

Second-Party Opinion

Johnson Controls Green Finance Framework



Evaluation Summary

Sustainalytics is of the opinion that the Johnson Controls Green Finance Framework is credible and impactful and aligns with the four core components of the Green Bond Principles (2018) and Green Loan Principles (2020). This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Eco-efficient and/or circular economy adapted products, production technologies and processes, Green Buildings, Pollution Prevention and Control, Sustainable Water and Wastewater Management, Clean Transportation, Renewable Energy – are aligned with those recognized by the Green Bond Principles 2018 and the Green Loan Principles 2020. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 6, 7, 9, and 11.



PROJECT EVALUATION / SELECTION Johnson Controls' Green Finance Committee will oversee evaluating and selecting projects that are compliant with the Green Finance Framework eligibility criteria. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS Johnson Controls will allocate net proceeds to an Eligible Green Project Portfolio. Pending allocation, unallocated proceeds will be held in cash, cash equivalents and/or treasury securities. This is in line with market practice.



REPORTING Johnson Controls intends to report allocation on a portfolio basis on its website on an annual basis until full allocation. Allocation reporting will include the total amount of proceeds allocated to eligible projects, balance of unallocated proceeds and the amount or percentage of new financing and refinancing. In addition, Johnson Controls is committed to reporting on relevant impact metrics, where feasible. Sustainalytics views Johnson Controls' allocation and impact reporting as aligned with market practice.

Evaluation date	August 19, 2020
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Issuer Location	Cork, Ireland
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Introduction

Johnson Controls International plc (“Johnson Controls”, “JCI” or the “Company”) is an international diversified technology company that focuses on creating intelligent buildings, efficient energy solutions, and integrated infrastructure. The Company offers air systems, building management, HVAC controls, security, and fire safety solutions to customers in more than 150 countries. Founded in 1885 and headquartered in Cork, Ireland, the Company has a global team of 105,000 employees.

Johnson Controls has developed the Green Finance Framework (the “Framework”) under which it intends to issue green finance instruments, and use the proceeds to finance and/or refinance, in whole or in part, a portfolio of existing and/or future Eligible Green Projects across one or more of the following six categories:

1. Eco-efficient and/or circular economy adapted products, production technologies and processes
2. Green Buildings
3. Pollution Prevention and Control
4. Sustainable Water and Wastewater Management
5. Clean Transportation
6. Renewable Energy

Johnson Controls engaged Sustainalytics to review the Green Finance Framework, dated August 2020, and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP),¹ and the Green Loan Principles 2020 (GLP).² This Framework has been published in a separate document.³

Scope of work and limitations of Sustainalytics Second-Party Opinion

Sustainalytics’ Second-Party Opinion reflects Sustainalytics independent⁴ opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework’s alignment with the Green Bond Principles 2018, as administered by ICMA;
- The Framework’s alignment with the Green Loan Principles 2020, as administered by LMA, Asia Pacific Loan Market Association, Loan Syndications & Trading Association.;
- The credibility and anticipated positive impacts of the use of proceeds;
- The alignment of the Johnson Control’s sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.5, which is informed by market practice and Sustainalytics’ expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Johnson Controls’ management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Johnson Controls representatives have confirmed (1) they understand it is the sole responsibility of Johnson Controls to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Framework and should be read in conjunction with that Framework.

¹ The Green Bond Principles are administered by the International Capital Market Association and are available at <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>.

² The Green Loan Principles are administered by the Loan Market Association (“LMA”), the Asia Pacific Loan Market Association (“APLMA”) and the Loan Syndications and Trading Association (“LSTA”) and are available at: https://www.lma.eu.com/application/files/9115/4452/5458/741_LM_Green_Loan_Principles_Booklet_V8.pdf.

³ The Green Finance Framework is available on Johnson Controls International plc’s website at: <https://www.johnsoncontrols.com/corporate-sustainability/green-finance>

⁴ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics’ hallmarks is integrity, another is transparency.

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Johnson Controls.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to receive allocations related to Green Financings (as defined in the Framework) but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the intended allocation of proceeds but does not guarantee the realized allocation of the proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument either in favor or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Johnson Controls has made available to Sustainalytics for the purpose of this SPO.

