities	$ 32	$ 28
Other noncurrent liabilities	179	211
Total reserves for environmental liabilities	$ 211	$ 239

The Company periodically examines whether the contingent liabilities related to the environmental matters described below are probable and reasonably estimable based on experience and ongoing developments in those matters, including continued study and analysis of ongoing remediation obligations. The Company expects that it will pay the amounts recorded over an estimated period of up to 20 years. The Company is not able to estimate a possible loss or range of loss, if any, in excess of the established accruals for environmental liabilities at this time.

A substantial portion of the Company's environmental reserves relates to ongoing long-term remediation efforts to address contamination relating to Aqueous Film Forming Foam ("AFFF") containing perfluorooctane sulfonate ("PFOS"), perfluorooctanoic acid ("PFOA"), and/or other per- and poly-fluoroalkyl substances ("PFAS") at or near the Tyco Fire Products L.P. (“Tyco Fire Products”) Fire Technology Center ("FTC") located in Marinette, Wisconsin and surrounding areas in the City of Marinette and Town of Peshtigo, Wisconsin, as well as the continued remediation of PFAS, arsenic and other contaminants at the Tyco Fire Products Stanton Street manufacturing facility also located in Marinette, Wisconsin (the “Stanton Street Facility”).

PFOA, PFOS, and other PFAS compounds are being studied by the U.S. Environmental Protection Agency ("EPA") and other environmental and health agencies and researchers. In March 2021, EPA published its final determination to regulate PFOS and PFOA in drinking water. On April 10, 2024, EPA announced the final National Primary Drinking Water Regulation (“NPDWR”) for six PFAS compounds including PFOA and PFOS. The NPDWR established legally enforceable levels, called Maximum Contaminant Levels, of 4.0 parts per trillion ("ppt") for each of PFOA and PFOS, 10 ppt for each of PFHxS, PFNA, and HFPO-DA (commonly known as GenX Chemicals), and a Hazard Index of one for mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBA. In February 2024, EPA released two proposed rules relating to PFAS under the Resource Conservation and Recovery Act (“RCRA”): one rule proposes to list nine PFAS (including PFOA and PFOS) as “hazardous constituents,” and a second rule proposes to clarify that hazardous waste regulated under the rule includes not only substances listed or identified as hazardous waste in the regulations, but also any substances that meet the statutory definition of hazardous waste.

In August 2022, EPA published a proposed rule that would designate PFOA and PFOS as “hazardous substances” under Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). In April 2023, EPA issued an Advanced Notice of Proposed Rulemaking ("ANPR") seeking input on whether it should expand the proposed rule to designate as "hazardous substances" under CERCLA: (1) seven additional PFAS; (2) the precursors to PFOA, PFOS, and the seven additional PFAS; or (3) entire categories of PFAS. On April 17, 2024, the EPA Administrator signed the final rule designating PFOA and PFOS, along with their salts and structural isomers, as “hazardous substances.”

It is not possible to estimate the Company’s ultimate level of liability at many remediation sites due to the large number of other parties that may be involved, the complexity of determining the relative liability among those parties, the financial viability of other potentially responsible parties and third-party indemnitors, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, changes in environmental regulations, changes in permissible levels of specific compounds in soil, groundwater and drinking water sources, or changes in enforcement theories and policies, including efforts to recover natural resource damages, the uncertainty in the application of law and risk assessment, the various choices and costs associated with diverse technologies that may be used in corrective actions at the sites, and the often quite lengthy periods over which eventual remediation may occur. It is possible that technological, regulatory or enforcement developments, the results of additional environmental studies or other factors could change the Company's expectations with respect to future charges and cash outlays, and such changes could be material to the Company's future results of operations, financial condition or cash

flows. Nevertheless, the Company does not currently believe that any claims, penalties or costs in addition to the amounts accrued will have a material adverse effect on the Company's financial position, results of operations or cash flows.

In addition, the Company has identified asset retirement obligations for environmental matters that are expected to be addressed at the retirement, disposal, removal or abandonment of existing owned facilities. Conditional asset retirement obligations were $7 million and $8 million at September 30, 2024 and 2023, respectively.

FTC-Related Matters

FTC Remediation

The use of fire-fighting foams at the FTC was primarily for training and testing purposes to ensure that such products sold by the Company's affiliates, Chemguard, Inc. ("Chemguard") and Tyco Fire Products, were effective at suppressing high intensity fires that may occur at military installations, airports or elsewhere. During the three months ended June 30, 2024, Tyco Fire Products completed its previously announced plan to discontinue the production and sale of fluorinated firefighting foams, including AFFF products, and has transitioned to non-fluorinated foam alternatives.

Tyco Fire Products has been engaged in remediation activities at the Stanton Street Facility since 1990. Its corporate predecessor, Ansul Incorporated ("Ansul"), manufactured arsenic-based agricultural herbicides at the Stanton Street Facility, which resulted in significant arsenic contamination of soil and groundwater on the site and in parts of the adjoining Menominee River. In 2009, Ansul entered into an Administrative Consent Order (the "Consent Order") with the EPA to address the presence of arsenic at the site. Under this agreement, Tyco Fire Products' principal obligations are to contain the arsenic contamination on the site, pump and treat on-site groundwater, dredge, treat and properly dispose of contaminated sediments in the adjoining river areas, and monitor contamination levels on an ongoing basis. Activities completed under the Consent Order since 2009 include the installation of a subsurface barrier wall around the facility to contain contaminated groundwater, the installation and ongoing operation and monitoring of a groundwater extraction and treatment system and the dredging and offsite disposal of treated river sediment. In addition to ongoing remediation activities, the Company is also working with the Wisconsin Department of Natural Resources ("WDNR") to investigate and remediate the presence of PFAS at or near the Stanton Street Facility as part of the evaluation and remediation of PFAS in the Marinette region.

Tyco Fire Products is operating and monitoring at the FTC a Groundwater Extraction and Treatment System ("GETS"), a permanent groundwater remediation system that extracts groundwater containing PFAS, treats it using advanced filtration systems, and returns the treated water to the environment. Tyco Fire Products has also completed the removal and disposal of PFAS-affected soil from the FTC. The Company's reserves for continued remediation of the FTC, the Stanton Street Facility and surrounding areas in Marinette and Peshtigo are based on estimates of costs associated with the long-term remediation actions, including the continued operation of the GETS, the implementation of long-term drinking water solutions for the area impacted by groundwater migrating from the FTC, continued monitoring and testing of groundwater monitoring wells, the operation and wind-down of other legacy remediation and treatment systems and the completion of ongoing investigation obligations.

FTC-Related Litigation

On June 21, 2019, the WDNR announced that it had received from the Wisconsin Department of Health Services ("WDHS") a recommendation for groundwater quality standards as to, among other compounds, PFOA and PFOS. The WDHS recommended a groundwater enforcement standard for PFOA and PFOS of 20 parts per trillion. Although Wisconsin approved final regulatory standards for PFOA and PFOS in drinking water and surface water in February 2022, the Wisconsin Natural Resources Board did not approve WDNR's proposed standards for PFOA and PFOS in groundwater. In August 2024, WDNR issued a new proposed rule to adopt the EPA Maximum Contaminant Levels for PFAS in drinking water. The WDNR initiated a rulemaking proceeding that would establish groundwater quality standards for PFOA, PFOS, perfluorobutane sulfonic acid and its potassium salt ("PFBS") and hexafluoropropylene oxide dimer acid and its ammonium salt ("HFPO-DA"). Pursuant to state law, the WDNR has stopped work on the proposed rule and notified the state legislature that, following economic analysis, the proposed costs would exceed statutory thresholds. As a result, the state legislature is required to authorize the WDNR to allow the rulemaking to continue.

In July 2019, the Company received a letter from the WDNR directing the expansion of the evaluation of PFAS in the Marinette region to include (1) biosolids sludge produced by the City of Marinette Waste Water Treatment Plant and spread on certain fields in the area and (2) the Menominee and Peshtigo Rivers. On October 16, 2019, the WDNR issued a "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. regarding the WDNR's July 2019 letter. The WDNR issued a further letter regarding the issue on November 4, 2019. In February 2020, the WDNR sent a letter to Tyco Fire Products and

Johnson Controls, Inc. further directing the expansion of the evaluation of PFAS in the Marinette region to include investigation activities south and west of the previously defined FTC study area. In September 2021, the WDNR sent an additional "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. concerning land-applied biosolids, which reviewed and responded to the Company's biosolids investigation conducted to that date. On April 10, 2023, the WDNR issued a third "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. concerning land-applied biosolids in the Marinette region. Tyco Fire Products and Johnson Controls, Inc. believe that they have complied with all applicable environmental laws and regulations. The Company cannot predict what regulatory or enforcement actions, if any, might result from the WDNR's actions, or the consequences of any such actions, including the potential assessment of penalties.

In March 2022, the Wisconsin Department of Justice ("WDOJ") filed a civil enforcement action against Johnson Controls Inc. and Tyco Fire Products in Wisconsin state court relating to environmental matters at the FTC (*State of Wisconsin v. Tyco Fire Products, LP and Johnson Controls, Inc.*, Case No. 22-CX-1 (filed March 14, 2022 in Circuit Court in Marinette County, Wisconsin)). The WDOJ alleges that the Company failed to timely report the presence of PFAS chemicals at the FTC, and that the Company has not sufficiently investigated or remediated PFAS at or near the FTC. The WDOJ seeks monetary penalties and an injunction ordering these two subsidiaries to complete a site investigation and cleanup of PFAS contamination in accordance with the WDNR's requests. The parties are engaged in summary judgment and pretrial motions and the court has set a trial date of March 3, 2025.

In October 2022, the Town of Peshtigo filed a tort action in Wisconsin state court against Tyco Fire Products, Johnson Controls Inc., Chemguard, Inc., and ChemDesign, Inc. relating to environmental matters at the FTC (*Town of Peshtigo v. Tyco Fire Products L.P. et al.*, Case No. 2022CV000234 (filed October 18, 2022 in Circuit Court in Marinette County, Wisconsin)). The Town alleges that use of AFFF products at the FTC caused contamination of water supplies in Peshtigo. The Town seeks monetary penalties and an injunction ordering abatement of PFAS contamination in Peshtigo. The case has been removed to federal court and transferred to a multi-district litigation ("MDL") before the United States District Court for the District of South Carolina.

In November 2022, individuals filed six actions in Dane County, Wisconsin alleging personal injury and/or property damage against Tyco Fire Products, Johnson Controls Inc., Chemguard, and other unaffiliated defendants related to environmental matters at the FTC. Plaintiffs allege that use of AFFF products at the FTC and activities by third parties unrelated to the Company contaminated nearby drinking water sources, surface waters, and other natural resources and properties, including their personal properties. The individuals seek monetary damages for their personal injury and/or property damage. These lawsuits have been transferred to the MDL. Subsequently, several additional plaintiffs have direct-filed in the MDL complaints with similar allegations.

The Company is vigorously defending each of these cases and believes that it has meritorious defenses, but it is presently unable to predict the duration, scope, or outcome of these actions.

Aqueous Film-Forming Foam ("AFFF") Matters

AFFF Litigation

Two of the Company's subsidiaries, Chemguard and Tyco Fire Products, have been named, along with other defendant manufacturers, suppliers and distributors, and, in some cases, certain subsidiaries of the Company affiliated with Chemguard and Tyco Fire Products, in a number of class action and other lawsuits relating to the use of fire-fighting foam products by the U.S. Department of Defense (the "DOD") and others for fire suppression purposes and related training exercises. Plaintiffs generally allege that the firefighting foam products contain or break down into the chemicals PFOS and PFOA and/or other PFAS compounds and that the use of these products by others at various airbases, airports and other sites resulted in the release of these chemicals into the environment and ultimately into communities' drinking water supplies neighboring those airports, airbases and other sites. Plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, diminution in property values, investigation and remediation costs, and natural resources damages, and also seek punitive damages and injunctive relief to address remediation of the alleged contamination.

In September 2018, Tyco Fire Products and Chemguard filed a Petition for Multidistrict Litigation with the United States Judicial Panel on Multidistrict Litigation ("JPML") seeking to consolidate all existing and future federal cases into one jurisdiction. On December 7, 2018, the JPML issued an order transferring various AFFF cases to the MDL. Additional cases have been identified for transfer to or are being directly filed in the MDL.

AFFF Municipal and Water Provider Cases

Chemguard and Tyco Fire Products have been named as defendants in more than 970 cases in federal and state courts involving municipal or water provider plaintiffs that were filed in state or federal courts originating from 35 states and territories. The vast majority of these cases have been transferred to or were directly filed in the MDL, and it is anticipated that the remaining cases will be transferred to the MDL. These municipal and water provider plaintiffs generally allege that the use of the defendants' fire-fighting foam products at fire training academies, municipal airports, Air National Guard bases, or Navy or Air Force bases released PFOS and PFOA into public water supply wells and/or other public property, allegedly requiring remediation.

Tyco Fire Products and Chemguard are also periodically notified by other municipal entities that those entities may assert claims regarding PFOS and/or PFOA contamination allegedly resulting from the use of AFFF.

Water Systems AFFF Settlement Agreement

On April 12, 2024, Tyco Fire Products agreed to a settlement with a nationwide class of public water systems that detected PFAS in their drinking water systems that they allege to be associated with the use of AFFF. Under the terms of the agreement, Tyco Fire Products agreed to contribute $750 million to resolve these PFAS claims. The settlement releases these claims against Tyco Fire Products, Chemguard, and other related corporate entities. In connection with the settlement, a charge for $750 million was recorded in selling, general and administrative expenses in the consolidated statements of income.

Tyco Fire Products contributed an initial payment of $250 million in June 2024, with the remaining $500 million due by the first quarter of fiscal 2025. Prior to the date of the final contribution, Tyco Fire Products has agreed to contribute any applicable insurance recoveries in excess of the initial $250 million payment, up to the remaining $500 million due, within a specified period following the receipt of such recovery. During fiscal 2024, the Company recorded expected insurance recoveries of $371 million in selling, general and administrative expenses in the consolidated statements of income and collected insurance recoveries of $349 million. In accordance with its agreement and recent insurance recovery, Tyco Fire Products made an additional payment during the fourth quarter of fiscal 2024 of approximately $85 million, reducing its final payment to approximately $415 million. The amounts and timing of any additional insurance recoveries are uncertain.

There are still several procedural and legal steps that must occur before the settlement is final and the remaining payment is made. The settlement is subject to final approval by the MDL court and other contingencies, and that process is expected to be completed in the first half of fiscal 2025.

The class of public water systems included in this settlement broadly includes any public water system (as defined in the settlement agreement) that has detected PFAS in its drinking water sources as of May 15, 2024. The following systems are excluded from the settlement class: water systems owned and operated by a State or the United States government; systems that have not detected the presence of PFAS as of May 15, 2024; small transient water systems; privately-owned drinking water wells; and the water system in the city of Marinette, Wisconsin (which is included only if it so requests). The settlement does not resolve claims of public water systems that request exclusion from the class ("opt out") pursuant to the process to be established by the MDL court. It also does not resolve potential future claims of public water systems that detect PFAS in their water systems for the first time after May 15, 2024, or certain claims not related to drinking water, such as separate alleged claims relating to real property damage or stormwater or wastewater treatment. Finally, this settlement does not affect the other categories of cases that remain at issue in the MDL, such as personal injury cases, property damage cases, other types of class actions, claims brought by state or territory attorneys general, or other types of damages alleged to be related to the historical use of AFFF manufactured and sold by Tyco Fire Products and Chemguard. While it is reasonably possible that the excluded systems or claims could result in additional future lawsuits, claims, assessments or proceedings, it is not possible to predict the outcome of any such matters, and as such, the Company is unable to develop an estimate of a possible loss or range of losses, if any, at this time.

The settlement does not constitute an admission of liability or wrongdoing by Tyco Fire Products or Chemguard. If the MDL court does not approve the agreement or certain terms are not fulfilled, Tyco Fire Products and Chemguard will continue to defend themselves in the litigation.

AFFF Putative Class Actions

Chemguard and Tyco Fire Products are named in 45 pending putative class actions in federal courts originating from 18 states and territories. All of these cases have been direct-filed in or transferred to the MDL. In addition, six proposed class actions were filed in Canada (British Columbia, Manitoba, Quebec and Ontario) in the past year against Tyco Fire Products and other

manufacturers on behalf of various classes of members who consumed or were exposed to products or supplies that were allegedly contaminated by AFFF.

AFFF Individual or Mass Actions

There are more than 8,300 individual or "mass" actions pending that were filed in state or federal courts originating from 52 states and territories against Chemguard and Tyco Fire Products and other defendants in which the plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, and alleged diminution in property values. The cases involve plaintiffs from various states including approximately 7,000 plaintiffs in Colorado and more than 8,300 other plaintiffs. The vast majority of these matters have been tagged for transfer to, transferred to, or directly-filed in the MDL, and it is anticipated that several newly-filed state court actions will be similarly tagged and transferred. There are several matters that are proceeding in state courts, including actions in Arizona, Illinois, Virginia and Wisconsin.

Tyco and Chemguard are also periodically notified by other individuals that they may assert claims regarding PFOS and/or PFOA contamination allegedly resulting from the use of AFFF.

AFFF State or U.S. Territory Attorneys General Litigation

In June 2018, the State of New York filed a lawsuit in New York state court (*State of New York v. The 3M Company et al* No. 904029-18 (N.Y. Sup. Ct., Albany County)) against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at locations across New York, including Stewart Air National Guard Base in Newburgh and Gabreski Air National Guard Base in Southampton, Plattsburgh Air Force Base in Plattsburgh, Griffiss Air Force Base in Rome, and unspecified "other" sites throughout the State. The lawsuit seeks to recover costs and natural resource damages associated with contamination at these sites. This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL.

In February 2019, the State of New York filed a second lawsuit in New York state court (*State of New York v. The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at additional locations across New York. This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL. In July 2019, the State of New York filed a third lawsuit in New York state court (*State of New York v. The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at further additional locations across New York. This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL. In November 2019, the State of New York filed a fourth lawsuit in New York state court (*State of New York v. The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at further additional locations across New York. This suit has been removed to federal court and transferred to the MDL.

In April 2021, the State of Alaska filed a lawsuit in the superior court of the State of Alaska against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources allegedly resulting from the use of firefighting foams at various locations throughout the State. The State's case has been removed to federal court and transferred to the MDL. The State of Alaska has also named a number of manufacturers and other defendants, including affiliates of the Company, as third-party defendants in two cases brought by individuals against the State. These two cases have also been transferred to the MDL.

In early November 2021, the Attorney General of the State of North Carolina filed four individual lawsuits in the superior courts of the State of North Carolina against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land, natural resources, and property allegedly resulting from the use of firefighting foams at four separate locations throughout the State. These four cases have been removed to federal court and transferred to the MDL. In October 2022, the Attorney General filed two similar lawsuits in the superior courts of the State of North Carolina regarding alleged PFAS damages at two additional locations. These two cases have also been removed to federal court and transferred to the MDL.

In addition, 33 other states and territories have filed 35 lawsuits against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFAS damage of each of those State's environmental and natural resources allegedly resulting from the manufacture, storage, sale, distribution, marketing, and use of PFAS-containing AFFF within each respective State. The states and territories are: Arkansas, Arizona, California, Colorado, Connecticut, Delaware, the District of

Columbia, Florida, Hawaii, Illinois, Indiana, Kentucky, Massachusetts, Maryland, Maine, Michigan, Mississippi, New Hampshire, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Washington, Wisconsin, Guam, the Northern Mariana Islands, and Puerto Rico. All of these complaints, if not filed directly in the MDL, have been removed to federal court and transferred to the MDL.

Other AFFF Related Matters

In March 2020, the Kalispel Tribe of Indians (a federally recognized Tribe) and two tribal corporations filed a lawsuit in the United States District Court for the Eastern District of Washington against a number of manufacturers, including affiliates of the Company, and the United States with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF by the United States Air Force at and around Fairchild Air Force Base in eastern Washington. This case has been transferred to the MDL.

In October 2022, the Red Cliff Band of Lake Superior Chippewa Indians (a federally recognized tribe) filed a lawsuit in the United States District Court for the Western District of Wisconsin against a number of manufacturers, including affiliates of the Company, with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF at Duluth Air National Guard Base in Duluth, Minnesota. This complaint has been transferred to the MDL.

In July 2023, the Fond du Lac Band of Lake Superior Chippewa (a federally recognized tribe) direct-filed a lawsuit in the MDL against a number of manufacturers, including affiliates of the Company, with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF at Duluth Air National Guard Base in Duluth, Minnesota.

The Company is vigorously defending all of the above AFFF matters and believes that it has meritorious defenses to class certification and the claims asserted, including statutes of limitations, the government contractor defense, various medical and scientific defenses, and other factual and legal defenses. The Company has a historical general liability insurance program and is pursuing coverage under the program from various insurers through insurance claims discussions and litigation pending in a state court in Wisconsin and a federal district court in South Carolina. The insurance litigation involves numerous factual and legal issues. There are numerous factual and legal issues to be resolved in connection with these claims. The Company is presently unable to predict the outcome or ultimate financial exposure beyond the water systems AFFF settlement discussed above, if any, represented by these matters, and there can be no assurance that any such exposure will not be material.

Asbestos Matters

The Company and certain of its subsidiaries, along with numerous other third parties, are named as defendants in personal injury lawsuits based on alleged exposure to asbestos containing materials. These cases have typically involved product liability claims based primarily on allegations of manufacture, sale or distribution of industrial products that either contained asbestos or were used with asbestos containing components.

The following table presents the location and amount of asbestos-related assets and liabilities in the Company's consolidated statements of financial position (in millions):

	September 30,	
	2024	2023
Other current liabilities	$ 58	$ 58
Other noncurrent liabilities	350	364
Total asbestos-related liabilities	408	422
Other current assets	14	28
Other noncurrent assets	320	273
Total asbestos-related assets	334	301
Net asbestos-related liabilities	$ 74	$ 121

The following table presents the components of asbestos-related assets (in millions):

	September 30,	
	2024	2023
Restricted		
Cash	$ 6	$ 20
Investments	281	231
Total restricted assets	287	251
Insurance receivables for asbestos-related liabilities	47	50
Total asbestos-related assets	$ 334	$ 301

The amounts recorded for asbestos-related liabilities and insurance-related assets are based on the Company's strategies for resolving its asbestos claims, currently available information, and a number of estimates and assumptions. Key variables and assumptions include the number and type of new claims that are filed each year, the average cost of resolution of claims, the identity of defendants, the resolution of coverage issues with insurance carriers, amount of insurance, and the solvency risk with respect to the Company's insurance carriers. Many of these factors are closely linked, such that a change in one variable or assumption may impact one or more of the others, and no single variable or assumption predominately influences the determination of the Company's asbestos-related liabilities and insurance-related assets. Furthermore, predictions with respect to these variables are subject to greater uncertainty in the later portion of the projection period. Other factors that may affect the Company's liability and cash payments for asbestos-related matters include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms of state or federal tort legislation and the applicability of insurance policies among subsidiaries. As a result, actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the Company's calculations vary significantly from actual results.

Self-Insured Liabilities

The Company records liabilities for its workers' compensation, product, general and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. The Company maintains captive insurance companies to manage a portion of its insurable liabilities.

The following table presents the location and amount of self-insured liabilities in the Company's consolidated statements of financial position (in millions):

	September 30,	
	2024	2023
Other current liabilities	$ 92	$ 86
Accrued compensation and benefits	20	21
Other noncurrent liabilities	239	226
Total self-insured liabilities	$ 351	$ 333

The following table presents the location and amount of insurance receivables in the Company's consolidated statements of financial position (in millions):

	September 30,	
	2024	2023
Other current assets	$ 5	$ 6
Other noncurrent assets	13	14
Total insurance receivables	$ 18	$ 20

Other Matters

The Company is involved in various lawsuits, claims and proceedings incident to the operation of its businesses, including those pertaining to product liability, environmental, safety and health, intellectual property, employment, commercial and contractual matters, and various other casualty matters. Although the outcome of litigation cannot be predicted with certainty and some lawsuits, claims or proceedings may be disposed of unfavorably to the Company, it is management's opinion that

none of these will have a material adverse effect on the Company's financial position, results of operations or cash flows. Costs related to such matters were not material to the periods presented.

ITEM 9 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of its Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of September 30, 2024. Based on such evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of September 30, 2024, the Company's disclosure controls and procedures are effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, and that information is accumulated and communicated to the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, the Company's management has concluded that, as of September 30, 2024, the Company's internal control over financial reporting was effective.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the effectiveness of the Company's internal control over financial reporting as of September 30, 2024 as stated in its report which is included in Item 8 of this Form 10-K.

Remediation of Previously Reported Material Weakness in Internal Control Over Financial Reporting

The Company's management concluded that a material weakness existed as of September 30, 2023, as previously disclosed in "Item 9A. Controls and Procedures" of its Annual Report on Form 10-K for the year ended September 30, 2023, as the Company did not maintain sufficient information technology ("IT") controls to prevent or detect, on a timely basis, unauthorized access to certain of its financial reporting systems. Specifically, the Company did not design and maintain effective controls related to access monitoring, intrusion detection and response capability, patch management and backup and recovery such that recovery from a cybersecurity incident could be performed in a timely manner.

The Company has taken corrective action to remediate and address the IT control deficiencies that aggregated to the noted material weakness. The controls that address the material weakness have been designed, implemented and operated effectively as of September 30, 2024 and for a sufficient period of time during fiscal 2024 in order for management to test these controls and conclude that the material weakness had been remediated as of September 30, 2024.

Changes in Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting during the quarter ended September 30, 2024, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B OTHER INFORMATION

Officer Rule 10b5-1 Plan

During the three months ended September 30, 2024, except as provided below, none of the Company's directors or Section 16 officers adopted, amended or terminated a "Rule 10b5–1 trading arrangement" or "non-Rule 10b5–1 trading arrangement" (as each term is defined in Item 408(a) of Regulation S-K).

Nathan Manning Rule 10b5-1 Plan

On September 12, 2024, Nathan Manning, the Company's Vice President and Chief Operations Officer, Global Field Operations, entered into a Rule 10b5-1 trading arrangement (the "Manning 10b5-1 Plan") during the Company's fiscal fourth quarter open trading window. The Manning 10b5-1 Plan is intended to satisfy the Rule 10b5-1 affirmative defense and contemplates the sale in regular intervals of 14,219 ordinary shares of Company stock previously issued upon the vesting of restricted stock unit awards. The Manning 10b5-1 Plan is expected to become effective on or about February 1, 2025 and is scheduled to terminate upon the earlier of the sale of all shares contemplated under the Manning 10b5-1 Plan or November 30, 2025.

Executive Officer Retention Award

On November 18, 2024, the Compensation and Talent Development Committee of the Board of Directors of Johnson Controls International plc (the "Company") approved a special retention RSU award (the "Retention Award") for Julie Brandt, the Company's Vice President and President, Building Solutions North America. The Retention Award consists of a grant of RSUs with a grant date of November 18, 2024 and a grant date fair value of $1,000,000. The Retention Award is cliff vesting after a period of one year. In the event of an involuntary not for cause termination, vesting for the Retention Award will accelerate on a pro-rata basis based on the number of full months actively employed in the vesting term. In the event of a termination as a result of death or disability, vesting for the Retention Award will accelerate in full. In the event of any other termination, including retirement, voluntary and termination "for cause", the Retention Award will be forfeited. The terms of the Retention Award are governed by the Company's standard terms of and conditions for restricted share/unit awards, filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2022, filed with the SEC on February 1, 2023, which is incorporated herein by reference.

ITEM 9C DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

In response to Part III, Items 10, 11, 12, 13 and 14, parts of the Company's definitive proxy statement (to be filed pursuant to Regulation 14A within 120 days after Registrant's fiscal year-end of September 30, 2024) for its annual meeting to be held on March 12, 2025, are incorporated by reference in this Form 10-K.

ITEM 10 DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information relating to directors and nominees of Johnson Controls is set forth under the caption "Proposal Number One" in Johnson Controls' proxy statement for its annual meeting of shareholders to be held on March 12, 2025 (the "Johnson Controls Proxy Statement") and is incorporated by reference herein. Information about executive officers is included in Part I, Item 4 of this Annual Report on Form 10-K. The information required by Items 405, 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is contained under the captions "Governance of the Company - Nomination of Directors and Board Diversity," "Governance of the Company - Board Committees", and "Committees of the Board - Audit Committee" of the Johnson Controls Proxy Statement and such information is incorporated by reference herein.

Code of Ethics

Johnson Controls has adopted a code of ethics for directors, officers (including the Company's principal executive officer, principal financial officer and principal accounting officer) and employees, known as Values First, The Johnson Controls Code of Ethics. The Code of Ethics is available on the Company's website at www.valuesfirst.johnsoncontrols.com. The Company posts any amendments to or waivers of its Code of Ethics (to the extent applicable to the Company's directors or executive

officers) at the same location on the Company's website. In addition, copies of the Code of Ethics may be obtained in print without charge upon written request by any stockholder to the office of the Company at One Albert Quay, Cork, Ireland.

Insider Trading Policy

The Company has adopted an insider trading policy governing the purchase, sale, and/or other dispositions of its securities by its directors, officers, employees and independent contractors that the Company believes is reasonably designed to promote compliance with insider trading laws, rules and regulations, and the exchange listing standards applicable to the Company.

Directors, executive officers, employees and other related persons may not buy, sell or engage in other transactions in the Company's shares while aware of material non-public information; buy or sell securities of other companies while aware of material non-public information about those companies that they became aware of as a result of business dealings between the Company and those companies; or disclose material non-public information to any unauthorized persons outside of the Company. The policy also restricts trading and other transactions for a limited group of Company employees (including executives and directors) to defined window periods that follow the Company's quarterly earnings releases and restricts trading and other transactions following announcement of a share repurchase program.

ITEM 11 EXECUTIVE COMPENSATION

The information required by Item 402 of Regulation S-K is contained under the captions "Compensation Discussion & Analysis" (excluding the information under the caption "Compensation Committee Report on Executive Compensation"), "Executive Compensation Tables" "Compensation of Non-Employee Directors" and "CEO Pay Ratio" of the Johnson Controls Proxy Statement. Such information is incorporated by reference.

The information required by Items 407(e)(4) and (e)(5) of Regulation S-K is contained under the captions "Committees of the Board - Compensation Committee Interlocks and Insider Participation" and "Compensation Discussion & Analysis - Compensation Committee Report on Executive Compensation" of the Johnson Controls Proxy Statement. Such information (other than the Compensation Committee Report on Executive Compensation, which shall not be deemed to be "filed") is incorporated by reference.

ITEM 12 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information in the Johnson Controls Proxy Statement set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" is incorporated herein by reference.

The Johnson Controls International plc 2021 Equity and Incentive Plan authorizes stock options, stock appreciation rights, restricted (non-vested) stock/units, performance shares, performance units and other stock-based awards. The Compensation and Talent Development Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards. Annual awards are typically granted in the first quarter of the fiscal year.

The following table provides information about the Company's equity compensation plans as of September 30, 2024:

	(a)	(b)	(c)
Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Equity compensation plans approved by shareholders	4,244,782	$ 46.51	35,544,152
Equity compensation plans not approved by shareholders	—	—	—
Total	4,244,782	$ 46.51	35,544,152

ITEM 13 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information in the Johnson Controls Proxy Statement set forth under the captions "Committees of the Board," "Governance of the Company - Director Independence," and "Governance of the Company - Other Directorships, Conflicts and Related Party Transactions," is incorporated herein by reference.

ITEM 14 PRINCIPAL ACCOUNTING FEES AND SERVICES

The information in the Johnson Controls Proxy Statement set forth under "Proposal Number Two" related to the appointment of auditors is incorporated herein by reference.

PART IV

ITEM 15 EXHIBIT AND FINANCIAL STATEMENT SCHEDULES

	Page in Form 10-K
(a) The following documents are filed as part of this Form 10-K:	
(1) Financial Statements	
Report of Independent Registered Public Accounting Firm	52
Consolidated Statements of Income for the years ended September 30, 2024, 2023 and 2022	54
Consolidated Statements of Comprehensive Income for the years ended September 30, 2024, 2023 and 2022	55
Consolidated Statements of Financial Position at September 30, 2024 and 2023	56
Consolidated Statements of Cash Flows for the years ended September 30, 2024, 2023 and 2022	57
Consolidated Statements of Shareholders' Equity for the years ended September 30, 2024, 2023 and 2022	58
Notes to Consolidated Financial Statements	59
(3) Exhibits	
Reference is made to the separate exhibit index contained on page 117 filed herewith.	

All Financial Statement Schedules are omitted because they are not applicable, or the required information is shown in the financial statements or notes thereto.

Financial statements of 50% or less-owned companies have been omitted because the proportionate share of their revenue or profit before income taxes is individually less than 20% of the respective consolidated amounts and investments in such companies are less than 20% of consolidated total assets.

ITEM 16 FORM 10-K SUMMARY

Not applicable.

