Environmental

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
GRI 301: Materials 2016			
GRI 301-1	Materials used by weight or volume		Hydro-Québec does not measure the weight or volume of raw materials used.
GRI 301-2	Recycled input materials used		Hydro-Québec does not measure the weight or volume of raw materials used.
GRI 302: Energy 2016			
GRI 302-1	Energy consumption within the organization	Sustainability Report 2017, p. 50 Power generation, purchases and exports Direct energy sources purchased [PDF]	
GRI 302-2	Energy consumption outside of the organization	Electricity purchases: 98% renewables or nuclear energy, 1.6% fossil fuels (223,926 GJ). Because of a lack of data on fossil fuels used by our suppliers, the following breakdown is an estimate: coal, 12%; natural gas, 86%; fuel oil: 2.1%. Sustainability Report 2017, p. 50 Power generation, purchases and exports Hydro-Québec's energy supplies and air emissions for 2017 [PDF]	
GRI 302-3	Energy intensity	Power generation, purchases and exports Energy intensity [PDF]	
GRI 302-4	Reduction of energy consumption	Sustainability Report 2017, pp. 16, 28, 30, 44–46	

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
GRI 303: Water 2016			
GRI 303-1	Water withdrawal by source	Sustainability Report 2017, p. 16 Declaration of water withdrawals	
GRI 304: Biodiversity 2016			
GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Sustainability Report 2017, pp. 65, 66 Hydro-Québec operates 34,479 km of transmission lines and 117,747 km of distribution lines that cross farmland, forests, residential districts and urban areas. To control vegetation on these line rights-of-way, we have adopted a number of environmental strategies that take into account the type of land involved. To supply its hydroelectric generating fleet, the company also operates 27 large reservoirs, with a total area of 23,000 km^2. As at December 31, 2017, Québec's network of protected areas covered 156,534 km^2, representing 9.39% of the area of the province. Hydro-Québec works closely with the government to harmonize the creation of new protected areas with energy development in Québec. At the end of the year, we were operating in 2,511 km^2 of protected areas or identified sensitive areas as well as 14,696 km^2 in adjacent areas (within 500 m of a protected area).	
GRI 304-2	Significant impacts of activities, products, and services on biodiversity	Sustainability Report 2017, pp. 55–59, 65–66 Energy and the Environment (Biodiversity)	

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
		Generating stations under construction (maps, project fact sheets or Web sites) Romaine complex – Environmental impact statement (volumes 5 and 6) (in French only)	
GRI 304-3	Habitats protected or restored	Sustainability Report 2017, pp. 55–59, 65–66, 93 Generating stations under construction (maps, project fact sheets or Web sites) Fondation Hydro-Québec pour l'environnement Annual Report 2017 Biodiversity Performance Report	The surface area and location of the habitats protected or restored are detailed in the impact statements and follow-up studies. The standards, methods and assumptions used are not mentioned.
GRI 304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Sustainability Report 2017, pp. 5, 55–59, 65–66, 93 Generating stations under construction (maps, project fact sheets or Web sites) Biodiversity Performance Report	
EU13	Biodiversity of offset habitats compared to biodiversity of the affected areas	Sustainability Report 2017, pp. 56, 58 Biodiversity Performance Report	
GRI 305: Emissions 2016			
GRI 305-1	Direct (Scope 1) GHG emissions	Emission data was calculated using site-specific data with the emission factors laid out either in Québec regulations or in the Environment Canada National Inventory Report. All GHGs were included in the calculations. Hydro-Québec has no biogenic GHG emissions. The operation	

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
		control approach of ISO standard 14064-1 was used for calculations. The global warming potential rates used were from the IPCC's AR4. In 2017, Hydro-Québec reported 34 HFC spills, for a total of a 512 kg, and 11 SF_6 spills, for a total of 57 kg. There were two CF_4 spills (5 kg) concomitant with SF_6 spills. Hydro-Québec's energy supplies and air emissions for 2017 [PDF] Characteristics of electricity generated and purchased by Hydro-Québec – 2017 data [PDF]	
GRI 305-2	Energy indirect (Scope 2) GHG emissions	Sustainability Report 2017, pp. 60, 62, 63 CO_2, CH_4 and N_2O were included in calculations when the emission factors for our electricity purchases were available. Hydro-Québec has no biogenic GHG emissions. The operation control approach of ISO standard 14064-1 was used for calculations. The global warming potential rates used were from the IPCC's AR4. Hydro-Québec's energy supplies and air emissions for 2017 [PDF] Characteristics of electricity generated and purchased by Hydro-Québec – 2017 data [PDF]	
GRI 305-3	Other indirect (Scope 3) GHG emissions	Sustainability Report 2017, pp. 60, 63 CO_2, CH_4 and N_2O were included in calculations when the emission factors for our electricity purchases were	

