

# Johnson Controls 2019 Sustainability Report

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This 2019 Sustainability Report and GRI Index by Johnson Controls of FY2018 data has been prepared in accordance with the GRI Standards: Comprehensive option and is our complete sustainability report. For a detailed explanation of the GRI standards, visit the [GRI website](#).

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# Introduction

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## Letter from Grady L. Crosby

*Grady L. Crosby is the Vice President of Public Affairs, Chief Diversity Officer, President of the Johnson Controls Foundation, and Executive Chair of the Global Sustainability Council.*

Sustainability is an integral part of our vision and values. Our company's sustainability efforts are guided by our leadership's "triple bottom line" philosophy focused on achieving economic prosperity, social responsibility, and environmental stewardship. We believe balanced management attention to profit, people, and the planet will result in the greatest long-term benefit for our customers, employees, shareholders, and society as a whole.

Johnson Controls continues to evolve to better serve our customer needs. A part of this transition has been to reaffirm our commitments to our values and to our vision of a sustainable future. Since Johnson Controls set its first sustainability goals in 2002, the company has reduced the greenhouse gas emissions from our global operations by nearly half and cut the energy intensity in our U.S. manufacturing locations by 25 percent. In 2018, we announced our new [Sustainability Goals for 2025](#). These goals continue our commitment to address our environmental and social impacts and address topics most [material](#) to Johnson Controls and our stakeholders. This report is the first year of reporting against this new long-term sustainability strategy.

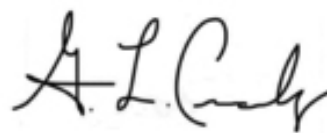
We are committed to improving environmental performance across our own global operations, including manufacturing plants, distribution centers, service centers, offices, fleets and other operations worldwide. We have enterprise-wide, global environmental goals to help us enhance our operational excellence, reduce our exposure to climate change risks, reduce our reliance on natural resources, and save money.

Improving the sustainability of our products and services is a key component of our sustainability approach. In 2018, we released the newest version of Metasys, our flagship building management system, which has been installed in some of the most sustainable buildings in the world. We also introduced the new YZ chiller, the most sustainable large tonnage chiller on the market from an efficiency, Greenhouse Gases (GHG) emissions and life cycle cost perspective, and a new standard rooftop air conditioner, which offers sustainability features previously found only in custom air handling units.

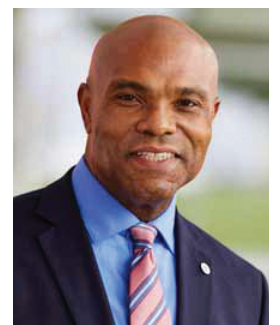
These products are great examples of how Johnson Controls is responding to current and emerging market needs and investing in the future to help our customers achieve smarter, safer and more sustainable buildings and communities.

Our progress is being noticed. We were named to the Dow Jones Sustainability Index in 2018, were upgraded to AAA status by MCSI, named one of the 100 Best Corporate Citizens by CR Magazine, and named to Fortune Magazine's 2018 "Change the World" list.

We are proud of our achievements, yet there is more work to be done. We are building the future today, and I thank our stakeholders for partnering with us in our sustainability journey.



**Grady L. Crosby**





# Our Company

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The future is being built today, and Johnson Controls is making that future more productive, more secure and more sustainable. We create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. At its core, that promise is about delivering innovation that make people’s lives – and the world – better.

Johnson Controls is a global diversified technology and multi-industrial leader serving a wide range of customers in more than 150 countries. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat. We are committed to helping our customers win and creating greater value for all of our stakeholders through strategic focus on our buildings and energy growth platforms.

Johnson Controls businesses are recognized for providing sustainable products, services and solutions. Our customers trust us to provide purposeful technology and insights that improve resilience, safety, circularity and resource efficiency.

- Our **Building Technology** equipment, including our Metasys smart building solution, continues to help customers like Stanford University and the Hawaii Department of Transportation reduce energy and water costs.
- Our **Tyco Retail Solutions** and other connected offerings help our customers utilize their resources more efficiently.
- Our **Tyco Fire and Security** offerings help keep people, including first responders, safe and secure. These offerings also help protect the natural and built environment.
- Our **Power Solutions** business offerings help reduce emissions in the transportation sector. We continue to be the world’s largest recycler of conventional vehicle batteries.

Industries	Products	Services
Data Centers	HVAC Equipment	Commercial Lighting Systems & Solutions
K-12 Education	Building Automation & Controls	Renewable Energy Solutions
Federal Government	Security	Water Efficiency Services
Global Marine and Navy	Fire Detection	Central Chiller Plant Optimization Solutions
Residential	Fire Suppression	Water Conservation Services & Solutions
Healthcare	Digital Solutions	Building Planned & Preventative Maintenance
Industrial and Manufacturing	Industrial Refrigeration	Predictive & Diagnostic Services
Higher Education	Residential and Smart Home	Remote Monitoring & Operations
State & Local Government	Retail Solutions	Building Remote Monitoring Management
Public and Affordable Housing	Distributed Energy Storage	Technology Integration & Navigation Services
Sports and Entertainment	Batteries	Project Financing
Transportation	Replacement Parts & Supplies	Operations, Maintenance and Repair Services





# Our History

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## Warren Johnson, The Father of Thermostats and Automated Room Temperature Control

Johnson Controls founder, Warren Johnson was inducted into National Inventors Hall of Fame® (NIHF) as a member of the Class of 2018. Johnson was honored posthumously for his invention of the temperature control.

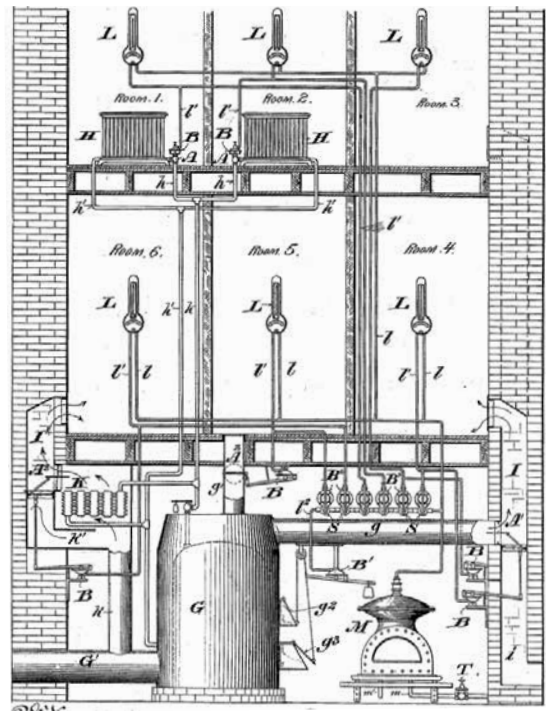
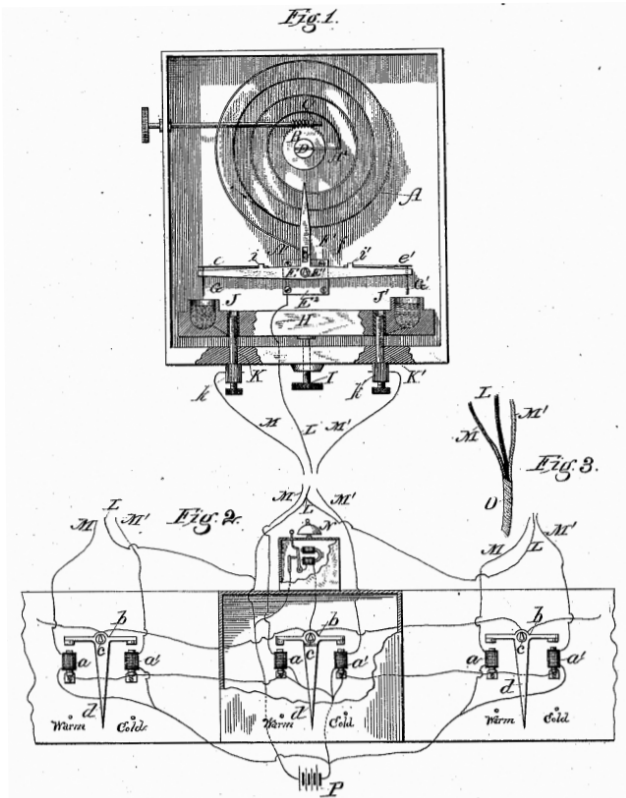


*Warren Johnson.  
From the National Inventors Hall of Fame  
website.*

Born November 6th, 1847, in Leicester, Vermont, [Warren Johnson](#) moved with his family at a young age to Wisconsin and would later become a teacher at what is now the University of Wisconsin-Whitewater.

The classrooms Johnson taught in were heated by hot air furnaces operating in the basement of the building. School custodians controlled the heat through hand-operated dampers installed in the furnace system and custodians would enter each classroom about once every hour to assess the room temperature. These regular interruptions perturbed Johnson, and he set about developing technologies for ensuring that classrooms maintained a constant temperature.

While Johnson's first thermostat invention reduced custodian interruptions during his lessons, he continued to work at developing systems that would automate the work of controlling indoor temperatures.



Johnson left teaching behind in 1883 to concentrate on developing his thermostat and heating technologies. He established the Johnson Electric Service Company, later Johnson Controls, to commercialize his technology. His room temperature regulating system would come to be installed at the U.S. Capitol, the New York Stock Exchange, West Point and the home of Andrew Carnegie. Johnson would earn 50 U.S. patents during his lifetime and in 2008, the Johnson System of Temperature Regulation was named as an American Society of Mechanical Engineers (ASME) Historical Mechanical Engineering Landmark.

As of July 2017, 41 percent of American homes had a programmable thermostat according to the U.S. Energy Information Association. Smart thermostats which offer automated functions for reducing energy consumption have been growing in popularity and 4.5 million homes in North America had a smart thermostat in 2015, a 78 percent increase from 2014. Global market research recently published by Markets and Markets indicates that worldwide revenues for heating, ventilation and air conditioning (HVAC) controls is expected to rise from \$11.7 billion in 2017 up to \$27 billion by 2023 thanks to rising demand for energy efficiency and building automation systems.



# Sustainability at Johnson Controls


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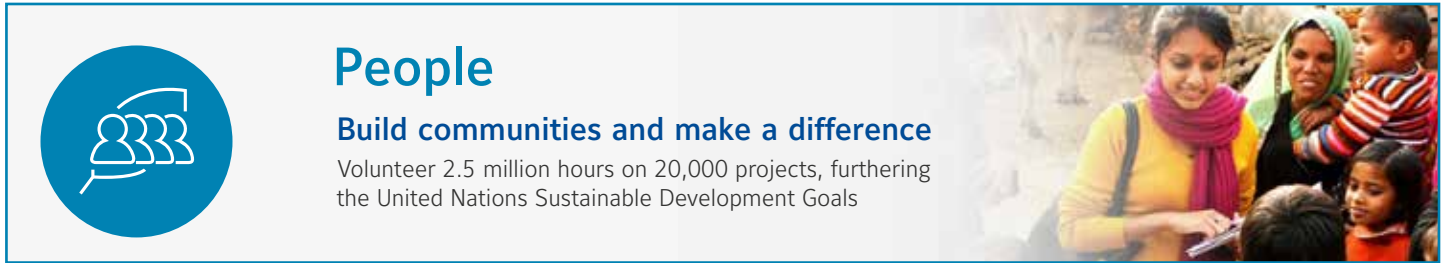

Johnson Controls' new 2025 Sustainability Strategy takes a holistic approach to sustainability through five pillars of focus:



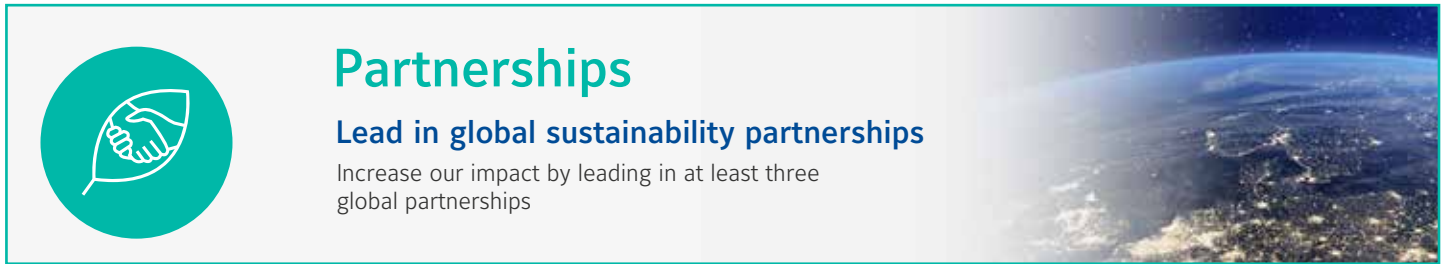

**Solutions**  
**Provide increasingly sustainable products and services**  
 Use life-cycle design on 25% of high-impact products

**People**  
**Build communities and make a difference**  
 Volunteer 2.5 million hours on 20,000 projects, furthering the United Nations Sustainable Development Goals





**Partnerships**  
**Lead in global sustainability partnerships**  
 Increase our impact by leading in at least three global partnerships

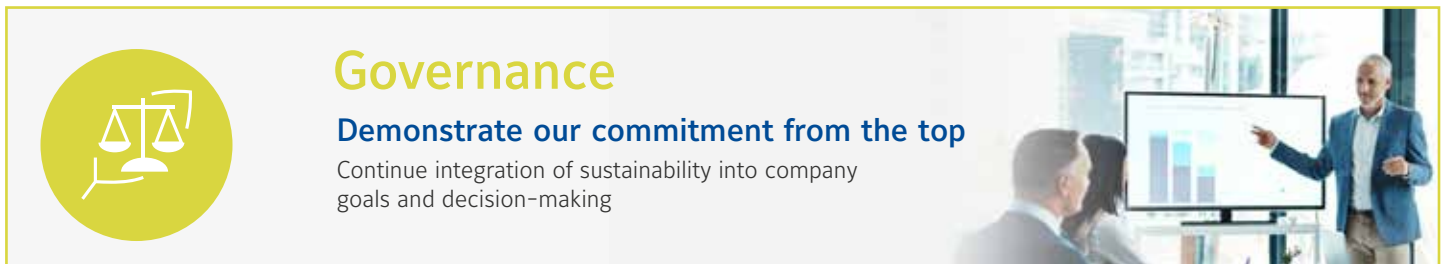



**Performance**  
**Improve how we perform**  
 From a 2017 baseline:

<b>25%</b> reduction for energy and greenhouse gas intensity	<b>10%</b> reduction for water use at stressed locations	<b>25%</b> of manufacturing locations landfill-free	<b>10%</b> reduction in recordable safety incidents	<b>Increase</b> diverse supplier spend at a rate exceeding revenue growth
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**Governance**  
**Demonstrate our commitment from the top**  
 Continue integration of sustainability into company goals and decision-making



Johnson Controls has also recently committed to aligning these goals with a science-based emissions target by 2020.

# Sustainability Commitments

102-12 | 102-13

Voluntary Corporate Commitments	Date Adopted
UN Global Compact	2004
Copenhagen Communique	2009
Global Alliance for Energy Productivity EP100	2015
Responsible Corporate Engagement in Climate Policy	2015
American Business Act on Climate Pledge	2015
“We Are Still In” pledge	2017
Commitment to adopt Science-Based Targets	2018

## 2025 Sustainability Strategy

102-11 | 102-15 | 102-46

Warren Johnson’s legacy has inspired generations of employees to follow his example of innovation and sustainability – a tradition that continues to drive the success of Johnson Controls. Now, all over the world, our innovative, sustainable, clean products and services empower customers and communities to consume less energy and conserve resources. Our vision, our values, our products and our services all integrate sustainability and innovation. Since Johnson Controls set its first public sustainability goals in 2002, the company has reduced our greenhouse gas emissions from our global operations by nearly half and cut the energy intensity in our U.S. manufacturing locations by 25 percent.

To build on our accomplishments, in 2017, we began a process of reviewing our approach to sustainability, performing a materiality analysis and an evaluation of our long-term sustainability goals. In 2018, we announced our new Sustainability Goals for 2025 related to greenhouse gas emissions, energy, water, waste, safety and diversity from a 2017 baseline. These goals continue our commitment to address our environmental and social impacts and address topics most material to Johnson Controls and our stakeholders.

# 2018 Sustainability Performance

## 2025 Sustainability Strategy



**Solutions**  
Provide increasingly sustainable products and services

### Goals by 2025

- Integrate sustainable design for products and services identified to have the highest environmental and social impact

### Progress by End of Year

- Product inventory and impact analysis in initial stages
- Introduced the York YZ Magnetic Bearing Centrifugal Chiller, the world's most-efficient low-global warming potential line of centrifugal chillers
- Since January 2000, performance contracting projects have resulted in a reduction of more than 27.9 million metric tons CO2e



**People**  
Foster a culture of sustainability that engages people who want to make a difference

### Goals by 2025

- Volunteer 2.5 million hours on 20,000 projects
- Alignment of 80% volunteer activities with the UN Sustainable Development Goals (SDGs)
- Establish employee engagement groups and globally
- Integrate the sustainability strategy with recruitment

### Progress by End of Year

- In FY18, 3,850 employees volunteered 28,800 hours, bringing our total volunteer hours to 1.7 million.
- By the end of FY18, 88% of our employee volunteer activities were aligned to the SDGs
- Employee group established at Milwaukee HQ with global launch in Q1 FY19
- Sustainability integrated into recruitment and new employee materials



**Partnerships**  
Lead in global sustainability partnerships

### Goals by 2025

- Increase our impact by leading in at least three global partnerships

### Progress by End of Year

- Exceeded target by leading in five major strategic sustainability partnerships:
- Sustainable Energy for All (SEforALL)
  - Cooling for All
  - Responsible Battery Coalition
  - Global Battery Alliance
  - Memorandum of Understanding signed with the China Green University Network, the China Association of Building Energy



**Performance**  
Improve our performance to meet stakeholder needs and track progress towards our sustainability vision and goals

### Goals by 2025

- Greenhouse gases: 25% intensity reduction
- Energy: 25% intensity reduction
- Water: 10% reduction at waterstressed locations
- Waste: 25% of manufacturing locations landfill-free
- Safety: 25% reduction in recordable safety incidents
- Diverse spend: increase diverse supplier spend at a rate exceeding

### Progress by End of Year

- 100% off-set of Buildings GHG emissions for major sites in United States with Renewable Energy Certificates (RECs)
- Launched renewable energy strategy initiative in United States
- Exceeded FY18 annual 2.5% reduction goal for energy and greenhouse gas intensity with a 2.7% and a 6.7% reduction respectively
- Implemented best practices and water savings efforts at water stressed locations, and achieved a 4.1% reduction
- Achieved Zero Landfill Certification in seven facilities, bringing the total to 17 facilities
- 10.7% reduction in Total Recordable Incident Rate from FY17
- Met goal for FY18 with increased diverse spend at 6.12% which exceeded our revenue growth rate



**Governance**  
Demonstrate our commitment from the top

### Goals by 2025

- Formalize the sustainability governance process:
- Executive Committee review of goals and performance
- Disclose climate-related risks in financial reporting
- New policies/ practices to maintain leadership

### Progress by End of Year

- Development and launch of new 2025 Sustainability Strategy
- Committed to adopt science-based targets within the next 2 years (aligning with a two degree strategy by 2030)
- Integrated sustainability metrics into executive goals



# Global Sustainability Council

102-30 | 102-32 | 102-27

The Johnson Controls Global Sustainability Council (GSC) leads Johnson Controls efforts to be a global leader in providing scalable, market-based building and energy solutions addressing the world's greatest sustainability challenges. The GSC was established in 2009 to provide a structure for our enterprise-wide sustainability engagement and plays a central role as a coordinating structure for the enterprise on sustainability issues.

The GSC is responsible to the Chief Executive Officer and his direct reports. The Executive Sponsor of the GSC is Grady Crosby, Vice President, Public Affairs, Chief Diversity Officer and President, Johnson Controls Foundation.

The membership of the GSC is comprised of VP-level executives from different business areas, functions and regions (including representatives from operations, human resources, communications, marketing, legal, community engagement, products, and sales) to ensure that our environmental and sustainability initiatives have senior-level support across the enterprise, globally.

The GSC is the mechanism by which top enterprise-wide environmental initiatives are tracked. The leader of the GSC formally reviews and approves the organization's annual sustainability report and the content for the GRI framework, which supports multiple reporting and research entities throughout the year. The GSC meets every month and reports to the executive team and the board on a quarterly basis.



# About Our Reporting

103-1 | 102-48 | 102-56

We recognize the importance of transparency and so report in accordance with the UN Global Compact, EU Non-Financial Disclosure, Global Reporting Index, CDP, and Dow Jones Sustainability Index, among others. This Sustainability Report is produced to provide greater detail on our sustainability activities and additional information material to our stakeholders. The content of this report is based primarily on the requirements of the Global Reporting Initiative's GRI Standards.

Since 2003, we have reported sustainability data in accordance with the Global Reporting Initiative (GRI) guidelines. This report has been prepared in accordance with the GRI Standards: Comprehensive option.

## Scope

This report focuses on operations within our control for the fiscal year 2018 (FY2018). Unless otherwise noted in the report section for a specific performance metric, this report includes data from business operations that were at least 51 percent under Johnson Controls operating control and financially consolidated during the reporting year. Where noted, information is only available for U.S. or

North America operations. Unless otherwise noted, "home country" refers to our United States operations. Also see our [2018 Annual Report](#).

Sustainability metrics for reported FY2018 include data from Building Technologies & Solutions, Power Solutions, and the Johnson Controls Hitachi joint venture. Historic data for 2017 and prior years remains the same as previously reported.

The report has been prepared in United States dollars ("USD"). Unless otherwise indicated, references to 2018 and 2017 are to Johnson Control's financial years ending September 30, 2018 ("fiscal 2018") and 2017 ("fiscal 2017"), respectively.

## Accuracy and Third-Party Assurance

All information in this report is based on the best available data at the time of publication. Johnson Controls uses several different third-party groups for data assurance. The groups selected are independent of Johnson Controls and are specialized in the subject area they review.

### **Financial External Assurance**

Our consolidated financial statements reported in our Form 10-K and other related reports are reviewed by PricewaterhouseCoopers LLP, an independent registered public accounting firm.

### **Sustainability External Assurance**

Since 2011, Bureau Veritas, an independent auditor recognized by the Carbon Disclosure Project, has audited our GHG emissions data per ISO Standard 14064-3, Greenhouse gases - Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions. They also audited our water data per the International Standard on Assurance Engagements (ISAE) 3000. Starting in 2014, Bureau Veritas audited our waste data per the International Standard on Assurance Engagements (ISAE) 3000. The objective of the audits is to provide further confidence that our reported energy, GHG emissions, water and waste data have a low margin of error and are consistent with external or internally defined sustainability accounting principles. The certificates for these most recent audits are linked as verification statements in the GRI Content Index.

### **Environmental Health and Safety External Assurance**

Johnson Controls uses a third-party software, ProcessMap, for our Environmental, Health and Safety Information System (EHSIS) to track environment, health and safety

data from facilities worldwide. Data are reviewed routinely by qualified internal personnel, including the regular use of an internal audit process to check not only data in the system but also site-level checks of original records and other aspects. At times, we engage assistance from third-party environmental, health and safety and ISO consultants for site-specific audits; this includes using, for some sites, certified registrars to validate and certify our operations to various quality, environmental, six sigma and safety standards, e.g., ISO 9000, ISO 14001, OHSAS 18001. Additionally, filings with environmental, health and safety, and other regulatory agencies are routinely checked internally and by the applicable regulatory agency.

### **Rationale for choosing a base year**

The 2016 merger of Johnson Controls with Tyco International was a change in our company profile material enough that our Global Sustainability Council (GSC) determined new goals were needed. Accordingly, in 2018, Johnson Controls announced new 2025 goals related to greenhouse gas emissions, energy, water, waste, safety and diversity from a 2017 baseline.

# Materiality

102-21 | 102-42 | 102-43 | 102-44 | 103-1 | 102-46 | 102-47

In 2017, we completed a Sustainability Materiality Assessment, through which we engaged our business leaders, employees, key suppliers, some of our top customers, highly-regarded NGOs and industry groups with expertise in sustainability, labor groups, trade press, and academic leaders who are knowledgeable about our business to ensure cross-functional and global representation. The process helped Johnson Controls to assess the environmental, social, and governance topics that are priorities for Johnson Controls' employees, customers, supply chain participants and non-profit stakeholders. The most recent findings are being leveraged to continue communicating, reporting and engaging on these areas internally and externally.

The following topics form the basis for our sustainability reporting:

2018 Reporting Topics			
Economic Performance	Materials	Employment	Rights of Indigenous People
Market Presence	Greenhouse Gas Emissions	Occupational Health and Safety	Human Rights
Indirect Economics Impacts	Energy	Training and Education	Local Communities
Procurement Practices	Water	Diversity and Equal Opportunity	Supplier Social Assessment
Anti-Corruption	Effluents and Waste	Freedom of Association and Collective Bargaining	Public Policy
Anti-Competitive Behavior	Biodiversity	Child Labor	Customer Health and Safety
Labor/Management Relations	Environmental Compliance	Forced or Compulsory Labor	Privacy
Marketing and Labeling	Supplier Environmental Assessment	Security Practices	Socio-economic Compliance

**Boundary for all topics:** Business operations that were at least 51 percent under Johnson Controls operating control and financially consolidated during the reporting year.





# Stakeholder Engagement

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## Case Study: 2018 Energy Efficiency Indicator survey

**Johnson Controls conducts an annual survey that analyses energy efficiency, renewable energy, building systems integration and smart city plans, practices and investments among executive-level building and city decision makers.**

The 2018 survey respondents include over 1,900 facility and energy management executives from 20 countries, representing the world's major economic regions and a variety of commercial, institutional and government facility portfolios. These countries include Argentina, Brazil, Canada, Chile, China, Colombia, France, Germany, India, Ireland, Italy, Japan, Mexico, Netherlands, South Africa, South Korea, Spain, Switzerland, the United Kingdom and the United States.

The survey of nearly found that 57 percent of organizations in the United States and 59 percent of global organizations plan to increase investment in energy efficiency in the next year.

Over the past decade, traditional energy efficiency measures – such as HVAC equipment improvements and lighting upgrades – have become table stakes for many organizations. Today, organizations identify greenhouse gas footprint reduction, energy cost savings, energy security and enhanced reputation as key drivers of investment fueling growth in green, net zero energy and resilient buildings.

### **Smart Buildings Driving Future Investment**

Building controls improvements were cited as the most popular investment for the next 12 months among U.S. organizations, with 68 percent of respondents planning to implement this measure. Building system integration saw a 23 percent increase in respondents planning to invest in 2019 compared to 2018, the largest increase of any measure in the survey.

Due to increasingly severe weather incidents around the world, the 2018 EEI results also highlight a growing global focus on resilience and energy security. One third of U.S. and global organizations (32 percent and 33 percent respectively) believe the ability to maintain critical operations during severe weather events or extended power outages is extremely important when considering future energy and building infrastructure investments. Roughly half of U.S. and global organizations (54 percent and 50 percent respectively) are extremely or very likely to have one or more facilities able to operate off the grid in the next ten years, a 10 percent increase in the U.S. from last year. Globally, plans to invest in distributed energy generation, electric energy storage and on-site renewables also increased year-over-year.

#### **2008 vs. 2018: Increased Interest and Investment in Sustainable Buildings**

Analysis of the annual survey results from 2008 to 2018 revealed dramatic shifts in energy efficiency goals, actions and investments throughout the past decade.

In 2008, very few respondents (8 percent) had any certified green buildings and only one-third (34 percent) planned to certify new construction projects to a recognized green standard. This year, 19 percent of U.S. organizations have already achieved voluntary green building certification for at least one of their facilities, and

53 percent plan to in the future, a combined increase of 31 percent over the past year alone. Globally, 14 percent of organizations have achieved voluntary green building certification for at least one of their facilities and 44 percent plan to in the future.

