2018

Comparison of Electricity Prices in Major North American Cities

Rates in effect April 1, 2018

hydro quebec .com

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INTRODUCTION

Every year, Hydro-Québec compares the monthly electricity bills of Québec customers in the residential, commercial, institutional and industrial sectors with those of customers of the various utilities serving 21 major North American cities.

This report details the principal conclusions of this comparative analysis of prices in effect on April 1, 2018. There are three sections. The first describes the method used to estimate electricity bills. The second examines the highlights of the seven consumption levels analyzed, with the help of charts. Finally, the third presents the results of the 21 consumption levels for which data were collected and compiled in the form of summary and detailed tables.

The most recent rate adjustments, time-of-use rates, adjustment clauses and applicable taxes, as well as a profile of the utilities in the study, appear in separate appendices.

MAJOR NORTH AMERICAN CITIES

AVERAGE PRICES FOR RESIDENTIAL CUSTOMERS[1] (IN ¢/kWh)[2]

1) For a monthly consumption of 1,000 kWh; rates in effect April 1, 2018.
2) In Canadian currency.

Abbreviations Used

AB	Alberta
BC	British Columbia
CA	California
FL	Florida
IL	Illinois
MA	Massachusetts
MB	Manitoba
MI	Michigan
NB	New Brunswick
NL	Newfoundland and Labrador
NS	Nova Scotia
NY	New York
ON	Ontario
OR	Oregon
PE	Prince Edward Island
QC	Québec
SK	Saskatchewan
TN	Tennessee
TX	Texas
WA	Washington

MAJOR NORTH AMERICAN CITIES

AVERAGE PRICES FOR LARGE-POWER CUSTOMERS[1] (IN ¢/kWh)[2]

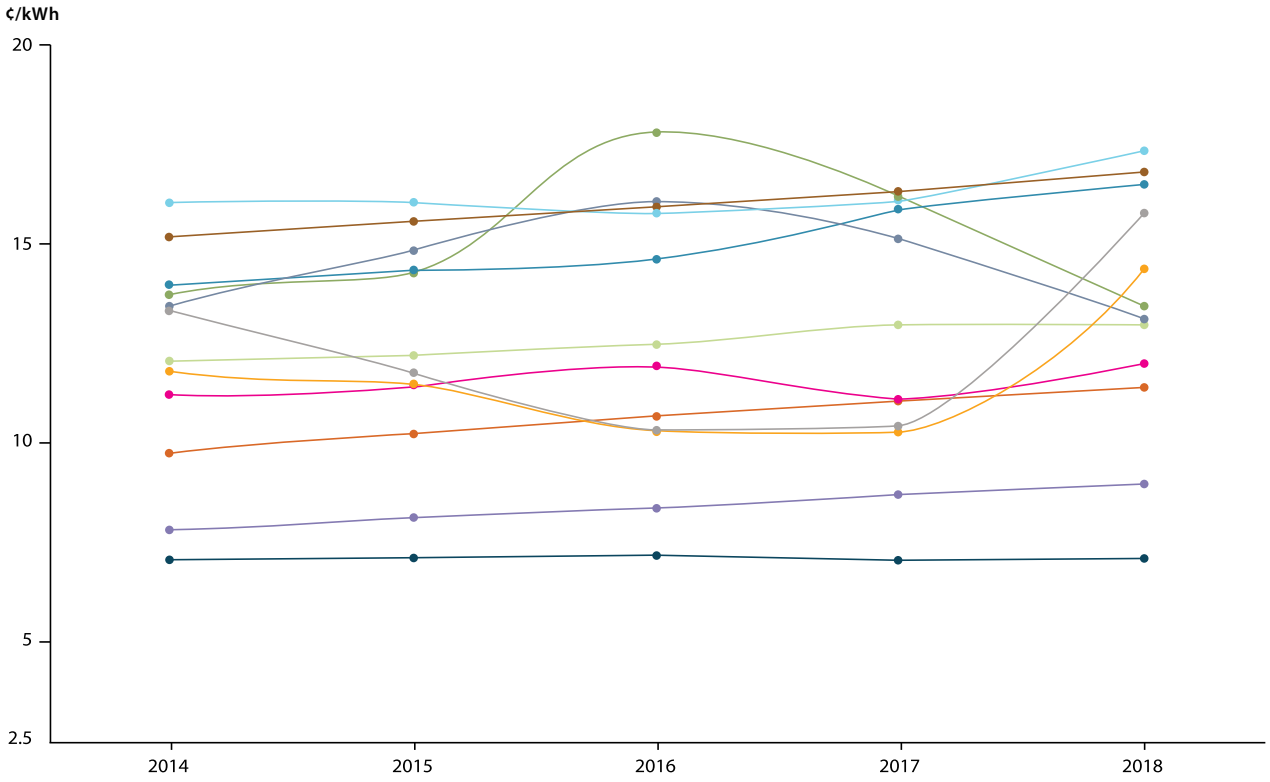
1) For a monthly consumption of 3,060,000 kWh and a power demand of 5,000 kW; rates in effect April 1, 2018.
2) In Canadian currency.

Abbreviations Used

AB	Alberta
BC	British Columbia
CA	California
FL	Florida
IL	Illinois
MA	Massachusetts
MB	Manitoba
MI	Michigan
NB	New Brunswick
NL	Newfoundland and Labrador
NS	Nova Scotia
NY	New York
ON	Ontario
OR	Oregon
PE	Prince Edward Island
QC	Québec
SK	Saskatchewan
TN	Tennessee
TX	Texas
WA	Washington

MAJOR CANADIAN CITIES

OVERVIEW OF CHANGES IN AVERAGE PRICES FOR RESIDENTIAL CUSTOMERS (IN ¢/kWh) – 2014 TO 2018[1,2,3]



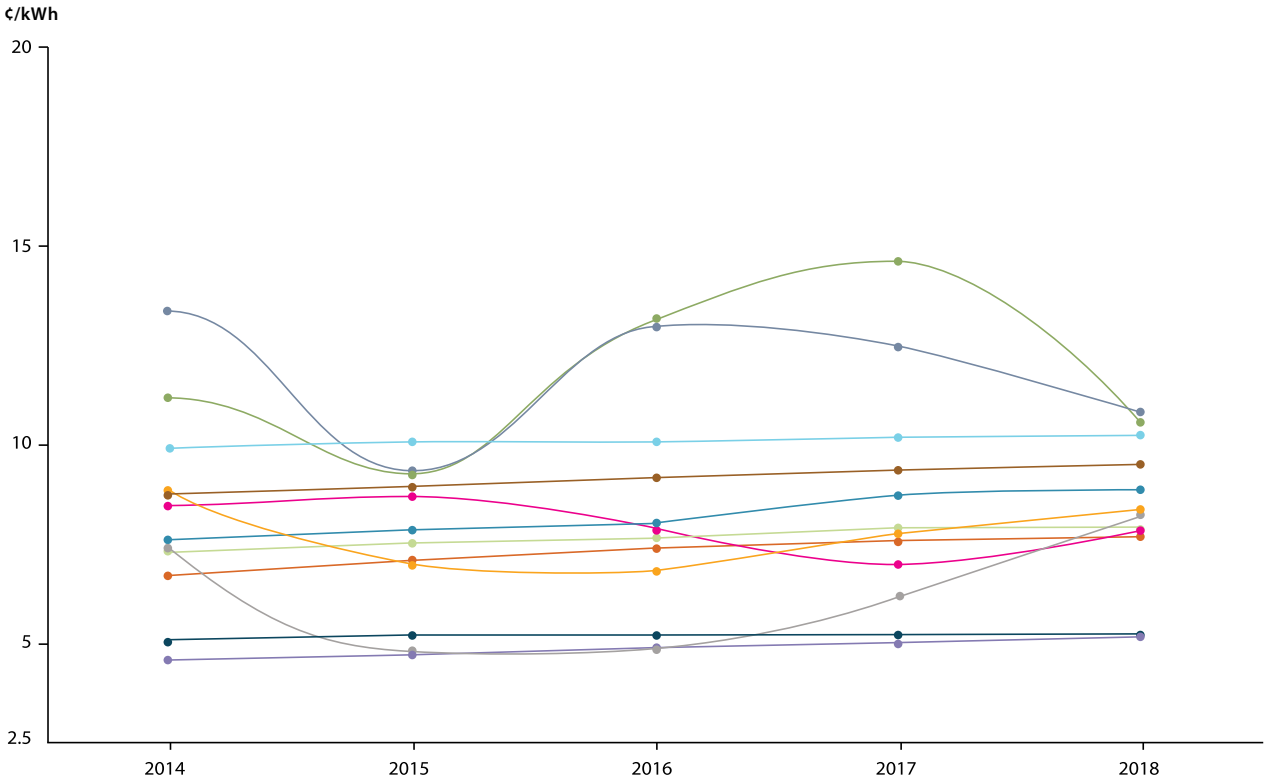
AVERAGE PRICES FOR A RESIDENTIAL CUSTOMER (IN ¢/KWH)[1,2,3]

	2014	2015	2016	2017	2018
Canadian Cities					
Montréal, QC	**7.06**	**7.19**	**7.23**	**7.07**	**7.13**
Calgary, AB	13.41	11.66	10.40	10.45	15.79
Charlottetown, PE	15.24	15.62	16.02	16.42	16.83
Edmonton, AB	11.88	11.55	10.37	10.34	14.35
Halifax, NS	16.03	16.03	15.88	16.15	16.41
Moncton, NB	12.06	12.30	12.50	12.97	12.97
Ottawa, ON	13.45	14.86	16.15	15.21	12.16
Regina, SK	13.95	14.37	14.65	15.94	16.51
St. John's, NL	11.34	11.55	11.96	11.15	12.03
Toronto, ON	13.78	14.31	17.81	16.32	13.24
Vancouver, BC	9.71	10.29	10.70	11.08	11.42
Winnipeg, MB	7.89	8.11	8.43	8.71	9.00

1) For a monthly consumption of 1,000 kWh.
2) In Canadian currency.
3) Data from *Comparison of Electricity Prices in Major North American Cities* publications, Hydro-Québec, 2014 to 2018.

MAJOR CANADIAN CITIES

OVERVIEW OF CHANGES IN AVERAGE PRICES FOR LARGE-POWER CUSTOMERS (IN ¢/kWh) – 2014 TO 2018[1,2,3]



AVERAGE PRICES FOR LARGE-POWER CUSTOMERS (IN ¢/KWH)[1,2,3]

	2014	2015	2016	2017	2018
Canadian Cities					
Montréal, QC	**5.05**	**5.17**	**5.17**	**5.18**	**5.18**
Calgary, AB	7.42	4.76	4.82	6.09	8.32
Charlottetown, PE	8.71	8.90	9.12	9.31	9.51
Edmonton, AB	8.87	6.97	6.78	7.68	8.53
Halifax, NS	9.86	10.02	10.02	10.14	10.26
Moncton, NB	7.34	7.48	7.60	7.86	7.86
Ottawa, ON	13.31	9.30	12.91	12.46	10.80
Regina, SK	7.56	7.81	7.97	8.67	8.98
St. John's, NL	8.42	8.65	7.88	6.95	7.84
Toronto, ON	11.13	9.22	13.04	14.55	10.66
Vancouver, BC	6.66	7.04	7.35	7.54	7.77
Winnipeg, MB	4.54	4.67	4.85	5.01	5.18

1) For a monthly consumption of 3,060,000 kWh and a power demand of 5,000 kW.
2) In Canadian currency.
3) Data from *Comparison of Electricity Prices in Major North American Cities* publications, Hydro-Québec, 2014 to 2018.

METHOD

In addition to Hydro-Québec, this comparative analysis of electricity prices across North America includes 22 utilities: 12 serving the principal cities in the 9 other Canadian provinces, and 10 utilities in American states. The results are based, in part, on a survey to which 14 utilities responded, and in part on estimates of bills calculated by Hydro-Québec and confirmed in most cases by the utilities concerned.

The results presented here show the total bill for various consumption levels. If the bill is calculated according to an unbundled rate, it includes all components, including supply, transmission and distribution.

PERIOD COVERED

Monthly bills have been calculated based on rates in effect on April 1, 2018. The most recent rate adjustments applied by the Canadian utilities in the study between April 1, 2017, and April 1, 2018, are shown in Appendix A.

CONSUMPTION LEVELS

Seven consumption levels were selected for analysis. However, data were collected for 21 consumption levels and those results are presented in the Detailed Tables.

TAXES

With the exception of the bills presented in Section 2, taxes are not included in any of the calculations. Appendix C lists taxes applicable on April 1, 2018, by customer category; those which may be partially or fully refundable are also indicated.

OPTIONAL PROGRAMS

The bills have been calculated according to base rates. Optional rates or programs offered by some utilities to their residential, commercial, institutional or industrial customers have not been taken into account since the terms and conditions vary considerably from one utility to the next.

GEOGRAPHIC LOCATION

Electricity distributors sometimes offer different rates in the various cities they serve. As well, taxes may vary from one region to another. This, however, is not the case in Québec, where, with the exception of territories north of the 53rd parallel, taxes and rates are applied uniformly. For the purposes of this study, the bill calculations estimate as closely as possible the actual electricity bills of consumers in each target city, based on rates in effect on April 1, 2018.

TIME-OF-USE RATES

The rates offered by some utilities vary depending on the season and/or time of day when energy is consumed. In the United States, for example, a number of utilities set a higher price in summer, when demand for air-conditioning is stronger. In Québec, on the other hand, demand increases in winter because of heating requirements. Thus, for some utilities, April 1 may fall within a period in the year when the price is high, whereas for others it falls in a period when the price is low. An annual average price has therefore been calculated in the case of utilities with time-of-use rates which are listed in Appendix B.

ADJUSTMENT CLAUSES

The rates of some distributors include adjustment clauses that allow them to adjust their customers' electricity bills according to changes in different variables. Since these adjustments may be applied monthly, or over a longer period, the electricity bills issued by a given distributor may have varied between April 1, 2017, and April 1, 2018, even though base rates remained the same. Appendix B lists the adjustment clauses taken into account when calculating bills.

EXCHANGE RATE

The exchange rate used to convert bills in U.S. dollars into Canadian dollars is $0.7747 (CA$1 = US$0.7747), the rate in effect at noon on April 2, 2018. The Canadian dollar had thus appreciated by 3.74% relative to the U.S. dollar on April 1, 2017.

