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British Columbia Utilities Commission
Sixth Floor, 900 Howe Street
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Attention: Patrick Wruck, Commission Secretary

Kaslo Senior Citizens' Association of British Columbia, Branch #81 Final Argument
FortisBC Inc 2017 Cost of Service Analysis and Rate Design Application

Executive Summary

1. Setting the Basic Customer Charge (BCC)

Kaslo Senior Citizens' Association of British Columbia, Branch #81 requests that the BC Utilities Commission (BCUC) direct FortisBC (FBC) to set the residential Basic Customer Charge (BCC) at a rate of no more than 100% of those delineated costs as espoused by the rate design-making principles of Garfield and Lovejoy in "The Essentials of Rate Regulation", Pricing Policies, Public Utility Economics, 1964, p 154, as supported by the statement of James Bonbright in Principles of Public Utility Rates, 1961, p 348, and in accordance with, for example, the applied practices of the Washington Utilities and Transportation Commission (WUTC).

Between 1997 and 2017 the actual COSA-determined Customer-Related per Unit Cost per month rose by 79.3%, from \$19.86 to \$35.60. In contrast, over the same twenty year period, the Commission ordered FBC to increase collection of the monthly per customer residential BCC from \$6.67 per month to 16.05 per month, and, if this Commission panel accedes to FBC's application recommendation, this will be ordered to rise to \$18.70 by 2023 (B-27, FBC Response IR#1.1.13, p 30).

In making its decision this Commission panel is asked to consider carefully the fact that the FBC BCC charge ordered set by the Commission has risen at a rate three times faster than the actual increase of the BCC costs to the Company itself, and that BC Hydro residential customers, just 14 km north of Kaslo, only pay 35.4% the amount that an FBC customer does to access their first kWh; a Nelson Hydro residential customer in Balfour, fifteen minutes south of Ainsworth, only pays 48.7% the cost to access that first kWh; and a Puget Sound Energy residential customer, based on the applied principles of Garfield and Lovejoy, under the jurisdiction, for example, of the WUTC, only pays 58.5% the amount to access that first kWh.

2. Retaining Tier 2 Rates with Ramped up Conservation Programs and Different Rates

KSCA#81 asks that the Commission direct FBC to retain the two tier residential billing system with the proviso that any adjustments between Tier 1 and Tier 2 rates be made in accordance with Table 1: RIB Rate Evaluation Criteria, as found in Order G-3-12, and in accordance with the Long Run Marginal Cost (LRMC) evaluation criteria determined in G-3-12, 4.6.3, p 41. And further, KSCA#81 also asks that this Commission panel carefully consider how FBC can be directed to assist residential customers reduce their Tier 2 costs by, for example:

- i. Reinstating the \$2.38 million in residential Demand Side Management (DSM) spending by creating a no interest DSM residential loan program, so that both landlords and homeowners can borrow energy retrofit funds at a repayment cost of up to \$80 per month over ten years.
- ii. Creating a Net Metering (NM) installation loan program (with costs currently as low as \$10,000 per household) to assist residential customers offset winter consumption of Tier 2 electricity at a repayment cost of up to \$80 per month over ten years.

iii. Creating summer- and winter-tiered pricing, as utilized by Idaho Power Company, that takes into account the fact that many remote and rural customers cannot access natural gas or may not want to access natural gas as a part of a conscious effort to lower their contributions to greenhouse gas emissions.

iv. Considering creation of a residential customer pilot project that allows those using above 19,200 per annum to switch from Tier 2 pricing to a flat rate, or some other equally appropriate variant; thus acknowledging, in policy, that some customers are conservation minded but cannot help using more electricity in winter, especially if their only option is electric heat and that they would therefore benefit from having a year round single rate option.

3. An Optional Time-of-Use (TOU) Pricing Pilot Project

KSCA#81, in the interest of creating multiple conservation options, asks this Commission panel to carefully consider directing FBC to introduce a Time-of-Use (TOU) residential pilot project, with the proviso that the Commission continuously monitor implementation of these rates to ensure that energy conservation is the main objective and not FBC increasing the level of profit for the Company, as follows:

Winter and Summer: On-Peak 5.00 PM to 9.00 PM, with Mid-Peak pricing in Summer 3.00 PM to 5.00 PM.
Off-Season, March to June and September to November: On-Peak 5.00 PM to 9.00 PM and Mid-Peak 4.00 PM to 5.00 PM and 9.00 PM to 10 PM.

In proposing the above times, KSCA#81 asks this Commission panel to carefully consider, when setting On-Peak, Mid-Peak and Off-Peak times and their rates, whether FBC's original application recommendations could lead to inter-class and intra-class subsidization. Further, given the small number of actual residential Mid-Peak hours, this Commission panel is also asked to consider, unless FBC is anticipating an expansion in residential class consumption as a whole, whether the need for creation of Mid-Peak pricing for the residential class is needed at this time.

In conclusion, KSCA#81 concurs with the concerns expressed by Mr David De Biasio during the writing of this Final Argument: and therefore asks this Commission panel to carefully consider, when setting any TOU rates, the fact that large numbers of residential customers cannot avoid using electricity during On-Peak hours, and that therefore they should not be financially penalized for accessing electricity at times when they need to. And to also consider that some electricity use, because of the nature of how our society organizes itself, cannot be shifted, and therefore the ability of certain customers to shift their discretionary use of electricity might actually be quite minimal (E-7).

4. 12 CP Versus 2 CP

KSCA#81, in the interests of inter-class fairness and achieving the closest range of reasonableness, requests that the Commission direct FBC to adopt the 12 CP (Coincident Peak) Model, if a greater percentage of the load is closer to 100% alignment with 12 CP than 2 CP. Again KSCA#81 asks this Commission panel to carefully consider whether retaining the 2 CP model does not result in inter-class subsidies arising.

5. Need for a Billing Dispute Ombudsperson and Quarterly Reports to BCUC

In light of ongoing billing issues that have arisen in this hearing and outside this hearing process, this Commission panel is asked to consider whether it is time for all British Columbia utilities to be directed to set up a jointly dedicated billing ombudsperson hotline to assist customers, particularly residential customers, deal with any ongoing lack of service by the utilities concerning correction of billing errors. And further, that this Commission panel consider the need for the Commission to direct each utility to report on a quarterly basis the number of customers, by class, that are in arrears, the amount of those arrears by class, the number of claims by class that have arisen disputing those claims of arrears, the number of claims by class disputing any and all fees and charges, the number of customers by class who have been reimbursed for billing errors, and the amounts involved for which customers by class have been reimbursed, with or without interest.

6. Permanent Lineman for Kaslo and Area D In Accordance with Section 39 of the UCA

In accordance with section 39 of the *Utilities Commission Act* (UCA) KSCA#81 asks this Commission panel to consider how the Commission can assist the Kaslo and Area D portion of the FBC service area to obtain the

permanent full time lineman, based in the community, that was promised would be reinstated in a letter to the Mayor of Kaslo in August 2013, and how the Commission can assist the customers of both FBC and BC Hydro in ensuring the reinstatement of a jointly shared lineman for their respective jurisdictions so that they can have the same level of service offered throughout British Columbia by electrical utilities.

Background to the FortisBC 2017 Cost of Service Analysis and Rate Design Application

Kaslo Senior Citizens' Association of British Columbia, Branch #81, is an organization which tries to represent the interests of retired, aging and sometimes fragile and vulnerable residents of Kaslo and of Electoral Area D in the Regional District Central Kootenay. Many members are on fixed incomes, that at times do not keep pace with the increase in the cost of living, and as such these members and other members in the community on fixed, low and medium incomes have found the increased costs of electrical service extremely difficult to cope with.

While acknowledging the cost of service problems caused to some high end use residential customers by two tier pricing, KSCA#81 believes that FBC has not yet definitively proven that they have done all they can do to assist those customers in implementing appropriate conservation measures. Thus, in the near future, even under a flat rate, the same problem of electricity pricing being too costly will again arise in the older and non-retrofitted homes in Kaslo and Electoral Area D – and thus across the entire FBC service area.

Creating cheaper electricity pricing on the backs of conservation-minded consumers simply pits residential customer against residential customer and fails to address the fact that FBC electricity prices are higher than both BC and Nelson Hydro for a reason. Further, continuing the existence of an isolated pocket of the FBC service area, squeezed between Nelson Hydro to the south and BC Hydro to the north, fails to address the fact that, in the real world, home-based businesses and micro-businesses have to be priced competitively in order to exist. Therefore having the kind of electricity price points offered by FBC, as compared to Nelson and BC Hydro, is a drag on the economy of Kaslo and that part of Area D in the FBC service area.

This cost drag on the Kaslo economy is a factor in: the community having the fourth lowest median income in the Regional District of Central Kootenay, a poverty rate that is nearly double both the provincial and federal levels, and the fact that 1 in 4 of the village's children live below the poverty line. Further, West Kootenay Power, FBC's predecessor, offered the Corporation of the Village of Kaslo a permanent contract to supply the Company with electricity (through micro-hydro production) in 1994. Beyond its own electrical needs, however, the current company shows no inclination to make such an offer, even though section 2 of BC's *Clean Energy Act* (CEA) mandates all utilities:

*“(k) to encourage economic development and the creation and retention of jobs;
(l) to foster the development of first nation and rural communities through the use and development of clean or renewable resources” (Clean Energy Act, section 2).*

If, for example, Nakusp, Hudson's Hope and Kimberley can offset their own electricity costs and sell power to BC Hydro, then, since we all live in the same province and pay the same provincial taxes, KSCA#81 asks this Commission panel to consider why FBC has not and is not being directed to follow the same legislative mandate as BC Hydro. Why, KSCA#81 asks this Commission panel to consider, is FBC being treated differently than BC Hydro when it comes to implementing section 2 of the CEA?

Further, KSCA#81, in response to an FBC letter to the then Kaslo Mayor in 2013, believes that the Commission panel has a public interest responsibility to consider why FBC should be allowed to offer a different level of lineman service to Kaslo and Area D than is offered to all other portions of the FBC service area, in conjunction with a lower level of service being offered by BC Hydro to their Lardeau Valley Service Area (Exhibit 19, FBC to Mayor of Kaslo, August 23, 2013).

In accordance with section 39 of the UCA, KSCA#81 members strongly object to paying the same electrical service rates as the rest of the FBC service area while receiving a lower level of service. Dispatching lineman by FBC from Castlegar, and by BC Hydro from Nakusp or Vernon, is totally unacceptable, especially in winter when the road from New Denver to Kaslo and from Balfour to Kaslo is frequently cut off by avalanches, and even more frequently cut between Kaslo and Cooper Creek (Meadow Creek, Howser, Argenta and Johnson's Landing).

