Yukon Energy Corporation and Yukon Electrical Company Limited
2009 Phase II Application before the
Yukon Utilities Board
Information Request No. 1 of the City of Whitehorse

Cost of Service Study

CW-YEC/YECL-1

Issue: COS Study - Hydro - Whitehorse Unit #4 (WH4) – Classified 100% to Energy

Reference: Application, Section 3.2, p.3-5

Preamble: The Utilities state:

> In 2009, unlike the 1996/97 GRA, Whitehorse Unit #4 is expected to make a positive net contribution to meeting customer demand under drought conditions at the time of the winter system peak... Overall, however, reliance during the winter peak on a net contribution of only 4 MW of the 20 MW total capacity of Whitehorse Unit #4 confirms that this unit continues to differ materially from other generation units for the purpose of cost classification. Accordingly, consistent with past practice and the purpose for which the unit was originally constructed and for simplicity, the Whitehorse Unit #4 continues to be classified 100% to energy.

Request:

a) With reliance during the winter peak on a net contribution of 4 MW of the 20 MW total capacity of Whitehorse Unit #4, please explain why YEC would not allocate some percentage (for example, 20%) to demand and the remainder to energy?

b) Please explain how "this unit continues to differ materially from other generation units for the purpose of cost classification."

c) Please explain how being "consistent with past practice" should be a prime consideration considering Whitehorse Unit #4 is expected, *unlike in the past*, to make a positive net contribution to meeting customer demand.

d) Please confirm that in the 1992 Report (Appendix 7.1, p.7.1C-28), the Board agrees with the companies position that "cost causation relates to the original reason for constructing the generating facilities" only because the Board did "not have any evidence to indicate that these two differ." If not confirmed, please explain fully.

e) If (d) is confirmed, please comment on the appropriateness of relying on "the purpose for which the unit was originally constructed" when the current use for generation assets such as Whitehorse Unit #4 differs significantly from their original planned operations.

f) Please explain why "simplicity" should be a key premise in determining the proper classification of Whitehorse Unit #4.

g) Please provide the study requested by the Board in Recommendation #3 of the 1992 Report (Appendix 7.1, Page 7.1C-61).

CW-YEC/YECL-2

Issue: COS Study - Aishihik Plant (existing, excluding Aishihik 3rd Turbine) – Classified 100% to Energy

Reference: Application, Section 3.2, p.3-5

Preamble: The Utilities state:

> Under the new capacity planning criteria recently adopted in Yukon Energy's 20-Year Resource Plan: 2006-2025 (driven by N-1 methods), Aishihik generation is considered to not contribute to the WAF system's ability to serve peak loads at critical times due to transmission constraints. As a result, there must be sufficient diesel generation installed (plus WH and Fish Lake winter capacity) to permit the full system loads to be carried. Consequently, Aishihik's contribution to system service is solely of an energy benefit (offsetting the use of the diesel plants to provide energy or peaking output). This methodology differs from the classification adopted in the 1996/97 GRA COS (before the new capacity planning criteria was adopted), when Aishihik plant costs were classified 60% energy and 40% demand.

Request:

a) Please explain why a capacity planning criteria is determinative with regard to cost of service classification?

b) Particularly with regard to the N-1 criteria, why should the COS classification of the Aishihik plant costs be based on an emergency capacity planning criteria?

c) Please define "critical times."

d) Why is the Aishihik generation's contribution to the WAF system's ability to serve peak loads at these "critical times" principal to the determination of the classification of Aishihik plant costs?

e) Does Aishihik generation typically contribute to the WAF system's ability to serve peak loads? Please provide for the last 5 years and also forecast for 2009 and 2010, the net contribution of Aishihik generation to serve peak loads during the winter peak.

f) Why are the Utilities most concerned with capacity planning criteria when classifying the Aishihik plant, rather than the considerations that the Utilities have applied to classify Whitehorse Unit #4 (namely, being consistent with past practice, the purpose for which the unit was originally constructed and simplicity)?

g) Please provide another version of the cost of service study based on the Aishihik plant costs being classified as 60% energy and 40% demand.

CW-YEC/YECL-3

Issue: COS Study – Mayo Hydro - Classified 100% to Energy

Reference: Application, Section 3.2, p.3-6

Preamble: The Utilities state:

> In 1992, Mayo Hydro was substantially underutilized, supplying only the local Mayo and Keno loads. At that time the plant was classified 60% energy and 40% demand. It is also noted that the loads on the MD system are able, if needed, to be supplied by resident diesel assets which are in the rate base in each major community location (Mayo, Stewart Crossing, and Dawson). Consequently, the primary function for the Mayo hydro system is to provide energy to offset what would otherwise be the requirement to operate these diesel units.

Request:

a) Does Mayo Hydro generation typically contribute to the MD system's ability to serve peak loads?

b) Please provide the net contribution of Mayo Hydro generation to serve peak loads during the winter peak for the years since the commissioning of the MD transmission line. Please also provide the forecast net contribution of Mayo Hydro generation that served, or is expected to serve, MD peak loads during the winter peaks for 2009 and 2010.

c) How many times since the commissioning of the MD transmission line have the resident diesel assets located in Mayo, Stewart Crossing and Dawson, supplied the full load on the MD system? Please document these occurrences.

d) Please comment on the reasonableness of basing the classification of the Mayo hydro plant on the existence of diesel units that could, but typically don't, supply the load for the entire MD system. Please explain fully.

e) Is it consistent or reasonable for the Utilities to adopt as their key principle in determining the classification of Mayo hydro plant that the resident diesel units could supply the load for the entire MD system, while actively seeking to avoid "the need for expensive diesel generation?" Please explain fully.

f) Please provide another version of the cost of service study based on the Mayo plant costs being classified as 60% energy and 40% demand.