Johnson Controls International plc
Index to Exhibits

(a) (1) and (2) Financial Statements and Supplementary Data - See Item 8
(b) Exhibit Index:

Exhibit	Title
2.1	Separation and Distribution Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 2.1 to the registrant's Current Report on Form 8-K filed September 9, 2016)
2.2	Stock and Asset Purchase Agreement, dated as of July 23, 2024, by and between Johnson Controls International plc and Robert Bosch GmbH (incorporated by reference to Exhibit 2.1 to the registrant's Current Report on Form 8-K filed July 26, 2024)
3.1	Memorandum and Articles of Association of Johnson Controls International plc, as amended by special resolutions dated September 8, 2014, August 17, 2016 and March 7, 2018 (incorporated by reference to Exhibit 3.1 to the registrant's Quarterly Report on Form 10-Q filed on May 3, 2018)
4.1	Indenture, dated December 28, 2016, between Johnson Controls International plc and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the registrant's current report on Form 8-K filed on December 28, 2016)
4.2	First Supplemental Indenture, dated December 28, 2016, between Johnson Controls International plc, and U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, UK Branch, as paying agent for the New Euro Notes attaching forms of 2.355% Senior Notes due 2017 (retired; no longer outstanding), 7.125% Senior Notes due 2017 (retired; no longer outstanding), 1.400% Senior Notes due 2017 (retired; no longer outstanding), 3.750% Notes due 2018 (retired; no longer outstanding), 5.000% Senior Notes due 2020 (retired; no longer outstanding), 4.25% Senior Notes due 2021 (retired; no longer outstanding), 3.750% Senior Notes due 2021 (retired; no longer outstanding), 3.625% Senior Notes due 2024 (retired; no longer outstanding), 6.000% Notes due 2036, 5.70% Senior Notes due 2041, 5.250% Senior Notes due 2041, 4.625% Senior Notes due 2044, 6.950% Debentures due December 1, 2045, 4.950% Senior Notes due 2064, 4.625% Notes due 2023, 1.375% Notes due 2025, 3.900% Notes due 2026, and 5.125% Notes due 2045 (incorporated by reference to Exhibit 4.2 to the registrant's current report on Form 8-K filed on December 28, 2016)
4.3	Second Supplemental Indenture, dated February 7, 2017, between Johnson Controls International plc and U.S. Bank National Association, as trustee, attaching form of 4.500% Senior Notes due 2047 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on February 7, 2017)
4.4	Fifth Supplemental Indenture, dated September 11, 2020, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank National Association, as trustee, attaching form of the 1.750% Senior Notes due 2030 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 11, 2020)
4.5	Sixth Supplemental Indenture, dated September 15, 2020, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A., U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, as paying agent, attaching forms of the 0.375% Senior Notes due 2027 and the 1.000% Senior Notes due 2032 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 15, 2020)
4.6	Seventh Supplemental Indenture, dated September 16, 2021, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank National Association, as trustee, attaching form of the 2.000% Sustainability-Linked Senior Notes due 2031 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 16, 2021)
4.7	Eighth Supplemental Indenture, dated as of September 7, 2022, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A., U.S. Bank Trust Company, National Association, as trustee and Elavon Financial Services DAC, as paying agent attaching form of the 3.000% Senior Notes due 2028 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 7, 2022)

Johnson Controls International plc
Index to Exhibits

Exhibit	Title
4.8	Ninth Supplemental Indenture, dated as of September 14, 2022, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank Trust Company, National Association, as trustee (attaching form of the 4.900% Senior Notes due 2032). (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 14, 2022)
4.9	Tenth Supplemental Indenture, dated as of May 23, 2023, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A., U.S. Bank Trust Company, National Association, as trustee and Elavon Financial Services DAC, as paying agent (attaching form of the 4.250% Senior Notes due 2035).(incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on May 23, 2023)
4.10	Eleventh Supplemental Indenture, dated as of April 19, 2024, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank Trust Company, National Association, as trustee (attaching form of the 5.500% Senior Notes due 2029). (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on April 19,2024)
4.11	Description of the Ordinary Shares of Johnson Controls International plc (filed herewith)
4.12	Description of the Johnson Controls International plc Notes (filed herewith)
4.13	Description of the Johnson Controls International plc and Tyco Fire & Security Finance S.C.A. Notes (filed herewith)
4.14	Miscellaneous long-term debt agreements and financing leases with banks and other creditors and debenture indentures.*
4.15	Miscellaneous industrial development bond long-term debt issues and related loan agreements and leases.*
10.1	Credit Agreement, dated as of December 11, 2023, among Johnson Controls International plc, certain of its subsidiaries party thereto from time to time, the lenders party thereto from time to time, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 of the registrants Annual Report on Form 10-K filed on December 14, 2023)
10.2	Tax Matters Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on September 9, 2016)
10.3	Employee Matters Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on September 9, 2016)
10.4	Tax Sharing Agreement, dated September 28, 2012 by and among Pentair Ltd., Johnson Controls International plc (formerly Tyco International Ltd.), Tyco International Finance S.A. and The ADT Corporation (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.5	Non-Income Tax Sharing Agreement dated September 28, 2012 by and among Johnson Controls International plc (formerly Tyco International Ltd.), Tyco International Finance S.A. and The ADT Corporation (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.6	Trademark Agreement, dated as of September 25, 2012, by and among ADT Services GmbH, ADT US Holdings, Inc., Johnson Controls International plc (formerly Tyco International Ltd.) and The ADT Corporation (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)

Johnson Controls International plc
Index to Exhibits

Exhibit	Title
10.7	Form of Deed of Indemnification between Johnson Controls International plc and certain of its directors and officers (incorporated by reference to Exhibit 10.7 of the registrants Annual Report on Form 10-K filed on December 14, 2023)
10.8	Form of Indemnification Agreement between Tyco Fire & Security (US) Management, LLC and certain directors and officers of Johnson Controls International plc (incorporated by reference to Exhibit 10.8 of the registrants Annual Report on Form 10-K filed on December 14, 2023)
10.9	Johnson Controls International plc 2012 Share and Incentive Plan, amended and restated as of March 8, 2017 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on May 4, 2017)**
10.10	Johnson Controls International plc 2021 Equity and Incentive Plan (incorporated by reference to Annex B to the registrant's Definitive Proxy Statement on Schedule 14A filed on January 22, 2021) **
10.11	Johnson Controls International plc Severance and Change in Control Policy for Officers, amended and restated March 11, 2021 (Incorporated by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.12	Johnson Controls International plc Executive Deferred Compensation Plan, as amended and restated March 11, 2021 (Incorporated by reference to Exhibit 10.5 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.13	Johnson Controls International plc Senior Executive Deferred Compensation Plan, as amended and restated effective March 11, 2021 (Incorporated by reference to Exhibit 10.6 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.14	Johnson Controls International plc Retirement Restoration Plan, as amended and restated March 11, 2021 (incorporated by reference to Exhibit 10.7 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.15	Tyco Supplemental Savings and Retirement Plan as amended and restated effective January 1, 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on September 19, 2017) **
10.16	Letter Agreement between Johnson Controls International plc and George R. Oliver dated December 8, 2017 (Incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on December 11, 2017)**
10.17	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing December 6, 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed February 1, 2019)**
10.18	Form of Option/SAR Award for Executive Officers (incorporated by reference to Exhibit 10.24 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2019 filed on November 21, 2019)**
10.19	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on February 2, 2018)**

Johnson Controls International plc
Index to Exhibits

Exhibit	Title
10.20	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 applicable to Messrs. Oliver and Stief (incorporated by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q filed on February 2, 2018)**
10.21	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing on September 2, 2016 (incorporated by reference to Exhibit 10.33 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 filed on November 23, 2016)**
10.22	Restrictive covenants applicable to equity award agreements beginning December 2019 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on January 31, 2020)**
10.23	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2021 (incorporated by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q filed on January 29, 2021)**
10.24	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2021 Equity and Incentive Plan (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.25	Form of terms and conditions for Restricted Stock Units for Directors under the Johnson Controls International plc 2021 Equity and Incentive Plan (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.26	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2021 Equity and Incentive Plan for fiscal 2023 (incorporated by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q filed on February 1, 2023)**
10.27	Form of terms and conditions for Option / SAR Awards under the Johnson Controls International plc 2021 Equity and Incentive Plan for fiscal 2024 (incorporated by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q filed on January 30, 2024)**
10.28	Restrictive covenants applicable to equity award agreements beginning March 2024 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on May 1, 2024)**
10.29	Settlement Agreement for Water Systems by and among Tyco Fire Products LP, and the representatives of certain U.S. active public water systems as set forth therein, dated April 12, 2024 (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed April 12, 2024)
19.1	Johnson Controls International plc Insider Trading Policy, effective September 11, 2024 (filed herewith)
21.1	Subsidiaries of Johnson Controls International plc (filed herewith)
22.1	Co-Issuer of Debt Securities (filed herewith)
23.1	Consent of Independent Registered Public Accounting Firm (filed herewith)

Johnson Controls International plc
Index to Exhibits

Exhibit	Title
31.1	Certification by the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification by the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.1	Certification by the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
97	Johnson Controls International plc Executive Compensation Recoupment Policy effective October 2, 2023 (incorporated by reference to Exhibit 97 of the registrant's Annual Report on Form 10-K filed on December 14, 2023)**
101	Financial statements from the Annual Report on Form 10-K of Johnson Controls International plc for the fiscal year ended September 30, 2024 formatted in iXBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Financial Position, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Cash Flow, (v) the Consolidated Statements of Shareholders' Equity, (vi) Notes to Consolidated Financial Statements (filed herewith), and (vii) the information included in Part II, Item 9B
104	Cover Page Interactive Data File (embedded within the iXBRL document and contained in Exhibit 101) (filed herewith)

* These instruments are not being filed as exhibits herewith because none of the long-term debt instruments authorizes the issuance of debt in excess of 10% of the total assets of Johnson Controls International plc and its subsidiaries on a consolidated basis. Johnson Controls International plc agrees to furnish a copy of each agreement to the Securities and Exchange Commission upon request.

** Management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

JOHNSON CONTROLS INTERNATIONAL PLC

By /s/ Marc Vandiepenbeeck
Marc Vandiepenbeeck
Executive Vice President and
Chief Financial Officer

Date: November 19, 2024

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below as of November 19, 2024, by the following persons on behalf of the registrant and in the capacities indicated:

/s/ George R. Oliver
George R. Oliver
Chairman and Chief Executive Officer
(Principal Executive Officer)

/s/ Marc Vandiepenbeeck
Marc Vandiepenbeeck
Executive Vice President and
Chief Financial Officer (Principal Financial Officer)

/s/ Daniel C. McConeghy
Daniel C. McConeghy
Vice President and Chief Accounting and Tax Officer
(Principal Accounting Officer)

/s/ Timothy M. Archer
Timothy M. Archer
Director

/s/ Jean Blackwell
Jean Blackwell
Director

/s/ Pierre Cohade
Pierre Cohade
Director

/s/ Patrick K. Decker
Patrick K. Decker
Director

/s/ W. Roy Dunbar
W. Roy Dunbar
Director

/s/ Gretchen R. Haggerty
Gretchen R. Haggerty
Director

/s/ Ayesha Khanna
Ayesha Khanna
Director

/s/ Seetarama Kotagiri
Seetarama Kotagiri
Director

/s/ Simone Menne
Simone Menne
Director

/s/ Jürgen Tinggren
Jürgen Tinggren
Director

/s/ Mark P. Vergnano
Mark P. Vergnano
Director

/s/ John D. Young
John D. Young
Director

Exhibit 4.11

DESCRIPTION OF ORDINARY SHARES

The following description of the material terms of our ordinary shares is based on the provisions of our Irish memorandum and articles of association. This description is not complete and is subject to the applicable provisions of Irish law and our memorandum and articles of association, which are incorporated by reference as exhibits to this Annual Report on Form 10-K. The transfer agent and registrar for our ordinary shares is Equiniti Trust Company. Our ordinary shares are listed on the New York Stock Exchange under the ticker symbol "JCI."

Capital Structure

Authorized and Issued Share Capital

Our authorized share capital is $22,000,000 and €40,000, divided into 2,000,000,000 ordinary shares with a par value of $0.01 per share, 200,000,000 preferred shares with a par value of $0.01 per share, and 40,000 ordinary A shares with a par value of €1.00 per share. The authorized share capital includes 40,000 ordinary A shares with a par value of €1.00 per share in order, at the time of its incorporation, to satisfy statutory requirements for the incorporation of all Irish public limited companies. We may issue shares subject to the maximum amount prescribed by our authorized share capital contained in our memorandum and articles of association.

As a matter of Irish company law, the directors of a company may issue new ordinary or preferred shares (including the grant of options and issue of warrants) without shareholder approval once authorized to do so by the memorandum and articles of association of the company or by an ordinary resolution adopted by the shareholders at a general meeting. An ordinary resolution requires over 50% of the votes cast by a company's shareholders at a general meeting. The authority conferred can be granted for a maximum period of five years, at which point it will lapse unless renewed by the shareholders of the company by an ordinary resolution. The board of directors is authorized, under an annual authorization by shareholders pursuant to an ordinary resolution, to issue ordinary shares subject to a maximum of approximately 20% of our issued share capital. The current annual authorization will expire at the earlier of the date of our annual general meeting in 2025 or September 13, 2025 unless renewed (a renewal of the authorization will be proposed at our annual general meeting in 2025, which if approved would expire on the date of our annual general meeting in 2026 or 18 months after the date of our 2025 annual general meeting (whichever is earlier)).

Notwithstanding this authority, under the Irish Takeover Rules the board of directors would not be permitted to issue any shares, during a period when an offer has been made for us or is believed to be imminent unless the issue is (i) approved by shareholders at a general meeting, (ii) consented to by the Irish Takeover Panel on the basis it would not constitute action frustrating the offer, (iii) consented to by the Irish Takeover Panel and approved by the holders of more than 50% of our voting rights, (iv) consented to by the Irish Takeover Panel in circumstances where a contract for the issue of the shares had been entered into prior to that period, or (v) consented to by the Irish Takeover Panel in circumstances where the issue of the shares was decided by our board of directors prior to that period and either action has been taken to implement the issuance (whether in part or in full) prior to such period or the issuance was otherwise in the ordinary course of business.

The board of directors has previously represented that it will not, without prior shareholder approval, approve the issuance or use of any of the preferred shares for any defensive or anti-takeover purpose or for the purpose of implementing any shareholder rights plan. Within these limits, the board of directors may approve the issuance or use of preferred shares for capital raising, financing or acquisition needs or opportunities that has the effect of making a takeover of us or other acquisition transaction more difficult or costly, as could also be the case if the board of directors were to issue additional ordinary shares.

The authority to issue preferred shares provides us with the flexibility to consider and respond to future business needs and opportunities as they arise from time to time, including in connection with capital raising, financing, and acquisition transactions or opportunities.

The authorized but unissued share capital may be increased or reduced by way of an ordinary resolution of our shareholders. The shares comprising our authorized share capital may be divided into shares of such par value as the

resolution shall prescribe. The rights and restrictions to which the ordinary shares will be subject are prescribed in our memorandum and articles of association.

Irish law does not recognize fractional shares held of record; accordingly, our memorandum and articles of association do not provide for the issuance of fractional shares, and our official Irish register will not reflect any fractional shares.

Dividends

Under Irish law, dividends and distributions may only be made from distributable reserves. Distributable reserves, broadly, means our accumulated realized profits less our accumulated realized losses. In addition, no distribution or dividend may be made unless our net assets are equal to, or in excess of, the aggregate of our called up share capital plus undistributable reserves and the distribution does not reduce our net assets below such aggregate. Undistributable reserves include the share premium account, the par value of shares acquired by us and the amount by which our accumulated unrealized profits, so far as not previously utilized by any capitalization, exceed our accumulated unrealized losses, so far as not previously written off in a reduction or reorganization of capital.

The determination as to whether or not we have sufficient distributable reserves to fund a dividend must be made by reference to our "relevant financial statements." The "relevant financial statements" will be either the last set of unconsolidated annual audited financial statements or unaudited financial statements prior to the declaration of a dividend prepared in accordance with the Irish Companies Act, which give a "true and fair view" of our unconsolidated financial position and accord with accepted accounting practice. The relevant financial statements must be filed in the Companies Registration Office (the official public registry for companies in Ireland).

The mechanism as to who declares a dividend and when a dividend shall become payable is governed by our articles of association, which authorize the directors to declare such dividends as appear justified from our profits without the approval of the shareholders at a general meeting. The board of directors may also recommend a dividend to be approved and declared by the shareholders at a general meeting. Although the shareholders may direct that the payment be made by distribution of assets, shares or cash, no dividend issued may exceed the amount recommended by the directors. The dividends can be declared and paid in the form of cash or non-cash assets.

Our directors may deduct from any dividend payable to any shareholder all sums of money (if any) payable by him or her to us in relation to our shares. Our directors are also entitled to issue shares with preferred rights to participate in dividends we declare. The holders of such preferred shares may, depending on their terms, be entitled to claim arrears of a declared dividend out of subsequently declared dividends in priority to ordinary shareholders.

Preemptive Rights and Advance Subscription Rights

Certain statutory preemption rights apply automatically in favor of our shareholders where our shares are to be issued for cash (including pursuant to non-compensatory options). Statutory preemption rights do not apply (i) where shares are issued for non-cash consideration (such as in a stock-for-stock acquisition), (ii) to the issue of non-equity shares (that is, shares that have the right to participate only up to a specified amount in any income or capital distribution) or (iii) where shares are issued pursuant to an employee option or similar equity plan. In addition, and without prejudice to any existing authorities granted to the board of directors, the board of directors is authorized, under an annual authorization by shareholders pursuant to a special resolution, to issue ordinary shares without the application of preemption rights of up to approximately 20% of our issued share capital. The current annual authorization will expire at the earlier of the date of our annual general meeting in 2025 or September 13, 2025 unless renewed (a renewal of the authorization will be proposed at our annual general meeting in 2025, which if approved would expire on the date of our annual general meeting in 2026 or 18 months after the date of our 2025 annual general meeting (whichever is earlier)).

A special resolution requires not less than 75% of the votes cast by our shareholders at a general meeting. If the opt-out is not renewed, shares issued for cash must be offered to our pre-existing shareholders pro rata to their

existing shareholding in accordance with the statutory preemption rights described above before the shares can be issued to any new shareholders.

Issuance of Warrants and Options

Our articles of association provide that, subject to any shareholder approval requirement under any laws, regulations or the rules of any stock exchange to which we are subject, the board is authorized, from time to time, in its discretion, to grant such persons, for such periods and upon such terms as the board deems advisable, options to purchase such number of shares of any class or classes or of any series of any class as the board may deem advisable, and to cause warrants or other appropriate instruments evidencing such options to be issued. The issuance of warrants or options is subject to the same requirements for shareholder authority and statutory preemption rights as applies to the issue of ordinary shares described under the headings "*–Capital Structure– Authorized and Issued Share Capital*" and "*–Preemptive Rights and Advance Subscription Rights*" in this summary and the number of shares capable of being issued under options and warrants are aggregated with the number of shares issued under those authorizations for determining the utilization of those authorizations. The board may issue shares upon exercise of warrants or options without shareholder approval or authorization provided that the original warrants or options were issued when valid authorization was in place.

Share Repurchases and Redemptions

Overview

Article 3 of our articles of association provides that any ordinary share which we have acquired or agreed to acquire shall be deemed to be a redeemable share. Accordingly, for Irish company law purposes, the repurchase of ordinary shares by us will technically be effected as a redemption of those shares as described below. If our articles of association did not contain Article 3(d), repurchases of our ordinary shares would be subject to many of the same rules that apply to purchases of our ordinary shares by subsidiaries described below, including the shareholder approval requirements described below and the requirement that any on-market purchases be effected on a "recognized stock exchange." Except where otherwise noted, when we refer to repurchasing or buying back our ordinary shares, we are referring to the redemption of ordinary shares by us pursuant to Article 3(d) of the articles of association or the purchase of our ordinary shares by a subsidiary of ours, in each case in accordance with our articles of association and Irish company law as described below.

Repurchases and Redemptions by Us

Under Irish law, a company can issue redeemable shares and redeem them out of distributable reserves or the proceeds of a new issue of shares for that purpose. The issue of redeemable shares may only be made by us where the nominal value of the issued share capital that is not redeemable is not less than 10% of the aggregate of the par value and share premium in respect of the allotment of our shares together with the par value of any shares acquired by us. All redeemable shares must also be fully paid and the terms of redemption of the shares must provide for payment on redemption. Redeemable shares may, upon redemption, be cancelled or held in treasury. Shareholder approval will not be required to redeem our ordinary shares. Our board of directors will also be entitled to issue preferred shares which may be redeemed at either our option or the that of the shareholder, depending on the terms of such preferred shares.

Repurchased and redeemed shares may be cancelled or held as treasury shares. The nominal value of treasury shares held by us at any time must not exceed 10% of our company capital (consisting of the aggregate of the par value and share premium in respect of the allotment of our shares together with the par value of any shares acquired by us). While we hold shares as treasury shares, we cannot exercise any voting rights in respect of those shares. We may cancel or reissue treasury shares subject to certain conditions.

Purchases by Our Subsidiaries

Under Irish law, it may be permissible for an Irish or non-Irish subsidiary to purchase our shares either on-market or off-market. A general authority of our shareholders is required to allow a subsidiary of ours to make on-market purchases of our ordinary shares; however, as long as this general authority has been granted, no specific

shareholder authority for a particular on-market purchase by a subsidiary of our ordinary shares is required. Such an authority has been adopted by our shareholders. We have sought such general authority, which must expire no later than 18 months after the date on which it was granted, at previous annual general meetings and expect to seek to renew such authority at subsequent annual general meetings. In order for a subsidiary of ours to make an on-market purchase of our shares, such shares must be purchased on a "recognized stock exchange." The New York Stock Exchange, on which our shares are listed, is a recognized stock exchange for this purpose under Irish company law. For an off-market purchase by a subsidiary of ours, the proposed purchase contract must be authorized by special resolution of our shareholders before the contract is entered into. The person whose shares are to be bought back cannot vote in favor of the special resolution and, from the date of the notice of the meeting at which the resolution approving the contract is to be proposed, the purchase contract must be on display or must be available for inspection by shareholders at our registered office.

The number of shares held by our subsidiaries at any time will count as treasury shares and will be included in any calculation of the permitted treasury share threshold of 10% of the aggregate of the par value and share premium in respect of the allotment of our shares together with the par value of any shares acquired by us. While a subsidiary holds our shares, it cannot exercise any voting rights in respect of those shares. The acquisition of our shares by a subsidiary must be funded out of distributable reserves of the subsidiary.

Lien on Shares, Calls on Shares and Forfeiture of Shares

Our articles of association provide that we will have a first and paramount lien on every share for all moneys payable, whether presently due or not, in respect of such share. Subject to the terms of their allotment, directors may call for any unpaid amounts in respect of any shares to be paid, and if payment is not made, the shares may be forfeited. These provisions are standard inclusions in the articles of association of an Irish company limited by shares, such as us.

Bonus Shares

Under our articles of association, the board of directors may resolve to capitalize any amount credited to any reserve or fund available for distribution or the share premium account or other undistributable reserve of ours for issuance and distribution to shareholders as fully paid up bonus shares on the same basis of entitlement as would apply in respect of a dividend distribution.

Consolidation and Division; Subdivision

Under our articles of association, we may by ordinary resolution consolidate and divide all or any of our share capital into shares of larger par value than its existing shares or subdivide our shares into smaller amounts than is fixed by our articles of association.

Reduction of Share Capital

We may, by ordinary resolution, reduce our authorized but unissued share capital in any way and reduce the nominal value of any of its shares. We also may, by special resolution and subject to confirmation by the Irish High Court (or as otherwise permitted under the Irish Companies Act), reduce or cancel our issued share capital in any way.

General Meetings of Shareholders

We are generally required to hold an annual general meeting at intervals of no more than fifteen months, provided that an annual general meeting is held in each calendar year, no more than nine months after our fiscal year-end.

Our articles of association provide that shareholder meetings may be held outside of Ireland (subject to compliance with the Irish Companies Act). Where a company holds its annual general meeting or extraordinary general meeting outside of Ireland, the Irish Companies Act requires that the company, at its own expense, make all

necessary arrangements to ensure that members can by technological means participate in the meeting without leaving Ireland (unless all of the members entitled to attend and vote at the meeting consent in writing to the meeting being held outside of Ireland).

Extraordinary general meetings may be convened by (i) the board of directors, (ii) on requisition of the shareholders holding not less than 10% of the paid up share capital of our shares carrying voting rights or (iii) on requisition of our auditors. Extraordinary general meetings are generally held for the purposes of approving shareholder resolutions as may be required from time to time.

Notice of a general meeting must be given to all of our shareholders and to our auditors. Our articles of association provide that the maximum notice period is 60 days. The minimum notice periods are 21 days' notice in writing for an annual general meeting or an extraordinary general meeting to approve a special resolution and 14 days' notice in writing for any other extraordinary general meeting. In each case the notice period excludes the date of mailing, the date of the meeting and is in addition to two days for deemed delivery where this is by electronic means. General meetings may be called by shorter notice, but only with the consent of our auditors and all of the shareholders entitled to attend and vote thereat. Because of the 21-day and 14-day requirements described in this paragraph, our articles of association include provisions reflecting these requirements of Irish law.

In the case of an extraordinary general meeting convened by our shareholders, the proposed purpose of the meeting must be set out in the requisition notice. The requisition notice can contain any resolution. Upon receipt of this requisition notice, the board of directors has 21 days to convene a meeting of our shareholders to vote on the matters set out in the requisition notice. This meeting must be held within two months of the receipt of the requisition notice. If the board of directors does not convene the meeting within such 21-day period, the requisitioning shareholders, or any of them representing more than one half of the total voting rights of all of them, may themselves convene a meeting, which meeting must be held within three months of the receipt of the requisition notice.

The only matters which must, as a matter of Irish company law, be transacted at an annual general meeting are the presentation of the annual accounts, balance sheet and reports of the directors and auditors, the appointment of auditors and the fixing of the auditor's remuneration (or delegation of same). If no resolution is made in respect of the reappointment of an auditor at an annual general meeting, the previous auditor will be deemed to have continued in office. Directors are elected by the affirmative vote of a majority of the votes cast by shareholders at an annual general meeting and, pursuant to our articles of association, serve for one-year terms. Any nominee for director who does not receive a majority of the votes cast is not elected to the board. However, because Irish law requires a minimum of two directors at all times, in the event that an election results in no directors being elected, each of the two nominees receiving the greatest number of votes in favor of his or her election shall hold office until his or her successor shall be elected. In the event that an election results in only one director being elected, that director shall be elected and shall serve for a one-year term, and the nominee receiving the greatest number of votes in favor of their election shall hold office until his or her successor shall be elected.

If the directors become aware that our net assets are half or less of the amount of our called-up share capital, the directors must convene an extraordinary general meeting of our shareholders not later than 28 days from the date that they learn of this fact. This meeting must be convened for the purposes of considering whether any, and if so what, measures should be taken to address the situation.

Voting

General

Where a poll is demanded at a general meeting, every shareholder shall have one vote for each ordinary share that he or she holds as of the record date for the meeting. Voting rights on a poll may be exercised by shareholders registered in our share register as of the record date for the meeting or by a duly appointed proxy of such a registered shareholder, which proxy need not be a shareholder. Where interests in shares are held by a nominee trust company this company may exercise the rights of the beneficial holders on their behalf as their proxy. All proxies must be appointed in the manner prescribed by the Irish Companies Act. Our articles of association permit the appointment of proxies by the shareholders to be notified by us electronically, when permitted by the directors.

Our articles of association provide that all resolutions shall be decided by a show of hands unless a poll is demanded by the chairman, by at least three shareholders as of the record date for the meeting or by any shareholder or shareholders holding not less than 10% of the total voting rights of ours as of the record date for the meeting. Each of our shareholders of record as of the record date for the meeting has one vote at a general meeting on a show of hands.

In accordance with our articles of association, our directors may from time to time cause us to issue preferred shares. These preferred shares may have such voting rights as may be specified in the terms of such preferred shares (e.g., they may carry more votes per share than ordinary shares or may entitle their holders to a class vote on such matters as may be specified in the terms of the preferred shares).

Treasury shares will not be entitled to vote at general meetings of shareholders

Supermajority Voting

Irish company law requires "special resolutions" of the shareholders at a general meeting to approve certain matters. A special resolution requires not less than 75% of the votes cast by our shareholders at a general meeting. This may be contrasted with "ordinary resolutions," which require a simple majority of the votes cast by our shareholders at a general meeting. Examples of matters requiring special resolutions include:

- amending our objects;
- amending our memorandum and articles of association;
- approving the change of our name;
- authorizing the entering into of a guarantee or provision of security in connection with a loan, quasi-loan or credit transaction to a director or connected person;
- opting out of pre-emption rights on the issuance of new shares;
- re-registration from a public limited company as a private company;
- variation of class rights attached to classes of shares;
- purchase of own shares off-market;
- the reduction of share capital;
- resolving that we be wound up by the Irish courts;
- resolving in favor of a shareholders' voluntary winding-up;
- re-designation of shares into different share classes; and
- setting the re-issue price of treasury shares.

A scheme of arrangement with shareholders requires a court order from the Irish High Court and the approval of (1) 75% of the voting shareholders by value and (2) 50% in number of the voting shareholders, at a meeting called to approve the scheme.

Variation of Class Rights Attaching to Shares

Variation of all or any special rights attached to any class of our shares is addressed in our articles of association as well as the Irish Companies Act. Any variation of class rights attaching to our issued shares must be approved by a special resolution of the shareholders of the class affected.

Quorum for General Meetings

The presence, in person or by proxy, of the holders of our ordinary shares outstanding which entitle the holders to a majority of the voting power of shares outstanding constitutes a quorum for the conduct of business. No business may take place at a general meeting if a quorum is not present in person or by proxy. The board of directors has no authority to waive quorum requirements stipulated in our articles of association. Abstentions and broker non-votes will be counted as present for purposes of determining whether there is a quorum in respect of the proposals.

Inspection of Books and Records

Under Irish law, shareholders have the right to: (1) receive a copy of our memorandum and articles of association and any act of the Irish Government which alters our memorandum of association; (2) inspect and obtain copies of our minutes of general meetings and resolutions; (3) inspect and receive a copy of the register of shareholders, register of directors and secretaries, register of directors' interests and other statutory registers maintained by us; (4) receive copies of financial statements and directors' and auditors' reports which have previously been sent to shareholders prior to an annual general meeting; and (5) receive financial statements of a subsidiary company of ours which have previously been sent to shareholders prior to an annual general meeting for the preceding ten years. Our auditors will also have the right to inspect all of our books, records and vouchers. The auditors' report must be circulated to the shareholders with our audited financial statements 21 days before the annual general meeting and must be laid before the shareholders at our annual general meeting.

Acquisitions and Appraisal Rights

There are a number of mechanisms for acquiring an Irish public limited company, including:

- a court-approved scheme of arrangement under the Irish Companies Act. A scheme of arrangement with shareholders requires a court order from the Irish High Court and the approval of: (1) 75% of the voting shareholders by value; and (2) greater than 50% in number of the voting shareholders, at a meeting called to approve the scheme;

- through a tender offer by a third party for all of our shares. Where the holders of 80% or more of our shares have accepted an offer for their shares, the remaining shareholders may be statutorily required to also transfer their shares. If the bidder does not exercise its "squeeze out" right, then the non-accepting shareholders also have a statutory right to require the bidder to acquire their shares on the same terms. If our shares were listed on Euronext Dublin or another regulated stock exchange in the European Union, this threshold would be increased to 90%; and

- by way of a merger with an EEA-incorporated company under the E.U. Cross Border Merger Directive (Directive 2017/1132/EU of the European Parliament and of the Council on cross-border mergers of limited liability companies). Such a merger must be approved by a special resolution (there is no statutory merger regime pursuant to Irish law for mergers between an Irish company and a company based outside of the European Economic Area, but Irish law nevertheless allows for the transfer of all assets and liabilities in accordance with an agreement such as the merger agreement).

Under Irish law, there is no requirement for a company's shareholders to approve a sale, lease or exchange of all or substantially all of a company's property and assets. However, our articles of association provide that the affirmative vote of the holders of a majority of the outstanding voting shares on the relevant record date is required to approve a sale, lease or exchange of all or substantially all of its property or assets.

Disclosure of Interests in Shares

Under the Irish Companies Act, there is a notification requirement for shareholders who acquire or cease to be interested in 3% of the shares of an Irish public limited company. A shareholder of ours must therefore make such a notification to us if as a result of a transaction the shareholder will be interested in 3% or more of our shares; or if as a result of a transaction a shareholder who was interested in more than 3% of our shares ceases to be so interested. Where a shareholder is interested in more than 3% of our shares, any alteration of his or her interest that brings his or her total holding through the nearest whole percentage number, whether an increase or a reduction,

must be notified to us. The relevant percentage figure is calculated by reference to the aggregate par value of the shares in which the shareholder is interested as a proportion of the entire par value of our share capital. Where the percentage level of the shareholder's interest does not amount to a whole percentage this figure may be rounded down to the next whole number. All such disclosures should be notified to us within 5 business days of the transaction or alteration of the shareholder's interests that gave rise to the requirement to notify. Where a person fails to comply with the notification requirements described above no right or interest of any kind whatsoever in respect of any of our shares concerned, held by such person, shall be enforceable by such person, whether directly or indirectly, by action or legal proceeding. However, such person may apply to the court to have the rights attaching to the shares concerned reinstated.