In this context KSCA#81 observes that various customer groups have been asking the BCUC to arrange a visit to Kaslo to discuss the ongoing issues that are arising with FBC's lack of service for over two years. In response to the current impasse, KSCA#81 believes that it is not in the public interest for either FBC or BC Hydro to try to

service their respective customers remotely, when, previously, they shared a joint contract to employ a single lineman for both service jurisdictions in accordance with the requirements of section 39 of the UCA.

As a result of the ongoing poor service and continuing higher prices, KSCA#81 believes that there is a growing segment of the Kaslo and Area D population that are no longer interested in being customers of FBC, with the BC Hydro service option being considered, alongside the idea of the community simply generating enough electricity to cover its own needs.

While we look to the BCUC to act in our public interest, KSCA#81 believes that the community's patience is growing extremely thin and that some customers are more and more tempted to invoke section 101 of the *BC Utilities Commission Act* (UCA) so that the community can try to obtain redress from either the BC Supreme Court or Court of Appeal, as it is simply unacceptable for the BCUC to allow the current situation to continue unaddressed year after year.

Two Tier Versus Flat Rate

KASCA#81, while not unsympathetic to the pricing issues raised, believes that Anarchist Mountain Community Society/Regional District Okanagan Similkameen (AMCS/RDOS) makes two unsubstantiated claims in their response to Intervener Requests (IR) from both the British Columbia Old Age Pensioners Organization (BCOAPO) and British Columbia Sustainable Energy Association-Sierra Club of British Columbia (BCSEA/SCBC) when they first state that:

"The per-unit cost of serving higher consumption customers is generally lower than that of serving lower consumption customers. As long as the Declining Balance Rate or the fixed Customer Charge appropriately reflects that cost differential, there is no undue price discrimination" (C3-11 AMCS/RDOS Response to BCOAPO IR#1.2.1).

Following on from this unsubstantiated claim, AMCS/RDOS then further claims that the Two Tier rate has caused a massive intra-class transfer of costs within the residential class when they state that:

"Many of the customers who will experience a rate increase due to the elimination of the RCR [Residential Conservation Rate] have, for the last 6 years, enjoyed 'the benefit of a relative bill reduction without having made any effort towards conservation behaviour' (FBC 2013 RIB [Residential Inclining Block] Evaluation Report, p 31). These customers are free riders who have benefited from millions of dollars in cross-subsidies due to the RCR's flawed design. Since they have received the benefit of paying less than their fair share of the costs for six years, it is fair for them to start paying their fair share at the start of 2019" (C3-13-AMCS-RDOS Response to BCSEA-SCBC-IR#1.7.2).

In fact, KSCA#81 believes that there has been absolutely no supporting evidence to substantiate either claim. To the contrary, KSCA#81 refers the Commission panel to the response of BCSEA to BCOAPO, in which it is noted that, in the 2009 Rate Design Application (RDA) decision, Order G156-10, the Commission panel of that time found that:

"Mr. Shadrack demonstrates by way of his own consumption data that a higher basic charge actually favours higher consumption customers to the disadvantage of low consumption customers, rather than providing an incentive or a price signal to conserve" (C2-9 IR#1 5.1).

Further, when KSCA#81 specifically asked *"Does AMCS/RDOS believe that the Commission panel made either an error in fact or law in directing FortisBC to incorporate a 'lower Basic Charge' into the RIB rate application?"*, they responded in part by stating that:

"AMCS-RDOS has no view as to whether the Customer Charge was set at the appropriate level in 2012, whether it is currently at its appropriate level or whether it should be increased to FBC's proposed new level" (C3-14 IR#1.4.i., p2).

And in fact AMCS/RDOS goes on to acknowledge that:

"...raising the Customer Charge at the same time as FBC returns to a flat rate structure could impair the understanding of customers of the benefits of an immediate termination of the RCR and hence lower customer acceptance. To reduce this risk, FBC could postpone consideration of increases to the Customer Charge to a

future rate application" (Ibid).

KSCA#81 therefore believes that if this current panel believes that the decision made by the then Commission panel in G-156-10 was correct, then the claim of AMCS/RDOS of a massive intra-class subsidy within the residential class should be dismissed accordingly, as should its claim that it costs less to service high end customers than it does low end ones. This is an assertion that KSCA#81 will refute later on in this Final Argument.

Clearly FBC set the Tier 2 rate as a residual of first freezing the BCC, as so ordered in G-156-10, and as a result of setting the Tier 1 rate thereafter. If any error occurred, and KSCA#81 does not believe that it did, then that error would have occurred in the setting of the Tier 1 and Tier 2 rates in Order G-3-12.

As the then Commission panel found in Order G-3-12:

"FortisBC states that the Customer Charge under the Rate Schedule (RS) 01 was forecast to be \$28.93 per two-month billing period effective May 1, 2011. This number became the starting point for the RIB rate design work. FortisBC points out that at its current level the Customer Charge collects 'just under 44 per cent of the amount required by strict adherence to cost causation principles.' FortisBC further states that, as the Commission has determined the proposed RIB rate will include a reduction in the Customer Charge, the level at which it will be ultimately set becomes somewhat arbitrary" (G-3-12, 3.2, RIB Rate Scenarios Proposed, p 12).

To the contrary of FBC's argument that the setting of the RIB rate was "*somewhat arbitrary*", Table 1 of the Commission's decision lays out, in G-3-12, clear "RIB Rate Evaluation Criteria", and KASCA#81 therefore believes that this panel should uphold these criteria as the correct basis for the RIB rate design in G-3-12 and beyond (G-3-12, Table 1: RIB Rate Evaluation Criteria, p 13).

The Commission panel then determined, in response to BCOAPO's objection to the setting of the Tier 2 rate:

"The Panel notes that while the BCOAPO does not appear to object to the notion of a RIB rate, it does not agree with the RIB rates as proposed because the Block 2 rate is not significantly below the LRMC and could potentially exceed it in the near future.

"The Panel does not agree with this assessment for the reasons given in Section 4.6.3, where we discuss the relationship between FortisBC's LRMC and the approved RIB rate option in more detail" (G-3-12, 4.1.4, Commission Determination, p 22).

Again, in relation to the argument made by AMCS/RDOS, other interveners and FBC's current Application, this Commission panel, in the opinion of KSCA#81, needs to find and state clear reasons as to why it would make a decision different from the one made by the panel in G-3-12.

As the Commission panel found in G-3-12:

"In FortisBC's RIB rate proposal, the Customer Charge is also a determinant of the Block 1 and Block 2 rates. This is because the rates are determined by first selecting a Customer Charge, a threshold, and an allowable customer bill impact, and then finding the unique combination of Block 1 and Block 2 rates that collects the required revenue" (G-3-12, 4.2, Customer Charge, p 24).

Finally, in 4.6.3, the Commission panel found that:

"FortisBC has provided no further information about the cost to deliver this additional energy acquired from market purchases or new resources. Accordingly, the Panel finds that there is insufficient evidence to support the position of the BCOAPO that there is...no need for FortisBC to implement a RIB rate in order to send the proper price signals to customers" (G-3-12, 4.6.3 Commission Determination, p 41).

The Commission panel then went on to determine that:

"...FortisBC is directed to provide an update of the full long-run marginal cost of acquiring energy from new resources, including the cost to transport and distribute that energy to the customer as part of the reporting to be submitted in 2014" (G-3-12, 4.6.3 Commission Determination, Ibid).

Therefore FBC's Application to return to a single tier rate should be dismissed in its entirety, unless this Commission panel finds that there are facts or reasons at law why the two tier rate as established under G-156-10 and G-3-12 should be changed. To be absolutely blunt, KSCA#81 believes that it has found no merits in the case that FBC has put forward in this Application that would require the Commission panel to order FBC to return to a single tier rate.

What KSCA#81 does support is this Commission panel making a determination as to whether the Tier 1 and Tier 2 rates need to be adjusted in accordance with the previous Commission determination in 4.6.3 of Order G-3-12.

Further, the only basis on which KSCA#81 would be prepared to even consider a return to a single tier rate is if this Commission panel was prepared to order FBC to eliminate any and all costs within the BCC that went beyond the principles outlined by Garfield and Lovejoy, namely that the BCC should only include:

"...the expenses of meter reading, billing, collecting and accounting, and the costs associated with such company property as metering equipment and service connection" (Garfield, Paul J and Lovejoy, Wallace F, "The Essentials of Rate Regulation", Pricing Policies, Public Utility Economics, Prentice Hall, 1964, p 154).

Consequently, KSCA#81 believes that the utilization of these billing principles as applied by the WUTC are correctly stated as follows:

"...The basic customer method does not allow any fixed costs related to the distribution, generation, or transmission of electricity. It is solely related to billing and metering" (Exhibit 23, Email correspondence with Jason Ball, Deputy Assistant Director, Energy Resource Economics & Reliability [ER2], Washington Utilities and Transportation Commission).

KSCA#81 will speak to this issue further in this Final Argument under **Ramping up the Cost of the Basic Customer Charge**. In the interim KSCA#81 asks this Commission panel to consider the findings of the Commission panel in the issuance of Order G-5-17, after the hearing into the British Columbia Hydro and Power Authority 2015 Rate Design Application:

"BC Hydro chose to model a revenue neutral flat rate noting that this rate is more efficient economically. However, this option would result in a loss of conservation benefits and have significant bill impacts to customers. Conservation savings would likely be reduced due to the fact that most customers would face a reduction in their marginal price relative to the RIB rate. With respect to customer bill impacts, under a flat rate bills would go up for most customers (70 percent and 41 percent would experience bill impacts greater than 10 percent and 20 percent) with only 18 percent better off under this rate" (G-5-17, British Columbia Hydro and Power Authority 2015 Rate Design Application, 3. Residential rates, p 7).

Next this Commission panel is asked to consider that, in March of 2017, in its Report to the BC Government on the impact of Inclining Block Rates, the Commission determined:

"BC Hydro states that only a minority of its low-income customers have experienced high bill impacts under the RIB rate compared to a flat rate. Specifically, BC Hydro estimates that 1 percent of low-income customers experienced high (i.e. greater than 10 percent variance) bill impacts moving from flat to RIB rates, whereas 88 percent of low-income customers are better off under the RIB rate. Conversely, if BC Hydro returned from the RIB rate to a flat rate, 72 percent of low-income customers would see an increase of over 10 percent" (2.0 Question 1 - Do the residential inclining block rates cause a cross-subsidy between customers with and without access to natural gas service?, British Columbia Utilities Commission Report to The Government of British Columbia on the Impact of BC Hydro and FortisBC's Residential Inclining Block Rates REPORT March 28, 2017, p 11).