CW-YEC/YECL-4

Issue: Cost of Service Study

Reference: Application, Section 3.2, pages 3-7 to 3-8

Preamble: The Utilities state:

> Transmission – classified 100% to Energy (after all contributions) – The Companies propose to change the classifications used in the 1996/97 GRA for two reasons:
>
> 1) The material changes on the system since the 1996/97 GRA, including the closure of Faro Mine, the construction of Mayo Dawson transmission line and the anticipated interconnection of the grid through the completion of the CSTP.
>
> 2) Relative importance of the transmission system in providing the benefit of avoiding expensive diesel generation.

Request:

a) Please provide a calculation of the benefit of avoided diesel generation that the transmission system provides.

b) Please provide a calculation of the total amount of transmission cost that the Utilities propose to allocate to energy.

CW-YEC/YECL-5

Issue: COS Study – Transmission - Classified 100% to Energy

Reference: Application Section 3.2, p.3-8

Preamble: The Utilities state:

> ...absent the transmission interconnections to any given community today, there would be a requirement to operate the presently installed diesel generating plants to serve load. This would materially increase the cost of power in Yukon, and would drive what is entirely an energy-related cost item – diesel fuel. Consequently, the cost profile in terms of benefits of installed transmission relates almost entirely to avoided energy-related diesel fuel costs.

Request:

a) Please confirm that the transmission interconnections are, in fact, serving the peak requirements in "any given community." If not confirmed, please explain fully.

b) Please explain why it wouldn't be more logical to consider the transmission assets as serving the peak demand requirements of the system and diesel as simply the back-up.

c) Please explain why it is necessary to treat the diesel facilities as being so prominent that the avoidance of their use is considered the very reason the transmission lines exist?

d) Why propose the change to classification of transmission assets from 100% Demand (in the previous COS study (Appendix 7.1C, p.74)) to 100% Energy.

e) Wouldn't a more gradual change in classification be more appropriate, for example to 50/50 Demand/Energy? If not, please explain fully.

f) Please provide for the last 10 years and forecast for 2009 and 2010 the net contribution of WAF transmission line to supplying the peak loads during the annual winter peak.

g) How many times in the last 10 years have the resident diesel assets located in the major centres on the WAF system supplied the full load on the WAF system?

h) Please provide another version of the cost of service study based on the Transmission plant costs being classified to 100% Demand.

i) Please provide another version of the cost of service study based on the Transmission plant costs being classified to 50/50 Demand/Energy.

CW-YEC/YECL-6

Issue: COS Study – Transmission - Classified 100% to Energy

Reference: Application Section 3.2, p.3-8

Preamble: The Utilities state:

> In addition, transmission in Yukon is designed and sized to address considerations of length, voltage stability, and losses, and investment is not being driven to enhance existing transmission assets (e.g., twinning lines, or reconductoring) to serve growing peak loads. For this reason, the cost profile of transmission in Yukon is heavily oriented towards energy.

Request:

a) Please provide a clear explanation as to why and how "transmission in Yukon is designed and sized to address considerations of length, voltage stability, and losses".

b) Please provide a clear explanation and evidence for the claim that "investment is not being driven to enhance existing transmission assets (e.g., twinning lines, or reconductoring) to serve growing peak loads.

c) Please explain why the answers to a) and b) above mean that "the cost profile of transmission in Yukon is heavily oriented towards energy."

CW-YEC/YECL-7

Issue: Secondary Sales

Reference: Application, Section 3.2, page 3-9

Preamble: The Utilities state:

> In short, secondary sales rates bear no relation to a cost based standard in terms of the costs to the utilities to supply the service, but rather a "value of service" concept based on the customer's avoided costs of their alternative source of heat. The Companies use these secondary sales revenues to reduce the firm rate

revenues required to be collected from the retail and industrial customer classes.

Request:

a) What are the costs (e.g. transmission losses, SCADA, metering, marketing, company investment, etc) to provide secondary sales?

b) Please quantify these costs and calculate a revenue/cost ratio for secondary sales.

c) Where do these costs appear in the cost of service study and how are these costs allocated in the cost of service study?

d) Please explain fully how "value of service" rates are economically efficient and promote efficient usage of the system.

e) At the current "value of service" rate, does YEC/YECL sell all the secondary energy that is available? If not, please explain fully.

CW-YEC/YECL-8

Issue: COS Study – Proposed versus 1997

Reference: Application, Section 3.2, p.3-8

Preamble: The City wishes to understand more about the changes in the proposed COS Study versus the 1997 COS Study.

The City recalls from the December 15, 2009 Workshop that the Utilities were discussing changing the classification ratio more slightly from demand to energy.

Request:

a) Please provide a list of changes to the proposed cost of service study as compared to the cost of service study from 1997. Please provide a full explanation of each and show the monetary effect on the residential non-government class and the general service non-government class.

b) Please explain what changed between the time of the Workshop and the time of this Application to lead the Utilities to propose a more dramatic change in the transmission classification ratio (i.e. 100% Demand to 100% Energy).

c) Please explain why there is a $0 classification for "Transmission –Other" to Demand in Schedules 4-T-27 through 4-T-32, while there were positive amounts in this line item in the 1997 COS (Schedules 5-32 through 5-38).

d) Please explain why the classification ratio of Production to Residential Non-government has changed to 34.1/65.9 Demand/Energy (Sch.4-T-28) from 28.6/71.3 Demand/Energy in the 1997 COS study (Schedule 5-33).

e) Please explain why the classification ratio of Return & Income Tax to Residential Non-government has changed to 61.4/38.6 Customer/Demand (Sch.4-T-28) from 66.2/33.8 Customer/Demand in the 1997 COS study (Schedule 5-33).

f) Please explain why the classification ratio of Customer Accounting and Marketing to General Service Non-government has changed to 75.3/24.7 Customer/Energy (Sch.4-T-30) from 100/0 Customer/Energy in the 1997 COS study (Schedule 5-35).

g) Please explain why the classification of Insurance to General Service Non-government has changed to a Customer/Demand split (Sch.4-T-30) from a Customer/Demand/Energy allotment in the 1997 COS study (Schedule 5-35).