In addition to the above disclosure requirement, under the Irish Companies Act we may by notice in writing require a person whom we know or have reasonable cause to believe to be, or at any time during the three years immediately preceding the date on which such notice is issued, to have been interested in shares comprised in our relevant share capital to: (a) indicate whether or not it is the case, and (b) where such person holds or has during that time held an interest in our shares, to give such further information as may be required by us including particulars of such person's own past or present interests in our shares. Any information given in response to the notice is required to be given in writing within such reasonable time as may be specified in the notice.

Where such a notice is served by us on a person who is or was interested in our shares and that person fails to give us any information required within the reasonable time specified, we may apply to court for an order directing that the affected shares be subject to certain restrictions.

Under the Irish Companies Act, the restrictions that may be placed on the shares by the court are as follows:

- any transfer of those shares, or in the case of unissued shares any transfer of the right to be issued with shares and any issue of shares, shall be void;
- no voting rights shall be exercisable in respect of those shares;
- no further shares shall be issued in right of those shares or in pursuance of any offer made to the holder of those shares; and
- no payment shall be made of any sums due from us on those shares, whether in respect of capital or otherwise.

Where our shares are subject to these restrictions, the court may order the shares to be sold and may also direct that the shares shall cease to be subject to these restrictions. Failure to comply with such a court order is a criminal offence.

Anti-Takeover Provisions

Business Combinations with Interested Shareholders

Our articles of association include a provision similar to Section 203 of the Delaware General Corporation Law, which generally prohibits us from engaging in a business combination with an interested shareholder for a period of three years following the date the person became an interested shareholder, unless, in general:

- our board of directors approved the transaction which resulted in the shareholder becoming an interested shareholder;
- upon consummation of the transaction which resulted in the shareholder becoming an interested shareholder, the shareholder owned at least 85% of the voting shares outstanding at the time of commencement of such transaction, excluding for purposes of determining the number of voting shares outstanding (but not the outstanding voting shares owned by the interested shareholder), voting shares owned by persons who are directors and also officers and by certain employee share plans; or

- the business combination is approved by our board of directors and authorized at an annual or extraordinary general meeting of shareholders by a special resolution, excluding for this purpose any votes cast by the interested shareholder.

A "business combination" is generally defined as a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested shareholder. An "interested shareholder" is generally defined as a person who, together with affiliates and associates, owns or, within three years prior to the date in question, owned 15% or more of our outstanding voting shares.

Shareholder Rights Plans and Share Issuances

Irish law does not expressly prohibit companies from issuing share purchase rights or adopting a shareholder rights plan as an anti-takeover measure. However, there is no directly relevant case law on the validity of such plans under Irish law, and shareholder approval may be required under Irish law to implement such a plan. In addition, such a plan would be subject to the Irish Takeover Rules described below.

Subject to the Irish Takeover Rules described below, the board also has power to issue any of our authorized and unissued shares on such terms and conditions as it may determine and any such action should be taken in our best interests. It is possible, however, that the terms and conditions of any issue of preferred shares could discourage a takeover or other transaction that holders of some or a majority of the ordinary shares believe to be in their best interests or in which holders might receive a premium for their shares over the then market price of the shares. The board of directors represents that, it will not, without prior shareholder approval, approve the issuance or use of any of the preferred shares for any defensive or anti-takeover purpose or for the purpose of implementing any shareholder rights plan. Within these limits, the board of directors may approve the issuance or use of preferred shares for capital raising, financing or acquisition needs or opportunities that has the effect of making a takeover of us or other acquisition transactions more difficult or costly, as could also be the case if the board of directors were to issue additional ordinary shares.

Irish Takeover Rules and Substantial Acquisition Rules

A transaction by virtue of which a third party is seeking to acquire 30% or more of the voting rights of our shares will be governed by the Irish Takeover Panel Act 1997 and the Irish Takeover Rules made thereunder and will be regulated by the Irish Takeover Panel. The "General Principles" of the Irish Takeover Rules and certain important aspects of the Irish Takeover Rules are described below.

General Principles

The Irish Takeover Rules are built on the following General Principles which will apply to any transaction regulated by the Irish Takeover Panel:

- in the event of an offer, all classes of shareholders of the target company should be afforded equivalent treatment and, if a person acquires control of a company, the other holders of securities must be protected;
- the holders of securities in the target company must have sufficient time to allow them to make an informed decision regarding the offer;
- the board of a company must act in the interests of the company as a whole. If the board of the target company advises the holders of securities as regards the offer it must advise on the effects of the implementation of the offer on employment, employment conditions and the locations of the target company's place of business;
- false markets in the securities of the target company or any other company concerned by the offer must not be created;
- a bidder can only announce an offer after ensuring that he or she can fulfill in full the consideration offered;

- a target company may not be hindered longer than is reasonable by an offer for its securities. This is a recognition that an offer will disrupt the day-to-day running of a target company particularly if the offer is hostile and the board of the target company must divert its attention to resist the offer; and

- a "substantial acquisition" of securities (whether such acquisition is to be effected by one transaction or a series of transactions) will only be allowed to take place at an acceptable speed and shall be subject to adequate and timely disclosure.

Mandatory Bid

Under certain circumstances, a person who acquires our shares or other voting rights may be required under the Irish Takeover Rules to make a mandatory cash offer for our remaining outstanding shares at a price not less than the highest price paid for the shares by the acquirer (or any parties acting in concert with the acquirer) during the previous 12 months. This mandatory bid requirement is triggered if, unless the Panel otherwise consents, an acquisition of shares would (i) increase the aggregate holding of an acquirer (including the holdings of any parties acting in concert with the acquirer) to shares representing 30% or more of the voting rights in us, or (ii) in the case of a person holding (together with its concert parties) shares representing 30% or more of the voting rights in us, after giving effect to the acquisition, increase the percentage of the voting rights held by that person (together with its concert parties) by 0.05% within a 12-month period. Any person (excluding any parties acting in concert with the holder) holding shares representing more than 50% of the voting rights of a company is not subject to these mandatory offer requirements in purchasing additional securities.

Voluntary Bid; Requirements to Make a Cash Offer and Minimum Price Requirements

A voluntary offer is an offer that is not a mandatory offer. If a bidder or any of its concert parties acquire our ordinary shares within the period of three months prior to the commencement of the offer period, the offer price must be not less than the highest price paid for our ordinary shares by the bidder or its concert parties during that period. The Irish Takeover Panel has the power to extend the "look back" period to 12 months if the Irish Takeover Panel, having regard to the General Principles, believes it is appropriate to do so.

If the bidder or any of its concert parties has acquired our ordinary shares (i) during the period of 12 months prior to the commencement of the offer period which represent more than 10% of our total ordinary shares or (ii) at any time after the commencement of the offer period, the offer shall be in cash (or accompanied by a full cash alternative) and the price per ordinary share shall be not less than the highest price paid by the bidder or its concert parties during, in the case of (i), the period of 12 months prior to the commencement of the offer period and, in the case of (ii), the offer period. The Irish Takeover Panel may apply this rule to a bidder who, together with its concert parties, has acquired less than 10% of our total ordinary shares in the 12-month period prior to the commencement of the offer period if the Panel, having regard to the General Principles, considers it just and proper to do so.

An offer period will generally commence from the date of the first announcement of the offer or proposed offer.

Substantial Acquisition Rules

The Irish Takeover Rules also contain rules governing substantial acquisitions of shares which restrict the speed at which a person may increase his or her holding of shares and rights over shares to an aggregate of between 15% and 30% of the voting rights of our shares. Except in certain circumstances, an acquisition or series of acquisitions of shares or rights over shares representing 10% or more of the voting rights of our shares is prohibited, if such acquisition(s), when aggregated with shares or rights already held, would result in the acquirer holding 15% or more but less than 30% of the voting rights of our shares and such acquisitions are made within a period of seven days. These rules also require accelerated disclosure of acquisitions of shares or rights over shares relating to such holdings.

Frustrating Action

Under the Irish Takeover Rules, our board of directors is not permitted to take any action which might frustrate an offer for our shares once the board of directors has received an approach which may lead to an offer or

has reason to believe an offer is imminent except as noted below. Potentially frustrating actions such as (i) the issue of shares, options or convertible securities, or the redemption or purchase of own securities (other than under a contract entered into prior to the announcement of the offer or the board having reason to believe an offer is imminent), (ii) material acquisitions or disposals, (iii) entering into contracts other than in the ordinary course of business or (iv) any action, other than seeking alternative offers, which may result in frustration of an offer, are prohibited during the course of an offer or at any time during which the board has reason to believe an offer is imminent. Exceptions to this prohibition are available where:

- the action is approved by the offeree at a general meeting; or
- with the consent of the Irish Takeover Panel where:
  - the Irish Takeover Panel is satisfied the action would not constitute a frustrating action;
  - the holders of 50% of the voting rights state in writing that they approve the proposed action and would vote in favor of it at a general meeting;
  - the action is taken in accordance with a contract entered into prior to the announcement of the offer; or
  - the decision to take such action was made before the announcement of the offer and either has been at least partially implemented or is in the ordinary course of business.

Corporate Governance

Our articles of association delegate the day-to-day management of us to the board of directors. The board of directors may then delegate the management of us to committees, executives or to a management team, but regardless, the directors will remain responsible, as a matter of Irish law, for the proper management of our affairs.

Our corporate governance guidelines and general approach to corporate governance as reflected in our memorandum and articles of association and our internal policies and procedures are guided by U.S. practice and applicable federal securities laws and regulations and the requirements of the New York Stock Exchange. Although we are an Irish public limited company, we are not subject to the listing rules of Euronext Dublin or the listing rules of the U.K. Financial Conduct Authority and we are therefore not subject to, nor will we adopt, the U.K. Corporate Governance Code, any guidelines issued by the Investment Association or the Pre-Emption Group Statement of Principles, or any other non-statutory Irish or U.K. governance standards or guidelines. While there are many similarities and overlaps between the U.S. corporate governance standards applied by us and the U.K. Corporate Governance Code and other Irish/U.K. governance standards or guidelines, there are differences, in particular relating to the extent of the authorization to issue share capital and effect share repurchases that may be granted to the board and the criteria for determining the independence of directors.

Duration; Dissolution; Rights upon Liquidation

Our duration is unlimited. We may be dissolved and wound up at any time by way of either a shareholders' voluntary winding up or a creditors' winding up. In the case of a shareholders' voluntary winding up, the consent of not less than 75% of the votes cast by our shareholders is required. We may also be dissolved by way of court order on the application of a creditor or the Director of Corporate Enforcement (where the court is satisfied on a petition of the Director of Corporate Enforcement that it is in the public interest that we should be would up), or by the Companies Registration Office (by way of strike-off) as an enforcement measure where we have failed to file certain returns.

The rights of the shareholders to a return of our assets on dissolution or winding up, following the settlement of all claims of creditors, may be prescribed in our memorandum and articles of association or the terms of any preferred shares issued by our directors from time to time. The holders of preferred shares in particular may have the right to priority in a dissolution or winding up of us. If the articles of association contain no specific provisions in respect of a dissolution or winding up then, subject to the priorities of any creditors, the assets will be distributed to shareholders in proportion to the paid-up par value of the shares held. Our articles of association provide that our

ordinary shareholders are entitled to participate pro rata in a winding up, but their right to do so may be subject to the rights of any preferred shareholders to participate under the terms of any series or class of preferred shares.

Stock Exchange Listing

Our ordinary shares are listed on the New York Stock Exchange under the symbol "JCI".

Uncertificated Shares

Pursuant to the Irish Companies Act a shareholder is entitled to be issued a share certificate on request and subject to payment of a nominal fee.

Transfer and Registration of Shares

Our share register is maintained by its transfer agent. Registration in this share register is determinative of membership in us. A shareholder of ours who holds shares beneficially is not the holder of record of such shares. Instead, the depository (for example, Cede & Co., as nominee for DTC) or other nominee is the holder of record of such shares. Accordingly, a transfer of shares from a person who holds such shares beneficially to a person who also holds such shares beneficially through the same depository or other nominee will not be registered in our official share register, as the depository or other nominee will remain the record holder of such shares.

A written instrument of transfer is required under Irish law in order to register on our official share register any transfer of shares (i) from a person who holds such shares directly to any other person, (ii) from a person who holds such shares beneficially to a person who holds such shares directly, or (iii) from a person who holds such shares beneficially to another person who holds such shares beneficially where the transfer involves a change in the depository or other nominee that is the record owner of the transferred shares. An instrument of transfer also is required for a shareholder who directly holds shares to transfer those shares into his or her own broker account (or vice versa). Such instruments of transfer may give rise to Irish stamp duty, which must be paid prior to registration of the transfer on our official Irish share register.

We may, in our absolute discretion, pay or cause one of our affiliates to pay any stamp duty. Our articles of association provide that, in the event of any such payment, we shall be entitled to (i) seek reimbursement from the buyer, (ii) set-off the amount of the stamp duty against future dividends on such shares, and (iii) claim a first and permanent lien on our ordinary shares acquired by such buyer and any dividends paid on such shares. Parties to a share transfer may assume that any stamp duty arising in respect of a transaction in our ordinary shares has been paid unless one or both of such parties is otherwise notified by us.

Our articles of association delegate to our Secretary (or his or her nominee) the authority to execute an instrument of transfer on behalf of a transferring party. In order to help ensure that the official share register is regularly updated to reflect trading of our ordinary shares occurring through normal electronic systems, we regularly produce any required instruments of transfer in connection with any transactions for which we pay stamp duty (subject to the reimbursement and set-off rights described above). In the event that we notify one or both of the parties to a share transfer that we believe stamp duty is required to be paid in connection with such transfer and that we will not pay such stamp duty, such parties may either themselves arrange for the execution of the required instrument of transfer (and may request a form of instrument of transfer from us for this purpose) or request that we execute an instrument of transfer on behalf of the transferring party in a form determined by us. In either event, if the parties to the share transfer have the instrument of transfer duly stamped (to the extent required) and then provide it to our transfer agent, the transferee will be registered as the legal owner of the relevant shares on our official Irish share register (subject to the matters described below).

Our directors have general discretion to decline to register an instrument of transfer unless the transfer is in respect of one class of shares only, the instrument of transfer is accompanied by the certificate of shares to which it relates and such other evidence as the directors may reasonably require to show the right of the transferor to make the transfer, a fee of €10 or such lesser sum is paid to us, the instrument of transfer is in favor of not more than four transferees and it is lodged at our registered office or such other place as the board of directors may appoint.

The registration of transfers may be suspended by the directors at such times and for such period, not exceeding in the whole 30 days in each year, as the directors may from time to time determine.

Formation; Fiscal Year; Registered Office

We were incorporated in Ireland as a public limited company on May 9, 2014 (under the name "Tyco International plc") with company registration number 543654. Our fiscal year ends on September 30 of each year and our registered address is One Albert Quay, Cork, T12 X8N6, Ireland.

No Sinking Fund

The ordinary shares have no sinking fund provisions.

No Liability for Further Calls or Assessments

When the ordinary shares are issued, they will be duly and validly issued, fully paid and nonassessable.

DESCRIPTION OF JCI PLC NOTES

Capitalized terms used in this "*Description of JCI plc Notes*" and not otherwise defined have the meanings set forth under the heading "*—Definitions*" below. For purposes of this "Description of JCI plc Notes" section, (a) the terms "*JCI plc*," "*we*," and "*us*" refer only to Johnson Controls International plc, a public limited company organized under the laws of Ireland, and its successors permitted by the terms of the JCI plc Indenture (as defined below) and (b) the term "Johnson Controls" refers to Johnson Controls International plc and its consolidated subsidiaries.

For purposes of this description, the "JCI plc Notes" mean the following series of notes issues by JCI plc:

Initial Aggregate Principal Amount (millions)	Series of JCI plc Notes
$400	6.000% Notes due 2036
$300	5.70% Senior Notes due 2041
$250	5.250% Senior Notes due 2041
$450	4.625% Senior Notes due 2044
$125	6.950% Debentures due December 1, 2045
$450	4.950% Senior Notes due 2064
€500	1.375% Notes due 2025
$750	3.900% Notes due 2026
$750	5.125% Notes due 2045
$500	4.500% Senior Notes Due 2047

Each series of JCI plc Notes is a series of debt securities that were issued under an Indenture and a supplemental indenture thereto (collectively, the "*JCI plc Indenture*"), between JCI plc and U.S. Bank Trust Company, National Association (successor in interest to U.S. Bank National Association), as trustee (the "*Trustee*"). Elavon Financial Services DAC, UK Branch, as paying agent for the JCI plc 1.375% Notes due 2025 (the "*JCI plc Euro Notes*"), is also a party to the supplemental indentures related to the issuance of the JCI plc Euro Notes. We also entered into separate agency agreements among us, Elavon Financial Services DAC, UK Branch, as paying agent for the JCI plc Euro Notes, and (1) Elavon Financial Services DAC, as transfer agent and security registrar for the JCI plc notes other than the 1.000% Senior Notes due 2023 and 4.500% Senior Notes Due 2047 and (2) U.S. Bank National Association as transfer agent, security registrar and Trustee for the 1.000% Senior Notes due 2023 and 4.500% Senior Notes Due 2047. The terms of the JCI plc Notes include those expressly set forth in such notes and the JCI plc Indenture and those made part of the JCI plc Indenture by reference to the Trust Indenture Act.

This description is a summary of the material provisions of the JCI plc Notes and the JCI plc Indenture. This description does not restate those agreements and instruments in their entirety. You are encouraged to read the applicable JCI plc Notes and the JCI plc Indenture, as supplemented, which is filed as an exhibit to this Annual Report on Form 10-K, carefully and in their entirety as they contain information not included in this summary.

General

The JCI plc Notes are unsecured, unsubordinated obligations of JCI plc. The Notes rank senior in right of payment to JCI plc's existing and future indebtedness and other obligations that are expressly subordinated in right of payment to the Notes; equal in right of payment to JCI plc's existing and future indebtedness and other obligations that are not so subordinated; effectively junior to any of JCI plc's secured indebtedness and other obligations to the extent of the value of the assets securing such indebtedness or other obligations; and structurally junior to all existing and future indebtedness and other obligations incurred by JCI plc's subsidiaries.

The JCI plc Notes (other than the JCI plc Euro Notes) (the "*JCI plc Dollar Notes*") were issued in book-entry form, represented by Dollar Global Securities (as defined below), and delivered through the facilities of DTC. The JCI plc Euro Notes were issued in book-entry form, represented by Euro Global Securities (as defined below) deposited with or on behalf of a common depositary on behalf of Clearstream and Euroclear and registered in the name of the nominee of the common depositary for the accounts of Clearstream and Euroclear.

The JCI plc Dollar Notes were issued in registered form without interest coupons and only in denominations of $2,000 and whole multiples of $1,000 in excess thereof. The JCI plc Euro Notes were issued in registered form without interest coupons and only in denominations of €100,000 and whole multiples of €1,000 in excess thereof.

The table below sets forth the interest rate and calculation method, interest payment dates, and maturity date for each series of JCI plc Notes. Interest with respect to each series of JCI plc Notes is payable on each interest payment date to the holders of record at the close of business on each corresponding record date indicated below.

Series of JCI plc Notes	Interest Rate and Calculation Method	Interest Payment Dates	Record Dates	Maturity Date
6.000% Notes due 2036	6.000% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	January 15 and July 15	Preceding January 1 and July 1, respectively	January 15, 2036
5.70% Senior Notes due 2041	5.70% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	March 1 and September 1	Preceding February 15 and August 15, respectively	March 1, 2041
5.250% Senior Notes due 2041	5.250% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	June 1 and December 1	Preceding May 15 and November 15, respectively	December 1, 2041
4.625% Senior Notes due 2044	4.625% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	January 2 and July 2	Preceding December 18 and June 18, respectively	July 2, 2044
6.950% Debentures due December 1, 2045	6.950% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	June 1 and December 1	Preceding May 15 and November 15, respectively	December 1, 2045
4.950% Senior Notes due 2064	4.950% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	January 2 and July 2	Preceding December 18 and June 18, respectively	July 2, 2064
1.375% Notes due 2025	1.375% per annum, calculated based on the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid (or February 25, 2016, if no interest has been paid), to but excluding the next scheduled interest payment date (ACTUAL/ACTUAL (ICMA)).	February 25	Preceding February 10	February 25, 2025
3.900% Notes due 2026	3.900% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	February 14 and August 14	Preceding February 1 and August 1, respectively	February 14, 2026
5.125% Notes due 2045	5.125% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	March 14 and September 14	Preceding March 1 and September 1, respectively	September 14, 2045
4.500 Senior Notes due 2047	4.500% per annum, calculated on the basis of a 360-day year consisting of twelve 30-day months	February 15 and August 15	Preceding February 1 and August 1, respectively	February 15, 2047

Except as provided below, the JCI plc Notes are not subject to redemption, repurchase or repayment at the option of any holder thereof, upon the occurrence of any particular circumstance or otherwise. The JCI plc Notes do not have the benefit of any sinking fund. The JCI plc Notes are not convertible into or exchangeable for shares or other securities of JCI plc.

JCI plc Indenture May Be Used for Future Issuances

We may, without the consent of the then existing holders of the JCI plc Notes of any series, "re-open" any series of JCI plc Notes and issue additional JCI plc Notes of such series, which additional JCI plc Notes will have the same terms as the JCI plc Notes of such series except for the issue price, issue date and, under some circumstances, the first interest payment date; provided that, if such additional JCI plc Notes are not fungible with the JCI plc Notes of the applicable series for U.S. federal income tax purposes, such additional JCI plc Notes will have a separate CUSIP, ISIN and/or other identifying number, as applicable. Additional JCI plc Notes issued in this manner will form a single series with the JCI plc Notes of the applicable series.

In addition, the JCI plc Indenture does not limit the amount of debt securities that can be issued thereunder and provides that debt securities of any series may be issued thereunder up to the aggregate principal amount that we may authorize from time to time. All debt securities issued as a series, including those issued pursuant to any reopening of a series, will vote together as a single class. Debt securities issued pursuant to the JCI plc Indenture may have terms that differ from those of the JCI plc Notes, as set forth in Section 2.01 of the JCI plc Indenture.

Issuance of JCI plc Euro Notes in Euros

All payments of interest and principal, including payments made upon any redemption or repurchase of the JCI plc Euro Notes, will be payable in euros. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the JCI plc Euro Notes will be made in U.S. dollars until the euro is again available to us or so used. In such circumstances, the amount payable on any date in euros will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by JCI plc in its sole discretion. Any

payment in respect of the JCI plc Euro Notes so made in U.S. dollars will not constitute an Event of Default (as defined below) under the JCI plc Euro Notes or the JCI plc Indenture. Neither the Trustee nor the paying agent for the JCI plc Euro Notes shall have any responsibility for any calculation or conversion in connection with the foregoing.

Optional Redemption

JCI plc Dollar Notes

Prior to the applicable Par Call Date set forth in the table below, JCI plc may, at its option, redeem the JCI plc Dollar Notes of any series (other than the JCI plc Dollar Notes designated as "non-par callable" under the caption "Par Call Date" and/or "non-callable prior to maturity" under the caption "Applicable Spread" in the table below), in whole at any time or in part from time to time (in $1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination thereof), at a redemption price equal to the greater of (the "*Applicable Par Call Date Notes Premium*"):

(i) 100% of the principal amount of the JCI plc Dollar Notes of the applicable series to be redeemed, and

(ii) as determined by the Quotation Agent and delivered to the Trustee in writing, the sum of the present values of the remaining scheduled payments of principal and interest thereon that would be due if the applicable JCI plc Dollar Notes matured on the applicable Par Call Date (exclusive of interest accrued to the redemption date), discounted to the redemption date (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Redemption Treasury Rate plus the Applicable Spread set forth in the table below, plus, in either situation (i) or (ii), accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the applicable Par Call Date, JCI plc may, at its option, redeem the JCI plc Dollar Notes of any series (other than the JCI plc Dollar Notes designated as "non-par callable" under the caption "Par Call Date" and/or "non-callable prior to maturity" under the caption "Applicable Spread" in the table below), in whole at any time or in part from time to time (in $1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination thereof), at a redemption price equal to 100% of the principal amount of the JCI plc Dollar Notes of the applicable series to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

JCI plc may, at its option, redeem each series of JCI plc Dollar Notes designated as "non-par callable" under the caption "Par Call Date" and not designated as "non-callable prior to maturity" under the caption "Applicable Spread" in the table below, in whole at any time or in part from time to time (in $1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination thereof), at a redemption price equal to the greater of (the "*Applicable Non-Par Call Date Notes Premium*"):

(i) 100% of the principal amount of the JCI plc Dollar Notes of the applicable series to be redeemed, and

(ii) as determined by the Quotation Agent and delivered to the Trustee in writing, the sum of the present values of the remaining scheduled payments of principal and interest thereon (exclusive of interest accrued to the redemption date), discounted to the redemption date (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Redemption Treasury Rate plus the Applicable Spread set forth in the table below, plus, in either situation (i) or (ii), accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

Each series of JCI plc Dollar Notes designated as "non-callable prior to maturity" under the caption "Applicable Spread" in the table below is not redeemable prior to maturity.

The Par Call Date, Applicable Spread and minimum authorized denominations for each series of JCI plc Dollar Notes are as follows:

Series of JCI plc Dollar Notes	Par Call Date	Applicable Spread	Minimum Authorized Denominations
6.000% Notes due 2036	non-par callable	25 basis points	$ 2,000
5.70% Senior Notes due 2041	non-par callable	20 basis points	$ 2,000
5.250% Senior Notes due 2041	June 1, 2041 (six months prior to the maturity date)	35 basis points	$ 2,000
4.625% Senior Notes due 2044	January 2, 2044 (six months prior to the maturity date)	20 basis points	$ 2,000
6.950% Debentures due 2045	non-par callable	non-callable prior to maturity	$ 2,000
4.950% Senior Notes due 2064	January 2, 2064 (six months prior to the maturity date)	25 basis points	$ 2,000
3.900% Notes due 2026	November 14, 2025 (three months prior to the maturity date)	30 basis points	$ 2,000
5.125% Notes due 2045	March 14, 2045 (six months prior to the maturity date)	35 basis points	$ 2,000
4.500 Senior Notes due 2047	August 15, 2046 (six months prior to the maturity date)	25 basis points	$ 2,000

"*Adjusted Redemption Treasury Rate*," with respect to any redemption date for the JCI plc Dollar Notes of any series, means the rate equal to the semiannual equivalent yield to maturity or interpolated (on a 30/360 day count basis) yield to maturity of the Comparable Redemption Treasury Issue, assuming a price for the Comparable Redemption Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Redemption Treasury Price for such redemption date.

"*Comparable Redemption Treasury Issue*" means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the JCI plc Dollar Notes to be redeemed that would be utilized at the time of selection and in accordance with customary financial practice in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such JCI plc Dollar Notes.

"*Comparable Redemption Treasury Price*," with respect to any redemption date for the JCI plc Dollar Notes of any series, means (i) the average of the Redemption Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Redemption Reference Treasury Dealer Quotations (unless there is more than one highest or lowest quotation, in which case only one such highest and/or lowest quotation shall be excluded), or (ii) if the Quotation Agent obtains fewer than four such Redemption Reference Treasury Dealer Quotations, the average of all such Redemption Reference Treasury Dealer Quotations.

"*Independent Investment Banker*" means one of the Redemption Reference Treasury Dealers appointed by us.

"*Quotation Agent*" means a Redemption Reference Treasury Dealer appointed as such agent by JCI plc.

"*Redemption Reference Treasury Dealer*" means (1) each of Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated (with respect to the JCI plc Dollar Notes other than the 4.500 Senior Notes due 2047) and J.P. Morgan Securities LLC (with respect to the 4.500 Senior Notes due 2047) (or their respective Affiliates that are Primary Treasury Dealers (as defined below)) and their respective successors and (2) two other Primary Treasury Dealers selected by JCI plc after consultation with the Independent Investment Banker; provided, however, that if any of the foregoing shall cease to be a primary U.S. government securities dealer in New York City (a "*Primary Treasury Dealer*"), JCI plc will substitute therefor another Primary Treasury Dealer.

"Redemption Reference Treasury Dealer Quotations," with respect to each Redemption Reference Treasury Dealer and any redemption date for the JCI plc Dollar Notes of any series, means the average, as determined by the Quotation Agent, of the bid and offer prices at 11:00 a.m., New York City time, for the Comparable Redemption Treasury Issue (expressed in each case as a percentage of its principal amount) for settlement on the redemption date quoted in writing to the Quotation Agent by such Redemption Reference Treasury Dealer on the third business day preceding such redemption date.

JCI plc Euro Notes

Prior to November 25, 2024 (three months prior to the maturity date), JCI plc may, at its option, redeem the JCI plc 1.375% Notes due 2025, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to the greater of (the *Applicable Euro Notes Premium*") (i) 100% of the principal amount of the JCI plc 1.375% Notes due 2025 to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments (as defined below) discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus 20 basis points plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after November 25, 2024 (three months prior to their maturity date), JCI plc may, at its option, redeem the JCI plc 1.375% Notes due 2025, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to 100% of the principal amount of the JCI plc 1.375% Notes due 2025 to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

"*Treasury Rate*" means the rate per annum (which, if less than zero, shall be deemed to be zero) equal to the annual equivalent yield to maturity of the Reference Bond (as defined below), assuming a price for the Reference Bond (expressed as a percentage of its principal amount) equal to the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on the third business day preceding such redemption date as determined by us or an independent investment bank appointed by us.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a German government bond whose maturity is closest to the maturity of the applicable JCI plc Euro Notes, or if we or an independent investment bank appointed by us considers that such similar bond is not in issue, such other German government bond as we or an independent investment bank appointed by us, with the advice of three brokers of, and/or market makers in, German government bonds selected by us or an independent investment bank appointed by us, determine to be appropriate for determining the Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each JCI plc Euro Note to be redeemed, the remaining scheduled payments of principal of and interest on the relevant JCI plc Euro Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to a JCI plc Euro Note, the amount of the next succeeding scheduled interest payment on the relevant JCI plc Euro Note will be reduced by the amount of interest accrued on the JCI plc Euro Note to the redemption date.

Redemption Upon Changes in Withholding Taxes

JCI plc may redeem all, but not less than all, of the JCI plc Notes of any series under the following conditions:

- if there is an amendment to, or change in, the laws or regulations of a Relevant Taxing Jurisdiction (as defined below) or any change in the application or official interpretation of such laws, including any action taken by, or a change in published administrative practice of, a taxing authority or a holding by a court of competent jurisdiction, regardless of whether such action, change or holding is with respect to JCI plc, which amendment or change is announced on or after the date of issuance of the applicable JCI plc Notes (or, in the case of any Relevant Taxing Jurisdiction that becomes a Relevant Taxing Jurisdiction after the date of issuance of the applicable JCI plc Notes, after such later date);
- as a result of such amendment or change, JCI plc becomes, or there is a material probability that JCI plc will become, obligated to pay Additional Amounts (as defined below), on the next payment date with respect to the JCI plc Notes of such series;
- JCI plc delivers to the Trustee a written opinion of independent tax counsel to JCI plc of recognized standing to the effect that JCI plc has, or there is a material probability that it will become obligated, to pay Additional Amounts as a result of a change, amendment, official interpretation or application described above; and
- following the delivery of the opinion described in the previous bullet point, JCI plc provides notice of redemption not less than 30 days, but not more than 90 days, prior to the redemption date. The notice of redemption cannot be given more than 90 days before the earliest date on which JCI plc would be otherwise required to pay Additional Amounts, and the obligation to pay Additional Amounts must still be in effect when the notice is given.

Upon the occurrence of each of the bullet points above, JCI plc may redeem the JCI plc Notes of such series at a redemption price equal to 100% of the principal amount thereof, together with accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

The foregoing provisions shall apply *mutatis mutandis* to any Successor Person (as defined below) to JCI plc.

Notice of Redemption

Notice of any redemption will be mailed, or delivered electronically if the JCI plc Notes are held by any depositary, at least 30 days but not more than 90 days before the date fixed for such redemption to each holder of JCI plc Notes of a series to be redeemed. If less than all the JCI plc Notes of such series are to be redeemed, the Trustee will select the outstanding JCI plc Notes of such series to be redeemed in accordance with a method that complies with the requirements, if any, of any stock exchange on which

such JCI plc Notes are listed, and the applicable procedures of the depositary, if the JCI plc Notes of such series are held by any depositary; provided, however, that with respect to any JCI plc Notes not listed on any stock exchange and/or held by a depositary, the Trustee will select such JCI plc Notes by lot or by such other method that the Trustee considers fair and appropriate.

Interest on such JCI plc Notes or portions of JCI plc Notes will cease to accrue on and after the date fixed for redemption, unless JCI plc defaults in the payment of such redemption price and accrued interest (if any) with respect to any such JCI plc Note or portion thereof.