In 2008, less than one-third of respondents (30 percent) believed green buildings would be very important in attracting and retaining future employees, but in 2018, 44 percent of U.S. organizations, and 51 percent globally, are willing to pay a premium to lease space in a certified green building.

The survey also saw a significant year-over-year increase in net zero energy goals, with 61 percent of U.S. organizations extremely or very likely to have one or more facilities that are nearly zero, net zero or positive energy/carbon in the next ten years, up 14 percent from last year.



# Opportunities and Risks Due to Climate Change

201-2

[This table details our analysis of risks and opportunities related to climate change.](#)

Johnson Controls is committed to being a solution provider. We help our customers win by providing a range of innovative, sustainable, clean technologies to market that help our customers adapt to climate change, use fewer resources, protect the environment, and reuse and recycle materials.

We believe that significant action is needed in the short-term to mitigate the causes of climate change and begin adapting to its negative risks and actual impacts. We believe the highest priority actions should be improving energy efficiency in buildings and vehicles which represent the fastest, cleanest and most cost-effective way to reduce greenhouse gas emissions.

We believe that a comprehensive global climate policy is needed, backed by strong national policies, goals and actions. We believe that the price of energy should reflect

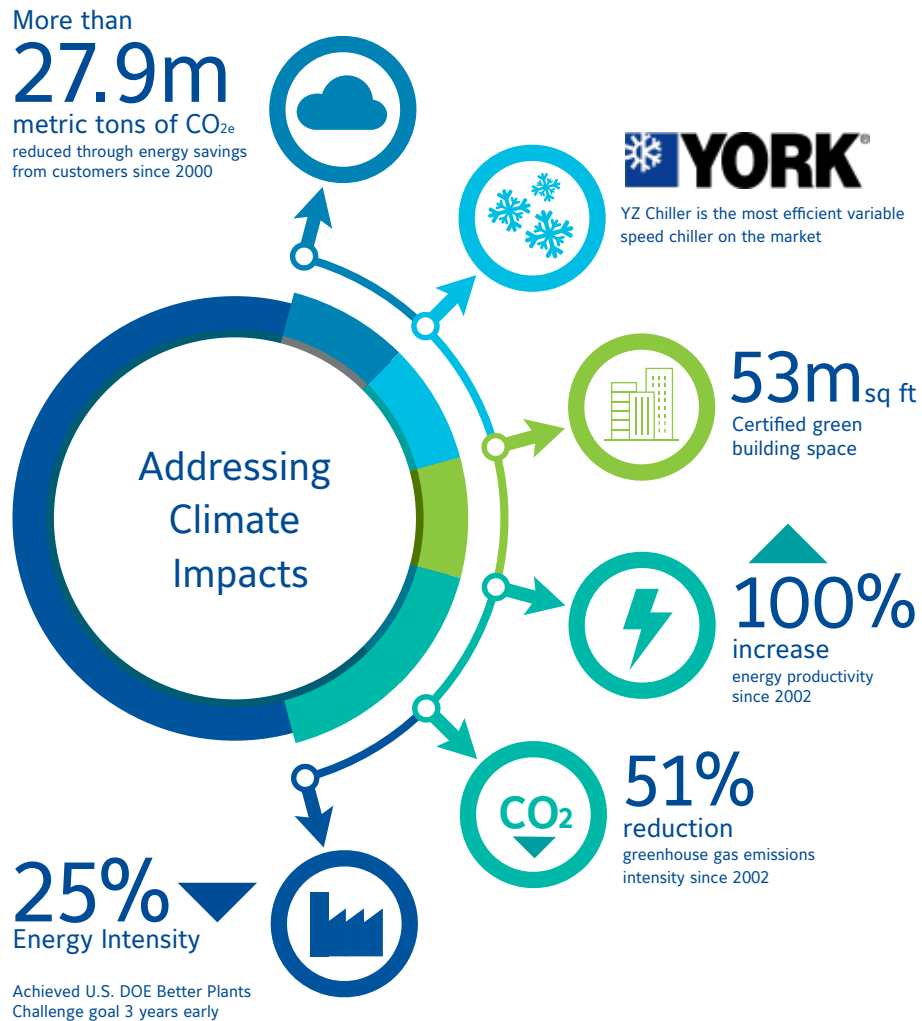
the environmental costs of consumption, allowing market economics to lead the shift to cleaner alternatives and new technologies. We support a variety of market-based approaches to regulating carbon emissions that assure the integrity of the reductions and are efficient in their implementation.

The current lack of consistent climate policy creates economic and regulatory uncertainty, which may impact the demand for our products, obsolescence of our products and our operations. Such regulatory uncertainty extends to regulations of products and components and incentives that if discontinued, could adversely impact the demand for energy efficient buildings and batteries for energy efficient vehicles, and could increase costs of compliance. For example, the Kigali Amendment to the Montreal Protocol, which calls for a phase-out of HFC refrigerants, has not been ratified by the United States. To deliver certainty to the HVAC industry, ratification and implementation is needed.

We believe that a complementary set of energy policies are needed to overcome market barriers to energy efficiency, accelerate emission reductions and reduce the overall cost of compliance to businesses and consumers. These policies include updated building codes, building performance labeling, and financial incentives for energy efficiency retrofits. In the vehicle sector, incentives are also required to build an effective supply-chain for large-scale manufacturing of next-generation advanced technology batteries and electric drive vehicles.

Additionally, climate changes, such as extreme weather conditions, could impact our business. For example, the

demand for our products and services, such as heating and air conditioning equipment and automotive replacement batteries, may be affected by changing weather conditions. Climate changes could also disrupt our operations by impacting the availability and cost of materials needed for manufacturing and could 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 process disruptions due to physical climate changes could result in price modifications for our products and the resources needed to produce them.





# Delivering Sustainability to Our Customers

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Since introducing our first product more than 130 years ago -- an electric room thermostat -- our customers have trusted us to provide products and services that reduce energy use and improve sustainability. From fuel-efficient batteries, to energy-efficient heating and cooling equipment, to distributed energy storage, we offer a range of innovative products that help our customers become more resource efficient, sustainable and competitive.

## Green Buildings

Johnson Controls currently has completed over 53 million square feet of certified green building space for our customers around the world. In China alone, we have helped our customers achieve Leadership in Energy and Environmental Design (LEED) for locations covering 31 million square feet and China's Star Green building certification for locations covering 5 million square feet. In Latin America, we have completed customer projects with LEED certifications for more than 5 million square feet.

## Energy Efficient Technology

Johnson Controls provides customers with products that combine energy efficiency with the lowest total emissions. We have developed a family of low global warming potential HVAC products that use refrigerant alternative R-513A: the YORK YVWA water-cooled screw chiller

and the YORK YMC2 magnetic-bearing water-cooled centrifugal chiller.

The revolutionary YORK® YZ magnetic-bearing centrifugal chiller is the most efficient chiller in the world. The YZ chiller is fully optimized for ultimate performance with a next generation low-GWP (global warming potential) refrigerant, delivering superior real-world performance, lower cost of ownership and a new definition of sustainability. YZ chillers offer 35 percent better efficiency than conventional centrifugal chillers. This system also offers up to 60 percent lower refrigerant charge than traditional systems available in the market.

## Energy Retrofits

We also help our customers achieve energy savings through the implementation of Energy Performance

Contracting. Through these projects, we deploy equipment upgrades and management services to deliver guaranteed energy savings and help customers achieve GHG reductions. Since January 2000, our efforts helping our customers save energy through performance contracting have resulted in a reduction of more than 27.9 million metric tons CO<sub>2</sub>e.

### **Renewable Energy Offerings**

In response to increasing global demand for renewable energy, Johnson Controls is expanding its product and service offerings to include elements of solar, biomass, wind, waste-to-energy, landfill gas to energy, geothermal, combined heat & power and other renewable sources and fuel cells as energy supply options for customers. We expect demand from businesses and organizations for onsite renewable energy to escalate as fossil fuels increase in price and concern grows about their economic and environmental impact. We believe the real opportunity involves combining renewable technologies with innovative energy efficiency strategies and aggressively working to develop renewable offerings to state, local and federal government agencies, school districts, hospitals, and private industry.

### **Water Conservation**

Water-cooled systems are more efficient for industrial heat rejection than traditional air-cooled systems. The Johnson Controls BlueStream™ hybrid cooling system combines water- and air-cooling technologies to reduce water consumption up to 80 percent while optimizing energy efficiency.

We enable our customers to save water, such as by including water conservation measures in performance contracting projects. We also provide an innovative thermosyphon cooling method for power plants which pre-cools the hot water exiting the steam condenser in

a thermal power plant before the hot water is further evaporatively cooled by the cooling tower. Due to reduced cooling tower heat load, preliminary analysis conducted by Johnson Controls indicates the cooling tower annual evaporative water loss or makeup water can theoretically be reduced by 30 to 80 percent as compared to traditional open cooling tower systems, while maintaining the maximum peak power plant output on the hottest summer days.

In 2016, we partnered with two national laboratories—the National Renewable Energy Laboratory (NREL) in Golden, Colorado, and Sandia National Laboratories in Albuquerque, New Mexico—to test our solution at NREL's high-performance computing data center. The center expects to save a million gallons of water per year a number that will keep on growing as the Blue Stream hybrid cooling system is more widely used.

### **Batteries**

Our system for advanced start-stop vehicles combines a high-power, 12-volt lithium-ion battery with a 12-volt lead acid battery to deliver 5–8 percent fuel economy improvement over conventional vehicles. Our latest generation high-voltage, hybrid electric vehicle battery system delivers improved electric driving range and up to 20–40 percent greater fuel economy than conventional vehicles. Our 48-volt battery system for micro hybrid vehicles is used with 48-volt motor and electronics to deliver up to 15 percent fuel economy over conventional vehicles at a fraction of the cost of a full hybrid. Our lithium-ion products for plug-in hybrid vehicles (PHEVs) and electric vehicles (EVs) enable extended electric driving range, with fuel savings of more than 40 percent for PHEVs and 100 percent for EVs compared to conventional vehicles.



## Case Study: University of North Dakota partners with Johnson Controls to build new steam plant and address \$90M in deferred capital

Johnson Controls is partnering with the University of North Dakota (UND) to increase efficiencies and improve the student experience by designing, building, operating and maintaining a new central utility plant along with implementing infrastructure upgrades across the campus. The project is enabled by a 40-year public-private partnership that UND established to improve operations.

The best-in-class central utility plant will replace the existing, century-old steam plant currently located near the main quad of UND's campus. To provide a better student experience in the central quad, the new utility plant will be built in a different location and will help transform the way energy is delivered around campus. The project is expected to deliver more than one million dollars per year in energy savings, provide resiliency for UND's infrastructure and reduce the campus carbon footprint. This project enables the campus to switch from coal to natural gas, reduce the costs of operating their plant and improve the energy efficiency of campus buildings, all within budget and with no additional funding needed from the state of North Dakota.

Annually, this project will reduce greenhouse gas emissions by 40,000 metric tons of CO<sub>2</sub>, which is equivalent to the carbon sequestered by 74 square miles of forest (essentially the size of Grand Forks and Fargo, ND combined). The project will also reduce landfill waste by 3,200 metric tons of ash.

In addition to the new central utility plant, the project will address a number of deferred capital needs on the campus to improve the building operating efficiencies. The project will employ 20 local contractors and provide a significant economic boost to the contracting community in and around Grand Forks, ND. The new central utility plant is expected to be completed by spring of 2020. The shutdown of the old plant is scheduled for the fall of 2020.

# Energy Performance Contracting Projects in North America



**\$6+ Billion**  
in savings for customers since 2000

**27.9 Million**  Metric Tons CO<sub>2</sub>e in savings for customers since 2000

## Greenhouse Gas Emissions Savings Since 2000 Equivalent to

Carbon sequestered by

**43 Million**

acres of U.S. forest in one year



Carbon sequestered by

**7.7 Million**

passenger vehicles driven for one year



## Energy Results

Energy intensity 2018  
annual progress

**2.7%**  
reduction



Energy intensity from  
2002 to 2018

**50%**  
reduction

**\$33.5 Million**



in energy and operational savings from low or no-cost projects since 2011 at manufacturing locations



# Improving our Operational Footprint

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# Energy & Emissions

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To achieve our 2025 goals of 25 percent reductions in both energy and emissions intensity, we rigorously evaluate our energy use at a facility and global level. We are committed to improving environmental performance and reducing energy from our global operations, including manufacturing plants, distribution centers, service centers, offices, fleets and other operations worldwide, and have put in place policies, goals and operational practices toward this end. We track our energy use and intensity and emissions intensity at a facility and global level to ensure progress toward our goals.

## Plants and Facilities

Our Global Manufacturing and Operations Council established the Johnson Controls Manufacturing System (JCMS), a maturity matrix covering all aspects of our manufacturing and operations, which defines progressive levels of maturity in environmental and sustainability management, goals and practices. The JCMS provides a framework for continuous improvement in operational management, including the pillar of Environment & Sustainability.

We have implemented an Energy Hunt Program across our manufacturing facilities globally. Energy Champions in each plant lead a cross-functional Energy Hunt team in continuous improvement activities that result in annual

energy intensity improvements. This program drives culture change and helps our plants identify energy savings opportunities by evaluating measures that include HVAC temperature scheduling, lighting, supply and demand of compressed air, building envelope, and employee energy awareness and engagement.

The Energy Hunt program has yielded significant benefits for Johnson Controls. Almost half of the company's U.S. manufacturing plants have improved their energy intensity by over 10 percent since 2009, and 26 manufacturing facilities have surpassed the 25 percent energy intensity threshold. Since 2011, 1,281 low- or no-cost projects resulted in energy and operational savings of over \$33.5 million USD. We track projects using our Continuous

Improvement Track system (CI TRAC). Implemented initiatives include conducting a refrigerant leakage reduction program, improving the energy efficiency of manufacturing operations and processes, and certifying our manufacturing plants to the ISO14001, ISO50001 and other relevant standards.

We continuously seek cost competitive lower-carbon purchased electricity and other energy. Our Corporate Energy team supports our purchasing of renewable energy certificates (RECs). We make these purchases from renewable energy projects located in the USA. We voluntarily purchase RECs and make sure they are additional to the green power that may already be offered in the standard electricity mix. We also have on-site renewable energy in some of our locations. All three of our corporate headquarters buildings, in Glendale, Wisconsin; Cork, Ireland and Shanghai, China, are LEED certified.

In 2018, we began an initiative to increase the percentage of renewable energy in our purchased energy portfolio, procuring 284.8 million kWh in green power, through on-site generation and renewable energy certificates.

In 2018, at one of our largest facilities, we signed an agreement to shift 100 percent of the plant's electricity consumption to wind power. The plant – located in Wichita, KS – manufactures residential heating and air conditioning equipment for the YORK®, Luxaire®, Coleman® and Champion® brands. The facility will produce zero emissions from electricity and reduce the company's North American greenhouse gas (GHG) emissions by 18 percent.

Our Johnson Controls Corporate Headquarters building in Glendale, WI is LEED Platinum certified and has on-site solar generation, which directly feeds into a portion of the buildings' needs for electricity. We generate the energy on-site and use it directly, offsetting our electricity consumption from standard utility supply.

### **Transportation Initiatives**

We annually analyze our transportation supply chain to improve cost structure and reduce energy use. Over time, we are systematically changing our fleet vehicles, utilizing higher fuel economy and electric vehicles where appropriate. We also optimize our logistics and our packaging in order to decrease weight and increase load factors.

Johnson Controls has implemented several fuel consumption and greenhouse gas reduction strategies. We first introduced hybrid electric vehicles into our fleet in 2009, each reducing GHG emissions by 30 percent, and together saving \$500,000 in fuel costs during the first two-and-a-half years of operation. Other strategies include the use of other higher MPG vans and trucks, telematics, and the implementation of a policy which prohibits speeding and encourages fuel-efficient driving techniques. We also collaborate with our suppliers to decrease environmental impact from transportation, by participating in US EPA Smartway Program, and encouraging our leased truckers to also participate.

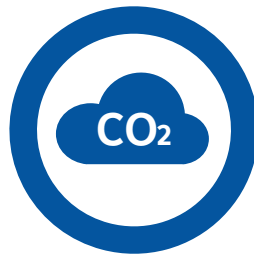
# Case Study: Johnson Controls Achieves Better Buildings, Better Plants Challenge Goal for Improved Energy Efficiency

In 2017, the Energy Department recognized Johnson Controls as a goal achiever in the Better Buildings, Better Plants Challenge, exceeding its goal of 25 percent energy savings over the course of seven years.

Implementation of the Energy Hunt program (see Plants and Facilities) resulted in a threefold increase in identified energy savings projects and helped the company meet its Better Plants Challenge goal.

## Greenhouse Gas (GHG) Emissions Results

GHG  
intensity 2018  
annual progress



GHG  
intensity from  
2002 to 2018



# 284,800 MWh

in renewable energy through on-site generation and Renewable Energy Certificates (REC)





# Water

103-1 | 103-2 | 103-3

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**Our goal is to reduce water consumption by 10 percent at our water-stressed facilities by 2025. We conducted a detailed analysis with the World Resources Institute to identify our locations situated in water stressed areas. We measure consumption in both our manufacturing and office buildings, detect and repair water leaks, recalibrate flow meters, and deploy water-saving technologies.**

As Johnson Controls has expanded globally, the diversity of our facilities in terms of type and location has increased. Typically, our facilities are in industrial corridors or complexes where other industrial activities are present, and our impacts on sources of water are not significant. Internally we implemented best practices and water savings efforts at water stressed locations, and in 2018 achieved a 4.1 percent reduction against our 2025 reduction goal.

We strive to create a positive impact on our environment, including by providing products and services that enable our customers to use less water. For example, Johnson Controls helps water providers and consumers reduce water usage, increase efficiency of the systems that distribute and use water, and create healthy and sustainable environments. One of the ways we do this

is by offering an innovative financing model that allows customers to pay for infrastructure improvements over time without upfront investment through energy and water cost savings. Also we seek to continuously improve and innovate by implementing best business practices in water management and conservation across our operations.

Our approach to the siting and management of all of our facilities remains consistent with our commitments as a signatory to the [United Nations Global Compact](#), our [Code of Ethics](#), our environmental, health and safety standards as defined by our Johnson Controls Operating System, and all applicable laws and regulations.

We have also implemented water conservation initiatives at many of our facilities. For example, our battery plants have several recycle systems in place, such as: (1) closed

loop acid recycle system, in which acid is reused to achieve the desired acid concentration; and (2) pasting recycle systems, in which acid and oxide form a paste within a closed loop system that minimized releases into the wastewater treatment system. Also, battery wash water is contained and recycled back to acid mixing, except where detergents are used that involves treatment before discharge.

In addition, we have a commitment to build new facilities to LEED standards. We have innovative water reclamation technologies at several of our facilities, including our Glendale facility, where we have a 30,000-gallon rooftop cistern to capture rainwater for re-use for water closets and urinals.

## Water Results

Implemented best practices and water savings efforts at water stressed locations globally



Water 2018 annual progress





# Effluents and Waste

103-1 | 103-2 | 103-3

**Our goal is that 25 percent of Johnson Controls manufacturing locations will be certified landfill-free by 2025. Every location is encouraged to eliminate the disposal of waste sent to landfill to the extent feasible. In 2018, we reached a milestone of a total 17 manufacturing locations that have a 100 percent diversion rate and are certified as zero-landfill.**

We engage in a range of programs, initiatives and activities specific to waste. Some of our current activities include the following:

- Establish and track progress of our waste generation towards zero waste to landfill.
- Continuously find ways to improve our waste management throughout the life cycle of our business, including finding ways to reduce waste in the first place, reuse or recycle materials.
- Reduce waste across our corporate facilities, through the use of compostable materials in the cafeteria and other activities.
- Promote and encourage recycling among our customers and end-users, including supporting take-back programs, public education, and retrofit options.
- Continue to be one of the most active and responsible lead-based battery recyclers in the world.

## Case Study: Seven facilities recognized as zero waste to landfill in FY2018

As part of the continued commitment from employees to reduce our impact on the environment and ensure we protect our world for future generations, we are proud that that seven facilities were recognized as attaining zero waste to landfill in FY2018. There are now 17 Johnson Controls Global Products plants certified as zero landfill. These plants are located in all regions of the world, making environmental sustainability a truly global effort. This achievement directly improves the communities in which we operate

In order to be certified as zero landfill, a site has to participate in an independent review and demonstrate

to the Senior Environmental Health & Safety (EHS) Leadership team that 100 percent of the waste being produced is either recycled, reused or converted to energy. Each location to reach this goal started the journey to zero landfill several years before they completed the certification process, and a large part of their success can be attributed to the focus and personal commitment from the employees at each site. Their support has helped to ensure that Johnson Controls has a positive impact on the world we live in by reducing the amount of waste being placed in the ground.

The facilities that have achieved this impressive milestone are:

- FSP Frome, UK (July 2015)
- BMS Toronto, Canada (March 2017)
- FSP Luneburg, Germany (September 2015)
- FSP Neuruppin, Germany (January 2018)
- BMS Rajecko, Czech Republic (September 2015)
- Distribution Letchworth, UK (May 2018)
- BMS Sungham, Korea (February 2016)
- BMS Corropoli, Italy (June 2018)
- Distribution Echt, Netherlands (March 2016)
- JCH Barcelona, Spain (June 2018)
- Distribution Enschede, Netherlands (March 2016)
- IR Nantes, France (July 2018)
- FSP Port Arthur, Texas (April 2016)
- FSP Great Yarmouth, UK (August 2018)
- FSP Stockport, UK (September 2016)
- IR Holme, Denmark (August 2018)
- FSP Lammhult, Sweden (September 2016)

## Waste Results



In 2018, we certified 7 locations as landfill-free, increasing our year-to-date total to 17 locations globally



Landfill-free sites added

83% 

company-wide non-hazardous waste diversion rate.





# Materials

103-1 | 103-2 | 103-3 | 301-1 | 301-2 | 301-3

**As the world continues to grow, so does our environmental footprint. At Johnson Controls, we select materials based on a range of criteria including customer requirements, quality, cost, and other key factors. To minimize our environmental impact, we strive to reduce total consumption and minimize waste through employee training and process improvements, increase the use of easy-to-recycle materials, and purchase energy-efficient (Energy Star or EU labeled) equipment whenever appropriate.**

The materials we purchase across all businesses to support administrative, building maintenance, and transportation related activities include:

- Gasoline and diesel fuel
- Cleaning products
- Stationery and paper products
- Office furniture
- Electrical equipment (computers, printers, fax machines, photocopiers, microwave ovens, dishwashers)
- Foods and beverages

## **Building Technologies & Solutions**

Many organizations are choosing to renovate their spaces versus starting anew. Choosing to upgrade buildings with Johnson Controls means sound stewardship – through updated technology, energy retrofits and central plant

strategies that improve existing assets in all buildings. By taking a holistic approach, Johnson Controls covers all aspects of a retrofit, starting with identifying organizational goals and technical needs. We help select the equipment that provides the best outcome, and then engineer, install and commission the system.

Johnson Controls is the world leader in HVAC, fire protection, security, building management systems and other building equipment, our products require the use of many materials including metals and refrigerants.

## **Power Solutions**

Johnson Controls is the world’s largest manufacturer and recycler of conventional vehicle batteries. Nearly every vehicle battery uses materials that can be continually

recycled, which makes vehicle batteries both economical and sustainable. Power Solutions' materials for battery production include lead from primary and secondary (recycled) metal smelters, sulfuric acid, and plastic for battery casings.

Our vision is a world where 100 percent of vehicle batteries are recycled. We recycled our first battery in Germany in 1904 – four years before Henry Ford introduced the Model T. We're using our century of recycling experience to help increase recycling rates and accelerate the development of new recycling systems. Today in the G7 economies, 99 percent of all used conventional vehicle batteries are responsibly recycled and recovered to create new ones.

## Case Study: Responsible Battery Coalition inspires next generation recycling

As the world's leading automotive battery manufacturer, Johnson Controls is committed to responsibly manufacturing and recycling its battery products. To build upon this commitment, Power Solutions worked with leading companies and organizations to form the [Responsible Battery Coalition](#) (RBC) – a new non-profit focused on improving the sustainability of all types of transportation, industrial and stationary batteries.

The coalition was launched at the [Green California Summit](#) where Joe Walicki, president of Power Solutions, stated, "We take our obligation to responsibly manufacture and recycle batteries very seriously. In fact, we make and recycle more vehicle batteries than anyone else. Even with our industry-leading recycling practices, we recognize that until all batteries can be recovered and recycled, there is room for improvement. That is true for today's battery technologies, and it will also be true for tomorrow's."

Our commitment is to design, make, transport and recycle batteries in the safest, most sustainable way. We continuously evaluate and invest in technologies, controls and processes that improve our operations while reducing our environmental footprint. We operate all our facilities to meet the highest global environmental, health and safety requirements. We never stop looking to improve. We learn from each of the plants we build or upgrade and strive to apply those lessons learned to all of our operations globally. We extend our commitment across our supply chain and our partners. We track the total number of recycled batteries and other recycling results here:

<http://www.recyclingmybattery.com/en-us>

The RBC exists to ensure that all batteries, regardless of chemistry, are properly managed across their life-cycle to not cause harm to people or the environment and be reused where possible and ultimately recycled. To achieve this, the RBC has partnered with the [Sustainability Consortium \(TSC\)](#) to help implement its metrics for sustainability and has teamed up with [The Suppliers Partnership for the Environment](#), an organization of major automakers, suppliers and the U.S. Environmental Protection agency, to accelerate recycling of next generation batteries. The RBC is also working with [Living Lands & Waters](#), a group dedicated to the conservation and cleaning of the U.S.'s waterways, including recycling recovered batteries.

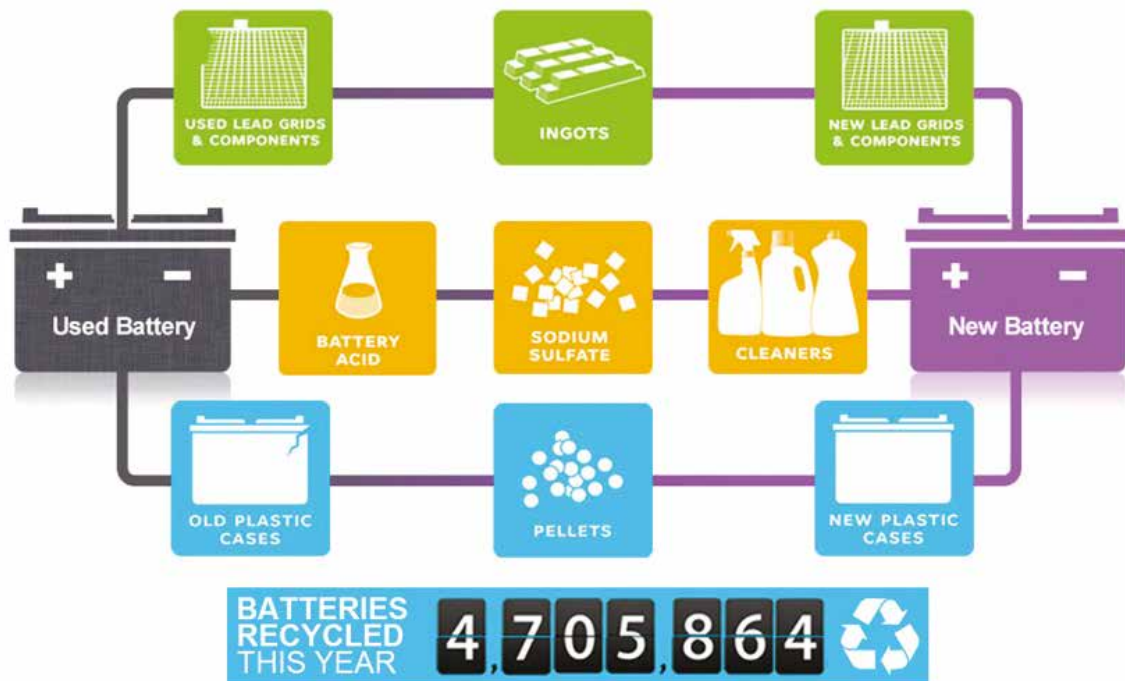
“Every battery needs to be responsibly managed, and that’s why we exist. While current vehicle batteries have a 99 percent recycling rate, our goal is 100 percent. This also means preparing for the influx of advanced energy storage technologies hitting the market over the next five years. Our work is to accelerate solutions to ensure all batteries are responsibly managed,” said Steve Christensen, executive director of Responsible Battery Coalition.