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Green Finance Framework

Sustainalytics is of the opinion that the Green Finance Framework is credible and impactful, and aligns with the four core components of the GBP and GLP. Sustainalytics highlights the following elements of Johnson Controls' Green Finance Framework:

- Use of Proceeds:
 - Johnson Controls' six categories are aligned with those recognized by the GBP and GLP.
 - For the "Eco-efficient and/or circular economy adapted products, production technologies and processes" category, JCI intends on investing in product/ technology solutions as well as service support focused on optimizing water and energy efficiency of buildings. Refer to Section 3 for further discussion of the impacts of these technologies. Below are details on products and solutions, as illustrated in the Framework⁵:
 - Digital Solutions: Artificial Intelligence and Internet of Things based solutions for improved environmental performance of buildings through smart data analytics and energy management software.
 - Building Automation and Controls: Integration technologies to extend automated control to building systems, including smart HVAC and smart lighting, to drive energy performance and optimize resource consumption in buildings.
 - Residential and Smart Home: Sensor-based controls and smart home thermostats as well as eco-certified air conditioning and heat pump units.
 - Eco-Efficient HVAC equipment: Components and systems focused on improvement in energy efficiency to heating, ventilation, and air conditioning systems in buildings.
 - Distributed Energy Storage: Systems to support renewable energy generation, demand response, backup power, peak shaving, frequency regulation and load shifting to optimize energy usage in buildings.

Examples of services and support include:

- Energy demand response installations, energy performance contracting, energy retrofit programs, intelligent lighting infrastructure, renewable energy installation and maintenance and water conservation solutions.
- Sustainalytics notes positively that JCI is considering equipment that contains refrigerants with ultra-low Global Warming Potential (along with zero Ozone Depletion

⁵ Please refer to the Framework for a set of examples under this category published at: <https://www.johnsoncontrols.com/corporate-sustainability/green-finance>

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Potential).⁶ Furthermore, in relation to refrigerant management, JCI adheres to section 608 of the EPA Clean Air Act,⁷ or similar national requirements, while performing service, maintenance, repair and end-of-life replacement of commercial air conditioning and refrigeration and industrial refrigeration equipment.

- Sustainalytics also views positively the inclusion of a 15% minimum improvement threshold for HVAC equipment.
- Overall, Sustainalytics views investments planned in this category to be aligned with market practice.
- For the “Green Buildings” category, JCI will finance investments and expenditures for the design, construction, maintenance or refurbishment of buildings that have achieved, or are expected to achieve, a reputable green building third-party certification such as LEED (“Gold” or “Platinum”), BREAM (“Excellent” or “Outstanding”) or other equivalent local and regional certifications. Sustainalytics considers the referenced certification standards as being credible and the selected levels as being aligned with market practice and having a positive impact (see Appendix 1 for additional details on the certification schemes).
- For the “Pollution Prevention and Control” category, the Framework allows for activities that will minimize or eliminate waste sent to landfill by JCI’s manufacturing facilities. Sustainalytics notes the importance of the waste hierarchy in assessing the impact of waste management projects and highlights positively the focus of waste reduction.
- For the “Renewable Energy” category, the Framework includes financing for the development, construction, maintenance, and operation of solar and wind energy projects. This category includes power purchase agreements (PPAs), virtual PPAs and energy storage systems.
 - PPAs financed will be long-term (at least seven years) and tied to specific projects which Sustainalytics considers to be aligned with market practice.
- Project Evaluation and Selection:
 - Johnson Controls’ Green Finance Committee, comprised of members from the Sustainability Leadership Committee (SLC), Treasury, Legal, and nominated subject matter experts, will be in charge of project evaluation and selection based on compliance with the Framework and JCI’s Enterprise Risk Management Program (ERM). Additionally, Green Projects must comply with JCI’s ERM program which takes into consideration environmental and social risks.
 - Based on this governance structure with cross-divisional membership, Sustainalytics considers this process to be in line with market practice.
- Management of Proceeds:
 - The Finance Department of Johnson Controls will be responsible for management of proceeds and will allocate net proceeds from any Green Financing to an Eligible Green Project Portfolio. Eligible Green Projects will be added to the portfolio, which JCI will aim to match or exceed the balance of net proceeds from its outstanding Green Finance Instruments. Pending allocation, JCI will hold or invest the unallocated balance of the proceeds in cash, cash equivalents and/or treasury securities.
 - Based on the establishment of an Eligible Green Project Portfolio and the disclosure of temporary use of proceeds, Sustainalytics considers this process to be in line with market practice.
- Reporting:
 - Johnson Controls intends to prepare and make publicly available Green Finance reporting one year after each issuance, to be renewed annually and until full allocation on the Company’s website. The allocation reporting will be done on a portfolio basis and will include total amount of proceeds allocated to eligible projects, the balance of unallocated proceeds and the amount or percentage of new financing and refinancing. The reporting will include qualitative and, where feasible, quantitative environmental metrics such as estimated annual GHG emissions avoided or reduced, tons of waste diverted from landfill, and estimated water savings.

