



## Projected BC Hydro RS1300 SGS Rates for Financial Analysis

29-Nov-18

### Notes:

1. This projection is for electricity consumption under BC Hydro's Small General Service rate schedule RS 1300
2. This projection is based on the BC Hydro SGS rate structure depicted on the attached page
3. This projection is approximate and actual annual rates are expected to vary somewhat from those listed here
4. The rate figures presented here are suitable for performing financial sensitivity analysis for a project
5. BC Hydro previously announced rate increases to 2018 are assumed in the figures below
6. BC Hydro rate increases beyond 2018 are assumed in two scenarios:

Low - 2.5% per year - equal to BC CPI for electricity 1994 to 2016

High - 4% per year - BCH rate increases have averaged 4%/yr from 2005 - 2016 according to BC CPI

7. Rates below calculated based on average monthly consumption of 3,000 kWh
8. Rates below include basic daily service charge, energy charge and rate rider fee but do not include taxes

### Projected BC Hydro RS 1300 SGS Rates for Small Business (\$/kWh)

Year	Low	High
2017	\$ 0.1231	\$ 0.1231
2018	\$ 0.1268	\$ 0.1268
2019	\$ 0.1300	\$ 0.1319
2020	\$ 0.1332	\$ 0.1372
2021	\$ 0.1366	\$ 0.1426
2022	\$ 0.1400	\$ 0.1484
2023	\$ 0.1435	\$ 0.1543
2024	\$ 0.1471	\$ 0.1605
2025	\$ 0.1507	\$ 0.1669
2026	\$ 0.1545	\$ 0.1736
2027	\$ 0.1584	\$ 0.1805
2028	\$ 0.1623	\$ 0.1877
2029	\$ 0.1664	\$ 0.1952
2030	\$ 0.1705	\$ 0.2030
2031	\$ 0.1748	\$ 0.2112
2032	\$ 0.1792	\$ 0.2196
2033	\$ 0.1837	\$ 0.2284
2034	\$ 0.1883	\$ 0.2375
2035	\$ 0.1930	\$ 0.2470
2036	\$ 0.1978	\$ 0.2569
2037	\$ 0.2027	\$ 0.2672
2038	\$ 0.2078	\$ 0.2779
2039	\$ 0.2130	\$ 0.2890
2040	\$ 0.2183	\$ 0.3005
2041	\$ 0.2238	\$ 0.3126
2042	\$ 0.2294	\$ 0.3251
2043	\$ 0.2351	\$ 0.3381

## Small General Service Customers

The Small General Service rate is for business customers with an annual peak demand less than 35 kW. They receive service under rate schedules 1300, 1301, 1310, or 1311 of the Electric Tariff. Knowing how to read your Small General Service bill is a good way to manage your electricity usage.

<b>Basic Charge</b>	
A small, daily charge that partially covers the fixed cost of services for things such as metering and billing.	\$0.3312 per day.
<b>Energy Charge</b>	\$0.1139 per kWh.
<b>Minimum Charge</b>	
A charge that covers the costs of maintaining our equipment during the winter for customers with high electricity usage in the winter but low electricity usage in summer.	\$0.3312 per day. Equal to Basic Charge.
<b>Discounts</b>	1.5% on entire bill if electricity is metered at primary potential.
	\$0.25 per kW if customer supplies transformation from a primary to a secondary potential.
	If eligible for both, the 1.5% discount is applied first.
<b>Rate Rider</b>	
The Rate Rider covers additional and unpredictable energy costs resulting from, for example, low water inflows or higher-than-forecast market prices.	5% Rate Rider applied to all charges before taxes and levies.

**BC Consumer Price Index**

**Historical Changes in BC Electricity Rates**

1994 - 2004 Avg. Annual Increase %:	0.9
1994 - 2016 Avg. Annual Increase %:	2.5
2005 - 2016 Avg. Annual Increase %:	4.0

<b>Year</b>	<b>CPI % Change From Previous Year</b>
1994	2.6
1995	-3.6
1996	1.7
1997	0.6
1998	-0.8
1999	1
2000	0.1
2001	-13.1
2002	15.7
2003	0.6
2004	5
2005	0
2006	2.2
2007	0.2
2008	3.1
2009	-0.9
2010	10.6
2011	5.7
2012	7.4
2013	1.9
2014	6.6
2015	6.5
2016	4.4