The RBC is committed to convening and working with [the best minds](#) in the industry and [academia](#) to accelerate its mission. Harvard University hosted the first meeting of the Science Advisory Board led by Dr. Ramon Sanchez, director of Sustainable Technologies and Health Program

at Harvard University’s T.H. Chan School of Public Health. “There is a public and environmental health benefit to ensure that all batteries are recycled today,” said Sanchez. “Just as important is ensuring that what we use in the future begins as recyclable or reusable.”

Since the launch of the Coalition, and with the help of its partnership with Johnson Controls, each recovered and recycled battery helps RBC get one step closer to achieving its objectives of advancing responsible practices, inspiring next generation recycling and mobilizing champions.

## Batteries: The Most Recycled Consumer Product





# Biodiversity

103-1 | 103-2 | 103-3 | 304-1 | 304-2 | 304-3 | 304-4

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We engage in a variety of community-oriented activities, many of which are related to environmental stewardship and biodiversity. Through initiatives like our Blue Sky Involve program, which is our global, employee-driven volunteer program that encourages employees to form volunteer teams and work with local non-profit organizations or schools to support the arts, education, environment, health and social service efforts while gaining leadership development skills, we funded projects globally related to environmental conservation, including planting trees and preserving natural habitats. We also dedicated employee volunteer hours to environmental protection projects and planted trees globally which in average will help sequester 28,000 pounds of carbon dioxide per year.

Typically, our facilities are in industrial corridors or complexes where other industrial activities are present, and our land acquisitions are rare. We strive to create a positive impact on our environment, for example by providing

products and services that enable our customers to use less energy, water and other resources, by recycling and reusing materials where possible, and by investing in conservation through our [Community Engagement](#) initiatives.

# Social

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# Investments and Economic Impacts

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**Johnson Controls makes investments that will strengthen our ability to serve our customers and support long-term growth. These investments are determined each year as deemed necessary and appropriate for the business and go through a rigorous business case review.**

In addition to our more than 100,000 employees globally, our Energy Savings Performance Contracting (ESPC) projects, based on U.S. Department of Commerce estimates, support the creation of 89,445 direct and indirect jobs in the U.S.

Indirect economic investments are made each fiscal year to support many different stakeholders. In the last eight years, the Johnson Controls Foundation has funded more than \$63 million to support U.S. charitable organizations in the areas of the arts, education, health and social services, and the environment. In 2018, the Foundation gave \$6.5 million to nonprofit organizations that measurably improved our communities. This support included direct grants to non-profit organizations, matching gifts for employee pledges to a national United Way campaign

and a Milwaukee campaign to support the United Performing Arts Fund, and matches as part of the Safe and Smart Matching gift program for individual employee gifts to eligible non-profit organizations. All investments are tracked with impact metrics and are reviewed to ensure goals are attained. For more information, see the Community Engagement section.

Our products and services also have an indirect economic impact by helping our customers save energy and water, and reduce waste, and in turn, save money. Additionally, our financial support of research and development in clean energy technologies, such as energy storage, helps to strengthen economic opportunity for a wide range of stakeholders.

# Case Study: Hawaii Department of Transportation Project

At 2,500 miles from the nearest landmass, the islands of Hawaii are the most remote in the world. Sun, wind and rain are in abundance here, creating a tropical paradise that lures visitors from every corner of the globe. As tourism and the economy continue to grow in Hawaii, so does the demand for energy. Hawaii imports more than five billion dollars' worth of oil every year, and today the state relies on fossil fuels for 90 percent of its energy. The majority of Hawaii's consumption of fossil fuels is tied to transportation –moving tourists, residents, goods and services around and between islands, and to the mainland.

For that reason, airports, highways and harbors were a logical first focus when Governor David Ige created his Hawaii Sustainability Plan, with the goal to develop 100 percent renewable energy by 2045. The Hawaii Department of Transportation (HDOT), which has jurisdiction over airports, highways and harbors, has partnered with Johnson Controls to initiate a ground-breaking set of projects to reduce energy consumption and create a more sustainable transportation infrastructure.

The multi-phase project is massive in scope: \$245 million in energy improvements, designed to deliver a total of \$680 million in savings guaranteed by Johnson Controls. It is the largest single-state energy savings performance contract in the U.S., and encompasses energy-saving improvements made to airports, harbors and highways.

**Airports:** The first phase of the project focused on 12 airports operated by the Airports Division of the Hawaii Department of Transportation. The two-year construction project, completed in 2016, involved: Replacing nearly 75,000 lighting fixtures with high-efficiency Light Emitting Diode (LED) and other energy-efficient lighting, upgrading

HVAC systems to more efficiently keep spaces cool and comfortable; installing 9,100 solar photovoltaic panels to generate renewable energy; and addressing deferred maintenance, including roof repairs and equipment replacement.

**Harbors:** Harbors play a vital role in the Hawaii economy. The state imports about 80 percent of what it consumes and 98 percent of those imports enter the state through a system of harbors that operate 24/7. Economically, the harbors are self-sufficient; they rely on tariffs and fees. To improve operational performance, we developed an energy-saving plan, centered on the development of marine-grade LED lighting to increase energy efficiency, improve safety for workers on the docks, and minimize the impact of brighter LED lights on endangered wildlife and migratory birds

**Highways:** The Hawaii Department of Transportation's vision to reduce energy use and costs extended to roadways, as well. Johnson Controls installed high-efficiency LED lighting in 20,000 light fixtures along 1,500 miles of state highways, and another 5,200 in interior and parking lot lights.



# Case Study: Johnson Controls Advanced Development Engineering Center

In 2018, Johnson Controls opened a new state-of-the-art research and development complex near York, Pennsylvania, USA. The testing lab is the world's newest and most advanced engineering and testing facility for chillers and allows Johnson Controls to deliver the most innovative and highest-quality products to the HVACR industry.

The complex includes a 250,000-square-foot testing lab and support facility, which consolidates testing facilities from Johnson Controls' existing Pennsylvania campus. In addition, the complex features a 107,000-square-foot engineering office building. The new facility complements the R&D facility in Wuxi, China, and its newly opened world-class Asia-Pacific headquarters in Shanghai, China, featuring industry-leading green and smart buildings.

"Our customers expect the best, and we will continue to deliver the best – industry-leading HVACR equipment, such as our new YORK® YZ chiller," said Bill Jackson, president, Global Products, Johnson Controls. "This world-class facility enables us to advance performance levels for customers, thanks to more than 400 dedicated and driven

employees, as well as business partners in the York County community."

The new facility includes more than 20 labs, including air-cooled and water-cooled, acoustic, power electronics, compressor, air handling units and various other labs to spur innovation and a training center for variable refrigerant flow (VRF), chiller and other products and technologies.



Johnson Controls' research and development complex in Central Pennsylvania, USA, is the newest and most advanced engineering and testing facility for chillers in the world.



# Case Study: Johnson Controls unveils “smart” Asia-Pacific headquarters in Shanghai

We completed our Asia-Pacific headquarters in Shanghai, China, on June 22, 2017. The opening of the Headquarters Asia Pacific demonstrates the ways in which Johnson Controls continues to accelerate sustainable development in Asia. Johnson Controls currently provides solutions and technologies to 90 percent of the world’s tallest buildings, and has contributed to the construction of many iconic landmarks in Asia: Shanghai Tower, Shanghai World Financial Center, Hong Kong International Finance Center (II), Taipei 101 and the Petronas Twin Towers in Kuala Lumpur.

The headquarters sets a new standard for green and smart buildings, being the first in China to receive several top global energy efficiency awards including: IFC-World Bank Group’s EDGE (Excellence in Design for Greater Efficiencies) Certification, U.S. Green Building Council’s LEED Platinum Certification, and the China Green Building Design Label Three Star Certification.

The headquarters showcases a full range of smart building solutions. Its sustainable design – which includes a Central Plant, renewable energy and intelligent lighting, the Metasys® Building Automation System, and other

advanced technologies – is expected to generate 44 percent savings in overall energy consumption compared to the local market standard. Additionally, the building is expected to reduce water usage by 42 percent via its grey water recycling and storm water recapture facilities, and to reduce embodied energy in materials by 21 percent through the use of FSC (Forest Stewardship Council) certified wood-based building materials and the sourcing of locally supplied products. The headquarters is also equipped with hybrid and electric vehicle charging stations which enable employees to commute with a smaller carbon footprint.



Johnson Controls Headquarters Asia Pacific in Shanghai, China.



# Community Investment

413-1 | 202-2 | 203-2 | 413-2

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The mission of the Corporate Community Involvement and Engagement program is to invest in the communities where our employees live and work. Through our programs, outlined in [Community Engagement](#) and on our website at [Corporate Responsibility Program Overviews](#), we seek to bring positive impacts to our communities. 100 percent of our operations have implemented local community engagement, impact assessments, and development programs.

A formal and comprehensive process is implemented for every new facility, acquisition and divestiture we make in our portfolio. Our facilities are sited and operate such that operations rarely create issues for the local community. If such instances ever occur, our facility managers are prepared to interface with the community leaders to understand the issues and to draw upon more expertise to quickly resolve any issues.

In most cases where we are entering a market, our business has a positive impact on the local society. For example, the vast majority of company acquisitions and equity investments, most being smaller family-held service or technology companies, does not result in layoffs post-deal. The value of the business to Johnson Controls is dependent on retaining people. In a service company or a

technology company, the people are indeed the greatest asset. Our financial business case for an acquisition rests on our ability to help the newly-acquired company grow in the region.

In addition, when we acquire a company and bring it into the Johnson Controls family, we bring many positives to our new employees, and thus to their communities. This includes our skill and job training, Equal Employment Opportunity and diversity programs as well as a wide selection of benefits. If there is a layoff or plant closing, Johnson Controls offers a variety of programs and services to ensure employees are enabled for success outside of the company.

## Community Sponsorships

Johnson Controls provides many organizations with financial sponsorship and coordinated volunteer efforts. By sponsoring galas, luncheons and other community activities, Johnson Controls can support organizations not only financially, but also by lending the organization the Johnson Controls brand. Other companies and individuals are more likely to step forward in support because of Johnson Controls strong record of due diligence. In 2018, Johnson Controls provided more than \$1.45 million in sponsorships to nonprofit organizations. Johnson Controls sponsorship of United Way's new Johnson Controls Volunteer Center is a new cornerstone in Milwaukee, and serves as a bright light for community service gatherings and drives.

## Case Study: Bucks and Johnson Controls to build \$150,000 multi-sport complex at MPS' Browning Elementary School

Johnson Controls was announced as the official "Smart Building" partner and the first Founding Partner of the new Wisconsin Entertainment & Sports Center in downtown Milwaukee. This partnership will extend far beyond the walls of the new state-of-the-art arena, as the two organizations are collaborating to build a \$150,000 multi-sport complex on the campus of Browning Elementary School and Silver Spring Neighborhood Center in Milwaukee's Westlawn Neighborhood. Together, the Bucks and Johnson Controls are building a smart, sustainable and efficient world-class arena while joining together in a commitment to develop a healthier and more vibrant Milwaukee community for future generations.

The complex will include six basketball courts, one futsal court, a soccer field and additional recreation space, all contained within a 200-meter track. The courts have been configured to allow flexibility for use of other sports, such as volleyball and tennis, and will be well lit to provide a safe space for recreation during evening hours. The kids who play in this space will be able to develop athletically, and they will also receive the opportunity to connect with and learn from mentors, coaches and teammates

In addition to building the athletic complex, the Bucks and Johnson Controls will commit an annual gift of \$60,000 for the next 10 years toward community programming. In the first three years, two annual grants of \$30,000 each will be given to Playworks, to fund programming at Browning Elementary, and to the Silver Spring Neighborhood Center, to provide after-hours and weekend programming at the new complex. Together, these grants will ensure that the complex features proven programming designed to maximize the value of the space for the surrounding community.





# Community Engagement

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**Through philanthropy and employee volunteer programs, we improve and strengthen the hundreds of communities we call home. Johnson Controls contributes millions of dollars annually and our employees give freely of their time, skills and energy.**

A Johnson Controls accountant tutors a central city student in math after school. Four members of the Johnson Controls marketing sort food at a local food pantry. A 50-employee IT department gathers in the park to pull invasive weeds from a nature trail. To fulfill Johnson Controls' vision and value statements, our company strives to be a good neighbor and a good community partner. We seek to make the community a better place. We define success more broadly than just financial achievement. The communities where we do business are important stakeholders for Johnson Controls. We believe that community involvement and engagement programs enhance our relationships with our communities, customers, and employees, which in turn strengthen our company and benefits our shareholders.

## **Blue Sky Involve Global Employee Volunteer Program**

Throughout the world, we foster community involvement by our employees through our Blue Sky Involve employee volunteer program, demonstrating our social conscience to improve the communities in which we live, work and operate. Our group employee volunteer program, Blue Sky Involve, helps Johnson Controls employees share their passion and expertise through community volunteer activities and strengthens their professional and leadership skills. The program reinforces our corporate values and brings them to life through service to the community. Employees form volunteer groups and work with local non-profit organizations or schools to support education, environmental stewardship or social service effort. Each partner organization receives a grant of \$250, \$500, \$1000, or \$2,500 USD, depending on project type, toward a volunteer project planned with our employees.

Since Blue Sky Involve launched in 2006, Johnson Controls employees have coordinated more than 10,000 projects and volunteered 1.7 million hours of their time to local communities. In 2018, 3,850 employees formed 398 project teams and volunteered 28,880 hours, with their selected charities or schools receiving \$113,750 in grants from Johnson Controls. In 2018, 95 percent of our Blue Sky Involve volunteer efforts aligned with the UN Sustainable Development Goals.

### **Community Leadership Program**

Once a month, Johnson Controls' director of media relations goes to the Silver Spring Neighborhood Center for a meeting of their board of directors. There, this executive works with 14 other executives, community members and other professionals from across the city to oversee the operations of neighborhood center that provides youth programming, medical care, a food pantry and daycare for one of Milwaukee's most challenged neighborhoods. Johnson Controls' Community Leadership Program strategically matches our leaders with community and charitable organizations who need board members. We do this by coupling the leader's personal passion and professional expertise with area organizations that need this type of guidance.

In FY18, more than 248 leaders represented our company in local communities serving on non-profit boards. Organizations included hospitals, universities, social service agencies and civic organizations. Our involvement provides strategic feedback on economic, social, educational and environmental issues and illustrates our commitment to the communities where Johnson Controls has a presence. Studies show that non-profit board service benefits corporate employees and helps advance workplace diversity and inclusion by connecting executives with members of the community that they would

otherwise be unlikely to meet with regularly. The expertise the executive offers to the non-profit fosters a stronger approach for the non-profit, which in turn can solve community problems and drive economic growth where employees and customers live and work. The Johnson Controls Foundation turns toward these Johnson Controls leaders for guidance on grant requests that come to the Foundation's attention. These leaders provide insight and visibility into the operations of the non-profit and are a crucial part of the due-diligence process for approving grant requests that can range from \$5,000 to more than \$100,000.

### **Johnson Controls Foundation (U.S.)**

Johnson Controls Foundation stands in support of the cornerstone organizations that define Milwaukee on a national level—organizations such as Children's Hospital of Wisconsin; Milwaukee Zoological Society; Marquette University. The Foundation also contributes to lesser known organizations that provide quiet support and programming to Milwaukee's most vulnerable populations— Meta House, which provides assistance to women with addictions; Hunger Task Force, which provides food to pantries across the city; Urban Ecology Center, which connects children from the city with environmental education. In the last eight years, the Johnson Controls Foundation has funded more than \$63 million to support U.S. charitable organizations in the areas of the arts, education, health and social services, and the environment. Through the Foundation's Safe & Smart Matching Gift Program, employee's contributions are matched dollar-for-dollar to eligible institutions and organizations in those categories.

In 2018, the Foundation gave \$6.5 million to nonprofit organizations that measurably improve our communities.

## United Way

In early October of 2018, more than 300 Johnson Controls Milwaukee executives gathered for breakfast and to hear stories of individuals whose lives were transformed by their connection with United Way-supported agencies. A mother of two teens spoke into the microphone, and with a voice that trembled a bit, told of her journey escaping an abusive relationship, spending time in a shelter, and finally, with the help of key non-profits, finding her way to her own apartment and a steady job. Within 24 hours of the breakfast, leaders attending had contributed more than a half million dollars toward United Way. Johnson Controls holds a nationwide United Way giving campaign in the United States each year. In Wisconsin, where our U.S. headquarters is located, Johnson Controls has held the largest workplace giving campaign for eight straight years, despite not even breaking the top 25 in terms of number of employees working for the company. This first-place status is no accident; it is the result of a strategic partnership with United Way and an emphasis on the annual fall campaign that emphasizes employee participation and leaders contributing at high levels based on their salary.

In 2018, the generosity of our employees was responsible for more than \$6.3 million nationwide in contributions. These dollars included employee and retiree giving, corporate gifts, and a match from the Johnson Controls Foundation.

## Global Disaster Relief

Johnson Controls supports natural disaster relief efforts globally. By partnering with large organizations such as the Red Cross and United Way, as well as smaller local agencies, we have played a role in supporting large-scale disaster relief efforts through our company donations.

Johnson Controls is a member of the American Red Cross Annual Disaster Giving Program, a select group of leading corporations providing the highest level of funding to global disaster relief efforts. Since 2012, Johnson Controls has made an annual donation of \$500,000. Our membership supports an emergency infrastructure which enables the Red Cross to respond immediately to the needs of individuals and families impacted by disasters.

Membership in the American Red Cross Annual Disaster Giving Program ensures Johnson Controls' assistance is there in a timely, consistent way, available when disasters occur, wherever and whenever they happen around the world. Johnson Controls provides additional support to relief efforts when extreme disasters occur and to local agencies for disasters if the American Red Cross is not asked to provide relief. In addition to company donations, Johnson Controls employees provide support to local communities through employee donations and volunteerism.

## Milwaukee Neighborhood Initiative

Once a month, students from five middle schools in challenged neighborhoods just a few minutes from Johnson Controls' North American corporate headquarters board buses and to work in a laboratory in Discovery World, Milwaukee's premier science museum. Their older siblings may be part of teen leadership and pregnancy prevention programs at local high schools and their parents may have received assistance for employment training at the local community center. Through the Milwaukee Neighborhood Initiative, developed in 2016, Johnson Controls partners with local non-profits in an effort to change the trajectory of lives for those who live in the neighborhoods by providing concentrated funding to programs that have the potential to touch one family in multiple ways over the course of a year. In 2018,

nearly \$700,000 from the Johnson Controls Foundation has been granted to programs targeted at changing the trajectory of lives in these neighborhoods. Thousands of people who live, work or go to school in the neighborhood were touched by programs funded by the Neighborhood Initiative.

Johnson Controls ongoing partnership with the Milwaukee Bucks focuses on a multi-sport complex built in the heart of the neighborhood in 2017, with an annual funding commitment to programs connected to the court. This program led to Johnson Controls being named as one of two finalists for the Milwaukee Award for Neighborhood Development, one of the city's highest honors. The winner will be announced in April 2019.

## Case Study: Partnership with Lincoln Tech

Johnson Controls recently launched two classrooms on Lincoln Tech Campuses in Indianapolis, Indiana and Melrose Park, Illinois. The new classrooms provide hands-on training with Johnson Controls HVAC equipment, so students are prepared to enter the workforce after graduation.

Rod Rushing, president, Building Solutions, North America and Tracy Long, area vice president, Building Solutions, North America, represented Johnson Controls at the press conference and ribbon cutting ceremony held to raise awareness of the partnership. Representatives of Indiana senator Joe Donnelly and Congresswoman Susan Brooks, as well as Ron Serpico, Mayor of Melrose Park, joined our leaders at the conference.

"It's critical that people come in with the core technical skills to be able to stand in front of our customers and talk about the technology we develop and how it serves them," said Rod. "These will be the future leaders of tomorrow. We are bringing folks in through this program, educating them on what we do and how we serve customers. Some day we expect these people to be leaders at Johnson Controls."

Students were also given the opportunity to learn more about our company and career opportunities when they paired with hiring managers for networking events and mock interviews. Johnson Controls interviewed 86 students at both locations who are nearing graduation. Students rated highly during interviews are being considered for employment at Johnson Controls, creating a pipeline of technical talent in these markets.

Plans are now underway to launch eight more classrooms located in Columbia, Maryland; Marietta, Georgia; Denver, Colorado; East Windsor, New Britain; Shelton, Connecticut; as well as Mahwah and Union, New Jersey. The classrooms are expected to be branded and equipped with Johnson Controls products in FY19.



# Our Employees: Health and Safety

103-1 | 103-2 | 103-3

**Health and Safety is critical to Johnson Controls' success as a company. We are committed to a safe and healthy work environment for our employees, our vendors and contractors, our visitors and our communities.**

Johnson Controls Health and Safety programs are designed to provide a safe working environment. Our initiatives focus on how employees work at our manufacturing locations and installation and services businesses, striving for a safe environment by eliminating unsafe conditions and acts and. Our Health and Safety programs rely on a systems management approach to ensure compliance and continuous improvement. While compliance with Health and Safety regulations is important and required, our programs reach beyond compliance to influence our company's culture through employee engagement and leadership behavior.

Given the diversity and decentralized nature of our company, our Health and Safety programs are designed around global standards with appropriate variations addressing multiple jurisdictions and regulations, specific

hazards and unique working environments of each business unit. The way we operate and measure the performance and outcomes of our Health and Safety programs is consistent with widely accepted standards and practices meeting or exceeding International Labor Organization's Guidelines for Occupational Health Management Systems (ILO-OSH 2001) and OHSAS 18001 certification.

Johnson Controls employs dedicated Health and Safety professionals around the world. Each Business Unit maintains an Environmental, Health and Safety organization and management structure designed to support its Health and Safety efforts. The corporate Environmental, Health and Safety team drives the company's strategic Health and Safety initiatives in close collaboration with the business unit Health and Safety



leads. Enterprise wide standards and programs are established in collaboration with the business unit Health and Safety leaders.

Our goal is to achieve and maintain world class safety performance in all of our businesses and operations. Some of the key standards and practices of our programs include:

- Use of standard US-OSHA recordkeeping rules to measure injury and illness rates globally. We believe that injury and illness rates based on consistent definitions provides an objective measure of performance and we are committed to improving our performance.
- Use of widely accepted standards for the most critical safety processes, such as control of hazardous energy and working with hazardous substances. Such standards apply to all of our locations worldwide.
- Use of established management system techniques to ensure injury rate reductions are sustainable.
- Verification of the accuracy of self-reported safety and health data, for example, during third-party auditors' assessments.
- Exploring innovative ways to further strengthen our safety culture. Johnson Controls' increasing focus on Leading Indicators as a measure of Safety performance and outcomes is an example of this innovation.
- Deployment of the JCMS Maturity Model and Standards to implement the Johnson Controls Way of Manufacturing to attain world-class performance.

"Behavior-Based Safety" (BBS) and "Safety Culture" initiatives are being deployed within different parts of Johnson Controls. As there are different ways to ensure employees are engaged with safety, as a company we monitor and support such initiatives. Johnson Controls is

beginning to implement Health and Wellness programs at major locations in addition to the traditional workplace Health and Safety programs; these programs seek to improve employee well-being both within and outside of the workplace. Health and Wellness programs include the establishment of fitness centers, running and walking tracks, weight loss programs, vaccinations, smoking cessation programs and many other health improvement and health prevention programs. At Johnson Controls these Health and Wellness programs continue to be an integral part of our Health and Safety agenda.

### **Policies, Standards and Certifications**

Johnson Controls has a company-wide Environmental, Health and Safety policy that is supported by local, regional and site-specific employee Health and Safety policies and programs. Johnson Controls' Health and Safety policies embody the key elements enabling Zero Harm to employees and the environment and include local and regional regulatory requirements and industry standards (e.g. European Union, US-OSHA, National Fire Protection Association, country-specific, etc.) when necessary.

For a safety management system, Johnson Controls generally follows the standards of OHSAS 18001 / ISO 45001. Many of Johnson Controls' locations are certified under this standard; however, Johnson Controls does not require external certification for all its operations. In addition, various locations maintain other key certifications including ISO 9001 and ISO 14001.

### **Training**

Training is a key component of Johnson Controls Health and Safety programs. Our standards require new employees to receive the appropriate level of Health and

Safety training for their work environment. Health and Safety training is provided through an employee's initial orientation or on-boarding process and also includes continual Health and Safety training through regular toolbox talks and ranging from specific certifications to general awareness and behavior training conducted through a combination of classrooms and computer-based training.

### **Audits and Inspections**

As part of the OHSAS 18001 standard and other applicable Health and Safety standards, Johnson Controls requires locations to perform regular safety audits to ensure proper safety policies, programs procedures, analysis and training are in place. Audit data are used to create improvement and corrective action plans.

In addition, Johnson Controls engages an independent third-party conformity assessment and certification vendor to audit selected operations for adherence to our global Health and Safety standards. In addition to Management Systems Certifications for ISO 9001 / ISO 14001 / OHSAS 18001, the third-party auditor also performs specialized audits for location-specific Health and Safety issues (e.g., Ergonomics, Industrial Hygiene, Machine Guarding, OSHA Recordkeeping, NFPA 70E Live Electrical, Confined Space, etc.).

### **Reporting**

Each Business Unit is responsible for reporting their Health and Safety activities and outcomes. These reports are generated monthly and are circulated to the senior leadership team. Health and Safety is a standard topic at monthly operational reviews.

The Johnson Controls' Corporate Environmental Health and Safety department provides a monthly Global "Zero

Harm" Report that contains information related to Key Performance Indicators including Total Recordable Incident Rate (TRIR) and Lost Time Incident Rate (LTIR). The monthly "Zero Harm" Report is distributed to Johnson Controls' Executive Leadership Team including the Chairman and Chief Executive Officer and his direct reports, the Business Unit Presidents and their direct reports, and to the Global Health and Safety Leadership Team.

### **Health and Safety Committees**

As part of our global Health and Safety standards, Johnson Controls maintains Health and Safety Committees at the local (location), regional, business unit and corporate levels.

At the local level, Health and Safety Committees take many forms, depending upon the business, but serve the same principal function: to facilitate and maintain regular communication regarding Health and Safety issues and information across all levels of the organization. This information includes, but is not limited to Health and Safety standards, processes and procedures, roles and responsibilities, prevention measures, near misses and incident reviews, key performance indicator trends, reporting and investigation obligations, inspections by relevant authorities, and both internal and external audit results. Health and Safety meetings are held regularly, and topics are tailored to specific location needs depending upon the type and scope of work.

In the manufacturing organization, Health and Safety Committees generally operate at the location level due to the size and concentration of employees. In the installation and service business, Health and Safety Committees generally operate at the branch and/or regional levels due to a dispersed workforce.

## Key Performance Indicators

Johnson Controls 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). Johnson Controls places more emphasis on the TRIR due to its uniform application around the world. While the LTIR is also tracked, Johnson Controls believes it is less useful in measuring Health and Safety outcomes due to the inherent differences in national occupational compensation and health schemes and variations in workplace regulations.

While Johnson Controls continues to measure and report on lagging indicators, it promotes the use of leading indicators as more relevant predictors of Health and Safety performance and outcomes. Leading indicators include, but are not limited to, near misses and unsafe conditions reported, corrective actions completed, safety discussions held, motor vehicle calls reported, safety observations noted, safety focused improvement events completed, job safety analysis completed, and self-audits completed. Bespoke leading indicators are defined, tracked and measured by each Business Unit, appropriate for the risk and type of operations in the Business Unit. The Global Health and Safety Leadership Team evaluates the potential to define leading indicators to be measured and tracked at an enterprise level.