If any redemption date of any JCI plc Note is not a business day, then payment of principal and interest may be made on the next succeeding business day with the same force and effect as if made on the nominal redemption date and no interest will accrue for the period after such nominal date.

Payment of Additional Amounts

All payments in respect of the JCI plc Notes will be made by JCI plc free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, levies, imposts, assessments or governmental charges of whatever nature ("*Taxes*") unless the withholding or deduction of such Taxes is required by law.

In the event that JCI plc is required to withhold or deduct any amount for or on account of any Taxes imposed or levied by or on behalf of Ireland or any other jurisdiction (other than the United States of America) in which JCI plc is organized, resident or doing business for tax purposes or from or through which payments by or on behalf of JCI plc are made, or any political subdivision or any authority thereof or therein (each, but not including the United States of America or any political subdivision or any authority thereof or therein, a "*Relevant Taxing Jurisdiction*") from any payment made under or with respect to any JCI plc Note, JCI plc will pay such additional amounts ("*Additional Amounts*") so that the net amount received by each holder of JCI plc Notes (including Additional Amounts) after such withholding or deduction will equal the amount that such holder would have received if such Taxes had not been required to be withheld or deducted.

Additional Amounts will not be payable with respect to a payment made to a holder of JCI plc Notes or a holder of beneficial interests in Global Securities where such holder is subject to taxation on such payment by the Relevant Taxing Jurisdiction for any reason other than such Person's mere ownership of the JCI plc Notes or beneficial interests or for or on account of:

- any Taxes that are imposed or withheld solely because such holder or a fiduciary, settlor, beneficiary, or member of such holder if such holder is an estate, trust, partnership, limited liability company or other fiscally transparent entity, or a Person holding a power over an estate or trust administered by a fiduciary holder:
    - is or was present or engaged in, or is or was treated as present or engaged in, a trade or business in the Relevant Taxing Jurisdiction or has or had a permanent establishment in the Relevant Taxing Jurisdiction;
    - has or had any present or former connection (other than the mere fact of ownership of such JCI plc Notes) with the Relevant Taxing Jurisdiction, including being or having been a national citizen or resident thereof, being treated as being or having been a resident thereof or being or having been physically present therein;
- any estate, inheritance, gift, transfer, excise, personal property or similar Taxes imposed with respect to the JCI plc Notes;
- any Taxes imposed solely as a result of the presentation of such JCI plc Notes, where presentation is required, for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment thereof is duly provided for, whichever is later, except to the extent that the beneficiary or holder thereof would have been entitled to the payment of Additional Amounts had such JCI plc Notes been presented for payment on any date during such 30-day period;
- any Taxes imposed or withheld solely as a result of the failure of such holder or any other Person to comply with applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection with the Relevant Taxing Jurisdiction, if such compliance is required by statute or regulation of the Relevant Taxing Jurisdiction as a precondition to relief or exemption from such Taxes;
- any Taxes that are payable by any method other than withholding or deduction by JCI plc or any paying agent from payments in respect of such JCI plc Notes;
- any Taxes required to be withheld by any paying agent from any payment in respect of any JCI plc Notes if such payment can be made without such withholding by at least one other paying agent;
- any withholding or deduction for Taxes which would not have been imposed if the relevant JCI plc Notes had been presented to another paying agent in a Member State of the European Union;

- any withholding or deduction required pursuant to sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (or any amended or successor provisions), any regulations, rules, practices or agreements entered into pursuant thereto, official interpretations thereof or any law implementing an intergovernmental approach thereto; or
- any combination of the above conditions.

Additional Amounts also will not be payable to any holder of JCI plc Notes or the holder of a beneficial interest in a global JCI plc Note that is a fiduciary, partnership, limited liability company or other fiscally transparent entity, or to such holder that is not the sole holder of such JCI plc Note or holder of such beneficial interests in such JCI plc Note, as the case may be. This exception, however, will apply only to the extent that a beneficiary or settlor with respect to the fiduciary, or a beneficial owner or member of the partnership, limited liability company or other fiscally transparent entity, would not have been entitled to the payment of an Additional Amount had the beneficiary, settlor, beneficial owner or member received directly its beneficial or distributive share of the payment.

JCI plc also:

- will make such withholding or deduction of Taxes;
- will remit the full amount of Taxes so deducted or withheld to the relevant tax authority in accordance with all applicable laws;
- will use its commercially reasonable efforts to obtain from each relevant tax authority imposing such Taxes certified copies of tax receipts evidencing the payment of any Taxes so deducted or withheld; and
- upon request, will make available to the holders of the JCI plc Notes, within 90 days after the date the payment of any Taxes deducted or withheld is due pursuant to applicable law, certified copies of tax receipts evidencing such payment by JCI plc (unless, notwithstanding JCI plc's efforts to obtain such receipts, the same are not obtainable).

At least 30 days prior to each date on which any payment under or with respect to the JCI plc Notes of a series is due and payable, if JCI plc will be obligated to pay Additional Amounts with respect to such payment, JCI plc will deliver to the Trustee an Officer's Certificate stating the fact that such Additional Amounts will be payable, the amounts so payable and such other information as is necessary to enable the Trustee to pay such Additional Amounts to holders of such JCI plc Notes on the payment date.

In addition, JCI plc will pay any stamp, issue, registration, documentary or other similar taxes and duties, including interest, penalties and Additional Amounts with respect thereto, payable in a Relevant Taxing Jurisdiction in respect of the creation, issue, offering, enforcement, redemption or retirement of the JCI plc Notes.

The foregoing provisions shall survive any termination or the discharge of the JCI plc Indenture and shall apply *mutatis mutandis* to any Successor Person to JCI plc.

Whenever in the JCI plc Indenture, any JCI plc Notes, or in this "*Description of JCI plc Notes*" there is mentioned, in any context, the payment of principal, premium, if any, redemption price, repurchase price, interest or any other amount payable under or with respect to any JCI plc Notes, such mention shall be deemed to include the payment of Additional Amounts to the extent payable in the particular context.

Offer to Repurchase Upon Change of Control Triggering Event

Upon the occurrence of a Change of Control Triggering Event with respect to a series of JCI plc Notes (other than the 6.000% Notes due 2036 and the 6.950% Debentures due December 1, 2045), unless we have exercised our right to redeem the JCI plc Notes of such series by giving irrevocable notice on or prior to the 30th day after the Change of Control Triggering Event in accordance with the JCI plc Indenture, each holder of JCI plc Notes of such series will have the right to require us to purchase all or a portion of such holder's JCI plc Notes of such series pursuant to the offer described below (the "*Change of Control Offer*"), at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest, if any, thereon to, but excluding, the date of purchase (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date) (the "*Change of Control Payment*"). If the Change of Control Payment Date (as defined below) falls on a day that is not a business day, the related payment of the Change of Control Payment will be made on the next business day as if it were made on the date such payment was due, and no interest will accrue on the amounts so payable for the period from and after such date to the next business day.

Within 30 days following the date upon which the Change of Control Triggering Event occurs or, at our option, prior to any Change of Control but after the public announcement of the pending Change of Control, we will be required to send, by first class mail, or deliver electronically if the applicable JCI plc Notes are held by any depositary, a notice to each holder of JCI plc Notes of the applicable series, with a copy to the Trustee, which notice will govern the terms of the Change of Control Offer. Such notice will state,

among other things, the purchase date, which must be no earlier than 30 days nor later than 60 days from the date such notice is mailed or delivered electronically (or, in the case of a notice mailed or delivered electronically prior to the date of consummation of a Change of Control, no earlier than 30 days nor later than 60 days from the date of the Change of Control Triggering Event), other than as may be required by law (the "*Change of Control Payment Date*"). The notice, if mailed or delivered electronically prior to the date of consummation of the Change of Control, will state that the Change of Control Offer is conditioned on the Change of Control being consummated on or prior to the Change of Control Payment Date.

On the Change of Control Payment Date, we will, to the extent lawful:

- accept or cause a third party to accept for payment all JCI plc Notes of the applicable series properly tendered pursuant to the Change of Control Offer;
- deposit or cause a third party to deposit with the applicable paying agent an amount equal to the Change of Control Payment in respect of all JCI plc Notes of the applicable series properly tendered; and
- deliver or cause to be delivered to the Trustee the JCI plc Notes of the applicable series properly accepted together with an Officer's Certificate stating the aggregate principal amount of JCI plc Notes of each series being repurchased.

We will not be required to make a Change of Control Offer with respect to the JCI plc Notes of the applicable series if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for such an offer made by us and such third party purchases all the JCI plc Notes of the applicable series properly tendered and not withdrawn under its offer. In addition, we will not repurchase any JCI plc Notes of the applicable series if there has occurred and is continuing on the Change of Control Payment Date an Event of Default under the JCI plc Indenture, other than a Default in the payment of the Change of Control Payment on the Change of Control Payment Date.

We must comply in all material respects with the requirements of Rule 14e-1 under the Exchange Act, and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the JCI plc Notes of the applicable series as a result of a Change of Control Triggering Event. To the extent that the provisions of any such securities laws or regulations conflict with the Change of Control Offer provisions of the JCI plc Notes of the applicable series, we will be required to comply with those securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control Offer provisions of the JCI plc Notes of such series by virtue of any such conflict.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of "all or substantially all" of the properties or assets of JCI plc and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise, established definition of the phrase under applicable law. Accordingly, the applicability of the requirement that we offer to repurchase the JCI plc Notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of JCI plc and its subsidiaries taken as a whole to another "person" or "group" (as those terms are used in Section 13(d)(3) of the Exchange Act) may be uncertain.

Other Provisions of the JCI plc Euro Notes

Claims against JCI plc for the payment of principal or Additional Amounts, if any, of the JCI plc Euro Notes will be prescribed ten years after the applicable due date for payment thereof. Claims against JCI plc for the payment of interest, if any, of the JCI plc Euro Notes will be prescribed five years after the applicable due date for payment of interest.

Certain Covenants

The JCI plc Indenture contains the following covenants:

Limitation on Liens

JCI plc will not, and will not permit any Restricted Subsidiary to, issue, incur, assume or guarantee any Indebtedness that is secured by a lien upon any asset that at the time of such issuance, assumption or guarantee constitutes a Principal Property, or any shares of stock of or Indebtedness issued by any Restricted Subsidiary, whether now owned or hereafter acquired, without effectively providing that, for so long as such lien shall continue in existence with respect to such secured Indebtedness, the JCI plc Notes and any other debt securities issued pursuant to the Indenture and any supplement thereto (together with, if JCI plc shall so determine, any other Indebtedness of JCI plc ranking equally with the JCI plc Notes and any other debt securities issued pursuant to the Indenture and any supplement thereto, it being understood that for purposes hereof, Indebtedness which is secured by a lien and Indebtedness which is not so secured shall not, solely by reason of such lien, be deemed to be of different ranking) shall be equally and ratably secured by a lien ranking ratably with or equal to (or at JCI plc's option prior to) such secured Indebtedness; provided, however, that the foregoing covenant shall not apply to:

- liens existing on the date the JCI plc Notes of the applicable series are first issued;
- liens on the stock, assets or Indebtedness of a Person existing at the time such Person becomes a Restricted Subsidiary, unless created in contemplation of such Person becoming a Restricted Subsidiary;
- liens on any assets or Indebtedness of a Person existing at the time such Person is merged with or into or consolidated with or acquired by JCI plc or a Restricted Subsidiary or at the time of a purchase, lease or other acquisition of the assets of a corporation or firm as an entirety or substantially as an entirety by JCI plc or any Restricted Subsidiary; provided, however, that no such lien shall extend to any other Principal Property of JCI plc or such Restricted Subsidiary prior to such acquisition or to any other Principal Property thereafter acquired other than additions to such acquired property;
- liens on any Principal Property existing at the time of acquisition thereof by JCI plc or any Restricted Subsidiary, or liens to secure the payment of the purchase price of such Principal Property by JCI plc or any Restricted Subsidiary, or to secure any Indebtedness incurred, assumed or guaranteed by JCI plc or a Restricted Subsidiary for the purpose of financing all or any part of the purchase price of such Principal Property or improvements or construction thereon, which Indebtedness is incurred, assumed or guaranteed prior to, at the time of or within one year after such acquisition, or in the case of real property, completion of such improvement or construction or commencement of full operation of such property, whichever is later; provided, however, that in the case of any such acquisition, construction or improvement, the lien shall not apply to any other Principal Property, other than the Principal Property so acquired, constructed or improved, and accessions thereto and improvements and replacements thereof and the proceeds of the foregoing;
- liens securing Indebtedness owing by any Restricted Subsidiary to JCI plc or a subsidiary thereof;
- liens in favor of the United States of America or any State thereof, or any department, agency or instrumentality or political subdivision of the United States of America or any State thereof, or in favor of any other country or any political subdivision thereof, to secure partial, progress, advance or other payments pursuant to any contract, statute, rule or regulation or to secure any Indebtedness incurred or guaranteed for the purpose of financing all or any part of the purchase price, or, in the case of real property, the cost of construction or improvement, of the Principal Property subject to such liens, including liens incurred in connection with pollution control, industrial revenue or similar financings;
- pledges, liens or deposits under workers' compensation or similar legislation, and liens thereunder that are not currently dischargeable, or in connection with bids, tenders, contracts, other than for the payment of money, or leases to which JCI plc or any Restricted Subsidiary is a party, or to secure the public or statutory obligations of JCI plc or any Restricted Subsidiary, or in connection with obtaining or maintaining self-insurance, or to obtain the benefits of any law, regulation or arrangement pertaining to unemployment insurance, old age pensions, social security or similar matters, or to secure surety, performance, appeal or customs bonds to which JCI plc or any Restricted Subsidiary is a party, or in litigation or other proceedings in connection with the matters heretofore referred to in this clause, such as interpleader proceedings, and other similar pledges, liens or deposits made or incurred in the ordinary course of business;
- liens created by or resulting from any litigation or other proceeding that is being contested in good faith by appropriate proceedings, including liens arising out of judgments or awards against JCI plc or any Restricted Subsidiary with respect to which JCI plc or such Restricted Subsidiary in good faith is prosecuting an appeal or proceedings for review or for which the time to make an appeal has not yet expired; or final unappealable judgment liens which are satisfied within 15 days of the date of judgment; or liens incurred by JCI plc or any Restricted Subsidiary for the purpose of obtaining a stay or discharge in the course of any litigation or other proceeding to which JCI plc or such Restricted Subsidiary is a party;
- liens for taxes or assessments or governmental charges or levies not yet due or delinquent; or that can thereafter be paid without penalty, or that are being contested in good faith by appropriate proceedings; landlord's liens on property held under lease; and any other liens or charges incidental to the conduct of the business of JCI plc or any Restricted Subsidiary, or the ownership of their respective assets, that were not incurred in connection with the borrowing of money or the obtaining of advances or credit and that, in the opinion of the Board of Directors of JCI plc, do not materially impair the use of such assets in the operation of the business of JCI plc or such Restricted Subsidiary or the value of such Principal Property for the purposes of such business;
- liens to secure JCI plc's or any Restricted Subsidiary's obligations under agreements with respect to spot, forward, future and option transactions, entered into in the ordinary course of business;
- liens not permitted by the foregoing clauses, inclusive, if at the time of, and after giving effect to, the creation or assumption of any such lien, the aggregate amount of all outstanding Indebtedness of JCI plc and its Restricted Subsidiaries, without duplication, secured by all such liens not so permitted by the foregoing bullets, inclusive, together with the Attributable Debt in respect of Sale and Lease-Back Transactions permitted by the first bullet under "*Limitation on Sale and Lease-Back Transactions*" below, do not exceed the greater of $100,000,000 and 10% of Consolidated Net Worth; and
- any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part, of any lien referred to in the foregoing bullets inclusive; provided, however, that the principal amount of Indebtedness secured thereby unless otherwise excepted under the foregoing bullets shall not exceed the principal amount of Indebtedness so secured at the time of such extension, renewal or replacement (plus any premium, fee, cost, expense or charge payable in connection with any such extension, renewal or replacement), and that such extension, renewal or replacement shall be

limited to all or a part of the assets, or any replacements therefor, that secured the lien so extended, renewed or replaced, plus improvements and construction on such assets.

Limitation on Sale and Lease-Back Transactions

JCI plc will not, and will not permit any Restricted Subsidiary to, enter into any Sale and Lease-Back Transaction unless:

- JCI plc or such Restricted Subsidiary, at the time of entering into a Sale and Lease-Back Transaction, would be entitled to incur Indebtedness secured by a lien on the Principal Property to be leased in an amount at least equal to the Attributable Debt in respect of such Sale and Lease-Back Transaction, without equally and ratably securing the JCI plc Notes of the applicable series pursuant to the covenant described under "*Limitations on Liens*" above; or
- the direct or indirect proceeds of the sale of the Principal Property to be leased are at least equal to the fair value of such Principal Property, as determined by JCI plc's Board of Directors in good faith, and an amount equal to the net proceeds from the sale of the assets so leased is applied, within 180 days of the effective date of any such Sale and Lease-Back Transaction, to the purchase or acquisition (or, in the case of real property, commencement of the construction) of assets or to the retirement (other than at maturity or pursuant to a mandatory sinking fund or mandatory redemption or prepayment provision) of the JCI plc Notes and any other debt securities issued pursuant to the Indenture and any supplement thereto or of Funded Indebtedness ranking on a parity with or senior to the JCI plc Notes and any other debt securities issued pursuant to the Indenture and any supplement thereto; provided that there shall be credited to the amount of net proceeds required to be applied pursuant to this provision an amount equal to the sum of (i) the principal amount of the JCI plc Notes and any other debt securities issued pursuant to the Indenture and any supplement thereto delivered within 180 days of the effective date of such Sale and Lease-Back Transaction to the Trustee for retirement and cancellation and (ii) the principal amount of other Funded Indebtedness voluntarily retired by JCI plc within such 180-day period, excluding retirements of the JCI plc Notes and any other debt securities issued pursuant to the Indenture and any supplement thereto and other Funded Indebtedness at maturity or pursuant to mandatory sinking fund or mandatory redemption or prepayment provisions.

Merger and Consolidation

JCI plc will not, directly or indirectly, consolidate with or merge with or into, or convey, transfer or lease all or substantially all its assets in one or a series of related transactions to, any Person, unless:

(1) the resulting, surviving or transferee Person (the "*Successor Person*") will be a corporation, limited liability company, public limited company, limited partnership or other entity organized and existing under the laws of (u) the United States of America, any State thereof or the District of Columbia, (v) Ireland, (w) England and Wales, (x) Jersey, (y) any member state of the European Union as in effect on the date the JCI plc Notes of the applicable series are first issued or (z) Switzerland; provided that the Successor Person (if not JCI plc) will expressly assume, by a supplemental indenture, executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all the obligations of JCI plc under the JCI plc Notes of the applicable series and the JCI plc Indenture;

(2) immediately after giving effect to such transaction (and treating any Indebtedness which becomes an obligation of the Successor Person or any Restricted Subsidiary as a result of such transaction as having been incurred by the Successor Person or such Restricted Subsidiary at the time of such transaction), no Default shall have occurred and be continuing; and

(3) JCI plc shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel under the JCI plc Indenture, each stating that such consolidation, merger or transfer and such supplemental indenture (if any) comply with the JCI plc Indenture.

Notwithstanding the foregoing, (A) any conveyance, transfer or lease of assets between or among JCI plc and its subsidiaries shall not be prohibited under the JCI plc Indenture and (B) JCI plc may, directly or indirectly, consolidate with or merge with or into an Affiliate incorporated solely for the purpose of reincorporating JCI plc in another jurisdiction within the United States of America, any State thereof or the District of Columbia, Ireland, England and Wales, Jersey, any member state of the European Union as in effect on the date the JCI plc Notes of the applicable series are first issued or Switzerland to realize tax or other benefits.

The Successor Person will succeed to, and be substituted for, and may exercise every right and power of, JCI plc under the JCI plc Indenture, and the predecessor issuer, other than in the case of a lease, will be automatically released from all obligations under the JCI plc Notes and the JCI plc Indenture, including, without limitation, the obligation to pay the principal of and interest on the JCI plc Notes of the applicable series.

Reports by JCI plc

So long as any JCI plc Notes are outstanding, JCI plc shall file with the Trustee, within 15 days after JCI plc is required to file with the SEC, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) that JCI plc may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act. JCI plc shall be deemed to have complied with the previous sentence to the extent that such information, documents and reports are filed with the SEC via EDGAR, or any successor electronic delivery procedure; provided, however, that the Trustee shall have no obligation whatsoever to determine whether or not such information, documents or reports have been filed pursuant to the EDGAR system (or its successor). Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including JCI plc's compliance with any of its covenants under the JCI plc Indenture (as to which the Trustee is entitled to rely exclusively on Officer's Certificates).

JCI plc will furnish to the Trustee on or before 120 days after the end of each fiscal year an Officer's Certificate stating that in the course of the performance by the signers of their duties as Officers of JCI plc, they would normally have knowledge of any Default by JCI plc in the performance or fulfillment or observance of any covenants or agreements contained in the JCI plc Indenture during the preceding fiscal year, stating whether or not they have knowledge of any such Default and, if so, specifying each such Default of which the signers have knowledge and the nature thereof.

Listing

The JCI plc Notes are listed on the New York Stock Exchange. We have no obligation to maintain such listing, and we may delist the JCI plc Notes at any time.

Events of Default

As to any series of JCI plc Notes, an "*Event of Default*" means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) failure to pay any interest on the JCI plc Notes of that series when due, which failure continues for 30 days;

(2) failure to pay principal or premium, if any, with respect to the JCI plc Notes of that series when due;

(3) failure on the part of JCI plc to observe or perform any other covenant, warranty or agreement in the JCI plc Notes of that series, or in the JCI plc Indenture as it relates to the JCI plc Notes of that series, other than a covenant, warranty or agreement, a Default in whose performance or whose breach is specifically dealt with elsewhere in the section of the JCI plc Indenture governing Events of Default, if the failure continues for 90 days after written notice by the Trustee or the holders of at least 25% in aggregate principal amount of the JCI plc Notes of that series then outstanding;

(4) an Event of Default with respect to any other series of debt securities issued under the JCI plc Indenture or an uncured or unwaived failure to pay principal of or interest on any of our other obligations for borrowed money beyond any period of grace with respect thereto if, in either case, (a) the aggregate principal amount thereof is in excess of $200,000,000; and (b) the default in payment is not being contested by us in good faith and by appropriate proceedings; and

(5) specified events of bankruptcy, insolvency, receivership or reorganization.

However, the Event of Default in clause (4) above is subject to the following:

- if such Event of Default with respect to such other series of debt securities issued under the JCI plc Indenture or such default in payment with respect to such other obligations for borrowed money shall be remedied or cured by JCI plc or waived by the requisite holders of such other series of debt securities or such other obligations for borrowed money, then the Event of Default under the JCI plc Indenture by reason thereof shall be deemed likewise to have been thereupon remedied, cured or waived without further action upon the part of either the Trustee or any of the holders of JCI plc Notes; and

- subject to certain duties, responsibilities and rights of the Trustee under the JCI plc Indenture, the Trustee shall not be charged with knowledge of any such Event of Default with respect to such other series of debt securities issued under the JCI plc Indenture or such payment default with respect to such other obligations for borrowed money unless written notice thereof shall have been given to a Trust Officer of the Trustee by JCI plc, by the holder or an agent of the holder of

such other obligations for borrowed money, by the trustee then acting under any indenture or other instrument under which such payment default with respect to such other obligations for borrowed money shall have occurred, or by the holders of not less than 25% in aggregate principal amount of outstanding debt securities of such other series.

Notice and Declaration of Defaults

The JCI plc Indenture provides that the Trustee will, within the later of 90 days after the occurrence of a Default with respect to any series for which there are JCI plc Notes outstanding which is continuing and which is known to a Trust Officer of the Trustee, or 60 days after such Default is actually known to such Trust Officer of the Trustee or written notice of such Default is received by the Trustee, give to the holders of such JCI plc Notes notice, by mail as the names and addresses of such holders appear on the security register, or electronically if such JCI plc Notes are held by any depositary, of all uncured Defaults known to it, including events specified above without grace periods, unless such Defaults shall have been cured before the giving of such notice; provided, that except in the case of Default in the payment of the principal of, premium, if any, or interest on any of the JCI plc Notes of any series, or in the payment of any sinking fund installment with respect to the JCI plc Notes of any series, the Trustee shall be protected in withholding such notice to the holders if the Trustee in good faith determines that withholding of such notice is in the interests of the holders of the JCI plc Notes of such series.

The Trustee or the holders of not less than 25% in aggregate principal amount of the outstanding JCI plc Notes of any series may declare the JCI plc Notes of that series immediately due and payable upon the occurrence of any Event of Default. The holders of a majority in principal amount of the outstanding JCI plc Notes of all series issued under the JCI plc Indenture and any supplement thereto affected by such waiver (voting as one class), on behalf of the holders of all of the JCI plc Notes of all such series, may waive any existing Default and its consequences, except a Default in the payment of principal, premium, if any, or interest, including sinking fund payments (provided, however, that only holders of a majority in principal amount of the JCI plc Notes of an applicable series may rescind an acceleration with respect to such series and its consequences, including any related payment default that resulted from such acceleration).

Actions upon Default

In case an Event of Default with respect to any series of JCI plc Notes occurs and is continuing, the JCI plc Indenture provides that the Trustee will be under no obligation to exercise any of its rights or powers under the JCI plc Indenture at the request, order or direction of any of the holders of JCI plc Notes outstanding of any series unless the applicable holders have offered to the Trustee reasonable security and indemnity, satisfactory to the Trustee in its sole discretion, against any loss, liability or expense which may be incurred thereby. The right of a holder to institute a proceeding with respect to the JCI plc Notes of the applicable series is subject to conditions precedent including notice and indemnity to the Trustee, but the right of any holder of any applicable JCI plc Note to receive payment of the principal of, and premium, if any, and interest on their due dates or to institute suit for the enforcement thereof shall not be impaired or affected without the consent of such holder.

The holders of a majority in aggregate principal amount of the JCI plc Notes outstanding of the series in Default will have the right to direct the time, method and place for conducting any proceeding for any remedy available to the Trustee or exercising any power or trust conferred on the Trustee, in each case with respect to such series. Any direction by such holders will be in accordance with law and the provisions of the JCI plc Indenture. Subject to certain provisions of the JCI plc Indenture, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith, by a Trust Officer or Trust Officers of the Trustee, shall determine that the action or proceeding so directed may not be lawfully taken, would involve the Trustee in personal liability, would be materially or unjustly prejudicial to the rights of holders of JCI plc Notes of such series not joining in such direction or would be unduly prejudicial to the interests of the holders of JCI plc Notes and other debt securities issued under the JCI plc Indenture of all series not joining in the giving of such direction. The Trustee will be under no obligation to act in accordance with any such direction unless the applicable holders offer the Trustee reasonable security and indemnity, satisfactory to the Trustee in its sole discretion, against costs, expenses and liabilities which may be incurred thereby.

Modification of the JCI plc Indenture

JCI plc and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental to the JCI plc Indenture, which shall conform to the provisions of the Trust Indenture Act as then in effect, without the consent of the holders of any series of JCI plc Notes for one or more of the following purposes:

- to cure any ambiguity, defect or inconsistency in the JCI plc Indenture or JCI plc Notes of any series, including making any such changes as are required for the JCI plc Indenture to comply with the Trust Indenture Act;
- to add an additional obligor on the JCI plc Notes or to add a guarantor of any outstanding series of JCI plc Notes, or to evidence the succession of another Person to JCI plc or any additional obligor or guarantor of the JCI plc Notes, or successive successions, and the assumption by the Successor Person of the covenants, agreements and obligations of

JCI plc or such obligor or guarantor, as the case may be, pursuant to provisions in the JCI plc Indenture concerning consolidation, merger, the sale of assets or successor entities;

- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to the covenants of JCI plc for the benefit of the holders of any outstanding series of JCI plc Notes (and if such covenants are to be for the benefit of less than all outstanding series of debt securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any of JCI plc's rights or powers under the JCI plc Indenture;
- to add any additional Events of Default for the benefit of the holders of any outstanding series of JCI plc Notes (and if such Events of Default are to be applicable to less than all outstanding series, stating that such Events of Default are expressly being included solely to be applicable to such series);
- to change or eliminate any of the provisions of the JCI plc Indenture, provided that any such change or elimination shall not become effective with respect to any outstanding JCI plc Note of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision;
- to secure the JCI plc Notes of any series;
- to make any other change that does not adversely affect the rights of any holder of outstanding JCI plc Notes in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of a series of debt securities, to provide which, if any, of the covenants of JCI plc shall apply to such series, to provide which of the events of default set forth in the base indenture shall apply to such series, to name one or more guarantors and provide for guarantees of such series, to provide for the terms and conditions upon which the guarantee by any guarantor of such series may be released or terminated, or to define the rights of the holders of such series of debt securities;
- to issue additional JCI plc Notes of any series to the extent permitted by the JCI plc Indenture; provided that such additional JCI plc Notes have the same terms as, and be deemed part of the same series as, the applicable series of JCI plc Notes to the extent required under the JCI plc Indenture; or
- to evidence and provide for the acceptance of appointment under the JCI plc Indenture by a successor Trustee with respect to the JCI plc Notes of one or more series and to add to or change any of the provisions of the JCI plc Indenture as shall be necessary to provide for or facilitate the administration of the trust thereunder by more than one Trustee.

In addition, under the JCI plc Indenture, with the consent (evidenced as provided in the JCI plc Indenture) of the holders of not less than a majority in aggregate principal amount of the outstanding debt securities of all series affected by such supplemental indenture or indentures (voting as one class), JCI plc and the Trustee from time to time and at any time may enter into an indenture or indentures supplemental to the JCI plc Indenture for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of the JCI plc Indenture or of any supplemental indenture thereto or of modifying in any manner not covered by the immediately preceding paragraph the rights of the holders of the debt securities of each such series under the JCI plc Indenture. However, the following changes may only be made with the consent of each holder of outstanding JCI plc Notes affected:

- extend a fixed maturity of or any installment of principal of any JCI plc Notes of any series or reduce the principal amount thereof or reduce the amount of principal of any original issue discount security that would be due and payable upon declaration of acceleration of the maturity thereof;
- reduce the rate of or extend the time for payment of interest on any JCI plc Note of any series;
- reduce the premium payable upon the redemption of any JCI plc Note of any series;
- make any JCI plc Note of any series payable in currency other than that stated in the applicable JCI plc Note;
- impair the right to institute suit for the enforcement of any payment in respect of any JCI plc Note of any series on or after the fixed maturity thereof or, in the case of redemption, on or after the redemption date;
- modify the subordination provisions applicable to any JCI plc Note of any series in a manner adverse in any material respect to the holder thereof; or
- reduce the aforesaid percentage of JCI plc Notes of the applicable series, the holders of which are required to consent to any such supplemental indenture or indentures.

A supplemental indenture that changes or eliminates any covenant, event of default set forth in the base indenture or other provision of the JCI plc Indenture that has been expressly included solely for the benefit of one or more particular series of debt securities, if any, or which modifies the rights of the holders of debt securities of such series with respect to such covenant, event of

default or other provision, shall be deemed not to affect the rights under the JCI plc Indenture of the holders of securities of any other series.

Notwithstanding anything herein or otherwise, the provisions under the JCI plc Indenture relative to JCI plc's obligation to make any offer to repurchase the JCI plc Notes of any series as a result of a Change of Control Triggering Event as provided under Section 4.08 of the base indenture may be waived or modified with the written consent of the holders of a majority in principal amount of the outstanding debt securities of the applicable series or multiple affected series.

It will not be necessary for the consent of the holders of the JCI plc Notes of any series to approve the particular form of any proposed supplement, amendment or waiver, but it shall be sufficient if such consent approves the substance thereof.

Information Concerning the Trustee

If an Event of Default with respect to the JCI plc Notes of a series has occurred and is continuing, the Trustee shall exercise with respect to the JCI plc Notes of such series such of the rights and powers vested in it by the JCI plc Indenture, and use the same degree of care and skill in its exercise, as a prudent Person would exercise or use under the circumstances in the conduct of such Person's own affairs. If an Event of Default has occurred and is continuing, the Trustee will be under no obligation to exercise any of its rights or powers under the JCI plc Indenture at the request, order or direction of any holders of JCI plc Notes of the applicable series, unless such holders shall have offered to the Trustee security and indemnity, satisfactory to it in its sole discretion, against any loss, liability or expense which may be incurred thereby, and then only to the extent required by the terms of the JCI plc Indenture. No provision of the JCI plc Indenture shall require the Trustee to expend or risk its own funds or otherwise incur financial liability in the performance of any of its duties under the JCI plc Indenture or in the exercise of any of its rights or powers.

The Trustee may resign with respect to the JCI plc Notes of a series at any time by giving a written notice to JCI plc. The holders of a majority in principal amount of the outstanding JCI plc Notes of a particular series may remove the Trustee with respect to such series of JCI plc Notes by notifying JCI plc and the Trustee in writing. JCI plc may remove the Trustee if:

- the Trustee has or acquires a "conflicting interest," within the meaning of Section 310(b) of the Trust Indenture Act, and fails to comply with the provisions of Section 310(b) of the Trust Indenture Act, or otherwise fails to comply with the eligibility requirements provided in the JCI plc Indenture and fails to resign after written request therefor by JCI plc in accordance with the JCI plc Indenture;
- the Trustee is adjudged a bankrupt or an insolvent or an order for relief is entered with respect to the Trustee under any bankruptcy law;
- a custodian or public officer takes charge of the Trustee or its property; or
- the Trustee becomes incapable of acting.