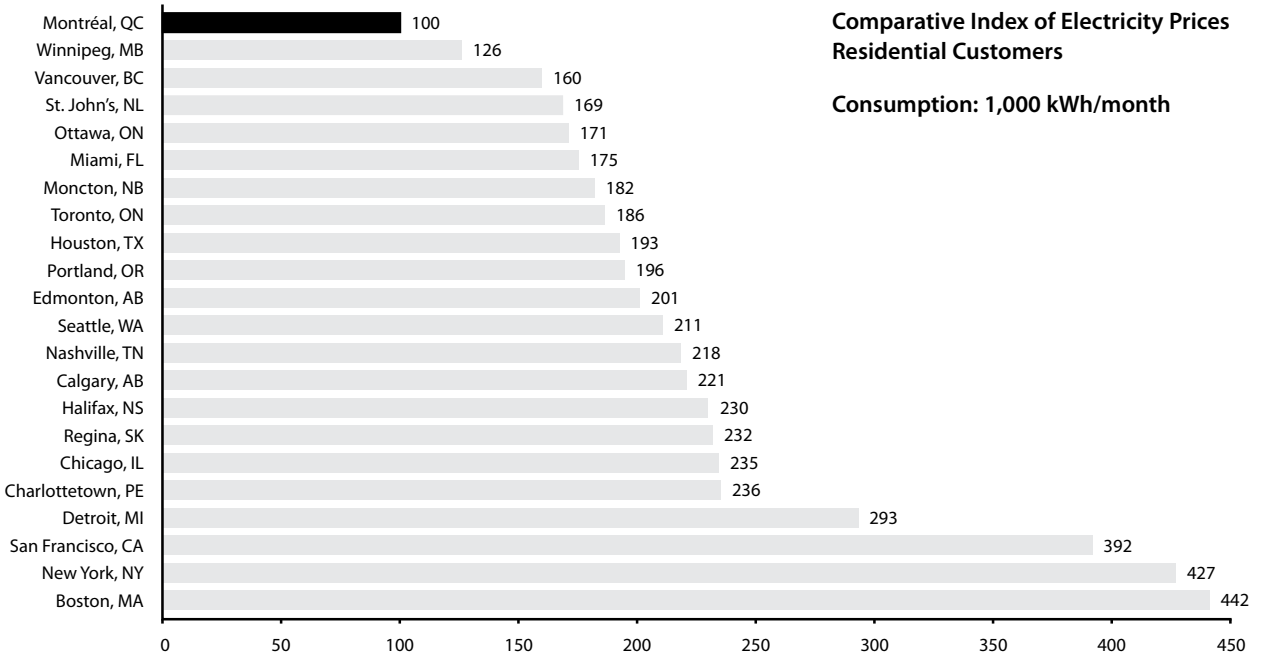
HIGHLIGHTS

The *Electricity Rates Effective April 1, 2018* sets out Hydro-Québec's rates, as approved by the Régie de l'énergie (the Québec energy board) in accordance with Decision D-2018-030. Three types of rates are in effect: domestic rates, for residential customers, the industrial rate, for large-power industrial customers, and general rates, for other customers. General rates are applied according to minimum billing demand: small power, medium power and large power. For comparison purposes, the electricity bills of the utilities in the study have been analyzed according to these customer categories. The industrial rate has been used to calculate the bills of large-power customers.

RESIDENTIAL CUSTOMERS

The rate applicable to Hydro-Québec's residential customers is among the most advantageous in North America. For customers whose monthly consumption is 1,000 kWh, Montréal is once again in *first* place. Figure 1 illustrates the results of this comparison.

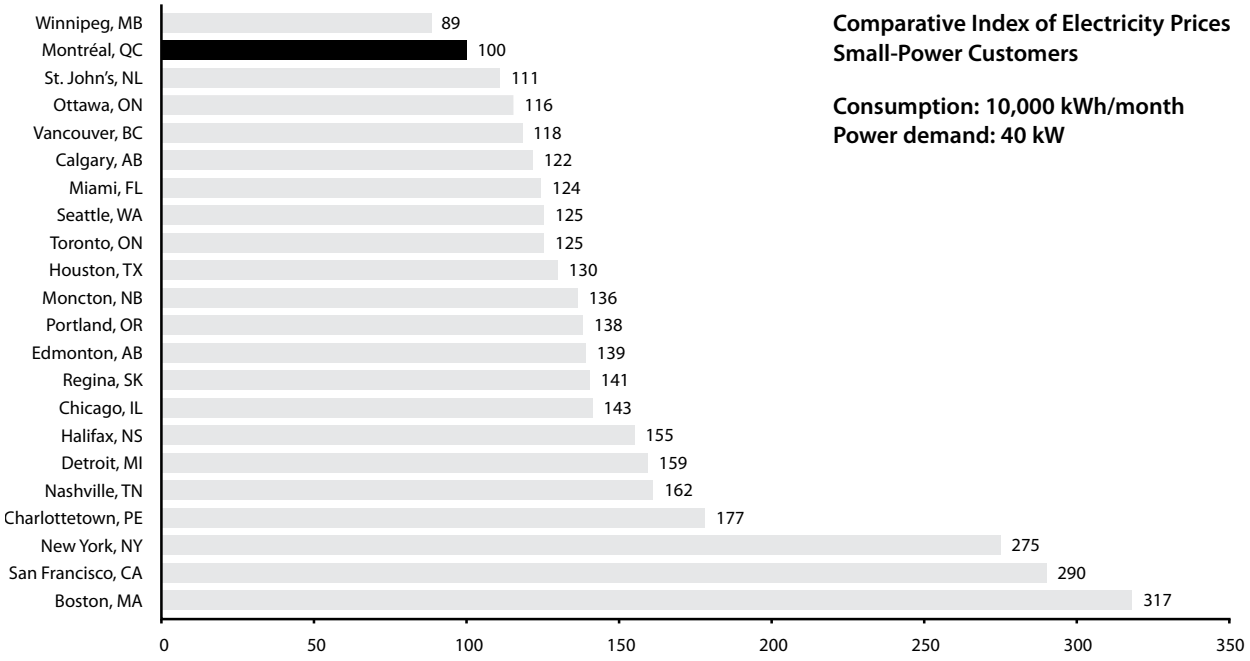
FIGURE 1



SMALL-POWER CUSTOMERS (LESS THAN 100 kW)

The comparison of bills for small-power customers is based on a monthly consumption of 10,000 kWh and a power demand of 40 kW. Montréal is in *second* place this year, improving its position from last year. Figure 2 shows the comparative index of electricity prices.

FIGURE 2

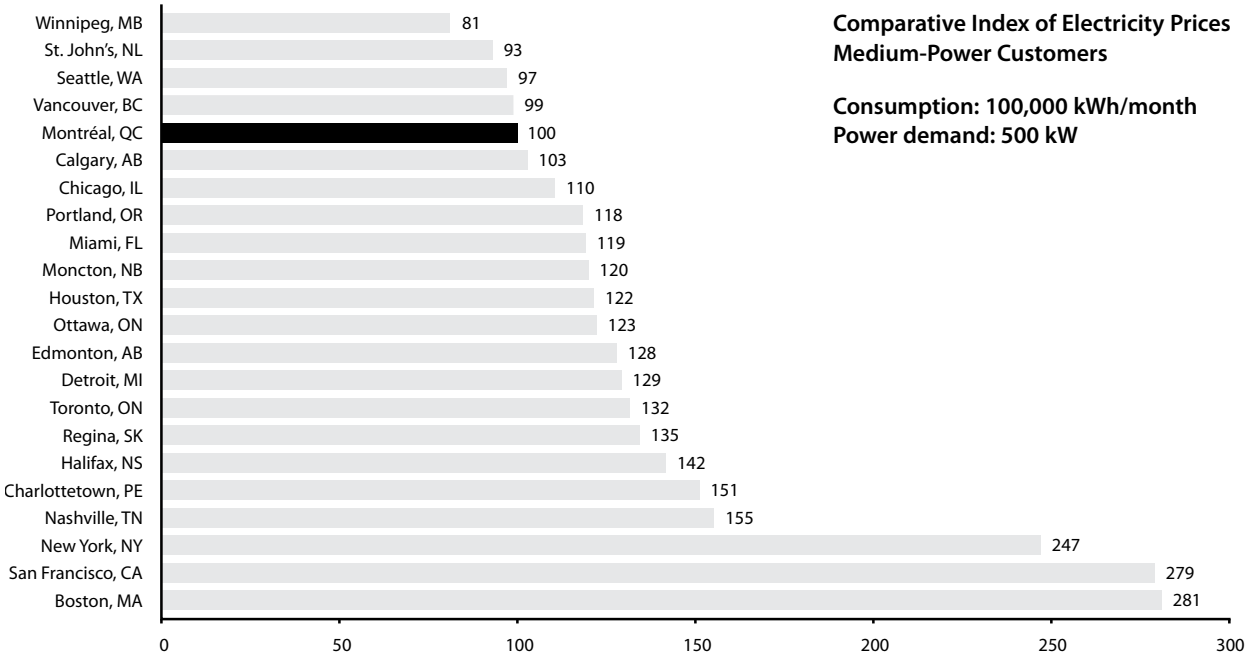


MEDIUM-POWER CUSTOMERS (100 TO 5,000 kW)

Three consumption levels were analyzed for medium-power customers. In all three cases, the bills of Hydro-Québec's customers have remained below the average of the other major North American cities. Figures 3, 4 and 5 show the comparative index of electricity prices for these consumption profiles.

For medium-power customers with a monthly consumption of 100,000 kWh and a power demand of 500 kW, Montréal is in *fifth* place, compared with seventh last year.

FIGURE 3

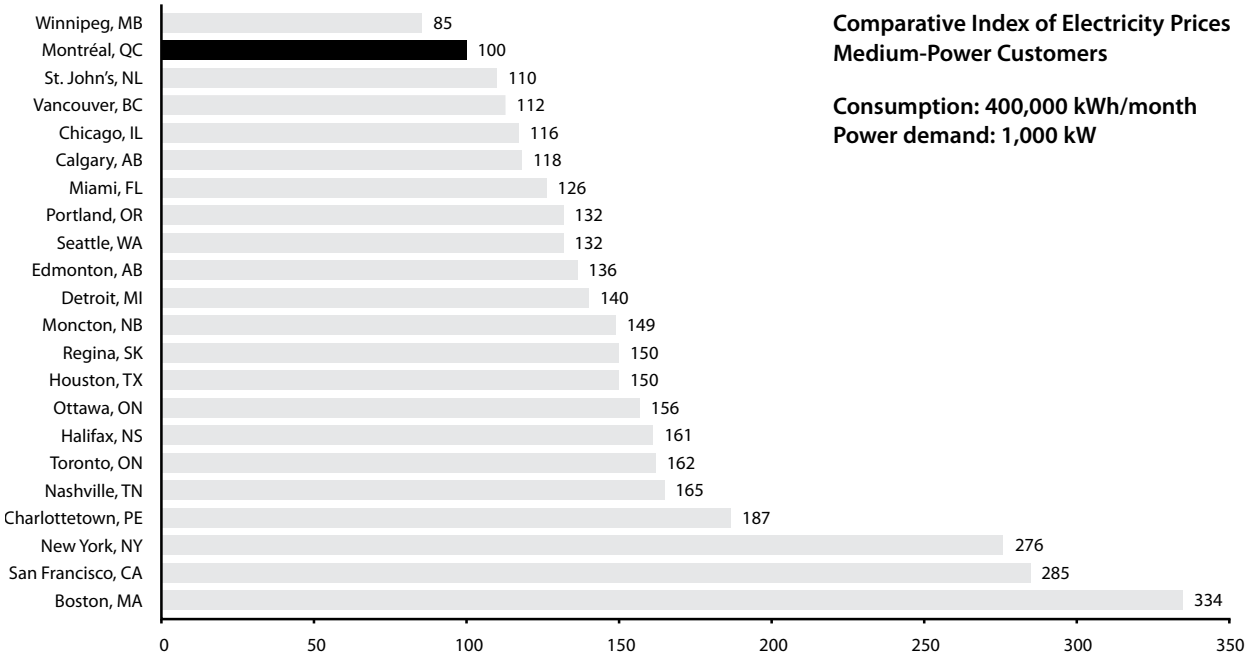


Hydro-Québec = 100

Monthly bill (excluding tax)
Rates in effect April 1, 2018

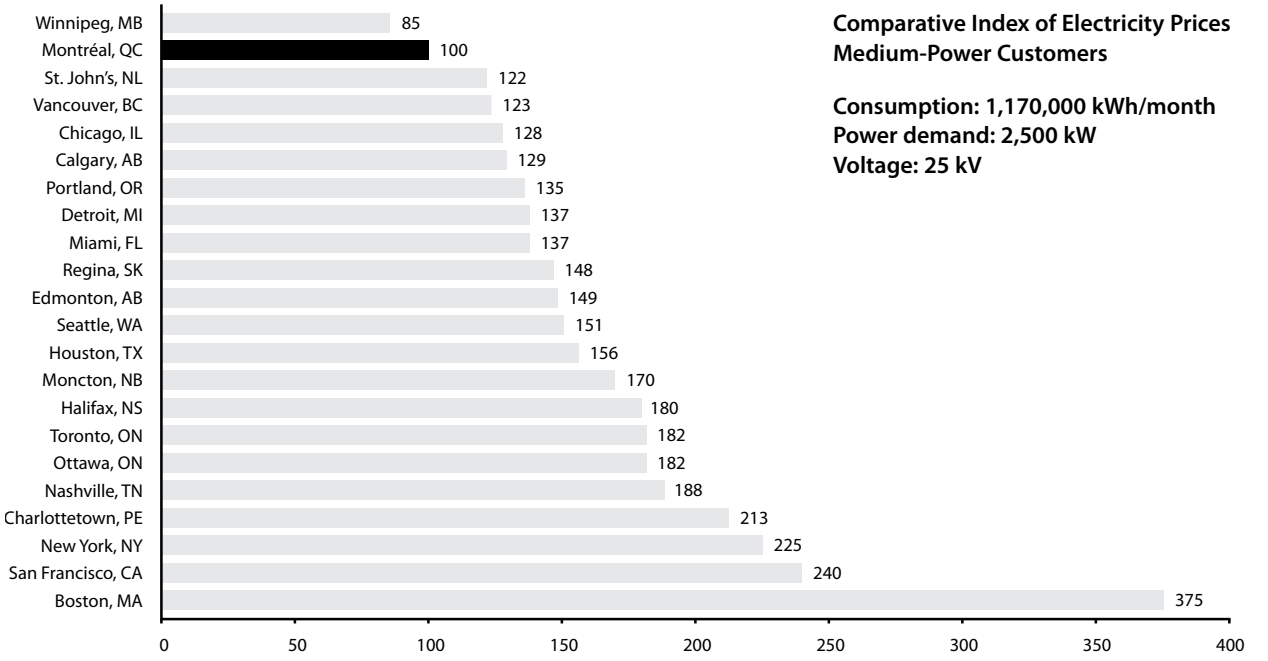
For medium-power customers with a monthly consumption of 400,000 kWh and a power demand of 1,000 kW, Montréal has climbed the ranking to *second* place, over fourth last year.