Finally, this Commission panel is asked to consider that in this same Report the Commission also determined, of the position of AMCS/RDOS's expert, that:

"The Commission also disagrees with the general characterization that Marty places on the impacts of the RIB rate, noting that the majority of low-income customers benefit from the RIB rate compared to the flat rate. The Commission also placed more weight to the Utilities' bill analysis than that provided by Marty as the Utility analysis is based on actual customer profiles" (Ibid, 13).

And in conclusion this Commission panel is also asked to consider the determination of the Commission in this Report that it:

"...does not find that the RIB rate causes a subsidy between customers in areas with or without access to natural gas, and hence there is no compelling reason to consider restructuring the RIB rate on that basis" (BCUC RIB Report, p9).

Rising Electricity Costs as a Component of Tier 1 and Tier 2 Pricing

Completely absent from the AMCS/RDOS evidence and FBC's Application to change to a flat rate is any acknowledgement of the role that overall pricing of electricity is having within the Company's service area.

As found from evidence provided by KSCA#81 in Exhibits 5 and 25, first West Kootenay Power rates between 1973 and 1993, and then provincial electricity rates in general between 2008 and 2017, were found to be rising faster than the BC Consumer Price Index (CPI) (C4-4 and C4-11). In fact province-wide electricity prices rose 55.6% between 2008 and 2017, while that for natural gas declined by 26.2%. Corroboration of these price increases were found in parallel as per data compiled for a current Kaslo NM household between 2006 and 2023 (Exhibit 14).

Thus, when AMCS/RDOS compares the price of electricity with that for natural gas, they completely fail to acknowledge the change in market pricing, regulated or otherwise, for these two commodities. Thus the change in differential between natural gas and electricity for heating cannot be blamed on the introduction of RIB rate pricing, as all RIB rate pricing does is set the manner in which electricity production, purchase, transmission and distribution costs are paid for, not the overall amount that must be collected from any and all customers of an electric utility.

Further, it is extremely unfortunate that FBC has been so defensive around discussing the fact that its residential electricity prices are so much higher than either BC or Nelson Hydro. Perhaps, in hindsight, the manner in which KSCA#81 first raised this issue did not help advance the discussion that is needed to be held in this matter.

That said, the truth is that, outside of Kelowna, with 71,222 customers, the next largest community served by FBC is Oliver at 5,944 customers, followed by Osoyoos 5,522, Creston 5,091, Trail 5,053 and Castlegar 4,854 (Email from Corey Sinclair 12/10/2018). While Penticton, Summerland and Nelson are all larger populated wholesale communities at 33,761, 11,615 and 10,230 respectively, FBC has higher transmission and distribution costs as a result of its service area residents being more rural and living in much smaller communities than those serviced by BC Hydro.

Under a policy of postage stamp rates, the concentration of large urban populations in Vancouver, the Lower Mainland and Greater Victoria helps offset the cost of BC Hydro delivering electrical service to remote and rural communities on Vancouver Island and the Interior.

In that context KSCA#81 again observes that AMCS/RDOS as an Intervener, and FBC in their Application, do not acknowledge that the higher cost of Tier 2 rates is in part a function of the overall higher cost of delivering electricity to a semi-remote rural community like Anarchist Mountain, without the ability of having a Vancouver, Lower Mainland and Greater Victoria service population to offset those distribution costs. Further, KSCA#81 asks the Commission to consider whether, if persons choose to live on top of a mountain in a remote area away from natural gas supplies, other residential customers should subsidize high end electricity use, because it is impossible to deliver natural gas to that community?

Regardless, however, at some point in the near future, unless FBC can keep its residential service rates within a range of reasonableness, as compared to BC and Nelson Hydro, there may have to be a conversation about FBC shedding its residential customer load because the cost of residential electricity has become too high for residential customers within the FBC service area to bear.

That, however, is a conversation for a different hearing in which KSCA#81 believes that FBC residential customers should have the option to switch to BC Hydro in order to obtain a better, and the same, province-wide residential postage stamp rate as BC Hydro customers (E-10, E-11-1, E-16, E-17).

How Can the Cost of Tier 2 Rates, Especially in Winter, be Ameliorated?

From the outset KSCA#81 wishes to acknowledge that the concerns expressed by AMCS/RDOS, the Village of Kaslo, other Interveners, and residential customers in general, about the cost of electricity is valid and corroborated by KSCA#81's own anecdotal findings as instanced by the letter of comment filed by the Kaslo Food Hub (E-20).

That said, increasing the cost of the BCC and transferring Tier 2 costs to Tier 1 residential customers by flattening electricity rates only serves to financially penalize low end use customers, many of whom also happen to be low income customers as well. As noted by the letters of comment from Ms Braun and the Sherwoods, those residential customers who have undertaken energy savings retrofits so that they can lower or eliminate Tier 2 costs will definitely be penalized by the FBC's Application to re-introduce a single tier rate, if it is approved (E-5, E-8 and E-22).

KSCA#81 observes that, as found by the Commission panel in G-3-12, while:

"Mr. Shadrack does not specifically address the linkage of the RIB rates to conservation. However, he does make several observations related to the introduction of the RIB rate, including:

"the Commission needs to set an inclining block rate with clear hard targets and a mechanism to get there." (Shadrack Final Submission, p. 1).

"any inclining block rate design...should allow the customer to recoup the cost of investing in energy efficient devices in a timely manner." (Shadrack Final Submission, p 2).

*"the introduction of an inclining block rate, in and of itself, must be accompanied by clearly focused DSM [Demand Side Management] programs that compliment *sic+ the inclining block rate (Shadrack Final Submission, p. 3)" (G-3-12 4.8.2, Intervener Submissions, p 48).*

In regard to DSM rebates, KSCA#81 observes that the largest rebate programs offered on the FBC website for Kaslo are for natural gas, which is not applicable as there is no natural gas availability in that community, and the second largest rebates are for heat pumps:

(<https://www.fortisbc.com/Rebates/RebatesOffers/Pages/Results.aspx?type=homes&city=Kaslo>).

In contrast the biggest problem that KSCA#81 has heard about is seniors and others facing heating bills in the winter upwards of \$1,000 per month and more when using electric heat and/or a combination of electric and wood heat. Unfortunately FBC does not offer an adequate home energy retrofit program for either landlords or homeowners, as whole house insulation DSM programs of around \$3,000 simply do not cover current costs of retrofitting older homes

(<https://www.fortisbc.com/Rebates/RebatesOffers/HomeRenovationRebatesPost/Pages/default.aspx>).

If this hearing is about Cost of Service Analysis (COSA), this Commission panel, KSCA#81 believes, should consider directing FBC to address the customer cost of conservation versus the cost of customers supporting FBC-purchase of more electricity and paying the additional cost of transmitting and distributing that electricity – in effect simply allowing the Company to hold out its hand and yet again to ask for more money from the ratepayers for absolutely no improvement in service.

Likewise, completely missing from this Application, especially given the pinpoint accuracy with which FBC can now determine which households, thanks to smart meters, are high end electricity consumers in winter or summer, is any statistical social scientific data stating what percentage of high end customers have undertaken an array of conservation measures.

In contrast FBC in its 2014 RCR Information Report concluded that:

“The RCR is delivering conservation results of between 36 and 46 GWh, or 2.6-3.3% of total system requirements” (Residential Conservation rate, Information Report for the Period July1, 2012 to June 30, 2014, November 28,2014, at Exhibit b-12, Attachment 1.2 pdf, p 77).

And further FBC found that:

“For comparison purposes, the system-wide savings expected from FBC’s DSM programs are 14 GWh (1%) for 2014 and 22 GWh (1.6%) for 2015” (Ibid p 20, pdf p.101).

Instead of drilling down on those results in this Application, what Interveners are provided with by FBC is a lacklustre argument that after x number of years the company “feels” that the “low hanging fruit” has been gathered when it comes to conservation, and therefore they should be allowed to abandon two tier pricing. And yet during deliberations in G-156-10, the Commission panel found that FBC promised that “...after the implementation of AMI [Advanced Meter Infrastructure FBC would]... determine the extent to which education and real-time consumption information can best influence customer conservation behaviour” (Exhibit B-1, p. 24).

In effect FBC, in this hearing, makes a definitive case for introducing TOU rates using, in part, AMI meter data, but then asks the Commission panel to rubber stamp a proposal to abandon two tier pricing without offering any rigorously collected data or information to prove that two tier pricing is not working and cannot work because all residential customers have maximized their conservation efforts already.

In contrast, in G-3-12, the Commission panel gave FBC clear instructions to monitor the LRMC of the second tier of electricity pricing, including the cost of delivery, and it therefore behooves this Commission panel to instruct FBC to undertake an appropriate and long term study as to what percentage of customers still need to undertake conservation measures and how they could be assisted financially to do so, as compared to FBC simply throwing up its hands and abandoning two tier pricing, and instead opting to purchase or produce ever more electricity contrary to the requirements of section 2 of the CEA.

If this Commission panel agrees with the previous Commission panel’s directive to FBC, as stated in G-3-12 at 4.6.3, then it should hold the Company’s feet to the fire on this issue, or else this Commission panel needs to lay out the facts and legal requirements for setting a new course of action, with a clearly delineated alternate path to follow (G-3-12, 4.6.3 Commission Determination, p 41).

At the current time, for example, KSCA#81 is aware of one senior couple who were initially required to pay 12.1% of their gross monthly income in an FBC Equal Payment Plan, that this amount was then ramped up to 31.5%, then dropped to 23.8% and has most recently been dropped to 19.5% per month, before rent and food are taken into consideration. That is how outrageous FBC electricity costs have become for some fixed income residents in the Kaslo and Area D portion of the service area, in part as a result of FBC failing to offer adequate DSM programs that would retrofit older homes.

What KSCA#81 asks this Commission panel to carefully consider, as the public interest face of utility policy in British Columbia, is: when is FBC going to be ordered to address this growing problem? Or is this Commission panel simply going to allow electrical utilities Equal Payment Plan amounts for residential customers on fixed incomes to eat up twenty percent, a quarter, or even a third of their gross monthly income, because that, KSCA#81 believes, is what will happen if FBC is ordered to implement the 2017 Cost of Service Analysis and Rate Design Application recommendations currently before this Commission.