⁶ Johnson Controls has listed as an example the YZ Magnetic Bearing Centrifugal Chiller which has a Low Global Warming Potential (GWP), zero Ozone Depletion Potential (ODP) and delivers up to 35% annual energy savings. At: <https://www.johnsoncontrols.com/media-center/news/press-releases/2018/01/03/york-yz-magnetic-bearing-centrifugal-chiller-is-first-chiller-optimized-for-new-low-gwp-refrigerant>.

⁷ “Section 608 prohibits individuals from intentionally venting ODS refrigerants (including CFCs and HCFCs) and their substitutes (such as HFCs), while maintaining, servicing, repairing, or disposing of air-conditioning or refrigeration equipment.” At: https://www.epa.gov/sites/production/files/2018-09/documents/section_608_of_the_clean_air_act.pdf.

- Based on the commitment to both allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2018 and Green Loan Principles 2020

Sustainalytics has determined that the Green Finance Framework aligns to the four core components of the GBP and GLP. For detailed information please refer to Appendix 2: Green Finance/Green Finance Programme External Review Form.

Section 2: Sustainability Performance of Johnson Controls

Contribution of framework to Johnson Controls International plc's sustainability strategy

Sustainalytics is of the opinion that Johnson Controls demonstrates a strong commitment to sustainability, as demonstrated in its 2025 Sustainability Strategy. The commitments made, to be achieved by 2025, are based on JCI's footprint, sustainability materiality assessment, and its corporate strategic plan.

The 2025 Sustainability Strategy centers around five key pillars each with its own target and goals. These five key pillars are:⁸

- **Solutions:** Provide increasingly sustainable products and services – This pillar aims to integrate sustainable design for products and services identified to have the highest environmental and social impact. By the end of 2019, the Company reported saving 29.4 million metric tons of CO₂e and USD 6.3 billion through energy and operational savings.
- **Performance:** Improve sustainability performance and track the Company's progress – From a 2017 baseline, the JCI aims to achieve a 25% reduction in GHG intensity; a 25% reduction in energy intensity; a 10% water reduction at water-stressed locations; a 25% reduction in recordable safety incidents; and increase diverse supplier spend at a rate exceeding revenue growth. By the end of 2019, the Company reported a 5.1% GHG intensity reduction and a 1.8% energy intensity reduction.
- **People:** Foster a culture of sustainability that engages and attracts people who want to make a difference – This pillar aims to volunteer 2.5 million hours and establish employee engagement groups globally, to advance the United Nations Sustainable Development Goals. In 2019, JCI employees contributed total volunteer hours of 1.74 million.
- **Partnerships:** Lead in global partnerships that significantly increase the Company's sustainability impact – JCI is aiming to leverage its impact through at least three global strategic sustainability Partnerships. At the U.N. Climate Action Summit in 2019, JCI made a global commitment to the Three Percent Club for Energy Efficiency, The Cool Coalition and the EP100 Cooling Challenge which focus on building efficiency and high-efficiency cooling.
- **Governance:** Demonstrate the Company's commitment from the top – Through this pillar JCI is aiming to further integrate sustainability into the company's goals and decision-making. In 2019, JCI conducted a Sustainability Materiality Assessment that is aligned with the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative.⁹

The Company estimates that from 2002 to 2017, JCI has reduced its energy intensity by 47% and its GHG intensity by 41%.¹⁰ In addition, Johnson Controls has committed to adopt science-based targets to limit the rise of global temperatures below 2°C by the end of 2020.