h) Please explain why the classification of O&M costs to Industrial has changed to 100% Demand (Sch.4-T-31) from a Customer/Demand split in the 1997 COS study (Schedule 5-36).

i) Please explain why the classification of Administrative & General costs to Industrial has changed to 100% Demand (Sch.4-T-31) from a Customer/Demand split in the 1997 COS study (Schedule 5-36).

j) Please explain why the classification of Amortization of Contributions to Industrial changed to $0 (Sch.4-T-31) from a 100% Demand classification of $24,000 in the 1997 COS study (Schedule 5-36).

k) Please explain why the classification ratio of Return & Income Tax to Street Lights has changed to 91.0/9.0 Customer/Demand (Sch.4-T-32) from 78.0/22.0 Customer/Demand in the 1997 COS study (Schedule 5-37).

l) Please explain why the classification of Customer Accounting and Public Information to Street Lights has changed to 100% Energy (Sch.4-T-32) from 100% Customer in the 1997 COS study (Schedule 5-37).

CW-YEC/YECL-9

Issue: Allocation Methods

Reference Application Section 3.2, Table 3.1, Page 3-12

Preamble: The Utilities provide the following Table:

Demand Load Characteristics at the Meter, By Class

		2009	1996/97
Residential Non-Government	CP load factor	56.5%	53.0%
	NCP load factor	48.2%	45.6%
Residential Government	CP load factor	56.5%	49.2%
	NCP load factor	48.2%	42.3%
General Service Non-Government	CP load factor	77.4%	61.5%
	NCP load factor	63.6%	49.2%
General Service Government	CP load factor	77.4%	66.5%
	NCP load factor	63.6%	53.2%
Industrial	CP load factor	77.4%	99.9%
	NCP load factor	N/A	N/A[5]
Streetlights	CP load factor	46.7%	48.0%
	NCP load factor	46.7%	48.0%
Space Lights	CP load factor	46.7%	47.7%
	NCP load factor	46.7%	47.7%

Request:

(a) Please provide the calculations for all of the above-noted percentages.

CW-YEC/YECL-10

Issue: Revenue/Cost Ratios

Reference: Table 3.2, page 3 - 13

Preamble: The Utilities provide the following Table:

Table 3.2:
Revenue to Cost (R/C) Ratios by Rate Class – 1997 and 2009 (%)

Customer Class	1997 Final Approved	2009
Residential Government	100%	105%
Residential Non Government	81%	79%
General Service Government	143%	144%
General Service Non Government	110%	117%
Industrial	100%	109%
Street Lights	110%	69%
Sentinel Lights	110%	148%

Request:

(a) Please provide a Table of revenue/cost ratios by rate component (fixed monthly, demand and energy rates) for each rate offered to each rate class, e.g, for the General Service Class provide the revenue/cost ratio for each rate component of rates 2160, 2170, 2260, 2270, 2360, 2370, 2460, 2470, 2180, 2280, 2380, 2480, 61, 66, 67, 75, 76 and secondary sales 32 and 43.

CW-YEC/YECL-11

Issue: Cost of Service Study, Billing determinants

Reference: Application 6-2, lines 9 - 15

Preamble: The Utilities state:

> Preparation of a new cost of service study will require a number of matters to be addressed. First, there will need to be an approved revenue requirement for each of the two utilities on a consistent test year basis as well as the determination of billing determinants and load characteristics by customer class. The key methods (such as classification of generation and transmission assets) will also need to be reviewed to ensure that the cost of service approach properly tracks the cost imposed on the current system (with its adjustments since 1997) on each customer class.

Request:

a) Are the billing determinants referenced in the above statement the ones shown in Table 4-T-34 of the cost of service study? If not, please provide the billing determinants for which the Utilities seek approval.

b) Are the billing determinants in Table 4-T-34 actual or forecast numbers of customers, demand and energy? If forecast, please provide the 2009 actuals and provide an explanation for any differences between forecast and actual.

c) Please provide a table that reconciles the requested rates multiplied by the billing determinants used in the cost of service study to the combined 2009 revenue requirements of the Utilities.

Rate Design

CW-YEC/YECL-12

Issue: Economy and Efficiency

Reference: Application, page 1-10, lines 22-25

Preamble: The Utilities state:

> **Economy and efficiency rate principles/directives:** Promoting economy and efficiency by sending customers a price signal at higher levels of consumption in an increasing costing environment. The rate design proposal considers how best to adjust runoff rates to reflect 2009 incremental costs based on current fuel prices in the current costing environment. The need to adjust runoff rates to reflect approved 2009 incremental costs based on current fuel prices reflects the following considerations:
>
> - Since 1996/97 rate design and rate structure issues have not materially been addressed. Consequently, current runoff rates are based on fuel prices approved in 1996/97 and do not reflect current incremental fuel prices;
> - Yukon Energy's forecasts indicate that the grid systems are moving into a position of having diesel on the margin for substantial portions of the year in the very near future (this always is the case in the diesel rate zones). It is timely to re-establish price signals for consumers based on the actual incremental cost of diesel in 2009, as was last done in the 1996/97 GRA; and
> - While inter-class rate rebalancing (among the customer classes) cannot be undertaken at present due to OIC 2008/149, retail

runoff block adjustments do not need to be deferred and can be undertaken now to ensure that consumers begin to receive appropriate efficiency price signals.