If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee with respect to the JCI plc Notes of any series for any reason, JCI plc shall promptly appoint a successor Trustee with respect to the JCI plc Notes of such series.

A resignation or removal of the Trustee and appointment of a successor Trustee shall become effective only upon the successor Trustee's acceptance of the appointment as provided in the JCI plc Indenture.

The Trustee and its Affiliates have engaged, currently are engaged, and may in the future engage in financial or other transactions with JCI plc and our Affiliates in the ordinary course of their respective businesses.

Payment and Paying Agents

JCI plc will pay the principal of, premium, if any, and interest on the JCI plc Notes at any office of ours or any agency designated by us.

The Trustee was appointed by JCI plc as paying agent with regard to the JCI plc Dollar Notes. The location of the corporate trust office of the Trustee for payment on the JCI plc Dollar Notes is U.S. Bank Global Corporate Trust Services, Attn: Payments, EP-MN-WS2N, 111 Fillmore Ave E, St. Paul, MN 55107-1402.

The paying agent for the JCI plc Euro Notes is Elavon Financial Services DAC, UK Branch. For so long as the JCI plc Euro Notes are in global form, payment of principal and interest on, and any other amount due in respect of, the JCI plc Euro Notes will be made by or to the order of the paying agent on behalf of the common depositary or its nominee as the registered holder thereof. After payment by JCI plc or the paying agent of interest, principal or other amounts in respect of the JCI plc Euro Notes to the common

depositary (or its nominee), JCI plc will not have responsibility or liability for such amounts to Euroclear or Clearstream, or to holders or beneficial owners of book-entry interests in the JCI plc Euro Notes.

In addition JCI plc will maintain a transfer agent and a security registrar for the JCI plc Notes. The transfer agent and security registrar for the JCI plc Notes other than the 4.500% Senior Notes Due 2047 is Elavon Financial Services DAC. The transfer agent and security registrar for the 4.500% Senior Notes Due 2047 is the Trustee.

The security registrar as to any series of JCI plc Notes will maintain a register reflecting ownership of the JCI plc Notes of such series outstanding from time to time, if any, and together with the applicable transfer agent, will make payments on and facilitate transfers of the JCI plc Notes of such series on behalf of JCI plc. No service charge will be made for any registration of transfer or exchange of JCI plc Notes. However, we may require holders to pay any transfer taxes or other similar governmental charges payable in connection with any such transfer or exchange.

JCI plc may change or appoint any paying agent, security registrar or transfer agent with respect to the JCI plc Notes of a series without prior notice to the holders of the JCI plc Notes of such series. JCI plc or any of its subsidiaries may act as paying agent, transfer agent or security registrar in respect of any JCI plc Notes.

Governing Law

The JCI plc Indenture and any JCI plc Notes issued thereunder shall be deemed to be a contract made under the internal laws of the State of New York, and for all purposes shall be construed in accordance with the laws of the State of New York without regard to conflicts of laws principles that would require the application of any other law. The JCI plc Indenture is subject to the provisions of the Trust Indenture Act that are required to be part of the JCI plc Indenture and shall, to the extent applicable, be governed by such provisions.

Satisfaction and Discharge of the JCI plc Indenture

The JCI plc Indenture shall cease to be of further effect with respect to a series of JCI plc Notes if, at any time:

(a) JCI plc has delivered or has caused to be delivered to the Trustee for cancellation all JCI plc Notes of such series theretofore authenticated, other than any JCI plc Notes that have been destroyed, lost or stolen and that have been replaced or paid as provided in the JCI plc Indenture, and JCI plc Notes for whose payment funds or governmental obligations have theretofore been deposited in trust or segregated and held in trust by JCI plc and thereupon repaid to JCI plc or discharged from such trust, as provided in the JCI plc Indenture; or

(b) all such JCI plc Notes of a particular series not theretofore delivered to the Trustee for cancellation have become due and payable or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and JCI plc shall irrevocably deposit or cause to be deposited with the Trustee as trust funds the entire amount, in funds or governmental obligations, or a combination thereof, sufficient to pay at maturity or upon redemption all JCI plc Notes of such series not theretofore delivered to the Trustee for cancellation, including principal, premium, if any, and interest due or to become due on such date of maturity or redemption date, as the case may be, and if in either case JCI plc shall also pay or cause to be paid all other sums payable under the JCI plc Indenture with respect to such series by JCI plc.

With respect to any redemption of any JCI plc Notes that requires the payment of any premium, the amount deposited pursuant to the above paragraph shall be sufficient for purposes of the JCI plc Indenture to the extent that an amount is so deposited with the Trustee or paying agent, as applicable, equal to t such premium, on such JCI plc Notes calculated as of the date of the notice of redemption, with any deficit on the redemption date only required to be deposited with the Trustee or paying agent, as applicable, on or prior to the redemption date.

Notwithstanding the above, JCI plc may not be discharged from the following obligations, which will survive until the date of maturity or the redemption date, as the case may be, for the applicable series of JCI plc Notes:

- to make any interest or principal payments that may be required with respect to the JCI plc Notes of such series;
- to register the transfer or exchange of the JCI plc Notes of such series;
- to execute and authenticate the JCI plc Notes of such series;
- to replace stolen, lost or mutilated JCI plc Notes of such series;
- to maintain an office or agency with respect to the JCI plc Notes of such series;

- to maintain paying agencies with respect to the JCI plc Notes of such series; and
- to appoint new Trustees with respect to the JCI plc Notes of such series as required by the Indenture.

JCI plc also may not be discharged from the following obligations, which will survive the satisfaction and discharge of the applicable series of JCI plc Notes:

- to compensate and reimburse the Trustee in accordance with the terms of the JCI plc Indenture;
- to receive unclaimed payments held by the Trustee for at least one year after the date upon which the principal, if any, or interest on the JCI plc Notes of such series shall have respectively come due and payable and remit those payments to the holders thereof if required; and
- to withhold or deduct taxes as provided in the JCI plc Indenture.

For purposes of this "*Description of JCI plc Notes*," the term "*governmental obligations*" shall have the following meaning with respect to the JCI plc Euro Notes: (x) any security which is (i) a direct obligation of the German government or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the German government the payment of which is fully and unconditionally guaranteed by the German government, the central bank of the German government or a governmental agency of the German government, which, in either case (x)(i) or (ii), is not callable or redeemable at the option of the issuer thereof, and (y) certificates, depositary receipts or other instruments which evidence a direct ownership interest in obligations described in clause (x)(i) or (x)(ii) above or in any specific principal or interest payments due in respect thereof.

Defeasance and Discharge of Obligations

JCI plc's obligations with respect to the JCI plc Notes of any series will be discharged upon compliance with the conditions under the caption "*Covenant Defeasance*"; provided that JCI plc may not be discharged from the following obligations, which will survive until such date of maturity or the redemption date, as the case may be, for the applicable series of JCI plc Notes:

- to make any interest or principal payments that may be required with respect to the JCI plc Notes of such series;
- to register the transfer or exchange of the JCI plc Notes of such series;
- to execute and authenticate the JCI plc Notes of such series;
- to replace stolen, lost or mutilated JCI plc Notes of such series;
- to maintain an office or agency with respect to the JCI plc Notes of such series;
- to maintain paying agencies with respect to the JCI plc Notes of such series; and
- to appoint new Trustees with respect to the JCI plc Notes of such series as required by the Indenture.

JCI plc also may not be discharged from the following obligations, which will survive the satisfaction and discharge of the applicable series of JCI plc Notes:

- to compensate and reimburse the Trustee in accordance with the terms of the JCI plc Indenture;
- to receive unclaimed payments held by the Trustee for at least one year after the date upon which the principal, if any, or interest on the JCI plc Notes of such series shall have respectively come due and payable and remit those payments to the holders thereof if required; and
- to withhold or deduct taxes as provided in the JCI plc Indenture.

Covenant Defeasance

Upon compliance with specified conditions, JCI plc, at its option and at any time, by written notice executed by an Officer delivered to the Trustee, may elect to have its obligations, to the extent applicable, under the covenants described under "*—Offer to Repurchase Upon Change of Control Triggering Event*" and "*—Certain Covenants*" above, and the operation of the Event of Default described in clause (4) of the first paragraph under the caption "*—Events of Default*" above, discharged with respect to all outstanding JCI plc Notes of a series and the JCI plc Indenture insofar as such JCI plc Notes are concerned. For this purpose, such covenant defeasance means that, with respect to the outstanding JCI plc Notes of a series, JCI plc may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference in the JCI plc Indenture to any such covenant or by reason of reference in any such covenant to any other provision of the JCI plc Indenture or in any other document, and such omission to comply shall not constitute a Default or an Event of Default relating to the applicable series of JCI plc Notes. These conditions are:

- JCI plc irrevocably deposits in trust with the Trustee or, at the option of the Trustee, with a trustee satisfactory to the Trustee and JCI plc, as the case may be, under the terms of an irrevocable trust agreement in form and substance satisfactory to the Trustee, funds or governmental obligations or a combination thereof sufficient, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, to pay principal of, premium, if any, and interest on the outstanding JCI plc Notes of such series to maturity or redemption, as the case may be, and to pay all other amounts payable by it under the JCI plc Indenture (provided that, with respect to any redemption of any JCI plc Notes that requires the payment of any premium, the amount deposited pursuant to the above paragraph shall be sufficient for purposes of the JCI plc Indenture to the extent that an amount is so deposited with the Trustee or paying agent, as applicable, equal to the such premium on such JCI plc Notes calculated as of the date of the notice of redemption, with any deficit on the redemption date only required to be deposited with the Trustee or paying agent, as applicable, on or prior to the redemption date), provided that (A) the trustee of the irrevocable trust shall have been irrevocably instructed to pay such funds or the proceeds of such governmental obligations to the Trustee and (B) the Trustee shall have been irrevocably instructed to apply such funds or the proceeds of such governmental obligations to the payment of such principal, premium, if any, and interest with respect to the JCI plc Notes of such series;
- JCI plc delivers to the Trustee an Officer's Certificate stating that all conditions precedent specified herein relating to defeasance or covenant defeasance, as the case may be, have been complied with, and an Opinion of Counsel to the same effect;
- no Event of Default shall have occurred and be continuing, and no event which with notice or lapse of time or both would become such an Event of Default shall have occurred and be continuing, on the date of such deposit; and
- JCI plc shall have delivered to the Trustee an Opinion of Counsel (which, in the case of a defeasance, must be based on a change in law) or a ruling received from the U.S. Internal Revenue Service to the effect that the beneficial owners of the JCI plc Notes of such series will not recognize income, gain or loss for U.S. federal income tax purposes as a result of JCI plc's exercise of such defeasance or covenant defeasance and will be subject to U.S. Federal income tax in the same amount and in the same manner and at the same times as would have been the case if such election had not been exercised.

Definitions

As used in the JCI plc Notes and this "*Description of JCI plc Notes*," the following defined terms shall have the following meanings with respect to the JCI plc Notes:

"*Affiliate*", with respect to any specified Person, means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "*control*" when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through ownership of voting securities, by contract or otherwise; and the terms "*controlling*" and "*controlled*" have meanings correlative to the foregoing.

"*Attributable Debt*," in connection with a Sale and Lease-Back Transaction, as of any particular time, means the aggregate of present values (discounted at a rate that, at the inception of the lease, represents the effective interest rate that the lessee would have incurred to borrow over a similar term the funds necessary to purchase the leased assets) of the obligations of JCI plc or any Restricted Subsidiary for net rental payments during the remaining term of the applicable lease, including any period for which such lease has been extended or, at the option of the lessor, may be extended. The term "*net rental payments*" under any lease of any period shall mean the sum of the rental and other payments required to be paid in such period by the lessee thereunder, not including any amounts required to be paid by such lessee, whether or not designated as rental or additional rental, on account of maintenance and repairs, reconstruction, insurance, taxes, assessments, water rates or similar charges required to be paid by such lessee thereunder or any amounts required to be paid by such lessee thereunder contingent upon the amount of sales, maintenance and repairs, reconstruction, insurance, taxes, assessments, water rates or similar charges.

"*Board of Directors*" means the Board of Directors of JCI plc or any duly authorized committee of such Board of Directors.

"*business day*" means any day other than a Saturday or Sunday, (1) that is not a day on which banking institutions in the City of New York or London are authorized or obligated by law, executive order or regulation to close, and (2) in respect of the JCI plc Euro Notes, on which the Trans-European Automated Real-time Gross Settlement Express Transfer System (the TARGET2 system), or any successor thereto, is open.

"*Change of Control*" means the occurrence of any of the following after the date of issuance of the JCI plc Notes of the applicable series:

(1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of our assets and the assets of our subsidiaries taken as a whole to any "person" or "group" (as those terms are used in Section 13(d)(3) of the Exchange Act) other than to us or one of our subsidiaries, other than any such transaction or series of related transactions where holders of our Voting Stock outstanding immediately prior thereto hold Voting Stock of the transferee Person representing a majority of the voting power of the transferee Person's Voting Stock immediately after giving effect thereto;

(2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" or "group" (as those terms are used in Section 13(d)(3) of the Exchange Act) (other than us or one of our subsidiaries) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of our Voting Stock representing a majority of the voting power of our outstanding Voting Stock;

(3) we consolidate with, or merge with or into, any Person, or any Person consolidates with, or merges with or into, us, in any such event pursuant to a transaction in which any of our outstanding Voting Stock or Voting Stock of such other Person is converted into or exchanged for cash, securities or other property, other than any such transaction where our Voting Stock outstanding immediately prior to such transaction constitutes, or is converted into or exchanged for, Voting Stock representing a majority of the voting power of the Voting Stock of the surviving Person (or its parent) immediately after giving effect to such transaction; or

(4) the adoption by our shareholders of a plan relating to our liquidation or dissolution.

Notwithstanding the foregoing, a transaction will not be deemed to involve a change of control under clause (2) above if (1) we become a direct or indirect wholly-owned subsidiary of a holding company or other Person and (2)(A) the direct or indirect holders of the Voting Stock of such holding company or other Person immediately following that transaction are substantially the same as the holders of our Voting Stock immediately prior to that transaction or (B) immediately following that transaction no person (as that term is used in Section 13(d)(3) of the Exchange Act) (other than a holding company or other Person satisfying the requirements of this sentence) is the beneficial owner, directly or indirectly, of more than 50% of the Voting Stock of such holding company or other Person.

"*Change of Control Triggering Event*" means, with respect to the applicable series of JCI plc Notes, the JCI plc Notes of such series cease to be rated Investment Grade by each of the Rating Agencies on any date during the period (the "*Trigger Period*") commencing 60 days prior to the first public announcement by us of any Change of Control (or pending Change of Control) and ending 60 days following consummation of such Change of Control (which Trigger Period will be extended following consummation of a Change of Control for so long as any of the Rating Agencies has publicly announced that it is considering a possible ratings downgrade or withdrawal). However, a Change of Control Triggering Event otherwise arising by virtue of a particular reduction in, or withdrawal of, rating shall not be deemed to have occurred in respect of a particular Change of Control (and thus shall not be deemed a Change of Control Triggering Event for purposes of the definition of Change of Control Triggering Event) if the Rating Agencies making the reduction in, or withdrawal of, rating to which this definition would otherwise apply do not announce or publicly confirm or inform the Trustee in writing at our request that the reduction or withdrawal was the result, in whole or in part, of any event or circumstance comprised of or arising as a result of, or in respect of, the applicable Change of Control (whether or not the applicable Change of Control shall have occurred at the time of the Change of Control Triggering Event). If a Rating Agency is not providing a rating for the JCI plc Notes of such series at the commencement of any Trigger Period, the JCI plc Notes of such series will be deemed to have ceased to be rated Investment Grade by such Rating Agency during that Trigger Period.

Notwithstanding the foregoing, no Change of Control Triggering Event will be deemed to have occurred in connection with any particular Change of Control unless and until such Change of Control has actually been consummated.

"*Consolidated Net Worth*" at any date means total assets less total liabilities, in each case appearing on the most recently prepared consolidated balance sheet of JCI plc and its subsidiaries as of the end of a fiscal quarter of JCI plc, prepared in accordance with United States generally accepted accounting principles as in effect on the date of the consolidated balance sheet.

"*Consolidated Tangible Assets*" at any date means total assets less all intangible assets appearing on the most recently prepared consolidated balance sheet of JCI plc and its subsidiaries as of the end of a fiscal quarter of JCI plc, prepared in accordance with United States generally accepted accounting principles as in effect on the date of the consolidated balance sheet.

"*Default*" means any event, act or condition that with notice or lapse of time, or both, would constitute an Event of Default.

"*Funded Indebtedness*" means any Indebtedness of JCI plc or any consolidated subsidiary maturing by its terms more than one year from the date of the determination thereof, including any Indebtedness renewable or extendable at the option of the obligor to a date later than one year from the date of the determination thereof.

"*Indebtedness*" means, without duplication, the principal amount (such amount being the face amount or, with respect to original issue discount bonds or zero coupon notes, bonds or debentures or similar securities, determined based on the accreted amount as of the date of the most recently prepared consolidated balance sheet of JCI plc and its subsidiaries as of the end of a fiscal quarter of JCI plc prepared in accordance with United States generally accepted accounting principles as in effect on the date of such consolidated balance sheet) of (i) all obligations for borrowed money, (ii) all obligations evidenced by debentures, notes or other similar instruments, (iii) all obligations in respect of letters of credit or bankers acceptances or similar instruments or reimbursement obligations with respect thereto (such instruments to constitute Indebtedness only to the extent that the outstanding reimbursement obligations in respect thereof are collateralized by cash or cash equivalents reflected as assets on a balance sheet prepared in accordance with United States generally accepted accounting principles), (iv) all obligations to pay the deferred purchase price of property or services, except (A) trade and similar accounts payable and accrued expenses, (B) employee compensation, deferred compensation and pension obligations, and other obligations arising from employee benefit programs and agreements or other similar employment arrangements, (C) obligations in respect of customer advances received and (D) obligations in connection with earnout and holdback agreements, in each case in the ordinary course of business, (v) all obligations as lessee to the extent capitalized in accordance with United States generally accepted accounting principles and (vi) all Indebtedness of others consolidated in such balance sheet that is guaranteed by JCI plc or any of its subsidiaries or for which JCI plc or any of its subsidiaries is legally responsible or liable (whether by agreement to purchase indebtedness of, or to supply funds or to invest in, others).

"*Intangible assets*" means the amount, if any, stated under the headings "Goodwill" and "Other intangible assets, net" or under any other heading of intangible assets separately listed, in each case on the face of the most recently prepared consolidated balance sheet of JCI plc and its subsidiaries as of the end of a fiscal quarter of JCI plc, prepared in accordance with United States generally accepted accounting principles as in effect on the date of the consolidated balance sheet.

"*Investment Grade*" means a rating of Baa3 or better by Moody's (or its equivalent under any successor rating category of Moody's) and a rating of BBB– or better by S&P (or its equivalent under any successor rating category of S&P), and the equivalent investment grade credit rating from any replacement rating agency or rating agencies selected by us under the circumstances permitting us to select a replacement rating agency and in the manner for selecting a replacement rating agency, in each case as set forth in the definition of "*Rating Agency*."

"*lien*" means a mortgage, pledge, security interest, lien or encumbrance.

"*Moody's*" means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation, and its successors.

"*Officer*" means any director, any managing director, the chairman or any vice chairman of the Board of Directors, the chief executive officer, the president, the chief financial officer, any vice president, the treasurer, any assistant treasurer, the secretary or any assistant secretary, or any equivalent of the foregoing, of JCI plc or any Person duly authorized to act for or on behalf of JCI plc.

"*Officer's Certificate*" means a certificate, signed by any Officer of JCI plc, that is delivered to the Trustee in accordance with the terms of the JCI plc Indenture.

"*Opinion of Counsel*" means a written opinion acceptable to the Trustee from legal counsel licensed in any State of the United States of America and applying the laws of such State. The counsel may be an employee of or counsel to JCI plc.

"*Person*" means any individual, corporation, partnership, limited liability company, business trust, association, joint-stock company, joint venture, trust, incorporated or unincorporated organization or government or any agency or political subdivision thereof.

"*Principal Property*" means any manufacturing, processing or assembly plant or any warehouse or distribution facility, or any office or parcel of real property (including fixtures but excluding leases and other contract rights which might otherwise be deemed real property) of JCI plc or any of its subsidiaries that is used by any U.S. Subsidiary of JCI plc and is located in the United States of America (excluding its territories and possessions and Puerto Rico) and (A) is owned by JCI plc or any subsidiary of JCI plc on the date the JCI plc Notes of the applicable series are issued, (B) the initial construction of which has been completed after the date on which the JCI plc Notes of the applicable series are issued, or (C) is acquired after the date on which the JCI plc Notes of the applicable series are issued, in each case, other than any such plants, facilities, warehouses or portions thereof, that in the opinion of the Board of Directors of JCI plc, are not collectively of material importance to the total business conducted by JCI plc and its subsidiaries as an entirety, or that have a net book value (excluding any capitalized interest expense), on the date the JCI plc Notes of the applicable series are issued in the case of clause (A) of this definition, on the date of completion of the initial construction in the case of clause (B) of this definition or on the date of acquisition in the case of clause (C) of this definition, of less than 2.0% of Consolidated Tangible Assets on the consolidated balance sheet of JCI plc and its subsidiaries as of the applicable date.

"*Rating Agency*" means each of Moody's and S&P; provided, that if any of Moody's or S&P ceases to provide rating services to issuers or investors, we may appoint another "nationally recognized statistical rating organization" as defined under Section 3(a)(62) of the Exchange Act as a replacement for such Rating Agency; provided, that we shall give notice of such appointment to the Trustee.

"*Restricted Subsidiary*" means any subsidiary of JCI plc that owns or leases a Principal Property.

"*Sale and Lease-Back Transaction*" means an arrangement with any Person providing for the leasing by JCI plc or a Restricted Subsidiary of any Principal Property whereby such Principal Property has been or is to be sold or transferred by JCI plc or a Restricted Subsidiary to such Person other than JCI plc or any of its subsidiaries; provided, however, that the foregoing shall not apply to any such arrangement involving a lease for a term, including renewal rights, for not more than three years.

"S&P" means Standard & Poor's Global Ratings, a division of S&P Global Inc., and its successors.

"*Trust Officer*" means any officer within the corporate trust department of the Trustee, including any vice president, senior associate, associate, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such Person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of the JCI plc Indenture.

"*U.S. Subsidiary*" means any subsidiary of JCI plc that was formed under the laws of the United States of America, any State thereof or the District of Columbia (but not any territory thereof).

"*Voting Stock*" of any specified Person as of any date means the capital stock of such Person that is at the time entitled to vote generally in the election of the board of directors of such Person.

Exhibit 4.13

DESCRIPTION OF JCI PLC AND TFSCA NOTES

Capitalized terms used in this "*Description of JCI plc and TFSCA Notes*" and not otherwise defined have the meanings set forth under the heading "*— Definitions*" below. For purposes of this "*Description of the JCI plc and TFSCA Notes*" section, (a) the terms "*JCI plc*" or "*Company*" refer only to Johnson Controls International plc, a public limited company organized under the laws of Ireland, and its successors permitted by the terms of the Indenture, (b) the terms "*TFSCA*" or "*Co-Issuer*" refer to Tyco Fire & Security Finance S.C.A., a corporate partnership limited by shares incorporated and organized under the laws of the Grand Duchy of Luxembourg, and its successors permitted by the terms of the Indenture, (c) the terms "*Issuers,*" "*we,*" "*us*" and "*our*" refer to JCI plc and TFSCA together, and (d) the term "*Johnson Controls*" refers to JCI plc and its consolidated subsidiaries, including TFSCA.

For purposes of this description:

- "*2027 Notes*" refers to our 0.375% Senior Notes due 2027
- "*2028 Notes*" refers to our 3.000% Senior Notes due 2028
- "*2029 Notes*" refers to our 5.500% Senior Notes due 2029
- "*2030 Notes*" refers to our 1.750% Senior Notes due 2030
- "*2031 Notes*" refers to our 2.000% Sustainability-Linked Senior Notes due 2031
- "*2032 USD Notes*" refers to our 4.900% Senior Notes due 2032
- "*2032 Euro Notes*" refers to our 1.000% Senior Notes due 2032
- "*2035 Notes*" refers to our 4.250% Senior Notes due 2035
- "*Euro Notes*" refers to the 2027 Notes, the 2028 Notes, the 2032 Euro Notes and the 2035 Notes
- "*USD Notes*" refers to the 2029 Notes, the 2030 Notes, the 2031 Notes and the 2032 USD Notes
- "*Notes*" refers to the Euro Notes and the USD Notes.

The 2030 Notes were issued under the Indenture, dated as of December 28, 2016 (the "*Base Indenture*"), between JCI plc and U.S. Bank Trust Company, National Association (successor in interest to U.S. Bank National Association), as trustee (the "Trustee") and a Fifth Supplemental Indenture among JCI plc, TFSCA and the Trustee. The 2027 Notes and the 2032 Euro Notes were issued under the Base Indenture and a Sixth Supplemental Indenture among JCI plc, TFSCA, the Trustee and Elavon Financial Services DAC, as paying agent. The 2031 Notes were issued under the Base Indenture and a Seventh Supplemental Indenture among JCI plc, TFSCA and the Trustee. The 2028 Notes were issued under the Base Indenture and an Eighth Supplemental Indenture among JCI plc, TFSCA, the Trustee and Elavon Financial Services DAC, as paying agent. The 2032 USD Notes were issued under the Base Indenture and a Ninth Supplemental Indenture among JCI plc, TFSCA and the Trustee. The 2035 Notes were issued under the Base Indenture and a Tenth Supplemental Indenture among JCI plc, TFSCA, the Trustee and Elavon Financial Services DAC, as paying agent. The 2029 Notes were issued under the Base Indenture and an Eleventh Supplemental Indenture among JCI plc, TFSCA and the Trustee (together with the Base Indenture, the Fifth Supplemental Indenture, the Sixth Supplemental Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture and the Tenth Supplemental Indenture, the "*Indenture*"). We entered into agency agreements with respect to the Euro Notes among us, Elavon Financial Services DAC, as paying agent, and U.S. Bank Trust Company, National Association (successor in interest to U.S. Bank National Association), as transfer agent, security registrar and Trustee.

The terms of the Notes include those expressly set forth in such Notes and the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939 (15 U.S.C. §§77aaa-77bbbb), as in effect from time to time (the "*Trust Indenture Act*").

The 2027 Notes and the 2032 Euro Notes were each issued in an aggregate initial principal amount of €500,000,000. The 2028 Notes were issued in an aggregate initial principal amount of €600,000,000. The 2029 Notes were issued in an aggregate initial principal amount of $700,000,000. The 2030 Notes were issued in an aggregate initial principal amount of $625,000,000. The 2031 Notes were issued in an aggregate principal amount of $500,000,000. The 2032 USD Notes were issued in an aggregate initial principal amount of $400,000,000. The 2035 Notes were issued in an aggregate initial principal amount of €800,000,000.

The Issuers are jointly and severally liable for all obligations under the Notes. The Co-Issuer is a wholly-owned consolidated subsidiary of the Company that is 99.924% owned directly by the Company and 0.076% owned by TFSCA's sole general partner and manager, Tyco Fire & Security S.à.r.l., which is itself wholly owned by the Company. The Co-Issuer is a holding company that directly and indirectly holds significantly all of the subsidiaries of JCI plc. The Co-Issuer engages in intercompany financial services on behalf of JCI plc, including engaging in intercompany loan transactions and engaging in currency hedging transactions on behalf of JCI plc and its subsidiaries.

This description is a summary of the material provisions of the Notes and the Indenture. This description does not restate those agreements and instruments in their entirety. We urge you to read the Notes and the Indenture, which are filed as exhibits to this Annual Report on Form 10-K, because they, not the summaries below, define the rights of holders of the Notes.

General

The Notes constitute separate series and are JCI plc's and the Co-Issuer's unsecured, unsubordinated obligations. The Notes rank senior in right of payment to JCI plc's and the Co-Issuer's existing and future indebtedness and other obligations that are expressly subordinated in right of payment to the Notes; equal in right of payment to JCI plc's and the Co-Issuer's existing and future indebtedness and other obligations that are not so subordinated; effectively junior to any of JCI plc's and the Co-Issuer's secured indebtedness and other obligations to the extent of the value of the assets securing such indebtedness or other obligations; and structurally junior to all existing and future indebtedness and other obligations incurred by JCI plc's and the Co-Issuer's subsidiaries. TFSCA is not a co-issuer in respect of JCI plc's outstanding senior notes other than the 2027 Notes, 2028 Notes, 2029 Notes, 2030 Notes, 2031 Notes, 2032 USD Notes, 2032 Euro Notes and 2035 Notes.

The Euro Notes were issued in book-entry form, represented by Global Securities (as defined below), deposited with or on behalf of a common depositary on behalf of Clearstream and Euroclear and registered in the name of the nominee of the common depositary for the accounts of Clearstream and Euroclear. The USD Notes were issued in book-entry form, represented by Global Securities and delivered through the facilities of DTC.

The Euro Notes were issued in registered form without interest coupons and only in denominations of €100,000 and whole multiples of €1,000 in excess thereof. The USD Notes were issued in registered form without interest coupons and only in denominations of $2,000 and whole multiples of $1,000 in excess thereof.

Except as provided below, the Notes are not subject to redemption, repurchase or repayment at the option of any holder thereof, upon the occurrence of any particular circumstance or otherwise. The Notes do not have the benefit of any sinking fund. The Notes are not be convertible into or exchangeable for shares or other securities of the Issuers.

For the avoidance of doubt, articles 470-1 to 470-19 of the Luxembourg law of 10 August 1915 relating to commercial companies, as amended, do not apply to the Notes.

Maturity and Interest

Euro Notes

The 2027 Notes mature on September 15, 2027 and bear interest at a rate of 0.375% per annum. The 2028 Notes mature on September 15, 2028 and bear interest at a rate of 3.000% per annum. The 2032 Euro Notes mature on September 15, 2032 and bear interest at a rate of 1.000% per annum. The 2035 Notes mature on May 23, 2035 and bear interest at a rate of 4.250% per annum. The date from which interest accrued on the 2027 Notes and 2032 Euro Notes was September 15, 2020. The date from which interest accrued on the 2028 Notes was September 7, 2022. The date from which interest accrued on the 2035 Notes was May 23, 2023. Interest in respect of the 2027 Notes and the 2032 Euro Notes is payable annually in arrears on September 15 of each year, beginning on September 15, 2021, to the applicable holders of record at the close of business on the September 1 next preceding such interest payment date. Interest in respect of the 2028 Notes is payable annually in arrears on September 15 of each year, beginning on September 15, 2023, to the applicable holders of record at the close of business on the September 1 next preceding such interest payment date. Interest in respect of the 2035 Notes is payable annually in arrears on May 23 of each year, beginning on May 23, 2024, to the applicable holders of record at the close of business on the May 8 next preceding such interest payment date. The basis upon which interest shall be calculated is the actual number of days in the period for which interest is being calculated and the actual number of days from and including the last date on which interest was paid on such series of Euro Notes, to but excluding the next scheduled interest payment date. This payment convention is referred to as "*ACTUAL/ACTUAL (ICMA)*," as defined in the statutes, by-laws, rules and recommendations published by the International Capital Markets Association (the "*ICMA Rulebook*").

2029 Notes, 2030 Notes and 2032 USD Notes

The 2029 Notes mature on April 19, 2029 and bear interest at a rate of 5.500% per annum.The 2030 Notes mature on September 15, 2030 and bear interest at a rate of 1.750% per annum. The 2032 USD Notes mature on December 1, 2032 and bear interest at a rate of 4.900% per annum. The date from which interest accrued on the 2029 Notes was April 19, 2024. The date from which interest accrued on the 2030 Notes was September 11, 2020. The date from which interest accrued on the 2032 USD Notes was September 14, 2022. Interest in respect of the 2029 Notes is payable semi-annually in arrears on April 19 and October 19 of each year, beginning on October 19, 2024, to the applicable holders of record at the close of business on the April 4 and October 4 next preceding such interest payment date. Interest in respect of the 2030 Notes is payable semi-annually in arrears on March 15 and September 15 of each year, beginning on March 15, 2021, to the applicable holders of record at the close of business on the March 1 and September 1 next preceding such interest payment date. Interest in respect of the 2032 USD Notes is payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2022, to the applicable holders of record at the close of business on the May 15 and November 15 next preceding such interest payment date. Interest is computed on the basis of a 360-day year comprised of twelve 30-day months.