Based on JCI's demonstrated commitment and set of goals, Sustainalytics is of the opinion that the Green Finance Framework is aligned with the Company's overall sustainability strategy and initiatives, and that it will further the Company's actions on its key environmental priorities.

Well positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the net proceeds from the Green Financings issued under the Framework will be directed towards eligible projects that are recognized by the Green Bond Principles (2018) and Green Loan Principles (2020) to have positive environmental impact, Sustainalytics is aware that such eligible

⁸ Johnson Controls, "Johnson Controls sets new sustainability targets", at:

<https://www.johnsoncontrols.com/insights/2018/enterprise/features/sustainability-goals-for-2025#:~:text=Johnson%20Controls'%20new%202025%20Sustainability,high%20impact%20products%20and%20services.&text=Increasing%20the%20im pact%20of%20our%20sustainability%20initiatives%20through%20global%20partnerships.>

⁹ Johnson Controls, "Johnson Controls 2020 Sustainability Report", 2020, at: https://www.johnsoncontrols.com/-/media/jci/corporate-sustainability/reporting-and-policies/gri/2019/johnson_controls_2020-sustainability-report.pdf?la=en&hash=63C4727C436616C656A41E32DC0613A2421F3657.

¹⁰ Johnson Controls, "Our Commitment to the Environment", at: <https://www.johnsoncontrols.com/corporate-sustainability/environment>.

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projects could also lead to negative environmental and social outcomes. Some key environmental and social risks associated with the eligible projects could include occupational health and safety, managing community relations and ensuring stakeholder participation, and effluents and waste generated in construction or other projects executed by the Company.

Sustainalytics is of the opinion that Johnson Controls is well-positioned to manage and/or mitigate potential risks through implementation of the following:

- The Green Finance Committee, which is established for project evaluation, will also ensure that all projects financed under the Framework comply with the Company's ERM program which provides a framework for management of key risks. JCI also has specialized committees and relies on inputs from management groups including the Executive Leadership Team, Purchasing Leadership Team, Global Sustainability Council to oversee and advise on key sustainability risks.
- The Company relies on its 'Values First- The Johnson Code of Ethics' which lays down the "Human Rights and Sustainability Policy". This policy defines specific principles and employee responsibilities regarding health and safety including minimization of worker exposure to safety hazards, maintaining appropriate emergency controls, and effectively tracking and managing any safety incidents.^{11,12}
- The policy also states employee responsibilities related to environmental risks including minimizing adverse environmental impact from operations as well as implementing programs to conserve water and energy, and to reduce waste.¹³
- Johnson Controls follows a Total Risk Management approach to identify and monitor risks across five pillars focused on different risks within the organization and communicate them to senior management. Within this approach, the Company has established an Enterprise Risk Committee which acts as a forum to discuss risks along with their potential impact and communicate key risks to the Board.¹⁴
- Johnson Controls periodically conducts a materiality assessment to gather input about issues that are most important to internal and external stakeholders. The feedback gathered is plotted on a materiality matrix to determine priorities and actions taken to address these issues are summarized and published on the Company website.¹⁵

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Johnson Controls has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

Section 3: Impact of Use of Proceeds

All six use of proceeds categories are aligned with those recognized by the GBP. Sustainalytics has focused on two below where the impact is specifically relevant in the local context.

Role of eco-efficient solutions in reducing carbon intensity of buildings

Buildings are a significant consumer of electricity globally representing 20% of electricity consumption in 2018¹⁶ and the largest consumer in the United States, accounting for 39% of all consumption in 2019.¹⁷ Residential and commercial buildings use electricity for a variety of reasons primarily including space heating, air conditioning, and ventilation.^{18,19}

¹¹ Johnson Controls, "Values first" at: <https://valuesfirst.johnsoncontrols.com/values-first/>

¹² Johnson Controls, "Human Rights and Sustainability Policy" at: <https://www.johnsoncontrols.com/-/media/jci/suppliers/media-folder/corporate-responsibility/batteries/sustainability/conflict-minerals/human-rights-policy102017.pdf?la=en&hash=2AE227EA176EB6B9B2567D4EE93DF48B81D44124>