FIGURE 4



In the case of medium-power customers with a monthly consumption of 1,170,000 kWh and a power demand of 2,500 kW, Montréal has moved up from third to *second* place.

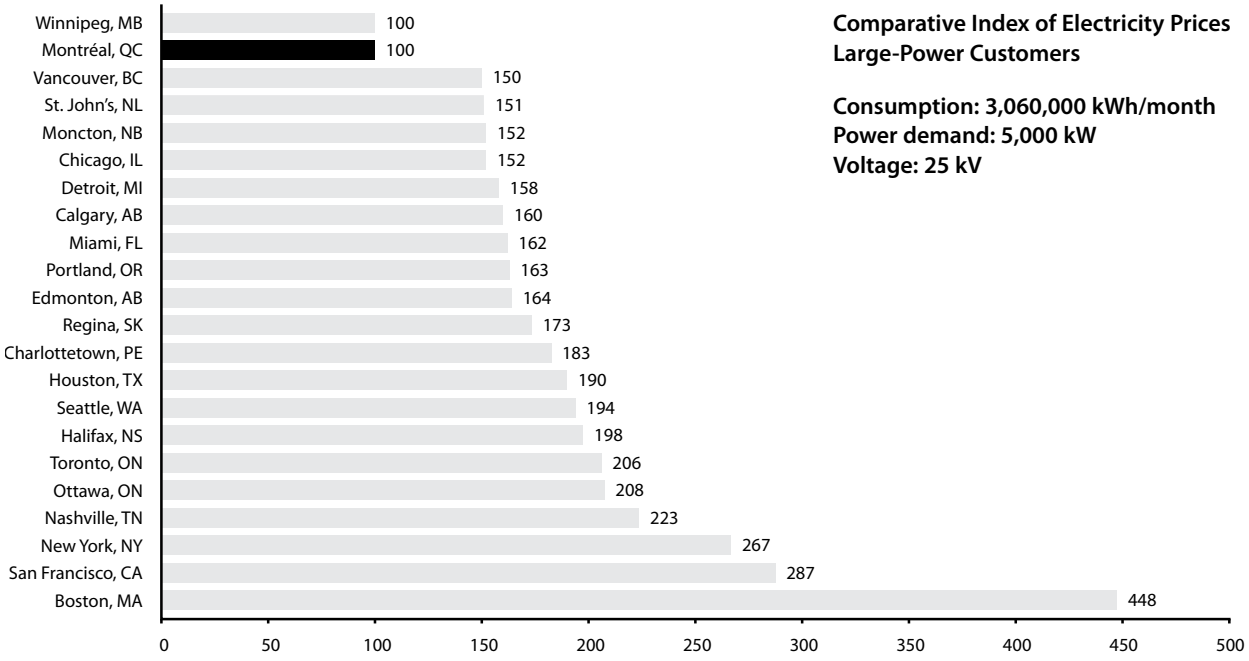
FIGURE 5



LARGE-POWER CUSTOMERS (5,000 kW OR MORE)

Figure 6 illustrates the comparative index of electricity prices for large-power customers with a monthly consumption of 3,060,000 kWh and a power demand of 5,000 kW. This year, Montréal is in *second* place, coming in just behind Winnipeg.

FIGURE 6

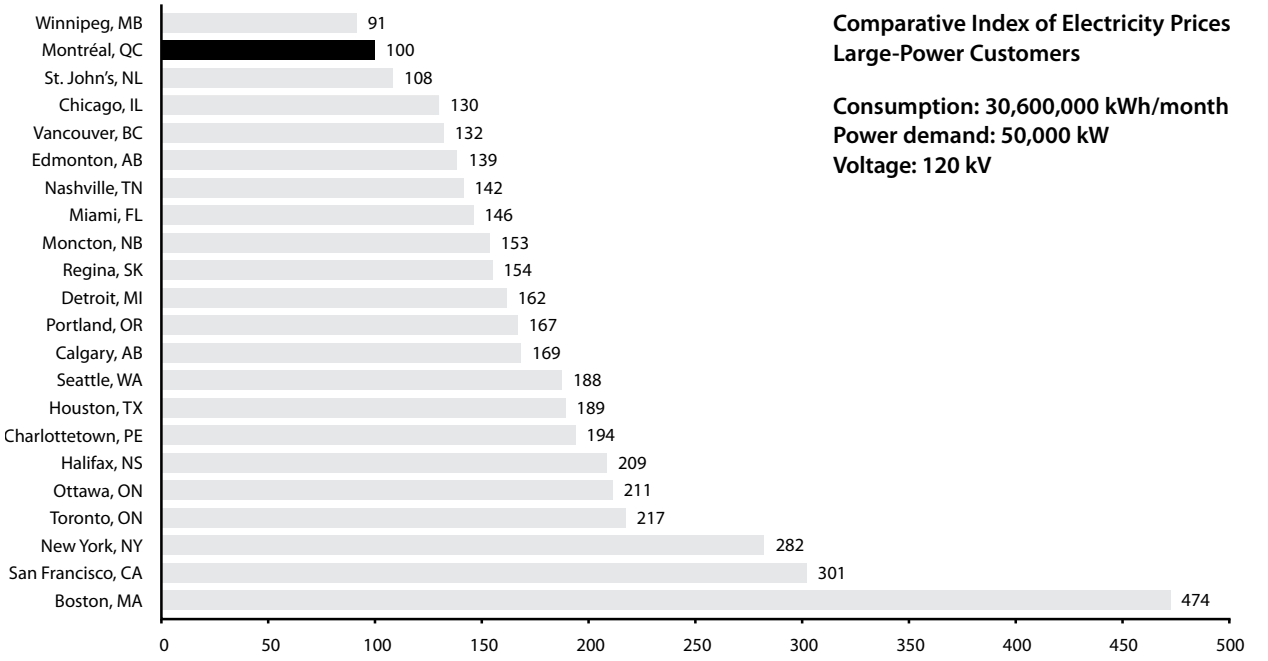


Hydro-Québec = 100

Monthly bill (excluding tax)
Rates in effect April 1, 2018

For industrial customers with a power demand of 50,000 kW and a load factor of 85%, Montréal has improved this year, moving up from third to *second* place.

FIGURE 7



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MONTHLY BILLS ON APRIL 1, 2018

(in CA$)

Summary Table (excluding taxes)

	Residential	Small Power	Medium Power			Large Power	
Power demand		**40 kW**	**500 kW**	**1,000 kW**	**2,500 kW[1]**	**5,000 kW[1]**	**50,000 kW[2]**
Consumption	**1,000 kWh**	**10,000 kWh**	**100,000 kWh**	**400,000 kWh**	**1,170,000 kWh**	**3,060,000 kWh**	**30,600,000 kWh**
Load factor		**35%**	**28%**	**56%**	**65%**	**85%**	**85%**
Canadian Cities							
Montréal, QC	**71.29**	**993.33**	**12,100.00**	**31,969.00**	**79,252.50**	**158,619.00**	**1,501,290.00**
Calgary, AB	157.87	1,207.51	12,456.45	37,574.49	101,886.58	254,451.70	2,536,658.02
Charlottetown, PE[3]	168.27	1,753.67	18,317.47	59,652.47	168,655.47	290,984.00	2,909,840.00
Edmonton, AB[4]	143.48	1,380.44	15,495.71	43,509.28	117,902.04	260,907.36	2,091,322.12
Halifax, NS	164.14	1,544.00	17,145.50	51,527.00	142,407.75	314,080.29	3,140,826.84
Moncton, NB	129.70	1,348.70	14,498.70	47,533.70	134,587.70	240,543.40	2,294,700.00
Ottawa, ON	121.57	1,153.03	14,830.21	49,963.30	144,276.05	330,454.62	3,167,462.08
Regina, SK	165.07	1,398.04	16,347.97	48,027.97	117,239.17	274,788.38	2,312,973.29
St. John's, NL[5]	120.29	1,101.54	11,228.01	35,111.88	96,509.82	239,757.92	1,620,826.00
Toronto, ON[3]	132.36	1,244.13	15,946.13	51,800.44	143,874.48	326,204.60	3,258,364.68
Vancouver, BC	114.15	1,172.23	12,025.24	35,949.49	97,826.70	237,867.75	1,982,712.74
Winnipeg, MB	90.04	882.81	9,773.08	27,210.58	67,202.76	158,599.31	1,366,338.96
American Cities							
Boston, MA	315.20	3,145.28	34,047.00	106,650.20	297,316.07	711,189.41	7,108,989.78
Chicago, IL	167.48	1,422.04	13,294.27	37,117.63	101,681.21	241,038.57	1,951,434.94
Detroit, MI[3]	208.62	1,582.19	15,650.15	44,670.28	108,401.65	251,255.54	2,427,046.85
Houston, TX[3]	137.54	1,294.61	14,792.51	48,056.37	123,342.87	301,036.84	2,842,240.83
Miami, FL[3]	125.07	1,232.92	14,432.95	40,397.39	108,464.12	256,428.26	2,192,549.38
Nashville, TN	155.33	1,605.71	18,743.28	52,882.36	148,732.56	354,124.91	2,136,464.48
New York, NY[3]	304.56	2,734.03	29,923.58	88,183.45	178,585.32	423,350.35	4,231,884.37
Portland, OR[3]	139.87	1,373.06	14,297.63	42,113.20	106,630.40	258,921.91	2,510,145.78
San Francisco, CA[3]	279.49	2,885.57	33,717.93	91,226.53	189,921.40	454,557.86	4,522,678.12
Seattle, WA	150.20	1,239.17	11,765.64	42,124.59	119,712.33	307,666.04	2,824,135.83
AVERAGE	**161.89**	**1,531.55**	**16,855.88**	**50,602.35**	**131,564.04**	**302,128.55**	**2,769,585.69**

1) Supply voltage of 25 kV, customer-owned transformer.
2) Supply voltage of 120 kV, customer-owned transformer.
3) These bills have been estimated by Hydro-Québec and may differ from actual bills.
4) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
5) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

AVERAGE PRICES ON APRIL 1, 2018

(in ¢/kWh)[1]

Summary Table (excluding taxes)

	Residential	Small Power	Medium Power			Large Power	
Power demand		**40 kW**	**500 kW**	**1,000 kW**	**2,500 kW[2]**	**5,000 kW[2]**	**50,000 kW[3]**
Consumption	**1,000 kWh**	**10,000 kWh**	**100,000 kWh**	**400,000 kWh**	**1,170,000 kWh**	**3,060,000 kWh**	**30,600,000 kWh**
Load factor		**35%**	**28%**	**56%**	**65%**	**85%**	**85%**
Canadian Cities							
Montréal, QC	**7.13**	**9.93**	**12.10**	**7.99**	**6.77**	**5.18**	**4.91**
Calgary, AB	15.79	12.08	12.46	9.39	8.71	8.32	8.29
Charlottetown, PE[4]	16.83	17.54	18.32	14.91	14.41	9.51	9.51
Edmonton, AB[5]	14.35	13.80	15.50	10.88	10.08	8.53	6.83
Halifax, NS	16.41	15.44	17.15	12.88	12.17	10.26	10.26
Moncton, NB	12.97	13.49	14.50	11.88	11.50	7.86	7.50
Ottawa, ON	12.16	11.53	14.83	12.49	12.33	10.80	10.35
Regina, SK	16.51	13.98	16.35	12.01	10.02	8.98	7.56
St. John's, NL[6]	12.03	11.02	11.23	8.78	8.25	7.84	5.30
Toronto, ON[4]	13.24	12.44	15.95	12.95	12.30	10.66	10.65
Vancouver, BC	11.42	11.72	12.03	8.99	8.36	7.77	6.48
Winnipeg, MB	9.00	8.83	9.77	6.80	5.74	5.18	4.47
American Cities							
Boston, MA	31.52	31.45	34.05	26.66	25.41	23.24	23.23
Chicago, IL	16.75	14.22	13.29	9.28	8.69	7.88	6.38
Detroit, MI[4]	20.86	15.82	15.65	11.17	9.27	8.21	7.93
Houston, TX[4]	13.75	12.95	14.79	12.01	10.54	9.84	9.29
Miami, FL[4]	12.51	12.33	14.43	10.10	9.27	8.38	7.17
Nashville, TN	15.53	16.06	18.74	13.22	12.71	11.57	6.98
New York, NY[4]	30.46	27.34	29.92	22.05	15.26	13.83	13.83
Portland, OR[4]	13.99	13.73	14.30	10.53	9.11	8.46	8.20
San Francisco, CA[4]	27.95	28.86	33.72	22.81	16.23	14.85	14.78
Seattle, WA	15.02	12.39	11.77	10.53	10.23	10.05	9.23
AVERAGE	**16.19**	**15.32**	**16.86**	**12.65**	**11.24**	**9.87**	**9.05**

1) In Canadian currency.
2) Supply voltage of 25 kV, customer-owned transformer.
3) Supply voltage of 120 kV, customer-owned transformer.
4) These bills have been estimated by Hydro-Québec and may differ from actual bills.
5) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
6) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

COMPARATIVE INDEX ON APRIL 1, 2018

(Hydro-Québec = 100)

Summary Table (excluding taxes)

	Residential	Small Power	Medium Power			Large Power	
Power demand		**40 kW**	**500 kW**	**1,000 kW**	**2,500 kW[1]**	**5,000 kW[1]**	**50,000 kW[2]**
Consumption	**1,000 kWh**	**10,000 kWh**	**100,000 kWh**	**400,000 kWh**	**1,170,000 kWh**	**3,060,000 kWh**	**30,600,000 kWh**
Load factor		**35%**	**28%**	**56%**	**65%**	**85%**	**85%**
Canadian Cities							
Montréal, QC	100	100	100	100	100	100	100
Calgary, AB	221	122	103	118	129	160	169
Charlottetown, PE[3]	236	177	151	187	213	183	194
Edmonton, AB[4]	201	139	128	136	149	164	139
Halifax, NS	230	155	142	161	180	198	209
Moncton, NB	182	136	120	149	170	152	153
Ottawa, ON	171	116	123	156	182	208	211
Regina, SK	232	141	135	150	148	173	154
St. John's, NL[5]	169	111	93	110	122	151	108
Toronto, ON[3]	186	125	132	162	182	206	217
Vancouver, BC	160	118	99	112	123	150	132
Winnipeg, MB	126	89	81	85	85	100	91
American Cities							
Boston, MA	442	317	281	334	375	448	474
Chicago, IL	235	143	110	116	128	152	130
Detroit, MI[3]	293	159	129	140	137	158	162
Houston, TX[3]	193	130	122	150	156	190	189
Miami, FL[3]	175	124	119	126	137	162	146
Nashville, TN	218	162	155	165	188	223	142
New York, NY[3]	427	275	247	276	225	267	282
Portland, OR[3]	196	138	118	132	135	163	167
San Francisco, CA[3]	392	290	279	285	240	287	301
Seattle, WA	211	125	97	132	151	194	188
AVERAGE	**227**	**154**	**139**	**158**	**166**	**190**	**184**