## British Columbia Consumer Price Index, Annual Averages, Selected Items (1992=100)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>ALL-ITEMS</b>	<b>105.5</b>	<b>107.9</b>	<b>108.9</b>	<b>109.7</b>	<b>110.0</b>	<b>111.2</b>	<b>113.3</b>	<b>115.2</b>	<b>117.9</b>	<b>120.4</b>	<b>122.8</b>	<b>125.3</b>	<b>127.5</b>
<i>% change from previous year</i>	<b>1.9</b>	<b>2.3</b>	<b>0.9</b>	<b>0.7</b>	<b>0.3</b>	<b>1.1</b>	<b>1.9</b>	<b>1.7</b>	<b>2.3</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>	<b>1.8</b>
<b>Food</b>	104.2	107.3	108.1	110.8	112.5	113.6	113.0	117.4	120.6	122.8	124.4	126.0	128.4
<i>% change from previous year</i>	1.2	3.0	0.7	2.5	1.5	1.0	-0.5	3.9	2.7	1.8	1.3	1.3	1.9
<b>Shelter</b>	104.0	103.9	102.0	100.5	98.6	98.1	99.6	101.2	101.9	103.7	105.9	108.2	110.8
<i>% change from previous year</i>	0.8	-0.1	-1.8	-1.5	-1.9	-0.5	1.5	1.6	0.7	1.8	2.1	2.2	2.4
<b>Rented Accommodation</b>	104.4	106.1	107.8	109.0	109.7	110.2	110.7	111.9	113.5	114.7	115.8	116.2	116.7
<i>% change from previous year</i>	2.0	1.6	1.6	1.1	0.6	0.5	0.5	1.1	1.4	1.1	1.0	0.3	0.4
<b>Owned Accommodation</b>	102.5	101.7	98.1	94.3	91.0	89.0	89.0	89.7	89.7	91.3	93.3	95.6	98.5
<i>% change from previous year</i>	-0.9	-0.8	-3.5	-3.9	-3.5	-2.2	0.0	0.8	0.0	1.8	2.2	2.5	3.0
<b>Household Operations &amp; Furnishings</b>	103.8	106.4	108.6	110.0	113.9	115.5	116.9	118.0	121.0	122.3	122.9	123.7	123.4
<i>% change from previous year</i>	1.1	2.5	2.1	1.3	3.5	1.4	1.2	0.9	2.5	1.1	0.5	0.7	-0.2
<b>Clothing &amp; Footwear</b>	104.4	105.2	105.1	107.0	108.9	110.1	112.1	112.6	112.6	111.4	112.0	112.5	112.5
<i>% change from previous year</i>	2.4	0.8	-0.1	1.8	1.8	1.1	1.8	0.4	0.0	-1.1	0.5	0.4	0.0
<b>Transportation</b>	110.9	116.1	119.8	120.9	119.4	123.3	130.0	130.5	135.0	139.3	143.2	149.1	154.2
<i>% change from previous year</i>	5.3	4.7	3.2	0.9	-1.2	3.3	5.4	0.4	3.4	3.2	2.8	4.1	3.4
<b>Health &amp; Personal Care</b>	106.5	107.1	107.9	109.5	112.1	114.9	116.7	119.7	121.9	122.8	125.0	127.7	129.7
<i>% change from previous year</i>	2.9	0.6	0.7	1.5	2.4	2.5	1.6	2.6	1.8	0.7	1.8	2.2	1.6
<b>Recreation, Education &amp; Reading</b>	107.1	112.9	115.8	117.2	118.1	119.1	121.2	122.6	124.7	129.0	132.3	134.0	134.0
<i>% change from previous year</i>	3.9	5.4	2.6	1.2	0.8	0.8	1.8	1.2	1.7	3.4	2.6	1.3	0.0