The choice before this Commission panel really boils down to two quite stark options, in which it is believed by KSCA#81 (and as the Shadrack/Bauman household, for example, has proven) that it is possible to radically

reduce electrical grid consumption through a series of conservation measures, and therefore it should be quite feasible for FBC to appropriately survey its high, medium and low end residential customers to determine which ones have or are implementing conservation measures, and why or why not they are doing so.

Thereafter the Commission should direct FBC, KSCA#81 believes, to come back to them with a plan of action based on a clear knowledge of what some of its residential customers have done to ameliorate the high cost of the Company's electricity. Only when that kind of in-depth survey has been properly undertaken can the concerns being expressed by AMCS/RDOS, the Village of Kaslo and others be addressed with the right corporate measures and responses to customer concerns and experiences.

FBC stating that it believes that x, y and z has been done is not the same as definitively knowing what percentage of its customer base has done x, y and z. The whole purpose of introducing smart meters, KSCA#81 believes, was so that FBC could guide its customers towards electricity consumption conservation awareness, and yet the current intervenors have no clear stats from the Company to show that progress is being made at a per customer consumption level. Why not, KSCA#81 asks the Commission? Why has the Company been allowed to completely fail in providing the Commission with the appropriate data it asked for?

The fact that certain high end and Tier 2 customers are paying for electricity at prices they cannot afford is not in dispute. Further, KSCA#81 believes, given the rate at which electricity prices are rising, and are likely to continue rising, FBC reaching for the easy solution of lowering Tier 2 prices back to a flat rate only delays the inevitable for a few years, and does absolutely nothing to assist any of these customers in reducing their consumption levels through appropriate conservation measures.

Given a recent survey that indicates that one in three BC vehicle owners believes that their next purchase will be an electrical one, the likelihood of residential customers not finding themselves in a highly competitive market for purchase of the available electrical supply in the upcoming decade is slim to none. That is why KSCA#81 believes that ramping up access to conservation, not reducing electricity pricing, is the key to making available grid market electricity spread to more uses. And in this context KSCA#81 observes that, in G-3-12, the Commission panel found that:

"Mr. Shadrack also comments that if the Commission does not lower the Customer Charge, then it must direct FortisBC to address how it would ensure that those who reduce their electrical consumption, under an inclining block rate, are not going to end up being financially penalized" (G-3-12, 4.2.2 Intervener Submissions, p25).

Abolishing Tier 2 pricing in 2018 and raising the BCC as FBC proposes in this Application does precisely what Mr Shadrack warned the Commission should be avoided. If the Commission panel was right, in both G-156-10 and G-3-12, in setting the course of action it chose, this Commission panel needs to either continue to support that course of action or set out both the facts and law that would see it order FBC to turn back the clock to a situation that existed prior to either Orders G-156-10 and G-3-12 being issued.

The Commission panels in G-156-10 and G-3-12 clearly found that Bonbright principle 3 trumped Bonbright principle 2 as a matter of fact, with regard the need to maintain a conservation ethic. Whereas FBC, both previously and in this Application, has tried to obfuscate that reality of the two Orders by pretending that it did not understand why it was setting the Tier 2 rate at the level it was so ordered to.

While reversing such a decision is possible under section 99 of the UCA, such an action, if not accompanied by a clear factual reasoning, or stating that an error in law occurred in the rendering of G-156-10 or G-3-12, runs the risk of an appeal to the Supreme Court or Court of Appeal under section 101 of the UCA.

To date, however, neither FBC nor AMCS/RDOS have made any case whatsoever that an error in fact or law was made in the ordering of G-156-10 and G-3-12. Therefore two tier pricing should stand with the caveat that FBC should be ordered to modify that price point spread in accordance with the tests laid out in Table 1 of the "RIB Rate Evaluation Criteria" (G-3-12, Table 1: RIB Rate Evaluation Criteria, p 13).

In the above context KSCA#81 asks this Commission panel to carefully consider the determination of the Commission in its Report to the BC Government in March 2017 on the impact of Inclining Block Rates:

“FortisBC’s position is that the current regulatory environment is supportive of additional DSM programs, including low-income programs (as long as they are cost effective)...The Commission agrees with FortisBC, but also notes concern raised by the Commission in previous proceedings that FortisBC’s DSM proposals fall short of addressing the range of DSM possibilities that could be pursued. For example, although FortisBC proposed spending on low-income DSM programs increased by 44 percent for 2017 (from \$0.95 million to \$1.37 million), proposed spending on other residential DSM programs decreased by 44 percent (from \$2.38 million to \$1.35 million), with a 19 percent decrease in residential DSM funding overall” (Opcit, p28).

KSCA#81 therefore believes that while the Commission has acknowledged that FBC is not spending enough on residential DSM programs, it has to date completely missed an opportunity to, for example, direct FBC to promote its NM program as part of a suite of conservation options for heavy use Tier 2 customers. This NM program, KSCA#81 believes, would allow some customers to transfer excess electricity to FBC during the spring, summer and fall, alleviating heavier Tier 2 winter use electrical costs. Further, with the rise of wood fuel pricing to \$300 per cord or higher, electric heating is once again becoming viable in non-natural gas areas, and again the NM program could be used to assist residential customers switch from wood to electric heat.

That said, KSCA#81 acknowledges the correctness of the AMCS/RDOS position that, without natural gas, certain low income high end electric heat customers lack an ability to choose cheaper options for heating. Not having a no interest DSM or NM loan program leaves low income residential customers in particular, without any options for offsetting very high Tier 2 costs.

What KSCA#81 does not believe is a correct policy to support is a lowering of Tier 2 rates or elimination of Tier 2 rates altogether, such that all Tier 1 customers are forced to return to the same rate structure that existed prior to the issuance of Orders G-156-10 and G-3-12. KSCA#81 therefore asks the Commission panel to carefully consider whether such adoption would be contrary to the spirit and letter of the law as described in the suite of objectives found in section 2 of the CEA.

Abolishing Tier 1 and Tier 2 pricing altogether, KSCA#81 believes, would be a huge step back in terms of developing a conservation ethic among residential customers, without the Commission carefully considering whether such adoption would be contrary to the spirit and letter of the law as described in the suite of objectives found in section 2 of the CEA. KSCA#81 therefore requests that this Commission panel carefully consider how FBC can be directed to assist residential customers reduce their Tier 2 costs by, for example:

- i. Reinstate the \$2.38 million in residential DSM spending by creating a no interest DSM residential loan program, so that both landlords and homeowners can borrow energy retrofit funds at a repayment cost of up to \$80 per month over ten years.
- ii. Create an NM installation loan program (with costs now as low as \$10,000 per household) to assist residential customers offset winter consumption of Tier 2 electricity at a repayment cost of up to \$80 per month over ten years.
- iii. Create summer- and winter-tiered pricing, as utilized by Idaho Power Company, that takes into account the fact that many remote and rural customers cannot access natural gas or may not want to access natural gas as a part of a conscious effort to lower their contributions to greenhouse gas emissions.
- iv. Consider creating a residential customer pilot project that allows those using above 19,200 per annum to switch from Tier 2 pricing to a flat rate, or some other equally appropriate variant, thus acknowledging, in policy, that some customers are conservation minded but cannot help using more electricity in winter, especially if their only option is electric heat.

Ramping up the Cost of the Basic Customer Charge

FBC, in their submissions to the Commission in 2009, stated that approximately 44% of their determined customer costs were being collected through what KSCA#81 describes as a Basic Customer Charge (BCC). In their Final Submission for the 2017 Cost of Service Analysis and Rate Design Application, FBC states:

“The MSS [Minimum System Study] methodology was also used by FBC in the 2009, 1997 and 1982 RDA processes. In the BCUC’s most recent decision on FBC rate design, in this regard the Panel accepted the classification of distribution system costs related to poles, conductors and transformers based on the minimum system method” (Final Submission, para 34, p 8).

In response KSCA#81 would state that what the Commission allows or directs a utility to do in one era is not necessarily the right approach in another, and just because other utilities use the MSS methodology does not mean that it is the right one to use in the FBC service area in 2018.

In contrast to FBC, KSCA#81 believes that the Commission should strictly limit customer related costs to those directly related to the amortized capital cost of a smart meter, the cost of reading a meter, computing the information and billing the customer, and any additional capital, fixed and variable costs associated with servicing that customer’s account. That said, KSCA#81 believes that any distribution-related costs in the form of “poles, conductors and transformers” should be stripped away from the true customer related costs, as they are in fact capacity or demand related costs that more properly belong in the energy portion of a residential customers bill.

And, in fact, the Commission found, in its March 2017 Report on Residential Inclining Block rates to the BC Government, that:

“FortisBC uses a minimum system approach to classify distribution costs as related to either peak demand or the number of customers. This approach reflects FortisBC’s philosophy that the system is in place in part because there are customers to serve throughout its service territory, and that a minimally-sized distribution system is needed to serve these customers even if they only use 1 kWh of energy per year. The Commission considers that this approach may result in more costs being allocated to small-use FortisBC customers (and hence fewer costs to high-use customers) than the approach used by BC Hydro (where distribution costs are primarily allocated based on demand)” (Opcit, p 5).

Further, initially when KSCA#81 utilized the decisions of the WUTC concerning allowable BCC residential customer costs, KSCA#81 did not fully understand the theoretical and philosophical stance underlying the WUTC orders, as espoused by Garfield and Lovejoy and supported by Bonbright (emphasis underlined):

“... the inclusion of the costs of a minimum-sized distribution system among the customer related costs seems to me clearly indefensible...the fully distributed cost analyst dare not avail himself of this solution, since he is the prisoner of his own assumption that ‘the sum of the parts equals the whole.’ He is therefore under impelling pressure to ‘fudge’ his cost apportionments by using the category of customer costs as a dumping ground for costs that he cannot plausibly impute to any of his other cost categories” (Bonbright, James, Principles of Public Utility Rates, 1961, p 348).

Therefore, in its Final Argument, KSCA#81 wishes to restate its case based on the principles outlined by Garfield and Lovejoy, and as illustrated by the decisions of the WUTC. The WUTC statements and orders referred to by KSCA#81 in this hearing are examples of how the principles of Garfield and Lovejoy might be applied to the FBC service area situation (C-4-11 and C-4-13). In this context, as previously stated by Mr Shadrack during the hearing that led to Order G-156-10 being issued, KSCA#81 continues to believe that, with the exception of the period after issuance of G-3-12, the BCC price or value has risen at the same rate as electrical charges. There is, however, in the opinion of KSCA#81, absolutely no correlation between energy price costs and the cost of a basic BCC, and therefore KSCA#81 believes that residential customers have been overcharged on the BCC for at least 36 years.