Request:

a) Is the economy and efficiency that the Utilities seek being applied equally among all customer classes (residential, commercial and industrial)? Please explain and demonstrate.

b) As demonstrated in (a) above, if one or more classes of customers are not expected to have to practise the same level of economy and efficiency as other rate class(es), please explain why?.

c) How will customer behaviour change in response to the Utilities' "efficiency price signals"? Please provide separate explanations for the proposed Options A and B.

d) How will the behavioural changes result in economy and efficiency for the customers? Please provide separate explanations for the proposed Options A and B.

e) Please explain how it is that YEC makes the connection from "economy and efficiency" as described in OIC 1995/90 to YEC's proposal that run-off rates must be based on the incremental cost of diesel.

f) Does YECL agree with YEC's position as put forth in (e) above? Please explain fully.

g) Is it YEC's position that the current rate structure complies with OIC 1995/90? Please explain fully.

h) Is it YEC's position that the proposed Option A rate design complies with OIC 1995/90? Please explain fully.

i) Is it YEC's position that the proposed Option B rate design complies with OIC 1995/90? Please explain fully.

j) Is it YECL's position that the current rate structure complies with OIC 1995/90? Please explain fully.

k) Is it YECL's position that its proposed rate design complies with OIC 1995/90? Please explain fully.

l) The Utilities state: "retail runoff block adjustments do not need to be deferred and can be undertaken now". Is it YEC's position that retail runoff block adjustments must be undertaken now?

m) If retail runoff block adjustments do not need to be undertaken at this time, please explain what the harm would be, if any, in waiting until a future GRA to implement these types of changes when the OICs have expired? Please explain fully.

n) Please provide YECL's full responses to (l) and (m) above..

CW-YEC/YECL-13

Issue: Rate Design

Reference: Application, Tab 4, page 4YEC -17

Preamble: YEC states:

> **1. Rate adjustments can be made, subject to not resulting in rebalancing or unequal revenue increases between rate classes (per OIC 2008/149)**
>
> a. OIC 2008/149 in essence prevents inter-class rate rebalancing for these retail classes (i.e., there cannot be changes in overall revenues, at 2009 approved forecast loads, for any of the classes relative to Table 4.1); this requires, for example, that if the runoff rate is raised for a class that an offsetting rate decrease must be made in the first block [and/or the customer or demand charge] for that class to keep the overall class revenue rate unchanged.
>
> b. Subject to this requirement, OIC 2008/149 does not prevent the Companies from intra class adjustments (i.e., adjusting the runoff rate upwards to reflect incremental costs and lowering the lower block rate on an equal basis).
>
> **2. New non-runoff rate blocks can be considered subject to ensuring that rates within each such new non-government retail rate block are the same throughout Yukon**
>
> a. Variation is allowed for separate runoff energy rates for non-government retail customers in different communities or rate zones provided such rates are fixed for each community or zone based on the same rate design principles.
> b. OIC 1995/90 (section 4.(2)) requires that there be at least 2 energy rate blocks for each non-government retail customer class: at least one equalized rate block and a runoff energy block that provides for economy and efficiency.
> c. Provided any additional energy rate block in the rate class is equalized throughout Yukon, the OIC allows for multiple equalized rate blocks, e.g., this would allow in the residential non-

government class for a first block set at 700 kWh and a higher second block set at 1000 kWh, 1,500 kWh or 2,000 kWh, with the third rate block for use in excess of the second block limit) then being the runoff rate.

3. A runoff rate must be set for each non-government retail class that provides for economy and efficiency

a) The runoff rate block applies to all consumption over a particular level.
b) Such runoff rates cannot initiate with usage below 1000 kWh/month for residential or 2000 kWh per month for general service.
c) Past Board direction has provided that economy and efficiency is promoted in Yukon runoff rate design through runoff rates that reflect at least the short-run incremental generation costs. In all prior GRA reviews this was based on the cost of diesel in each rate zone plus provision for short run incremental O&M costs for diesel generation.

Request:

a) Please confirm that the above-cited passage is YEC's interpretation of the constraints imposed by OICs 2008/149 and 1995/90. If not confirmed, please explain fully. If confirmed, please explain how YECL's interpretation differs.

b) Does YEC interpret that it is constrained from applying these principles of economy and efficiency to the design of rates and rate blocks other than the runoff rates? If yes, please explain fully why YEC believes itself to be constrained from applying principles of economy and efficiency to all its rates and rate blocks.

CW-YEC-14

Issue: Principles of Rate Design

Reference: Application, Appendix 7.1, page 7.1A-11, Tab 4 YEC final and Tab 4 YECL Final

Preamble: The City wishes to understand the proposed rate design principles underlying Options A and B residential rate design. The Utilities provided the following excerpt, attributed to Bonbright:

Yukon Briefing – November 4, 2009

Rate Design Principles (Bonbright)

- Recover revenue requirement
- Recognize the cost of service as determined by cost studies and the cost of existing and future facilities to provide service
- Avoid undue discrimination between rate classes and individual customers within each customer class
- Consider the rate levels, structures and policies of other utilities, particularly those with similar load and service characteristics
- Promote ease of understanding and acceptance by customers as well as ease of administration and economy of billing
- Recognize the level and structure of existing rates and their historical development

The following is an excerpt from James C.Bonbright's Principles of Public Utility Rates (Second Edition, March 1988), citing the ten attributes of a sound rate structure:

Revenue–related Attributes:

1) Effectiveness in yielding total revenue requirements under the fair-return standard without any socially undesirable expansion of the rate base or socially undesirable level of product quality and safety.
2) Revenue stability and predictability, with a minimum of unexpected changes seriously adverse to utility companies.
3) Stability and predictability of the rates themselves, with a minimum of unexpected changes seriously adverse to ratepayers and with a sense of historical continuity. (Compare "The best tax is an old tax.")

Cost–related Attributes:

4) Static efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use:
    a) in the control of the total amounts of service supplied by the company;
    b) in the control of the relative uses of alternative types of service by ratepayers (on-peak versus off-peak service or higher quality versus lower quality service).
5) Reflection of all of the present and future private and social costs and benefits occasioned by a service's provision (i.e., all internalities and externalities).
6) Fairness of the specific rates in the apportionment of total costs of service among the different ratepayers so as to avoid arbitrariness and capriciousness and to attain equity in three dimensions: (1) *horizontal* (i.e., equals treated equally); (2) *vertical* (i.e., unequals treated unequally); and (3) *anonymous* (i.e., no ratepayers demands can be diverted away uneconomically from an incumbent by a potential entrant).