2031 Notes

The 2031 Notes will mature on September 16, 2031 and bear interest at a rate of 2.000% per annum. The date from which interest accrued on the 2031 Notes was September 16, 2021. Interest in respect of the 2031 Notes is payable semi-annually in arrears on March 16 and September 16 of each year, beginning on March 16, 2022, to the applicable holders of record at the close of business on the March 2 and September 2 next preceding such interest payment date. Interest is computed on the basis of a 360-day year comprised of twelve 30-day months.

The interest rate applicable to the 2031 Notes was subject to adjustment based upon the satisfaction or non-satisfaction of the Sustainability Performance. Targets (as defined in the Seventh Supplemental Indenture) by a specified notification date. The Issuers provided notification of satisfaction to the Trustee prior to the required notification date (and the Issuers received a related assurance letter from the External Verifier (as defined in the Seventh Supplemental Indenture)). As a result, pursuant to the terms of the 2031 Notes and the Seventh Supplemental Indenture, the interest rate payable on the 2031 Notes is no longer subject to adjustment.

Indenture May Be Used for Future Issuances

We may, without the consent of the then existing holders of the Notes, "re-open" and issue additional Notes of any series, which additional Notes will have the same terms as such series of Notes except for the issue price, issue date and, under some circumstances, the first interest payment date; provided that, if such additional Notes are not fungible with the existing Notes of such series for U.S. federal income tax purposes, such additional Notes will have a separate CUSIP, ISIN and/or other identifying number, as applicable. Additional Notes issued in this manner will form a single series with the applicable series of Notes.

In addition, the Indenture does not limit the amount of debt securities that can be issued thereunder and provides that debt securities of any series may be issued thereunder up to the aggregate principal amount that we may authorize from time to time. All debt securities issued as a series, including those issued pursuant to any reopening of a series, will vote together as a single class. Debt securities issued pursuant to the Indenture may have terms that differ from those of the Notes, as set forth in Section 2.01 of the Indenture.

Issuance of Notes in Euros

All payments of interest and principal, including payments made upon any redemption or repurchase of the Euro Notes, are payable in euros. If the euro is unavailable to us due to the imposition of exchange controls or other circumstances beyond our control or if the euro is no longer being used by the then member states of the European Monetary Union that have adopted the euro as their currency or for the settlement of transactions by public institutions of or within the international banking community, then all payments in respect of the Euro Notes will be made in U.S. dollars until the euro is again available to us or so used. In such circumstances, the amount payable on any date in euros will be converted into U.S. dollars at the rate mandated by the U.S. Federal Reserve Board as of the close of business on the second business day prior to the relevant payment date or, in the event the U.S. Federal Reserve Board has not mandated a rate of conversion, on the basis of the then most recent U.S. dollar/euro exchange rate available on or prior to the second business day prior to the relevant payment date as determined by the Issuers in their sole discretion. Any payment in respect of the Euro Notes so made in U.S. dollars will not constitute an Event of Default (as defined below) under the Euro Notes or the Indenture. Neither the Trustee nor the paying agent shall have any responsibility for any calculation or conversion in connection with the foregoing.

Optional Redemption

Euro Notes

2027 Notes

Prior to July 15, 2027 (the "*2027 Par Call Date*"), the Issuers may, at their option, redeem the 2027 Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to the greater of (i) 100% of the principal amount of the 2027 Notes to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments (as defined below) that would be due if the 2027 Notes matured on the 2027 Par Call Date, discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus 20 basis points plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2027 Par Call Date, the Issuers may, at their option, redeem the 2027 Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to 100% of the principal amount of the 2027 Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

2028 Notes

Prior to July 15, 2028 (the "*2028 Par Call Date*"), the Issuers may, at their option, redeem the 2028 Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to the greater of (i) 100% of the principal amount of the 2028 Notes to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments (as defined below) that would be due if the 2028 Notes matured on the 2028 Par Call Date, discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus 30 basis points plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2028 Par Call Date, the Issuers may, at their option, redeem the 2028 Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to 100% of the principal amount of the 2028 Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

2032 Euro Notes

Prior to June 15, 2032 (the "2032 Euro Par Call Date"), the Issuers may, at their option, redeem the 2032 Euro Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to the greater of (i) 100% of the principal amount of the 2032 Euro Notes to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments (as defined below) that would be due if the 2032 Euro Notes matured on the 2032 Euro Par Call Date, discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus 25 basis points plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2032 Euro Par Call Date, the Issuers may, at their option, redeem the 2032 Euro Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to 100% of the principal amount of the 2032 Euro Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

2035 Notes

Prior to February 23, 2035 (the "2035 Par Call Date"), the Issuers may, at their option, redeem the 2035 Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall be at least the minimum authorized denomination of €100,000), at a redemption price equal to the greater of (i) 100% of the principal amount of the 2035 Notes to be redeemed and (ii) the sum of the present values of the Remaining Scheduled Payments (as defined below) that would be due if the 2035 Notes matured on the 2035 Par Call Date, discounted to the redemption date, on an annual basis (ACTUAL/ACTUAL (ICMA)), at a rate equal to the Treasury Rate (as defined below) plus 30 basis points plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2035 Par Call Date, the Issuers may, at their option, redeem the 2035 Notes, in whole at any time or in part from time to time (in €1,000 increments, provided that any remaining principal amount thereof shall

be at least the minimum authorized denomination of €100,000), at a redemption price equal to 100% of the principal amount of the 2035 Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

Certain definitions with respect to the Optional Redemption provisions of the Euro Notes:

"*Treasury Rate*" means the rate per annum (which, solely in the case of the 2027 Notes and 2032 Euro Notes, if less than zero, shall be deemed to be zero) equal to the annual equivalent yield to maturity of the Reference Bond (as defined below), assuming a price for the Reference Bond (expressed as a percentage of its principal amount) equal to the middle market price of the Reference Bond prevailing at 11:00 a.m. (London time) on the third business day preceding such redemption date as determined by us or an independent investment bank appointed by us.

"*Reference Bond*" means, in relation to any Treasury Rate calculation, a German government bond whose maturity is closest to the maturity of the applicable series of Euro Notes, or if we or an independent investment bank appointed by us considers that such similar bond is not in issue, such other German government bond as we or an independent investment bank appointed by us, with the advice of three brokers of, and/or market makers in, German government bonds selected by us or an independent investment bank appointed by us, determine to be appropriate for determining the Treasury Rate.

"*Remaining Scheduled Payments*" means, with respect to each Euro Note to be redeemed, the remaining scheduled payments of principal of and interest on the relevant Note that would be due after the related redemption date but for the redemption. If that redemption date is not an interest payment date with respect to a Euro Note, the amount of the next succeeding scheduled interest payment on the relevant Euro Note will be reduced by the amount of interest accrued on the Euro Note to the redemption date.

USD Notes

2029 Notes

Prior to March 19, 2029 (the "*2029 Par Call Date*"), the Issuers may redeem the 2029 Notes at their option, in whole or in part, at any time and from time to time, at a redemption price (expressed as a percentage of principal amount and rounded to three decimal places) equal to the greater of: (1)(a) the sum of the present values of the remaining scheduled payments of principal and interest thereon discounted to the redemption date (assuming the 2029 Notes matured on the 2029 Par Call Date) on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate plus 15 basis points less (b) interest accrued to the date of redemption, and (2) 100% of the principal amount of the 2029 Notes to be redeemed, plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2029 Par Call Date, the Issuers, at their option, may redeem the 2029 Notes, in whole or in part, at any time and from time to time, at a redemption price equal to 100% of the principal amount of the 2029 Notes being redeemed plus accrued and unpaid interest if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

Certain definitions with respect to the Optional Redemption provisions of the 2029 Notes:

"*Treasury Rate*" means, with respect to any redemption date for the 2029 Notes, the yield determined by JCI plc in accordance with the following two paragraphs. The Treasury Rate shall be determined by JCI plc after 4:15 p.m., New York City time (or after such time as yields on U.S. government securities are posted daily by the Board of Governors of the Federal Reserve System), on the third business day preceding the redemption date based

upon the yield or yields for the most recent day that appear after such time on such day in the most recent statistical release published by the Board of Governors of the Federal Reserve System designated as "Selected Interest Rates (Daily)—H.15" (or any successor designation or publication) ("H.15") under the caption "U.S. government securities–Treasury constant maturities–Nominal" (or any successor caption or heading) ("H.15 TCM"). In determining the Treasury Rate, JCI plc shall select, as applicable: (1) the yield for the Treasury constant maturity on H.15 exactly equal to the period from the redemption date to the 2029 Par Call Date (the "*Remaining Life*"); or (2) if there is no such Treasury constant maturity on H.15 exactly equal to the Remaining Life, the two yields – one yield corresponding to the Treasury constant maturity on H.15 immediately shorter than and one yield corresponding to the Treasury constant maturity on H.15 immediately longer than the Remaining Life – and shall interpolate to the 2029 Par Call Date on a straight-line basis (using the actual number of days) using such yields and rounding the result to three decimal places; or (3) if there is no such Treasury constant maturity on H.15 shorter than or longer than the Remaining Life, the yield for the single Treasury constant maturity on H.15 closest to the Remaining Life. For purposes of this paragraph, the applicable Treasury constant maturity or maturities on H.15 shall be deemed to have a maturity date equal to the relevant number of months or years, as applicable, of such Treasury constant maturity from the redemption date.

If on the third business day preceding the redemption date H.15 TCM is no longer published, JCI plc shall calculate the Treasury Rate based on the rate per annum equal to the semi-annual equivalent yield to maturity at 11:00 a.m., New York City time, on the second business day preceding such redemption date of the United States Treasury security maturing on, or with a maturity that is closest to, the 2029 Par Call Date, as applicable. If there is no United States Treasury security maturing on the 2029 Par Call Date but there are two or more United States Treasury securities with a maturity date equally distant from the 2029 Par Call Date, one with a maturity date preceding the 2029 Par Call Date and one with a maturity date following the 2029 Par Call Date, JCI plc shall select the United States Treasury security with a maturity date preceding the 2029 Par Call Date. If there are two or more United States Treasury securities maturing on the 2029 Par Call Date or two or more United States Treasury securities meeting the criteria of the preceding sentence, JCI plc shall select from among these two or more United States Treasury securities the United States Treasury security that is trading closest to par based upon the average of the bid and asked prices for such United States Treasury securities at 11:00 a.m., New York City time. In determining the Treasury Rate in accordance with the terms of this paragraph, the semi-annual yield to maturity of the applicable United States Treasury security shall be based upon the average of the bid and asked prices (expressed as a percentage of principal amount) at 11:00 a.m., New York City time, of such United States Treasury security, and rounded to three decimal places.

2030 Notes

Prior to June 15, 2030 (the "*2030 Par Call Date*"), the Issuers may, at their option, redeem the 2030 Notes, in whole at any time or in part from time to time , at a redemption price equal to the greater of (i) 100% of the principal amount of the 2030 Notes to be redeemed and (ii) as determined by the Quotation Agent and delivered to the Trustee in writing, the sum of the present values of the remaining scheduled payments of principal and interest thereon that would be due if the 2030 Notes matured on the 2030 Par Call Date (exclusive of interest accrued to the redemption date), discounted to the redemption date (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Redemption Treasury Rate plus 20 basis points, plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2030 Par Call Date, the Issuers may, at their option, redeem the 2030 Notes, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the 2030 Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

2031 Notes

Prior to June 16, 2031 (the "*2031 Par Call Date*"), the Issuers may, at their option, redeem the 2031 Notes, in whole at any time or in part from time to time , at a redemption price equal to the greater of (i) 100% of the principal

amount of the 2031 Notes to be redeemed and (ii) as determined by the Quotation Agent and delivered to the Trustee in writing, the sum of the present values of the remaining scheduled payments of principal and interest thereon that would be due if the 2031 Notes matured on the 2031 Par Call Date (exclusive of interest accrued to the redemption date), discounted to the redemption date (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Redemption Treasury Rate plus 15 basis points, plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2031 Par Call Date, the Issuers may, at their option, redeem the 2031 Notes, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the 2031 Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

2032 USD Notes

Prior to September 1, 2032 (the "2032 USD Par Call Date"), the Issuers may, at their option, redeem the 2032 USD Notes, in whole at any time or in part from time to time, at a redemption price equal to the greater of (i) 100% of the principal amount of the 2032 USD Notes to be redeemed and (ii) as determined by the Quotation Agent and delivered to the Trustee in writing, the sum of the present values of the remaining scheduled payments of principal and interest thereon that would be due if the 2032 USD Notes matured on the 2032 USD Par Call Date (exclusive of interest accrued to the redemption date), discounted to the redemption date (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Redemption Treasury Rate plus 30 basis points, plus, in either case, accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

On or after the 2032 USD Par Call Date, the Issuers may, at their option, redeem the 2032 USD Notes, in whole at any time or in part from time to time, at a redemption price equal to 100% of the principal amount of the 2032 USD Notes to be redeemed, plus accrued and unpaid interest, if any, thereon to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

Certain definitions with respect to the Optional Redemption provisions of the 2030 Notes, 2031 Notes and 2032 USD Notes:

"*Adjusted Redemption Treasury Rate*" means, with respect to any redemption date for the 2030 Notes, 2031 Notes and 2032 USD Notes, the rate equal to the semiannual equivalent yield to maturity or interpolated (on a 30/360 day count basis) yield to maturity of the Comparable Redemption Treasury Issue, assuming a price for the Comparable Redemption Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Redemption Treasury Price for such redemption date.

"*Comparable Redemption Treasury Issue*" means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of such series of the 2030 Notes, 2031 Notes and 2032 USD Notes to be redeemed if such series matured on the par call date applicable to such series that would be utilized at the time of selection and in accordance with customary financial practice in pricing new issues of corporate debt securities of comparable maturity to such remaining term of the applicable series of the 2030 Notes, 2031 Notes and 2032 USD Notes, as applicable.

"*Comparable Redemption Treasury Price,*" with respect to any redemption date for the 2030 Notes, 2031 Notes and 2032 USD Notes, means (i) the average of the Redemption Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Redemption Reference Treasury Dealer Quotations (unless there is more than one highest or lowest quotation, in which case only one such highest and/or lowest quotation shall be excluded), or (ii) if the Quotation Agent obtains fewer than four such Redemption Reference Treasury Dealer Quotations, the average of all such Redemption Reference Treasury Dealer Quotations.

"*Independent Investment Banker*" means one of the Redemption Reference Treasury Dealers appointed by JCI plc.

"*Quotation Agent*" means a Redemption Reference Treasury Dealer appointed as such by JCI plc.

"*Redemption R*eference Treasury Dealer" means (1) each of Barclays Capital Inc. and Citigroup Global Markets Inc. (with respect to the 2031 Notes), Citigroup Global Markets Inc. and BofA Securities, Inc. (with respect to the 2030 Notes); and J.P. Morgan Securities LLC, BofA Securities, Inc. and Morgan Stanley & Co. LLC (with respect to the 2032 USD Notes) (or their respective Affiliates that are Primary Treasury Dealers (as defined below)) and their respective successors and (2) two other Primary Treasury Dealers selected by JCI plc after consultation with the Independent Investment Banker, provided, however, that if any of the foregoing shall cease to be a primary U.S. government securities dealer in New York City (a "*Primary Treasury Dealer*"), JCI plc will substitute therefor another Primary Treasury Dealer.

"Redemption Reference Treasury Dealer Quotations," with respect to each Redemption Reference Treasury Dealer and any redemption date for the 2030 Notes, 2031 Notes and 2032 USD Notes, means the average, as determined by the Quotation Agent, of the bid and offer prices at 11:00 a.m., New York City time, for the Comparable Redemption Treasury Issue (expressed in each case as a percentage of its principal amount) for settlement on the redemption date quoted in writing to the Quotation Agent by such Redemption Reference Treasury Dealer on the third business day preceding such redemption date.

Redemption Upon Changes in Withholding Taxes

Either or both of the Issuers may redeem all, but not less than all, of the Notes of a series under the following conditions:

- if there is an amendment to, or change in, the laws or regulations of a Relevant Taxing Jurisdiction (as defined below) or any change in the written application or official written interpretation of such laws or regulations, including any action taken by, or a change in published administrative practice of, a taxing authority or a holding by a court of competent jurisdiction, regardless of whether such action, change or holding is with respect to either or both of the Issuers, which amendment or change is publicly announced and becomes effective on or after the date of issuance of such series of Notes (or, in the case of any Relevant Taxing Jurisdiction that becomes a Relevant Taxing Jurisdiction after such date of issuance, after such later date);
- as a result of such amendment or change, either or both of the Issuers become, or there is a material probability that either or both of the Issuers will become obligated to pay Additional Amounts (as defined below), on the next payment date with respect to such series of Notes, and such Issuer cannot avoid any such payment obligation by taking reasonable measures available (including having the other Issuer make payments on the Notes if such action would be reasonable);
- the relevant Issuer (or Issuers) delivers to the Trustee a written opinion of independent tax counsel to such Issuer (or Issuers) of recognized standing to the effect that such Issuer (or Issuers) has become, or there is a material probability that it will become, obligated to pay Additional Amounts as a result of a change or amendment described above; in addition, before the Issuer (or Issuers) mails notice of redemption of the Notes as described below, it will deliver to the Trustee an officer's certificate to the effect that the obligation to pay Additional Amounts cannot be avoided by such Issuer by taking reasonable measures available (including having the other Issuer make payments on the Notes if such action would be reasonable); and
- following the delivery of the opinion described in the previous bullet point, the relevant Issuer (or Issuers) provides notice of redemption for such series of Notes not less than 10 days, but not more than 90 days, prior to the redemption date. The notice of redemption cannot be given more than 90 days before the earliest date on which the Issuer (or Issuers) would be otherwise required to pay Additional Amounts, and the obligation to pay Additional Amounts must still be in effect when the notice is given.

Upon the occurrence of each of the bullet points above, the relevant Issuer (or Issuers) may redeem such series of Notes at a redemption price equal to 100% of the principal amount thereof, together with accrued and unpaid interest, if any, thereon to, but excluding, the redemption date and all Additional Amounts (if any) then due and that will become due on such redemption date as a result of the redemption or otherwise (subject to the right of holders of record on the relevant record date to receive interest due on an interest payment date that is prior to the redemption date and Additional Amounts (if any) in respect thereof).

The foregoing provisions shall apply *mutatis mutandis* to any Successor Company or Successor Co-Issuer (each as defined below).

Notice of Redemption

Notice of any redemption of any series of Notes will be mailed, or delivered electronically if the Notes to be redeemed are held by any depositary, at least 10 days but not more than 90 days before the date fixed for such redemption to each holder of Notes to be redeemed. For the 2029 Notes, any redemption notice may, at the Issuers' discretion, be subject to the satisfaction or waiver of one or more conditions precedent. In that case, such notice shall state the nature of such condition precedent.

If less than all of a series of Notes are to be redeemed, the Trustee will select the outstanding Notes of such series to be redeemed in accordance with a method that complies with the requirements, if any, of any stock exchange on which the Notes of such series are listed, and the applicable procedures of the depositary, if such Notes are held by any depositary; provided, however, that with respect to any series of Notes not listed on any stock exchange and/or held by a depositary, the Trustee will select such Notes by lot or by such other method that the Trustee considers fair and appropriate.

No Euro Notes of a principal amount of €100,000 or less shall be redeemed in part. No USD Notes of a principal amount of $2,000 or less shall be redeemed in part. Unless the Issuers default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on Notes or portions thereof called for redemption. Additionally, at any time, the Issuers may repurchase Notes in the open market and may hold such Notes or surrender such Notes to the trustee for cancellation.

If any redemption date of any Note is not a business day, then payment of principal and interest may be made on the next succeeding business day with the same force and effect as if made on the nominal redemption date and no interest will accrue for the period after such nominal date.

Payment of Additional Amounts

All payments in respect of the Notes will be made by (or on behalf of) the Issuers free and clear of, and without withholding or deduction for or on account of, any present or future taxes, duties, levies, imposts, assessments or governmental charges of whatever nature (including, without limitation, penalties and interest and other similar liabilities related thereto) ("*Taxes*"), unless the withholding or deduction of such Taxes is required by law.

In the event that the Issuers are required to withhold or deduct any amount for or on account of any Taxes imposed or levied by or on behalf of Ireland, Luxembourg or any other jurisdiction (other than the United States) in which either of the Issuers is incorporated, resident or doing business for tax purposes or from or through which payments by or on behalf of the Issuers are made, or any political subdivision or any authority thereof or therein (each, but not including the United States or any political subdivision or any authority thereof or therein, a "*Relevant Taxing Jurisdiction*"), from any payment made under or with respect to any Note (including, without limitation, payments of principal, redemption price, purchase price, interest or premium), the Issuers will pay such additional amounts ("*Additional Amounts*") so that the net amount received by each holder or beneficial owner of Notes (including Additional Amounts) after such withholding or deduction will equal the amount that such holder or beneficial owner would have received if such Taxes had not been required to be withheld or deducted.

Additional Amounts will not be payable with respect to a payment made to a holder or beneficial owner of Notes or a holder of beneficial interests in Global Securities where such holder or beneficial owner is subject to taxation on such payment by the Relevant Taxing Jurisdiction for or on account of:

- any Taxes that are imposed or withheld because such holder or beneficial owner (or a fiduciary, settlor, beneficiary, or member of such holder or beneficial owner if such holder or beneficial owner is an estate, trust, partnership, limited liability company or other fiscally transparent entity, or a Person holding a power over an estate or trust administered by a fiduciary holder): (i) is or was present or engaged in, or is or was treated as present or engaged in, a trade or business in the Relevant Taxing Jurisdiction or has or had a permanent establishment or other taxable presence in the Relevant Taxing Jurisdiction; or (ii) has or had any present or former connection (other than the mere fact of ownership of such Notes) with the Relevant Taxing Jurisdiction, including being or having been a national citizen or resident thereof, being treated as being or having been a resident thereof or being or having been physically present therein;
- any estate, inheritance, gift, transfer, personal property or similar Taxes imposed with respect to the Notes;
- any Taxes imposed as a result of the presentation of such Notes, where presentation is required, for payment on a date more than 30 days after the date on which such payment became due and payable or the date on which payment thereof is duly provided for, whichever is later, except to the extent that the beneficiary or holder thereof would have been entitled to the payment of Additional Amounts had such Notes been presented for payment on any date during such 30-day period;
- any Taxes imposed or withheld as a result of the failure of such holder or beneficial owner, upon a written request, made to the holder or beneficial owner in writing at least 30 days before any such withholding or deduction would be made, by an Issuer, broker or other withholding agent, to timely and accurately comply (to the extent such holder or beneficial owner is legally eligible to do so) with any applicable certification, information, documentation or other reporting requirements concerning the nationality, residence, identity or connection of the holder or beneficial owner with the Relevant Taxing Jurisdiction, if such compliance is required by statute or regulation of the Relevant Taxing Jurisdiction as a precondition to relief or exemption from such Taxes;
- any Taxes that are payable by any method other than withholding or deduction by the Issuers or any paying agent from payments in respect of such Notes;
- (with respect to the 2027 Notes and the 2032 Euro Notes) has presented the Notes for payment through a bank, encashment agent or paying agent and a withholding or deduction for Taxes arises which would not have been imposed if the Notes had been presented to another bank, encashment agent or paying agent in a different Member State of the European Union;
- any withholding or deduction required pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended (the "*Code*"), as of the issue date of the Notes (or any amended or successor provisions of such sections that are substantively comparable and not materially more onerous to comply with), any regulations thereunder or official interpretations thereof, any agreements entered into pursuant to Section 1471(b) of the Code, or any law or regulation implemented pursuant to an intergovernmental agreement between a non-U.S. jurisdiction and the United States with respect to the foregoing; or
- any combination of the above.

Additional Amounts also will not be payable for any Taxes that are imposed with respect to any payment on a Note to any holder who is a fiduciary or partnership or person other than the sole beneficial owner of such payment to the extent that no Additional Amounts would have been payable had the beneficial owner of the applicable Note been the holder of such Note.

The Issuers also:

- will make such withholding or deduction of Taxes;

- will remit the full amount of Taxes so deducted or withheld to the relevant tax authority in accordance with all applicable laws;
- will use their commercially reasonable efforts to obtain from each relevant tax authority imposing such Taxes certified copies of tax receipts evidencing the payment of any Taxes so deducted or withheld; and
- upon request, will make available to the holders of the Notes, within 90 days after the date the payment of any Taxes deducted or withheld is due pursuant to applicable law, certified copies of tax receipts evidencing such payment by the Issuers (unless, notwithstanding the Issuers' efforts to obtain such receipts, the same are not obtainable, in which case the Issuers will provide other evidence of payments by the Issuers).

At least 30 days prior to each date on which any payment under or with respect to the Notes is due and payable, if the Issuers will be obligated to pay Additional Amounts with respect to such payment, the Issuers will deliver to the Trustee an Officer's Certificate stating the fact that such Additional Amounts will be payable, the amounts so payable and such other information as is necessary to enable the Trustee to pay such Additional Amounts to holders of such Notes on the payment date (unless such obligation to pay Additional Amounts arises less than 30 days prior to the relevant payment date, in which case the Issuers may deliver such Officer's Certificate as promptly as practicable after the date that is 30 days prior to the payment date).

In addition, the Issuers will pay for any present or future stamp, issue, registration, property, excise, transfer, court or documentary or other similar Taxes and duties, including interest, penalties and Additional Amounts with respect thereto, payable in a Relevant Taxing Jurisdiction in respect of the creation, execution, issue, offering, enforcement, redemption or retirement of the Notes or any other document or instrument referred to therein, or the receipt of any payments with respect thereto.

Upon the Issuers' request, each holder and beneficial owner shall provide a properly completed and executed IRS Form W-9 or IRS Form W-8, as applicable, as would have been applicable if the Issuers were incorporated in the United States of America, any State thereof or the District of Columbia.

The foregoing provisions shall survive any termination or the discharge of the Indenture and shall apply *mutatis mutandis* to any Successor Company or Successor Co-Issuer.

Whenever in the Indenture, any Notes, or in this "*Description of JCI plc and TFSCA Notes*" there is mentioned, in any context, the payment of principal, premium, if any, redemption price, repurchase price, interest or any other amount payable under or with respect to any Notes, such mention shall be deemed to include the payment of Additional Amounts to the extent payable in the particular context.

Offer to Repurchase Upon Change of Control Triggering Event

Upon the occurrence of a Change of Control Triggering Event, unless we have exercised our right to redeem the Notes of such series as described above under "*—Optional Redemption,*" each holder of the Notes will have the right to require us to purchase all or a portion (equal to €100,000 or an integral multiple of €1,000 in excess thereof with respect to the Euro Notes, and equal to $2,000 or an integral multiple of $1,000 in excess thereof with respect to the USD Notes) of such holder's Notes pursuant to the offer described below (the "*Change of Control Offer*"), at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest, if any, thereon to, but excluding, the date of purchase (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date) (the "*Change of Control Payment*"). If the Change of Control Payment Date (as defined below) falls on a day that is not a business day, the related payment of the Change of Control Payment will be made on the next business day as if it were made on the date such payment was due, and no interest will accrue on the amounts so payable for the period from and after such date to the next business day.

Within 30 days following the date upon which the Change of Control Triggering Event occurs or, at our option, prior to and conditioned on the occurrence of, any Change of Control, but after the public announcement of the pending Change of Control, we will be required to send, by first class mail, or deliver electronically if the Notes are held by any depositary, a notice to each holder of Notes, with a copy to the Trustee, which notice will govern the

terms of the Change of Control Offer. Such notice will state, among other things, the purchase date, which must be no earlier than 30 days nor later than 60 days from the date such notice is mailed or delivered electronically (or, in the case of a notice mailed or delivered electronically prior to the date of consummation of a Change of Control, no earlier than the date of the occurrence of the Change of Control), other than as may be required by law (the "*Change of Control Payment Date*"). The notice, if mailed or delivered electronically prior to the date of consummation of the Change of Control, will state that the Change of Control Offer is conditioned on the Change of Control being consummated on or prior to the Change of Control Payment Date.

On the Change of Control Payment Date, we will, to the extent lawful:

- accept or cause a third party to accept for payment all Notes properly tendered pursuant to the Change of Control Offer;
- deposit or cause a third party to deposit with the applicable paying agent an amount equal to the Change of Control Payment in respect of all Notes properly tendered; and
- deliver or cause to be delivered to the Trustee the Notes properly accepted together with an Officer's Certificate stating the aggregate principal amount of Notes being repurchased.

We will not be required to make a Change of Control Offer with respect to the Notes if a third party makes such an offer in the manner, at the times and otherwise in compliance with the requirements for such an offer made by us and such third party purchases all the Notes properly tendered and not withdrawn under its offer. In addition, we will not repurchase any Notes if there has occurred and is continuing on the Change of Control Payment Date an Event of Default under the Indenture, other than a Default in the payment of the Change of Control Payment on the Change of Control Payment Date.

We must comply in all material respects with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the Notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any such securities laws or regulations conflict with the Change of Control Offer provisions of the Notes, we will be required to comply with those securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control Offer provisions of the Indenture with respect to the Notes by virtue of any such conflict.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of "all or substantially all" of the properties or assets of JCI plc and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise, established definition of the phrase under applicable law. Accordingly, the applicability of the requirement that we offer to repurchase the Notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of JCI plc and its subsidiaries taken as a whole to another "person" or "group" (as those terms are used in Section 13(d)(3) of the Exchange Act) may be uncertain.

Other Provisions of the Notes

Claims against the Issuers for the payment of principal or Additional Amounts, if any, of the Notes will be prescribed ten years after the applicable due date for payment thereof. Claims against the Issuers for the payment of interest, if any, of the Notes will be prescribed five years after the applicable due date for payment of interest.

Certain Covenants

The Indenture contains the following covenants:

Limitation on Liens

JCI plc will not, and will not permit any Restricted Subsidiary to, issue, incur, assume or guarantee any Indebtedness that is secured by a mortgage, pledge, security interest, lien or encumbrance (each a "*lien*") upon any asset that at the time of such issuance, assumption or guarantee constitutes a Principal Property, or any shares of

stock of or Indebtedness issued by any Restricted Subsidiary, whether now owned or hereafter acquired, without effectively providing that, for so long as such lien shall continue in existence with respect to such secured Indebtedness, the Notes and any other debt securities issued pursuant to the Base Indenture (together with, if JCI plc shall so determine, any other Indebtedness of JCI plc ranking equally with the Notes and any other debt securities issued pursuant to the Base Indenture, it being understood that for purposes hereof, Indebtedness which is secured by a lien and Indebtedness which is not so secured shall not, solely by reason of such lien, be deemed to be of different ranking) shall be equally and ratably secured by a lien ranking ratably with or equal to (or at JCI plc's option prior to) such secured Indebtedness; provided, however, that the foregoing covenant shall not apply to:

- liens existing on the date the Notes are first issued;
- liens on the stock, assets or Indebtedness of a Person existing at the time such Person becomes a Restricted Subsidiary, unless created in contemplation of such Person becoming a Restricted Subsidiary;
- liens on any assets or Indebtedness of a Person existing at the time such Person is merged with or into or consolidated with or acquired by JCI plc or a Restricted Subsidiary or at the time of a purchase, lease or other acquisition of the assets of a corporation or firm as an entirety or substantially as an entirety by JCI plc or any Restricted Subsidiary; provided, however, that no such lien shall extend to any other Principal Property of JCI plc or such Restricted Subsidiary prior to such acquisition or to any other Principal Property thereafter acquired other than additions to such acquired property;
- liens on any Principal Property existing at the time of acquisition thereof by JCI plc or any Restricted Subsidiary, or liens to secure the payment of the purchase price of such Principal Property by JCI plc or any Restricted Subsidiary, or to secure any Indebtedness incurred, assumed or guaranteed by JCI plc or a Restricted Subsidiary for the purpose of financing all or any part of the purchase price of such Principal Property or improvements or construction thereon, which Indebtedness is incurred, assumed or guaranteed prior to, at the time of or within one year after such acquisition, or in the case of real property, completion of such improvement or construction or commencement of full operation of such property, whichever is later; provided, however, that in the case of any such acquisition, construction or improvement, the lien shall not apply to any other Principal Property, other than the Principal Property so acquired, constructed or improved, and accessions thereto and improvements and replacements thereof and the proceeds of the foregoing;
- liens securing Indebtedness owing by any Restricted Subsidiary to JCI plc or a subsidiary thereof;
- liens in favor of the United States of America or any State thereof, or any department, agency or instrumentality or political subdivision of the United States of America or any State thereof, or in favor of any other country or any political subdivision thereof, to secure partial, progress, advance or other payments pursuant to any contract, statute, rule or regulation or to secure any Indebtedness incurred or guaranteed for the purpose of financing all or any part of the purchase price, or, in the case of real property, the cost of construction or improvement, of the Principal Property subject to such liens, including liens incurred in connection with pollution control, industrial revenue or similar financings;
- pledges, liens or deposits under workers' compensation or similar legislation, and liens thereunder that are not currently dischargeable, or in connection with bids, tenders, contracts, other than for the payment of money, or leases to which JCI plc or any Restricted Subsidiary is a party, or to secure the public or statutory obligations of JCI plc or any Restricted Subsidiary, or in connection with obtaining or maintaining self-insurance, or to obtain the benefits of any law, regulation or arrangement pertaining to unemployment insurance, old age pensions, social security or similar matters, or to secure surety, performance, appeal or customs bonds to which JCI plc or any Restricted Subsidiary is a party, or in litigation or other proceedings in connection with the matters heretofore referred to in this bullet, such as interpleader proceedings, and other similar pledges, liens or deposits made or incurred in the ordinary course of business;
- liens created by or resulting from any litigation or other proceeding that is being contested in good faith by appropriate proceedings, including liens arising out of judgments or awards against JCI plc or any Restricted Subsidiary with respect to which JCI plc or such Restricted Subsidiary in good faith is prosecuting an appeal or proceedings for review or for which the time to make an appeal has not yet

expired; or final unappealable judgment liens which are satisfied within 15 days of the date of judgment; or liens incurred by JCI plc or any Restricted Subsidiary for the purpose of obtaining a stay or discharge in the course of any litigation or other proceeding to which JCI plc or such Restricted Subsidiary is a party;

- liens for taxes or assessments or governmental charges or levies not yet due or delinquent; or that can thereafter be paid without penalty, or that are being contested in good faith by appropriate proceedings; landlord's liens on property held under lease; and any other liens or charges incidental to the conduct of the business of JCI plc or any Restricted Subsidiary, or the ownership of their respective assets, that were not incurred in connection with the borrowing of money or the obtaining of advances or credit and that, in the opinion of the Board of Directors of JCI plc, do not materially impair the use of such assets in the operation of the business of JCI plc or such Restricted Subsidiary or the value of such Principal Property for the purposes of such business;
- liens to secure JCI plc's or any Restricted Subsidiary's obligations under agreements with respect to spot, forward, future and option transactions, entered into in the ordinary course of business;
- liens not permitted by the foregoing bullets, inclusive, if at the time of, and after giving effect to, the creation or assumption of any such lien, the aggregate amount of all outstanding Indebtedness of JCI plc and the Restricted Subsidiaries, without duplication, secured by all such liens not so permitted by the foregoing bullets, inclusive, together with the Attributable Debt in respect of Sale and Lease-Back Transactions permitted by the first bullet under "Limitation on Sale and Lease-Back Transactions" below, do not exceed the greater of $100,000,000 and 10% of Consolidated Net Worth; and
- any extension, renewal or replacement (or successive extensions, renewals or replacements) in whole or in part, of any lien referred to in the foregoing bullets inclusive; provided, however, that the principal amount of Indebtedness secured thereby unless otherwise excepted under the foregoing bullets shall not exceed the principal amount of Indebtedness so secured at the time of such extension, renewal or replacement (plus any premium, fee, cost, expense or charge payable in connection with any such extension, renewal or replacement), and that such extension, renewal or replacement shall be limited to all or a part of the assets (or any replacements therefor) that secured the lien so extended, renewed or replaced, plus improvements and construction on such assets.