## Technology and Software

Johnson Controls uses an enterprise Environmental Health and Safety software system, EHSIS (Environmental Health & Safety Information System), to support its Health and Safety programs worldwide. This system allows users to input, track and manage work-related injuries and illnesses as well as near misses and unsafe acts / unsafe conditions,

create and perform safety audits, measure compliance with government regulations and internal procedures, create standard reports, manage risk assessments, track waste / energy / waste metrics and medical monitoring results (i.e., blood lead levels). The EHSIS platform is used by the company's Health and Safety professionals and other stakeholders to address their Health and Safety related responsibilities.

## Trade Union Health & Safety

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Certain Johnson Controls operations can be subject to collective bargaining agreements, including health and safety topics covered by these agreements. We believe strongly in providing all employees a safe place to work no matter location or union association. Johnson Controls communicates that belief through its Code of Ethics, which applies to all employees and our suppliers.

In the European Union, Johnson Controls' Health and Safety programs are subject to Works Council review and approval and to collective bargaining agreements in certain countries. Johnson Controls collaborates with trade unions and other employee representative organizations as defined by local regulations to improve workplace health and safety.



# Diversity and Inclusion

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**Johnson Controls is committed to leading the industry in diversity and inclusion; it is what our customers expect, and it is essential to business success. Only in valuing diversity and inclusion and committing to equal opportunity practices will we be able to fully utilize the human and business resources available to us in our pursuit of customer satisfaction. At the same time, we believe that by valuing diversity, we enable all to fully realize their potential.**

We value and respect the diversity of our employees, officers, directors, suppliers, customers, and communities. We build a culture of diversity and inclusion, and work to eliminate discrimination and harassment in all of its forms, including that related to color, race, gender, sexual orientation and gender identity, age, pregnancy, caste, disability, union membership, ethnicity, national origin or religious beliefs.

Our company is committed to providing equal opportunity in all of our employment and purchasing practices. (See [Supplier Sustainability](#) for more about our commitment to supplier diversity within our supply chain). This applies to hiring, salary, benefits, advancement, discipline, termination, and retirement.

## **Leadership in Removing Barriers and Promoting Inclusion**

We follow established processes to achieve diversity goals around the world and to build a culture of inclusion receptive to diverse ideas, experiences and practices. We offer workshops, websites, and communications to help employees embrace and realize the benefits of workforce diversity. Our people also benefit from opportunities to work outside of their home countries.

Efforts globally include the establishment of several Diversity Councils across Europe, Africa, and Latin America. These teams of Johnson Controls diversity champions work actively to improve employee awareness of the advantages of diversity and inclusion, and encourage acceptance for all employees. Example

initiatives include distribution of diversity and inclusion newsletters to all employees, development of a diversity and inclusion brochure and training for shop floor employees, and roundtable discussions with country leaders.

### Employee Business Resource Groups

Our employees help create an inclusive workforce through initiatives like Business Resource Groups (BRGs). These are led by employees: each volunteer group is open to all employees with the goal to improve attraction, retention, inclusion, and engagement of a diverse and global workforce. All BRGs are organized by employees and funded by the company. All BRGs go through an official chartering process and must develop programming and initiatives focused in four areas: Career, Commerce, Culture and Community.

- Women's Network (WN)
- African and African American Business Resource Group (AAABRG)
- Sustainability (EMPACT)
- Hispanic Business Resource Group (UNIDOS)
- Asia Pacific Business Resource Group (APBRG)
- LGBTQA Business Resource Group (JC4e)
- Young Professionals (SYNERGY)
- People impacted by disabilities (UNlimited)
- Veterans Engagement Team (VET)

### Training and Accountability

The office of Workforce Diversity partners closely with Human Resource and Business leaders across all divisions to meet our diversity and inclusion objectives. Their mission is to create, develop, and fully leverage the strengths of a diverse workforce in order to meet our growth commitments. Strategies in support of this mission fall into three categories:

- 1) Attract and retain the best talent, across the globe, to leverage a variety of perspectives, cultures and experiences for innovation.
- 2) Maintain a workplace in which employees are included and passionately engaged.
- 3) Anticipate and manage culture, system, practices and compliance for scalable success.

Johnson Controls has implemented several measures which focus on ensuring accountabilities exist for making progress in diversity. One example is tying a portion of our executives' incentive compensation to diversity performance for females and minorities. We also commit to having a diverse talent pipeline by partnering in the workforce planning forecasts with our business units, each with targeted goals around recruiting interns and new college graduates.

In addition, Johnson Controls has sponsored conferences, including the National Association for the Advancement of Colored People, and has received numerous awards for its work in promoting non-discrimination and diversity. Workers' representatives are not subject to discrimination and have access to workplaces necessary to carry out their respective functions.

### Inclusive Culture Commitment

We are committed to providing a workplace that is free of harassment or any other behavior that diminishes a person's integrity and self-esteem. Neither physical nor mental harassment nor abuse will be tolerated. Johnson Controls requires the line management of each facility to ensure implementation of the equal opportunity and no harassment policies in accordance with national, state or provincial law. Additionally, the Executive Vice President

of Human Resources monitors implementation and compliance to these policies.

Discrimination is defined as, "Any act or omission which fails to meet the standards of the Equal Opportunity Commission (EEOC) which includes all types of discrimination, to include race, religion, age, national origin, gender, sexual orientation, gender identity, genetic information or disability."

Employees, temporary employees, visitors and other non-employees are encouraged to immediately report situations of harassment committed by anyone, including visitors and other non-employees. They are asked to report the matter to their department manager, plant/facility manager, or local human resources manager. Johnson Controls wants to know of any harassment or unfair practice so that appropriate action can be taken

after a prompt investigation. Actions taken as a result of an investigation may include discipline and warnings to employees, employee counseling, leadership training, and EEO/Harassment training.

A [24-hour Integrity Helpline](#) is managed by the Ethics & Compliance department and is available to anyone who wishes to ask a question related to an ethical issue at the company. Most often, employees discuss such issues directly with their supervisor. This reflects the fact that most questions that come up every day are being handled at the local plant or office level, with local managers and supervisors. In addition, employees are encouraged to reach out to their Human Resources representative, the legal department or compliance team if they don't feel comfortable going to their direct manager.



# Employee Development, Training and Education

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## **Talent Management**

Johnson Controls supports the continued development of its people. Strategic talent reviews and succession planning occur on a planned cadence annually – globally and across all business areas. Annually, the CEO convenes several meetings with senior company leadership to review top enterprise talent. In these meetings, leaders discuss key talent management issues with the CEO, review critical roles, top talent, strategic talent moves, and gain commitment for their talent management focus for the coming year. Talent assessments and career development plans are used to drive development of high-potentials by identifying individual key strengths and areas for improvement, and identifying key events and experiences needed for the development of the individual. Across the organization, our leaders are monitoring the progress on representation of diverse talent via our succession planning and talent review processes, which allows for pipeline development and career planning for diverse talent.

## **Training & Education**

High performance at Johnson Controls is an outcome of a person's ability to change, adapt, and grow throughout his or her career. At Johnson Controls, the emphasis is on the value of real-life, real-time learning that enables a person to meet the demands of challenging and changing work. The company's approach to learning focuses on reinforcing key principles that are designed to support an individual's effectiveness in his or her current job, and in future situations. Throughout the world, Johnson Controls employees are encouraged to develop by doing, take charge of their learning and growth, and seek support along the way.

Johnson Controls ensures that managers and employees are equipped with the tools necessary to continue to learn, grow and develop throughout their careers. Johnson Controls provides technical and leadership training to employees, customers and suppliers who work for or with our products and services. Training is provided in a

number of formats to accommodate the learner's style and pace, location, and technological knowledge and access. Johnson Controls has offered more than 3,000 courses to all audiences. This represents nearly 40,000 individual student enrollments in course offerings, of which 36,000 were employees.

Additionally, the company's volunteer programs offer employees the opportunity to enhance their leadership development skills by volunteering their time and expertise for local non-profit organizations, taking on board roles for associations and non-profits, and managing projects with a team of volunteers. These types of skills are beneficial for the workplace and contribute to a lifelong learning outside of the office environment.

### **Programs for upgrading employee skills and transition assistance programs**

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As Johnson Controls continues to grow, we believe that attracting, developing, motivating and retaining leaders are key elements of our sustainable and profitable growth. As our business has become more global, we must develop leaders from every part of the world. We understand that like customers, our employees and potential employees have choices of where to work, and we must compete for the best talent. We invest significantly in being an employer of choice, and have developed a system to promote our people's career and personal development while seeking their engagement in our vision, values and objectives. We ensure that our work environments promote excellent performance, teamwork, inclusion, leadership, safety and growth. We encourage community involvement and volunteerism with leadership and environmentally related causes.

Johnson Controls sponsors a variety of formal programs to recognize, reward and motivate employees:

- Extreme Learning Program (XLP) – A development program for senior leaders who have demonstrated the potential to be a next-generation global leader at Johnson Controls. Each year a group of roughly 40 high-potential leaders are challenged with solving real-world business problems while building new relationships and exploring global business issues. The program started in 2004 and has graduated 12 classes.
- Leadership Edge Program (JCLE) – An intensive development and acceleration program for senior managers and directors who have demonstrated the potential to be the next generation of leaders at Johnson Controls. The program helps leaders shift their mindset and behaviors to think and act with broader scope and responsibility by strengthening their knowledge and skill in business strategy, financial acumen, customer centricity, and people leadership. This program annually engages 150 managers from around the world. The program began in 2007.
- iLead People – The program is for frontline managers to create clarity about what their role as a leader is at Johnson Controls. Leaders learn how to reinforce the Johnson Controls high performance culture and deliver an impactful leadership development experience that builds global management capability. Frontline leaders will develop skills needed to effectively manage, engage, and lead their team in order to drive organizational growth.
- iLead by Influence – This program covers the critical 'influencing skills' that can help participants lead without authority and does so in an interactive format that includes practical skill building exercises.



- Change Leadership Curriculum – The award-winning curriculum helps employees at all levels develop change competence. The curriculum reaches thousands of employees per year and includes titles in: Change Practitioner Bootcamp, Change Agents: Delivering Project Results, Reinforcing Change, Leading yourself through change, Leading and Accelerating Change, Communicating Change and Sponsoring change for senior leaders.

### Commercial Training

- BEST Internship – A development program designed to recruit and hire college engineering students in their junior year to offer them summer internships. Interns are evaluated on the existing sales competencies and behaviors, and depending on performance, offered a position on the next BEST class.
- BEST Fire and BEST HVAC – A development program for new graduates that focuses on organizational knowledge, product knowledge and sales skills. Each year, two groups of roughly 30 new graduates go through the HVAC program (60 students) and 30 go through the Fire program. This 6-month program includes in-person classroom learning, simulations, and an assignment-based experiential learning experience in the local branch.
- SalesBuilder HVAC, SalesBuilder Security, & SalesBuilder Fire – A development program for new and experienced salespeople. This 13-week program is based on real-life learning and application and is blended in its approach.
- Building Sales Leaders – A development program for sales managers the focuses on a broad spectrum of topics. Divided into three distinct sessions, the program combines a blended approach of face-to-face,

eLearning, and virtual sessions. Topics include, but are not limited to, sales process, one-on-ones, pricing, TAS reviews, cross-selling, etc.

- Sales Management Code – A development program for sales managers that presents a sales management process. It is focused on high impact salesperson activities and has an emphasis on sales manager coaching.
- Commercial Development Program – The Johnson Controls Commercial Development Program (CDP) is a two-year program designed to help top talent develop their commercial skills through three rotational assignments across various areas of the company. Participants are involved with projects and initiatives that directly impact our strategic operations and business growth. The program allows participants gain insight into a variety of business operations and provides training and educational opportunities to supplement their development.

### Field Operations Training

- There are a variety of courses given in the HVAC, Fire and Security space. These courses focus on the installation and service of our products and primarily occur in person at one of our many training institutes across the world. They are blended in their approach, with some eLearning and heavy application with lab equipment in the in-person sessions.
- Service Technical Academy (STA) – The Service Technical Academy (STA) is a career development program designed for North American HVAC Doman Service technicians, mechanics and all security and fire technicians.

## Manufacturing Training

- **JCMS Champion for Operations Leadership Program**

– Recognition program for Operations Vice Presidents, and JCMS Operations Directors. The program evolves around the focus that being a JCMS Champion reinforces the commitment made by Ops Leaders to drive the One Johnson Controls Way of manufacturing to attain world-class performance. The program is constructed in two-phases to build JCMS knowledge, skills, and coaching through a series of focused elearning modules. Once all the learning is completed, Phase II focuses on the active demonstration of their role-modeling capabilities.

- **Business Partner and SME JCMS Certification Program**

– This Certification program is for Business Partners (BPs) and Subject Matter Experts (SMEs) that are new to their JCMS Roles. The program is focused on the building of foundational JCMS awareness, core knowledge, and skills required to perform their roles. The awareness and knowledge are delivered through a series of eLearning modules. Their skills are sharpened as they complete their JCMS calibration sessions, and lead the 2nd Party Assessments in their plants. This level of JCMS leadership is extremely important for business success and progressing plants to reach higher levels of maturity, as they drive employee engagement and execute our vision of becoming the most operationally capable company in the world.

- **Coaching for JCMS Performance** – An advanced certification level for JCMS Business Partners (BPs) and Subject Matter Experts (SMEs). The purpose of the Coaching for JCMS Performance program is to prepare BPs and SMEs to coach plant personnel by learning and acquiring new skills. BP and SME coaches focus on leading plants through the initial JCMS implementation

and facilitating the creation of plant-specific Action Plans. Making a personal commitment to becoming a JCMS Coach offers the opportunity to establish this purpose. The necessity for JCMS Coaches is critical in achieving One Johnson Controls Way of manufacturing efficiently and effectively across the enterprise.

- **JCMS Plant Manager Champion Program** – The JCMS Plant Manager Champion is a program that recognizes Plant Managers as the key differentiators for all employees to improve plant performance via plant management “championing” the One Johnson Controls Way of manufacturing. In this program, Plant Managers will be able to recognize JCMS as the One Johnson Controls Way of Manufacturing and maintaining people accountable; they will establish an improving mindsets and behaviors that are reflected in every process, launch and product in the plant in a sustainable way.

- **Plant Principle Champion JCMS Certification Program**

– A development program for Plant Principle Champions (PPCs) taking on a JCMS Role in one of the nine JCMS principles. The program consists of Learning Solutions that build awareness, knowledge and skills required to advance the manufacturing practices in their plants. Awareness: completing (4) Foundational Learning Solutions provides overview of the basic concepts of JCMS and how it benefits One Johnson Controls Way of Manufacturing. Knowledge: (5) priority-based Core Learning Solutions provide a further in-depth look at the main principles driving towards reaching and sustaining Level 3. By achieving a maturing level 3 in their respective JCMS principle ensures the PPC has the desired level of skills required to advance the plant’s maturity and continue toward higher maturity levels.

## Performance Management

Johnson Controls has a standardized performance management process which includes an annual development plan for all non-production employees globally. This standardization enables improved strategic talent review workflow, career development planning, as well as improved reporting and analysis. Johnson Controls also maintains internal web portal sites dedicated to Human Resource professionals, employees and managers for desktop access to key Human Resource-related information that has been translated for global use.

## Employability

Johnson Controls has an internal posting system in place throughout the United States, Canada and Europe. This system allows current employees the opportunity to search, review and apply for jobs through a centrally managed website. Plans for South America and Asia are underway. We have undertaken measuring the enrollment of our diverse high potentials in these programs to ensure that this talent has access to critical career development experiences.

## Continued External Employability

402-1

The competitive nature of the business requires Johnson Controls to occasionally restructure in order to compete and survive in a rapidly changing, cost-driven customer environment. In alignment with company values, when workforce reductions occur, they are carried out with utmost respect for the individuals concerned.

Johnson Controls respects any obligation from applicable regulations or collective agreements to inform employees and their representatives in due course. In general, should a plant close or reductions in workforce occur within Johnson Controls operations, impacted employees receive 60-day advance notice. In accordance with federal requirements, Johnson Controls also ensures the collective bargaining unit, if applicable, the State dislocated worker unit, and appropriate unit of local government are also advised.

Measures frequently taken in connection with redundancies include identification of alternative internal employment opportunities and provision for outplacement transition services. Johnson Controls ensures compliance with company plan benefit guidelines and local government regulations.



# Supplier Sustainability

103-1 | 102-9 | 204 | 308

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**At Johnson Controls we are committed to providing safe, quality products and services. It is our goal to work collaboratively with our suppliers to exceed our customers' increasing expectations, achieving outstanding performance through best in class products, services and processes. For more detailed information, see our [Supplier Portal](#).**

The company employs a proprietary supplier questionnaire called the [Johnson Controls Sustainability Supplier Rating](#) to quantitatively measure our suppliers' sustainability programs. The online survey is administered to key suppliers annually. It was first released in January of 2010 and is available on the Johnson Controls website.

The survey contains questions related to human rights, working conditions, employee safety, energy management, carbon footprint, waste management, local and diversity sourcing, and overall environmental impact. It also asks if the supplier is publicly reporting data such as its greenhouse gas emissions and specifically asks if the supplier is disclosing its carbon emissions to the [CDP global disclosure system](#). In addition to this survey, on site reviews of supplier operations may also occur as needed. The Johnson Controls' Sustainability Rating is part of our supplier scorecard.

We require all our suppliers to adhere to our [Code of Ethics](#), which covers such issues as labor, human rights, and environment, and we have policies and procedures in all our Business Units for removing unethical suppliers from our approved vendor lists if they don't or won't comply with our Code of Ethics. We do not disclose specific numbers or incidents regarding non-compliance.

To date, no significant social or environmental performance issues have been identified with any supplier. Current data indicates that no supplier has refused to abide with the essence of the Code of Ethics or has been terminated due to social or environmental performance issues. However, there have been instances in which follow-up questions and discussions have been necessary, particularly relative to environmental permit currency and operations compliance.

### Assessing Supplier Data Reliability

Generally, Johnson Controls expects suppliers to behave ethically as well as maintain open and honest communications. We believe this to be true with nearly every supplier that we have under contract. Each business group has a common set of criteria (supplier sustainability rating, supplier scorecard and supplier assessment survey) for assessing the environmental and social performance of key suppliers, especially those posing the greatest risks to Johnson Controls and its customers (i.e., raw material extraction, chemical processing, manufacturing associated with high labor demands, etc.). We also rely on local, state and federal agencies to monitor a supplier's compliance with environmental and labor laws. We often use the web or have direct discussions with the regulatory agency to review a supplier's compliance record. In addition, we often perform site audits of selected suppliers to ensure that the proper environmental and social processes are documented, implemented and remain effective. Additional supplier oversight may also be prompted by negative reports regarding the environmental and social conditions of a supplier's facility or process.

However, like any company, we encounter issues that are dealt with promptly and appropriately. Falsification of data is taken seriously and appropriate follow-up actions are taken whenever data is suspect that could result in contract termination.

### Supplier Diversity

Diversity business development is the set of commercial and purchasing processes that incorporate diverse-owned businesses as elements of our product and services offerings. It is a strategic business imperative that supports our mission to exceed customers' increasing expectations. As such, goal attainment and progress is reviewed and communicated throughout the organization on a monthly basis. We understand that diversity business development is a team effort and requires the support of each Johnson Controls office, facility and account.

Our diversity business initiative is directed by senior management and is integrated into our corporate strategy. Johnson Controls and its customers define diverse suppliers as companies that are certified as owned, operated and controlled by minorities or women, and those designated by government agencies as small or disadvantaged businesses. We do business with more than 400 diverse suppliers and contractors, representing more than 50 product and service categories. Since 1993, Johnson Controls has spent more than \$22 billion with diverse suppliers.



# Human Rights

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Our [Human Rights & Sustainability Policy](#) and our [Code of Ethics](#) define our overall management approach as relates to human rights, anti-corruption, environmental, governance, social and related matters. We respect the environment, the communities in which we operate, and our employees' human rights, and we oppose corruption. We expect our employees and suppliers to act in a socially and environmentally responsible manner. We require them to comply with applicable laws and regulations. We expect our suppliers to operate in a similar manner, and we have incorporated such language in our supplier contracts.

Johnson Controls requires the line management of each facility to ensure implementation of the equal opportunity and no harassment policies in accordance with national, state or provincial law. Additionally, the Executive Vice President of Human Resources monitors implementation and compliance to these policies. Employees, temporary employees, visitors and other non-employees are encouraged to immediately report situations of harassment committed by anyone, including visitors and other non-employees. They are asked to report the matter to their department manager, plant/facility manager, or local human resources manager. Johnson Controls wants to know of any harassment or unfair practice so that appropriate action can be taken after a prompt investigation.

To ensure our processes are working properly and that employees, customers and shareholders understand our policies and guiding principles around treatment, respectability and integrity, we systematically gather feedback and take action to improve our work environment. We track, analyze and communicate performance outcomes quarterly.

## **UN Global Compact**

Our Human Rights Policy specifically states that we fully support the United Nations Global Compact's Ten Principles which are based on The Universal Declaration of Human Rights, The International Labor Organization's

Declaration on Fundamental Principles and Rights at Work, The Rio Declaration on Environment and Development and The United Nations Convention against Corruption. In addition, Johnson Controls supports the United Nations Framework on Business and Human Rights.

Our progress in meeting each of the UN Compact Principles are reported publicly on the [United Nations Global Compact](#) website. Also see, our [Sustainability Commitments](#).

### Child Labor

408-1

We take active measures to prevent and eliminate child labor through our policies. Our [Code of Ethics](#) and [Human Rights & Sustainability Policy](#) address child labor and is consistent with the UN Global Compact and ILO Convention 138. Potential employees are required to show valid identification and proof of age before they are hired. To the best of our knowledge there is no child labor within our company. The company has not found any of its plants or operations which would be at significant risk for incidents of child labor.

### Forced or Compulsory Labor

409-1

There are no operations within Johnson Controls which have been identified as having significant risk for incidents of forced or compulsory labor. We take proactive measures to prevent forced or compulsory labor through our policies.

### Security Practices

410-1

At Johnson Controls, our security mission is to protect corporate assets – that includes people, property and intellectual assets – through the implementation of appropriate risk based and business minded security and loss prevention tactics. In order to achieve this security mission, we have processes, activities and metrics in place to support enterprise security operations to include loss prevention, asset protection, executive protection, enterprise security

risk management, security investigations, travel security, crisis management and business continuity.

Johnson Controls employs security personnel either directly or through vendors, and their responsibility is primarily physical security. All such personnel are sufficiently qualified and are trained in our Code of Ethics.

### Slavery and Human Trafficking

Our [Slavery and Human Trafficking policy](#) complies with the Modern Slavery Act of 2015 and is updated annually. We are committed to taking steps to ensure that slavery and human trafficking is not taking place in any part of our supply chain or in any part of our business. We require our employees and suppliers to abide by our Code of Ethics. We also gather information to quantitatively measure our suppliers' sustainability programs and to ensure compliance with local, state, federal and country laws, including laws on forced labor.

We expect that suppliers should take steps to ensure that slavery and human trafficking is not taking place in any part of their supply chain or in any part of their business. To the extent that a supplier refuses to cooperate with our compliance efforts, we may reconsider our supply arrangement and implement remedies available to us.

### Conflict Minerals

We are committed to the responsible sourcing of "conflict minerals" throughout our supply chain. Johnson Controls is a member of the Responsible Minerals Initiative, and we compare the aggregation of smelter lists provided by our suppliers with their list of compliant smelters to determine which smelters are conflict free. The information provided by our suppliers is used to conduct our due diligence, including assessing reports for completeness and consistency. Our due diligence processes also conform to the primary principles of the internationally recognized due diligence framework from the Organization for Economic Co-operation and Development.



# Product Safety

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**Our Company values include being “Customer Driven” and “Future Focused”, which define our commitment to helping our customers win and to continuously improving our business. The responsibility for monitoring customer satisfaction resides within the Board of Directors and within business unit management.**

Our internal Johnson Controls Operating System (JCOS) defines and standardizes best practices across our corporate activities, including our Commercial Excellence initiative as well as our Engineering Excellence initiative which together help to continuously improve the solutions, we deliver to our customers which advance health and safety. JCOS also advances uniformity in dealing with customers and brings prompt, measurable quality improvements.

## **Assessment of the health and safety impacts of product and service categories**

416-1 | 416-2

A standardized procedure assessing safety and health impacts for our product development is in place across the enterprise. We follow a launch procedure for New Product Development. The procedure uses a process known as Failure Mode and Effect Analysis (FMEA) to

address single point failure modes in the Product Design and Manufacturing Processes. For new products, we may also use Risk Assessments or Fault Tree Analysis (FTA) in the design to capture compounding effects leading to failures, after which the countermeasures can be put back into the FMEAs as single point failures. Product safety and noncompliance to regulatory items are defined under FMEAs with the highest severity ratings.

100 percent of our significant product or service categories are covered by and assessed for compliance with company procedures for assessing product/service health and safety impacts. Johnson Controls did not have any incidents of non-compliance with regulations or voluntary codes concerning the health and safety impacts of our products and services.



## Product safety controversies

While the company faces certain product liability cases which are brought against its products from time to time, none of those cases have involved actions for non-compliance with an applicable regulatory or voluntary code and fines, settlements or court-imposed awards for such non-compliance.

The company does have a process for determining whether products in the field have nonconformities that might be the source of potential product safety concerns. It regularly monitors field performance and performance in the factory to determine whether any nonconformities in our product could be the source of those types of concerns. If we determine that such circumstances exist (i.e. nonconformities that could cause safety concerns in the field), we either work with our customer to determine the correct field response in cases where we supply the component and not the entire end product or determine the correct field actions if our product is the product sold to the end user. In doing so, we determine any requirements for reporting such actions promulgated by applicable regulatory agencies and report our actions consistent with those reporting requirements.

## Product Labeling

417-1

Our Building Technologies & Solutions products are listed by Nationally Recognized Test Labs (NRTLs). The standards used for these listings require that specific information be placed on defined labels regarding safety. This information includes Max voltages, amperages, pressures, etc. It also requires the NRTL and the standards tested. By regulation we also include additional labels as needed such as refrigerant type, DOE required efficiency or performance ratings. Our Installation, Operation and Maintenance Manuals are provided to relay specific information regarding safe use of the product and applicable safety warnings.

Our Power Solutions products are produced with labels that comply with international laws and industry standards for consumer batteries. Industrial batteries have a generic label per their applicable requirements. Because these products may contain hazardous substances, our on-product labeling is compliant to the battery industry best practices and with applicable law regarding hazardous content. The Power Solutions business has on-product warnings to instruct user on safe use of the products and on-product labeling that indicates the product is recyclable. This is combined with strong point of sale procedures in to facilitate the recycling of those batteries.

## Customer Privacy

418-1

[Johnson Controls cares about privacy](#) and is committed to protecting personal information in accordance with fair information practices and applicable data privacy laws. The company has not identified any substantiated complaints of breaches of customer privacy.

Johnson Controls joined the very exclusive list of comparable companies which have obtained official approval from [European Data Protection Authorities for Binding Corporate Rules](#) (BCRs). BCRs form a required set of policies which satisfy the most stringent standards and represent the company's commitment to a seamless protection of personal data, when such data is transferred or accessed globally. Aligned with Johnson Controls Ethics and Compliance standards, obtaining recognition for BCRs demonstrates Johnson Controls' continued commitment to the protection of personal data from our employees, customers, suppliers and consumers. This is a strategic trust enabler for the organization.

# Governance

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# Company Leaders

102-18

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Johnson's Controls Board of Directors is guided by our Corporate Governance Principles, Code of Ethics, and Articles of Association, all of which are publicly available in the [Corporate Governance](#) section of our corporate website. Detailed information about the company's governance structure, executive officers, and Board of Directors is publicly available at <http://investors.johnsoncontrols.com>.

## Responsibility for Economic, Environmental, and Social Topics

102-18 | 102-20 | 102-26

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In general, Johnson Controls' management is responsible for developing our overall mission and strategic plan from an enterprise and business level. Johnson Controls Board of Directors approves and oversees the implementation of the company's mission, strategic plan and business strategies and provides advisory support. The Vision and Values of our Board of Directors include our company vision of a safe, comfortable and sustainable world and our Company values: Integrity First; Purpose Led; Customer Driven; Future Focused; and One Team. The Board of Directors is briefed each quarter on our company sustainability progress.