7) Avoidance of undue discrimination in rate relationships so as to be, if possible, compensatory (i.e., subsidy free with no intercustomer burdens).
8) Dynamic efficiency in promoting innovation and responding economically to changing demand and supply patterns.

Practical–related Attributes:

9) The related, practical attributes of simplicity, certainty, convenience of payment, economy in collection, understandability, public acceptability, and feasibility of application.
10) Freedom from controversies as to proper interpretation

Request:

a) Please confirm that the excerpt provided the Utilities in the November 4, 2009 briefing to the Yukon Government is not a quote from Bonbright but rather the Utilities' interpretation of Bonbright's attributes of a sound rate structure. If not confirmed, please explain fully.

b) Please provide a justification for the proposed Option A rate design based on Bonbright's ten attributes of a sound rate structure.

c) Please discuss what, if any, of Bonbright's ten attributes are not satisfied by Option A.

d) Please provide a justification for the proposed Option B rate design according to Bonbright's ten attributes of a sound rate structure.

e) Please discuss what, if any, of Bonbright's ten attributes are not satisfied by Option B.

f) Please discuss how the proposed Option A rate design promotes "stability and predictability of the rates, with a minimum of unexpected changes seriously adverse to ratepayers" (Bonbright's attribute No. 3).

g) Please discuss how the proposed Option B rate design promotes "stability and predictability of the rates, with a minimum of unexpected changes seriously adverse to ratepayers" (Bonbright's attribute No. 3).

h) Options A & B propose blocks for certain residential rate classes (1180 Hydro Gov, 1280 Sm Diesel Gov, 1380 Lg Diesel Gov, 1480 Old Crow Gov) that are not either consistently increasing or decreasing in nature, for example, the second rate block is greater than the first, but the third rate block is less than the second.

    i) Please provide the rationale for this inconsistency in the rate blocks.

ii) Please indicate if YEC or YECL have had residential rate blocks of this type approved in the past. If yes, please specify.

iii) Please explain if or how the proposed inconsistent rate blocks can be reconciled with Bonbright's rate design principle No. 3 which requires "stability and predictability of the rates themselves and have a sense of historical continuity."

i) Bonbright's attribute No. 10 states that there should be "freedom from controversies as to proper interpretation." The City notes YEC and YECL's disagreement in the interpretation of OIC 1995/90 as to how rate design should be implemented. Please reconcile how Option A can satisfy this attribute, given the differing interpretations between the Utilities.

CW-YEC-15

Issue: Principles of Rate Design – General Service

Reference: Application, Tab 4 YEC final and Tab 4 YECL Final

Preamble: The City wishes to understand the proposed rate design principles regarding Options A and B General Service.

Request:

a) Please explain why YEC has proposed rate blocks for certain general service rates (2160 Hydro NG, 2260 SM Diesel NG, 2360 Lg Diesel NG, 2170 Hydro Municipal, 2270 Sm Diesel Municipal, 2370 Lg Diesel Municipal, 2180 Hydro Gov, 2280 SM Diesel Gov, 2380 Lg Diesel Gov) that are not either consistently increasing or decreasing in nature. (For example, the second rate block is greater than the first, but the third rate block is less than the second).

b) Has YEC had general service rate blocks of this nature approved in the past? If so, please specify.

c) Please explain the role of YEC trying to satisfy OIC 1995/90 in the proposing of these inconsistent rate blocks.

d) Please explain how the proposed inconsistent rate blocks in Option A are reconciled with Bonbright's rate design principle No.3 (cited in the preamble of the previous question) which requires 'stability and predictability of the rates themselves and have a sense of historical continuity.'

e) Please explain why YECL has proposed rate blocks for certain general service rates (2160 Hydro NG, 2360 Lg Diesel NG, 2170 Hydro Municipal, 2370 Lg Diesel Municipal, 2180 Hydro Gov, 2380 Lg Diesel Gov) that are not either consistently increasing or decreasing in nature)

f) Has YECL had general service rate blocks of this nature approved in the past? If so, please specify.

g) Please explain the role of YECL trying to satisfy OIC 1995/90 in the proposing of these inconsistent rate blocks.

h) Please explain how YECL's proposed inconsistent rate blocks are reconciled with Bonbright's rate design principle No.3 (cited in the preamble of the previous question) which requires stability and predictability of the rates themselves and have a sense of historical continuity.

CW-YEC/YECL-16

Issue: Rate Design

Reference: Application, Tab 4YEC and Tab 4YECL

Preamble: The City wishes to understand the Utilities' consideration of the effect the proposed changes to rate design will have on customer behaviour.

Request:

a) Please confirm that YEC's forecasts for billing determinants for all rate classes are the same for existing rates as compared to the scenario where Option A rates are adopted. If not confirmed, please explain.

b) Please confirm YEC and YECL's forecasts for billing determinants for all rate classes are the same for existing rates as compared to the scenario where Option B rates are adopted. If not confirmed, please explain.

c) Please provide all studies undertaken to help understand or project the price elasticity of demand for the residential non-government class.

d) If no studies have been undertaken, please provide the support and rationale for the position that billing determinants will not change as a result of the Board adopting Option A rates.

e) If no studies have been undertaken, please provide the support and rationale for the position that billing determinants will not change as a result of the Board adopting Option B rates.

f) Does YEC generally consider Yukon residential customers to be environmentally sensitive, aware of price and rate changes and prudent consumers?

g) Please provide YECL's response to (f).

h) Given YEC's assumption in (a), please comment on the fairness or unfairness of imposing rate increases on residential second block customers that YEC assumes these customers have no ability to respond to by reducing their consumption.

i) Please confirm that the objective of providing a proper price signal through rates is to elicit a behavioural response from customers. If not confirmed, please explain the purpose of providing a proper price signal.

j) What does YEC seek to accomplish in proposing a rate design such as Option A to attempt to move toward the proper "price signal" while at the same time assuming there will be no change in consumer behaviour resulting from it?

k) Please provide YECL's answer to (j) as it pertains to Option B.

l) Please explain why YEC has set the proposed Option A residential run-off rate at only 80% of the incremental cost of diesel rather than 100% as proposed by some intervenors at the December 15, 2009 workshop.

m) Please explain why YEC has set the proposed Option B residential run-off rate at only 50% of the incremental cost of diesel rather than 100% as proposed by some intervenors at the December 15, 2009 workshop.