<b>Tuition</b>	113.9	122.3	127.5	130.4	134.4	136.9	138.9	139.3	149.2	183.6	222.4	243.2	249.4
<i>% change from previous year</i>	9.8	7.4	4.3	2.3	3.1	1.9	1.5	0.3	7.1	23.1	21.1	9.4	2.5
<b>Alcoholic Beverages &amp; Tobacco Prods</b>	101.8	102.7	104.6	107.2	108.6	109.1	109.7	112.3	126.7	136.0	142.9	144.7	146.9
<i>% change from previous year</i>	-2.5	0.9	1.9	2.5	1.3	0.5	0.5	2.4	12.8	7.3	5.1	1.3	1.5
<b>Cigarettes</b>	94.1	94.2	95.4	97.9	99.2	100.5	101.7	104.9	131.7	151.3	160.2	162.0	164.3
<i>% change from previous year</i>	-9.7	0.1	1.3	2.6	1.3	1.3	1.2	3.1	25.5	14.9	5.9	1.1	1.4
<b>Energy</b>	105.5	107.4	109.1	110.8	103.7	110.4	130.8	134.3	135.9	144.9	155.3	167.4	175.3
<i>% change from previous year</i>	3.3	1.8	1.6	1.6	-6.4	6.5	18.5	2.7	1.2	6.6	7.2	7.8	4.7
<b>Electricity</b>	106.8	103.0	104.8	105.4	104.6	105.6	105.7	91.9	106.3	106.9	112.2	112.2	114.7
<i>% change from previous year</i>	<b>2.6</b>	<b>-3.6</b>	<b>1.7</b>	<b>0.6</b>	<b>-0.8</b>	<b>1.0</b>	<b>0.1</b>	<b>-13.1</b>	<b>15.7</b>	<b>0.6</b>	<b>5.0</b>	<b>0.0</b>	<b>2.2</b>
<b>Piped Gas</b>	112.1	110.6	103.5	114.5	116.7	129.4	167.4	222.9	198.6	223.7	219.8	236.2	239.7
<i>% change from previous year</i>	7.6	-1.3	-6.4	10.6	1.9	10.9	29.4	33.2	-10.9	12.6	-1.7	7.5	1.5
<b>Fuel Oil &amp; Other Fuel</b>	101.8	102.7	106.7	112.5	103.8	106.6	137.6	141.0	131.6	151.0	170.0	213.7	220.1
<i>% change from previous year</i>	0.4	0.9	3.9	5.4	-7.7	2.7	29.1	2.5	-6.7	14.7	12.6	25.7	3.0
<b>Motor Gasoline</b>	102.6	108.0	111.6	111.3	98.5	107.3	134.3	134.3	135.7	148.4	164.2	184.3	197.1
<i>% change from previous year</i>	2.2	5.3	3.3	-0.3	-11.5	8.9	25.2	0.0	1.0	9.4	10.6	12.2	6.9
<b>All-Items Excluding Food</b>	105.9	108.1	109.1	109.5	109.5	110.7	113.4	114.7	117.3	119.9	122.5	125.1	127.2
<i>% change from previous year</i>	2.2	2.1	0.9	0.4	0.0	1.1	2.4	1.1	2.3	2.2	2.2	2.1	1.7
<b>All-Items Excluding Alcohol &amp; Tobacco</b>	105.8	108.3	109.2	110.0	108.2	109.4	111.5	113.3	115.5	117.8	120.0	122.4	124.6
<i>% change from previous year</i>	2.3	2.4	0.8	0.7	-1.6	1.1	1.9	1.6	1.9	2.0	1.9	2.0	1.8
<b>All-Items Excluding Food &amp; Energy</b>	105.9	108.2	109.1	109.5	110.1	110.8	111.9	113.0	115.7	117.8	119.8	121.6	123.3
<i>% change from previous year</i>	2.1	2.2	0.8	0.4	0.5	0.6	1.0	1.0	2.4	1.8	1.7	1.5	1.4

