



600 Welke Rd
Kelowna
BC, V1W 1A7

September 23, 2016

Laurel Ross
Acting Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3

Re: FortisBC Net Metering Tariff Update Application

Enclosed, please find Final Submission submitted by Resolution Electric Ltd.

Regards,

John Cawley ASCT
Resolution Electric Ltd

johncawley@resolutionelectric.ca
www.resolutionelectric.ca



Opening comment

The Net Metering program success is measured through the level of fairness on the supplier (FBC) and the consumer, this balance is vital to enable cooperation in the transition to a more sustainable future.

Resolution Electric view point is based on what we feel is fair and just for the Utility and for the customer opting for a Net Metering agreement. It is based on 25 year career with various international blue chip Electricity companies along with 9 years working in the renewable sector.

FortisBC is seeking four determination from the Utility Commission of British Columbia, Resolution Electric Ltd view on these four items based on the evidence submitted during the two information request rounds are as follows;

1. With respect to moving from the present calculated import / export power and associated monetary values to a kilo-watt hour (kWh) bank, Resolution Electric is in favor of this change to the current Net Metering program.

Rational

A kWh bank will provide easier billing for FortisBC together with clearer billing information for the customer with less numbers and dollar calculations. It will provide potential cost savings to the customer by allowing the summation of both import and export power before applying the Block 1 and Block 2 tariff. A saving to the customer on Federal tax which is charged on the full amount of the power delivered by FBC, due to tax laws most consumers are unable to charge GST on power exported to FBC and therefore loose out under the present system.

2. With respect to FortisBC wishing to compensate customers who have a net excess generation on an annual basis at the BC Hydro Tranche rate 1 under the 3808 tariff schedule, Resolution Electric disagrees with this request and seeks a fairer compensation level at the FBC Block 1 rate which is presently 9.845 cents / kWh. This would be in line with BC Hydro program which compensates NEG under the Schedule 1289 – Net Metering Service compensating customers out at 9.99 cents / kWh.

Rational

It is projected the majority of Net Metering agreements will be with home owners employing solar electric solutions to offset their own power demands from the grid. It is also understood that FBC are unwilling to identify possible technologies (like micro hydro) which may pose a more detrimental costing impact under the



present FBC billing methodology, FBC go on to state that they are unwilling to change the applicable technology under the current program.

It is recognized that the majority of installations do not pose a concern to FBC and therefore compensation at the Block 1 rate should be paid.

Given that solar electric installation will be the predominant technology adopted under the Net Metering program and given that correlation to power generation to high summer temperatures it is clearly evident and that solar generation during these high temperature periods will help relieve the stresses imposed on the transmission and distribution system.

An additional factor for distributed generation with regard to reducing line losses in the distribution system should be of consideration.

3. Rate Schedule 95 amendments identify areas of the original agreement which is open to a degree of interpretation on what could be deemed electricity requirements. Resolution Electric does not object to these amendments and is satisfied the wording reflects the true intent of the Net Metering program.

Rational

With respect to customers who have installed systems which provide substantial and consistent NEG and who could see a significant monetary value at the Block 2 rate Resolution Electric agree and see FBC concerns as valid. Resolution Electric seeks to understand the customer's power requirements before undertaking any system capacity / designs with the client. We obtain the clients historical metering data, this data enables a suitable system sizing to maximize the benefits of reducing / eliminating the Block 2 rate (which is in line with the BCUC intent of the two tier system).

Customers selecting contractors who may not be fully understanding of this concept is unfortunate, however it is not the fault of FBC. The original intent of the Net Metering program was to offset Electrical Power in kWh and not peak Electrical Power in kW. It may also be viewed rightly or wrongly that an interpretation of the program led to maximizing the system payback, resulting in a system of significant oversize to take advantage of generating power attracting the Block 2 rate. It is ultimately the customer's responsibility to do their due diligence especially for such a large commitment, seeking advice from industry groups like the Canadian Solar Industries Association (CanSIA) could prove beneficial.



4. With respect to The Net Metering methodology FBC is seeking to adopt the kWh bank, Resolution Electric agrees and supports this request. We would like to request the compensation level for NEG should also reflect BC Hydro methodology and be paid out at the Block 1 rate.

Rational

The approach for dealing with excess generation under a Net Metering programs should be consistent as possible across the Province of British Columbia. BC Hydro has a much larger subscriber base for Net Metering and they are not seeing an issue. It is also beneficial to keep the NEG compensation at the Block 1 rate as opposed to the Block 2 rate as this provides a longer payback term for customers, and allows for a more steady adoption rate which is beneficial to utility system planning. Fractional costs between the 3808 schedule and the schedule 95 which are experienced by FBC could be offset using a “go green” scheme similar to the one employed by the Natural Gas side of FBC.

Closing thought

The Power grid has evolved from a centralized town owned generation station which would have powered a town in an islanded mode. These localized generation stations were then linked together to form a power grid, this evolution provided significant efficiencies and system stability. This is the present model and has served well for around 80 years; however it does have inherent reliability risks associated with it. Large Centralized generation stations could be susceptible to natural disasters and alike, the same holds true for large transmission lines.

The next generation utility grid model will employ smart grid technology, demand side management reduction/control capabilities. Integration of distributed generation and battery backup technology with the capability of dispatching generation, this will build stability and provide a self-healing grid. Imbedded gas fired CHP power plants capable of injecting significant power when required will help stabilize the system. This technology is already being trialed in the United States; the next 80 years in the power industry will see a dramatic change in how we run utility power. Let’s hope we are there before the electric car poses too much burden on the grid!

More info see www.solarelectricpower.org