Authority for day-to-day management of economic, environmental, and social topics is delegated to the Executive Leadership Team (ELT), which comprises the senior executives responsible for all our major corporate functions. The most senior positions with operational responsibility for Environment and Society aspects include the Executive Vice President and General Counsel; Vice President, Public Affairs and Chief Diversity Officer; Executive Vice President Human Resources, and Vice President for Procurement.

In addition, at the local level, local business unit leaders are responsible for the impacts our business has on the environment and local society. The ELT further delegates relevant authority for economic, environmental, and social topics—particularly including all the material aspects discussed in Johnson Control's Sustainability Report—to the internal [Global Sustainability Council](#) (GSC) and other appropriate organizations within the company.



# Risk Management

102-11 | 102-15 | 102-30 | 102-31 | 205-1

Johnson Controls has a comprehensive [risk management program](#). Directors are involved in the program with primary responsibility for overall risk oversight, including the company's risk profile and management controls. More detailed information on the Board of Directors' role and the Risk Management Process is disclosed in the [2018 Annual Report](#) on page 26.

We govern our enterprise risks and opportunities through a robust risk management and mitigation program. Our Board of Director's role in risk oversight is consistent with our leadership structure, with management having day-to-day responsibility for assessing and managing our risk exposure and the Board and its committees providing oversight in connection with those efforts, with particular focus on the most significant risks we face.

The Board performs its risk oversight role in several ways. Board meetings regularly include strategic overviews by the CEO that describe the most significant issues, including risks, affecting us. In addition, the Board is regularly provided with business updates from our business unit leaders, and updates from the General Counsel and other functional leaders. The Board reviews the risks associated with our financial forecasts, business plan and operations. These risks are identified and managed in connection with

Johnson Controls' enterprise risk management ("ERM") process.

The Company's ERM process provides the enterprise with a common framework and terminology to ensure consistency in identification, reporting, analytics and management of key risks. It is also linked to the strategic planning process, compliance and internal audit and includes a formal process to identify and document the key risks to Johnson Controls perceived by a variety of stakeholders in the enterprise. The results of the ERM process are presented to the Board at least annually. In addition, a Risk Committee oversees the ERM program by providing feedback, guidance and direction on the process, procedures and results and will escalate any new risks that should be elevated to the Executive Committee.

As a global multi-industrial company, we face a range of risks, including general economic, credit and capital market conditions risks, regulatory risk, global climate change risk, and several other risks which are fully listed and explained in our [2018 Form 10-K](#). In addition, we have key teams

in place to oversee and advise our sustainability risks and opportunities. They include our Executive Committee, Executive Leadership Team, Global Sustainability Council, Purchasing Leadership Team, and specialized committees and management groups.

## Ethics and Integrity

102-16 | 102-17 | 102-33 | 102-34 | 103-1 | 103-2 | 103-3 | 419-1

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Throughout our history, Johnson Controls has conducted business with integrity. Our dedication to “do the right thing” improves our long-term business performance, reputation, productivity, and employee retention. [Values First, the Johnson Controls Code of Ethics](#) applies to everyone at Johnson Controls – including the Board of Directors, company officers, employees, agents and contract workers. In addition to our Code of Ethics, we are committed to the principles in our [Human Rights & Sustainability Policy](#).

Integrity is at the center of everything we do at Johnson Controls. Our company’s ongoing success stems from our deeply engrained culture of ethics and integrity. Acting with integrity allow us to meet the high expectations of our customers, partners and communities, and gives us a competitive advantage. Doing business with integrity is the only way to do business.

The Johnson Controls Code of Ethics is available in 33 languages and provides specific guidance on the behaviors that allow us to implement our culture globally.

Compliance with our Code of Ethics and our Anti-Corruption Policy is a condition of employment. Johnson Controls trains its employees on a variety of anti-corruption and related matters, including the Foreign Corruption Protection Act, anti-bribery statements from our Code of Ethics and our Code of Ethics more broadly.

All online employees must complete ethics certification which requires completion of the ethics training module and a review of the Code of Ethics. Employees for whom certification is not required must demonstrate that they know and understand the Code of Ethics as part of their orientation and as part of their annual job appraisals. Each year since we launched the online ethics training in 2001, our number of participants has grown, and we consistently achieve more than 90 percent compliance with the training and certification requirements.

Status of the completion of the annual employee training certification is reported to the Audit Committee of the Board of Directors. The Audit Committee of the Board of Directors also has oversight responsibility for the contents of the Code of Ethics. The Code of Ethics is updated periodically to reflect changes in laws, regulations, and company policies.

The Code of Ethics is publicly available to anyone, including employees, customers, suppliers and other third parties on <http://valuesfirst.johnsoncontrols.com> and employees also have access to the Code of Ethics on the company's internal intranet.

Our [Code of Ethics](#) is also communicated to our employees in the following ways:

- All new employees upon being hired are required to sign that they have read, understand and will comply with our Code of Ethics as a condition of employment.
- The Code of Ethics is addressed by our managers regularly in employee meetings.
- The Code of Ethics is frequently addressed through the "tone at the top" whenever our leadership team provides communications throughout the year to employees (employee portal, in-person meetings, web casts, emails to employees, etc.).

We seek to create an environment that removes barriers and promotes inclusion, fosters effective recruitment, development, motivation and retention so that each is able to maximize his or her contribution to meeting business objectives. To ensure our processes are working properly and that employees, customers and shareholders understand our policies and guiding principles around treatment, respectability and integrity, we systematically gather feedback and take action to improve our work environment. We track, analyze and communicate performance outcomes quarterly.

## Integrity Helpline

102-17

A 24-hour Integrity Helpline is managed by the Ethics & Compliance department and is available to anyone who wishes to raise an ethics or compliance-related concern to the company. The Helpline is available in 47 languages, is operated by an independent third-party vendor and allows callers to log concerns anonymously. Employees, suppliers, customers and third parties can raise concerns either by phone or using the web-based [Integrity Helpline portal](#).

Concerns that are raised via the Integrity Helpline are triaged and then routed to the appropriate function for review and investigation. Statistics are collated quarterly and are reviewed with the global compliance leadership team and presented to the Audit Committee.

The Integrity Helpline is only one of several communication vehicles that employees can use to raise ethics-related concerns. Most often, employees discuss such issues directly with their manager. In addition, employees are encouraged to reach out to their HR representative, Legal department or Compliance team if they do not feel comfortable going to their direct manager.

Employees can also contact the Compliance team directly if they have any ethics or compliance related questions using the Ask Compliance mailbox [askcompliance@jci.com](mailto:askcompliance@jci.com). Queries that come in to this mailbox are reviewed and sent to the appropriate person who will respond to the enquiry.

## Public Policy Engagement

Johnson Controls engages with our stakeholders on public policy issues that are important to our business, including public policy issues and programs related to: energy efficient buildings and their operations; interconnected building systems; fire and life safety technologies; fuel-efficient batteries; and material recycling. We have staff at the corporate level and within each of our major geographies that engage with our stakeholders on local, state and national public policy issues.

Our public policy engagement is often conducted in conjunction with the efforts of allied business, trade and issue organizations of which the company is a member. Those organizations include

- United States: the Business Council for Sustainable Energy, the Alliance to Save Energy, the American Council for an Energy Efficient Economy, the National Association of Energy Service Companies, and the National Association of Manufacturers.
- Europe: European Partnership for Energy and the Environment, European Building Automation Controls Association, the European Alliance of Companies for Energy Efficiency in Buildings, Association of Automotive & Industrial Battery Manufacturers, the Association of the European Automotive Suppliers, and the European Association for Storage of Energy.
- Asia Pacific: China Energy Conservation Association; China Association Of Building Energy Efficiency (CABEE); the Centre for Environmental Education and

Communications of Ministry of Environmental Protection China (CEEC of MEP); China National Resources Recycling Association (CRRA); China Energy Storage Alliance; and Center for Environmental Education and Communications (CEEC) of State Environmental Protection Administration (SEPA) of China.

## Political Contributions

415-1

Johnson Controls and its employees participate in the public policy process in the United States in a variety of ways – from corporate government affairs activities designed to educate and influence elected officials and policy makers on key issues related to the company's business, to individual political giving by employees through Johnson Controls Political Action Committee (PAC, to membership in trade associations and organizations to help advance our business objectives.

Johnson Controls did not make any corporate contributions to political candidates, parties nor committees in 2018. It does not provide financial or in-kind support in other countries, or in other ways besides our PAC in the U.S.

## Bribery and Corruption Issues

205-1

Throughout our history, Johnson Controls has conducted business with integrity. We are guided by our Company Values, our [Code of Ethics and Anti-Corruption Policy](#), our Commitment to the [United Nations Global Compact](#), and our [Human Rights & Sustainability Policy](#).

Our dedication improves our long-term business performance, reputation, productivity, and employee retention. Values First, the Johnson Controls Code of Ethics applies to everyone at Johnson Controls – including the Board of Directors, company officers, employees, agents and contract workers.

The Johnson Controls Code of Ethics is translated into 33 languages and provides specific guidance on the behaviors that allow us to implement our culture globally. Compliance with our Code of Ethics and our Anti-Corruption Policy is a condition of employment.

Johnson Controls trains its employees on a variety of anti-corruption and related matters, including the Foreign Corruption Practice Protection Act, antibribery, conflicts of interest, statements from our Code of Ethics and our Code of Ethics more broadly. All online management-level employees must complete an annual ethics certification which requires completion of the ethics training module and a review of the Code of Ethics. Employees for whom certification is not required must demonstrate that they know and understand the Code of Ethics as part of their orientation and as part of their annual job appraisals.

Each year since we launched the online ethics training in 2001, our number of participants has grown and we have achieved 100 percent compliance with the training and certification requirements. In addition, all managers

are assigned a quarterly “Values in Action” training which requires them to hold a discussion session with their team based on prescribed scenarios that pose a variety of ethical dilemmas. All scenarios are based on cases from the Johnson Controls Integrity Helpline or risks identified through internal audit or management review.

These ethics training campaigns require a minimum completion rate of 90 percent enterprise-wide. In FY18, we closed the annual campaign at 97 percent completion and the average completion rate for the quarterly Values in Action was 94 percent. Operations Assessed for Risks Related to Corruption

100 percent of the company’s business units and corporate activities have been analyzed for risks related to corruption. This risk assessment is part of our strategic planning and Sarbanes Oxley processes. This risk assessment is also part of our audit plan which is a risk-based audit process. We have improved even further our international trade compliance program which includes the topic of corruption and have made sure risks are identified and processes are in place. This program looks at all of our businesses and geographies.

See our [Code of Ethics](#) and [Human Rights & Sustainability Policy](#) which both address corruption.



# Data Appendix

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# Sustainability Process Data

102-18

## Standards, methodologies, assumptions, and/or calculation tools used for direct (Scope 1) and indirect (Scope 2 and 3) GHG emissions

Activity data is mostly tracked using our Environmental, Health and Safety Information System (EHSIS) tool. A small portion of the data is tracked using templates consistent with the listed standards.

- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance, An amendment to the GHG Protocol Corporate Standard
- The Greenhouse Gas Protocol: Technical Guidance for Calculating Scope 3 Emissions
- The Greenhouse Gas Protocol: Scope 3 Evaluator tool
- The Climate Registry: General Reporting Protocol
- The Climate Registry: Electric Power Sector (EPS) Protocol
- US EPA Climate Leaders: Indirect Emissions from Purchases/Sales of Electricity and Steam
- US EPA Climate Leaders: Direct Emissions from Stationary Combustion
- US EPA Climate Leaders: Direct Emissions from Mobile Combustion Sources and DEFRA.
- GHG emissions consolidation approach for Scopes 1 and 2: Operational control
- Emission factor sources:
  - U.S. EPA
  - International Energy Agency (IEA)
  - The Climate Registry
  - DEFRA
- GWP values taken from:
  - IPCC Fourth Assessment Report (AR4 - 100 year)

### Location of Operations

103-1 | 102-4

Our 122,000 worldwide employees serve a wide range of customers in over 2,000 locations in more than 150 countries. Johnson Controls' [Location Finder](#) helps our customers find the facility that can best serve their needs. We have facilities located in the following countries:

Location of Operations					
Argentina	Costa Rica	Ireland	Monaco	Russia	UAE
Australia	Czech Republic	Israel	Netherlands	Saudi Arabia	UK
Austria	Denmark	Italy	New Zealand	Singapore	Uruguay
Bahrain	Egypt	Japan	Norway	Slovakia	USA
Bangladesh	Finland	Jordan	Oman	South Africa	Uzbekistan
Belgium	France	Kazakhstan	Panama	South Korea	Vietnam
Brazil	Germany	Kuwait	Peru	Spain	
Bulgaria	Guam	Lebanon	Philippines	Sweden	
Canada	Hong Kong	Luxembourg	Poland	Switzerland	
Chile	Hungary	Macau	Portugal	Taiwan	
China	India	Malaysia	Puerto Rico	Thailand	
Colombia	Indonesia	Mexico	Qatar	Turkey	

## Stakeholder Engagement

102-40 | 102-43 | 102-21

Our approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.

Stakeholder Engagement			
Stakeholder Type/Group	Frequency of engagement	Approach	Portion of engagement as part of the report preparation process
Employees including Executive Leadership and Business Resource Group leaders	At least quarterly	Quarterly "Town Hall" meetings Employee Surveys Business Resource Group initiatives Sustainability report Internal website Materiality Assessment	Participation in Sustainability Materiality Assessment
Suppliers	At least quarterly	Calls 1x1 engagement Surveys Conferences Top Supplier Awards Supplier Diversity initiatives Materiality Assessment	Participation in Sustainability Materiality Assessment
Customers	At least quarterly	Calls Meetings 1x1 engagement Surveys Materiality Assessment Market Research	Participation in Sustainability Materiality Assessment
Investors	At least quarterly	Calls Annual Investor Day Materiality Assessment	Participation in Sustainability Materiality Assessment
Non-governmental organizations	At least quarterly	Calls Meetings Conferences Materiality Assessment Memberships Funding through Foundation and Sponsorships Employee volunteering	Participation in Sustainability Materiality Assessment
Industry Groups	At least quarterly	Calls Meetings Conferences Materiality Assessment	Participation in Sustainability Materiality Assessment
Labor Groups	At least quarterly	Calls Meetings	Participation in Sustainability Materiality Assessment
Media	At least quarterly	Calls Meetings Conferences Materiality Assessment	Participation in Sustainability Materiality Assessment
Academia	At least quarterly	Calls Meetings Research partnerships Employee matching programs for higher educational institutions Materiality Assessment	Participation in Sustainability Materiality Assessment

# Environmental Data

## Results: Energy

ISO 14001, ISO 50001, and OHSAS 18001 certified and compliant status from manufacturing facilities

Environmental Data			
JCI Company-wide	ISO 14001	ISO 50001	OHSAS 18001
Certified	63%	8%	64%
Compliant	9%	0%	7%

## Energy consumption within the organization

302-1 | 302-3

Energy consumption within the organization					
Consumption by fuel type	Unit of measure	2018	2017	2016	2015
<b>Renewable fuels</b>					
Biomass	GJ	54,326	59,131	60,222	52,820
Ethanol	GJ	1,612	2,288	3,940	8,051
<b>Subtotal</b>	<b>GJ</b>	<b>55,938</b>	<b>61,419</b>	<b>64,162</b>	<b>60,871</b>
<b>Non-renewable fuel sources</b>					
Natural Gas	GJ	6,016,512	5,994,836	6,206,818	6,589,589
Fuel distilled from crude oil and other fossil fuels*	GJ	4,503,512	4,644,535	2,052,669	2,109,447
<b>Subtotal</b>	<b>GJ</b>	<b>10,520,024</b>	<b>10,639,370</b>	<b>8,259,487</b>	<b>8,699,036</b>
<b>Energy consumed</b>					
Electricity	GJ	9,990,921	9,608,654	11,362,318	11,127,587
Steam	GJ	111,717	115,430	229,307	237,757
<b>Subtotal</b>	<b>GJ</b>	<b>10,102,638</b>	<b>9,724,084</b>	<b>11,591,625</b>	<b>11,365,344</b>
<b>GRAND TOTAL</b>	<b>GJ</b>	<b>20,678,600</b>	<b>20,424,873</b>	<b>19,915,275</b>	<b>20,125,251</b>

\*This category includes: gasoline, diesel, propane/LPG, butane, jet fuel, heavy fuel oil, coal.

### Methodology notes:

- The data is tracked using the Environmental, Health and Safety Information System (EHSIS) tool. Energy consumption is tracked at the facility, group and corporate levels. Since 2003, we have reported sustainability data in accordance with the Global Reporting Initiative (GRI) guidelines. This information is third party verified by Bureau Veritas with a limited assurance.
- Percentage of total operational spending on energy (most recent reporting year): More than 0%, but less than 5%.
- Please refer to our latest CDP report for a breakout of the sources of the renewable energy used.
- Please see section GRI 102-48 for more detail on restatements of information.
- The categories of "heating" and "cooling" are not applicable to our data tracking.
- The "Energy Sold" category is not applicable to our company. Johnson Controls does not sell energy.
- All estimates are based on the best available data at publication and may change over time.

## Energy consumption outside the organization

302-2

Energy consumption outside the organization					
Energy Category/ Activities	Unit of measure	2018	2017	2016	2015
<b>Upstream</b>					
Fuel and energy related activities <sup>1</sup>	GJ	1,097,532	935,005	1,197,789	1,202,580
Transportation and distribution <sup>2</sup>	GJ	15,159,576	16,481,303	22,053,983	20,697,803
<b>Downstream</b>					
Investments <sup>3</sup>	GJ	0	0	1,331,427	1,990,554
Use of sold products <sup>4</sup>	GJ	85,727,711	84,213,516	94,002,099	104,617,473
<b>GRAND TOTAL</b>	<b>GJ</b>	<b>101,984,819</b>	<b>101,629,824</b>	<b>118,585,298</b>	<b>128,508,410</b>

- (1) This energy is associated with the losses during transmission and distribution of energy (electricity and natural gas). This energy loss is estimated using publicly available transmission and distribution factors based on the volume of energy consumed.
- (2) This energy is associated with the transportation of our products and raw materials that is controlled and paid for by Johnson Controls. Transportation includes air, ocean, and truckloads. Energy values are estimated based on spend data.
- (3) This energy is associated with the energy consumed by the plants that belong to joint ventures where Johnson Controls has no operational control and/or has a minority equity share. This category mainly included the energy for the JV automotive plants from Adient that were previously part of the Johnson Controls plant portfolio, but since the Adient is now a separate company, we are no longer reporting data for this category.
- (4) This energy is associated with the energy consumed by our chiller products manufactured during the reporting year and through their entire use phase. This value is estimated by modeling the energy usage for a representative sample of chiller product categories and extrapolating for the rest.

## Energy Intensity

302-3

Energy Intensity					
	Unit of measure	2018	2017	2016	2015
Numerator <sup>1</sup>	GJ	20,678,600	20,424,873	19,915,275	20,125,251
Denominator <sup>2</sup>	Million USD in revenue	31,399	30,171	36,866	36,508
Energy Intensity (ratio)	GJ per Million USD in revenue	659	677	540	551

- (1) Scope includes only what is under company's operational control.
- (2) Revenue values used in this analysis have been adjusted for acquisitions and divestitures, consistent with the energy values used in the numerator.
- (3) Energy and revenue values are both adjusted to reflect acquisitions and divestitures.

## Reduction of energy consumption

302-4

Reduction of energy consumption					
	Unit of measure	2018	2017	2016	2015
Total Energy Saved	Gigajoules	101,395	204,823	310,374	114,255

### Methodology notes:

- Our Continuous Improvement team collects project information implemented at the plant level. This project information includes energy usage and cost savings as well as details behind the type of energy being saved and project description. Reports from this tool facilitate the process of aggregating annual savings each year.
- Base year/baseline: Savings represent reductions for each year. The previous year, therefore, represents the base year.

## Reductions in energy requirements of products and services

302-5

Reductions in energy requirements of products and services					
Product/Service(s)	Unit of measure: Gigajoules (GJ)	2018	2017	2016	2015
Energy Savings Performance Contracting <sup>1</sup>		25,761,568	21,768,740	22,786,125	24,937,483
Chiller Products <sup>2</sup>		617,022	569,500	582,773	570,803
<b>TOTAL</b>		<b>26,378,590</b>	<b>22,338,240</b>	<b>23,350,898</b>	<b>25,508,286</b>

- These values are guaranteed energy savings from our energy savings performance contracting project portfolio in the US and Canada active during each reporting year.
- These annual energy savings are associated with the higher energy efficiency of two of our chiller products compared to existing standard industry designs.

### Methodology notes:

- Our energy solutions team generates reports for our guaranteed energy savings active during each reporting year, which facilitates generating an annual total. Our chiller equipment savings represent the higher efficiency of our products compared to existing standard designs.
- Base year/baseline: Energy Savings represent reductions for each year brought by a portion of our products and services. The previous year, therefore, represents the base year.
- Johnson Controls provides a variety of advanced products, services and technologies for an assortment of applications that include reducing energy and greenhouse gases (GHG). Find some examples here.

## Results: Emissions

Direct (Scope 1), Indirect (Scope 2) and Other Indirect (Scope 3) GHG emissions

305-1 | 305-2 | 305-3 | 305-4

<b>Results: Emissions</b>				
	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
<b>Direct (Scope 1) - Metric Tons CO<sub>2</sub>e</b>				
CO <sub>2</sub>	772,162	774,398	630,274	668,109
CH <sub>4</sub>	145	144	992	1,035
N <sub>2</sub> O	193	192	262	246
HFC	260,019	257,753	194,522	205,159
<b>Subtotal</b>	<b>1,032,520</b>	<b>1,032,487</b>	<b>826,050</b>	<b>874,549</b>
<b>Indirect (Scope 2)<sup>1</sup> - Metric Tons CO<sub>2</sub>e</b>				
Market-based	1,278,279	1,348,133	1,701,447	1,630,006
Location-based	1,315,071	1,425,455		
<b>Subtotal</b>	<b>1,278,279</b>	<b>1,348,133</b>	<b>1,701,447</b>	<b>1,630,006</b>
<b>Other Indirect (Scope 3) - Metric Tons CO<sub>2</sub>e</b>				
Purchased goods and services	7,810,000	6,526,000	12,200,000	13,200,000
Capital goods	2,404,100	2,032,000	274,000	2,000,000
Fuel and energy related activities <sup>2</sup>	144,000	114,000	136,000	135,000
Upstream transportation and distribution	1,101,000	1,198,000	1,600,000	1,485,000
Waste	17,100	14,200	27,000	24,000
Business travel <sup>3</sup>	52,000	36,400	43,000	30,000
Employee commuting	281,000	249,000	229,000	312,000
Investments	0	0	218,000	284,000
Use of products <sup>4</sup>	15,750,000	18,134,000	20,300,000	22,200,000
End of life	268,000	268,200	300,000	361,000
<b>Subtotal</b>	<b>27,827,200</b>	<b>28,571,800</b>	<b>35,327,000</b>	<b>40,031,000</b>
Biogenic <sup>5</sup> Metric Tons CO <sub>2</sub> e	4,995	5,517	5,425	4,759
<b>GRAND TOTAL (Scope 1+2+3)<sup>6</sup> Metric Tons CO<sub>2</sub>e</b>	<b>30,137,998</b>	<b>30,952,419</b>	<b>37,854,497</b>	<b>42,535,555</b>
GHG Intensity <sup>7</sup> Metric Tons CO <sub>2</sub> e per Million USD in revenue	73.6	78.9	68.6	68.6

- (1) We compute both location and market-based indirect emissions. We use market-based emissions to track our progress towards our reduction targets. Gases used to calculate Scope 2 include CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O.
- (2) Category considers emissions for transportation and distribution losses only.
- (3) Category considers emissions from business air travel only.
- (4) Category considers emissions from chiller products only.

- (5) Emissions reported for informational purposes only, not included in Scope 1 subtotals or section grand totals.
- (6) Excludes biogenic emissions and considers the market-based emissions for Scope 2.
- (7) Considers only Scope 1 and Scope 2 emissions. All Scope 2 emissions are calculated using the Market-based approach from the World Resources Institute (WRI) Greenhouse Gas (GHG) Protocol's Scope 2 Guidance. Revenue values used in this analysis have been adjusted for acquisitions and divestitures, consistent with the energy values used in the numerator.

## Reduction of GHG emissions

305-5

Reduction of GHG emissions					
	Unit of measure	2018	2017	2016	2015
Total GHG reductions	Metric tons CO <sub>2</sub> e	55,639	99,982	47,047	15,783

### Methodology notes:

- List of GHG included: Carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and hydrofluorocarbons (HFC). Greenhouse gas (GHG) reductions are measured as an aggregate value for each year rather than in relation to a base year.
- Our CI-TRAC tool collects project information implemented at the plant level. This project information includes energy usage and cost savings as well as details behind the type of energy being saved and project description. Reports from this tool facilitate the process of aggregating annual cost and GHG reductions each year.

## Emissions of ozone-depleting substances (ODS)

305-6

	Unit of measure	2018	2017	2016	2015
Purchase of ODS	Metric tons of CFC-11 equivalent	5.5	6.8	7.5	116.9

### Methodology notes:

- This data was collected through our procurement teams accounting for the purchase and usage of R22. All estimates are based on the best available data at publication and may change over time.
- Totals in production row represent mass that we use in our manufacturing and laboratory testing processes. Johnson Controls is not a producer of these substances. However, this is the most appropriate row to report the data given that it is involved in our production and laboratory activities.
- Within our York line of products, we track the use of hydrochlorofluorocarbons (HCFC) in the manufacturing of our building equipment systems, which is the main source of our ozone-depleting substances (ODS). Their related emissions are primarily used in developing countries, consistent with the phase out schedule specified by the Montreal Protocol, which calls for a phase-out of HFC refrigerants. Our heating, ventilation and air conditioning (HVAC) service technicians offer preventive maintenance and predictive diagnostics to prevent the release of ozone-depleting substances ODS while working on equipment containing refrigerants at customer facilities. Although we may use HCFCs when servicing some of our customers, we do not report that usage since we consider it part of our customers' activities. We have been engaged in the rapid phasing down of R22 and other HCFCs in accordance with the Montreal Protocol, including seeking alternatives where possible.



## Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions

305-7

Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions					
Emissions Types	Unit of measure	2018	2017	2016	2015
SOx emissions <sup>1</sup>	Kg	14,371	14,569	9,860	20,424
SOx intensity	kg per Million USD in revenue	0.46	0.48	0.33	0.56
NOx emissions <sup>2</sup>	Kg	454,118	456,579	364,041	552,983
NOx intensity	kg per Million USD in revenue	14.5	15.1	12.3	15.2
Particulate matter emissions <sup>3</sup>	Kg	40,659	41,465	33,909	47,400
Hazardous air pollutants (HAP) <sup>4</sup>	Kg	NA	38,409	27,181	39,771
Volatile organic compound (VOC) emissions <sup>5</sup>	Kg	6,234	89,180	81,546	108,077
VOC intensity <sup>5</sup> kg per Million USD in revenue	kg per Million USD in revenue	0.2	2.9	3.0	2.9
Global normalized stack and fugitive emissions <sup>6</sup>	kg per Million USD in revenue	16.4	21.2	17.7	21.1

- (1) Global SOx emissions from the combustion of natural gas, propane/LPG, diesel, butane, gasoline, and biomass from stationary sources.
- (2) Global NOx emissions from the combustion of natural gas, propane/LPG, diesel, butane, gasoline, and biomass from stationary sources.
- (3) Global PM emissions from the combustion of natural gas, propane/LPG, diesel, butane, gasoline, and biomass from stationary sources.
- (4) HAPs data is US data only. HAPs data for 2018 has not yet been calculated as the data is extracted from Toxic Release Inventories (TRI) reports, which are not gathered for reporting until later in 2019.
- (5) 2018 reported value for VOC currently excludes toxic release inventory (TRI) data since it is still unavailable at this time and only includes VOC emissions from fossil fuel combustion. 2017 figure was restated and now it includes TRI reported data.
- (6) Stack and fugitive emissions numerator value considers the sum of SOx, NOx, VOC, PM, and HAPs data. 2018 reported value currently excludes toxic release inventory (TRI) data since it is still unavailable at this time. 2017 figure was restated and now it includes TRI reported data.