¹³ Ibid

¹⁴ Johnson Controls, Introduction and Risk Management Narrative published at: <https://www.johnsoncontrols.com/-/media/8c834b7e35254e00b33832939765cf10.ashx>

¹⁵ Johnson Controls, Sustainability Materiality Assessment published in 2020 at: <https://www.johnsoncontrols.com/-/media/jci/corporate-sustainability/reporting-and-policies/gri/2019/jci-sustainability-materiality-assessment-2020.pdf?la=en&hash=C44BB2797CB27261F134AD5C3F92DEC953ACB479>

¹⁶ US Energy Information Administration, International Energy Outlook 2019 published September 2019 at: <https://www.eia.gov/outlooks/ieo/pdf/ieo2019.pdf>

¹⁷ US Energy Information Administration, Use of energy explained at: <https://www.eia.gov/energyexplained/use-of-energy/>

¹⁸ US Energy Information Administration, Use of energy explained: Energy use in homes at: <https://www.eia.gov/energyexplained/use-of-energy/homes.php>

¹⁹ US Energy Information Administration, Use of energy explained: Energy use in commercial buildings at: <https://www.eia.gov/energyexplained/use-of-energy/commercial-buildings.php>

Advanced HVAC systems can help in studying and reducing energy consumption in unoccupied zones of the building, adapting to varying demand needs as well as detecting need for maintenance.²⁰ These systems help in optimizing electricity consumption, thereby generating savings. Research conducted by the Buildings Performance Institute Europe (BPIE) in 2017 found that building automation could reduce household electricity consumption by 27% and smart technology could reduce office electricity consumption by 23%.²¹ They also contribute to stabilization of the energy system through storage capacity and demand response activities and in turn enable a larger uptake of renewable energy.²²

Several states in the US have already set ambitious emissions targets for building decarbonization over the coming decades. In 2017, California passed legislation authorizing the California Public Utilities Commission to oversee US \$200 million low-carbon heating programs and establish a building decarbonization framework.²³ In April 2019, the New York City Council passed legislation setting a target for buildings in the city to cut their emissions by 50% by 2050. In this context, Sustainalytics finds JCI's planned investments under the Framework to be relevant and expects them to deliver positive environmental impact.

Importance of increasing the share of renewable energy

According to the International Energy Agency (IEA), annual global energy demand rose by 0.9% in 2019.²⁴ The Intergovernmental Panel on Climate Change (IPCC)²⁵ issued a report in 2018 that outlined that as global energy demand rises due to population growth,²⁶ shifting towards clean energy plays an important role in mitigating climate change and meeting the Paris Agreement's long term goal of limiting temperature increases to well below 2°C, and ideally to 1.5°C. Although the share of renewable energy in global energy production increased by 3.7% in 2019,²⁷ fossil fuel energy still meets 70% of the global energy demand.²⁸ The International Renewable Energy Agency (IRENA) states that the total share of renewable energy must rise to approximately 66% of the total primary energy supply by 2050 in order to meet the 2°C target.²⁹

While renewable energy generation in the United States has experienced significant growth, since 2008, it accounted for a total of only 17% of the country's total energy supply mix in 2019.³⁰ According to the Department of Energy's National Renewable Energy Laboratory (NREL), by increasing renewable electricity generation from technologies that are presently available, there is capacity for 80% of the country's electricity to be generated from renewable energy, including through wind and solar generation, by 2050.³¹

Sustainalytics believes that the use of proceeds from JCI's Green Financings will have a positive impact on the share of renewable energy generation in the United States, supporting a shift towards a low-carbon economy.