Limitation on Sale and Lease-Back Transactions

JCI plc will not, and will not permit any Restricted Subsidiary to, enter into any Sale and Lease-Back Transaction unless:

- JCI plc or such Restricted Subsidiary, at the time of entering into a Sale and Lease-Back Transaction, would be entitled to incur Indebtedness secured by a lien on the Principal Property to be leased in an amount at least equal to the Attributable Debt in respect of such Sale and Lease-Back Transaction, without equally and ratably securing the Notes pursuant to the covenant described under "*Limitations on Liens*" above; or
- the direct or indirect proceeds of the sale of the Principal Property to be leased are at least equal to the fair value of such Principal Property, as determined by JCI plc's Board of Directors in good faith, and an amount equal to the net proceeds from the sale of the assets so leased is applied, within 180 days of the effective date of any such Sale and Lease-Back Transaction, to the purchase or acquisition (or, in the case of real property, commencement of the construction) of assets or to the retirement (other than at maturity or pursuant to a mandatory sinking fund or mandatory redemption or prepayment provision) of the Notes and any other debt securities issued pursuant to the Base Indenture, or of Funded Indebtedness ranking on a parity with or senior to the Notes and any other debt securities issued pursuant to the Base Indenture; provided that there shall be credited to the amount of net proceeds required to be applied pursuant to this provision an amount equal to the sum of (i) the principal amount of the Notes and any other debt securities issued pursuant to the Base Indenture delivered within 180 days of the effective date of such Sale and Lease-Back Transaction to the Trustee for retirement and cancellation and (ii) the principal amount of other Funded Indebtedness voluntarily retired by JCI plc within such 180-day period,

excluding retirements of the Notes and any other debt securities issued pursuant to the Base Indenture and other Funded Indebtedness at maturity or pursuant to mandatory sinking fund or mandatory redemption or prepayment provisions.

Merger and Consolidation

JCI plc will not, directly or indirectly, consolidate with or merge with or into, or convey, transfer or lease all or substantially all of its assets in one or a series of related transactions to, any Person, unless:

(1) the resulting, surviving or transferee Person (the "*Successor Company*") will be a corporation, limited liability company, public limited company, limited partnership or other entity organized and existing under the laws of (u) the United States of America, any State thereof or the District of Columbia, (v) Ireland, (w) England and Wales, (x) Jersey, (y) any member state of the European Union as in effect on the date the Notes are first issued or (z) Switzerland; provided that the Successor Company (if not the Company) will expressly assume, by a supplemental indenture, executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all the obligations of the Company under the Notes and the Indenture;

(2) immediately after giving effect to such transaction (and treating any Indebtedness which becomes an obligation of the Successor Company or any Restricted Subsidiary as a result of such transaction as having been incurred by the Successor Company or such Restricted Subsidiary at the time of such transaction), no Default shall have occurred and be continuing; and

(3) the Company shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger or transfer and such supplemental indenture (if any) comply with the Indenture.

Notwithstanding the foregoing, (A) any conveyance, transfer or lease of assets between or among the Company and its subsidiaries, including the Co-Issuer, shall not be prohibited under the Indenture and (B) the Company may, directly or indirectly, consolidate with or merge with or into an Affiliate incorporated solely for the purpose of reincorporating the Company in another jurisdiction within the United States of America, any State thereof or the District of Columbia, Ireland, England and Wales, Jersey, any member state of the European Union as in effect on the date the Notes are first issued or Switzerland to realize tax or other benefits.

The Successor Company will succeed to, and be substituted for, and may exercise every right and power of, the Company under the Indenture, and the predecessor issuer, other than in the case of a lease, will be automatically released from all obligations under the Notes and the Indenture, including, without limitation, the obligation to pay the principal of and interest on the Notes.

The Co-Issuer will not, directly or indirectly, consolidate with or merge with or into, or convey, transfer or lease all or substantially all of the Co-Issuer's assets in one or a series of related transactions to, any Person, unless:

(1) the resulting, surviving or transferee Person (the "*Successor Co-Issuer*") will be a corporation, limited liability company, public limited company, limited partnership or other entity organized and existing under the laws of (u) the United States of America, any State thereof or the District of Columbia, (v) Ireland, (w) England and Wales, (x) Jersey, (y) any member state of the European Union as in effect on the date the Notes are first issued or (z) Switzerland; provided that the Successor Co-Issuer (if not the Co-Issuer) will expressly assume, by a supplemental indenture, executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all the obligations of the Co-Issuer under the Notes and the Indenture;

(2) immediately after giving effect to such transaction (and treating any Indebtedness which becomes an obligation of the Successor Co-Issuer or any Restricted Subsidiary as a result of such transaction as having been incurred by the Successor Co-Issuer or such Restricted Subsidiary at the time of such transaction), no Default shall have occurred and be continuing; and

(3) the Co-Issuer shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger or transfer and such supplemental indenture (if any) comply with the Indenture.

Notwithstanding the foregoing, the Co-Issuer may, directly or indirectly, consolidate with or merge with or into an Affiliate incorporated solely for the purpose of reincorporating the Co-Issuer in another jurisdiction within the United States of America, any State thereof or the District of Columbia, Ireland, England and Wales, Jersey, any member state of the European Union as in effect on the date the Notes are first issued or Switzerland to realize tax or other benefits.

The Successor Co-Issuer will succeed to, and be substituted for, and may exercise every right and power of, the Co-Issuer under the Indenture, and the predecessor issuer, other than in the case of a lease, will be automatically released from all obligations under the Notes and the Indenture, including, without limitation, the obligation to pay the principal of and interest on the Notes.

Reports by JCI plc

So long as any Notes are outstanding, JCI plc shall file with the Trustee, within 15 days after JCI plc is required to file with the SEC, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) that JCI plc may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act. JCI plc shall be deemed to have complied with the previous sentence to the extent that such information, documents and reports are filed with the SEC via EDGAR, or any successor electronic delivery procedure; provided, however, that the Trustee shall have no obligation whatsoever to determine whether or not such information, documents or reports have been filed pursuant to the EDGAR system (or its successor). Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Issuers' compliance with any of their covenants under the Indenture (as to which the Trustee is entitled to rely exclusively on Officer's Certificates).

The Issuers will furnish to the Trustee on or before 120 days after the end of each fiscal year an Officer's Certificate stating that in the course of the performance by the signers of their duties as Officers of the Issuers, they would normally have knowledge of any Default by the Issuers in the performance or fulfillment or observance of any covenants or agreements contained in the Indenture during the preceding fiscal year, stating whether or not they have knowledge of any such Default and, if so, specifying each such Default of which the signers have knowledge and the nature thereof.

Listing

The Notes are listed on the New York Stock Exchange. We have no obligation to maintain such listing, and we may delist the Notes at any time.

Events of Default

As to the Notes of each series, an "*Event of Default*" means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) failure to pay any interest on the Notes of such series when due, which failure continues for 30 days;

(2) failure to pay principal or premium, if any, with respect to the Notes of such series when due;

(3) failure on the part of the Issuers to observe or perform any other covenant, warranty or agreement in the Notes of such series, or in the Indenture as it relates to the Notes of such series, other than a covenant, warranty or agreement, a Default in whose performance or whose breach is specifically dealt with elsewhere in the section of the Indenture governing Events of Default, if the failure continues for 90 days after written notice by the Trustee or the holders of at least 25% (or 30%, solely in the case of the 2029 Notes and the 2035 Notes) in aggregate principal amount of the Notes of such series then outstanding;

(4) an Event of Default with respect to any other series of debt securities issued under the Indenture or an uncured or unwaived failure to pay principal of or interest on any of our other obligations for borrowed money beyond any period of grace with respect thereto if, in either case, (a) the aggregate principal amount thereof is in excess of $300,000,000; and (b) the default in payment is not being contested by us in good faith and by appropriate proceedings; and

(5) specified events of bankruptcy, insolvency, receivership or reorganization.

However, the Event of Default in clause (4) above is subject to the following:

- if such Event of Default with respect to such other series of debt securities issued under the Indenture or such default in payment with respect to such other obligations for borrowed money shall be remedied or cured by the Issuers or waived by the requisite holders of such other series of debt securities or such other obligations for borrowed money, then the Event of Default under the Indenture by reason thereof shall be deemed likewise to have been thereupon remedied, cured or waived without further action upon the part of either the Trustee or any of the holders of Notes of such series; and

- subject to certain duties, responsibilities and rights of the Trustee under the Indenture, the Trustee shall not be charged with knowledge of any such Event of Default with respect to such other series of debt securities issued under the Indenture or such payment default with respect to such other obligations for borrowed money unless written notice thereof shall have been given to a Trust Officer of the Trustee by the Issuers, by the holder or an agent of the holder of such other obligations for borrowed money, by the trustee then acting under any indenture or other instrument under which such payment default with respect to such other obligations for borrowed money shall have occurred, or by the holders of not less than 25% (or 30%, solely in the case of the 2029 Notes and the 2035 Notes) in aggregate principal amount of outstanding debt securities of such other series.

Notice and Declaration of Defaults

The Indenture provides that the Trustee will, within the later of 90 days after the occurrence of a Default with respect to any Notes of a series outstanding which is continuing and which is known to a Trust Officer of the Trustee, or 60 days after such Default is actually known to such Trust Officer of the Trustee or written notice of such Default is received by the Trustee, give to the holders of the Notes of such series notice, by mail as the names and addresses of such holders appear on the security register, or electronically if the Notes of such series are held by any depositary, of all uncured Defaults known to it, including events specified above without grace periods, unless such Defaults shall have been cured before the giving of such notice; provided that, except in the case of Default in the payment of the principal of, premium, if any, or interest on any of the Notes of a series, the Trustee shall be protected in withholding such notice to the holders if the Trustee in good faith determines that withholding of such notice is in the interests of the holders of the Notes of such series.

The Trustee or the holders of not less than 25% (or 30%, solely in the case of the 2029 Notes and the 2035 Notes) in aggregate principal amount of the outstanding Notes of a series may declare the Notes of such series immediately due and payable upon the occurrence of any Event of Default. The holders of a majority in principal amount of the outstanding debt securities of all series issued under the Base Indenture affected by such waiver (voting as one class), on behalf of the holders of all of the debt securities of all such series, may waive any existing Default and its consequences, except a Default in the payment of principal, premium, if any, or interest, including sinking fund payments (provided, however, that only holders of a majority in aggregate principal amount of the debt securities of an applicable series may rescind an acceleration with respect to such series and its consequences, including any related payment default that resulted from such acceleration).

Actions upon Default

In case an Event of Default with respect to the Notes of a series occurs and is continuing, the Indenture provides that the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request, order or direction of any of the holders of Notes of such series unless the applicable holders have offered to

the Trustee security and indemnity, satisfactory to the Trustee in its sole discretion, against any loss, liability or expense which may be incurred thereby. The right of a holder of any Note of a series to institute a proceeding with respect to the Notes of such series is subject to conditions precedent including notice and indemnity to the Trustee, but the right of any holder of any Note of such series to receive payment of the principal of, and premium, if any, and interest on their due dates or to institute suit for the enforcement thereof shall not be impaired or affected without the consent of such holder.

The holders of a majority in aggregate principal amount of the Notes of a series outstanding will have the right to direct the time, method and place for conducting any proceeding for any remedy available to the Trustee or exercising any power or trust conferred on the Trustee. Any direction by such holders will be in accordance with law and the provisions of the Indenture. Subject to certain provisions of the Indenture, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith, by a Trust Officer or Trust Officers of the Trustee, shall determine that the action or proceeding so directed may not be lawfully taken, would involve the Trustee in personal liability, would be materially or unjustly prejudicial to the rights of holders of Notes of such series not joining in such direction or would be unduly prejudicial to the interests of the holders of the debt securities issued under the Base Indenture of all series not joining in the giving of such direction. The Trustee will be under no obligation to act in accordance with any such direction unless the applicable holders offer the Trustee reasonable security and indemnity, satisfactory to the Trustee in its sole discretion, against costs, expenses and liabilities which may be incurred thereby.

Modification of the Indenture

The Issuers and the Trustee may from time to time and at any time enter into an indenture or indentures supplemental to the Indenture, which shall conform to the provisions of the Trust Indenture Act as then in effect, without the consent of the holders of the Notes, for one or more of the following purposes:

- to cure any ambiguity, defect or inconsistency in the Indenture or the Notes, including making any such changes as are required for the Indenture to comply with the Trust Indenture Act;
- to add an additional obligor on the Notes or to add a guarantor of the Notes, or to evidence the succession of another Person to the Company or the Co-Issuer or any additional obligor or guarantor of the Notes, or successive successions, and the assumption by any Successor Company or Successor Co-Issuer of the covenants, agreements and obligations of such Company, Co-Issuer or such obligor or guarantor, as the case may be, pursuant to provisions in the Indenture concerning consolidation, merger, the sale of assets or successor entities;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities (*provided,* that the uncertificated Notes are issued in registered form for purposes of Section 163(f) of the Code);
- to add to the covenants of the Issuers for the benefit of the holders of all or any series of Notes (and if such covenants are to be for the benefit of less than all outstanding series of debt securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any of the Issuers' rights or powers under the Indenture;
- to add any additional Events of Default for the benefit of the holders of the Notes of all or any series of Notes (and if such Events of Default are to be applicable to less than all outstanding series, stating that such Events of Default are expressly being included solely to be applicable to such series);
- to change or eliminate any of the provisions of the Indenture, provided that any such change or elimination shall not become effective with respect to any outstanding Notes created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision;
- to secure the Notes;
- to make any other change that does not adversely affect the rights of any holder of the Notes in any material respect;

- to provide for the issuance of and establish the form and terms and conditions of a series of debt securities, to provide which, if any, of the covenants of the Issuers shall apply to such series, to provide which of the events of default set forth in the Base Indenture shall apply to such series, to add a co-issuer, to name one or more guarantors and provide for guarantees of such series, to provide for the terms and conditions upon which the guarantee by any guarantor of such series may be released or terminated, or to define the rights of the holders of such series of debt securities;
- to issue additional Notes to the extent permitted by the Indenture; provided that such additional Notes have the same terms as, and be deemed part of the same series as, the applicable series of Notes to the extent required under the Indenture; or
- to evidence and provide for the acceptance of appointment under the Indenture by a successor Trustee with respect to the Notes and to add to or change any of the provisions of the Indenture as shall be necessary to provide for or facilitate the administration of the trust thereunder by more than one Trustee.

In addition, under the Indenture, with the consent (evidenced as provided in the Indenture) of the holders of not less than a majority in aggregate principal amount of the outstanding debt securities of all series affected by such supplemental indenture or indentures (voting as one class), the Issuers and the Trustee from time to time and at any time may enter into an indenture or indentures supplemental to the Indenture for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of the Indenture or of any supplemental indenture thereto or of modifying in any manner not covered by the immediately preceding paragraph the rights of the holders of the debt securities of each such series under the Indenture. However, the following changes may only be made with the consent of each holder of outstanding Notes of a series affected:

- extend a fixed maturity of or any installment of principal of any Notes or reduce the principal amount thereof or reduce the amount of principal of any original issue discount security that would be due and payable upon declaration of acceleration of the maturity thereof;
- reduce the rate of or extend the time for payment of interest on any Notes;
- reduce the premium payable upon the redemption of any Notes;
- make the Notes payable in currency other than that stated in the applicable debt security;
- impair the right to institute suit for the enforcement of any payment in respect of the Notes on or after the fixed maturity thereof or, in the case of redemption, on or after the redemption date;
- reduce the obligation to pay additional amounts or indemnity amounts for Taxes;
- modify the subordination provisions applicable to any Note in a manner adverse in any material respect to the holder thereof; or
- reduce the aforesaid percentage of the Notes, the holders of which are required to consent to any such supplemental indenture or indentures.

A supplemental indenture that changes or eliminates any covenant, event of default set forth in the Base Indenture or other provision of the Indenture that has been expressly included solely for the benefit of one or more particular series of debt securities, if any, or which modifies the rights of the holders of debt securities of such series with respect to such covenant, event of default or other provision, shall be deemed not to affect the rights under the Indenture of the holders of debt securities of any other series.

Notwithstanding anything herein or otherwise, the provisions under the Indenture relative to the Issuers' obligation to make any offer to repurchase the Notes as a result of a Change of Control Triggering Event as provided in Section 4.08 of the Base Indenture may be waived or modified with the written consent of the holders of a majority in principal amount of the outstanding debt securities of the applicable series or multiple affected series.

It will not be necessary for the consent of the holders of the Notes of a series to approve the particular form of any proposed supplement, amendment or waiver, but it shall be sufficient if such consent approves the substance thereof.

Information Concerning the Trustee

If an Event of Default with respect to a series of the Notes has occurred and is continuing, the Trustee shall exercise with respect to such series of Notes such of the rights and powers vested in it by the Indenture, and use the same degree of care and skill in its exercise, as a prudent Person would exercise or use under the circumstances in the conduct of such Person's own affairs. If an Event of Default has occurred and is continuing, the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request, order or direction of any holders of Notes of such series, unless such holders shall have offered to the Trustee security and indemnity, satisfactory to it in its sole discretion, against any loss, liability or expense which may be incurred thereby, and then only to the extent required by the terms of the Indenture. No provision of the Indenture shall require the Trustee to expend or risk its own funds or otherwise incur financial liability in the performance of any of its duties under the Indenture or in the exercise of any of its rights or powers.

The Trustee may resign with respect to the Notes by giving a written notice to the Issuers. The holders of a majority in principal amount of the outstanding Notes of a series may remove the Trustee with respect to the Notes of such series by notifying the Issuers and the Trustee in writing. The Issuers may remove the Trustee if:

- the Trustee has or acquires a "conflicting interest," within the meaning of Section 310(b) of the Trust Indenture Act, and fails to comply with the provisions of Section 310(b) of the Trust Indenture Act, or otherwise fails to comply with the eligibility requirements provided in the Indenture and fails to resign after written request therefor by the Issuers in accordance with the Indenture;
- the Trustee is adjudged a bankrupt or an insolvent or an order for relief is entered with respect to the Trustee under any bankruptcy law;
- a custodian or public officer takes charge of the Trustee or its property; or
- the Trustee becomes incapable of acting.

If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee with respect to either series of the Notes for any reason, the Issuers shall promptly appoint a successor Trustee with respect to the Notes of such series.

A resignation or removal of the Trustee and appointment of a successor Trustee shall become effective only upon the successor Trustee's acceptance of the appointment as provided in the Indenture.

The Trustee and its Affiliates have engaged, currently are engaged, and may in the future engage in financial or other transactions with the Issuers and our Affiliates in the ordinary course of their respective businesses.

Payment and Paying Agents

The Issuers will pay the principal of, premium, if any, and interest on the Notes at any office of ours or any agency designated by us.

The initial paying agent for the Euro Notes is Elavon Financial Services DAC. For so long as the Euro Notes are in global form, payment of principal and interest on, and any other amount due in respect of, the Euro Notes will be made by or to the order of the paying agent on behalf of the common depositary or its nominee as the registered holder thereof. After payment by the Issuers or the paying agent of interest, principal or other amounts in respect of the Euro Notes to the common depositary (or its nominee), the Issuers will not have responsibility or liability for such amounts to Euroclear or Clearstream, or to holders or beneficial owners of book-entry interests in the Euro Notes. The initial paying agent for the USD Notes is the Trustee.

In addition, the Issuers maintain a transfer agent and a security registrar for the Notes. The initial transfer agent and security registrar is the Trustee.

The security registrar as to the Notes maintains a register reflecting ownership of the Notes outstanding from time to time, if any, and together with the applicable transfer agent, will make payments on and facilitate transfers of the Notes on behalf of the Issuers. No service charge will be made for any registration of transfer or exchange of Notes. However, we may require holders to pay any transfer taxes or other similar governmental charges payable in connection with any such transfer or exchange.

The Issuers may change or appoint any paying agent, security registrar or transfer agent with respect to the Notes without prior notice to the holders of the Notes. The Issuers or any of their subsidiaries may act as paying agent, transfer agent or security registrar in respect of any Notes.

Governing Law

The Indenture and any Notes issued thereunder shall be deemed to be a contract made under the internal laws of the State of New York, and for all purposes shall be construed in accordance with the laws of the State of New York without regard to conflicts of laws principles that would require the application of any other law. The Indenture is subject to the provisions of the Trust Indenture Act that are required to be part of the Indenture and shall, to the extent applicable, be governed by such provisions.

For the avoidance of doubt, articles 470-1 to 470-19 of the Luxembourg law of 10 August 1915 relating to commercial companies, as amended, do not apply to the Notes.

Satisfaction and Discharge of the Indenture

The Indenture shall cease to be of further effect with respect to the Notes of either series if, at any time:

(a) The Issuers have delivered or have caused to be delivered to the Trustee for cancellation all Notes of such series theretofore authenticated, other than any Notes of such series that have been destroyed, lost or stolen and that have been replaced or paid as provided in the Indenture, and Notes of such series for whose payment funds or governmental obligations have theretofore been deposited in trust or segregated and held in trust by the Issuers and thereupon repaid to the Issuers or discharged from such trust, as provided in the Indenture; or

(b) all such Notes of such series not theretofore delivered to the Trustee for cancellation have become due and payable or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and the Issuers shall irrevocably deposit or cause to be deposited with the Trustee as trust funds the entire amount, in funds or governmental obligations, or a combination thereof, sufficient to pay at maturity or upon redemption all Notes of such series not theretofore delivered to the Trustee for cancellation, including principal, premium, if any, and interest due or to become due on such date of maturity or redemption date, as the case may be, and if in either case the Issuers shall also pay or cause to be paid all other sums payable under the Indenture with respect to such Notes by the Issuers.

With respect to any redemption of any Notes that requires the payment of any premium, the amount deposited pursuant to the above paragraph shall be sufficient for purposes of the Indenture to the extent that an amount is so deposited with the Trustee or paying agent, as applicable, equal to such premium on such Notes calculated as of the date of the notice of redemption, with any deficit on the redemption date only required to be deposited with the Trustee or paying agent, as applicable, on or prior to the redemption date.

Notwithstanding the above, the Issuers may not be discharged from the following obligations, which will survive until the date of maturity or the redemption date, as the case may be, for the Notes:

- to make any interest or principal payments that may be required with respect to the Notes;
- to register the transfer or exchange of the Notes;
- to execute and authenticate the Notes;
- to replace stolen, lost or mutilated Notes;

- to maintain an office or agency with respect to the Notes;
- to maintain paying agencies with respect to the Notes; and
- to appoint new trustees with respect to the Notes as required by the Indenture.

The Issuers also may not be discharged from the following obligations, which will survive the defeasance and discharge of the Notes:

- to compensate and reimburse the Trustee in accordance with the terms of the Indenture;
- to receive unclaimed payments held by the Trustee for at least one year after the date upon which the principal, if any, or interest on the Notes shall have respectively come due and payable and remit those payments to the holders thereof if required; and
- to withhold or deduct taxes as provided in the Indenture.

For purposes of this description the term "*governmental obligations*" shall have the following meaning with respect to the USD Notes: securities that are (i) direct obligations of the United States of America for the payment of which its full faith and credit is pledged or (ii) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America that, in either case, are not callable or redeemable at the option of the issuer thereof, and shall also include a depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act) as custodian with respect to any such Governmental Obligation or a specific payment of principal of or interest on any such Governmental Obligation held by such custodian for the account of the holder of such depositary receipt; provided, however, that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Governmental Obligation or the specific payment of principal of or interest on the Governmental Obligation evidenced by such depositary receipt.

For purposes of this description the term "*governmental obligations*" shall have the following meaning with respect to the Euro Notes: (x) any security which is (i) a direct obligation of the German government or (ii) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the German government the payment of which is fully and unconditionally guaranteed by the German government, the central bank of the German government or a governmental agency of the German government, which, in either case (x)(i) or (ii), is not callable or redeemable at the option of the issuer thereof, and (y) certificates, depositary receipts or other instruments which evidence a direct ownership interest in obligations described in clause (x)(i) or (x)(ii) above or in any specific principal or interest payments due in respect thereof.

Defeasance and Discharge of Obligations

The Issuers' obligations with respect to the Notes will be discharged upon compliance with the conditions under the caption "*Covenant Defeasance*"; provided that the Issuers may not be discharged from the following obligations, which will survive until such date of maturity or the redemption date, as the case may be, for the Notes:

- to make any interest or principal payments that may be required with respect to the Notes;
- to register the transfer or exchange of the Notes;
- to execute and authenticate the Notes;
- to replace stolen, lost or mutilated Notes;
- to maintain an office or agency with respect to the Notes;
- to maintain paying agencies with respect to the Notes; and
- to appoint new trustees with respect to the Notes as required by the Indenture.

The Issuers also may not be discharged from the following obligations, which will survive the satisfaction and discharge of the Notes:

- to compensate and reimburse the Trustee in accordance with the terms of the Indenture;
- to receive unclaimed payments held by the Trustee for at least one year after the date upon which the principal, if any, or interest on the Notes shall have respectively come due and payable and remit those payments to the holders thereof if required; and
- to withhold or deduct taxes as provided in the Indenture.

Covenant Defeasance

Upon compliance with specified conditions, the Issuers may, at their option and at any time, by written notice executed by an Officer delivered to the Trustee, elect to have their obligations, to the extent applicable, under the covenants described under "*—Offer to Repurchase Upon Change of Control Triggering Event*" and "*—Certain Covenants*" above, and the operation of the Event of Default described in clause (3) of the first paragraph under the caption "*—Events of Default*" above, discharged with respect to all outstanding Notes of a series and the Indenture insofar as such Notes are concerned. For this purpose, such covenant defeasance means that, with respect to the outstanding Notes of a series, the Issuers may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference in the Indenture to any such covenant or by reason of reference in any such covenant to any other provision of the Indenture or in any other document and such omission to comply shall not constitute a Default or an Event of Default relating to the Notes of such series. These conditions are:

- the Issuers irrevocably deposit in trust with the Trustee or, at the option of the Trustee, with a trustee satisfactory to the Trustee and the Issuers, as the case may be, under the terms of an irrevocable trust agreement in form and substance satisfactory to the Trustee, funds or governmental obligations or a combination thereof sufficient to pay principal of, premium, if any, and interest on the outstanding Notes of such series to maturity or redemption, as the case may be, and to pay all other amounts payable by it under the Indenture (provided that, with respect to any redemption of any Notes of a series that requires the payment of any premium, the amount deposited pursuant to this paragraph shall be sufficient for purposes of the Indenture to the extent that an amount is so deposited with the Trustee or paying agent, as applicable, equal to such premium on such Notes calculated as of the date of the notice of redemption, with any deficit on the redemption date only required to be deposited with the Trustee or paying agent, as applicable, on or prior to the redemption date), provided that (A) the trustee of the irrevocable trust shall have been irrevocably instructed to pay such funds or the proceeds of such governmental obligations to the Trustee and (B) the Trustee shall have been irrevocably instructed to apply such funds or the proceeds of such governmental obligations to the payment of such principal, premium, if any, and interest with respect to the Notes of such series;
- the Issuers deliver to the Trustee an Officer's Certificate stating that all conditions precedent specified herein relating to defeasance or covenant defeasance, as the case may be, have been complied with, and an Opinion of Counsel to the same effect;
- no Event of Default shall have occurred and be continuing, and no event which with notice or lapse of time or both would become such an Event of Default shall have occurred and be continuing, on the date of such deposit; and
- the Issuers shall have delivered to the Trustee an Opinion of Counsel (which, in the case of a defeasance, must be based on a change in law) or a ruling received from the U.S. Internal Revenue Service to the effect that the beneficial owners of the Notes of a series will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the Issuers' exercise of such defeasance or covenant defeasance and will be subject to U.S. Federal income tax in the same amount and in the same manner and at the same times as would have been the case if such election had not been exercised.

Definitions

As used in the Notes and this "*Description of JCI plc and TFSCA Notes*," the following defined terms shall have the following meanings with respect to the Notes:

"*Affiliate*," with respect to any specified Person, means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "*control*" when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through ownership of voting securities, by contract or otherwise; and the terms "*controlling*" and "*controlled*" have meanings correlative to the foregoing.

"*Attributable Debt*," in connection with a Sale and Lease-Back Transaction, as of any particular time, means the aggregate of present values (discounted at a rate that, at the inception of the lease, represents the effective interest rate that the lessee would have incurred to borrow over a similar term the funds necessary to purchase the leased assets) of the obligations of JCI plc or any Restricted Subsidiary for net rental payments during the remaining term of the applicable lease, including any period for which such lease has been extended or, at the option of the lessor, may be extended. The term "*net rental payments*" under any lease of any period shall mean the sum of the rental and other payments required to be paid in such period by the lessee thereunder, not including any amounts required to be paid by such lessee, whether or not designated as rental or additional rental, on account of maintenance and repairs, reconstruction, insurance, taxes, assessments, water rates or similar charges required to be paid by such lessee thereunder or any amounts required to be paid by such lessee thereunder contingent upon the amount of sales, maintenance and repairs, reconstruction, insurance, taxes, assessments, water rates or similar charges.

"*Board of Directors*" means the Board of Directors of the Company or any duly authorized committee of such Board of Directors.

"*business day*" means any day other than a Saturday or Sunday, (1) that is not a day on which banking institutions in the City of New York or London are authorized or obligated by law, executive order or regulation to close and (2) on which the Trans-European Automated Real-time Gross Settlement Express Transfer System (the TARGET2 system), or any successor thereto, is open.

"*Change of Control*" means the occurrence of any of the following after the date of issuance of the Notes:

(1) the direct or indirect sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the Company's assets and the assets of its subsidiaries taken as a whole to any "person" or "group" (as those terms are used in Section 13(d)(3) of the Exchange Act) other than to the Company or one of its subsidiaries, other than any such transaction or series of related transactions where holders of our Voting Stock outstanding immediately prior thereto hold Voting Stock of the transferee Person representing a majority of the voting power of the transferee Person's Voting Stock immediately after giving effect thereto;

(2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" or "group" (as those terms are used in Section 13(d)(3) of the Exchange Act) (other than us or one of our subsidiaries) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of the Company's Voting Stock representing a majority of the voting power of the Company's outstanding Voting Stock;

(3) the Company consolidates with, or merges with or into, any Person, or any Person consolidates with, or merges with or into, the Company, in any such event pursuant to a transaction in which any of the Company's outstanding Voting Stock or Voting Stock of such other Person is converted into or exchanged for cash, securities or other property, other than any such transaction where the Company's Voting Stock outstanding immediately prior to such transaction constitutes, or is converted into or exchanged for, Voting Stock representing a majority of the voting power of the Voting Stock of the surviving Person (or its parent) immediately after giving effect to such transaction; or

(4) the adoption by the Company's shareholders of a plan relating to our liquidation or dissolution.

