

## HYDRO-QUÉBEC'S ELECTRICITY FACTS:

### CO<sub>2</sub> Emissions and Hydro-Québec Electricity, 1990-2017

Hydro-Québec meets the energy needs of its customers almost entirely with hydroelectricity. The utility also purchases electricity from independent producers in Québec, elsewhere in Canada and the United States. These purchases include renewable energies (hydroelectricity, bioenergy and wind energy) as well as non-renewal energies (nuclear and thermal energy).

To calculate CO<sub>2</sub> emissions (kg/MWh) from all these sources of supply, Hydro-Québec uses the following emission factors:

- A zero emission factor for renewable and nuclear energy
- A specific factor for each thermal generating station and each supplier

This method excludes emissions from off-grid systems, which consist mainly of thermal plants. These off-grid systems supply communities that are too remote to be connected to our main grid.

The fluctuations in emission rate over the years are due to variations in our sources of supply. The highest emission rates are for years when production at our Tracy thermal generating station and our purchases from independent producers using fossil fuels were greatest. The Tracy plant stopped generating electricity in 2011.

YEAR	CO <sub>2</sub> EMISSIONS* (kg/MWh)
1990	32.8
1991	13.3
1992	43.0
1993	18.6
1994	19.7
1995	15.3
1996	14.0
1997	6.2
1998	30.0
1999	16.9
2000	9.7
2001	14.2
2002	8.4
2003	21.1
2004	21.5
2005	12.0
2006	16.1
2007	21.4
2008	7.3
2009	4.8
2010	13.6
2011	6.5
2012	0.9
2013	1.1
2014	1.6
2015	1.0
2016	0.4
2017	0.6

\* Excluding off-grid systems

For more information, consult the data sheet entitled [Energy Supplies and Air Emissions](#) for the twelve-month period ended December 31, 2017.