### Methodology notes:

- Reported data considers emissions from the combustion of natural gas, propane/LPG, diesel, butane, gasoline, and biomass from stationary sources. This section also includes data reported through the Environmental Protection Agency (EPA) Toxic Release Inventory (TRI) reports.
- Data reported for all emissions and years covers all operationally controlled facilities unless specifically noted.
- Hazardous air pollutants (HAP) and volatile organic compounds (VOC) data for 2018 from EPA not available at this time of the year because it is based on toxic release inventory (TRI) data which is not reported until July 2018.

- Energy consumption data used for these calculations are compiled using our EHSIS reporting tool. These tools allow us to collect site level utility information. The rest of the information is retrieved from the EPA's Envirofacts database as reported through Toxic Release Inventory (TRI) Reports.
- Emission factors from EPA AP 42, Fifth Edition, Volume I and the California Air Resources Board were used to estimate emissions from stationary combustion.
- Select items have been verified. Bureau Veritas verified the energy consumption data which is used as primary data to estimate SOx, NOx, VOC, and PM emissions from combustion.
- Emissions are tracked mostly at the facility level and then aggregated across the enterprise. In some cases, data are only available for certain regions. For example, our HAP and VOC data are from the Toxic Release Inventory (TRI) database maintained by the U.S. Environmental Protection Agency and therefore include only releases in the United States.
- Historically, emissions from acquisitions have not been accounted for until after the date of acquisitions.
- Effective 2014, we no longer consider and report Copper or Certain Glycol Ethers as a HAP, consistent with U.S. Environmental Protection Agency (EPA) definition of HAPs, however we continue to report releases of these substances.
- Other Annual Emissions may include one or more of the following: antimony/antimony compounds; arsenic; chlorofluoromethane; chromium; cobalt; copper; 1,1-dichloro-1-fluoroethane; 2,2-dichloro-1,1,1-trifluoroethane; diethanolamine; diisocyanates; ethylene glycol; lead/lead compounds; manganese; nickel; N-methyl-2-pyrrolidone; propylene; sulfuric acid (acid aerosols); toluene diisocyanate; xylene; and zinc compounds.
- SOx, NOx, PM and a portion of the VOCs data is calculated as a product of combustion from the use of natural gas, propane/LPG, diesel, butane, gasoline, and wood pellets.
- Dust and persistent organic pollutant (POP) emissions are considered not significant based on our set of operations.

## Results: Water

303-1| 303-2

Outside of municipal water we currently do not have data on other water sources used, including recycling. We are in the process of exploring the best approach to obtaining more granular water data and we hope to be able to report more information on the results of this analysis in the future. Efforts to collect water use data were initiated globally in 2003. Each year, the number of facilities reporting increases and will continue to improve so that we may trend usage for future reports. Water conservation and recycling efforts are primarily managed at the facility level, but more focus on water use is increasing as data becomes more available.

### Water withdrawal by source

Water withdrawal by source					
Source	Unit of measure	2018	2017	2016	2015
Municipal water supplies or other water utilities	Cubic meters	7,687,045	7,372,382	8,508,609	8,165,748
Total water withdrawal	Cubic meters	7,687,045	7,372,382	8,508,609	8,165,748
Normalized water withdrawal (Intensity)	Cubic meters per Million USD in revenue	245	244	231	224

### Methodology notes:

- Data is sourced from direct measurements (invoices, metered data).
- Starting with our 2011 data, Bureau Veritas, an independent auditor recognized by CDP, audited our water consumption. The certificate for this most recent audit is attached to the GRI Index.
- As Johnson Controls has expanded globally, the diversity of our facilities and products has increased. Outside of municipal water we currently do not have comprehensive data on other water sources used, however we have initiated efforts to improve the detail of our water data.

### Water recycled and reused

303-3

*Specific Data Unavailable*

### Results: Waste

As a result of our efforts, in FY2018, seven of our facilities were recognized for achieving a zero waste to landfill status. There are now 17 Johnson Controls Global Products plants internally certified as zero landfill. These plants are located in all regions of the world, making environmental sustainability a truly global effort. Overall, Johnson Controls has a 43 percent company-wide diversion rate including hazardous and non-hazardous waste.

### Water discharge by quality and destination

306-1

Water discharge by quality and destination					
Destination	Unit of measure	2018	2017	2016	2015
Water discharge	Cubic meters	4,069,813	3,315,614	3,306,441	3,449,580

### Methodology notes:

- Volume values for all years include total sewer discharge. We are currently in the process of collecting additional level of detail in terms of discharge destination to provide additional breakdown in the near future.
- Sewage and stormwater represent the major types of discharges from our manufacturing plants and office complexes.
- Wastewater from Power Solutions facilities is treated and tested before discharge. Discharge results are monitored and reported in accordance with applicable permit requirements. We reuse and recycle water whenever possible. Our battery plants have several recycle systems in place such as (1) closed loop acid recycle system – acid is reused to achieve the desired acid concentration. and (2) pasting recycle systems where acid and oxide form paste within a closed loop system that minimized releases into the wastewater treatment system. Also, battery wash water is contained and recycled back to acid mixing, except where detergents are used that involves treatment before discharge.
- Unplanned discharges that violate host country regulations are tracked within our global Environmental Health & Safety teams and monitored by management.

## Waste by type and disposal method

306-2

Waste by type and disposal method				
Category	2018	2017	2016	2015
<b>Non-hazardous waste - Metric Tons</b>				
Reuse	3,695	2,992	4,562	5,365
Recycling	119,137	103,732	196,802	218,159
Composting	288	274	667	0
Recovery (including energy recovery)	3,023	1,800	17,144	6,637
Incineration	1,503	1,929	993	5,851
Landfill	24,847	28,230	48,449	56,823
<b>TOTAL</b>	<b>152,494</b>	<b>138,957</b>	<b>268,617</b>	<b>292,835</b>
<b>Hazardous waste - Metric Tons</b>				
Reuse	2,735	3,082	2,155	7,047
Recycling	45,353	35,116	50,971	41,429
Composting	0	0	0	0
Recovery (including energy recovery)	698	1,263	1,584	1,428
Incineration	3,097	1,517	2,338	1,261
Landfill	179,377	164,395	185,989	164,486
<b>TOTAL</b>	<b>231,260</b>	<b>205,373</b>	<b>243,037</b>	<b>215,651</b>
<b>GRAND TOTAL (Non-hazardous+Hazardous)</b>	<b>383,753</b>	<b>344,329</b>	<b>511,654</b>	<b>508,486</b>

### Methodology notes:

- Through our contracts with waste disposal contractors, we require them to provide with the data and documentation of each pickup from our sites matched to the GRI categories. This data is entered by site personnel at each location each month into our global Environmental Health & Safety tracking system.

## Significant spills

306-3

A significant spill is defined as a spill that is included in the organization's financial statements, for example due to resulting liabilities, or is recorded as a spill by the organization. During reporting year FY2018, no spills had a materially adverse effect on Johnson Controls finances or to the local environment and/or community. Nonetheless, to ensure transparency, we are reporting all "reportable spills," which we define as a spill or release that requires reporting to a regulatory agency.

Significant spills		
Recorded significant spills	Total number	Source detail
2018	0	2018 NOVs, Permit Exceedances and Releases
2017	0	2017 NOVs, Permit Exceedances and Releases
2016	3	2016 NOVs, Permit Exceedances and Releases
2015	2	2015 NOVs, Permit Exceedances and Releases

Our Johnson Controls Manufacturing System defines standards for environmental management to avoid spills in the first place. We identify and share best practices across the enterprise through the Global Manufacturing and Operations Council and other mechanisms to continuously improve our environmental management practices. In the unlikely event of an emergency or crisis, we have a regularly-updated Crisis Management Plan to effectively address incidents and minimize impacts to our employees, communities, the environment, and other stakeholders.

## Transport of hazardous waste

306-4

Transport of hazardous waste					
	Unit of measure	2018	2017	2016	2015
Hazardous waste transported	kilograms	231,259,893	205,372,781	243,037,711	215,651,145

In compliance with the Basel Convention and other relevant environmental laws and regulations, Johnson Controls strives to implement environmentally sound management of hazardous wastes and other wastes by taking all practicable steps to support proper waste handling and transport that is protective of human health and the environment. For the transport of all wastes, Johnson Controls seeks to hire reputable, conscientious and safe freight forwarders and carriers to carry the wastes, whether such wastes will be recycled or permanently disposed. Carriers are required to be licensed and insured for moving hazardous waste and dangerous goods. All reasonable precautions are taken to protect the environment and workers in transporting hazardous wastes and other wastes. Johnson Controls implements a "cradle-to-grave" process, tracking all waste that leaves U.S. soil until such wastes: (1) full environmentally sound recovery; or (2) disposal in a manner that is protective of human health and the environment.

### Methodology Notes:

Numbers for this section have been updated to only reflect the hazardous waste mass that is generated as a by-product of our own operations and ultimately transported for disposal. All estimates are based on the best available data at publication and may change over time.

## Water bodies affected by water discharges and/or runoff

306-5

*Specific Data Unavailable*

Typically, our facilities are in industrial corridors or complexes where other industrial activities are present. Our approach to the siting and management of all of our facilities remains consistent with our commitments as a signatory to [the United Nations Global Compact](#), our [Code of Ethics](#), our environmental, health and safety standards, and all applicable laws and regulations.

## Results: Materials

### Materials used by weight or volume

301-1

Materials used by weight or volume			
	Unit (weight or volume)	% internally sourced	% externally sourced
Raw materials used	% by weight	20%	80%
Total non-renewable materials	% by weight	20%	79%
Total renewable materials used	% by weight	0%	1%
<b>TOTAL</b>		<b>20%</b>	<b>80%</b>

### Recycled input materials used

301-2

Recycled input materials used				
	2018	2017	2016	2015
% Recycled input materials used	74%	73%	72%	74%

### Methodology notes for materials used and recycled input materials used:

The values are estimated using company-wide purchasing and spend information. The largest amount of materials used, by weight, are metals, such as steel, copper, tin, aluminum, and lead. Our internally sourced material is the recycled lead from used car batteries in our Power Solutions business. A very small amount of our raw materials come from a renewable source; mainly bio-materials. Whenever primary data is not available on percent of recycled content in our materials, we use the recycled content industry average.

### Percent of reclaimed products and their packaging materials

301-3

Percent of reclaimed products and their packaging materials					
Product sold	2018	2017	2016	2015	How data was collected
Lead batteries	80%	80%	80%	80%	Our own batteries are manufactured with more than 80 percent recycled content – some of the highest recycled content of any product in the world. Today, in the U.S. and Europe, 99 percent of conventional vehicle batteries are recycled.
Pallets for a variety of products	90%	90%	90%	90%	The majority of pallets used to ship materials are reused through a pickup program we have established with our suppliers and customers.

# Social Data

## Direct Economic Value Generated and Distributed

201-1

Direct Economic Value Generated and Distributed							
Currency: Million USD	Value generated	Value distributed					Value retained
FY2018	Revenues	Operating costs	Wages and benefits	Payments to providers of capital	Payments to government	Community investments	(generated less distributed)
Company Level	31,400	(21,179)	(7,115)	(1,395)	(517)	14	1,208

## Workers representation in formal joint management-worker health & safety committees

403-1

Workers representation in formal joint management worker health & safety committees	
Percentage of the total workforce represented in formal joint management-worker health and safety committees:	<ul style="list-style-type: none"> <li>Over 75%</li> <li>Between 50% and 75%</li> <li>Between 25% and 50%</li> <li>Up to 25%</li> <li>None</li> </ul>
Explanation of the level(s) at which each formal joint management-worker health and safety committee typically operates within the organization:	The Company maintains and requires Health and Safety Committees at the facility, region, business unit and enterprise levels. For a more complete description of the Company's Health and Safety Committees, please refer to the Health and Safety-Overview document.

## Diversity of governance bodies and employees

405-1

Diversity of governance bodies and employees									
Governance body (e.g. board) members (as of Annual Meeting of March 6, 2019)	Male		Female		Minority or Vulnerable Group		Age Groups		
	Number	%	Number	%	Number	%	% <30 years old	% 30 - 50 years old	% >50 years old
		9	75%	3	25%	5	42%	0%	8%

	Male			Female		
	Global number	% in home country	Global %	Global number	% in home country	Global %
<b>Total</b>	94,370		78%	26,103		22%
<b>Managers</b>	10,226		83%	2,152		17%

Employees	Minority or Vulnerable Group		Age Groups			
	Global number	% in home country	Global %	% <30 years old	% 30 - 50 years old	% >50 years old
<b>Total</b>	12,375		28%	18%	56%	26%
<b>Managers</b>	822		18%	3%	61%	36%

Minority or Vulnerable Group data represents U.S. employees. Age Groups data represents all employees globally.

### Ratio of basic salary and remuneration of women to men, by significant locations\* of operations

405-2

Ratio of basic salary and remuneration of women to men, by significant locations* of operations				
Location	2018 Ratio	2017 Ratio	2016 Ratio	2015 Ratio
Canada	0.85	0.90	1.14	0.91
Czech Republic	0.79	0.83	0.88	1.10
Germany	0.87	0.94	0.93	0.86
Mexico	0.92	1.10	0.76	0.84
Singapore	0.69	0.74	0.71	1.07
China	1.03	0.99	0.97	0.96
Slovakia	0.81	0.80	0.97	0.79
Total Home Country	0.94	0.86	0.87	0.75
Total Worldwide	0.93	0.92	0.91	0.91

\*Significant location: location that has a large concentration of employees in both plant and corporate offices.

### Incidents of discrimination and corrective actions taken

406-1

Incidents of discrimination and corrective actions taken				
	2018	2017	2016	2015
Total number of incidents of discrimination	124	84	105	147

Status for all incidents for all years:

- Reviewed
- Remediation plan being implemented Remediation plan implemented, results
- Reviewed through routine internal management review process
- Incident no longer subject to attention

Corrective Actions Taken: All appropriate incidents are investigated and corrective actions implemented to prevent a recurrence.



## Ratio of Standard Entry Level Wage by Gender Compared to Local Minimum Wage

202-1

Ratio of Standard Entry Level Wage by Gender Compared to Local Minimum Wage				
Ratio of employee entry level wages to the minimum wage at significant locations of operations	Local minimum wage	Gender or Total Workforce	Minimum wage used	Ratio of entry level wage to minimum wage
United States (Headquarters locations)	Exists	Men	7.25 USD	2.69
United States (Headquarters locations)	Exists	Women	7.25 USD	2.39
China	Exists	Men	2,200 CNY	1.48
China	Exists	Women	2,200 CNY	1.17

Ratio of employee entry level wages to the minimum wage at significant locations of operations	Local minimum wage	Gender or Total Workforce	Minimum wage used	Ratio of entry level
Mexico (Juarez locations)	Exists	Men	88.36 MXN	5.21
Mexico (Juarez locations)	Exists	Women	88.36 MXN	1.75
Czech Republic	Exists	Men	12,200 CZK	1.67
Czech Republic	Exists	Women	12,200 CZK	1.44
Slovakia	Exists	Men	480 EUR	2.00
Slovakia	Exists	Women	480 EUR	1.81

## Ratio of annual total compensation

102-38

Ratio of annual total compensation	
Location	Total number
Canada	2.59
Czech Republic	3.59
Germany	2.57
Mexico	6.80
Singapore	3.49
China	9.70
Slovakia	4.49
<b>Total Home Country</b>	<b>4.65</b>
<b>Total Worldwide</b>	<b>4.74</b>

In providing the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees, we are including full time employees that are manager-level or above (Corporate only for USA, Canada and Mexico).

## Ratio of percentage increase in annual total compensation

102-39

Ratio of percentage increase in annual total compensation	
Location	Total number
Canada	0.71
Czech Republic	1.00
Germany	0.48
Mexico	0.92
Singapore	1.46
China	1.00
Slovakia	1.49
<b>Total Home Country</b>	<b>1.24</b>
<b>Total Worldwide</b>	<b>1.04</b>

The ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country is based on the ratio of the median merit percentage increase versus the merit increase of the highest paid employee in that country. The overall global average is 1.04 of the median increase over the highest paid increase.

## Benefits which are standard for full-time employees

201-3 | 401-2

We publicly disclose many of the benefits we offer employees. Some location-specific benefits vary. For example, some locations offer childcare, and we provide English classes to families in Mexico. Also, not all locations have gym facilities or gym fee reimbursement programs.

### Insurance:

- Healthcare employee
- Healthcare family
- Dental
- Vision
- AD&D
- Short Term Disability
- Long Term Disability
- Disability/invalidity insurance
- Life Insurance
- Accident Insurance

### Vacation and leave:

- Medical and Family Leave
- Vacation
- Paid sick days
- Bereavement Leave

### Flexibility:

- Job security initiatives for redeployment, including retraining, relocation, work-sharing and outplacement services
- Flexible work schemes and work-sharing
- Recall rights for laid-off employees
- Flex scheduling
- Telecommuting options
- Paid time off for employee volunteers

### Financial:

- Stock Ownership
- Stock Options
- Relocation Assistance
- Matching gift program

**Education:**

- Education Benefits: Employee
- Tuition reimbursement (other than career training)
- Higher education scholarship programs, for either employees or their relatives
- Workforce training, skills and leadership development programs
- Mentoring program

- Onsite Recreation Facilities
- Gym facilities or gym fee reimbursement programs
- Preventative healthcare programs
- Carpooling support programs
- Employee recognition programs

**Retirement:**

- Pension plans/retirement provision
- Retirement: Defined Benefit Plan (including pension plan)

**Wellness:**

- Employee Assistance Program
- Work/Life Support Program
- Wellness/Fitness Program
- Onsite Fitness Facilities

**New employee hires and employee turnover**

401-1

New employee hires and employee turnover									
Total Workforce		2018		2017		2016		2015	
New Employee Hires		Total Number	Rate	Total Number	Rate	Total Number	Rate	Total Number	Rate
Global (excludes hires from acquisition/HAF)	All age groups	28,617	24%	26,831	22.6%	36,873	25.9%	32,807	23.4%
	Under 30 years old	13,334	61%	12,497	55.5%				
	Between 30 and 50 years old	12,742	19%	12,137	18.5%				
	Over 50 years old	2,513	8%	2,197	7.2%				
Employee Turnover		Total Number	Rate	Total Number	Rate	Total Number	Rate	Total Number	Rate
Global (Exclude Terms from Divestiture or Facility Sold)	All age groups	27,571	23.3%	25,108	21.2%	33,785	23.7%	30,447	21.7%
	Under 30 years old	9,803	43%	8,546	37.9%				
	Between 30 and 50 years old	13,511	19%	12,552	19.2%				
	Over 50 years old	5,264	5%	4,010	13.1%				

## Gender Diversity

102-8

Gender Diversity				
Women in supervisory positions and above	2018	2017	2016	2015
Non-management – male	84,144	80,429	90,376	
Non-management – female	23,951	22,745	39,357	
Non-management total	108,095	103,174	129,733	87,436
Supervisor level and above – male	12,303	12,440	12,078	
Supervisor level and above – female	2,950	2,975	2,970	
Supervisor level and above	15,253	15,415	15,048	51,564
<b>Total employees</b>	<b>123,348</b>	<b>118,589</b>	<b>144,781</b>	<b>139,000</b>

Full-time and part-time employees by gender	2018	2017	2016	2015
Full-time – male	93,799	92,269	101,804	
Full-time – female	25,291	24,877	41,529	
<b>Total full time</b>	<b>119,090</b>	<b>117,146</b>	<b>143,333</b>	<b>138,011</b>
Part-time – male	571	599	650	
Part-time – female	812	843	798	
<b>Total Part-time</b>	<b>1,383</b>	<b>1,442</b>	<b>1,448</b>	<b>1,520</b>

Employees by region	Male	Female
North America	38,687	10,474

Permanent and temporary employees by gender	2018	2017	2016	2015
Indefinite or permanent contract – male	92,935	91,036	97,593	
Indefinite or permanent contract – female	25,539	24,961	39,988	
<b>Total indefinite or permanent</b>	<b>118,474</b>	<b>115,997</b>	<b>137,581</b>	<b>131,751</b>
Fixed term or temporary contract – male	1,242	1,685	4,785	
Fixed term or temporary contract – female	496	759	4,861	
<b>Total fixed term or temporary</b>	<b>1,738</b>	<b>2,444</b>	<b>9,646</b>	<b>7,780</b>

## Average Hours of Training per Year per Employee

404-1

Average Hours of Training per Year per Employee								
New Employee Hires	2018		2017		2016		2015	
	Male	Female	Male	Female	Male	Female	Male	Female
CEO	1.33	0	6.58	0	2.42	0	3.17	0
President/Executive Vice-President	6.50	6.03	5.96	6.17	3.2	1.00	3.63	2.17
Vice-President/General Manager	7.8	8.23	5.94	6.32	3.13	5.2	6.32	8.46
Director								
11.54	12.41	7.37	7.93	7.40	6.20	10.95	10.00	
Manager	13.00	13.89	10.23	10.17	10.02	10.50	14.29	15.95
Supervisor	13.01	16.83	10.02	19.40	11.34	15.12	12.85	14.46
Individual Contributor – Professional	13.66	17.04	9.50	15.55	10.35	11.52	10.34	12.35
Individual Contributor-Support	17.20	17.98	12.57	11.78	15.83	14.29	3.94	2.09
<b>Overall Average</b>			<b>11.07</b>	<b>13.02</b>	<b>12.78</b>	<b>12.78</b>	<b>6.59</b>	<b>5.13</b>

## Percentage of employees receiving regular performance and career development reviews

404-3

Percentage of employees receiving regular performance and career development reviews				
Employee Category	2018*	2017	2016	2015
Male	82	38	77	89
Female	85	48	78	91
Total	82	40	77	90

\*FY18 data represents percent of employees assigned performance reviews. All managers are asked to conduct employee reviews.

## Workers representation in formal joint management-worker health & safety committees

403-1

Workers representation in formal joint management worker health & safety committees	
Percentage of the total workforce represented in formal joint management-worker health and safety committees:	<ul style="list-style-type: none"> <li>Over 75%</li> <li>Between 50% and 75%</li> <li>Between 25% and 50%</li> <li>Up to 25%</li> <li>None</li> </ul>
Explanation of the level(s) at which each formal joint management-worker health and safety committee typically operates within the organization:	The Company maintains and requires Health and Safety Committees at the facility, region, business unit and enterprise levels. For a more complete description of the Company's Health and Safety Committees, please refer to the Health and Safety-Overview document.

## Types of injury and rates of injury, occupational disease, lost days and absenteeism and number of work-related fatalities

403-2

	Incident Category	Employee Category	2018	2017	2016	2015
Global	Injury Rate (IR)	Total Workforce	0.50	0.56	0.62	0.74
Global	Lost Days Rate (LDR)	Total Workforce	0.18	0.24	0.26	0.33
Global	Work-Related Fatalities	Total Workforce	3	0	3	2

- We do not track by region due to system constraints.
- To calculate these figures, we follow US OSHA injury classifications globally.
- Data is per 200,000 hours.

## Workers with a high incidence or high risk of diseases related to their occupation

403-3

- Our Safe Workplace Principle within Johnson Controls Manufacturing System is aligned with the requirements of OHSAS 18001 and 100% of our Power Solutions facilities in 2018 are certified by a third party to meet this standard.
- Johnson Controls provides a variety of relevant medical services to assist employees in countries where access to health care may be limited.

## Supplier Sustainability - Tracking and Accountability

308-1 | 308-2 | 414-1 | 414-2

Supplier Sustainability - Tracking and Accountability				
	2018	2017	2016	2015
Percentage (%) of new suppliers that were screened using social criteria	100%	100%	100%	100%
Percentage (%) of new suppliers that were screened using environmental criteria	100%	100%	100%	100%

### Each business unit tracks the following metrics on our suppliers:

- Percentage of total suppliers that refuse to abide by the Johnson Controls Code of Ethics or equivalent.
- Percentage of direct material suppliers identified for auditing.
- Percentage of direct material suppliers audited by Johnson Controls or third party.
- Number and type of suppliers terminated due to social and environmental performance issues

## Proportion of Spending on Local Suppliers

204-1

Proportion of Spending on Local Suppliers				
	2018	2017	2016	2015
Percentage, estimated, of the procurement budget used for significant locations of operation spent on suppliers local to that operation (such as percentage of products and services purchased locally)	60%	60%	60%	60%

\*Geographic definition of "local": May include immediate area for routine support and may extend to entire host country or adjacent areas or countries.

## Freedom of Association and Collective Bargaining

407-1 | 102-41

There are no operations within Johnson Controls that have been identified being at significant risk for employees to exercise the right to freedom of association or collective bargaining.

Freedom of Association and Collective Bargaining				
Collective bargaining agreements	2018	2017	2016	2015
Percentage of total employees covered by collective bargaining agreements	26	29	39	41

\*Percentage of employees covered by collective bargaining agreements global.

## Security Human Rights Training

410-1

Security Human Rights Training				
Collective bargaining agreements	2018	2017	2016	2015
Percentage of security personnel who have received formal training in the organization's human rights policies or specific procedures and their application to security	100	100	100	100
Training requirements regarding human rights issues also apply to third party organizations providing security personnel	Yes	Yes	Yes	Yes

## Incidents of Violations Involving Rights of Indigenous Peoples

411-1

Security Human Rights Training				
Collective bargaining agreements	2018	2017	2016	2015
Percentage of security personnel who have received formal training in the organization's human rights policies or specific procedures and their application to security	0	0	0	0
Incidents (reporting year only)	Status of incidents and actions taken			
N/A	<ul style="list-style-type: none"> <li>Reviewed</li> <li>Remediation plan being implemented</li> <li>Remediation plan implemented, results reviewed through routine internal management review process</li> <li>Incident no longer subject to attention</li> </ul>			

## Operations that have been subject to human rights reviews or impact assessments

412-1

Operations that have been subject to human rights reviews or impact assessments		
Country	# of Operations	% of Operations
All	All	100%

## Employee training on human rights policies or procedures

412-2

Employee training on human rights policies or procedures				
	2018	2017	2016	2015
Total number of hours devoted to training on human rights policies or procedures concerning aspects of human rights that are relevant to operations	111,480	67,101	96,480	133,289
Percentage of employees in the reporting period trained in human rights policies or procedures concerning aspects of human rights that are relevant to operations	97.5%	56.5%	60%	37%

## Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening

412-3

Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening				
Significant investment agreements* and contracts that include human rights clauses or that underwent human rights screening:	2018*	2017	2016	2015
Johnson Controls uses more than 200,000 suppliers.	100%	100%	100%	100%

\*Significant investment agreements are defined as agreements with strategic suppliers.

## Product Labeling

417-1

Product Labeling				
Requirements for product and service information and labeling	Required for product/service labeling			
The sourcing of components of the product or service	Yes			
Content, particularly with regard to substances that might produce an environmental or social impact	Yes			
Safe use of the product or service	Yes			
Disposal of the product and environmental/social impacts	Yes			
Requirements for product and service information and labeling	2018	2017	2016	2015
Percentage of significant product or service categories that are covered by and assessed for compliance with company procedures for product and service information and labeling	100%	100%	100%	100%



417-2

Johnson Controls did not have any incidents of non-compliance with product and service information and labeling regulations or voluntary codes.

417-3

Johnson Controls did not have any incidents of non-compliance with marketing communications regulations or voluntary codes.