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. This use of proceeds highlighted in the Framework advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Eco-efficient and/or circular economy adapted products, production technologies and processes	7. Affordable and clean energy	7.3 By 2030, double the global rate of improvement in energy efficiency

²⁰ BuildUp: The European Portal for Energy Efficiency in Buildings, Overview: Smart HVAC systems in buildings and energy savings, published in December 2017 at: <https://www.buildup.eu/en/news/overview-smart-hvac-systems-buildings-and-energy-savings-0>

²¹ Ibid

²² BPIE report, Smart Buildings Decoded, published June 2017 at: http://bpie.eu/wp-content/uploads/2017/06/PAPER-Smart-buildings-decoded_05.pdf

²³ Greentech Media report, "California regulators get serious about building decarbonization" published February 2019 at: <https://www.greentechmedia.com/articles/read/california-regulators-get-serious-about-building-decarbonization>

²⁴ International Energy Agency, Global Energy Review 2019, published April 2020 at: <https://www.iea.org/reports/global-energy-review-2019>

²⁵ IPCC, Global Warming of 1.5°C: <https://www.ipcc.ch/sr15/>

²⁶ OECD Green Growth Studies, Energy: <https://www.oecd.org/greengrowth/greening-energy/49157219.pdf>

²⁷ IRENA Renewable Energy Now Accounts for a Third of Global Power Capacity, April 2019: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf

²⁸ UN Climate Change Renewable Energy Accounts for a Third of Global Power Capacity – IRENA, April 2019: <https://unfccc.int/news/renewable-energyaccounts-for-third-of-global-power-capacity-irena>

²⁹ IRENA, Global Energy Transformation: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf

³⁰ US Energy Information Administration, FAQs at: <https://www.eia.gov/tools/faqs/faq.php?id=92&t=4>

³¹ National Renewable Energy Laboratory, Renewable Electricity Futures Study: <https://www.nrel.gov/docs/fy13osti/52409-ES.pdf>

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Green Buildings	9. Industry, innovation, and infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Pollution Prevention and Control	11. Sustainable cities and communities	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
Sustainable Water and Wastewater Management	6. Clean water and sanitation	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
Clean Transportation	11. Sustainable cities and communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
Renewable Energy	7. Affordable and clean energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

Conclusion



JCI has developed the Johnson Controls Green Finance Framework under which it may issue Green Financings and use the proceeds to finance projects in six categories namely Eco-efficient and/or circular economy adapted products, production technologies and processes, Green Buildings, Pollution Prevention and Control, Sustainable Water and Wastewater Management, Clean Transportation, and Renewable Energy. Sustainalytics considers that the projects funded by the proceeds will provide positive environmental impact.

The Johnson Controls Green Finance Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the Framework is aligned with the overall sustainability strategy of the Company and that the use of proceeds categories will contribute to the advancement of the UN Sustainable Development Goals 6, 7, 9, and 11. Additionally, Sustainalytics is of the opinion that JCI has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Johnson Controls is well-positioned to issue Green Financings and that the Johnson Controls Green Finance Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles (2018) and Green Loan Principles (2020).

Appendices

Appendix 1: Overview of Green Building Certification Schemes

	LEED ³²	BREEAM ³³
Background	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings.	BREEAM (Building Research Establishment Environmental Assessment Method) was first published by the Building Research Establishment (BRE) in 1990. Based in the UK, BREEAM can be used for new, refurbished and extension of existing buildings.
Certification levels	<ul style="list-style-type: none"> • Certified • Silver • Gold • Platinum 	<ul style="list-style-type: none"> • Pass • Good • Very Good • Excellent • Outstanding
Areas of assessment	<ul style="list-style-type: none"> • Energy and atmosphere • Sustainable Sites • Location and Transportation • Materials and resources • Water efficiency • Indoor environmental quality • Innovation Design • Regional Priority 	<ul style="list-style-type: none"> • Energy • Land Use and Ecology • Pollution • Transport • Materials • Water • Waste • Health and Wellbeing • Innovation
Requirements	<p>Prerequisites (independent of level of certification) + Credits with associated points.</p> <p>These points are then added together to obtain the LEED level of certification.</p> <p>There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operations and Maintenance).</p>	<p>Prerequisites depending on the levels of certification, and credits with associated points.</p> <p>This number of points is then weighted by item and gives a BREEAM level of certification, which is based on the overall score obtained (expressed as a percentage). Majority of BREEAM issues are flexible, meaning that the client can choose which to comply with to build their BREEAM performance score.</p>
Qualitative Considerations	Widely recognized internationally, and strong assurance of overall quality.	Widely accepted within the industry. Sustainalytics considers BREEAM Very Good (provided a minimum score of 70% is achieved in the energy category), Excellent and Outstanding to be representative of best practice.
Performance display		

³² USGBC, "LEED rating system", at: <https://www.usgbc.org/leed>.

