

REQUESTOR NAME: **Terry Vulcano**

INFORMATION REQUEST ROUND NO: **1 – IR1**

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY

DATE: **September 26, 2016**

PROJECT NO: **3698869**

APPLICATION NAME: **BC Hydro F2017-F2019 Revenue Requirements**

1.0 May I please have the consecutive costs for major projects undertaken by BC hydro in the last sixty years?

- 1.1 I am looking for the amortized capital cost and operating cost for each project (e.g. Mica Dam, Bennet Dam, Anticipated Site C costs) and what their resulting KWh rate was for each of the last sixty years.
- 1.2 If the costs and rates could be provided in both costs at the time and in 2016 dollars (or 2015 dollars if available) to allow a comparison over time of changes (likely increases) to the rates?
- 1.3 Might these rates please be graphed and if possible work out an average yearly multiplier for how much the rates increase?
- 1.4 May I also be provided with the number of (residential, commercial and industrial) users for each year from 1955 to 2015?
- 1.5 In addition may I have a calculation of total KWh usage per year by sector (residential, commercial & industrial) along with a chart graphing usage by year along with total revenue per year (a separate graph) by sector?
- 1.6 If available/calculable may I have a graph of usage per user in both KWh and amount billed/paid?

2.0 Thank you.

REQUESTOR NAME: **Terry Vulcano**

INFORMATION REQUEST ROUND NO: **1 – IR2**

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY

DATE: **September 27 2016**

PROJECT NO: **3698869**

APPLICATION NAME: **BC Hydro F2017-F2019 Revenue Requirements**

1.0 Reference: Changes in Consumption Usage

- 1.1 May I please have annual total consumption usage for BC residential, commercial and industrial users for the last sixty years along with average residential and business usages for the same time periods? I am seeking to learn how consumption has changed (increased or decreased) year by year.
- 1.2 May I also please have the Residential and Commercial (and Industrial if different) rates that have been in place the last sixty years?
- 1.3 What percentage of electrical usage is for heating purposes? How does heat by electricity compare with heating by other means (heating fuel, natural gas, wood stoves)?
- 1.4 Might not BC Hydro's mandate for energy consumption efficiency include promoting economical ways to heat (e.g. in house designs and/or use of solar panels)?
- 1.5 When Electricity was first offered for heating, it was taken advantage of – in what cases (percentages) did it end up being higher cost for users?
- 1.6 Whether it is fuel used for heating or electricity replacing running of automobiles there are associated environmental costs. How are the costs calculated? Are hidden costs (e.g. extra CO₂ generated, habitat loss) included in the calculations?
- 1.7 If the providing for alternative uses of electricity was not explored would there not be more capacity to make better use of our electricity now?
- 1.8 What have been the trends in consumption? related to:
 - a) Appliances (fridges, stoves)
 - b) Televisions, radios, stereos
 - c) Washers
 - d) Dryers
 - e) Electricity for heating purposes
 - f) Improvements in energy efficient light bulbs
- 1.9 Have appliances tended to use more per household because of larger size of units or less due to improvements in efficiency of units or a combination?
- 1.10 How successful (in measurable terms) has BC Hydro been in making consumers aware of cost saving approaches?

- 1.11 Has abundant low cost electricity led to larger homes, less efficient homes and larger and possibly less efficient industrial facilities where increasing supply may simply promote irresponsible usage?

REQUESTOR NAME: **Terry Vulcano**

INFORMATION REQUEST ROUND NO: **1 – IR3**

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY

DATE: **September 28 2016**

PROJECT NO: **3698869**

APPLICATION NAME: **BC Hydro F2017-F2019 Revenue Requirements**

1.0 Reference: Two Tier Rate Queries & Power Smart Program

- 1.1 How have power demands changed (if they have changed) since the implementation of the two tier rates for residents (i.e. paying more after a certain amount of usage)? Please provide charts and graphs to show average consumption in each rate tier for ten years prior to the change and since the two tier rate change was initiated
- 1.2 Can BC Hydro show if there has been a decrease in consumption, on the margin? Has BC Hydro noted a reduction in overall Residential Consumption (per household)?
- 1.3 Might not increasing the higher rate tier more than the lower rate tier lead to lower consumption usage (hence less demand)?
- 1.4 Are there two tier rates for Commercial and Industrial users? If yes, please provide details of the rates, including the pricing for each rate tier.
- 1.5 What correlation exists between demand for power and rate increases? Is it inelastic?
- 1.6 BC Hydro has devised programs to improve efficiency and reduce consumption by consumers/users. How effective has the Power Smart Program been? What have been the costs of the program over the last ten years and measured (or estimated) effectiveness of the program (i.e. in decreased consumption)?

REQUESTOR NAME: **Terry Vulcano**

INFORMATION REQUEST ROUND NO: **1 –IR4**

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY

DATE: **September 28 2016**

PROJECT NO: **3698869**

APPLICATION NAME: **BC Hydro F2017-F2019 Revenue Requirements**

1.0 Reference: Electric Cars & Independent and Alternative Sources of Energy & Government Dividends

- 1.1 Why has BC Hydro looked into providing power for electric vehicles? Would this not increase demand? Has there been a study to show that the increased demand would offset energy demand elsewhere and thus have benefits to consumers in the short or longer term (such as less environmental degradation)?
- 1.2 Can BC Hydro show that the environmental costs for powering electric vehicles by electricity would be less than continuing to drill for gas and oil?
- 1.3 BC Hydro has supported independent and alternative sources of energy such as wind energy and run of the river projects. What percentage of power supply by MW and MWh (per year) do these projects represent and what portion of revenue requirements go to each source of generation (wind, small hydro, coal, large hydro, bio mass)? Also please provide the cost per MWh paid for each these resources.
- 1.4 What is the long term strategy for including alternative energy providers toward reducing electric costs and reducing demand?
- 1.5 What portion of Revenue Requirements ROI is retained for future capital investment? What portion goes toward government dividends? How much less would finance charges be if BC Hydro did not pay government dividends? How much sooner could the financial obligations be paid if there were no government dividends?

REQUESTOR NAME: **Terry Vulcano**

INFORMATION REQUEST ROUND NO: **1 –IR-5**

TO: BRITISH COLUMBIA HYDRO & POWER AUTHORITY

DATE: **September 28 2016**

PROJECT NO: **3698869**

APPLICATION NAME: **BC Hydro F2017-F2019 Revenue Requirements**

1.0 Reference: Load Revenue and Forecast and Demand Side Management

- 1.1 Over the last sixty years what has been the reasons power consumption has increased because of new appliances needs (computers, surveillance equipment, upgraded television, internet etc) and how much on account of new users?