## Governance Data

### Composition of the Board of Directors and its Committees

102-22 | 102-18

Composition of the Board of Directors and its Committees			
Committee Function	Name of Committee	Formal Board Responsibility?	Number of Non-Executive Directors
Audit/Accounting	Audit Committee	✓	4
Remuneration/ Compensation	Compensation Committee	✓	4
Nomination	Corporate Governance Committee	✓	3
Worldwide Labor Policies and Practices	Executive Compliance Committee; various business unit Compliance Committees		20
Human Rights Issues	Executive Compliance Committee; various business unit Compliance Committees		20
Diversity and Employment Equity	Executive Leadership Team		13
Supply Chain Social Responsibility	Procurement Leadership Team		12
Corp. Social Responsibility, Corp. Citizenship, Sustainable Development	Global Sustainability Council		21
Health and Safety	Health & Safety Senior Leader Committee		5
Environmental Issues	Global Sustainability Council		19
Risk Management	Risk Committee	✓	14
Ethics Issues	Executive Compliance Committee; various business unit Compliance Committees		20
Political Involvement	JCI PAC Steering Committee		10
Customer Service and Quality	Commercial Excellence Council		9
Community and Public Relations	Executive Leadership Team		13
Charitable Giving	Foundation Committee		6
Other Executive	Executive Committee	✓	6

	2018	2017	2016
Total board members with executive functions	1	0	1
Total non-executive directors (excluding independent directors)	0	0	0
Total independent non-executive directors on the board	8	3	11
Total board	9	3	12
Membership of under-represented social groups	5		
Stakeholder Representation	0		

\*Information in this section is as of the Annual Meeting of March 6, 2019.

## Executive Leadership Team Responsibility for Corporate Social Responsibility and Sustainability

102-19 | 102-20 | 102-26 | 102-27 | 102-29 | 102-18

Executive Leadership Team Responsibility for Corporate Social Responsibility and Sustainability			
As of the annual meeting of March 6, 2019	Name	Position or Title	Organizational Level (from Board and CEO) and Reporting Line
Overall Responsibility for Corporate Social Responsibility and Sustainability	George Oliver	Chairman and Chief Executive Officer	0 - Serves on Board of Directors
Diversity and Employment Equity	Lynn Minella	Executive Vice President & Chief Human Resources Officer	1 - reports to Chairman and CEO
Community and Public Relations	Grady L. Crosby	Vice President, Public Affairs & Chief Diversity Officer	2 - reports to Chief Human Resources Officer who reports to the Chairman and CEO
Environmental Issues	John Donofrio	Executive Vice President, General Counsel	1 - reports to Chairman and CEO
Health and Safety	John Donofrio	Executive Vice President, General Counsel	1 - reports to Chairman and CEO
Risk Management	Mike Peterson	Vice President, Corporate Secretary & Associate General Counsel	2 - reports to General Counsel who reports to the Chairman and CEO
Supply Chain Social Responsibility	Michael Bartschat	Vice President, Chief Procurement Officer	1 - reports to Chairman and CEO
Compliance/Ethics Issues	Andrew Thorson	Vice President Chief Compliance Officer	2 - reports to EVP and General Counsel who reports to Chairman and CEO and reports to Audit Committee
Human Rights Issues & Labor Issues	Anthony V. Alfano	Vice President, Chief Labor and Employee Counsel, VP COE Americas	2- Reports to Chief Counsel
Quality Management	Robert B. Beach Jr.	Vice President Manufacturing Excellence	2 - Reports to VP & GM US/ Canada who reports to the Chairman and CEO

## Communication and Training about Anti-Corruption Policies and Procedures

205-2

Communication and Training about Anti-Corruption Policies and Procedures								
	2018		2017		2016		2015	
Communication on anti-corruption policies and procedures	Total	Percent	Total <sup>1,2</sup>	Percent	Total	Percent	Total	Percent
Governance body members	214	100	145	100	318	100	318	100
Employees	55,740	97.5	68,109	100	30,785	100	31,120	100
Business partners <sup>3</sup>			373					

	2018		2017		2016		2015	
Training on Anti-corruption <sup>4</sup>	Total	Percent	Total <sup>1,2</sup>	Percent	Total	Percent	Total	Percent
Governance body members	214	100	145	100	318	100	318	100
Employees	55,740	97.5	68,109	76	30,785	100	31,120	100

Confirmed Incidents of Corruption and Actions Taken				
	2018	2017	2016	2015
Total number of confirmed incidents of corruption	0	2	0	0
Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	0	2	0	0
Total number of confirmed incidents when contracts with business partners were not renewed due to violations related to corruption	0	0	0	0

- (1) The FY2017 total is smaller than that of previous years due to Adient spin off.
- (2) FY2017 data is based on total employees and percent is calculated based on online employee population of 90,000. FY2017 Managers and above: 42,724, 100%. FY2016 data and before is based on Managers and above.
- (3) Percent based on suppliers who are in-scope for our third-party supplier program.
- (4) Due to differing Human Resource management/employee data systems, training and communication data by region is not available.

## Confirmed Incidents of Corruption and Actions Taken

205-3

Confirmed Incidents of Corruption and Actions Taken				
	2018	2017	2016	2015
Total number of confirmed incidents of corruption	0	2	0	0
Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	0	2	0	0
Total number of confirmed incidents when contracts with business partners were not renewed due to violations related to corruption	0	0	0	0

All reported issues of alleged corruption are documented, investigated and remediated until resolution.

## Non-compliance with laws and regulations in the social and economic area

419-1

To ensure transparency, we are reporting all "reportable incidents," which we define as non-compliance that requires reporting to a regulatory agency.

We have a number of mechanisms and processes in place to prevent non-compliance. For example, our Johnson Controls Manufacturing System defines standards for a range of topics, including environment, health, safety and other matters, to ensure compliance. We identify and share best practices across the enterprise through the Global Manufacturing and Operations Council and other mechanisms to continuously improve our compliance practices. In the unlikely event of an emergency or crisis, we have a regularly-updated Crisis Management Plan to effectively address incidents and minimize impacts to our employees, communities, the environment, and other stakeholders.

Currency: USD	2018	2017	2016	2015
Total monetary value of significant fines	\$8,500	\$41,482	\$331,980 (1)	\$39,853
Total number of non-monetary sanctions (2)	14	16	17	5

- (1) In 2016, Johnson Controls announced that it has entered into a settlement with the U.S. Securities and Exchange Commission (SEC) with respect to Foreign Corrupt Practices Act (FCPA) issues that it had self-reported related to the company's marine business in China. After discovering evidence of potential improper behavior on the part of employees in its marine business in China, the company voluntarily reported the circumstances to the U.S. government, conducted a thorough investigation and fully cooperated with the U.S. authorities.
- (2) FY2018 reported data includes environmental fines and NOV's as the outlined scope of this question.

## Non-compliance with environmental laws and regulations

103-1 | 103-2 | 103-3 | 307-1

Non-compliance with environmental laws and regulations				
Currency: USD	2018	2017	2016	2015
Total monetary value of significant fines	\$8,500	\$41,482	\$331,980	\$39,853
Number of environmental fines paid by the company	1	12	9	6
Total number of non-monetary sanctions	14	18	17	5
Cases brought through dispute resolution mechanisms	See 2018 attachments, 2018 NOV's, Permit Exceedances and Releases for details	See 2017 attachments, 2017 NOV's, Permit Exceedances and Releases for details	See 2016 attachment, 2016 NOV's, Permit Exceedances and Releases for details	See 2015 attachment, Tab 1 for details

- To ensure transparency, we are reporting all fines that were paid in the year. In some cases, we pay fines in a year subsequent to the year that the incident was reported.
- Our Johnson Controls Manufacturing System defines standards for environmental management to ensure compliance. We identify and share best practices across the enterprise through the Global Manufacturing and Operations Council and other mechanisms to continuously improve our environmental compliance practices. In the unlikely event of an emergency or crisis, we have a regularly-updated Crisis Management Plan to effectively address incidents and minimize impacts to our employees, communities, the environment, and other stakeholders.

- In addition, all employees undergo ethics training, and we have personnel who are trained in relevant environmental compliance activities across our global operations.
- Spills, notices of violation and permit exceedances are recorded in our global Environment, Health & Safety information system. These data are routinely reviewed by all levels of management to promote continuous improvement.
- FY2018 reported data considers environmental fines and NOVs as the outlined scope of this question.
- See our [2018 Form 10-K](#) for more information.

## Political Contributions

415-1

Political Contributions				
Currency: USD	2018	2017	2016	2015
Recipient: PAC Activity	\$142,000	\$223,500	\$10,500	\$13,500
Country: USA				

# GRI Content Index

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# GRI Content Index





General Standard Disclosures			JCI Sustainability Report = JCISR		
Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Organizational Profile</b>					
102-1	Name of the organization	Johnson Controls International plc One Albert Quay Cork, Ireland <a href="http://www.johnsoncontrols.com">www.johnsoncontrols.com</a>			
102-2	Activities, brands, products, and services	<a href="http://www.johnsoncontrols.com">www.johnsoncontrols.com</a> – See “View Our Brands” and “Products and Solutions” Building Technologies and Solutions (Buildings) Power Solutions (Power) <a href="#">JCISR: Our Company</a> <a href="#">2018 Form 10-K, Business, Pages 3-5</a>			
102-3	Location of headquarters	<a href="#">2018 Form 10-K, Header Location of Headquarters</a>			
102-4	Location of operations	<a href="#">2018 Form 10-K Properties, Pages 22-23</a> <a href="#">Global Location Finder</a> <a href="#">JCISR - Data Index: Location of operations</a>			
102-5	Ownership and legal form	Johnson Controls plc is a public limited company governed by a board of directors. <a href="#">Articles of Association</a>			
102-6	Markets served	<a href="#">2018 Form 10-K, Business, Pages 3-5, and Properties, Pages 22-23</a> <a href="#">Global Site Directory, Page 1</a> <a href="#">Global Location Finder</a>			
102-7	Scale of the organization	<a href="#">2018 Form 10-K, Selected Financial Data, Pages 28-31; Business, Pages 3-5</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
102-8	Information on employees and other workers	<a href="#">JCISR: 102-8 Our Employees</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
*Organizational Profile					
102-9	Supply chain	<a href="#">JCISR: Supplier Sustainability Supplier Portal</a> <a href="#">Ethics Expectations of Our Suppliers</a> <a href="#">Johnson Controls Supplier Sustainability Rating Survey</a>			
102-10	Significant changes to the organization and its supply chain	<a href="#">2018 Form 10-K Acquisitions and Divestitures, Pages 74 - 76</a> <a href="#">2018 Form 10-K Business, Pages 3-7</a>			
102-11	Precautionary Principle or approach	<a href="#">Our Sustainability Reporting and Policies</a> <a href="#">Risk Management Process</a> <a href="#">JCISR: Sustainability Approach</a> <a href="#">JCISR: Risk Management</a> <a href="#">Health and Safety - Overview</a> <a href="#">Supplier Portal</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Conflict Minerals Policy</a> <a href="#">Code of Ethics</a>			
102-12	External initiatives	<a href="#">JCISR: Sustainability Policies and Commitments</a> <a href="#">Voluntary Corporate Commitments</a>			
102-13	Membership of associations	<a href="#">JCISR: Sustainability Policies and Commitments</a> <a href="#">2018 Sustainability Memberships</a>			
<b>Strategy</b>					
102-14	Statement from senior decision-maker	<a href="#">JCISR: Letter from Grady L. Crosby</a>			
102-15	Key impacts, risks, and opportunities	<a href="#">2018 Form 10-K Risk Factors, Page 7</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">JCISR: 2025 Sustainability Strategy</a> <a href="#">JCISR: Risk Management</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">Sustainability Materiality Assessment</a>			



Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Ethics and Integrity</b>					
102-16	Values, principles, standards, and norms of behavior	<a href="#">JCISR: Ethics and Integrity</a> <a href="#">Our Values</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Energy &amp; Climate Position</a> <a href="#">Code of Ethics</a>			
102-17	Mechanisms for advice and concerns about ethics	<a href="#">JCISR: Ethics and Integrity</a> <a href="#">Code of Ethics</a> <a href="#">Integrity Helpline</a>			
<b>Governance</b>					
102-18	Governance structure	<a href="#">JCISR: Governance Structure</a> <a href="#">Fiscal 2018 Annual Report, Page 26</a> <a href="#">Our Leaders</a> <a href="#">Corporate Sustainability Governance</a>			
102-19	Delegating authority	<a href="#">JCISR: Governance Structure</a> <a href="#">Corporate Sustainability Governance</a>			
102-20	Executive-level responsibility for economic, environmental, and social topics	<a href="#">JCISR: Governance Structure</a> <a href="#">Fiscal 2018 Annual Report, Executive Officers and Board of Directors, Pg. 2 - 11</a> <a href="#">Our Leaders</a> <a href="#">Corporate Sustainability Governance</a>			
102-21	Consulting stakeholders on economic, environmental, and social topics	<a href="#">JCISR: Stakeholder Engagement</a> <a href="#">JCISR: Materiality</a> <a href="#">Fiscal 2018 Annual Report, Pages 26, 37</a> <a href="#">Sustainability Materiality Assessment</a>			
102-22	Composition of the highest governance body and its committees	<a href="#">JCISR: Board of Directors Committees</a> <a href="#">Fiscal 2018 Annual Report, Pages 2 - 11, 39 - 41</a> <a href="#">Johnson Controls Board of Directors</a>			
102-23	Chair of the highest governance body	<a href="#">Corporate Governance Guidelines</a> <a href="#">Fiscal 2018 Annual Report, Pages 25 - 26</a>			
102-24	Nominating and selecting the highest governance body	<a href="#">Corporate Governance Charters, Guidelines and Policies</a> <a href="#">Fiscal 2018 Annual Report, Pages 30 - 37</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
*Governance					
102-25	Conflicts of interest	<a href="#">Corporate Governance website</a> <a href="#">Corporate Governance Guidelines, Pages 4, 8-9</a> <a href="#">Fiscal 2018 Annual Report, Pages 33-34</a>			
102-26	Role of highest governance body in setting purpose, values, and strategy	<a href="#">JCISR: Governance Structure</a> <a href="#">Corporate Governance website</a> <a href="#">Fiscal 2018 Annual Report, Page 25-30</a>			
102-27	Collective knowledge of highest governance body	<a href="#">JCISR: Governance Structure</a> <a href="#">JCISR: Global Sustainability Council Governance Committee Charter, Page 1, page 2 section 7</a> <a href="#">Fiscal 2018 Annual Report, Page 5-6</a>			
102-28	Evaluating the highest governance body's performance	<a href="#">Corporate Governance website</a> <a href="#">Fiscal 2018 Annual Report, Pages 30-31, 36-37</a>			
102-29	Identifying and managing economic, environmental, and social impacts	<a href="#">Johnson Controls external website</a> <a href="#">JCISR: Governance Structure</a> <a href="#">JCISR: Risk Management</a> <a href="#">Risk Management Process</a> <a href="#">Fiscal 2018 Annual Report, Pages 24-37</a> <a href="#">Corporate Governance Guidelines, Page 1</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">Corporate Governance website</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
102-30	Effectiveness of risk management processes	<a href="#">JCISR: Risk Management</a> <a href="#">JCISR: Global Sustainability Council</a> <a href="#">Fiscal 2018 Annual Report, Page 25, 26, 51</a> <a href="#">Risk Management Process</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
102-31	Review of economic, environmental, and social topics	<a href="#">JCISR: Governance Structure</a> <a href="#">JCISR: Risk Management</a> <a href="#">Fiscal 2018 Annual Report, Page 24 (Vision and Values), 36 – 37, 40 (Governance Committee)</a> <a href="#">Non-Financial Disclosure Report 2019</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>*Governance</b>					
102-32	Highest governance body's role in sustainability reporting	<a href="#">JCISR: Global Sustainability Council Non-Financial Disclosure Report 2019</a>			
102-33	Communicating critical concerns	<a href="#">JCISR: Ethics and Integrity Code of Ethics</a> <a href="#">Integrity Helpline</a> <a href="#">Corporate Governance website</a>			
102-34	Nature and total number of critical concerns	<a href="#">JCISR: Ethics and Integrity Code of Ethics</a> <a href="#">Integrity Helpline</a>	Information on the nature and total number of critical concerns communicated to executive leadership and the board are highly confidential and are protected by attorney client privilege.		
102-35	Remuneration policies	<a href="#">Fiscal 2018 Annual Report, Pages 46-64</a>			
102-36	Process for determining remuneration	<a href="#">Fiscal 2018 Annual Report, Pages 47-48</a>			
102-37	Stakeholders' involvement in remuneration	<a href="#">Fiscal 2018 Annual Report, Page 43-44</a>			
102-38	Annual total compensation ratio	<a href="#">JCISR Data Index: 102-38 Our Employees</a>			
102-39	Percentage increase in annual total compensation ratio	<a href="#">JCISR Data Index: 102-39 Our Employees</a>			
<b>Stakeholder Engagement</b>					
102-40	List of stakeholder groups	<a href="#">JCISR Data Index: 102-40</a>			
102-41	Collective bargaining agreements	<a href="#">JCISR Data Index: 102-41 Human Rights</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">EEO Employer</a> <a href="#">Code of Ethics</a>			
102-42	Identifying and selecting stakeholders	<a href="#">JCISR Data Index: 102-40</a> <a href="#">Sustainability Materiality Assessment</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
*Stakeholder Engagement					
102-43	Approach to stakeholder engagement	<a href="#">JCISR Data Index: 102-43 Sustainability Materiality Assessment</a>			
102-44	Key topics and concerns raised	<a href="#">JCISR: Stakeholder Engagement Sustainability Materiality Assessment</a>			
<b>Reporting Practice</b>					
102-45	Entities included in the consolidated financial statements	<a href="#">2018 Form 10-K, Pages 3-6</a>			
102-46	Defining report content and topic Boundaries	<a href="#">JCISR: Materiality</a> <a href="#">JCISR: Sustainability Approach</a> <a href="#">Sustainability Materiality Assessment</a>			
102-47	List of material topics	<a href="#">JCISR: Materiality</a> <a href="#">Sustainability Materiality Assessment</a>			
102-48	Restatements of information	<a href="#">2018 Form 10-K</a> <a href="#">JCISR: 102-48 About Our Reporting</a>			
102-49	Changes in reporting	There are no significant modifications regarding the scope, boundary or measurement methods beyond any updates that are specifically discussed in the relevant sections contained within this report.			
102-50	Reporting period	This GRI report is for Johnson Controls Fiscal Year 2018: October 1, 2017 – September 30, 2018 <a href="#">2018 Form 10-K, Header, Page 1</a>			
102-51	Date of most recent report	Our most recent report was published in April 2018. <a href="#">FY2017 GRI Report and Sustainability Report</a> <a href="#">Sustainability Reporting, Policies &amp; Commitments</a> <a href="#">Non-Financial Disclosure Report 2019</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
*Reporting Practice					
102-52	Reporting cycle	Reporting cycle is on an annual basis for the previous fiscal year. Data will be compiled for the fiscal year most recently finished and posted publicly in early April.			
102-53	Contact point for questions regarding the report	Jenna Kunde – Director, Sustainability Programs Johnson Controls, 5757 N. Green Bay Avenue, Glendale, WI 53209 Phone: 414-524-2501 Corp-Sustainability@jci.com			
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: comprehensive option.			
102-55	GRI content index	Our full GRI report may be viewed or printed in pdf from Johnson Controls' website, with links provided to supporting documents, at <a href="http://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies">http://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies</a>			
102-56	External assurance	<a href="#">JCISR: 102-56 External Assurance of Data 2018 Verification Statement for JCI-GHG Emissions</a> <a href="#">2018 Verification Statement for JCI-Waste</a> <a href="#">2018 Verification Statement for JCI-Water</a> <a href="#">2018 Form 10-K, Page 55</a>			

## Global Management Approach

103-1 103-2 103-3	Explanation of the Material Topic and its Boundary The Management Approach and its Components Evaluation of the Management Approach	<a href="#">JCISR: Sustainability Approach</a> <a href="#">JCISR: Location of Operations</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">Fiscal 2018 Annual Report</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Our Sustainability Reporting and Policies</a>			
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# Material Topics

## Economic









Disclosure Number	Description	Response	Omission	SDG	SASB
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## Economic Performance











### GRI 103: Management Approach 2016

103-1 103-2 103-3	Explanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Location of Operations</a> <a href="#">JCISR: Letter from Grady L. Crosby</a> <a href="#">JCISR: About Our Company</a> <a href="#">Corporate Governance website</a> <a href="#">Sustainability Governance</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Code of Ethics</a>			
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### GRI 201: Management Approach 2016


201-1	Direct economic value generated and distributed	<a href="#">JCISR: 201-1 Economic</a> <a href="#">2018 Form 10-K, Pages 61 and 118</a>		   	SV-PS-510a.1 SV-PS-510a.2
201-2	Financial implications and other risks and opportunities due to climate change	<a href="#">JCISR: 201-2 Risks and Opportunities due to Climate Change</a> <a href="#">List of Risks and Opportunities due to Climate Change</a> <a href="#">2018 Awards</a> <a href="#">2018 Form 10-K, Climate Change Risk Factors, Page 11</a> <a href="#">CDP Climate Change Leadership List</a>		   	
201-3	Defined benefit plan obligations and other retirement plans	<a href="#">JCISR: 201-3 Our Employees - Benefits Tomorrow Needs You</a>			
201-4	Financial assistance received from government	We receive grants, tax incentives and low or no interest loans from many countries and subdivisions of countries including China, Canada, France, the United Kingdom, and the United States. Financially material assistance from governments is typically reported in our annual 10-K filing. No government is a material shareholder in the company.	We do not currently track centrally all of the types of potential government assistance listed in this indicator.		

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Market Presence</b>					
GRI 103: Management Approach 2016					
103-1 103-2 103-3	Explanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	<a href="#">2018 Form 10-K, Products/Systems and Services, Pages 3-5</a> <a href="#">Corporate Governance website</a> <a href="#">Code of Ethics</a> <a href="#">Sustainability Governance</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Location of Operations</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">Tomorrow Needs You</a> <a href="#">Engaging Employees</a>			
GRI 202: Market Presence 2016					
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	<a href="#">JCISR: 202-1 Our Employees - Compensation</a>			
202-2	Proportion of senior management hired from the local community	<a href="#">Talent Acquisition Process Flow US &amp; CN</a> <a href="#">Talent Acquisition Process Flow - Mexico</a> <a href="#">JCISR: Community Engagement</a>			
<b>Indirect Economic Impacts</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Corporate Governance website</a> <a href="#">Sustainability Governance</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">2018 Form 10-K Properties, Pages 22-23</a> <a href="#">Location of Headquarters</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			
103-2	The management approach and its components	<a href="#">JCISR: Indirect Economic Impacts</a> <a href="#">Corporate Social Responsibility Program</a> <a href="#">Overviews</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Code of Ethics</a> <a href="#">Supplier Diversity</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
103-3	Evaluation of the management approach	<a href="#">Supplier Sustainability Rating 2018 Awards</a> <a href="#">Johnson Controls named IoT Innovator of the Year</a> <a href="#">Johnson Controls among Top 100 Global Innovators 2018-19</a>			
<b>GRI 203: Indirect Economic Impacts 2016</b>					
203-1	Infrastructure investments and services supported	<a href="#">JCISR: Indirect Economic Impacts</a> <a href="#">JCISR: Community Engagement</a> <a href="#">Johnson Controls demonstrates commitment to giving back to its communities</a> <a href="#">Corporate Social Responsibility Program Overviews</a> <a href="#">Applied Research and Development</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Blue Sky 2018 Fact Sheet</a>		    	
203-2	Significant indirect economic impacts	<a href="#">JCISR: Indirect Economic Impacts</a> <a href="#">JCISR: Community Engagement</a> <a href="#">Corporate Social Responsibility Program Overviews</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Blue Sky 2018 Fact Sheet</a> <a href="#">JCISR: 413-1 Community Investment</a>		   	
<b>Procurement Practices</b>					
<b>GRI 103: Management Approach 2016</b>					
103-1 103-2 103-3	Explanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	<a href="#">JCISR: Supplier Sustainability</a> <a href="#">Supplier Sustainability Rating Survey Letter</a> <a href="#">Supplier Sustainability Rating survey - Johnson Controls</a> <a href="#">Supply Chain: Supplier Sustainability Expectations</a> <a href="#">Supplier Portal</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">Conflict Minerals Policy</a> <a href="#">Code of Ethics</a> <a href="#">Supplier Diversity</a> <a href="#">Slavery and Human Trafficking Policy</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			



Disclosure Number	Description	Response	Omission	SDG	SASB
GRI 204: Procurement Practices 2016					
204-1	Proportion of spending on local suppliers	<a href="#">JCISR: Local Suppliers</a>			
<b>Anti-Corruption</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Explanation of the material topic and its boundary</a> <a href="#">Code of Ethics</a> <a href="#">Sustainability Materiality Assessment</a>			
103-2	The management approach and its components	<a href="#">JCISR: Risk Management Risk Management Process</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Human Rights</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">Human Rights &amp; Sustainability Policy</a>			
103-3	Evaluation of the management approach	<a href="#">Integrity Helpline</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
GRI 205: Anti-corruption 2016					
205-1	Operations assessed for risks related to corruption	<a href="#">JCISR: Risk Assessment</a> <a href="#">Risk Management Process</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
205-2	Communication and training about anti-corruption policies and procedures	<a href="#">JCISR: 205-2 Communication on anti-corruption policies and procedures</a>			RT-E-510a.1 RT-E-510a.2 RT-E-510a.3
205-3	Confirmed incidents of corruption and actions taken	<a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: 205-3 Anti-Corruption</a> <a href="#">Supplier Portal</a> <a href="#">Code of Ethics</a> <a href="#">Supplier Sustainability Rating</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Anti-Competitive Behavior</b>					
GRI 103: Management Approach 2016					
103-1 103-2 103-3	EExplanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	<a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Human Rights</a> <a href="#">JCISR: Governance Structure</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">Code of Ethics</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Integrity Helpline</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			
GRI 206: Anti-competitive Behaviour 2016					
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	<a href="#">2018 Form 10-K, Legal Proceedings, Page 23 - 26</a>			

## Material Topics

### Environmental

Disclosure Number	Description	Response	Omission	SDG	SASB
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### Materials

GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Materials</a>			
103-2	The management approach and its components	<a href="#">Batteries - Battery Recycling</a>			
103-3	Evaluation of the management approach	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">Non-Financial Disclosure Report 2019</a>			








GRI 301: Materials 2016

301-1	Materials used by weight or volume	<a href="#">JCISR: 301-1 Materials</a> <a href="#">Batteries - Battery Recycling</a>			CG-AM-410a.1
301-2	Recycled input materials used	<a href="#">JCISR: 301-2 Materials</a> <a href="#">Empire State Building Case Study</a> <a href="#">Batteries - Battery Recycling</a>			CG-AM-410a.2
301-3	Reclaimed products and their packaging materials	<a href="#">JCISR: 301-3 Materials</a> <a href="#">Batteries - Battery Recycling</a> <a href="#">Code of Ethics</a> <a href="#">Human Rights &amp; Sustainability Policy</a>			CG-AM-410a.3

### Energy

GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	<a href="#">2018 Awards</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">JCISR: Energy</a> <a href="#">PowerFrame Overview</a> <a href="#">Energy and Efficiency Services</a> <a href="#">Lithium-Ion Battery Overview</a> <a href="#">Sustainability Reporting, Policies &amp; Commitments</a>			
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Disclosure Number	Description	Response	Omission	SDG	SASB
103-2	The management approach and its components	<a href="#">JCISR: Energy Advanced Energy Storage Technology Non-Financial Disclosure Report 2019 Johnson Controls among Top 100 Global Innovators 2018-19</a>			
103-3	Evaluation of the management approach	<a href="#">JCISR: Energy Corporate Responsibility Magazine names Johnson Controls to Best Corporate Citizens List. Johnson Controls recognized as world leader in addressing climate change Johnson Controls named to 2019 World's Most Ethical Companies DOE Better Plants Goal Achievement Award DOE Better Buildings Better Plants Challenge Non-Financial Disclosure Report 2019</a>			
<b>GRI 302: Energy</b>					
302-1	Energy consumption within the organization	<a href="#">JCISR: 302-1 Energy 2018 Verification Statement for JCI-GHG Emissions</a>			RT-IG-130a.1 RT-IG-410a.1 RT-IG-410a.2 RT-IG-410a.3 RT-IG-410a.4
302-2	Energy consumption outside of the organization	<a href="#">JCISR: 302-2 Energy 2018 Verification Statement for JCI-GHG Emissions</a>		 	RT-IG-130a.1
302-3	Energy intensity	<a href="#">JCISR: 302-3 2018 Verification Statement for JCI-GHG Emissions Non-Financial Disclosure Report 2019</a>		 	RT-IG-130a.1
<b>*Energy</b>					
302-4	Reduction of energy consumption	<a href="#">JCISR: 302-4 Energy DOE Better Buildings Better Plants Challenge</a>		 	