In matter of fact, if one adheres to the principles outlined by Garfield and Lovejoy, the basic BCC should only consist of:

“...the expenses of meter reading, billing, collecting and accounting, and the costs associated with such company property as metering equipment and service connection” (Garfield, Paul J and Lovejoy, Wallace F, “The Essentials of Rate Regulation”, Pricing Policies, Public Utility Economics, Prentice Hall, 1964, p 154).

Further, costs associated with the BCC should actually have gone down with the installation of smart meters, as the cost of meter reading should now be minimal, particularly for the residential class, as collection of billing data has all been automated. Unless FBC can show that the increased capital cost of a smart meter offsets the reduction in the labour cost of meter reading, BCC costs should have dropped quite considerably between the issuance of Order G-3-12 and 2018.

Thus the only way for FBC to justify increasing the cost of the BCC is for it to increase the percentage of the costs collected through this fee or charge. KSCA#81 observes that both BC Hydro and the Commission rejected this proposition, as stated in order G-5-17 (underlining added for emphasis):

“Moreover, 45 percent of customer-related costs are recovered through the basic charge, which is similar to other jurisdictions. From the standpoint of stability and practicality, BC Hydro states that the simple two step RIB rate has been in place since October 2008, and sends a clear price signal that both higher consumption costs more and conservation reduces your bill. BC Hydro rated all of these principles at a ‘Good’ performance rating and most stakeholders agreed with this assessment and support the RIB rate when compared to other alternatives” (G-5-17, BC Hydro and Power Authority 2015 Rate Design Application, p 18).

The Commission panel then found in *“Adjust the level of cost recovery of the basic charge”* that:

“BC Hydro proposes no increase to the basic charge cost that currently recovers 45 percent of customer-related costs. BC Hydro chose not to recommend increasing the basic charge in spite of the fact it would provide a closer relationship between fixed cost elements and rate elements because customer bill impacts would be higher for low use customers (including low-income customers) if the rate were increased” (Ibid, p 18).

Then, under *“RIB rate principles”*, the panel in G-5-17 further determines that:

“...increasing the basic charge will result in a closer relationship between fixed costs and rate elements but it will also result in higher costs for low use customers. If the basic charge were decreased the opposite would occur with a diminished relationship between fixed costs and the basic charge. The Panel sees the issue as one of balance and does not consider there to be a compelling case for change as the basic charge is currently in a range similar to other Canadian utilities” (Ibid, p 22).

What, precisely, has changed, this Commission panel is asked to carefully consider, between the BC Hydro decision in G-5-17 in January, 2017 and FBC filing its 2017 Cost of Service Analysis and Rate Design Application, to cause the Commission to change the merits of its position on the BCC not rising above 45% of fixed costs?

Further, given that FBC and BC Hydro use exactly the same AMI equipment, and therefore likely expend the same costs to collect energy consumption data and bill their customers, KSCA#81 would ask this Commission panel to carefully consider the exact merits of a cost differential in the BCC between BC Hydro and FBC of between approximately 18.99 cents per day versus 52.75 cents – the latter which could rise to 61.46 cents per day for FBC residential customers by 2023 (Exhibit 8). And to also carefully consider that in a 60 day billing period the cost difference between a BC Hydro residential customer is \$11.39, and that for a Nelson Hydro one \$15.63, as compared to \$32.09 for an FBC one – the latter which will rise to \$37.39 by 2023 if the FBC Application is accepted by this Commission panel (Ibid).

What exactly are the financial circumstances that have caused the Commission to direct FBC (which presumably has the same capital costs as BC Hydro for purchase of AMI meters and equipment, and the same labour costs as BC Hydro to operate them) to set a BCC price that is 284% greater in cost to the residential customer – a cost that is 170.9% more than the BCC cost that the WUTC directs Puget Sound Energy (PSE) to set (B-27, FBC Response to KASC81 IR # 2.1.2.i; C-4-13, KSCA81 Submitting Response to CEC Information Request No. 1 on KSCA81 Evidence; C-4-14, Comparison of Basic Charge/Flat Rate Options KASC81 Response to FBC IR#1.3.1)?

First, however, KSCA#81 wishes to examine and unpack the FBC Final Submission that begins with:

“KSCA81 is alone in objecting to the use of the MSS in its entirety. However, this objection seems to be based at least in part on the perception it does not produce the end result that KSCA81 would prefer, a fundamental misunderstanding of the methodology itself, and the reliance on the determination made by a regulatory authority in another jurisdiction without consideration of how the MSS done for FBC differs from iterations of an MSS historically used elsewhere” (Final Submission, para 40, p 9).

In response KSCA#81 asks the Commission not to accept FBC’s opening gambit at face value, because KSCA#81 is not alone in opposing MSS in its entirety. In fact KSCA#81 asks this Commission panel to carefully consider why the “father” of rate making, James Bonbright, as quoted above, also holds a very dim view of the MSS methodology.

Further, KASCA#81 asks this Commission panel to consider that, contrary to FBC’s opposition to a “lone voice argument”, in 2009 Mr Shadrack was initially a lone voice arguing for a two tier pricing system as against waiting for a TOU option until after introduction of smart meters. He also argued for a lowering of the BCC. At that time the Commission panel accepted and embraced Mr Shadrack’s factual arguments on two tier pricing and lowering of the BCC on their merits (G-156-10. 3.2.4 Position of the Parties, pp 55-56). So, KSCA#81 believes, should this Commission panel likewise consider the merits of the KSCA#81 Final Argument.

As KSCA#81 understands it, the cost of poles, conductors and transformers are assigned as follows:

“Poles, Towers & Fixtures. The results of the minimum system analysis are 81% customer-related and 19% demand-related. The customer-related costs are allocated on the basis of actual customers. The demand-related component is allocated on the basis of the non-coincident peak (NCP) split between primary and secondary plant.

“Conductors & Devices. The results of the minimum system analysis are 65% customer-related and 35% demand-related. The customer-related costs are allocated on the basis of FortisBC actual customers. The demand-related component is allocated on the basis of the NCP split between primary and secondary.

“Line Transformers. The results of the minimum system analysis are 69% customer-related and 31% demand-related. The customer-related costs are allocated on the basis of actual customers. The demand-related component is allocated on the basis of the NCPS” (FortisBC – Electric Cost of Service Study, pp 57 and 58).

Since there are no demand-related costs that KSCA#81 is aware of that residential class members pay as a separate charge, it assumes that the related “customer” costs are assigned to each class relative to the amount of distribution equipment each class uses in the delivery of electricity. In the case of the residential class, these costs are then apportioned equally to each customer based on the number of customers within the class, and not according to the relative use each residential customer makes of that distribution equipment. It is, in effect, a capacity charge apportioned as if each residential customer has the same capacity requirement, hence the decision to apportion costs as if each residential customer were using 1 kWh when in fact the range is from 0 kWh to over 35,000 kWh per annum – while acknowledging that Peak Load Carrying Capability (PLCC) does modify this apportionment of costs within the residential class somewhat.

Consequently, during the BCUC Commission’s deliberations in G-156-10 (as with the observation by Mr Ball concerning the deliberations of WUTC: *“The Commission has been hesitant to depart from the Basic Customer Method because it ‘does not promote, and may be antithetical to, the realization of conservation goals”* [FBC, Final Submission para 42, p 10]), *“...the Commission Panel [was] concerned that the existing relatively high basic charge gives wrong pricing signals and believes that Bonbright Principle 3 regarding the price signals encouraging conservation should trump Principle 2 which seems to support a higher basic charge. Specifically, the Commission Panel agrees with the observations of Mr Shadrack. Accordingly, the Commission Panel directs FortisBC to develop a plan for introducing residential inclining block rates that also incorporate a lower Basic Charge in the immediate future and to file an RIB rate application with the Commission no later than March 31, 2011”* (G-156-10, Commission Determination, p 56).

In this context, it should be noted, with regards to the MSS methodology, that Garfield and Lovejoy state, about Bonbright and his principles, and about economic theory around rate making in general, that:

“While theoretical economic analysis can be highly useful in assisting policy makers who must decide what is ‘fair’ or ‘justified’, it cannot do so alone because ethical, strategic, and public policy considerations also bear upon such decisions. This suggests that the application of theoretical economics to public utility rate making, while useful, also has important limitations” (Garfield, Paul J and Lovejoy, Wallace F, “The Essentials of Rate Regulation”, Pricing Policies, Public Utility Economics, Prentice Hall, 1964, p 147).

In this context KSCA#81 believes that any COSA methodology that has been around for 36 years, and possibly longer, may in fact have reached its useful “shelf life” or “best by date”, even after including the additional factor of PLCC. In lower Kaslo, for example, there are miners’ cabins built in the 1890s that are around 500 square feet in size, while in upper Kaslo there are million dollar plus mansions of 5,000 square feet.

For FBC to suggest in this Application that the MSS methodology addresses the complexity in the range in size of residential property that now exists, and the broad range of residential appliance and equipment uses that also now exist, as compared to what existed in 1982, is in KSCA#81’s opinion both factually and, in relation to section 59 of the UCA, legally invalid.

First, KSCA#81 believes that it is no longer necessary to rely on use of a hypothetical COSA theory when the introduction of smart meters ensures that FBC can now track and, if necessary, classify a range of house sizes and resulting capacity requirements in real time.

Second, the residential class, given the range of kWh consumption per year given in evidence by FBC in this Application, speaks to the fact that capacity requirements of some residential customers now exceed those of smaller commercial customers in another class. Therefore any COSA theory and methodology that treats each residential customer as having equal requirements, beyond the basic costs described by Garfield and Lovejoy, completely fails to address the lack of homogeneity of use that is now the reality within this class as a whole.

While 90% of all residential customers have a consumption level below 20,000 kWh per annum, so also do 62.4% of all small commercial customers (B-1, Table 6-10, FBC Residential Rate Proposal and Table 6-12, Rate Schedule 20 – Small Commercial Bill Impacts). In fact, while 58% of all residential customers have between 0 to 10,000 kWh consumption per annum, so do 40.9% of all small commercial customers (Ibid). This suggests that these two classes might be better off being re-aligned according to consumption levels, rather than being separated by some outdated methodology that requires inappropriate residential and commercial designations. In the 21st century micro-based home businesses are likely to become the norm, so why treat certain residential and commercial entities as separate from a consumption and cost delivery point of view when they are not?

Third, much of the equipment now used in and on residential properties did not exist when the MSS methodology was first introduced:

Hot Tub/Jacuzzi/heated swimming pools

Fast car/e-bike chargers

Multiple hot water heating systems, ranging from solar PV components to instant flash heating

Infloor heating/heat pumps/geothermal exchange and solar PV

Multiple communication devices far beyond the traditional radio and TV.