Notwithstanding the foregoing, a transaction will not be deemed to involve a change of control under clause (2) above if (1) the Company becomes a direct or indirect wholly-owned subsidiary of a holding company or other

Person and (2)(A) the direct or indirect holders of the Voting Stock of such holding company or other Person immediately following that transaction are substantially the same as the holders of the Company's Voting Stock immediately prior to that transaction or (B) immediately following that transaction no person (as that term is used in Section 13(d)(3) of the Exchange Act) (other than a holding company or other Person satisfying the requirements of this sentence) is the beneficial owner, directly or indirectly, of more than 50% of the Voting Stock of such holding company or other Person.

"*Change of Control Triggering Event*" means, with respect to the Notes of a series, such Notes cease to be rated Investment Grade by each of the Rating Agencies on any date during the period (the "*Trigger Perioa*") commencing 60 days prior to the first public announcement by us of any Change of Control (or pending Change of Control) and ending 60 days following consummation of such Change of Control (which Trigger Period will be extended following consummation of a Change of Control for so long as any of the Rating Agencies has publicly announced that it is considering a possible ratings downgrade or withdrawal). However, a Change of Control Triggering Event otherwise arising by virtue of a particular reduction in, or withdrawal of, rating shall not be deemed to have occurred in respect of a particular Change of Control (and thus shall not be deemed a Change of Control Triggering Event for purposes of the definition of Change of Control Triggering Event) if the Rating Agencies making the reduction in, or withdrawal of, rating to which this definition would otherwise apply do not announce or publicly confirm or inform the Trustee in writing at our request that the reduction or withdrawal was the result, in whole or in part, of any event or circumstance comprised of or arising as a result of, or in respect of, the applicable Change of Control (whether or not the applicable Change of Control shall have occurred at the time of the Change of Control Triggering Event). If a Rating Agency is not providing a rating for the Notes at the commencement of any Trigger Period, the Notes will be deemed to have ceased to be rated Investment Grade by such Rating Agency during that Trigger Period.

Notwithstanding the foregoing, no Change of Control Triggering Event will be deemed to have occurred in connection with any particular Change of Control unless and until such Change of Control has actually been consummated.

"*Consolidated Net Worth*" at any date means total assets less total liabilities, in each case appearing on the most recently prepared consolidated balance sheet of the Company and its subsidiaries as of the end of a fiscal quarter of the Company, prepared in accordance with United States generally accepted accounting principles as in effect on the date of the consolidated balance sheet.

"*Consolidated Tangible Assets*" at any date means total assets less all intangible assets appearing on the most recently prepared consolidated balance sheet of the Company and its subsidiaries as of the end of a fiscal quarter of the Company, prepared in accordance with United States generally accepted accounting principles as in effect on the date of the consolidated balance sheet.

"*Default*" means any event, act or condition that with notice or lapse of time, or both, would constitute an Event of Default.

"*Funded Indebtedness*" means any Indebtedness of the Company or any consolidated subsidiary maturing by its terms more than one year from the date of the determination thereof, including any Indebtedness renewable or extendable at the option of the obligor to a date later than one year from the date of the determination thereof.

"*Global Security*" means a security executed by the Issuers and delivered by the Trustee to the depositary or pursuant to the depositary's instruction, all in accordance with the Indenture, which shall be registered in the name of the depositary or its nominee.

"*governmental obligations*" shall have the meaning ascribed to such term in the section "Satisfaction and Discharge of the Indenture" of this description.

"*Indebtedness*" means, without duplication, the principal amount (such amount being the face amount or, with respect to original issue discount bonds or zero coupon notes, bonds or debentures or similar securities, determined based on the accreted amount as of the date of the most recently prepared consolidated balance sheet of the

Company and its subsidiaries as of the end of a fiscal quarter of the Company prepared in accordance with United States generally accepted accounting principles as in effect on the date of such consolidated balance sheet) of (i) all obligations for borrowed money, (ii) all obligations evidenced by debentures, notes or other similar instruments, (iii) all obligations in respect of letters of credit or bankers acceptances or similar instruments or reimbursement obligations with respect thereto (such instruments to constitute Indebtedness only to the extent that the outstanding reimbursement obligations in respect thereof are collateralized by cash or cash equivalents reflected as assets on a balance sheet prepared in accordance with United States generally accepted accounting principles), (iv) all obligations to pay the deferred purchase price of property or services, except (A) trade and similar accounts payable and accrued expenses, (B) employee compensation, deferred compensation and pension obligations, and other obligations arising from employee benefit programs and agreements or other similar employment arrangements, (C) obligations in respect of customer advances received and (D) obligations in connection with earnout and holdback agreements, in each case in the ordinary course of business, (v) all obligations as lessee to the extent capitalized in accordance with United States generally accepted accounting principles and (vi) all Indebtedness of others consolidated in such balance sheet that is guaranteed by JCI plc or any of its subsidiaries or for which JCI plc or any of its subsidiaries is legally responsible or liable (whether by agreement to purchase indebtedness of, or to supply funds or to invest in, others).

"*Intangible assets*" means the amount, if any, stated under the headings "*Goodwill*" and "*Other intangible assets, net*" or under any other heading of intangible assets separately listed, in each case on the face of the most recently prepared consolidated balance sheet of the Company and its subsidiaries as of the end of a fiscal quarter of JCI plc, prepared in accordance with United States generally accepted accounting principles as in effect on the date of the consolidated balance sheet.

"*Investment Grade*" means a rating of Baa3 or better by Moody's (or its equivalent under any successor rating category of Moody's) and a rating of BBB– or better by S&P (or its equivalent under any successor rating category of S&P), and the equivalent investment grade credit rating from any replacement rating agency or rating agencies selected by us under the circumstances permitting us to select a replacement rating agency and in the manner for selecting a replacement rating agency, in each case as set forth in the definition of "*Rating Agency*."

"*Moody's*" means Moody's Investors Service, Inc., a subsidiary of Moody's Corporation, and its successors.
"*Officer*" means any manager, director, any managing director, the chairman or any vice chairman of the Board of Directors or a board of managers, as applicable, the chief executive officer, the president, the chief financial officer, any vice president, the treasurer, any assistant treasurer, the secretary or any assistant secretary, or any equivalent of the foregoing, of the Company or the Co-Issuer, as applicable, or any Person duly authorized to act for or on behalf of the Company or the Co-Issuer, as applicable.

"*Officer's Certificate*" means a certificate, signed by any Officer of JCI plc and/or the Co-Issuer, as the case may be, that is delivered to the Trustee in accordance with the terms of the Indenture.

"*Opinion of Counsel*" means a written opinion acceptable to the Trustee from legal counsel licensed in any State of the United States of America and applying the laws of such State. The counsel may be an employee of or counsel to either Issuer.

"*Person*" means any individual, corporation, partnership, limited liability company, business trust, association, joint-stock company, joint venture, trust, incorporated or unincorporated organization or government or any agency or political subdivision thereof.

"*Principal Property*" means any manufacturing, processing or assembly plant or any warehouse or distribution facility, or any office or parcel of real property (including fixtures but excluding leases and other contract rights which might otherwise be deemed real property) of JCI plc or any of its subsidiaries that is used by any U.S. Subsidiary of JCI plc and is located in the United States of America (excluding its territories and possessions and Puerto Rico) and (A) is owned by JCI plc or any subsidiary of JCI plc on the date the Notes are issued, (B) the initial construction of which has been completed after the date on which the Notes are issued, or (C) is acquired after the date on which the Notes are issued, in each case, other than any such plants, facilities, warehouses or portions

thereof, that in the opinion of the Board of Directors of JCI plc, are not collectively of material importance to the total business conducted by JCI plc and its subsidiaries as an entirety, or that have a net book value (excluding any capitalized interest expense), on the date the Notes are issued in the case of clause (A) of this definition, on the date of completion of the initial construction in the case of clause (B) of this definition or on the date of acquisition in the case of clause (C) of this definition, of less than 2.0% of Consolidated Tangible Assets on the consolidated balance sheet of JCI plc and its subsidiaries as of the applicable date.

"*Rating Agency*" means each of Moody's and S&P; provided, that if any of Moody's or S&P ceases to provide rating services to issuers or investors, we may appoint another "nationally recognized statistical rating organization" as defined under Section 3(a)(62) of the Exchange Act as a replacement for such Rating Agency; provided, that we shall give notice of such appointment to the Trustee.

"*Restricted Subsidiary*" means any subsidiary of JCI plc that owns or leases a Principal Property.

"*Sale and Lease-Back Transaction*" means an arrangement with any Person providing for the leasing by JCI plc or a Restricted Subsidiary of any Principal Property whereby such Principal Property has been or is to be sold or transferred by JCI plc or a Restricted Subsidiary to such Person other than JCI plc or any of its subsidiaries; provided, however, that the foregoing shall not apply to any such arrangement involving a lease for a term, including renewal rights, for not more than three years.

"*S&P*" means Standard & Poor's Global Ratings, a division of S&P Global Inc., and its successors.

"*Trust Officer*" means any officer within the corporate trust department of the Trustee, including any vice president, senior associate, associate, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such Person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of the Indenture.

"*U.S. Subsidiary*" means any subsidiary of JCI plc that was formed under the laws of the United States of America, any State thereof or the District of Columbia (but not any territory thereof).

"*Voting Stock*" of any specified Person as of any date means the capital stock of such Person that is at the time entitled to vote generally in the election of the board of directors of such Person.

Exhibit 19.1

JOHNSON CONTROLS INTERNATIONAL PLC
INSIDER TRADING POLICY

U.S. Federal securities laws, and other countries' securities laws, prohibit the use of material nonpublic information in connection with securities Transactions (defined below). Individuals violating these restrictions may be subject to serious criminal and civil liabilities and sanctions, including civil penalties of up to three times the illegal profit gained or loss avoided on the securities Transaction. The violation may also subject Johnson Controls International plc ("Johnson Controls, " "JCI" or the "Company") to criminal and civil penalties and would severely damage Johnson Controls' reputation and business relationships.

Accordingly, Johnson Controls has adopted this Insider Trading Policy[1] (this "Policy") in an effort to apply uniform conduct guidelines to the Company, all Directors, Section 16 Officers (defined below), employees, and Related Persons (defined below) of Johnson Controls and its subsidiaries globally. The Company may also determine that other persons should be subject to this Policy, such as contractors or consultants who have access to material nonpublic information. Any violation of this Policy may result in Johnson Controls imposing serious sanctions on the persons involved, including dismissal for cause.

1. **Objectives**. The objectives of this Policy are to: (a) promote compliance with applicable securities laws and avoid improper conduct and/or the appearance of improper conduct relative to such laws; (b) preserve the reputation and integrity of Johnson Controls and its Directors, Section 16 Officers, employees and Related Persons; and (c) describe the general standards and procedures for engaging in Transactions involving JCI Securities (defined below) and the securities of other publicly traded companies. While this Policy and the Company's authorized employees may provide advice and guidance relative to insider trading compliance, ultimate responsibility for compliance resides with the entity or individual engaging in a Transaction involving JCI Securities.

2. **Scope**. This Policy applies to all Directors, Section 16 Officers, employees, and Related Persons (collectively referred to herein as "you" or "your"). This Policy also applies to Transactions involving JCI Securities by the Company.

3. **Policy**.

a. Prohibition Against Trading on Material Nonpublic Information. You may not trade in JCI Securities if you are aware of any material nonpublic information relating to Johnson Controls ("material" and "nonpublic" are defined below). This prohibition also applies to any material nonpublic information you become aware of in the course of your employment or service with Johnson Controls relating to any other company, including, but not limited to, Johnson Controls' suppliers and customers. Similarly, the Company may not trade in JCI Securities if it is aware of any material nonpublic information relating to Johnson Controls.

b. Prohibition Against Tipping. You may not disclose material nonpublic information to persons within the Company whose jobs do not require them to have that information, or outside of the Company to other persons, including, but not limited to, family, friends, business associates, investors and expert consulting firms, unless any such disclosure is made in accordance with the Company's policies regarding the protection or authorized external disclosure of information regarding the Company, including the Company's Disclosure Policy. Such disclosure may be viewed as "tipping," resulting in liability under U.S. Federal securities laws for both the person who provides the information and the person who receives the information. This prohibition also applies to any material nonpublic information you become aware of in the course of your employment or service with Johnson Controls relating to any other company, including, but not limited to, Johnson Controls' suppliers and customers.

[1] This Policy supersedes any previous policy regarding insider trading and misuse of material nonpublic information. In the event of any conflict or inconsistency between this Policy and any previous policy, this Policy shall govern.

c. Prohibition Against Misappropriation. You may not engage in transactions in the securities of other companies where, in the course of working for or otherwise in service of Johnson Controls, you learn of material nonpublic information about a company (1) with which Johnson Controls does business, such as Johnson Controls distributors, vendors, customers and suppliers, or (2) that is involved in a potential transaction or business relationship with Johnson Controls. This prohibition against trading in another company's securities lasts until the material nonpublic information you gained through the course of your employment or service to Johnson Controls becomes public or is no longer material.

4. **Penalties for Violations**.

a. Individual Penalties. U.S. Federal securities laws impose severe penalties on persons who trade securities while aware of material nonpublic information or who improperly disclose such information to a third party. Individuals trading on (or tipping) material nonpublic information may be liable for criminal fines of up to $5 million, 20 years imprisonment and civil penalties of up to three times the profit gained or loss avoided.

b. Control Person Penalties. Penalties may also be imposed against so-called "controlling persons" who fail to take appropriate steps to prevent and detect insider trading violations (including tipping) by their employees or subordinates. The U.S. Securities and Exchange Commission ("SEC") may impose upon control persons a civil penalty of up to the greater of $1 million or three times the amount of profit gained or loss avoided as a result of the employee's or subordinate's violation. In addition, incorporated violators may be fined up to $25 million if found guilty of a criminal insider trading violation. It is possible that your status as a Director, Section 16 Officer and/or employee would implicate you as a controlling person subject to personal liability for the insider trading violations of Johnson Controls' employees.

5. **Definitions.**

a. JCI Securities. "JCI Securities" includes ordinary and preferred shares, derivative securities (e.g., stock options), and debt securities (e.g., bonds and notes) of Johnson Controls.

b. Material information. It is difficult to describe exhaustively what constitutes "material" information, but you should assume that any information, positive or negative, that might affect the price of JCI Securities or otherwise might be of significance to an investor in determining whether to purchase, sell or hold JCI Securities would be "material." Some examples of information that would typically be considered material include:

- earnings information, including annual, quarterly or monthly financial results and guidance or projections relating to future earnings performance;
- mergers, tender offers, joint ventures or material acquisitions or dispositions of assets;
- new products or services, or developments regarding customers or suppliers (e.g., the acquisition or loss of an important contract);
- changes in control of Johnson Controls or in its senior management;
- a change in auditors or an auditor notification that Johnson Controls may no longer rely on an auditor's audit report;
- events regarding JCI Securities (e.g., defaults on senior securities, calls of securities for redemption, a new share repurchase program or an increase to an existing share repurchase program, stock splits, changes in the dividend policy, changes to the rights of security holders, financing transactions or public or private offerings of securities);
- pending significant litigation or a change in the status of such litigation;
- bankruptcies or receiverships involving Johnson Controls or parties with whom Johnson Controls has a material relationship; and
- a significant disruption in Johnson Controls' operations or loss, potential loss, breach or unauthorized access of its property or assets, including its facilities, product platforms and information technology infrastructure.

This list is not intended to be all-inclusive. Questions concerning the materiality of particular information should be directed to Shareholder Services prior to your trading in JCI Securities or the securities of another publicly traded company, such as a customer or supplier of Johnson Controls.

c. Nonpublic information. "Nonpublic information" is generally not known or available to the public. Johnson Controls generally considers information to be public after one full trading day has elapsed following Johnson Controls' release of such information to the general public.

d. Related Persons. For purposes of this Policy, a "Related Person" includes your spouse, minor children and relatives who share your home or who are financially dependent upon you, and certain entities affiliated with you (e.g., trusts, partnerships, estates, and corporations). A Related Person of the Company includes all of the Company's subsidiaries and affiliates.

e. Section 16 Officer. For purposes of this Policy, a "Section 16 Officer" is an individual designated by the Johnson Controls Board of Directors on behalf of Johnson Controls as an "officer" of Johnson Controls for purposes of Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

f. Trades or Transactions. "Trades" or "Transactions" include, but are not limited to, sales, purchases, stock option exercises, standing orders (outside of a Rule 10b5-1 trading plan)[2], gifts, transfers and certain employee benefit plan transactions as discussed below. This list is not all-inclusive; questions regarding whether an activity is considered a Trade or Transaction should be directed to Shareholder Services prior to consummation.

6. **Applicability of this Policy to Transactions under Company Benefit Plans**.

The following are applications of this Policy under Company benefit plans:

a. 401(k) Plan and Managed Account Program. The trading prohibition **does not apply** to purchases or acquisitions of Johnson Controls stock units in your 401(k) plan account resulting from periodic contributions of money pursuant to an existing payroll deduction. However, the trading prohibition **does apply** to an election to:

- begin or terminate investing in the Johnson Controls stock fund of the 401(k) plan;
- increase or decrease the percentage of your periodic contributions that will be allocated to the Johnson Controls stock fund of the 401(k) plan;
- make an intra-plan transfer of an existing account balance into or out of the Johnson Controls stock fund;
- borrow money against your 401(k) plan balance if the loan will result in a liquidation of some or all of your Johnson Controls stock fund balance; and
- pre-pay a plan loan if the pre-payment will result in the allocation of loan proceeds to the Johnson Controls stock fund.

The same prohibition applies to employees who participate in the Managed Account Program. Section 16 Officers are not eligible to participate in the Managed Account Program.

b. Deferred Compensation Plan. The trading prohibition **does not apply** to acquisitions of Johnson Controls stock units in your deferred compensation account resulting from periodic deferrals of compensation pursuant to the deferral methods allowed under the deferred compensation plan and your advance deferral election. However, the trading prohibition **does apply** to an election to:

- begin or terminate investing in the Johnson Controls stock fund of the deferred compensation plan;

[2] You may be liable for Trades made pursuant to standing orders (e.g., market and/or limit orders) if such Trade is made while you are in possession of material nonpublic information. Accordingly, you are strongly discouraged from entering into standing orders outside of a Rule 10b5-1 trading plan.

- increase or decrease the percentage of your periodic contributions that will be allocated to the Johnson Controls stock fund of the deferred compensation plan; and
- make an intra-plan transfer of an existing account balance into or out of the Johnson Controls stock fund.

c. Shareowner Services Plus Plan. The trading prohibition **does not apply** to acquisitions of JCI shares under the Shareowner Services Plus Plan administered by EQ for Johnson Controls resulting from your reinvestment of dividends paid on Johnson Controls shares. The trading prohibition **does apply** to an election to:

- sell Johnson Controls shares acquired via the Shareowner Services Plus Plan;
- begin or terminate participation in the Shareowner Services Plus Plan;
- increase or decrease your level of participation in the Shareowner Services Plus Plan; and
- make additional contributions to the Shareowner Services Plus Plan which result in a voluntary purchase of Johnson Controls shares.

d. Performance Share Awards and Restricted Stock Awards. The trading prohibition **does not apply** to the awarding or vesting of performance share or restricted stock awards and related dividend equivalents, or the withholding of JCI stock to cover the employee's minimum tax liability upon vesting. However, the trading prohibition **does apply** to Trades and Transactions involving the underlying JCI Securities after vesting (e.g., the sale or transfer of Johnson Controls shares).

e. Stock Appreciation Rights and Stock Options. The trading prohibition **does not apply** to the granting or vesting of stock appreciation rights and stock options. However, the trading prohibition **does apply** to all exercises of Johnson Controls stock appreciation rights and stock options, except as set forth in the Blackout Guidelines and pursuant to approved Rule 10b5-1 trading plans (as discussed in Section 14 below).

7. **Pre-Clearance Guidelines**. The Company, Directors, Section 16 Officers and certain other individuals designated by the General Counsel must contact the General Counsel (or their designee) prior to engaging in or making any commitment to engage in a Transaction in JCI Securities, including the entry into, modification of or termination of a Rule 10b5-1 trading plan. Transactions in JCI Securities are subject to Pre-Clearance Guidelines administered by the General Counsel and Corporate Secretary. A copy of the Pre-Clearance Guidelines is available on the Shareholder Services SharePoint site and will be provided to you if you are subject the Pre-Clearance Guidelines. -

8. **Blackout Guidelines**. The Company, Directors, Section 16 Officers, certain employees and Related Persons are subject to periodic prohibitions on the trading of JCI Securities under Johnson Controls' Blackout Guidelines. A copy of the Blackout Guidelines is available on the Shareholder Services SharePoint site and will be provided to you if you are subject to a trading blackout.

9. **Restrictions on Certain Types of Transactions**. Trading on an exchange in puts, calls or any other derivative securities relating to JCI Securities, and engaging in hedging or monetization transactions relating to JCI Securities (including through the use of financial instruments such as prepaid variable forwards, equity swaps, collars and exchange funds) or short sales of JCI Securities, **is prohibited** at all times. Investments in mutual fund(s) or exchange traded fund(s) that invest in a broad index or sector ("ETF") that also invest in JCI Securities, **are not prohibited**, although the purchase, sale or hedging of mutual fund or ETF shares based on material nonpublic information about Johnson Controls would violate this Policy and implicate the securities laws.

10. **Discretionary Brokerage Accounts**. If a Trade involving JCI Securities may be executed at a time when you are in possession of material nonpublic information, we strongly discourage you from holding JCI Securities in a discretionary brokerage account. A discretionary brokerage account, also known as a controlled account, is an investment account whereby the broker has complete authority to act on your behalf in buying and selling securities without your prior approval or knowledge of the type and price of the security.

11. **Margin Accounts and Pledges**. Except as provided below, Directors and Section 16 Officers are prohibited from holding JCI Securities in a margin account, or pledging JCI Securities as collateral for a loan. JCI Securities held in a margin account or pledged as collateral for a loan may be sold without your consent when you are aware of material nonpublic information or otherwise are not permitted to trade in JCI Securities by the broker if you fail to meet a margin call or by the lender in a foreclosure if you default on a loan. An exception to this prohibition may be granted if you wish to pledge JCI Securities as collateral for a loan (not including margin debt) and clearly demonstrate the financial capacity to repay the loan without resorting to the pledged JCI Securities. If you wish to pledge JCI Securities as collateral for a loan, you must submit a request for approval to Shareholder Services, at least two weeks prior to the proposed execution of documents evidencing the proposed pledge. Such requests will be reviewed and must receive prior written approval from the General Counsel.

12. **Confidentiality**. You should not discuss internal Johnson Controls matters or developments with anyone outside of Johnson Controls, except as required in your performance of regular employment duties. Please refer to Johnson Controls' Communication Policy and Johnson Controls' Code of Ethics for further guidance on Johnson Controls' policies concerning confidential information.

13. **Post-Termination Transactions**. The prohibitions in this Policy apply to Trades and Transactions in JCI Securities even after termination of service to or employment with Johnson Controls. If you are in possession of material nonpublic information when your service or employment terminates, you may not trade in JCI Securities until that information has become public or is no longer material.

14. **Rule 10b5-1 Trading Plans**. The Company and certain individuals as determined by the General Counsel are permitted to enter Rule 10b5-1 trading plans that are approved by the Company in advance and meet certain guidelines, including the guidelines and requirements proscribed by the SEC under Rule 10b5-1(c). For additional information regarding Rule 10b5-1 trading plans contact Shareholder Services.

15. **Company Assistance**. If you have any doubts as to your responsibilities under this Policy, you should seek guidance and clarification from Shareholder Services. Please do not try to resolve uncertainties on your own.

16. **Interpretation Authority**. The General Counsel shall have the authority to interpret this Policy and all related policies and procedures and such other authority and responsibility as described in this Policy or in related policies and procedures. The Shareholder Services department has authority to manage this Policy and all related policies and procedures.

JOHNSON CONTROLS INTERNATIONAL PLC
INSIDER TRADING POLICY – BLACKOUT GUIDELINES

As a Director, Section 16 Officer or employee of Johnson Controls International plc ("Johnson Controls") with access to material nonpublic information, including sensitive, nonpublic financial information, you may be subject to periodic prohibitions on the trading of JCI Securities, such periodic prohibitions are referred to as "Blackout Periods" and also apply to your Related Persons. Unless otherwise defined, all terms used in this document shall have the meanings assigned to them in the Insider Trading Policy.

1) **Types of Blackout Periods**.

a) Quarterly Earnings-Related Blackout Periods: During the fiscal year, we impose four routine, quarterly Blackout Periods ("Quarterly Blackout") which coincide with the release of our quarterly and annual earnings. The purpose of the Quarterly Blackout is to help prevent potential insider trading by individuals with access to the information contained in our quarterly earnings announcements.

- Who is Subject to Quarterly Blackouts? In addition to all Directors and Section 16 Officers, certain individuals will be subject to Quarterly Blackouts as determined by the Johnson Controls Legal Department. Unless otherwise determined by the Legal Department, the following roles will generally be subject to Quarterly Blackouts:

  (i) Group Presidents and their direct reports;

  (ii) Group Regional Financial Controllers;

  (iii) Members of the Executive Leadership Team;

  (iv) Employees who receive or have access to monthly financial statements, periodic financial plans and forecasts (such recipients may be periodically updated by the Chief Financial Officer); and

  (v) Other persons in light of the access they may have to material nonpublic financial and other data.

- When do Quarterly Blackouts begin? Each of the four Quarterly Blackouts begins on or about the 15th day of the last month of a fiscal quarter. If the day of the month falls on a weekend, then the Quarterly Blackout begins upon the close of the New York Stock Exchange ("NYSE") on the prior business day. For example, if the 15th of the month falls on a Sunday, then the Quarterly Blackout commences at 3:00 PM central on the preceding Friday.

- When do Quarterly Blackouts terminate? Each of the four Quarterly Blackouts terminates one full trading day after earnings have been released. For example, if Johnson Controls issues a quarterly earnings press release at 7:00 AM central on a Tuesday, and the NYSE is open for trading on Tuesday, the Quarterly Blackout terminates when the NYSE opens on Wednesday. Additional examples are set forth in the attached Appendix A.

- If I am subject to a Quarterly Blackout, will I be notified? Individuals who have not previously been subject to a Quarterly Blackout but due to a change in circumstances are subsequently deemed to be subject to the Quarterly Blackout will be notified via email by Shareholder Services before the commencement of the Quarterly Blackout. Shareholder Services will also distribute via email a notification of the commencement and termination of Quarterly Blackouts. However, you are not entitled to rely upon the receipt of a communication in respect of Quarterly Blackout periods and should assume that, once subject to a Quarterly Blackout, you will remain subject to future blackout periods unless otherwise notified. You are encouraged to contact Shareholder Services at any time to verify Quarterly Blackout commencement and termination dates. See Appendix A for Shareholder Services' contact information.

b) Special Blackout Periods: At any time, the General Counsel may implement a "Special Blackout" due to the pendency of certain events or transactions. During a Special Blackout, individuals who may be in

possession of or have access to the information giving rise to the Special Blackout being imposed will be prohibited from trading in JCI Securities.

- How will I know if I am subject to a Special Blackout? An individual who becomes subject to a Special Blackout will be notified via email by the General Counsel or Shareholder Services as soon as he or she becomes subject to the Special Blackout.

- When do Special Blackouts terminate, and will I be notified prior to its termination? Generally, the Special Blackout will remain in effect until you receive notice via email from the General Counsel or Shareholder Services that the Special Blackout has terminated and trading may resume. You should not assume that a Special Blackout has terminated until you receive such notice from the General Counsel or Shareholder Services.

c) Share Repurchase Program Special Blackout: The General Counsel will implement a Special Blackout upon the approval of a share repurchase program or an increase of repurchase authority under an existing share repurchase program by the Company's Board of Directors.

- Who is subject to a share repurchase program Special Blackout? All Directors and Section 16 Officers will be subject to the share repurchase program Special Blackout. In addition, other individuals may be designated as being subject to the Special Blackout as determined by the Legal Department.

- When does a share repurchase program Special Blackout begin? The share repurchase program Special Blackout will begin on the date the Company's Board of Directors approves the share repurchase program or an increase of repurchase authority under an existing share repurchase program. An individual who becomes subject to a Special Blackout will be notified via email by the General Counsel or Shareholder Services when he or she becomes subject to the Special Blackout.

- When does a share repurchase program Special Blackout terminate? The share repurchase program Special Blackout will terminate four business days after public announcement of the share repurchase program or the announcement of an increase of an existing share repurchase plan or program. You will be notified via email by the General Counsel or Shareholder Services when the Special Blackout terminates. You should not assume that a Special Blackout has terminated until you receive such notice from the General Counsel or Shareholder Services.

2) **Applicability of Blackout Guidelines to Transactions in JCI Securities**. While subject to a Quarterly Blackout and/or Special Blackout, you are prohibited from engaging in any Transaction involving JCI Securities as discussed in the Insider Trading Policy (subject to Section 6 of the Insider Trading Policy).

3) **Exceptions to Quarterly Blackouts and Special Blackouts**. In addition to those described in Section 6 of the Insider Trading Policy, the following are the only other exceptions to Quarterly Blackouts and/or Special Blackouts that may be permitted:

a) Expiring Grants of Stock Appreciation Rights and Stock Options. Grants of Johnson Controls' stock appreciation rights and stock options that will expire during a Quarterly Blackout and/or Special Blackout may be exercised, subject to the following conditions. For stock options, upon exercise, the resulting shares must be held in the employee's Morgan Stanley brokerage account, and may not be sold until the Quarterly Blackout and/or Special Blackout ends. The employee may request Johnson Controls to withhold shares acquired on the exercise of such stock options to the extent needed to satisfy the minimum tax withholding due. An employee wishing to receive approval to exercise this exception must request and receive written authorization from Shareholder Services prior to performing the stock option exercise.

b) Transactions Pursuant to Approved Rule 10b5-1 Trading Plans. Transactions in JCI Securities that are executed pursuant to an approved trading plan meeting the requirements of Rule 10b5-1 of the Exchange Act (a "Rule 10b5-1 Trading Plan") are not subject to the prohibition on trading on the basis of material nonpublic information contained in the Insider Trading Policy or to the restrictions set forth above relating to Blackout Periods. For additional information regarding Rule 10b5-1 Trading Plans contact Shareholder Services.

Blackout Guidelines
Appendix A

The following are additional examples of the termination of a Quarterly Blackout based on the date and time the earnings are released:

If Earnings are Announced:	You May Begin Trading When the Market Opens on:
Before the market opens on a Tuesday	**Wednesday**
After the market opens on a Tuesday	**Thursday**
Before the market opens on Friday	**Monday**
After the market opens on Friday	**Tuesday**

EXHIBIT 21.1

JOHNSON CONTROLS INTERNATIONAL PLC

The following is a list of significant subsidiaries of Johnson Controls International plc, as defined by Section 1.02(w) of Regulation S-X, as of September 30, 2024.

Name of Company	Jurisdiction Where Subsidiary is Incorporated
Johnson Controls, Inc.	Wisconsin, United States

Exhibit 22.1

Co-Issuer of Debt Securities

Tyco Fire & Security Finance S.C.A., a subsidiary of Johnson Controls International plc (the "Company"), co-issued with the Company the debt securities listed below:

- 0.375% Senior Notes due 2027
- 3.000% Senior Notes due 2028
- 5.500% Senior Notes due 2029
- 1.750% Senior Notes due 2030
- 2.000% Sustainability-Linked Senior Notes due 2031
- 1.000% Senior Notes due 2032
- 4.900% Senior Notes due 2032
- 4.25% Senior Notes due 2035

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-269534) and Form S-8 (Nos. 333-254239, 333-226258, 333-213508, 333-200320 and 333-185004) and Post-Effective Amendment to Registration Statement Form S-4 on Form S-8 (No. 333-210588) of Johnson Controls International plc of our report dated November 19, 2024 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Milwaukee, Wisconsin
November 19, 2024

EXHIBIT 31.1

CERTIFICATIONS

I, George R. Oliver, of Johnson Controls International plc, certify that:

1. I have reviewed this annual report on Form 10-K of Johnson Controls International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 19, 2024

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATIONS

I, Marc Vandiepenbeeck, of Johnson Controls International plc, certify that:

1. I have reviewed this annual report on Form 10-K of Johnson Controls International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 19, 2024

/s/ Marc Vandiepenbeeck

Marc Vandiepenbeeck
Executive Vice President and
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF PERIODIC FINANCIAL REPORTS

We, George R. Oliver and Marc Vandiepenbeeck, of Johnson Controls International plc, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. the Annual Report on Form 10-K for the year ended September 30, 2024 (Periodic Report) to which this statement is an exhibit fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and

2. information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Johnson Controls International plc.

Date: November 19, 2024

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

/s/ Marc Vandiepenbeeck

Marc Vandiepenbeeck
Executive Vice President and Chief Financial Officer