CW-YEC/YECL-17

Issue: Rate Design

Reference: Application, Tab 4YECL, p.4YECL-4

Preamble: YECL states:

> A lesser percentage of 50% of incremental cost was considered more reasonable at this time due to:
> • Limits related to inter-class rate balancing (i.e., OIC 2008/149);
> • Reducing rate shock impact across customer classes;
> • Avoidance of undue discrimination; and
> • Allowing further adjustments to rates when more accurate signals showing how costs move with usage is identified.

Request:

a) For each bullet, please why YECL believes the higher percentage (80% of incremental cost proposed in YEC Option A) is considered less reasonable.

b) Please fully explain YECL's concern with rate shock in YEC's proposed Option A rates.

c) Please expand on how YECL believes that the lesser percentage of 50% will help avoid undue discrimination.

d) Is YECL aware of the existence of undue discrimination in current rates that will be worsened by the proposed Option A rates?

CW-YEC/YECL-18

Issue: Rate Design

Reference: Application, Tab 4YECL

Preamble: The City desires to understand YEC's position on YECL's comments.

Request:

a) Please provide YEC's comment on the following comments by YECL, particularly, how YEC agrees or disagrees with each comment and why. Please explain fully.

i) Important rate design matters need to be fully examined and understood in the context of ensuring a fair and reasonable approach is taken towards sending the right price signals to customers. Such issues include: understanding homogeneity of residential customers, estimating elasticity and customer discretionary use across the rate classes, understanding customer response to a proposed rate change, and reflecting more accurate cost based signals in the base rates when current OIC's expire (p.4YECL-11).

ii) Proposing significant changes to the current residential blocking structure without assessing residential price elasticities throughout customer consumption levels to predict energy and revenue impact to Yukon Electrical would not be prudent in a cost environment when surplus hydro generation serves the vast majority of customers' base load. In addition, once OIC 2008/149 expires and interclass rebalancing is allowed, Yukon Electrical will be in a position to address the fair apportionment of costs, which is a critical component in the rate making process to establish more effective "economy and efficient" rates (p.4YECL-14).

iii) Proposing significant changes to the current general service rate structure and rate levels without assessing general service price elasticities throughout customer consumption levels to predict energy and revenue impact to Yukon Electrical would not be prudent in a cost environment when surplus hydro generation serves the

vast majority of customers throughout the day and foreseeable future (p.4YECL-18).

CW-YEC-19

Issue: YEC/YECL Rate Design – Options A & B

Reference: Tab 4 YEC final and Tab 4 YECL Final

Preamble: The City wishes to understand the difference in position between YEC and YECL.

Request:

a) Does YEC prefer Option A or Option B, or are both rate design options equally acceptable? Please provide a rationale for the answer.

b) Please fully discuss why YECL does not accept YEC's proposed Option A rate structure and assumptions behind it.

c) Please explain how Option A can be put forward by YEC as a feasible rate design alternative in light of receiving no support for it from YECL.

d) Please discuss how, if at all, any difference between the two Utilities' respective interpretations of "economy and efficiency" may have factored into the difference of opinion regarding Option A.

e) Please discuss how, if at all, any difference between the two Utilities' respective reading of the necessary level of compliance with OIC 1995/90 may have factored in to the difference of opinion regarding Option A.

f) Please discuss how, if at all, any difference between the two Utilities' respective opinions regarding the relative importance of OIC 1995/90 compared to other rate design criteria may have factored in to the difference of opinion regarding Option A.

CW-YEC-20

Issue: YEC Rate Design – Option A

Reference: Tab 4 YEC final and Tab 4 YECL Final

Preamble: The City wishes to more fully understand the proposed Option A and Option B.

Request:

a) Please provide the rationale for YEC believing that increasing the existing residential non-government run-off rate to the proposed level of 80% of the incremental cost of diesel should be implemented at one time rather than phasing in the change over several years.

b) Please provide YECL's definition for "economy and efficiency" as put forth in OIC 1995/90.

c) Please reconcile YECL's definition in (b) above with YECL's proposed rate design.

d) Please describe the level of urgency and importance YECL assigns to the idea of complying with OIC 1995/90?

e) If the answer to part (d) above is that complying with OIC 1995/90 is urgent and important, why does YECL's rate design proposal intend to set the residential non-government run-off rate at only 50% of the price of the incremental cost of diesel?

f) If the answer to part (d) above is that complying with OIC 1995/90 is not urgent and important, why does YECL propose that rates be changed at all? What benefit is derived from this change, as opposed to maintaining the same rates until the OIC's expire on December 31, 2012?

g) Please provide YEC's definition for "economy and efficiency" as put forth in OIC 1995/90.

h) Please reconcile YEC's definition above with YEC's proposed rate design Option A.

i) Please reconcile YEC's definition above with YEC's proposed rate design Option B.

j) Please describe the level of urgency and importance YEC assigns to the idea of complying with OIC 1995/90?

k) If the answer to part (j) above is that complying with OIC 1995/90 is urgent and important, why does YEC set the residential non-government run-off rate in Option B at only 50% of the price of the incremental cost of diesel?

l) If the answer to part (j) above is that complying with OIC 1995/90 is not urgent and important, why does YEC propose that rates be changed at all? What benefit is derived from this change, as opposed to maintain the same rates until the OIC's expire on December 31, 2012?

CW-YEC/YECL-21

Issue: Revenue Components for Option A

Reference: Application, Tab 4YECL, Schedule YECL B 4.6, Schedule YECL B 4.7

Preamble: The City wishes to understand the differences in revenue components for Options A and B and existing rates.