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
		available. Hydro-Québec has no biogenic GHG emissions. The operation control approach of ISO standard 14064-1 was used for calculations. The global warming potential rates used were from the IPCC's AR4.	
GRI 305-4	GHG emissions intensity	Sustainability Report 2017, pp. 60, 62, 63 GHG emissions intensity (levels 1 and 2) was 0.0015 t CO_2 eq./MWh. The chosen denominator was net electricity generated and purchased (main grid and off-grid systems).	
GRI 305-5	Reduction of GHG emissions	Sustainability Report 2017, pp. 16, 27, 29, 31, 60–63	
GRI 305-6	Emissions of ozone-depleting substances (ODS)	Hydro-Québec does not measure ODS emissions resulting from normal operations. However, with the gradual replacement, at the end of its service life, of equipment that contains CFCs and HCFCs, the quantity of ODS emissions goes down every year. There were 34 HCFC spills reported in 2017, for a total of 479 kg, and 11 CFC spills, for a total of 1.28 kg. There were no halon spills. Hydro-Québec does not manufacture, import or export ODS.	

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
GRI 305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Sustainability Report 2017, pp. 16, 62 Characteristics of electricity generated and purchased by Hydro-Québec – 2017 data [PDF] Data from 2017 on the main air contaminant emissions from Hydro-Québec's thermal generating stations has been made public in the National Pollutant Release Inventory on the Environment Canada Web site. The methods and emission factors are included in our declaration to Environment Canada.	
GRI 306: Effluents and Waste 2016			
GRI 306-2	Waste by type and disposal method	The company runs recovery and recycling services for different categories of residual materials through its administrative and service centers (ASCs). The following materials are collected for recycling at all ASCs: paper; package cardboard; glass, plastic and metal food containers; ferrous and nonferrous metals; and electronic products. Some materials, such as power-line hardware, wooden pallets and computer hardware, are reconditioned for reuse. The recovery and recycling of wood waste, industrial plastic, porcelain and other dry materials are partially offered at our ASCs, depending on the availability of local services. Sustainable Development (Sustainability) Management of solid radioactive waste and spent fuel Decommissioning of Gentilly-2 facilities – Documentation	Hydro-Québec does not measure the weight of all residual materials processed.

NO.	INDICATORS	REFERENCES AND NOTES	COMMENTS
GRI 306-3	Significant spills	Sustainability Report 2017, p. 16 Environmental Impact Management (Water and soils	
GRI 306-4	Transport of hazardous waste	Residual hazardous materials (RHMs) produced by Hydro-Québec are sent to authorized transfer centers in Québec. Any transfer centers that export a portion of these materials do so as RHM export sites. Main RHMs processed outside Québec by our suppliers: PCBs (shipped by Sanexen Environmental Services to Ontario and Alberta) and SF_6 gas (shipped by GE Energy Connections to Hudson Technology in Tennessee, U.S.A.).	Information on the weight of RHMs is not available.
GRI 306-5	Water bodies affected by water discharges and/or runoff	Hydropower generation does not require the withdrawal of water and there is consequently no discharge, either.	
GRI 307: Environmental Compliance 2016			
GRI 307-1	Non-compliance with environmental laws and regulations	Sustainability Report 2017, pp. 16, 55 In 2017, Hydro-Québec received no significant fines or nonmonetary sanctions for noncompliance with environmental laws and regulations.	
GRI 308: Supplier Environmental Assessment 2016			
GRI 308-1	New suppliers that were screened using environmental criteria	Data not available.	Data not available due to the extent of information required.
GRI 308-2	Negative environmental impacts in the supply chain and actions taken	Data not available.	Data not available due to the extent of information required.