**British Columbia Consumer Price Index, Annual Averages, Selected Items (2002=100)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>ALL-ITEMS</b>	<b>110.0</b>	<b>112.3</b>	<b>112.3</b>	<b>113.8</b>	<b>116.5</b>	<b>117.8</b>	<b>117.7</b>	<b>118.9</b>	<b>120.2</b>	<b>122.4</b>
<i>% change from previous year</i>	<b>1.8</b>	<b>2.1</b>	<b>0.0</b>	<b>1.3</b>	<b>2.4</b>	<b>1.1</b>	<b>-0.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.8</b>
<b>Food</b>	109.3	112.9	117.7	119.6	124.6	127.3	127.4	129.5	134.5	136.9
<i>% change from previous year</i>	2.6	3.3	4.3	1.6	4.2	2.2	0.1	1.6	3.9	1.8
<b>Shelter</b>	110.9	114.3	112.3	113.1	114.3	114.2	113.3	114.2	114.1	115.7
<i>% change from previous year</i>	2.0	3.1	-1.7	0.7	1.1	-0.1	-0.8	0.8	-0.1	1.4
<b>Rented Accommodation</b>	104.0	106.1	107.9	109.5	110.9	112.3	113.7	114.8	116.0	117.1
<i>% change from previous year</i>	1.2	2.0	1.7	1.5	1.3	1.3	1.2	1.0	1.0	0.9
<b>Owned Accommodation</b>	112.8	116.0	113.1	112.1	112.6	111.2	109.0	108.5	108.0	110.1
<i>% change from previous year</i>	2.7	2.8	-2.5	-0.9	0.4	-1.2	-2.0	-0.5	-0.5	1.9
<b>Household Operations &amp; Furnishings</b>	102.6	103.4	105.7	106.5	108.4	110.9	111.7	112.8	114.6	116.9
<i>% change from previous year</i>	0.6	0.8	2.2	0.8	1.8	2.3	0.7	1.0	1.6	2.0
<b>Clothing &amp; Footwear</b>	99.9	99.1	99.4	98.3	97.6	100.5	101.0	101.2	103.7	104.7
<i>% change from previous year</i>	0.0	-0.8	0.3	-1.1	-0.7	3.0	0.5	0.2	2.5	1.0
<b>Transportation</b>	116.2	119.1	113.6	117.1	122.7	125.2	126.3	127.6	126.3	129.2
<i>% change from previous year</i>	1.8	2.5	-4.6	3.1	4.8	2.0	0.9	1.0	-1.0	2.3
<b>Health &amp; Personal Care</b>	107.9	108.5	111.5	113.9	115.2	115.5	113.2	112.9	113.8	115.8
<i>% change from previous year</i>	1.4	0.6	2.8	2.2	1.1	0.3	-2.0	-0.3	0.8	1.8
<b>Recreation, Education &amp; Reading</b>	109.0	109.8	111.0	112.0	113.2	113.1	112.6	113.8	116.1	119.4
<i>% change from previous year</i>	1.4	0.7	1.1	0.9	1.1	-0.1	-0.4	1.1	2.0	2.8
<b>Tuition Fees</b>	170.5	174.7	179.4	184.0	187.7	192.0	196.4	200.8	205.4	209.9
<i>% change from previous year</i>	2.0	2.5	2.7	2.6	2.0	2.3	2.3	2.2	2.3	2.2
<b>Alcoholic Beverages &amp; Tobacco Products</b>	119.1	120.7	123.8	126.3	129.6	130.6	131.4	135.1	137.6	141.4
<i>% change from previous year</i>	2.7	1.3	2.6	2.0	2.6	0.8	0.6	2.8	1.9	2.8
<b>Cigarettes</b>	129.8	130.7	135.6	141.6	150.2	150.3	150.3	165.8	173.0	176.8
<i>% change from previous year</i>	4.0	0.7	3.7	4.4	6.1	0.1	0.0	10.3	4.3	2.2
<b>Special Aggregations:</b>										
<b>Energy</b>	131.4	143.9	127.6	138.2	151.7	155.2	157.5	161.9	151.6	147.3
<i>% change from previous year</i>	1.9	9.5	-11.3	8.3	9.8	2.3	1.5	2.8	-6.4	-2.8
<b>Electricity</b>	108.1	111.4	110.4	122.1	129.0	138.5	141.1	150.4	160.2	167.3
<i>% change from previous year</i>	0.2	3.1	-0.9	10.6	5.7	7.4	1.9	6.6	6.5	4.4
<b>Natural Gas</b>	118.4	126.3	115.4	118.0	112.0	107.0	108.3	115.9	101.4	88.7
<i>% change from previous year</i>	-1.8	6.7	-8.6	2.3	-5.1	-4.5	1.2	7.0	-12.5	-12.5
<b>Fuel Oil &amp; Other Fuel</b>	175.9	220.3	161.8	190.5	232.0	243.6	245.0	252.1	208.7	195.3
<i>% change from previous year</i>	5.1	25.2	-26.6	17.7	21.8	5.0	0.6	2.9	-17.2	-6.4
<b>Motor Gasoline</b>	150.7	169.6	143.9	156.9	180.3	183.2	186.4	186.3	166.7	159.4
<i>% change from previous year</i>	3.8	12.5	-15.2	9.0	14.9	1.6	1.7	-0.1	-10.5	-4.4
<b>All-Items Excluding Food</b>	110.1	112.2	111.2	112.6	114.9	115.9	115.8	116.8	117.4	119.6
<i>% change from previous year</i>	1.5	1.9	-0.9	1.3	2.0	0.9	-0.1	0.9	0.5	1.9
<b>All-Items Excluding Energy</b>	108.4	110.0	111.1	112.0	113.9	115.0	114.9	115.9	117.8	120.4
<i>% change from previous year</i>	1.7	1.5	1.0	0.8	1.7	1.0	-0.1	0.9	1.6	2.2
<b>All-Items Exclud. Alcohol &amp; Tobacco</b>	109.7	112.0	111.9	113.4	116.0	117.3	117.2	118.4	119.6	121.8
<i>% change from previous year</i>	1.8	2.1	-0.1	1.3	2.3	1.1	-0.1	1.0	1.0	1.8
<b>All-Items Excluding Food &amp; Energy</b>	108.2	109.3	109.6	110.3	111.5	112.3	112.1	112.9	114.2	116.9
<i>% change from previous year</i>	1.5	1.0	0.3	0.6	1.1	0.7	-0.2	0.7	1.2	2.4