³³ BREEAM, "Scoring and Rating BREEAM assessed buildings", at: https://www.breeam.com/BREEAM2011SchemeDocument/Content/03_ScoringRating/scoring.htm.

Appendix 2: Green Finance / Green Finance Programme - External Review Form

Section 1. Basic Information

Issuer name: Johnson Controls International plc

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: Green Finance Framework

Review provider's name: Sustainalytics

Completion date of this form: August 19, 2020

Publication date of review publication:

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW *(if applicable)*

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section *(if applicable)*:

Johnson Controls Green Finance Framework

The eligible categories for the use of proceeds – Eco-efficient and/or circular economy adapted products, production technologies and processes, Green Buildings, Pollution Prevention and Control, Sustainable Water and Wastewater Management, Clean Transportation, Renewable Energy – are aligned with those recognized by the Green Bond Principles 2018 and Green Loan Principles 2020. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 6, 7, 9, and 11.

Use of proceeds categories as per GBP:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy | <input type="checkbox"/> Energy efficiency |
| <input checked="" type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input checked="" type="checkbox"/> Clean transportation |
| <input checked="" type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input checked="" type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input checked="" type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input type="checkbox"/> Other <i>(please specify)</i> : |

If applicable please specify the environmental taxonomy, if other than GBP:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Johnson Controls' Green Finance Committee will oversee evaluating and selecting projects that are compliant with the Green Finance Framework eligibility criteria. Sustainalytics considers the project selection process in line with market practice.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other <i>(please specify)</i> : |

Information on Responsibilities and Accountability

- ☐ Evaluation / Selection criteria subject to external advice or verification ☒ In-house assessment
- ☐ Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

Johnson Controls will allocate net proceeds to an Eligible Green Project Portfolio. Pending allocation, unallocated proceeds will be held in cash, cash equivalents and/or treasury securities. This is in line with market practice.

Tracking of proceeds:

- ☒ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- ☒ Disclosure of intended types of temporary investment instruments for unallocated proceeds
- ☐ Other (please specify):

Additional disclosure:

- ☐ Allocations to future investments only ☒ Allocations to both existing and future investments
- ☐ Allocation to individual disbursements ☒ Allocation to a portfolio of disbursements
- ☒ Disclosure of portfolio balance of unallocated proceeds ☐ Other (please specify):

4. REPORTING

Overall comment on section (if applicable):

Johnson Controls intends to report allocation proceeds on its website on an annual basis until full allocation. Allocation reporting will include the total amount of proceeds allocated to eligible projects, balance of unallocated proceeds and the amount or percentage of new financing and refining. In addition, Johnson Controls is committed to reporting on relevant impact metrics. Sustainalytics views Johnson Controls' allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

- ☐ Project-by-project ☒ On a project portfolio basis
- ☐ Linkage to individual bond(s) ☐ Other (please specify):

Information reported:

- ☒ Allocated amounts
 ☒ Green Bond financed share of total investment
- ☐ Other (please specify):

Frequency:

- ☒ Annual
 ☐ Semi-annual
- ☐ Other (please specify):

Impact reporting:

- ☐ Project-by-project
 ☒ On a project portfolio basis
- ☐ Linkage to individual bond(s)
 ☐ Other (please specify):

Information reported (expected or ex-post):

- ☒ GHG Emissions / Savings
 ☒ Energy Savings
- ☒ Decrease in water use
 ☐ Other ESG indicators (please specify):

Frequency

- ☒ Annual
 ☐ Semi-annual
- ☐ Other (please specify):

Means of Disclosure

- ☐ Information published in financial report
 ☐ Information published in sustainability report
- ☐ Information published in ad hoc documents
 ☒ Other (please specify): Annual report on Green Financing
- ☒ Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE**Type(s) of Review provided:**

- ☐ Consultancy (incl. 2nd opinion)
 ☐ Certification
- ☒ Verification / Audit
 ☐ Rating
- ☐ Other (please specify):

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. Second Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. Green Bond Scoring/Rating: An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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