1) Supply voltage of 25 kV, customer-owned transformer.
2) Supply voltage of 120 kV, customer-owned transformer.
3) These bills have been estimated by Hydro-Québec and may differ from actual bills.
4) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
5) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

02

Detailed Tables

Summary Tables (including taxes)

Monthly Bills

Average Prices

Comparative Index

MONTHLY BILLS ON APRIL 1, 2018

(in CA$)

Summary Table (including taxes)

	Residential	Small Power	Medium Power			Large Power	
Power demand		**40 kW**	**500 kW**	**1,000 kW**	**2,500 kW[1]**	**5,000 kW[1]**	**50,000 kW[2]**
Consumption	**1,000 kWh**	**10,000 kWh**	**100,000 kWh**	**400,000 kWh**	**1,170,000 kWh**	**3,060,000 kWh**	**30,600,000 kWh**
Load factor		**35%**	**28%**	**56%**	**65%**	**85%**	**85%**
Canadian Cities							
Montréal, QC	81.96	1,142.08	13,911.98	36,756.36	91,120.57	182,372.20	1,726,108.18
Calgary, AB	165.77	1,267.88	13,079.27	39,453.21	106,980.91	267,174.29	2,663,490.92
Charlottetown, PE[3]	193.51	2,016.72	21,065.09	68,600.34	193,953.79	334,631.60	3,346,316.00
Edmonton, AB[4]	150.65	1,449.46	16,270.50	45,684.74	123,797.14	273,952.73	2,195,888.23
Halifax, NS	172.35	1,775.60	19,717.33	59,256.05	163,768.91	361,192.33	3,611,950.87
Moncton, NB	149.16	1,551.01	16,673.51	54,663.76	154,775.86	276,624.91	2,638,905.00
Ottawa, ON	138.75	1,315.95	16,758.14	56,458.53	163,031.94	373,413.72	3,579,232.15
Regina, SK	189.83	1,700.02	19,879.13	58,402.01	142,562.83	334,142.67	2,812,575.52
St. John's, NL[5]	138.34	1,266.77	12,912.21	40,378.66	110,986.29	275,721.61	1,863,949.90
Toronto, ON[3]	151.07	1,419.93	18,019.13	58,534.50	162,578.16	368,611.20	3,681,952.09
Vancouver, BC	121.85	1,271.87	13,047.39	39,005.20	106,141.97	258,086.51	2,151,243.32
Winnipeg, MB	104.10	1,043.92	11,556.67	32,176.52	75,166.29	177,393.33	1,528,250.13
American Cities							
Boston, MA	315.20	3,333.06	36,086.92	112,963.77	314,868.53	752,945.44	7,526,368.62
Chicago, IL	179.85	1,522.25	14,206.92	40,578.31	111,412.60	265,390.60	2,163,055.20
Detroit, MI[3]	227.39	1,756.23	17,371.67	49,584.01	120,325.83	278,893.65	2,694,022.00
Houston, TX[3]	138.92	1,396.46	15,866.25	51,525.01	133,500.31	326,115.49	3,079,746.46
Miami, FL[3]	147.60	1,556.93	18,268.28	50,834.88	136,271.84	321,448.04	2,722,257.63
Nashville, TN	155.33	1,718.11	20,055.31	56,584.12	159,143.84	378,913.66	2,286,017.00
New York, NY[3]	331.35	3,049.74	33,379.37	98,362.01	199,194.49	472,200.21	4,720,195.55
Portland, OR[3]	142.22	1,396.31	14,541.06	42,824.73	108,479.90	263,422.99	2,553,854.84
San Francisco, CA[3]	279.86	3,134.58	36,621.39	99,130.52	206,502.69	494,340.73	4,918,560.32
Seattle, WA	150.20	1,239.17	11,765.64	42,124.59	119,712.33	307,666.04	2,824,135.83
AVERAGE	**173.88**	**1,696.55**	**18,684.23**	**56,085.54**	**145,648.96**	**333,847.91**	**3,058,548.90**

1) Supply voltage of 25 kV, customer-owned transformer.
2) Supply voltage of 120 kV, customer-owned transformer.
3) These bills have been estimated by Hydro-Québec and may differ from actual bills.
4) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
5) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

AVERAGE PRICES ON APRIL 1, 2018

(in ¢/kWh)[1]

Summary Table (including taxes)

	Residential	Small Power	Medium Power			Large Power	
Power demand		**40 kW**	**500 kW**	**1,000 kW**	**2,500 kW[2]**	**5,000 kW[2]**	**50,000 kW[3]**
Consumption	**1,000 kWh**	**10,000 kWh**	**100,000 kWh**	**400,000 kWh**	**1,170,000 kWh**	**3,060,000 kWh**	**30,600,000 kWh**
Load factor		**35%**	**28%**	**56%**	**65%**	**85%**	**85%**
Canadian Cities							
Montréal, QC	8.20	11.42	13.91	9.19	7.79	5.96	5.64
Calgary, AB	16.58	12.68	13.08	9.86	9.14	8.73	8.70
Charlottetown, PE[4]	19.35	20.17	21.07	17.15	16.58	10.94	10.94
Edmonton, AB[5]	15.07	14.49	16.27	11.42	10.58	8.95	7.18
Halifax, NS	17.24	17.76	19.72	14.81	14.00	11.80	11.80
Moncton, NB	14.92	15.51	16.67	13.67	13.23	9.04	8.62
Ottawa, ON	13.88	13.16	16.76	14.11	13.93	12.20	11.70
Regina, SK	18.98	17.00	19.88	14.60	12.18	10.92	9.19
St. John's, NL[6]	13.83	12.67	12.91	10.09	9.49	9.01	6.09
Toronto, ON[4]	15.11	14.20	18.02	14.63	13.90	12.05	12.03
Vancouver, BC	12.19	12.72	13.05	9.75	9.07	8.43	7.03
Winnipeg, MB	10.41	10.44	11.56	8.04	6.42	5.80	4.99
American Cities							
Boston, MA	31.52	33.33	36.09	28.24	26.91	24.61	24.60
Chicago, IL	17.98	15.22	14.21	10.14	9.52	8.67	7.07
Detroit, MI[4]	22.74	17.56	17.37	12.40	10.28	9.11	8.80
Houston, TX[4]	13.89	13.96	15.87	12.88	11.41	10.66	10.06
Miami, FL[4]	14.76	15.57	18.27	12.71	11.65	10.50	8.90
Nashville, TN	15.53	17.18	20.06	14.15	13.60	12.38	7.47
New York, NY[4]	33.13	30.50	33.38	24.59	17.03	15.43	15.43
Portland, OR[4]	14.22	13.96	14.54	10.71	9.27	8.61	8.35
San Francisco, CA[4]	27.99	31.35	36.62	24.78	17.65	16.15	16.07
Seattle, WA	15.02	12.39	11.77	10.53	10.23	10.05	9.23
AVERAGE	**17.39**	**16.97**	**18.68**	**14.02**	**12.45**	**10.91**	**10.00**

1) In Canadian currency.
2) Supply voltage of 25 kV, customer-owned transformer.
3) Supply voltage of 120 kV, customer-owned transformer.
4) These bills have been estimated by Hydro-Québec and may differ from actual bills.
5) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
6) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

COMPARATIVE INDEX ON APRIL 1, 2018

(Hydro-Québec = 100)

Summary Table (including taxes)

	Residential	Small Power	Medium Power			Large Power	
Power demand		**40 kW**	**500 kW**	**1,000 kW**	**2,500 kW[1]**	**5,000 kW[1]**	**50,000 kW[2]**
Consumption	**1,000 kWh**	**10,000 kWh**	**100,000 kWh**	**400,000 kWh**	**1,170,000 kWh**	**3,060,000 kWh**	**30,600,000 kWh**
Load factor		**35%**	**28%**	**56%**	**65%**	**85%**	**85%**
Canadian Cities							
Montréal, QC	100	100	100	100	100	100	100
Calgary, AB	202	111	94	107	117	146	154
Charlottetown, PE[3]	236	177	151	187	213	183	194
Edmonton, AB[4]	184	127	117	124	136	150	127
Halifax, NS	210	155	142	161	180	198	209
Moncton, NB	182	136	120	149	170	152	153
Ottawa, ON	169	115	120	154	179	205	207
Regina, SK	232	149	143	159	156	183	163
St. John's, NL[5]	169	111	93	110	122	151	108
Toronto, ON[3]	184	124	130	159	178	202	213
Vancouver, BC	149	111	94	106	116	142	125
Winnipeg, MB	127	91	83	88	82	97	89
American Cities							
Boston, MA	385	292	259	307	346	413	436
Chicago, IL	219	133	102	110	122	146	125
Detroit, MI[3]	277	154	125	135	132	153	156
Houston, TX[3]	169	122	114	140	147	179	178
Miami, FL[3]	180	136	131	138	150	176	158
Nashville, TN	190	150	144	154	175	208	132
New York, NY[3]	404	267	240	268	219	259	273
Portland, OR[3]	174	122	105	117	119	144	148
San Francisco, CA[3]	341	274	263	270	227	271	285
Seattle, WA	183	109	85	115	131	169	164
AVERAGE	**212**	**149**	**134**	**153**	**160**	**183**	**177**

1) Supply voltage of 25 kV, customer-owned transformer.
2) Supply voltage of 120 kV, customer-owned transformer.
3) These bills have been estimated by Hydro-Québec and may differ from actual bills.
4) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
5) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

03

Detailed Tables

Residential

Monthly Bills

Average Prices

Comparative Index

RESIDENTIAL

Monthly Bills on April 1, 2018
(in CA$)

Consumption	625 kWh	750 kWh	1,000 kWh	2,000 kWh	3,000 kWh
Canadian Cities					
Montréal, QC	49.13	56.52	71.29	159.92	251.12
Calgary, AB	108.13	124.71	157.87	290.51	423.14
Charlottetown, PE[1]	114.38	132.35	168.27	311.97	426.17
Edmonton, AB	98.67	113.61	143.48	262.97	382.46
Halifax, NS	106.65	125.81	164.14	317.45	470.76
Moncton, NB	89.16	102.68	129.70	237.80	345.90
Ottawa, ON	83.34	96.09	121.57	223.51	325.46
Regina, SK	111.72	129.50	165.07	307.35	449.63
St. John's, NL[2]	81.13	94.19	120.29	224.72	329.14
Toronto, ON[1]	94.29	106.98	132.36	233.90	335.43
Vancouver, BC	64.26	79.34	114.15	253.38	392.61
Winnipeg, MB	59.31	69.55	90.04	172.00	253.96
American Cities					
Boston, MA	200.38	238.67	315.20	621.37	927.53
Chicago, IL	113.07	131.21	167.48	312.54	457.61
Detroit, MI[1]	130.94	156.84	208.62	415.75	622.87
Houston, TX[1]	101.45	117.76	137.54	268.02	398.50
Miami, FL[1]	82.04	96.38	125.07	265.85	406.64
Nashville, TN	105.26	121.95	155.33	288.86	422.38
New York, NY[1]	197.94	233.48	304.56	588.88	873.20
Portland, OR[1]	92.49	108.28	139.87	307.01	474.15
San Francisco, CA[1]	154.20	199.37	279.49	758.50	1,317.97
Seattle, WA	86.02	107.41	150.20	321.36	492.52
AVERAGE	**105.64**	**124.67**	**161.89**	**324.71**	**489.96**

1) These bills have been estimated by Hydro-Québec and may differ from actual bills.
2) Newfoundland Power rates.

RESIDENTIAL

Average Prices on April 1, 2018
(in ¢/kWh)[1]

Consumption	625 kWh	750 kWh	1,000 kWh	2,000 kWh	3,000 kWh
Canadian Cities					
Montréal, QC	7.86	7.54	7.13	8.00	8.37
Calgary, AB	17.30	16.63	15.79	14.53	14.10
Charlottetown, PE[2]	18.30	17.65	16.83	15.60	14.21
Edmonton, AB	15.79	15.15	14.35	13.15	12.75
Halifax, NS	17.06	16.77	16.41	15.87	15.69
Moncton, NB	14.27	13.69	12.97	11.89	11.53
Ottawa, ON	13.33	12.81	12.16	11.18	10.85
Regina, SK	17.87	17.27	16.51	15.37	14.99
St. John's, NL[3]	12.98	12.56	12.03	11.24	10.97
Toronto, ON[2]	15.09	14.26	13.24	11.69	11.18
Vancouver, BC	10.28	10.58	11.42	12.67	13.09
Winnipeg, MB	9.49	9.27	9.00	8.60	8.47
American Cities					
Boston, MA	32.06	31.82	31.52	31.07	30.92
Chicago, IL	18.09	17.49	16.75	15.63	15.25
Detroit, MI[2]	20.95	20.91	20.86	20.79	20.76
Houston, TX[2]	16.23	15.70	13.75	13.40	13.28
Miami, FL[2]	13.13	12.85	12.51	13.29	13.55
Nashville, TN	16.84	16.26	15.53	14.44	14.08
New York, NY[2]	31.67	31.13	30.46	29.44	29.11
Portland, OR[2]	14.80	14.44	13.99	15.35	15.80
San Francisco, CA[2]	24.67	26.58	27.95	37.93	43.93
Seattle, WA	13.76	14.32	15.02	16.07	16.42
AVERAGE	**16.90**	**16.62**	**16.19**	**16.24**	**16.33**

1) In Canadian currency.
2) These bills have been estimated by Hydro-Québec and may differ from actual bills.
3) Newfoundland Power rates.