Consequently, for FBC to cling to an outdated methodology that ignores the data provided by Statistics Canada, which clearly indicates that the range of kWh consumption is predicated on both size of residential abode and income, fails to comprehend the complexity of residential capacity and the per kWh requirements within the residential class in 2018. This Commission panel, KSCA#81 believes, should seriously consider whether a residential customer living in a one bedroom apartment in downtown Kelowna should be charged, within the BCC, for the same capacity and per kWh requirements as a residential customer who owns a 5,000 square foot house with several bathrooms (including a jacuzzi), heated swimming pool, in-floor electrical heating, and an electrical fast charger for an e-bike and two electric cars.

In this context KSCA#81 asks this Commission panel to carefully consider Garfield and Lovejoy for guidance on precisely this issue:

"1. All utility customers should contribute to capacity costs.

"2. The longer the period of time that a particular service pre-empts the use of capacity, the greater should be the amount of capacity costs allocated to that service" (Garfield, Paul J and Lovejoy, Wallace F, "The Essentials of Rate Regulation", Pricing Policies, Public Utility Economics, Prentice Hall, 1964, p 163).

Do these principles, KSCA#81 asks this Commission panel to consider, not speak to the fact that while all customers should contribute to capacity costs, the size of overall service use and volume of electricity sold requires a utility to differentiate between individual residential customers in terms of actual capacity costs charged?

KSCA#81 takes no issue with the fact that the residential class as a whole should pay more of the distribution costs than say large industrial customers, and vice versa assumes that large industrial companies and wholesale customers should pay a greater proportion of transmission costs in relation to size and use of the overall transmission system's capacity and demand.

Finally, KSCA#81 asks this Commission panel to consider the underlying concept behind Garfield and Lovejoy's principles as follows, when they emphasize that:

"One kilowatt-hour of energy is the result of one kilowatt operated for one hour. The kilowatt is also a measure of capacity of electrical equipment and the 'load' or demand for power by a customer, a customer class, or the system as a whole. Thus, a 150-watt light can cause a load or demand of 150 watts or 0.15 kilowatt. If operated for ten hours, 1.5 kilowatt hours of energy would be consumed ($10 \times 0.15 = 1.5$). The relation between power and energy, therefore, is one of time. Power equals energy divided by time; and energy equals power multiplied by time" (Ibid, p 152).

The MSS methodology, KSCA#81 believes, is clearly an abject failure when it comes to differentiating the cost to supply power versus energy to, for instance, a single bedroom apartment in downtown Kelowna versus a 5,000 square foot residence utilizing equipment and appliances never conceived of when the MSS methodology was first introduced.

Allocating *"distribution system costs related to poles, conductors and transformers"* on an equal basis to each residential customer, even with the addition of PLCC, must end, KSCA#81 believes, given the enormous range of kWh consumption and kW capacity demand within the residential class in 2018:

"Home energy use increased with income...Households with an annual income of \$150,000 and over consumed an average of 141 GJ (gigajoules) of energy in 2011, compared to 68 GJ consumed by households with an annual income under \$20,000 (Table 4-6)" (Energy use, by household and dwelling characteristics, Chart 2, Average energy use, 2011, Statistics Canada, 2011: <https://www150.statcan.gc.ca/n1/pub/11-526-s/2013002/part-partie1-eng.htm>)...

"Thirty-eight percent of total energy used by Canadian households was in the form of electricity. A total of 547,096 TJ (terajoules) of electricity was consumed in homes in 2011, up 5% from 2007. However, the average rate remained the same; 40 GJ of electricity were used per household in both 2011 and 2007" (Ibid, Electricity).

"This, when converted from 'gigajoules' to kWh, represents 11,111 kWh per household, which is approximately 94.2% of what the average FBC household uses in electricity per annum:

"<https://www.unitjuggler.com/convert-energy-from-GJ-to-kWh.html?val=40>

"The biennial Table 25-10-0062-01, above, found that all British Columbia households with an income of \$20,000 or less in 2015 used on average (when converted from 'gigajoules' to 'kWh') approximately 4,389 kWh of electricity, while those earning \$20,000 to \$39,999 used 5,750 kWh, whereas those earning \$150,000

and more averaged 11,528 kWh annually” (C4-14, KSCA#81 Response to FBC IR#1.1.2).

Further, within the above Statistics Canada Canadian-data series, information is available by:

Average household energy use, by household and dwelling characteristics, 2011:

Household Size
Dwelling Type
Dwelling Tenure
Dwelling Construction Period
Household Income

Energy-saving use, by household and dwelling characteristics, 2011:

Household size
Size of heated area
Dwelling type
Dwelling tenure
(<https://www150.statcan.gc.ca/n1/pub/11-526-s/2013002/tablesectlist-listetableauxsect-eng.htm>)

As KSCA#81 has found, a review of any one of the above data sets for the province of British Columbia clearly shows why the decision of the WUTC to not allow use of production, transmission and distribution costs within a BCC is a factually correct approach, and that, in contrast, this Commission panel is asked to consider whether, by allowing FBC to use the MSS method since 1982, the Commission has not caused both an error in allocating power and energy costs to each residential customer through the BCC, and has also allowed such allocation contrary to the legal intent of section 59 of the UCA.

Any pricing system for a BCC, KSCA#81 believes, that predicates a portion of its distribution costs being equally charged, regardless of whether a customer uses 4,389 kWh per annum, 5,750 kWh or 11,528 kWh, is an unjust and unduly discriminatory rate as described in section 59(1)(a) of the UCA, with specific regard to the allocation of the “*distribution system costs related to poles, conductors and transformers*”.

KSCA#81 therefore asks the Commission to carefully consider whether allowing FBC to continue using both the MSS methodology and its variant PLCC creates an unduly discriminatory BCC rate, and as a question of fact, this form of COSA analysis should be discontinued in accordance with section 59(4) of the UCA.

The facts are, according to Statistics Canada in 2011, that a residential apartment dweller used on average 40 gigajoules of energy, of which a minimum of 38% was electricity, as compared to 125 gigajoules of energy, on average, being used by a single detached residence. For FBC to design a BCC that claims, in part, that one residential customer who uses a third of the energy of another, therefore equally uses the distribution system’s “*poles, conductors and transformers*” makes a mockery of the concept espoused by Garfield and Lovejoy that:

“Power equals energy divided by time; and energy equals power multiplied by time”.

KSCA#81 therefore asks this Commission panel to uphold the law as found in section 59 of the UCA, and, like the WUTC before it, completely and forthwith ban the use of MSS and its variant, the PLCC, from any future COSA and Rate Design application by FBC. And further, if this Commission panel determines to do otherwise, then KSCA#81 asks that they make very clear where KSCA#81’s “facts” are misstated and where KSCA#81’s understanding of the law, as it pertains to section 59 of the UCA, is also misstated as to the manner in which FBC has designed and developed the current BCC since 1982.

Next, with regard paragraphs 43 through 45 of FBC’s Final Submission, KSCA#81 contacted Mr Ball and provided evidence from him, as an employee of the WUTC, concerning the position of that Commission vis-a-vis MSS, and *not* in his capacity as an advisor to the WUTC. As such, the quotes from Mr Ball in paragraphs 43 through 45 are in fact advice given to the WUTC – advice that the WUTC later *rejected* in its subsequent orders. The quotes are therefore totally irrelevant to the fact that the WUTC has rejected any and all advice that would

see it allow any costs of production, transmission and distribution to be contained within the costs of a standard BCC.

As Mr Ball himself reports, his advice was rejected as follows (emphasis underlined):

“The recent rejections concerned the inclusion of overhead transformers in the basic charge.

“The Commission ruled:

*“We are **not persuaded** on the basis of the current record **that transformer costs should be recovered in basic charges, or through a minimum bill**. We have never approved such a proposal and continue to believe **these costs are not customer-related costs as that term is generally understood**. Transformer costs should be recovered as distribution charges subject to PSE’s electric decoupling mechanism, which adequately protects the Company’s recovery of its fixed costs.*

“Order 08, UE-170033 Para. 357” (Exhibit 23, Email Correspondence with Jason Ball, Deputy Assistant Director, Energy Resources and Economic Reliability, Washington State Utilities and Transportation Commission).

This most recent determination of the WUTC lines up perfectly with the principles espoused by Garfield and Lovejoy as to what actually constitutes a customer cost, and also lines up with the rejection by Bonbright that customer cost charges should not become a dumping ground for the clearly indefensible “*minimum-sized distribution system*” cost method.

Further, with regard the facts that there are variations of the MSS methodology, such as PLCC; or, that other jurisdictions use MSS; or, that BCUC has in the past also accepted use of MSS, such facts are also irrelevant vis-a-vis section 99 of the UCA, which states:

“The commission, on application or on its own motion, may reconsider a decision, an order, a rule or a regulation of the commission and may confirm, vary or rescind the decision, order, rule or regulation”.

Having stated all of the above, let us consider why elimination of “*distribution system costs related to poles, conductors and transformers*” might be relevant within the context of the current pricing situation within the FBC service area.

Reconstructing a BCC that Works for FBC Residential Customers

KSCA#81 believes that no residential customer should be charged for any customer related costs, especially capacity-related costs of a distributive nature that he or she is not likely to use given the size of his or her service and ongoing power usage. Therefore KSCA#81 believes that all distributive costs related to “poles, conductors and transformers” should be stripped out of the residential BCC in accordance with the principles espoused by Garfield and Lovejoy, as supported by James Bonbright in accordance with principle 3 being applied over principle 2, as applied, for example, by the WUTC for the last 36 years.

Residential customers on fixed incomes in British Columbia, be it social assistance, OAS, GIS, EI, etc receive the same amount of income regardless of which utilities’ geographical jurisdiction they live in. Yet, while these residents’ incomes remain constant, the variations in cost between the rates charged by a BC Hydro and a WUTC BCC, and FBC, varies by a factor of between nearly two and three hundred percent for those residential customers.

As a consequence, residential customers with budgets of \$30, \$40 and \$50 per month have seen their access to daily amounts of electricity cut in half between 2009 and 2017 (C-4-11, C-4-13, Exhibit 26 and C4-14, KSCA81 Response to FBC’s IR1.3.1). KSCA#81 therefore asks this Commission panel to carefully consider whether continuation of FBC’s BCC policy is not tantamount to an outright denial of certain residential customers, on limited budgets, gaining full access to electricity for their daily living activities in the province of British Columbia.