Request:

a) Please provide for Option A the same data in the same format as provided for Option B in Schedule YECL B 4.7.

b) Please provide for existing rates the same data in the same format as provided for Option B in Schedule YECL B 4.6, except showing the Rider J and Rider R rate and revenue component totals separately.

c) Please provide a table in the format of Schedule YECL B 4.7 that compares the revenue components for existing rates (i.e. customer revenue, demand revenue, block 1 energy revenue, block 2 energy revenue, etc.) inclusive of Rate Riders J and R by rate class with the respective rate components for Option A and that also calculates the proposed percentage change in the respective revenue components.

d) Please provide a table in the format of Schedule YECL B 4.7 that compares the revenue components for existing rates (i.e. customer revenue, demand revenue, block 1 energy revenue, block 2 energy revenue, etc.) inclusive of Rate Riders J and R by rate class with the respective rate components for Option B and that also calculates the proposed percentage change in the respective revenue components.

e) Please provide a table illustrating how Riders J and R are applied to the respective rate components for Option A, Option B, and existing rates.

f) Please provide a table illustrating the change in forecast revenue in each rate block in terms of dollar amount and percentage when comparing the existing rate components inclusive of Riders J and R with revenue components proposed for Option A.

g) Please provide a table illustrating the change in forecast revenue in each rate block in terms of dollar amount and percentage when comparing the existing rate components inclusive of Riders J and R with revenue components proposed for Option B.

CW-YEC/YECL-22

Issue: Street Lights

Reference: Application, page 7-22, Issue No. 56

Preamble:

No.	Intervenor	Submission Date	Issue	Response
56	City of Whitehorse	15-Jan-10	Rate Design: The City notes that electric utilities in BC and Alberta offer investment (by customers) and non-investment rates for streetlights and sentinel lights should be made available to customers in the Yukon.	The Companies were not able to consider this option in this Application.

Request:

a) Why were the Utilities not able to consider this option in this Application?

b) Did the Utilities contact customers of streetlights and sentinel lights to determine whether there was any need for an investment option?

c) Does YECL's parent company, ATCO Electric, offer an investment option for street and sentinel lighting?

d) Are there any other electric utilities in Canada that do not offer an investment option for street and sentinel lighting?

CW-YEC/YECL-23

Issue: Secondary Sales

Reference: Tab 5, page 5-7, lines 6-11 and YEC Mayo B Application page 28, footnote 38

Preamble: The Utilities indicate that:

> For secondary sales, as noted in Tab 1, the availability of secondary sales on each hydro grid system is presently diminishing and interruptions are becoming more common. The emphasis at the present time has shifted, since 2005 when the Maximum Company Investment provision was instituted for secondary sales, to maintaining the secondary program for existing customers but not expanding the program for new customers who will see limited availability. Consequently, utility investment in extensions for Secondary Energy customers is proposed to be terminated.

YEC's Mayo B Application stated:

In each case other than the very high load case there is also a net contribution of Mayo B to the ability of YEC to support secondary sales, conservatively estimated as varying from about 0.5 GW.h to 2.0 GW.h/year.

Request:

a) Please reconcile the different forecasts in the two applications regarding future secondary sales.

b) Please confirm that the Board concluded at page 12 of its May 17, 2010 report to the Minister on Mayo B that: "In consideration of the above, the Board is of the view that YEC's load forecast is conservative. Accordingly, the Board finds that YEC's load forecast for the period used to evaluate the economics of the Mayo B Project is reasonable."

c) If more secondary sales are available in the future, as the evidence accepted in the Mayo B appears to indicate, how should the policy on secondary sales MIL be modified?

CW-YEC/YECL-24

Issue: Secondary Sales

Reference: Application, Section 7, page 7-22, No. 54

Preamble:

No.	Intervenor	Submission Date	Issue	Response
54	City of Whitehorse	15-Jan-10	Rate Design: The City believes that the rate for secondary power should be	See Tab 4, section 4.5.1 no changes to the secondary

			capped at a percentage of the base General Service power rate rather than based on the cost of diesel fuel. Given that secondary power is not derived from diesel, but rather surplus hydro generation.	sales rates are proposed at this time.

The City notes that the current rate formula for secondary sales creates substantial variability in the secondary sales rate and causes great uncertainty in costs for the City.

Request:

a) Please explain fully the logic behind linking the secondary sales rate formula to the cost of diesel.

b) Please provide the Utilities' comments on the idea of setting the secondary sales rate as a percentage of the general service block 1 base energy charge, in an effort to reduce its variability.

c) Please comment on the reasonableness of the proposal in (b) given that secondary power is not derived from diesel, but rather arises from surplus hydro generation.

d) Why are the Utilities not proposing any changes to the secondary sales rates?

e) Please provide the Utilities' comments on the idea of establishing a secondary sales deferral account that would refund to customers any over-collections from customers resulting from actual experience that differs markedly from the forecasted secondary sales?

CW-YEC/YECL-25

Issue: Seasonal Rates

Reference: Application, Section 7.2, Items 5 & 31

Preamble: The Utilities state:

The Companies have not proposed seasonal or time of use rates in this Application. The implementation of seasonal rates would only be considered in light of appropriate studies to indicate some form of sustained cost-based rationale that provided benefits in excess of the costs and administrative issues of implementing a more intricate or complex rate structure.

...

Introducing seasonal or TOU rates would introduce complications (including complications related to billing customers such as additional costs, cancelled or re-bill implications,) and also introduce a level of complexity and confusion into Yukon rates that needs to be fully considered and tested before such rates could reasonably be advanced in any proposal to the YUB for review.

Request:

a) Please explain why the Utilities propose to move ahead with rate design changes to the residential non-government class without any studies regarding customer response through elasticities, but will not move ahead without studies in this case of seasonal sales?

b) Please explain the potential connection between seasonal sales and secondary sales. For example, would an inexpensive single block rate in the summer time substantially reduce the availability of secondary sales? Please explain fully.

c) Please list and fully explain all complications / confusion that YEC believes would result from the introduction of seasonal or TOU rates.

d) Please explain why YEC believes seasonal rates would introduce a level of complexity and confusion into Yukon rates that is greater than the changes proposed in Option A?