RESIDENTIAL

Comparative Index on April 1, 2018
(Hydro-Québec = 100)

Consumption	625 kWh	750 kWh	1,000 kWh	2,000 kWh	3,000 kWh
Canadian Cities					
Montréal, QC	100	100	100	100	100
Calgary, AB	220	221	221	182	169
Charlottetown, PE[1]	233	234	236	195	170
Edmonton, AB	201	201	201	164	152
Halifax, NS	217	223	230	199	187
Moncton, NB	181	182	182	149	138
Ottawa, ON	170	170	171	140	130
Regina, SK	227	229	232	192	179
St. John's, NL[2]	165	167	169	141	131
Toronto, ON[1]	192	189	186	146	134
Vancouver, BC	131	140	160	158	156
Winnipeg, MB	121	123	126	108	101
American Cities					
Boston, MA	408	422	442	389	369
Chicago, IL	230	232	235	195	182
Detroit, MI[1]	267	277	293	260	248
Houston, TX[1]	207	208	193	168	159
Miami, FL[1]	167	171	175	166	162
Nashville, TN	214	216	218	181	168
New York, NY[1]	403	413	427	368	348
Portland, OR[1]	188	192	196	192	189
San Francisco, CA[1]	314	353	392	474	525
Seattle, WA	175	190	211	201	196
AVERAGE	**215**	**221**	**227**	**203**	**195**

1) These bills have been estimated by Hydro-Québec and may differ from actual bills.
2) Newfoundland Power rates.

04

Detailed Tables

Small Power

Monthly Bills

Average Prices

Comparative Index

SMALL POWER

Monthly Bills on April 1, 2018
(in CA$)

Power demand Consumption Load factor	6 kW 750 kWh 17%	14 kW 2,000 kWh 20%	40 kW 10,000 kWh 35%	100 kW 14,000 kWh 19%	100 kW 25,000 kWh 35%
Canadian Cities					
Montréal, QC	85.91	208.53	993.33	1,820.00	2,693.50
Calgary, AB	150.47	318.75	1,207.51	1,868.67	2,651.77
Charlottetown, PE[1]	157.10	377.97	1,753.67	3,021.07	4,290.47
Edmonton, AB	117.73	288.36	1,380.44	2,533.65	3,501.10
Halifax, NS	122.62	299.86	1,544.00	2,715.28	3,860.00
Moncton, NB	120.73	284.10	1,348.70	2,346.50	3,366.20
Ottawa, ON	103.00	244.90	1,153.03	2,310.26	3,638.82
Regina, SK	133.66	304.52	1,398.04	2,687.72	3,650.47
St. John's, NL[2]	99.54	258.47	1,101.54	1,938.97	2,751.38
Toronto, ON[1]	125.31	276.68	1,244.13	2,408.42	3,744.94
Vancouver, BC	103.27	257.22	1,172.23	1,872.16	2,918.59
Winnipeg, MB	86.48	194.09	882.81	1,764.28	2,309.88
American Cities					
Boston, MA	229.73	596.83	3,145.28	6,009.16	8,295.77
Chicago, IL	178.38	378.41	1,422.04	2,385.05	3,484.44
Detroit, MI[1]	133.17	331.70	1,582.19	2,207.43	3,926.85
Houston, TX[1]	101.94	351.33	1,294.61	2,321.97	3,195.71
Miami, FL[1]	100.61	246.39	1,232.92	2,328.04	3,033.01
Nashville, TN	174.43	381.04	1,605.71	3,428.01	4,351.51
New York, NY[1]	247.42	783.62	2,734.03	5,181.64	6,743.49
Portland, OR[1]	128.65	304.62	1,373.06	2,302.05	3,373.62
San Francisco, CA[1]	229.44	590.65	2,885.57	4,858.64	6,946.75
Seattle, WA	92.94	247.83	1,239.17	1,782.34	2,828.79
AVERAGE	**137.39**	**342.08**	**1,531.55**	**2,731.42**	**3,888.96**

1) These bills have been estimated by Hydro-Québec and may differ from actual bills.
2) Newfoundland Power rates.

SMALL POWER

Average Prices on April 1, 2018
(in ¢/kWh)[1]

Power demand Consumption Load factor	6 kW 750 kWh 17%	14 kW 2,000 kWh 20%	40 kW 10,000 kWh 35%	100 kW 14,000 kWh 19%	100 kW 25,000 kWh 35%
Canadian Cities					
Montréal, QC	11.45	10.43	9.93	13.00	10.77
Calgary, AB	20.06	15.94	12.08	13.35	10.61
Charlottetown, PE[2]	20.95	18.90	17.54	21.58	17.16
Edmonton, AB	15.70	14.42	13.80	18.10	14.00
Halifax, NS	16.35	14.99	15.44	19.39	15.44
Moncton, NB	16.10	14.21	13.49	16.76	13.46
Ottawa, ON	13.73	12.25	11.53	16.50	14.56
Regina, SK	17.82	15.23	13.98	19.20	14.60
St. John's, NL[3]	13.27	12.92	11.02	13.85	11.01
Toronto, ON[2]	16.71	13.83	12.44	17.20	14.98
Vancouver, BC	13.77	12.86	11.72	13.37	11.67
Winnipeg, MB	11.53	9.70	8.83	12.60	9.24
American Cities					
Boston, MA	30.63	29.84	31.45	42.92	33.18
Chicago, IL	23.78	18.92	14.22	17.04	13.94
Detroit, MI[2]	17.76	16.58	15.82	15.77	15.71
Houston, TX[2]	13.59	17.57	12.95	16.59	12.78
Miami, FL[2]	13.41	12.32	12.33	16.63	12.13
Nashville, TN	23.26	19.05	16.06	24.49	17.41
New York, NY[2]	32.99	39.18	27.34	37.01	26.97
Portland, OR[2]	17.15	15.23	13.73	16.44	13.49
San Francisco, CA[2]	30.59	29.53	28.86	34.70	27.79
Seattle, WA	12.39	12.39	12.39	12.73	11.32
AVERAGE	**18.32**	**17.10**	**15.32**	**19.51**	**15.56**

1) In Canadian currency.
2) These bills have been estimated by Hydro-Québec and may differ from actual bills.
3) Newfoundland Power rates.

SMALL POWER

Comparative Index on April 1, 2018
(Hydro-Québec = 100)

Power demand Consumption Load factor	6 kW 750 kWh 17%	14 kW 2,000 kWh 20%	40 kW 10,000 kWh 35%	100 kW 14,000 kWh 19%	100 kW 25,000 kWh 35%
Canadian Cities					
Montréal, QC	100	100	100	100	100
Calgary, AB	175	153	122	103	98
Charlottetown, PE[1]	183	181	177	166	159
Edmonton, AB	137	138	139	139	130
Halifax, NS	143	144	155	149	143
Moncton, NB	141	136	136	129	125
Ottawa, ON	120	117	116	127	135
Regina, SK	156	146	141	148	136
St. John's, NL[2]	116	124	111	107	102
Toronto, ON[1]	146	133	125	132	139
Vancouver, BC	120	123	118	103	108
Winnipeg, MB	101	93	89	97	86
American Cities					
Boston, MA	267	286	317	330	308
Chicago, IL	208	181	143	131	129
Detroit, MI[1]	155	159	159	121	146
Houston, TX[1]	119	168	130	128	119
Miami, FL[1]	117	118	124	128	113
Nashville, TN	203	183	162	188	162
New York, NY[1]	288	376	275	285	250
Portland, OR[1]	150	146	138	126	125
San Francisco, CA[1]	267	283	290	267	258
Seattle, WA	108	119	125	98	105
AVERAGE	**160**	**164**	**154**	**150**	**144**

1) These bills have been estimated by Hydro-Québec and may differ from actual bills.
2) Newfoundland Power rates.

05

Detailed Tables

Medium Power

Monthly Bills

Average Prices

Comparative Index

MEDIUM POWER

Monthly Bills on April 1, 2018
(in CA$)

Power demand Consumption Load factor	500 kW 100,000 kWh 28%	500 kW 200,000 kWh 56%	1,000 kW 200,000 kWh 28%	1,000 kW 400,000 kWh 56%	2,500 kW[1] 1,170,000 kWh 65%
Canadian Cities					
Montréal, QC	12,100.00	17,210.00	24,200.00	31,969.00	79,252.50
Calgary, AB	12,456.45	19,158.55	24,170.28	37,574.49	101,886.58
Charlottetown, PE[2]	18,317.47	29,857.47	36,572.47	59,652.47	168,655.47
Edmonton, AB[3]	15,495.71	22,917.21	28,666.26	43,509.28	117,902.04
Halifax, NS	17,145.50	25,763.50	34,291.00	51,527.00	142,407.75
Moncton, NB	14,498.70	23,768.70	28,993.70	47,533.70	134,587.70
Ottawa, ON	14,830.21	25,081.77	29,460.17	49,963.30	144,276.05
Regina, SK	16,347.97	24,021.97	32,679.97	48,027.97	117,239.17
St. John's, NL[4]	11,228.01	18,177.18	21,349.46	35,111.88	96,509.82
Toronto, ON[2]	15,946.13	26,192.43	31,512.77	51,800.44	143,874.48
Vancouver, BC	12,025.24	17,978.74	24,042.49	35,949.49	97,826.70
Winnipeg, MB	9,773.08	13,717.08	19,322.58	27,210.58	67,202.76
American Cities					
Boston, MA	34,047.00	53,428.36	67,887.47	106,650.20	297,316.07
Chicago, IL	13,294.27	18,652.07	26,402.02	37,117.63	101,681.21
Detroit, MI[2]	15,650.15	22,514.89	31,281.22	44,670.28	108,401.65
Houston, TX[2]	14,792.51	22,735.58	32,170.24	48,056.37	123,342.87
Miami, FL[2]	14,432.95	20,248.01	28,767.29	40,397.39	108,464.12
Nashville, TN	18,743.28	26,573.27	37,222.37	52,882.36	148,732.56
New York, NY[2]	29,923.58	44,122.25	59,786.11	88,183.45	178,585.32
Portland, OR[2]	14,297.63	22,073.41	27,272.13	42,113.20	106,630.40
San Francisco, CA[2]	33,717.93	47,396.13	65,518.17	91,226.53	189,921.40
Seattle, WA	11,765.64	21,278.84	23,108.21	42,124.59	119,712.33
AVERAGE	**16,855.88**	**25,584.88**	**33,394.38**	**50,602.35**	**131,564.04**

1) Supply voltage of 25 kV, customer-owned transformer.
2) These bills have been estimated by Hydro-Québec and may differ from actual bills.
3) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
4) Newfoundland Power rates.

MEDIUM POWER

Average Prices on April 1, 2018
(in ¢/kWh)[1]

Power demand Consumption Load factor	500 kW 100,000 kWh 28%	500 kW 200,000 kWh 56%	1,000 kW 200,000 kWh 28%	1,000 kW 400,000 kWh 56%	2,500 kW[2] 1,170,000 kWh 65%
Canadian Cities					
Montréal, QC	12.10	8.61	12.10	7.99	6.77
Calgary, AB	12.46	9.58	12.09	9.39	8.71
Charlottetown, PE[3]	18.32	14.93	18.29	14.91	14.41
Edmonton, AB[4]	15.50	11.46	14.33	10.88	10.08
Halifax, NS	17.15	12.88	17.15	12.88	12.17
Moncton, NB	14.50	11.88	14.50	11.88	11.50
Ottawa, ON	14.83	12.54	14.73	12.49	12.33
Regina, SK	16.35	12.01	16.34	12.01	10.02
St. John's, NL[5]	11.23	9.09	10.67	8.78	8.25
Toronto, ON[3]	15.95	13.10	15.76	12.95	12.30
Vancouver, BC	12.03	8.99	12.02	8.99	8.36
Winnipeg, MB	9.77	6.86	9.66	6.80	5.74
American Cities					
Boston, MA	34.05	26.71	33.94	26.66	25.41
Chicago, IL	13.29	9.33	13.20	9.28	8.69
Detroit, MI[3]	15.65	11.26	15.64	11.17	9.27
Houston, TX[3]	14.79	11.37	16.09	12.01	10.54
Miami, FL[3]	14.43	10.12	14.38	10.10	9.27
Nashville, TN	18.74	13.29	18.61	13.22	12.71
New York, NY[3]	29.92	22.06	29.89	22.05	15.26
Portland, OR[3]	14.30	11.04	13.64	10.53	9.11
San Francisco, CA[3]	33.72	23.70	32.76	22.81	16.23
Seattle, WA	11.77	10.64	11.55	10.53	10.23
AVERAGE	**16.86**	**12.79**	**16.70**	**12.65**	**11.24**

1) In Canadian currency.
2) Supply voltage of 25 kV, customer-owned transformer.
3) These bills have been estimated by Hydro-Québec and may differ from actual bills.
4) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
5) Newfoundland Power rates.

MEDIUM POWER

Comparative Index on April 1, 2018
(Hydro-Québec = 100)

Power demand Consumption Load factor	500 kW 100,000 kWh 28%	500 kW 200,000 kWh 56%	1,000 kW 200,000 kWh 28%	1,000 kW 400,000 kWh 56%	2,500 kW[1] 1,170,000 kWh 65%
Canadian Cities					
Montréal, QC	100	100	100	100	100
Calgary, AB	103	111	100	118	129
Charlottetown, PE[2]	151	173	151	187	213
Edmonton, AB[3]	128	133	118	136	149
Halifax, NS	142	150	142	161	180
Moncton, NB	120	138	120	149	170
Ottawa, ON	123	146	122	156	182
Regina, SK	135	140	135	150	148
St. John's, NL[4]	93	106	88	110	122
Toronto, ON[2]	132	152	130	162	182
Vancouver, BC	99	104	99	112	123
Winnipeg, MB	81	80	80	85	85
American Cities					
Boston, MA	281	310	281	334	375
Chicago, IL	110	108	109	116	128
Detroit, MI[2]	129	131	129	140	137
Houston, TX[2]	122	132	133	150	156
Miami, FL[2]	119	118	119	126	137
Nashville, TN	155	154	154	165	188
New York, NY[2]	247	256	247	276	225
Portland, OR[2]	118	128	113	132	135
San Francisco, CA[2]	279	275	271	285	240
Seattle, WA	97	124	95	132	151
AVERAGE	**139**	**149**	**138**	**158**	**166**

1) Supply voltage of 25 kV, customer-owned transformer.
2) These bills have been estimated by Hydro-Québec and may differ from actual bills.
3) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
4) Newfoundland Power rates.