# Explanatory Notes Regarding Statistics Canada's Consumer Price Index

1. The Consumer Price Index (CPI) is an indicator of the changes in consumer prices experienced by the target population. The CPI measures price change by comparing, through time, the cost of a fixed basket of commodities. This basket is based on the expenditures of the target population in a certain reference period, currently 1996. Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price movements. Separate CPIs are published for Canada, the ten provinces, Whitehorse and Yellowknife. Some CPI information is also available for an additional sixteen cities. Since the CPI is a measure of price change from one time period to another, it cannot be used to indicate differences in price levels between provinces or cities.
2. The CPI is not a cost-of-living index, though people frequently call it this. The objective behind a cost-of-living index is to measure changes in expenditures necessary for consumers to maintain a constant standard of living. The idea is that consumers would normally switch between products as the price relationship of goods changes. If, for example, consumers get the same satisfaction from drinking tea as they do from coffee, then it is possible to substitute tea for coffee if the price of tea falls relative to the price of coffee. The cheaper of the interchangeable products may be chosen. We could compute a cost-of-living index for an individual if we had complete information about that person's taste and spending habits. To do this for a large number of people, let alone the total population of Canada, is impossible. For this reason, regularly published price indexes are based on the fixed-basket concept rather than the cost-of-living concept.
3. The Consumer Price Index (CPI) maintains fixed quantitative proportions (weights) between commodities during the life of a given basket. The baskets are updated periodically to take into account changes in consumer expenditure patterns. In January 1998, the basket reflecting the 1996 expenditure patterns replaced the 1992 basket. The continuity of the CPI series is maintained by 'linking' the corresponding indexes obtained from consecutive baskets. The CPI is calculated as a weighted average of specified commodity price indexes. The weights are derived from Family Expenditure Survey data. When reconstructing or re-aggregating published CPI series, the changes in weights and the linking procedures must be taken into account. For a description of the methodology required to reconstruct or re-aggregate CPI series, see publication 62-553 "The Consumer Price Index Reference Paper".  
For concepts and definitions, see publication 62-557 "Your Guide to the Consumer Price Index".
4. The population targeted by the Consumer Price Index (CPI) consists of families and individuals living in urban and rural private households. For practical reasons, residents of the Territories outside Whitehorse and Yellowknife are not represented by the index. Previous to January 1995, the target population consisted of private households in Canadian urban centres with a population of 30,000 or more.
5. The goods and services that make up the Consumer Price Index (CPI) are organized according to a hierarchical structure with the 'All-items' index as the top level. Eight major components of goods and services make up the 'All-items' index. These eight components are broken down into a varying number of sub-groups which are in turn broken down into other sub-groups, etc.

The eight major categories are:

**Food:** Includes food and non-alcoholic beverages purchased from stores and restaurants.

**Shelter:** Includes rent, insurance premiums, maintenance & repairs, mortgage interest cost, replacement cost, property taxes, and utilities (water, fuel, electricity, natural gas).

**Household Operations and Furnishings:** Includes communications services, child care and domestic services, household supplies, goods and services, as well as furnishings, linens, appliances, utensils, tools, pet expenses and horticultural goods and services.

**Clothing and Footwear:** Includes clothing and footwear for men, women and children, as well as clothing accessories and jewellery, textiles, notions and related services.

**Transportation:** Includes purchase, leasing and rental of private automotive vehicles, operation expenses such as gasoline, parts/maintenance/repair, insurance premiums, fees such as registration, drivers' licences, parking. This category also includes local, commuter and inter-city public transportation (bus, taxi, subway, air and rail).

**Health and Personal Care:** Includes medicinal and pharmaceutical products (including prescriptions), eye care, dental care, personal care such as toiletries and cosmetics and personal care services.

**Recreation, Education and Reading:** Includes recreational equipment, services and supplies (sports, toys, hobbies, computers, photographic), purchase and operation of recreational vehicles, home entertainment equipment and services, travel services, and recreational services such as spectator entertainment, cablevision and the use of recreational facilities. This category also includes tuition fees, textbooks, supplies, lessons, courses and educational services, as well as newspapers, books and magazines.

**Alcoholic Beverages and Tobacco Products:** Includes served and purchased alcoholic beverages and tobacco products and smokers' supplies.