Given that the Commission ruled in G-5-17 that it cannot create a rate that specifically addresses the needs of low income residential customers to access necessary amounts of electricity for their daily needs, the options open to FBC are severely limited. But does the decision to preclude a specific low income rate, KSCA#81 asks this Commission panel to consider, also prevent the Commission from addressing the needs of low income customers within the context of them also being low end consumption customers as well? KSACA#81 believes that the answer is clearly “no.”

Again, returning to Garfield and Lovejoy, KSACA#81 repeats their finding as follows (emphasis underlined):

“While theoretical economic analysis can be highly useful in assisting policy makers who must decide what is ‘fair’ or ‘justified’, it cannot do so alone because ethical, strategic, and public policy considerations also bear upon such decisions. This suggests that the application of theoretical economics to public utility rate making, while useful, also has important limitations” (Garfield, Paul J and Lovejoy, Wallace F, The Essentials of Rate Regulation, Pricing Policies, Public Utility Economics, Prentice Hall, 1964, p 147).

In this context, vis-a-vis low end use and low income customers, KSCA#81 believes that the MSS methodology, and its variant PLCC, has serious ethical and public policy limitations. Low-end use and low-income residential customers under the current FBC ordered BCC policy are being prevented from accessing, in comparison to BC Hydro and Nelson Hydro residential customers, electricity at prices that they can afford. In contrast the necessity of ensuring that low-end use and low income customers can better access electricity at prices they can afford has been at the heart of WUTC orders for 36 years (C-4-13).

In this context, it therefore needs to be asked, if FBC and BC Hydro have the same smart meter equipment and billing practices, what causes the FBC BCC to be 284% times higher than either BC Hydro or 170.9% higher than WUTC-regulated PSE (Exhibit 12, Puget Sound Energy Cost of Service Summary)? The logical answer can only be found in the cost of the distribution system charges, in terms of poles, conductors and transformers, as a result of FBC’s more rural and remote geographical service area as compared to BC Hydro’s more urban service area.

As FortisBC states:

“Poles, Towers & Fixtures. The results of the minimum system analysis are 81% customer-related and 19% demand-related. The customer-related costs are allocated on the basis of actual customers. The demand-related component is allocated on the basis of the non-coincident peak (NCP) split between primary and secondary plant.

“Conductors & Devices. The results of the minimum system analysis are 65% customer-related and 35% demand-related. The customer-related costs are allocated on the basis of FortisBC actual customers. The demand-related component is allocated on the basis of the NCP split between primary and secondary.

“Line Transformers. The results of the minimum system analysis are 69% customer-related and 31% demand-related. The customer-related costs are allocated on the basis of actual customers. The demand-related component is allocated on the basis of the NCPS” (FortisBC – Electric Cost of Service Study, pp 57 and 58).

Thus, dropping allocation of those distribution cost charges to the FBC BCC brings the range of reasonableness vis-a-vis BC Hydro BCC costs to their residential customers back into line so that there is more or less a potential postage stamp rate for BCC costs province-wide. Yes, the energy charge per kWh will still be higher for FBC residential customers, but at least a low end user and the often low income user will not have to pay 284% more in BCC costs to access their first kWh.

That, in a nut shell, is what KSCCA#81 asks the Commission panel to carefully consider in this hearing: what are the facts that cause a BC Hydro residential customer, based 14 kilometres north of Kaslo in Schroeder Creek, to pay 35.4% the cost for the BCC as an FBC customer in Kaslo (Exhibit 8)? What are the facts that cause a Nelson Hydro customer in Balfour to pay 48.7% the BCC cost that a FBC customer pays in Ainsworth, just 15 minutes north of Balfour (Ibid)?

Is it, KSCA#81 asks, ethical and in the public interest, as Garfield and Lovejoy pose, for a theoretical COSA methodology to trump the realities of costs to residential customers who live cheek by jowl in neighbouring and adjacent communities? When does a Utilities Commission intervene to re-balance rates so that there is at least some semblance of fairness between utility jurisdictions on basic access to electricity in a specific region of the province, or in the province as a whole?

As FBC acknowledges in response to KSCA#81 IR#1.1.14, a residential customer who uses 2 kWh of electricity per day spends 85% of his or her bill covering the cost of the BCC, a customer who uses 33 kWh per day 25.7% covering the cost of the BCC, and a customer who uses 100 kWh per day 10.2%, and yet in response to KSCA#81 IR#2.1.14.vi, FBC acknowledges that the demand-related cost of servicing a customer who uses 10.5 kWh per day versus 29.6 kWh per day is \$18.39 a month versus \$72.39. (B-17, FBC Response to KSCA#81 IR#1.1.14, p 31 and B-27 FBC Response to KSCA#81 IR#2.1.14.vi, p 27 and 28).

In contrast, conservation-implementing customers, with elimination of distribution cost charges from the FBC BCC, will not be penalized and/or forced to subsidize high end use customers. And, as a side effect, low income customers will be able to access more electricity than previously for their \$30, \$40 and \$50 per month budgets. Is that enough of an ethical and public policy consideration for the Commission panel to consider ordering the stripping away of all distributions costs from within the FBC BCC, and if not why not, and what would be the compelling arguments that would cause this Commission panel to so order that action?

It is, KSCA#81 believes, an option worth considering on its merits, and one in which KSCA#81 would be willing to concede that residential customers should pay 100% of all the *basic* BCC costs, with the proviso that, in future, increases in the BCC should not automatically follow the increase in energy cost charges, but only follow increases in those cost centres as described by Garfield and Lovejoy:

“...the expenses of meter reading, billing, collecting and accounting, and the costs associated with such company property as metering equipment and service connection” (Garfield, Paul J and Lovejoy, Wallace F, “The Essentials of Rate Regulation”, Pricing Policies, Public Utility Economics, Prentice Hall, 1964, p 154).

In contrast, as noted by FBC in response to KSCA#81 IR1.1.13, over the twenty years between 1997 and 2017, the actual COSA-determined Customer-Related per Unit Cost per month rose by 79.3% from \$19.86 to \$35.60. However, the amount of that cost the Commission directed FBC to collect per customer rose by 240.6% – from \$6.67 per month to 16.05 per month, and will rise to 280.4% above 1997 costs to \$18.70 in 2023 if the Commission accepts FBC’s Application recommendation (B-27, FBC Response IR#1.1.13, p 30).

What, KSCA#81 asks this Commission panel to carefully consider, were the facts and merits of the situation that caused the Commission to order the BCC residential customer costs to be set by FBC at a rate that rose three times faster than the actual increase in the BCC costs to the Company itself?

Why is it not fairer, KSCA#81 asks, for an apartment renter in downtown Kelowna to only pay for that portion of the poles, conductors and transformers he or she uses by the hour, day and year, and in accordance with the peak capacity demand of that apartment he or she rents, as compared to the much higher usage and capacity requirements of a homeowner with 5,000 square feet of living space, several bathrooms, a jacuzzi, heated swimming pool, and fast charge for the e-bike and two electric cars?

Of particular concern to KSCA#81 is the fact that the economy of North Kootenay Lake has been extremely fragile since the collapse of the forest industry during the North American mortgage and banking crisis in the first decade of the twenty-first century. A BCC that causes home-based businesses to pay 284% more before accessing the first kWh of electricity is not conducive to start ups and continuing economic activity when neighbouring competitors have a BCC that is 35.4% or 48.7% of FBC’s rate.

Does that kind of economic concern trump the outdated use of the MSS methodology and its variant PLCC, or is there some compelling reason for FBC to keep this model for which KSCA#81 does not understand the logic of? Apart from reference to the NARUC (National Association of Regulatory Utility Commissioners) Electric Utility Cost Allocation Manual, KASCA#81 believes that FBC has thus far failed to explain why distribution costs must be split into demand- and customer-related ones, other than to provide information that it has always been done

that way since 1982.

On this precise point James Bonbright is pretty blunt in his assessment of this kind of division of costs:

“... the inclusion of the costs of a minimum-sized distribution system among the customer related costs seems to me clearly indefensible...the fully distributed cost analyst dare not avail himself of this solution, since he is the prisoner of his own assumption that ‘the sum of the parts equals the whole.’ He is therefore under impelling pressure to ‘fudge’ his cost apportionments by using the category of customer costs as a dumping ground for costs that he cannot plausibly impute to any of his other cost categories” (Bonbright, James, Principles of Public Utility Rates, 1961, p 348).

So this Commission panel is asked to consider the ramifications of making a choice between allowing FBC to “**dump**” certain “**clearly indefensible**” distribution-related costs into the customer charge, for no other reason than the fact that the Commission has previously ordered FBC to do that since 1982, or reconsider whether it is ethical and in the public interest to charge low end and low income customers what amounts to a partial “capacity” charge, which, for the most part, they will never utilize.

That “capacity” charge, contained within the current BCC, as stated by Mr Shadrack in 2009, amounts to a massive subsidy of high end electrical users, and if it was determined to be just that by the Commission panels who issued G-156-10 and G-3-12, then this Commission panel needs to consider which facts have now changed in 2018, and what if any error in law occurred when G-156-10 and G-3-12 were issued for them to no longer uphold the full letter of the law under section 59.4 of the UCA.

Optional Time-of-Use Rates

In the interest of creating multiple conservation options, KSCA#81 asks this Commission panel to carefully consider directing FBC to introduce a Time-of-Use (TOU) residential pilot project, with the proviso that the Commission continuously monitor implementation of these rates to ensure that energy conservation is the main objective and not FBC increasing the level of profit for the Company, as follows:

Winter and Summer: On-Peak 5.00 PM to 9.00 PM, with Mid-Peak pricing in Summer 3.00 PM to 5.00 PM.
Off-Season, March to June and September to November: On-Peak 5.00 PM to 9.00 PM and Mid-Peak 4.00 PM to 5.00 PM and 9.00 PM to 10 PM.

In proposing the above times, KSCA#81 asks this Commission panel to carefully consider, when setting On-Peak, Mid-Peak and Off-Peak times and their rates, whether FBC’s original application recommendations could lead to inter-class and intra-class subsidization. Further, given the small number of actual residential Mid-Peak hours, this Commission panel is also asked to consider, unless FBC is anticipating an expansion in residential class consumption as a whole, whether the need for creation of Mid-Peak pricing for the residential class is needed at this time.

FBC-proposed TOU residential rates can be found in Exhibit 7, and the residential rate of consumption as compared to its own peak and that of system load as a percentage of peak can be found for the Off-Season, Summer and Winter, in Exhibits 15, 16 and 17.

In response to the data relationships found, KSCA#81 again asks this Commission panel to carefully consider the principles offered by Garfield and Lovejoy:

“(2) The longer the period of time that a particular service pre-empts the use of capacity, the greater should be the amount of capacity costs allocated to that service.