06

Detailed Tables

Large Power

Monthly Bills

Average Prices

Comparative Index

LARGE POWER

Monthly Bills on April 1, 2018
(in CA$)

Power demand Consumption Voltage[1] Load factor	5,000 kW 2,340,000 kWh 25 kV 65%	5,000 kW 3,060,000 kWh 25 kV 85%	10,000 kW 5,760,000 kWh 120 kV 80%	30,000 kW 17,520,000 kWh 120 kV 81%	50,000 kW 23,400,000 kWh 120 kV 65%	50,000 kW 30,600,000 kWh 120 kV 85%
Canadian Cities						
Montréal, QC	135,075.00	158,619.00	288,486.00	873,306.00	1,265,850.00	1,501,290.00
Calgary, AB	201,346.61	254,451.70	481,476.46	1,460,387.57	2,005,607.09	2,536,658.02
Charlottetown, PE[2]	239,576.00	290,984.00	556,264.00	1,685,928.00	2,395,760.00	2,909,840.00
Edmonton, AB[3]	213,764.69	260,907.36	406,114.05	1,219,604.52	1,750,903.26	2,091,322.12
Halifax, NS	255,033.09	314,080.29	598,636.97	1,815,605.31	2,550,354.84	3,140,826.84
Moncton, NB	202,541.80	240,543.40	440,220.00	1,333,140.00	1,920,300.00	2,294,700.00
Ottawa, ON	315,458.22	330,454.62	638,179.47	1,889,074.07	3,017,498.03	3,167,462.08
Regina, SK	225,093.98	274,788.38	446,691.58	1,339,513.04	1,873,125.29	2,312,973.29
St. John's, NL[4]	190,213.21	239,757.92	448,697.18	941,659.20	1,356,514.00	1,620,826.00
Toronto, ON[2]	311,549.99	326,204.60	647,364.43	1,938,678.14	3,103,603.78	3,258,364.68
Vancouver, BC	195,645.53	237,867.75	378,504.75	1,147,545.72	1,622,025.14	1,982,712.74
Winnipeg, MB	131,894.51	158,599.31	261,233.98	791,729.27	1,125,714.96	1,366,338.96
American Cities						
Boston, MA	575,584.16	711,189.41	1,354,253.49	4,107,316.82	5,752,937.26	7,108,989.78
Chicago, IL	202,546.05	241,038.57	373,864.14	1,111,986.92	1,566,509.64	1,951,434.94
Detroit, MI[2]	216,314.72	251,255.54	468,669.05	1,416,450.77	2,084,423.09	2,427,046.85
Houston, TX[2]	243,895.09	301,036.84	541,791.35	1,640,112.37	2,276,018.50	2,842,240.83
Miami, FL[2]	216,632.38	256,428.26	423,141.39	1,275,812.90	1,843,104.01	2,192,549.38
Nashville, TN	296,336.31	354,124.91	422,076.83	1,245,238.27	1,812,003.65	2,136,464.48
New York, NY[2]	356,990.73	423,350.35	813,340.99	2,461,783.03	3,568,288.22	4,231,884.37
Portland, OR[2]	211,830.99	258,921.91	482,381.79	1,456,177.08	2,072,836.27	2,510,145.78
San Francisco, CA[2]	376,543.19	454,557.86	867,563.89	2,623,607.56	3,742,531.46	4,522,678.12
Seattle, WA	239,567.86	307,666.04	534,296.71	1,622,888.44	2,202,070.14	2,824,135.83
AVERAGE	**252,428.82**	**302,128.55**	**539,693.11**	**1,608,979.32**	**2,313,999.03**	**2,769,585.69**

1) Customer-owned transformer.
2) These bills have been estimated by Hydro-Québec and may differ from actual bills.
3) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
4) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

LARGE POWER

Average Prices on April 1, 2018
(in ¢/kWh)[1]

Power demand	5,000 kW	5,000 kW	10,000 kW	30,000 kW	50,000 kW	50,000 kW
Consumption	2,340,000 kWh	3,060,000 kWh	5,760,000 kWh	17,520,000 kWh	23,400,000 kWh	30,600,000 kWh
Voltage[2]	25 kV	25 kV	120 kV	120 kV	120 kV	120 kV
Load factor	65%	85%	80%	81%	65%	85%
Canadian Cities						
Montréal, QC	5.77	5.18	5.01	4.98	5.41	4.91
Calgary, AB	8.60	8.32	8.36	8.34	8.57	8.29
Charlottetown, PE[3]	10.24	9.51	9.66	9.62	10.24	9.51
Edmonton, AB[4]	9.14	8.53	7.05	6.96	7.48	6.83
Halifax, NS	10.90	10.26	10.39	10.36	10.90	10.26
Moncton, NB	8.66	7.86	7.64	7.61	8.21	7.50
Ottawa, ON	13.48	10.80	11.08	10.78	12.90	10.35
Regina, SK	9.62	8.98	7.76	7.65	8.00	7.56
St. John's, NL[5]	8.13	7.84	7.79	5.37	5.80	5.30
Toronto, ON[3]	13.31	10.66	11.24	11.07	13.26	10.65
Vancouver, BC	8.36	7.77	6.57	6.55	6.93	6.48
Winnipeg, MB	5.64	5.18	4.54	4.52	4.81	4.47
American Cities						
Boston, MA	24.60	23.24	23.51	23.44	24.59	23.23
Chicago, IL	8.66	7.88	6.49	6.35	6.69	6.38
Detroit, MI[3]	9.24	8.21	8.14	8.08	8.91	7.93
Houston, TX[3]	10.42	9.84	9.41	9.36	9.73	9.29
Miami, FL[3]	9.26	8.38	7.35	7.28	7.88	7.17
Nashville, TN	12.66	11.57	7.33	7.11	7.74	6.98
New York, NY[3]	15.26	13.83	14.12	14.05	15.25	13.83
Portland, OR[3]	9.05	8.46	8.37	8.31	8.86	8.20
San Francisco, CA[3]	16.09	14.85	15.06	14.97	15.99	14.78
Seattle, WA	10.24	10.05	9.28	9.26	9.41	9.23
AVERAGE	**10.79**	**9.87**	**9.37**	**9.18**	**9.89**	**9.05**

1) In Canadian currency.
2) Customer-owned transformer.
3) These bills have been estimated by Hydro-Québec and may differ from actual bills.
4) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
5) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

LARGE POWER

Comparative Index on April 1, 2018
(Hydro-Québec = 100)

Power demand	**5,000 kW**	**5,000 kW**	**10,000 kW**	**30,000 kW**	**50,000 kW**	**50,000 kW**
Consumption	**2,340,000 kWh**	**3,060,000 kWh**	**5,760,000 kWh**	**17,520,000 kWh**	**23,400,000 kWh**	**30,600,000 kWh**
Voltage[1]	**25 kV**	**25 kV**	**120 kV**	**120 kV**	**120 kV**	**120 kV**
Load factor	**65%**	**85%**	**80%**	**81%**	**65%**	**85%**
Canadian Cities						
Montréal, QC	100	100	100	100	100	100
Calgary, AB	149	160	167	167	158	169
Charlottetown, PE[2]	177	183	193	193	189	194
Edmonton, AB[3]	158	164	141	140	138	139
Halifax, NS	189	198	208	208	201	209
Moncton, NB	150	152	153	153	152	153
Ottawa, ON	234	208	221	216	238	211
Regina, SK	167	173	155	153	148	154
St. John's, NL[4]	141	151	156	108	107	108
Toronto, ON[2]	231	206	224	222	245	217
Vancouver, BC	145	150	131	131	128	132
Winnipeg, MB	98	100	91	91	89	91
American Cities						
Boston, MA	426	448	469	470	454	474
Chicago, IL	150	152	130	127	124	130
Detroit, MI[2]	160	158	162	162	165	162
Houston, TX[2]	181	190	188	188	180	189
Miami, FL[2]	160	162	147	146	146	146
Nashville, TN	219	223	146	143	143	142
New York, NY[2]	264	267	282	282	282	282
Portland, OR[2]	157	163	167	167	164	167
San Francisco, CA[2]	279	287	301	300	296	301
Seattle, WA	177	194	185	186	174	188
AVERAGE	**187**	**190**	**187**	**184**	**183**	**184**

1) Customer-owned transformer.
2) These bills have been estimated by Hydro-Québec and may differ from actual bills.
3) Bills corresponding to consumption levels of 500 kW or more have been estimated by Hydro-Québec based on the applicable general rate.
4) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

A

Appendix

Rate Adjustments

Average Adjustments

Adjustments by Customer Category

RATE ADJUSTMENTS

All Categories

	Before April 2017		Between April 1, 2017, and April 1, 2018		
	Year	**%**	**Date**	**%**	**Comments**
Canadian Utilities					
Hydro-Québec, QC	2017	0.7	April 1, 2018	0.3	
ENMAX, AB	2017	14.38	January 1, 2018	3.08	Applicable to distribution portion only
Maritime Electric, PE	2017	2.3	March 1, 2018	2.3	
EPCOR, AB	2017	n.a.	—	—	
Nova Scotia Power, NS	2017	1.5	January 1, 2018	n.a.	
NB Power, NB	2017	2.05	—	—	
Hydro Ottawa, ON	2017	n.a.	January 1, 2018	n.a.	
SaskPower, SK	2017	3.5	January 1, 2018	3.5	
Newfoundland Power, NL[1]	2016	-7.93	July 1, 2017	8.5	
Newfoundland and Labrador Hydro, NL[1]	2015	2.7	July 1, 2017 April 1, 2018	n.a. n.a.	
Toronto Hydro, ON	2017	n.a.	January 1, 2018	n.a.	
BC Hydro, BC	2017	3.5	April 1, 2018	3.0	
Manitoba Hydro, MB	2016	3.36	August 1, 2017	3.34	
Data concerning American utilities not available.					

n.a.: Not available.

1) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

RATE ADJUSTMENTS (Between April 1, 2017, and April 1, 2018)

Adjustments by Customer Category

	Date	Residential %	General %	Industrial %	Average %
Canadian Utilities					
Hydro-Québec, QC	April 1, 2018	0.3	0.3[1] 0.3[2] 0.3[3]	—	0.3
ENMAX, AB	January 1, 2018	2.28[4]	n.a.	n.a.	3.08[4]
Maritime Electric, PE	March 1, 2018	n.a.	n.a.	n.a.	2.3
EPCOR, AB	—	—	—	—	—
Nova Scotia Power, NS	January 1, 2018	1.7	1.9[1] 0.9[2] 3.8[3]	1.3[5] 1.6[6] 1.5[7]	n.a.
NB Power, NB	—	—	—	—	—
Hydro Ottawa, ON	May 1, 2017 July 1, 2017 January 1, 2018	-9.04 -11.39 1.09	-9.05 11.40 1.73	13.50 -11.32 1.03	n.a. n.a. n.a.
SaskPower, SK	March 1, 2018	3.5	3.5	3.5	3.5
Newfoundland Power, NL[8]	July 1, 2017	8.1	9.3	11.9	8.5
Newfoundland and Labrador Hydro, NL[8]	July 1, 2017 April 1, 2018	— —	— —	10.5 1.2	— —
Toronto Hydro, ON	January 1, 2018	n.a.	n.a.	n.a.	n.a.
BC Hydro, BC	April 1, 2018	3.0	3.0	3.0	3.0
Manitoba Hydro, MB	August 1, 2017	3.35	3.36[1] 3.36[2] 3.36[3]	n.a.	3.34

Data concerning American utilities not available.

n.a.: Not available.

1) Small power.
2) Medium power.
3) Large power.
4) Distribution charge only.
5) Small industrial.
6) Medium industrial.
7) Large industrial.
8) Newfoundland and Labrador Hydro rates for customers with a power demand of 30,000 kW or more; Newfoundland Power rates for all other customer categories.

Note: Because of adjustment clauses (see list in Appendix B), electricity bills issued by a utility may vary, even though base rates have not changed.

B

Appendix

Time-of-Use Rates
Adjustment Clauses

TIME-OF-USE RATES

The utilities listed below apply time-of-use rates for different consumption levels. For the purposes of this study, an annual average has been calculated for utilities whose rates vary according to the season or time of day (or both). In the case of utilities whose supply costs are determined by the market, the average for the month of March 2018 was used.

CenterPoint Energy, TX	All levels
Commonwealth Edison, IL	All levels
Consolidated Edison, NY	All levels
DTE Electric, MI	500–50,000 kW
ENMAX, AB	All levels
EPCOR, AB	All levels
Eversource Energy, MA	General: All levels
Hydro Ottawa, ON	All levels
Nashville Electric Service, TN	All levels
Newfoundland Power, NL	Residential General: 14–10,000 kW
Pacific Gas and Electric, CA	All levels
Pacific Power and Light, OR	1,000–50,000 kW
Seattle City Light, WA	Residential General: 1,000–50,000 kW
Toronto Hydro, ON	All levels

ADJUSTMENT CLAUSES

Below is a list of utilities whose rates include adjustment clauses that may cause fluctuations in the price of electricity even though base rates have not been adjusted.

BC Hydro, BC	Deferral Account
CenterPoint Energy, TX	Accumulated Deferred Federal Income Tax Credit Distribution Cost Recovery Factor Energy Efficiency Cost Recovery Factor Nuclear Decommissioning Charge Rate Case Expenses Surcharge System Benefit Fund Charge Transition Charges Transmission Cost Recovery Factor
Commonwealth Edison, IL	Energy Efficiency and Demand Response Adjustments Environmental Cost Recovery Adjustment Franchise Cost Addition Miscellaneous Procurement Components Charge PJM Services Charges Renewable Portfolio Standard Retail Customer Assessments Zero Emission Standard
Consolidated Edison, NY	Adjustment Factors – MSC and MAC Billing and Payment Processing Clean Energy Standard Delivery Surcharge Market Supply Charge Merchant Function Charge Monthly Adjustment Clause Revenue Decoupling Mechanism Adjustment System Benefits Charge
DTE Electric, MI	Energy Waste Reduction Surcharge Low Income Energy Assistance Fund Factor Nuclear Surcharge Power Supply Cost Recovery Clause Renewable Energy Plan Surcharge Transitional Recovery Mechanism U-18014 Self-Implementation Refund U-18255 Self-Implementation Refund
ENMAX, AB	Balancing Pool Allocation Refund Rider DAS Adjustment Rider Local Access Fee Transmission Access Charge
EPCOR, AB	Balancing Pool Rider DAS True-up Rider Local Access Fee SAS True-up Rider Short Term Adjustment Rider

Eversource Energy, MA	Attorney General Consultant Expenses Provision Basic Service Cost Adjustment Energy Efficiency Charge Long Term Renewable Contract Adjustment Net Metering Recovery Surcharge Pension Adjustment Mechanism Performance Based Revenue Adjustment Renewable Energy Charge Reconciling Rate Adjustment Residential Assistance Adjustment Clause Revenue Decoupling Adjustment Mechanism Solar Program Cost Adjustment Storm Cost Recovery Adjustment Mechanism Transition Service Cost Adjustment
Florida Power and Light, FL	Energy Conservation Cost Recovery Clause Capacity Payment Recovery Clause Environmental Cost Recovery Clause Fuel Cost and Purchase Power Recovery Clause Storm Restoration Charge
Hydro Ottawa, ON	Disposition of Deferral/Variance Accounts (2018) Disposition of Global Adjustment Account (2018) Rural or Remote Electricity Rate Protection Charge Smart Metering Entity Charge
Maritime Electric, PE	Energy Cost Adjustment Mechanism
Nashville Electric Service, TN	TVA Fuel Cost Adjustment
Newfoundland and Labrador Hydro, NL	CDM Cost Recovery Adjustment Rate Stabilization Plan Adjustment
Nova Scotia Power, NS	Demand Side Management Cost Recovery Rider Fuel Adjustment Mechanism (AA/BA)
Pacific Gas and Electric, CA	California Climate Credit Competition Transition Charges DWR Bond Energy Cost Recovery Amount New System Generation Charge Nuclear Decommissioning Public Purpose Programs Reliability Services Transmission Rate Adjustments

