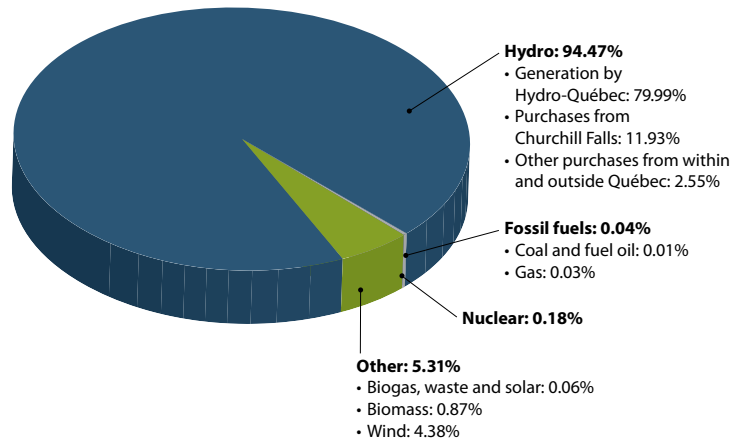


# HYDRO-QUÉBEC'S ELECTRICITY FACTS: Electricity Supply and Air Emissions

## HYDRO-QUÉBEC SOURCES OF ENERGY SUPPLY

Breakdown based on energy generated and purchased by Hydro-Québec (excluding off-grid generation as well as energy from Hydro-Québec Production and from independent producers for which renewable energy certificates have been sold or transferred to third parties): 12-month period ended December 31, 2017.

**RENEWABLE SOURCES: 99.78%**  
**NON-RENEWABLE SOURCES: 0.22%**



## AIR EMISSIONS

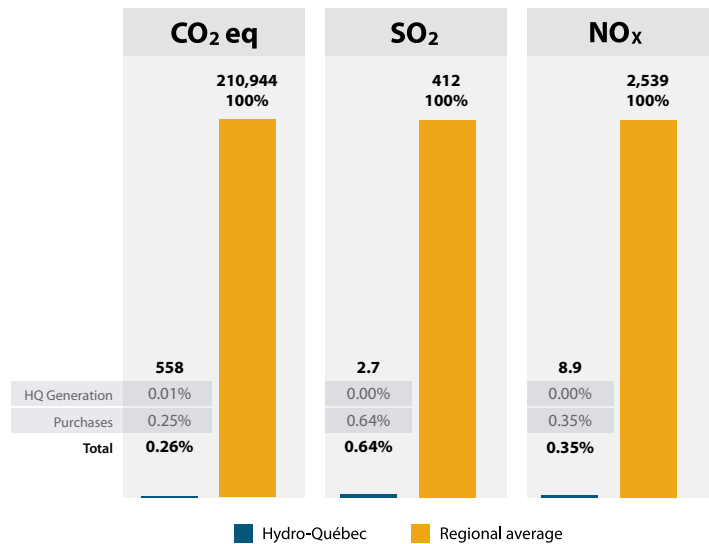
Corresponding to the generation and purchases described above.

- **CO<sub>2</sub>** (carbon dioxide): primary contributing gas to global warming. Atmospheric emissions of greenhouse gases are expressed in CO<sub>2</sub> equivalent.
- **SO<sub>2</sub>** (sulfur dioxide): major precursor of acid rain and fine particulate matter.
- **NO<sub>x</sub>** (nitrogen oxides): major precursors of ground-level ozone and acid rain.

For more detailed information on the environmental impact of electricity generation, refer to Hydro-Québec's *Sustainability Report – 2017*.

## COMPARISON OF HYDRO-QUÉBEC'S AIR EMISSIONS WITH THE REGIONAL AVERAGE\*

Emission factors: metric tonnes/TWh



\*Regional average for electric utilities in the six New England States and the State of New York (2016), Ontario (2016) and New Brunswick (2016-2017). Data sources: Emissions & Generation Resource Integrated Database (eGRID2016), February 2018, U.S. EPA; 2016 Sustainable Development Report, Ontario Power Generation; New Brunswick Power Corporation 2016/17 Annual Report. CO<sub>2</sub> equivalent emission factors come from Québec's legislation *Règlement sur la déclaration obligatoire de certaines émissions de contaminants dans l'atmosphère*.



**Bureau de normalisation**  
du Québec

*BNQ is a member of the National Standards System (NSS).*

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## VERIFICATION STATEMENT

### To Hydro-Québec Management:

The Bureau de normalisation du Québec (BNQ) was mandated to conduct an independent audit to provide a reasonable level of assurance regarding the *Electricity Supply and Air Emissions* fact sheet on atmospheric emissions corresponding to Hydro-Québec's energy generation and purchases in 2017. The atmospheric emissions of greenhouse gas (GHG) expressed as metric tons of carbon dioxide equivalent: t CO<sub>2</sub>e, of sulphur dioxide (SO<sub>2</sub>) and of nitrogen oxides (NO<sub>x</sub>) that were targeted and declared correspond to confirmed energy generation and purchases.

The purpose of this audit was to evaluate the declarations of energy generation supply sources and air emissions targeted by the fact sheet in order to provide a review concerning:

- Their accuracy and reliability;
- Compliance with the principles of completeness, consistency, accuracy, transparency and relevance in accordance with standard ISO 14064-1:2006 — Part 1 (Specification with guidance at the organizational level for quantification and reporting of GHG).

Although the emissions are not made up exclusively of GHG, the audit was conducted in conformity with the requirements of standard ISO 14064-3:2006 — Part 3 (Specification with guidance for the verification of GHG assertions). The BNQ is an accredited verification body under the terms of standard ISO 14065:2013 (Requirements for GHG verification bodies for use in accreditation). This accreditation was granted on September 13, 2010 by a recognized member of the International Accreditation Forum (IAF).

Hydro-Québec is responsible for the preparation and contents of the fact sheet. The data and information corroborating Hydro-Québec's declarations are measured. The breakdown of energy supply sources (hydraulic, fossil fuels, wind-generated, nuclear and other) is based on the electricity generated and purchased by Hydro-Québec. However, these sources exclude off-grid generation as well as all other energy generated or purchased for which renewable energy certificates (RECs) were sold or transferred to third parties. Finally, the comparison of Hydro-Québec's air emissions with the regional average of other power generation companies is based on third-party information.

Based on the materiality thresholds established for this mandate, the audit conducted by the BNQ served to attest that the targeted declarations are accurate and reliable and that they comply with the principles of standard ISO 14064-1:2006. The supporting evidence is satisfactory and there is no material discrepancy. The auditor can affirm that the evidence obtained during the audit served to comprehensively support the targeted declarations. There is no restriction (qualification or limitation) applicable to the auditor's opinion.

Montréal, May 4, 2018

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