“(5) The capacity costs allocated to one class of service should not be affected by the way in which the remaining capacity costs are allocated to other classes.

“(6) More demand costs should be allocated to a unit of capacity pre-empted during a peak period than to one pre-empted off peak” (Garfield, Paul J and Lovejoy, Wallace F, “The Essentials of Rate Regulation”, Pricing

Policies, Public Utility Economics, Prentice Hall, 1964, p 163).

In section 8 of its Application, FBC states, in relation to the setting of TOU timing periods, that:

“Mid-peak hours generally reflected hours when loads were between 85 percent and 90 percent of the daily peak...”

“Typically, Saturday loads are 92 percent of weekday loads and Sunday loads are 81percent of weekday loads” (8.2.1, Time of Use Rate Periods, p 111).

While KSCCA#81 agrees that an overall On-Peak load exists in Winter between 8.00 AM and Noon, and again between 5.00 PM and 9.00 PM, the residential load in the morning drops from 84.4% at 8.00 AM to 78.7% at Noon. Therefore, in relation to Garfield and Lovejoy’s rate setting principles 2, 5 and 6, KSCA#81 believes it is not the residential class that should be charged On-Peak costs but the classes that cause the On-Peak load to occur. Otherwise the other classes will in fact be receiving an inter-class subsidy from the residential class as a whole.

Likewise, while KSCA#81 agrees that an overall On-Peak load exists between Noon and 9.00 PM in Summer, it also notes that the residential load starts out at 71.2% at Noon and only rises to 80.9% by 3.00 PM. Thus, again, in order to avoid an inter-class subsidy from occurring, it is the classes that are causing the On-Peak load who this Commission panel should consider ordering to pay for those capacity costs, and not the residential class.

The only caveat that KSCA#81 would add is that because On-Peak load is above 95% at 3.00 PM in Summer, it agrees that Mid-Peak pricing should begin at 3.00 PM and continue to 5.00 PM for the residential class. In contrast, overall On-Peak load only rises above 95% at 5.00 PM in Winter when residential load is 92.6%, whereas when overall On-Peak load is 95% at 9.00 AM, residential load is only at 83.1%. Therefore On-Peak and Mid-Peak pricing for the residential class in Winter, KSCA#81 believes, is simply inappropriate in the morning and mid-afternoon.

KSCA#81 then agrees that On-Peak load for the Mid-Season exists from 8.00 AM to Noon, but points out that residential load drops from 83.1% at 8.00 AM to 73.2% at 3.00 PM. Therefore, again, KSCA#81 believes that Mid-Peak Mid-Season pricing is inappropriately proposed for all hours between 7.00 AM to 9.00 PM, when the residential class only achieves Mid-Peak load between 4.00 PM to 5.00 PM and 9.00 PM to 10.00 PM.

Further, since the residential class has a consistent On-Peak presence for the 5.00 PM to 9.00 PM hours 365 days of the year, if FBC wants to send a consistent price signal about On-Peak consumption, why not set a consistent On-Peak price year round, unless of course FBC is trying to promote electricity consumption in the Off-Season?

Once more, if KSCA#81 is misstating the facts of the residential load relative to overall system load, then this Commission panel needs to state where KSCA#81 is in error. If FBC is proposing to create a situation of inter-class subsidy vis-a-vis load, as per the principles stated by Garfield and Lovejoy in 2, 5 and 6, then this Commission panel needs to state why there are compelling reasons to support FBC’s optional TOU proposals for the residential class, as proposed, as they have been recommended in this Application.

Further, KSCA#81 believes that the Order attached to this hearing can be written in such a way that if the number of Mid-Peak or On-Peak hours expand for any class between now and the next Cost of Service and Rate Design hearing, then FBC can adjust pricing signals without the necessity of another hearing simply by notifying the Commission of changes in load by the different classes.

While KSCA#81 welcomes the opportunity for customers to be able to choose a different pricing option than two tier pricing, it notes that at the start of the 3.2.4, Position of the Parties, the Commission panel in G-156-10 quotes Mr Shadrack as follows:

“In his Opening Statement Mr. Shadrack challenged FortisBC’s single minded focus on time based rates as follows:

“While I agree that peak power usage can be shaved by TOU rates, so as to encourage, for example, when clothes are washed and when dishwasher is set to run, I want to challenge the notion of energy conservation through stand alone, eggs-in-one-basket TOU rates.”

“In contrast, Mr. Shadrack asked FortisBC to explain ‘why an inclining block rate will not better encourage a residential customer to switch from incandescent bulbs to compact fluorescent or LED lights; more easily encourage them to switch from a top loading washing machine to a front loading one; better encourage a customer to install an energy efficient fridge, freezer and stove; and better encourage a customer to switch from electric heat to a ground source heat pump’(Exhibit C2-10, p. 3).

“To strengthen his submissions, Mr. Shadrack recommends that ‘the Commission in its order require FortisBC to introduce an inclining block rate’ (Shadrack Argument, pp.4 and 5)” (G-156-10, 3.2.4, Position of the parties, p 55).

Thus, while KSCA#81 is open to TOU rates, it recommends to this Commission panel that the two tier rate be kept because some residential customers will be financially better off choosing that option, as described by Mr Shadrack in the 2009 Cost of Service and Rate Design Hearing.

Thus, while KSCA#81 believes that seniors and those on afternoon and night shifts might benefit from the proposed TOU rate times, KSCA#81 also believes that it will be difficult for young families and those returning from work between 4.00 PM and 6.00 PM to benefit from peak pricing initiated from 5.00 PM to 9.00 PM. That is why KSCA#81 believes that TOU needs to be first introduced as a pilot project that carefully monitors cost-benefits for both the enrolled customers and the Company.

In conclusion, KSCA#81 concurs with the concerns expressed by Mr David De Biasio during the writing of this Final Argument: and therefore asks this Commission panel to carefully consider, when setting any TOU rates, the fact that large numbers of residential customers cannot avoid using electricity during On-Peak hours, and that therefore they should not be financially penalized for accessing electricity at times when they need to. And to also consider that some electricity use, because of the nature of how our society organizes itself, cannot be shifted, and therefore the ability of certain customers to shift their discretionary use of electricity might actually be quite minimal (E-7).

Two Coincident Peak Versus 12 Coincident Peak as an Option

In their March 2017 Report to the BC Government on Residential Inclining Block Rates, the Commission found:

“FortisBC allocates demand-related costs based on the sum of the two highest summer and two highest winter peaks, which reflects FortisBC’s philosophy that, while the summer peak is not at the same level as the winter peak, it is growing faster than the winter peak and will increasingly have a larger impact on the system. The Commission considers that this approach, while approved as fair, may allocate more costs to customers with summer consumption (and hence less costs to winter consumption) than the approach used by BC Hydro (which uses 4 winter peaks).

“The Commission considers that these...factors have the potential to reduce the cost factor in the R/C ratio for FortisBC customers with no access to gas (which have higher use), thus increasing the R/C ratio itself. Conversely, these factors may be increasing the cost factor in the R/C ratio for those customers with access to gas (who have lower use), and thereby reducing the R/C ratio. The Commission considers that the ability to decrease the 14.5 percentage point difference in FortisBC’s R/C ratio based on historic costs by changing cost allocation assumptions, with out any change to the RIB rate design, illustrates the caution that should be placed when interpreting BC Hydro and FortisBC’s R/C ratio based on historic costs” (Opcit, p 6).

In addition, FBC, in response to BCUC IR#1.30.5, provides the following Table with regard coincident peaks,) (KSCA#81 emphasis added in bold underlined):

| Customer Class | 2 CP | 1 CP | 4 CP | 12 CP |
|----------------------------------|---------------|--------|--------|---------------|
| Residential | 98.4% | 97.7% | 97.9% | 99.6% |
| Small Commercial 20 | 102.2% | 102.5% | 102.6% | 101.3% |
| Commercial 21/22 | 104.7% | 106.5% | 104.8% | 101.1% |
| Large Commercial Primary 30/32 | 104.0% | 106.9% | 106.3% | 100.0% |
| Large Commercial Transmission 31 | 107.0% | 112.6% | 108.9% | 105.9% |
| Lighting | 92.2% | 90.3% | 89.4% | 90.9% |
| Irrigation | 97.2% | 110.6% | 110.4% | 96.6% |
| Wholesale Primary 40 | 96.7% | 96.9% | 97.4% | 98.0% |
| Wholesale Transmission 41 | 103.9% | 89.6% | 95.2% | 108.9% |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

What KSCA#81 observes from this data is that, with the 12 CP Model, all of the classes move closer to 100% alignment than with the 2 CP Model, with the exception of: Irrigation, which stays within the range of reasonableness; Wholesale Transmission 41, which moves outside the range of reasonableness; and Lighting, which moves further away from the range of reasonableness compared with the 2 CP Model.

KSCA#81 therefore disagrees with the statement made by FBC in response to BCUC IR#2.115.2 when the Company states:

“The 2 CP best reflects the cost causation of the system and for that reason provides the most reasonable results, in our opinion. Moving away from the 2 CP allocator would result in some classes seeing higher or lower allocated costs. Because the 12 CP provides results that do not create as large of a difference from the 2 CP results, the 12 CP approach would be the next most reasonable” (Exhibit B-21, FBC Response BCUC IR 115.2, p 18).

If, in the determination of the Commission, the objective is to achieve alignment of all the classes closest to 100%, then KSCA#81 believes that what needs to be measured is what percentage of the overall load moves closest to 100% alignment and what percentage moves further away from 100% alignment. KSCA#81, in the interests of inter-class fairness and achieving the closest range of reasonableness, therefore asks this Commission panel to consider adoption of the 12 CP Model if a greater percentage of the load is closer to 100% alignment with 12 CP than with 2 CP.

Why? Increasingly, weather in the FBC area does not follow a specific pattern and can vary from year to year, and within each year, and therefore a 12 CP Model is more likely to capture the range of electrical consumption that is likely to occur, particularly by the residential class who are often most impacted by variations in weather patterns.

Again, given the presence of smart meters, 12 CP data, KSCA#81 believes, is now much easier to collect than in pre-smart meter years, and therefore the closer FBC can get to actual consumption data, the more accurate the rate design will be in collecting revenues from the various classes in the right amounts.

At every step in the COSA process and rate design, KSCA#81 believes that, with the introduction of smart meters, the Commission should be directing FBC to replace outdated theoretical models with data that more closely resembles collection of information in real time.

All of which is respectfully submitted,
 Andy Shadrack
 Kaslo Senior Citizens Association of British Columbia, Branch #81