Pacific Power and Light, OR	Adjustment Associated with the Pacific Northwest Electric Power Planning Conservation Act
	Energy Conservation Charge
	Deer Creek Mine Undepreciated Investment Adjustment
	Deferred Accounting Adjustment
	Generation Investment Adjustment
	Independent Evaluator Cost Adjustment
	Intervenor Funding Adjustment
	Klamath Dam Removal Surcharges
	Oregon Solar Incentive Program Deferral
	Pilot Program Cost Adjustment
	Property Sales Balancing Account Adjustment
	Public Purpose Charge
	Rate Mitigation Adjustment
	Renewable Adjustment Clause
	Renewable Resource Deferral Adjustment
	TAM Adjustment for Other Revenues
Toronto Hydro, ON	Application of IFRS – 2014 Derecognition
	Application of Operations Center Consolidation Plan Sharing
	Disposition of Capacity Based Recovery
	Disposition of Deferral/Variance Account
	Disposition of LRAM Variance Account
	Disposition of Post Employment Benefit – Tax Savings
	Disposition of Global Adjustment Account
	Recovery of Hydro One Capital Contributions Variance
	Recovery of Stranded Meter Assets
	Recovery of the Gain on the Sale of Named Properties
	Recovery of 2015 Foregone Revenue
	Recovery of 2016 Foregone Revenue
	Rural or Remote Electricity Rate Protection Charge
	Smart Metering Entity Charge

C

Appendix

Applicable Taxes

Residential Sector

General Sector

Industrial Sector

TAXES APPLICABLE TO RESIDENTIAL SERVICE

On April 1, 2018

	Tax	% (or other)	Applicable
Canadian Cities			
Montréal, QC	Goods and services tax	5	To base amount of bill
	Québec sales tax	9.975	To base amount of bill
Calgary, AB	Goods and services tax	5	To base amount of bill
Charlottetown, PE	Harmonized sales tax	15	To base amount of bill
Edmonton, AB	Goods and services tax	5	To base amount of bill
Halifax, NS	Harmonized sales tax	5	To base amount of bill
Moncton, NB	Harmonized sales tax	15	To base amount of bill
Ottawa, ON	Harmonized sales tax	13	To base amount of bill
Regina, SK	Municipal tax	10	To base amount of bill
	Goods and services tax	5	To base amount of bill
St. John's, NL	Harmonized sales tax	15	To base amount of bill
Toronto, ON	Harmonized sales tax	13	To base amount of bill
Vancouver, BC	Regional transit levy	$1.90	Monthly
	Goods and services tax	5	To base amount of bill + regional transit levy
Winnipeg, MB	Provincial sales tax	8	To base amount of bill (heating other than electric)
		1.4	To base amount of bill (electric heating)
	Municipal tax	2.5	To base amount of bill (heating other than electric)
		0.5	To base amount of bill (electric heating)
	Goods and services tax	5	To base amount of bill + municipal tax
American Cities			
Boston, MA	None		
Chicago, IL	State tax	¢/kWh	Tax varies by energy block
	Municipal tax	¢/kWh	Tax varies by energy block
	Franchise cost	¢/kWh	Tax varies by energy block
Detroit, MI	State sales tax	4	To base amount of bill
	City of Detroit utility users' tax	5	To base amount of bill
Houston, TX	Municipal tax	1	To base amount of bill
Miami, FL	Gross receipts tax	2.5641	To base amount of bill
	Franchise fee	6.047	To base amount of bill + gross receipts tax
	Municipal tax	10	To a portion of base amount of bill
Nashville, TN	None		
New York, NY	Commodity gross receipts tax	2.4066	To commodity component
	Delivery gross receipts tax	4.9892	To other components
	Sales tax	4.5	To base amount of bill + gross receipts tax
Portland, OR	Multnomah County business income tax	0.33	To a portion of base amount of bill
	City of Portland franchise tax	1.5	To a portion of base amount of bill
San Francisco, CA	Energy Commission tax	0.029¢	To energy consumption
Seattle, WA	State utility tax	3.8734	Tax included in rate schedule prices
	Seattle occupation tax	6	Tax included in rate schedule prices

TAXES APPLICABLE TO GENERAL SERVICE

On April 1, 2018

	Tax	% (or other)	Applicable
Canadian Cities			
Montréal, QC	Goods and services tax	5	To base amount of bill (tax refundable)
	Québec sales tax	9.975	To base amount of bill (tax refundable)[1]
Calgary, AB	Goods and services tax	5	To base amount of bill
Charlottetown, PE	Harmonized sales tax	15	To base amount of bill (tax refundable)
Edmonton, AB	Goods and services tax	5	To base amount of bill
Halifax, NS	Harmonized sales tax	15	To base amount of bill (tax refundable)
Moncton, NB	Harmonized sales tax	15	To base amount of bill (tax refundable)
Ottawa, ON	Harmonized sales tax	13	To base amount of bill
Regina, SK	Municipal tax	10	To base amount of bill
	Provincial sales tax	6	To base amount of bill + municipal tax
	Goods and services tax	5	To base amount of bill
St. John's, NL	Harmonized sales tax	15	To base amount of bill (tax refundable)
Toronto, ON	Harmonized sales tax	13	To base amount of bill (tax refundable)
Vancouver, BC	Goods and services tax	5	To base amount of bill
	Provincial sales tax	3.5	To base amount of bill
Winnipeg, MB	Provincial sales tax	8	To base amount of bill (industries other than mining and manufacturing)
		1.6	To base amount of bill (mining and manufacturing companies)
	Municipal tax	5	To base amount of bill (heating other than electric)
		1	To base amount of bill (electric heating)
	Goods and services tax	5	To base amount of bill + municipal tax (tax refundable)
American Cities			
Boston, MA	State sales tax	6.25	To a portion of base amount of bill
Chicago, IL	State tax	¢/kWh	Tax varies by energy block
	Municipal tax	¢/kWh	Tax varies by energy block
	Franchise cost	¢/kWh	Tax varies by energy block
Detroit, MI	State sales tax	6	To base amount of bill
	City of Detroit utility users' tax	5	To base amount of bill
Houston, TX	State tax	6.25	To base amount of bill
	Municipal tax	1	To base amount of bill
	Transit tax	1	To base amount of bill
	County tax	0.5	To base amount of bill
Miami, FL	Gross receipts tax	2.5641	To base amount of bill
	Franchise fee	6.047	To base amount of bill + gross receipts tax
	Municipal tax	10	To a portion of base amount of bill
	State sales tax	6.95	To base amount of bill + gross receipts tax + franchise fee
	Local tax	1	To base amount of bill + gross receipts tax + franchise fee
Nashville, TN	State sales tax	7	To base amount of bill

1) Commercial customers with revenue below $10 million and customers in the manufacturing sector are entitled to a refund of this tax.

TAXES APPLICABLE TO GENERAL SERVICE (cont'd)

On April 1, 2018

	Tax	% (or other)	Applicable
New York, NY	Commodity gross receipts tax	2.4066	To commodity component
	Delivery gross receipts tax	2.4822	To other components
	Sales tax	8.875	To base amount of bill + gross receipts tax
Portland, OR	Multnomah County business income tax	0.33	To a portion of base amount of bill
	City of Portland franchise tax	1.5	To a portion of base amount of bill
San Francisco, CA	Energy Commission tax	0.029¢	To energy consumption
	San Francisco utility users' tax	8.5	To base amount of bill
Seattle, WA	State utility tax	3.8734	Tax included in rate schedule prices
	Seattle occupation tax	6	Tax included in rate schedule prices

TAXES APPLICABLE TO INDUSTRIAL SERVICE

On April 1, 2018

	Tax	% (or other)	Applicable
Canadian Cities			
Montréal, QC	Goods and services tax	5	To base amount of bill (tax refundable)
	Québec sales tax	9.975	To base amount of bill (tax refundable)[1]
Calgary, AB	Goods and services tax	5	To base amount of bill
Charlottetown, PE	Harmonized sales tax	15	To base amount of bill (tax refundable)
Edmonton, AB	Goods and services tax	5	To base amount of bill
Halifax, NS	Harmonized sales tax	15	To base amount of bill (tax refundable)
Moncton, NB	Harmonized sales tax	15	To base amount of bill (tax refundable)
Ottawa, ON	Harmonized sales tax	13	To base amount of bill
Regina, SK	Municipal tax	10	To base amount of bill
	Provincial sales tax	6	To base amount of bill + municipal tax
	Goods and services tax	5	To base amount of bill
St. John's, NL	Harmonized sales tax	15	To base amount of bill (tax refundable)
Toronto, ON	Harmonized sales tax	13	To base amount of bill (tax refundable)
Vancouver, BC	Goods and services tax	5	To base amount of bill
	Provincial sales tax	3.5	To base amount of bill
Winnipeg, MB	Provincial sales tax	8	To base amount of bill (industries other than mining and manufacturing)
		1.6	To base amount of bill (mining and manufacturing companies)
	Municipal tax	5	To base amount of bill (heating other than electric)
		1	To base amount of bill (electric heating)
	Goods and services tax	5	To base amount of bill + municipal tax (tax refundable)
American Cities			
Boston, MA	State sales tax	6.25	To a portion of base amount of bill
Chicago, IL	State tax	¢/kWh	Tax varies by energy block
	Municipal tax	¢/kWh	Tax varies by energy block
	Franchise cost	¢/kWh	Tax varies by energy block
Detroit, MI	State sales tax	6	To base amount of bill
	City of Detroit utility users' tax	5	To base amount of bill
Houston, TX	State tax	6.25	To base amount of bill
	Municipal tax	1	To base amount of bill
	Transit tax	1	To base amount of bill
	County tax	0.5	To base amount of bill
Miami, FL	Gross receipts tax	2.5641	To base amount of bill
	Franchise fee	6.047	To base amount of bill + gross receipts tax
	Municipal tax	10	To a portion of base amount of bill
	State sales tax	6.95	To base amount of bill + gross receipts tax + franchise fee
	Local tax	1	To base amount of bill + gross receipts tax + franchise fee

1) Commercial customers with revenue below $10 million and customers in the manufacturing sector are entitled to a refund of this tax.

TAXES APPLICABLE TO INDUSTRIAL SERVICE (cont'd)

On April 1, 2018

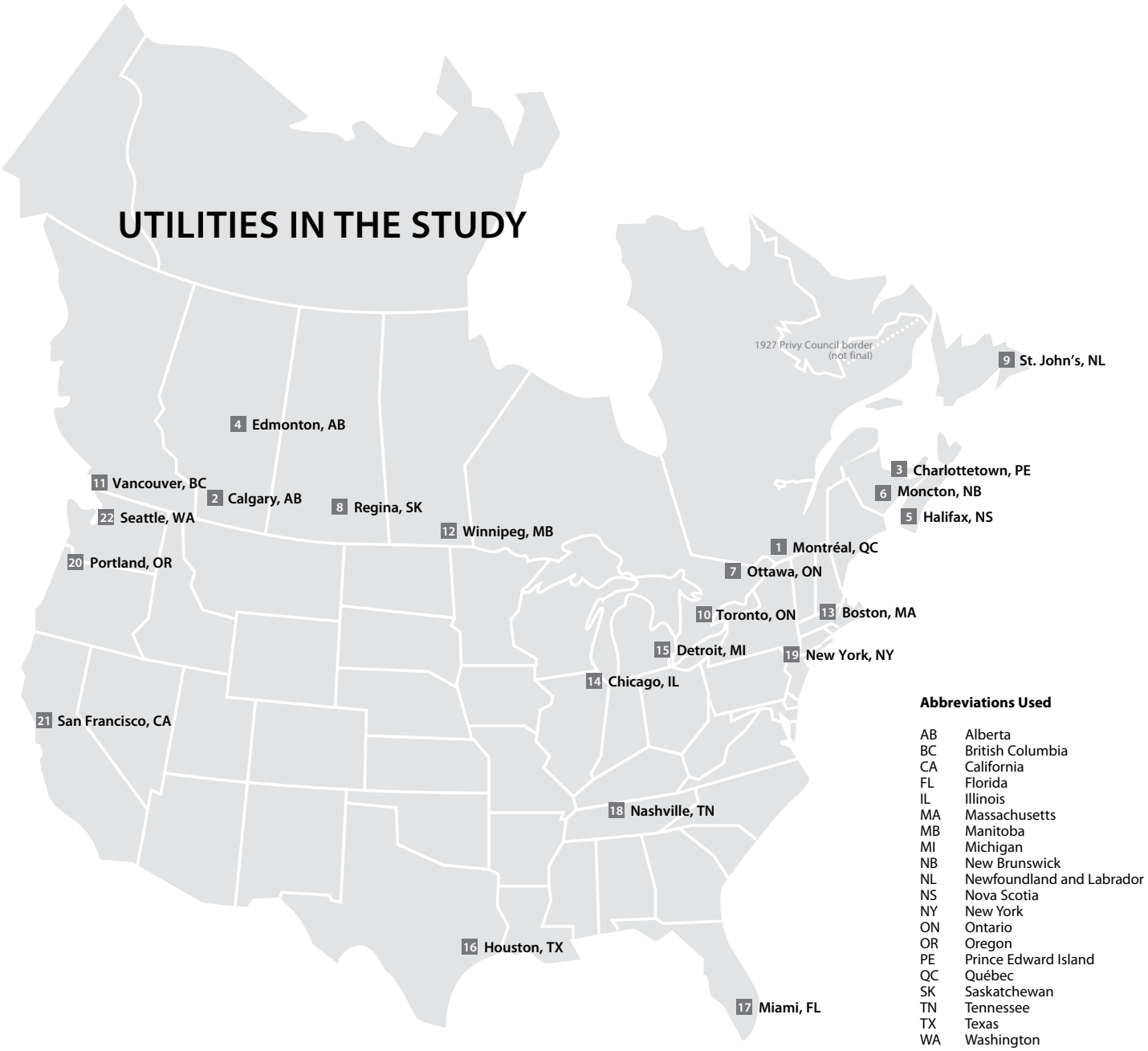
	Tax	% (or other)	Applicable
Nashville, TN	State sales tax	7	To base amount of bill (companies other than manufacturing)
	State sales tax	1.5	To base amount of bill (manufacturing companies)
New York, NY	Commodity gross receipts tax	2.4066	To commodity component
	Delivery gross receipts tax	2.4822	To other components
	Sales tax	8.875	To base amount of bill + gross receipts tax
Portland, OR	Multnomah County business income tax	0.33	To a portion of base amount of bill
	City of Portland franchise tax	1.5	To a portion of base amount of bill
San Francisco, CA	Energy Commission tax	0.029¢	To energy consumption
	San Francisco utility users' tax	8.5	To base amount of bill
Seattle, WA	State utility tax	3.8734	Tax included in rate schedule prices
	Seattle occupation tax	6	Tax included in rate schedule prices