Disclosure Number	Description	Response	Omission	SDG	SASB
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\*Energy

302-5	Reductions in energy requirements of products and services	<a href="#">JCISR: 302-5 Energy</a> <a href="#">Energy Performance Contracting</a> <a href="#">Batteries - Battery Recycling</a> <a href="#">Buildings - HVAC Equipment</a> <a href="#">Project - Johnson Controls partners with the Town of Walden on floating solar photovoltaic (PV) array</a> <a href="#">Project - University of North Dakota partners with Johnson Controls to build new steam plant</a> <a href="#">Lithium-Ion Battery Overview</a> <a href="#">Non-Financial Disclosure Report 2019</a>		 	
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**Water**


GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">Energy and Efficiency Services - Water</a> <a href="#">JCISR: Water</a>			
103-2	The management approach and its components	<a href="#">JCISR: Water</a> <a href="#">EPRI Technology Abstract on Thermosyphon Cooling</a> <a href="#">Case Study - Glendale Corporate Headquarters</a>			
103-3	Evaluation of the management approach	<a href="#">JCISR: Water</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">BlueStream Hybrid Cooling System</a>			

GRI 303: Water 2016

303-1	Water withdrawal by source	<a href="#">JCISR: 303-1 Water</a> <a href="#">2018 Verification Statement for JCI- Water</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
303-2	Water sources significantly affected by withdrawal of water	<a href="#">JCISR: 303-2 Water</a> <a href="#">2018 Verification Statement for JCI- Water Human Rights &amp; Sustainability Policy</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
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Water*					
303-3	Water recycled and reused	<a href="#">JCISR: 303-3 Water</a> <a href="#">2018 Verification Statement for JCI-Water Case Study - Glendale Corporate Headquarters</a> <a href="#">Energy and Efficiency Services - Water</a>			

## Biodiversity

### GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	<a href="#">JCISR: Biodiversity</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			
103-2					
103-3					




### GRI 304: Biodiversity 2016

304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	<a href="#">JCISR: 304-1 Biodiversity</a> <a href="#">Code of Ethics</a> <a href="#">2018 UN Global Compact COP</a>	Unavailable		
304-2	Significant impacts of activities, products, and services on biodiversity	<a href="#">JCISR: 304-2 Biodiversity</a>	Unavailable		
304-3	Habitats protected or restored	<a href="#">JCISR: 304-3 Biodiversity</a>	Unavailable		
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	<a href="#">JCISR: 304-4 Biodiversity</a>	Unavailable		

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Emissions</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">JCISR: Emissions</a> <a href="#">DOE Better Buildings Better Plants Challenge</a>			
103-2	The management approach and its components	<a href="#">JCISR: Emissions</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Sustainability homepage for Johnson Controls</a>			
103-3	Evaluation of the management approach	<a href="#">JCISR: Emissions</a> <a href="#">2018 Awards</a> <a href="#">DOE Better Buildings Goal Achievement Award</a> <a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a> <a href="#">2018 Awards Johnson Controls among Top 100 Global Innovators</a> <a href="#">2018 Awards Corporate Responsibility Magazine names Johnson Controls to Best Corporate Citizens List</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
GRI 305: Emissions 2016					
305-1	Direct (Scope 1) GHG emissions	<a href="#">JCISR: 305-1 Emissions 2018</a> <a href="#">Verification Statement for JCI-GHG Emissions</a> <a href="#">2015 Awards CDP Leadership Index</a> <a href="#">2016 Awards CDP Climate A List</a> <a href="#">2018 Awards Johnson Controls recognized as world leader in addressing climate change</a> <a href="#">2018 Awards Dow Jones Sustainability Index</a>			
305-2	Energy indirect (Scope 2) GHG emissions	<a href="#">JCISR: 305-2 Emissions 2018</a> <a href="#">Verification Statement for JCI-GHG Emissions</a> <a href="#">2015 Awards CDP Leadership Index</a> <a href="#">2016 Awards CDP Climate A List</a> <a href="#">2018 Awards Dow Jones Sustainability Index</a> <a href="#">2018 Awards Johnson Controls recognized as world leader in addressing climate change</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
*Emissions					
305-3	Other indirect (Scope 3) GHG emissions	<a href="#">JCISR: 305-3 Emissions</a> <a href="#">2018 Verification Statement for JCI-GHG Emissions</a> <a href="#">Energy Performance Contracting</a> <a href="#">Supplier Sustainability Rating</a> <a href="#">2016 Awards CDP Climate A List</a> <a href="#">2018 Awards Dow Jones Sustainability Index</a> <a href="#">2018 Awards Johnson Controls recognized as world leader in addressing climate change</a>			
305-4	GHG emissions intensity	<a href="#">JCISR: 305-4 Emissions</a> <a href="#">2018 Verification Statement for JCI-GHG Emissions</a> <a href="#">2015 Awards CDP Leadership Index</a> <a href="#">2016 Awards CDP Climate A List</a> <a href="#">2018 Awards Dow Jones Sustainability Index</a> <a href="#">2018 Awards Johnson Controls recognized as world leader in addressing climate change</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
305-5	Reduction of GHG emissions	<a href="#">JCISR: 305-5 Emissions</a> <a href="#">DOE Better Buildings Better Plants Challenge</a> <a href="#">Case Study - Glendale Corporate Headquarters</a> <a href="#">Johnson Controls Advances Environmental Sustainability with low GWP refrigerants.</a> <a href="#">2016 Awards CDP Climate A List</a> <a href="#">2018 Awards Dow Jones Sustainability Index</a> <a href="#">2018 Awards Johnson Controls recognized as world leader in addressing climate change</a>			
305-6	Emissions of ozone-depleting substances (ODS)	<a href="#">JCISR: 305-6 Emissions</a> <a href="#">Johnson Controls Advances Environmental Sustainability with chiller platforms compatible with low GWP refrigerants</a> <a href="#">Energy &amp; Climate Position</a> <a href="#">Johnson Controls Refrigerant Guiding Principles</a> <a href="#">Johnson Controls joins White House discussion on reducing use of high global warming potential refrigerants</a> <a href="#">Human Rights &amp; Sustainability Policy</a>			



Disclosure Number	Description	Response	Omission	SDG	SASB
*Emissions					
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<a href="#">JCISR: 305-7 Emissions</a> <a href="#">2018 Verification Statement for JCI-GHG Emissions</a> <a href="#">2018 Stack &amp; Fugitive Emissions</a>			
<b>Effluents and Waste</b>					
GRI 103: Management Approach 2016					
103-1 103-2 103-3	Explanation of the material topic and its Boundary The management approach and its components Evaluation of the management approach	<a href="#">JCISR: Effluents and Waste</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">Batteries - Battery Recycling</a> <a href="#">Circular Economy</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			
GRI 306: Effluents and Waste 2016					
306-1	Water discharge by quality and destination	<a href="#">JCISR: 306-1 Effluents and Waste</a> <a href="#">2018 Verification Statement for JCI-Water</a> <a href="#">2018 NOVs, Permit Exceedances and Releases</a> <a href="#">Code of Ethics</a> <a href="#">Energy and Efficiency Services - Water</a> <a href="#">Human Rights &amp; Sustainability Policy</a>			
306-2	Waste by type and disposal method	<a href="#">JCISR: 306-2 Effluents and Waste</a> <a href="#">2018 Verification Statement for JCI-Waste</a> <a href="#">Code of Ethics</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
GRI 306: Effluents and Waste 2016					
306-3	Significant spills	<a href="#">JCI: 306-3 Effluents and Waste 2018</a> <a href="#">2018 NOVs, Permit Exceedances and Releases</a> <a href="#">2017 NOVs, Permit Exceedances and Releases</a> <a href="#">2016 NOVs, Permit Exceedances and Releases</a> <a href="#">2015 NOVs, Permit Exceedances and Releases</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
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<b>*GRI 306: Effluents and Waste 2016</b>					
306-4	Transport of hazardous waste	<a href="#">JCISR: 306-4 Effluents and Waste 2018 Verification Statement for JCI-Waste</a>			
306-5	Water bodies affected by water discharges and/or runoff	<a href="#">JCISR: 306-5 Effluents and Waste</a>	Unavailable		

**Environmental Compliance**



GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	<a href="#">Code of Ethics</a> <a href="#">Sustainability Materiality Assessment Form 10-K, Environmental Matters, Page 120</a> ; <a href="#">Risk Factors, page 7</a> ; <a href="#">Environmental, Health &amp; Safety Matters, Environmental Capital Expenditures, page 6</a> <a href="#">JCISR: Environmental Compliance</a>			
103-2	The management approach and its components	<a href="#">JCISR: Environmental Compliance</a>			
103-3	Evaluation of the management approach	<a href="#">JCISR: Environmental Compliance</a>			

**\*Environmental Compliance**

GRI 307: Environmental Compliance 2016

307-1	Non-compliance with environmental laws and regulations	<a href="#">JCISR: 307-1 Environmental Compliance 2018 NOVs, Permit Exceedances and Releases</a> <a href="#">2017 NOVs, Permit Exceedances and Releases</a> <a href="#">2016 NOVs, Permit Exceedances and Releases</a> <a href="#">2015 NOVs, Permit Exceedances and Releases</a> <a href="#">2018 Form 10-K, Environmental Matters, Page 120</a>			
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Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Supplier Environmental Assessment</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Supplier Sustainability</a>			
103-2	The management approach and its components	<a href="#">JCISR: Supplier Sustainability</a> <a href="#">Code of Ethics</a> <a href="#">Conflict Minerals Policy</a> <a href="#">Slavery and Human Trafficking Policy</a> <a href="#">Supplier Portal</a>			
103-3	Evaluation of the management approach	<a href="#">JCISR: Supplier Sustainability</a> <a href="#">Supplier Sustainability Rating</a> <a href="#">Supplier Sustainability Rating Survey</a> <a href="#">Letter</a>			
<b>*Supplier Environmental Assessment</b>					
GRI 308: Supplier Environmental Assessment 2016					
308-1	New suppliers that were screened using environmental criteria	<a href="#">JCISR: 308-1 Supplier Environmental Assessment</a>			
308-2	Negative environmental impacts in the supply chain and actions taken	<a href="#">JCISR: 308-2 Supplier Environmental Assessment</a> <a href="#">Supplier Sustainability Rating</a> <a href="#">Supplier Diversity</a> <a href="#">Code of Ethics</a> <a href="#">Supplier Portal</a>			

## Material Topics

### Social

Disclosure Number	Description	Response	Omission	SDG	SASB
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### Employment















GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	<a href="#">2018 Form 10-K Sustainability Materiality Assessment</a> <a href="#">JCISR: Social</a> <a href="#">JCISR: Our Employees</a> <a href="#">Non-Financial Disclosure Report 2019 EEO Employer</a>			
103-2	The management approach and its components	<a href="#">Tomorrow Needs You</a> <a href="#">2018 UN Global Compact COP Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Social</a> <a href="#">Careers: Women and Military</a>			
103-3	Evaluation of the management approach	<a href="#">2018 Awards – 50 Best Companies for Diversity</a> <a href="#">2018 Awards Johnson Controls honored for supporting military veterans</a> <a href="#">2018 Awards – Top 50 Employers for Woman Engineers</a> <a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a> <a href="#">Integrity Helpline</a>			

GRI 401: Employment 2016

401-1	New employee hires and employee turnover	<a href="#">JCISR: 401-1 Our Employees</a>			
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<a href="#">JCISR: 401-2 Our Employees</a>			
401-3	Parental leave		As of 2018, we do not track parental leave separately from family medical leave or paid disability.		



Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Labor/Management Relations</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">EEO Employer Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">JCISR: Social</a>			
103-2	The management approach and its components	<a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Social</a>			
103-3	Evaluation of the management approach	<a href="#">2018 UN Global Compact COP</a>			
<b>GRI 402: Labor/Management Relations 2016</b>					
402-1	Minimum notice periods regarding operational changes	<a href="#">JCISR: 402-1 Continued Employability</a>			
<b>Occupational Health and Safety</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">JCISR: Our Employees- Health and Safety</a> <a href="#">Global Environment, Health &amp; Safety (EHS) Policy</a>			RT-IG-320a.1
103-2	The management approach and its components	<a href="#">JCISR: Our Employees – Health &amp; Safety</a> <a href="#">Health and Safety – Overview</a> <a href="#">JCISR: Ethics and Integrity</a>	 	 	RT-IG-320a.1
103-3	Evaluation of the management approach	<a href="#">Integrity Helpline</a> <a href="#">JCISR: Our Employees- Health and Safety</a> <a href="#">Global Environment, Health &amp; Safety (EHS) Policy</a>	 	 	RT-IG-320a.1


Disclosure Number	Description	Response	Omission	SDG	SASB
GRI 403: Occupational Health and Safety 2016					
403-1	Workers Representation in Formal Joint Mgmt. Worker Health & Safety Committees	<a href="#">JCISR: 403-1 Health and Safety Health and Safety - Overview</a> <a href="#">Global Environment, Health &amp; Safety (EHS) Policy</a>		 	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	<a href="#">JCISR: 403-2 Health and Safety Health and Safety - Overview</a> <a href="#">Global Environment, Health &amp; Safety (EHS) Policy</a>		 	
403-3	Workers with high incidence or high risk of diseases related to their occupation	<a href="#">JCISR: 403-3 Health and Safety Health and Safety - Overview</a> <a href="#">Global Environment, Health &amp; Safety (EHS) Policy</a>		 	
403-4	Health and safety topics covered in formal agreements with trade unions	<a href="#">JCISR: 403-4 Health and Safety Health and Safety - Overview</a> <a href="#">Code of Ethics</a> <a href="#">Global Environment, Health &amp; Safety (EHS) Policy</a>		 	
<b>Training and Education</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">JCISR: Our Employees – Employee Development</a>		 	
103-2	The management approach and its components	<a href="#">JCISR: Our Employees – Employee Development</a> <a href="#">Tomorrow Needs You</a> <a href="#">Non-Financial Disclosure Report 2019</a>		 	
103-3	Evaluation of the management approach	<a href="#">JCISR: Our Employees – Employee Development</a> <a href="#">EEO Employer</a>		 	

Disclosure Number	Description	Response	Omission	SDG	SASB
GRI 404: Training and Education 2016					
404-1	Average hours of training per year per employee	<a href="#">JCISR: 404-1 Our Employees – Employee Development</a>		 	
404-2	Programs for upgrading employee skills and transition assistance programs	<a href="#">JCISR: 404-2 Our Employees – Employee Development</a> <a href="#">JCISR: Employee Development, Training and Education</a>		 	
404-3	Percentage of employees receiving regular performance and career development reviews	<a href="#">JCISR: 404-3 Our Employees – Employee Development Tomorrow Needs You</a>		 	

## Diversity and Equal Opportunity


GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	Management approach includes Diversity, Equal Opportunity and Non Discrimination. <a href="#">JCISR: Our Employees – Diversity and Inclusion</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">About Us – Diversity &amp; Inclusion</a>			
103-2	The management approach and its components	<a href="#">JCISR: Our Employees – Diversity and Inclusion</a> <a href="#">Code of Ethics</a> <a href="#">EEO Employer</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">Careers: Women and Military</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
103-3	Evaluation of the management approach	<a href="#">2018 Awards</a> <a href="#">2018 Awards - Top Employer in China</a> <a href="#">2018 Awards - 50 Best Companies for Diversity</a> <a href="#">Best Employers for Diversity 2019</a> <a href="#">2018 Awards Johnson Controls honored for supporting military veterans</a> <a href="#">2018 Awards - Top 50 Employers for Woman Engineers</a> <a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Our Employees - Diversity and Inclusion</a> <a href="#">Integrity Helpline</a> <a href="#">Non-Financial Disclosure Report 2019</a>			

GRI 405: Diversity and Equal Opportunity 2016

405-1	Diversity of governance bodies and employees	<a href="#">JCISR: 405-1 Our Employees</a> <a href="#">2018 Annual Report, Pages 27, 34-37</a>			SV-PS-3 0a.1 SV-PS-3 0a.2 SV-PS-3 0a.3
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405-2	Ratio of basic salary and remuneration of women to men	<a href="#">JCISR: 405-2 Our Employees</a> <a href="#">2018 Awards</a> <a href="#">Code of Ethics</a> <a href="#">2018 Awards - Top Employer in China</a> <a href="#">2018 Awards - 50 Best Companies for Diversity</a> <a href="#">2018 Awards Johnson Controls honored for supporting military veterans</a> <a href="#">2018 Awards - Top 50 Employers for Woman Engineers</a>			
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GRI 406: Non-Discrimination 2016

406-1	Incidents of discrimination and corrective actions taken	<a href="#">JCISR: 406-1 Our Employees</a> <a href="#">JCISR: Our Employees - Diversity and Inclusion</a> <a href="#">EEO Employer</a> <a href="#">Code of Ethics</a> <a href="#">Integrity Helpline</a>			
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Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Freedom of Association and Collective Bargaining</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Human Rights Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			
103-2	The management approach and its components	<a href="#">JCISR: Ethics and Integrity Human Rights &amp; Sustainability Policy</a> <a href="#">2018 UN Global Compact COP Code of Ethics</a> <a href="#">Ethics &amp; Human Rights section of the Non-Financial Disclosure Report 2019</a>			
103-3	Evaluation of the management approach	<a href="#">2018 UN Global Compact COP Code of Ethics</a> <a href="#">Integrity Helpline</a>			
<b>GRI 407: Freedom of Association and Collective Bargaining 2016</b>					
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<a href="#">JCISR: 407-1 Human Rights Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">Integrity Helpline</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Child Labor</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Human Rights Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a>			
<b>*Child Labor</b>					
103-2	The management approach and its components	<a href="#">JCISR: Human Rights Human Rights &amp; Sustainability Policy</a> <a href="#">JCISR: Ethics and Integrity Code of Ethics</a> <a href="#">2018 UN Global Compact COP Slavery and Human Trafficking Policy</a> <a href="#">Slavery and Human Trafficking Statement</a> <a href="#">Ethics and Human Rights section of the Non-Financial Disclosure Report 2019</a>			
103-3	Evaluation of the management approach	<a href="#">Integrity Helpline</a> <a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a>			
408-1	Operations and suppliers at significant risk for incidents of child labor	<a href="#">JCISR: 408-1 Human Rights</a>			
<b>Forced or Compulsory Labor</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Human Rights Sustainability Materiality Assessment</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a> <a href="#">Non-Financial Disclosure Report 2019</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
103-2	The management approach and its components	<a href="#">2018 UN Global Compact COP</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">Conflict Minerals Policy</a> <a href="#">Slavery and Human Trafficking Policy</a> <a href="#">Slavery and Human Trafficking Statement</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a>			
103-3	Evaluation of the management approach	<a href="#">Integrity Helpline</a> <a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a>			
<b>GRI 409: Forced or Compulsory Labor 2016</b>					


409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<a href="#">JCISR: 409-1 Human Rights</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">Slavery and Human Trafficking Policy</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a>			
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## Security Practices




103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Human Rights</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a>			
103-2	The management approach and its components	<a href="#">JCISR: Ethics and Integrity</a> <a href="#">2018 UN Global Compact COP</a> <a href="#">Code of Ethics</a>			
103-3	Evaluation of the management approach	<a href="#">Integrity Helpline</a>			
410-1	Security Personnel Trained in Human Rights Policies or Procedures	<a href="#">JCISR: 410-1 Human Rights</a> <a href="#">Integrity Helpline</a> <a href="#">Code of Ethics</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Rights of Indigenous Peoples</b>					
103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Human Rights Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the Material Topic and its Boundary</a>			
103-2	The management approach and its components	<a href="#">2018 UN Global Compact COP Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">Slavery and Human Trafficking Policy</a>			
103-3	Evaluation of the management approach	<a href="#">EEO Employer Integrity Helpline</a>			
411-1	Incidents of Violations Involving Rights of Indigenous Peoples	<a href="#">JCISR: 411-1 Human Rights</a> <a href="#">JCISR: Ethics and Integrity</a>			

**Human Rights Assessment**  
GRI 103: Management Approach 2016

103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Human Rights Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a>			
103-2	The management approach and its components	<a href="#">2018 UN Global Compact COP Slavery and Human Trafficking Policy</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">JCISR: Human Rights</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Our Employees – Health and Safety</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
103-3	Evaluation of the management approach	<a href="#">Integrity Helpline</a> <a href="#">Health and Safety - Overview</a> <a href="#">Supplier Sustainability Rating</a> <a href="#">2018 Awards</a> <a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
<b>GRI 412: Human Rights Assessment 2016</b>					
412-1	Operations that have been subject to human rights reviews or impact assessments	<a href="#">JCISR: 412-1 Human Rights</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">JCISR: Health and Safety</a>			
412-2	Employee training on human rights policies or procedures	<a href="#">JCISR: 412-2 Human Rights</a> <a href="#">Code of Ethics</a>			
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	<a href="#">JCISR: 412-3 Human Rights</a> <a href="#">Supplier Portal</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">Code of Ethics</a> <a href="#">Supplier Sustainability Rating</a> <a href="#">Slavery and Human Trafficking Policy</a>			
<b>Local Communities</b>					
<b>GRI 103: Management Approach 2016</b>					
103-1	Explanation of the material topic and its Boundary	<a href="#">Corporate Social Responsibility Program Overviews</a> <a href="#">Non-Financial Disclosure Report 2019</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a> <a href="#">JCISR: Community Engagement</a>		 	
103-2	The management approach and its components	<a href="#">JCISR: Community Engagement</a> <a href="#">Blue Sky Involve 2018 Fact Sheet</a> <a href="#">Corporate Social Responsibility Program Overviews</a>		 	
103-3	Evaluation of the management approach	<a href="#">Sustainability Awards and Recognition</a> <a href="#">Non-Financial Disclosure Report 2019</a>		 	

Disclosure Number	Description	Response	Omission	SDG	SASB
GRI 413: Local Communities 2016					
413-1	Operations with local community engagement, impact assessments, and development programs	<a href="#">JCISR: 413-1 Community Engagement Corporate Social Responsibility Program Overviews</a>			
413-2	Operations with significant actual and potential negative impacts on local communities	<a href="#">JCISR: 413-2 Community Engagement Corporate Social Responsibility Program Overviews</a>			
<b>Supplier Social Assessment</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Supplier Portal</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a> <a href="#">JCISR: Supplier Sustainability</a>			
103-2	The management approach and its components	<a href="#">JCISR: Supplier Sustainability Assessment</a> <a href="#">Supplier Sustainability</a> <a href="#">Conflict Minerals Policy</a> <a href="#">Code of Ethics</a> <a href="#">Slavery and Human Trafficking Policy</a>			
103-3	Evaluation of the management approach	<a href="#">Supplier Sustainability Rating</a> <a href="#">Non-Financial Disclosure Report 2019</a>			
GRI 414: Supplier Social Assessment 2016					
414-1	New suppliers that were screened using social criteria	<a href="#">JCISR: 414-1 Supplier Sustainability Assessment</a> <a href="#">Supplier Portal</a> <a href="#">Supplier Sustainability Rating</a>			
414-2	Negative social impacts in the supply chain and actions taken	<a href="#">JCISR: 414-2 Supplier Sustainability Assessment</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>Public Policy</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">Public Reporting Policies</a> <a href="#">JCISR: Public Policy</a> <a href="#">Code of Ethics</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a>			
103-2	The management approach and its components	<a href="#">JCISR: Public Policy</a> <a href="#">2018 Sustainability Memberships</a> <a href="#">Public Reporting Policies</a> <a href="#">Political Contributions Policy</a> <a href="#">Code of Ethics</a>			
103-3	Evaluation of the management approach	<a href="#">Public Reporting Policies</a>			
<b>GRI 415: Public Policy 2016</b>					
415-1	Political contributions	<a href="#">2016 PAC Contributions</a> <a href="#">2017 PAC Contributions</a> <a href="#">2018 PAC Contributions</a> <a href="#">Political Contributions Policy</a> <a href="#">Public Reporting Policies</a> <a href="#">JCISR: 415-1 Political Contributions</a>			
<b>Customer Health and Safety, Marketing &amp; Labeling</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">JCISR: Customer Health and Safety Health and Safety - Overview</a> <a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a> Management approach includes Customer Health and Safety, Marketing & Labeling			
103-2	The management approach and its components	<a href="#">JCISR: Customer Health and Safety Global Environment, Health &amp; Safety (EHS) Policy</a> <a href="#">Health and Safety - Overview</a>			
103-3	Evaluation of the management approach	<a href="#">Health and Safety - Overview</a> <a href="#">JCISR: Customer Health and Safety</a>			

Disclosure Number	Description	Response	Omission	SDG	SASB
<b>GRI 416: Customer Health and Safety 2016</b>					
416-1	Assessment of the health and safety impacts of product and service categories	<a href="#">JCISR: 416-1 Customer Health and Safety</a>			RT-E-250a.1 RT-E-250a.2
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	<a href="#">JCISR: 416-2 Customer Health and Safety</a>			
<b>GRI 417: Marketing and Labeling 2016</b>					
417-1	Requirements for product and service information and labeling	<a href="#">JCISR: 417-1 Marketing and Labeling</a>			
417-2	Incidents of non-compliance concerning product and service information and labeling	<a href="#">JCISR: 417-2 Marketing and Labeling</a>			
417-3	Incidents of non-compliance concerning marketing communications	<a href="#">JCISR: 417-3 Marketing and Labeling</a>			
<b>Customer Privacy</b>					
<b>GRI 103: Management Approach 2016</b>					
103-1	Explanation of the material topic and its Boundary	<a href="#">Sustainability Materiality Assessment</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a> <a href="#">Privacy Notice and Binding Corporate Rules</a> <a href="#">JCISR: Customer Privacy</a>			
103-2	The management approach and its components	<a href="#">JCISR: Customer Privacy</a> <a href="#">Privacy Notice and Binding Corporate Rules</a>			
103-3	Evaluation of the management approach	<a href="#">Privacy Notice and Binding Corporate Rules</a>			



Disclosure Number	Description	Response	Omission	SDG	SASB
GRI 418: Customer Privacy 2016					
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	<a href="#">JCISR: 418-1 Customer Privacy Privacy Notice and Binding Corporate Rules</a>			SV-PS-230a.1 SV-PS-230a.2 SV-PS-230a.3
<b>Socioeconomic Compliance</b>					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	<a href="#">2018 UN Global Compact COP Code of Ethics</a> <a href="#">Human Rights &amp; Sustainability Policy</a> <a href="#">JCISR: Explanation of the material topic and its boundary</a>			
103-2	The management approach and its components	<a href="#">2018 UN Global Compact COP Code of Ethics</a> <a href="#">2018 Form 10-K, Pages 6, 23, 52, and 126</a>			
103-3	Evaluation of the management approach	<a href="#">Johnson Controls named to 2019 World's Most Ethical Companies</a>			
GRI 419: Socioeconomic Compliance 2016					
419-1	Non-compliance with laws and regulations in the social and economic area	<a href="#">JCISR: 419-1 Compliance</a> <a href="#">JCISR: Ethics and Integrity</a> <a href="#">2018 Form 10-K, Pages 6, 23, 52, and 126</a>			

**Disclaimer:** The information in the Johnson Controls corporate social responsibility and sustainability report, in accordance with the Global Reporting Initiative (GRI) framework, is shared based on the best available data at publication and is subject to change. In some cases, data is estimated. Johnson Controls cautions that our statements with respect to current and future potential implications of corporate social responsibility and sustainability topics are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond Johnson Controls' control, which could cause Johnson Controls' actual results and business implications to differ materially from those expressed or implied by the information in the GRI report. Stakeholders should read the report with these factors in mind.