D

Appendix

Utilities in the Study

UTILITIES IN THE STUDY



Abbreviations Used

AB	Alberta
BC	British Columbia
CA	California
FL	Florida
IL	Illinois
MA	Massachusetts
MB	Manitoba
MI	Michigan
NB	New Brunswick
NL	Newfoundland and Labrador
NS	Nova Scotia
NY	New York
ON	Ontario
OR	Oregon
PE	Prince Edward Island
QC	Québec
SK	Saskatchewan
TN	Tennessee
TX	Texas
WA	Washington

CANADIAN UTILITIES

1- Hydro-Québec
2- ENMAX
3- Maritime Electric
4- EPCOR
5- Nova Scotia Power
6- NB Power
7- Hydro Ottawa
8- SaskPower
9- Newfoundland and Labrador Hydro
(customers with a power demand of 30,000 kW or more)
Newfoundland Power
(all other customer categories)
10- Toronto Hydro
11- BC Hydro
12- Manitoba Hydro

AMERICAN UTILITIES

13- Eversource Energy
14- Commonwealth Edison
15- DTE Electric
16- CenterPoint Energy
17- Florida Power and Light
18- Nashville Electric Service
19- Consolidated Edison
20- Pacific Power and Light
21- Pacific Gas and Electric
22- Seattle City Light

CANADIAN UTILITIES

HYDRO-QUÉBEC
Montréal, Québec

A government-owned company whose lines of business have been unbundled, Hydro-Québec is one of the largest electric utilities in North America, with a total installed capacity of 37,309 MW; 99% of its electricity is produced from clean, renewable sources. Its transmission and distribution activities are regulated. The utility distributes electricity to more than 4.2 million residential, commercial, institutional and industrial customer accounts throughout Québec and delivers electricity to nine municipal systems and one regional cooperative. Hydro-Québec also does business with many electric utilities in the Northeastern United States, Ontario and New Brunswick.

The *Act respecting the Régie de l'énergie* (Québec energy board) established an annual maximum heritage pool of 165 TWh that Hydro-Québec Production must supply to Hydro-Québec Distribution. The division also purchases electricity on the market, primarily through calls for tenders. The average supply cost of heritage pool electricity, set at a fixed price of 2.79¢/kWh since 1998, is indexed on January 1 since 2014 at a rate corresponding to the annual variation in the all-item consumer price index for Québec, with the exception of the large-power industrial rate (Rate L), which is exempt from the indexation of heritage pool electricity.

The Régie de l'énergie approved an average increase of 0.3% in the rates of Hydro-Québec Distribution, effective April 1, 2018, with the exception of large power customers, for which the rate remains the same.

MARITIME ELECTRIC
Charlottetown, Prince Edward Island

A subsidiary of Fortis Inc., Maritime Electric is the principal supplier of electricity on Prince Edward Island, with about 80,000 customers. Since its two power plants (with a total capacity of 145 MW) are operated strictly for reserve purposes, it purchases most of its electricity from NB Power, with which it has long-term contracts, and through additional short-term contracts on the New England wholesale market. Maritime Electric also purchases 92 MW of wind-generated electricity from public producers.

Since the adoption of the *Electric Power Act* on January 1, 2004, Maritime Electric has had to submit all requests for rate increases to the Island Regulatory and Appeals Commission (IRAC). In 2016, the IRAC approved a 2.3% annual rate increase for each of the following three years.

ENMAX
EPCOR
Calgary, Alberta
Edmonton, Alberta

ENMAX Corporation is a wholly owned subsidiary of the City of Calgary. It generates, transmits and distributes electricity to more than 946,000 customers throughout the province. In addition to its active participation in Alberta's restructured electricity industry, ENMAX serves customers who are eligible for the City of Calgary's regulated rate option tariff.

EPCOR Utilities, whose sole shareholder is the City of Edmonton, transmits and distributes electricity to 600,000 customers throughout the province, including 379,000 residential and business customers in Edmonton, who are eligible for both rate regulated and contract electricity services.

Since July 1, 2010, prices under the regulated rate option tariff have fluctuated monthly with market forecasts. To protect residential and small business customers against market price volatility, on June 1, 2017, the Alberta government introduced a four-year price cap of 6.8¢/kWh on the electricity component of the Regulated Rate Option.

NOVA SCOTIA POWER
Halifax, Nova Scotia

Nova Scotia Power, a subsidiary of Emera, is the principal supplier of electricity in Nova Scotia, meeting most of the province's needs for electricity generation, transmission and distribution. It supplies electricity to 500,000 customers. Its generating facilities have an installed capacity in excess of 2,400 MW.

The open access transmission tariff came into effect on November 1, 2005. Under the province's energy policy, eligible customers have nondiscriminatory access to the utility's transmission system.

NB POWER
Moncton, New Brunswick

A subsidiary of provincial Crown corporation NB Power Group, NB Power Distribution and Customer Service Corporation directly and indirectly serves more than 390,000 customers. NB Power has a generating capacity of about 2,850 MW.

The New Brunswick electricity market has been partially open to competition since October 1, 2004. As a result, large industrial customers and three municipal electricity distribution utilities are free to choose their supplier. Other retail market customers continue to be served by NB Power.

SASKPOWER
Regina, Saskatchewan

Crown utility SaskPower directly serves more than 528,000 customers and sells wholesale electricity to municipal systems in Saskatchewan. The utility operates 17 power plants and also buys power from third parties, such that its total available generating capacity is almost 4,500 MW.

In Saskatchewan, the wholesale electricity market has been open to competition since 2001.

NEWFOUNDLAND AND LABRADOR HYDRO
(customers with a power demand of 30,000 kW or more)

NEWFOUNDLAND POWER (all other customer categories)
St. John's, Newfoundland and Labrador

Newfoundland Power, a subsidiary of Fortis Inc., serves about 262,000 customers on the island of Newfoundland. Since it operates only small generating stations, it purchases 93% of its electricity from Newfoundland and Labrador Hydro (NLH), a subsidiary of Nalcor Energy that operates generating facilities with an installed capacity of 1,763 MW and a transmission system that serves the whole province. NLH also supplies remote regions, Labrador and large industrial customers. Aside from Newfoundland and Labrador Hydro, Nalcor Energy operates generating facilities with an installed capacity in excess of 7,200 MW.

TORONTO HYDRO
HYDRO OTTAWA
Toronto, Ontario
Ottawa, Ontario

Toronto Hydro-Electric System, a subsidiary of city-owned Toronto Hydro Corporation, serves about 768,000 customers, or 19% of Ontario electricity consumers. A subsidiary of Hydro Ottawa Holding, whose sole shareholder is the City of Ottawa, Hydro Ottawa serves more than 331,000 customers.

In Ontario, the wholesale and retail markets have been open to competition since May 2002. Electricity generation is the responsibility of Ontario Power Generation, while transmission service is mainly supplied by Hydro One.

Following the adoption of the *Electricity Restructuring Act* in December 2004, the Ontario Energy Board was given the mandate to regulate electricity supply cost and has produced a plan in this regard (Regulated Price Plan or RPP). Prices are reviewed on May 1 of each year since 2006 and then adjusted six months later, if necessary. With advanced metering, the vast majority of residential customers are now billed according to a time-of-use rate. In recent years, Ontario consumers have seen their electricity bill increase significantly. In 2017, this led the Ontario government to propose measures to reduce electricity bills by 25% for the residential and agricultural customers, as well as for small businesses.

BC HYDRO
Vancouver, British Columbia

BC Hydro, a provincial Crown corporation, operates generating facilities with a total capacity of more than 12,000 MW. About 98% of its electricity is generated using waterpower. The utility distributes electricity to about 2 million customers.

The wholesale market in British Columbia is open to competition, as is the retail market for some large industrial companies. When the market was opened up, generation, transmission and distribution were made into separate entities. The *Clean Energy Act* grouped transmission and distribution in July 2010 to ensure coordinated supply planning for the province. In November 2013, the government published a 10-year plan which provides for upgrading aging infrastructure, implementing new generation projects to meet growing demand and minimizing the impact of these activities on electricity rates.

MANITOBA HYDRO
Winnipeg, Manitoba

Manitoba Hydro is a Crown utility serving nearly 573,000 customers throughout the province. Virtually all the electricity it generates and distributes comes from its 15 hydropower plants, which have a total capacity of 5,690 MW.

The wholesale electricity market has been open to competition since 1997 and Manitoba Hydro joined Midwest ISO, a regional transmission organization, in 2001.

AMERICAN UTILITIES

EVERSOURCE ENERGY
Boston, Massachusetts

Eversource, a merger between NSTAR Electric & Gas and Northeast Utilities, serves 3.1 million residential, commercial and industrial customers in the states of Massachusetts, Connecticut and New Hampshire. The utility purchases electricity on the market and concentrates on transmission and distribution.

Since March 1, 2005, the basic service rates are applied to customers who have chosen not to purchase electricity from a competitor. These rates are adjusted every six months, or every three months in the case of large industrial customers. The rates reflect the average market price of electricity.

COMMONWEALTH EDISON (ComEd)
Chicago, Illinois

ComEd, a subsidiary of Exelon Corporation, purchases, transmits and distributes electricity on the wholesale and retail markets. On the retail market, it serves more than 4 million customers in northern Illinois, or about 70% of the state's population.

Since May 1, 2002, the retail market has been fully open for residential, commercial and industrial customers. However, it is only since 2011 that residential customers have actually exercised their right to choose distributors other than the two companies that were in place when deregulation was implemented: ComEd and Ameren.

DTE ELECTRIC
Detroit, Michigan

DTE Electric operates generating facilities with a total installed capacity of nearly 11,100 MW. A subsidiary of DTE Energy, it delivers electricity to 2.2 million customers in southeastern Michigan.

Under the June 2000 legislation that restructured the electricity industry, all retail market customers in Michigan have been able to choose their electricity supplier since January 1, 2002.

CENTERPOINT ENERGY

Houston, Texas

CenterPoint Energy concentrates on electricity transmission and distribution and delivering natural gas. It sells electricity to over 2.5 million customers in the metropolitan Houston area.

The majority of Texas consumers have had access to an open retail market since January 1, 2002. As of January 2007, electricity distributors with effective monopolies are no longer obliged to maintain their rates above the "price to beat" designed to encourage new market entrants. Customers who have opted to continue doing business with the same distributor pay a monthly rate that varies according to the market price.

FLORIDA POWER AND LIGHT (FPL)

Miami, Florida

FPL's vast transmission and distribution system supplies about 4.9 million customers. A subsidiary of NextEra Energy, the utility operates generating facilities with an installed capacity of close to 25,000 MW.

On April 1, 2010, FPL released its 2010–2019 strategic plan, in which it proposed to upgrade some of its nuclear plants and add new generating facilities using thermal and renewable energy. It also relied on energy efficiency measures put in place to meet the demand for power during the strategic plan time frame. In April 2016, FPL submitted its Ten Year Power Plant Site Plan for the years 2016–2025 in which it maintains its commitment to modernize its generating stations.

NASHVILLE ELECTRIC SERVICE

Nashville, Tennessee

Nashville Electric Service, whose sole shareholder is the City of Nashville, distributes the electricity that it purchases from the Tennessee Valley Authority (TVA) to more than 385,000 customers. A federal agency, the TVA serves seven states, supplying 154 distributors and 54 large industrial and federal customers.

Close to 24% of the electricity produced by the TVA comes from its seven coal-fired plants, with the rest from gas, nuclear and hydro plants. Over the years, the company has proceeded to the decommissioning of some of its most polluting coal-fired plants, and has integrated renewable energy sources such as solar, wind and biomass.

CONSOLIDATED EDISON (ConEd)

New York, New York

ConEd of New York delivers electricity to 3.3 million customers and natural gas to about 1.1 million customers in and around New York City and Westchester County. This ConEd subsidiary operates one of the largest underground systems in the United States, which represents 72% of its distribution system.

When the electricity market was opened to competition in 1998, ConEd had to dispose of a large part of its generating capacity, which is now limited to about 732 MW. Rates, which continue to be regulated by the New York State Public Service Commission, are adjusted monthly to reflect the market price of electricity.

PACIFIC POWER AND LIGHT

Portland, Oregon

Pacific Power and Light, a subsidiary of PacifiCorp, serves about 750,000 customers across three states, including more than 574,000 in Oregon. PacifiCorp operates generating facilities with an installed capacity of close to 10,900 MW.

On March 1, 2002, the Oregon state government opened its retail market to competition for large commercial and industrial customers. Residential and small commercial customers have fewer suppliers to choose from, but they do have a range of options, including market-based rates, regulated rates or rates applicable to green energy.

PACIFIC GAS AND ELECTRIC (PG&E)

San Francisco, California

Pacific Gas and Electric concentrates on the transmission and distribution of electricity and natural gas. A subsidiary of PG&E Corporation, it has 5.4 million electric customer accounts.

In 2001, California adopted emergency measures to mitigate the price volatility that followed the opening of the electricity market. Those measures allowed it to reinstate regulatory authority over production costs and to give responsibility for electricity purchases to the California Department of Water and Resources. Since January 1, 2003, PG&E has been authorized to again purchase energy and directly supply its customers.

In 2017, PG&E undertook a rate reform to simplify the structure of residential electricity rates.

SEATTLE CITY LIGHT

Seattle, Washington

Seattle City Light, whose shareholder is the City of Seattle, serves about 447,000 customers in the city of Seattle and certain surrounding communities. It produces nearly 50% of the electricity it needs and purchases the rest from the Bonneville Power Administration (BPA), a northwestern U.S. federal agency that wholesales electricity produced by some 30 hydropower stations.

Six electric utilities in the Pacific Northwestern states, including Seattle City Light and BPA, got together in early 2006 to form the nonprofit ColumbiaGrid. The group's objective is to develop an integrated approach to the use and expansion of the region's interconnected transmission system.

Sources:
Annual reports and Web sites of the Canadian and American utilities in the study.

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