Terms & Conditions of Service

CW-YEC/YECL-26

Issue: Maximum Investment Level (MIL)

Reference: Application, Section 5.3

Preamble: The City wishes to determine the degree of customer acceptance of the proposed MILs.

Request:

a) Do the Utilities agree that stakeholders concerned with the Utilities' MILs would consist of, at least, municipalities, residential customers, commercial customers, government, developers and contractors?

b) Please document the input that each of the stakeholders and any stakeholder group not listed in (a) above have had into the proposed MILs. How was each stakeholder group's input incorporated into the Application?

c) Please confirm that the Utilities are only requesting the Board's approval of MIL rates on the line labelled 2011. Please confirm that, in the absence of a further application, these MILs continue in effect.

d) Please provide a full explanation as to why YEC and YECL were not able to agree on MIL rates for future years?

e) What are the respective positions of YEC and YECL on future rates and the period over which the revised MILs should be phased in?

f) Please discuss in detail why these rates are intended to apply as of January 1, 2011 and not upon YUB approval.

g) What proportion of actual construction cost will be paid by customers and the utility for each year in Table 5.4? What will be the average required customer contribution in dollars for each rate each year in Table 5.4?

h) What will the forecast increase in customer rates required by the increased company MIL by rate class in each year in Table 5.4?

i) What are the intergenerational inequities inherent in the customer contribution levels at the current rate and at the levels proposed by the Utilities? Please explain fully.

CW-YEC/YECL-27

Issue: Maximum Investment Level (MIL)

Reference: Application Table 5.2

Preamble: The Utilities provide the following table:

Table 5.2: 2009 Maximum Company Investment Levels of Neighbouring Utilities

	Northland Utilities (NUY)	Northland Utilities (NWT)	NTPC	BC Hydro	ATCO Electric	Fortis Alberta
Residential	$2100/site	$1500/site	$1500/site	$1475/site	$1200/site	$1200/site
Residential – Multi Dwelling	$700/site	$750/Site	$750/unit			
General Service	$300/kW	$300/kW	$250/kW	$200/kW	$1256/kW	$5275 Fixed plus $839/kW
Street Lighting	Cost of installation	$1200/light	Cost of installation	$150/Fixture	$1400/Light	$1400/Light

Request:

a) Please provide a table of average construction costs for each rate class for each utility in Table 5.2. Please include in this Table the portion of average construction costs provided by customer construction and by the utility.

b) Please provide the investment options offered for each customer class of the utilities listed in Table 5.2, and the corresponding rates for service with and without customer investment.

c) Why haven't the Utilities included an investment option so that customers have the choice of lowering their rates for service by investing more in their service?

CW-YEC/YECL-28

Issue: Need to Include a Customer Bill of Rights in the ESR

Reference: Application, Section 7, page 7-8, Item 25

Preamble:

No.	Intervenor	Submission Date	Issue	Response
25	Utilities Consumer Group (UCG) (Roger Rondeau)	8-Dec-09	Need to include a Consumer Bill of Rights in the ESR. A code of ethics identifying a step-by-step procedure a customer or the utility must comply when have	Please refer to the proposed ESR, (commonly called Terms and Conditions of Service). The ESRs, or terms and conditions, set out the

			a dispute.	rights and responsibilities of customer and utility with regard to the provision of service. Discussions with concerned stakeholders on this issue are being undertaken but have not been completed at time of filing.

Request:

a) Do the Utilities believe there is a need for a customer bill of rights?

b) What is the status of discussions with the concerned stakeholders? Are they ongoing or complete?

c) Please provide a detailed summary of discussions with concerned stakeholders.

d) Will there be any alterations to the ESRs as a result of these discussions?

e) Did the discussions result in mutual agreement or are there still outstanding differences?

Demand Side Management

CW-YEC/YECL-29

Issue: DSM

Reference: Decision 2009-8, page 9, paragraph 40

Preamble: YEC was directed by the Board in its General Rate Application for 2008-2009 as follows:

> Furthermore, the Board finds DSM to be a critical issue for all electric rate payers in Yukon. The Board directs YEC in conjunction with YECL, to consult with stakeholders and develop a policy paper with respect to DSM initiatives. YEC and YECL are to jointly lead this process and submit a policy paper (Plan) in their next GRA. Further the utilities are to be cognizant of and work with ESC where necessary so as not to duplicate efforts. (emphasis added)

Request:

a) Does YEC believe that DSM is a critically important issue for rate payers in the Yukon? Please explain fully.

b) If yes, notwithstanding the Board's comments on the timing of the implementation, what are YEC's reasons for waiting for another GRA until it proposes DSM programs for Board approval?

c) Does YECL believe that DSM is a critically important issue for rate payers in the Yukon? Please explain fully.

d) If yes, notwithstanding the Board's comments on the timing of the implementation, what are YECL's reasons for waiting for another GRA until it proposes DSM programs for Board approval?

e) What collaboration with customers have YEC and YECL undertaken to date with respect to a policy paper on DSM measures?

f) If no collaboration has taken place, please explain why not, given the Board's conclusion that DSM is a critical issue for all electric rate payers in Yukon.

g) Please comment on the principle that rate restructuring and DSM should be implemented simultaneously so that the two programs can work in tandem and support and enhance the conservation efforts of the other.

Collaborative Process

CW-YEC/YECL-30

Issue: Collaborative Process

Reference: Order 2009-8, page 27; Application, page 7-12, issue 61

Preamble: The Board stated:

> The Board directs YEC and YECL as agreed to file a joint Phase II application containing an up-to-date cost of service study (with electronic models attached) within 60 days of the issuance of the decision on the compliance filing by YEC as directed in this Board Order. The Phase II application is to provide accurate revenue to cost ratios for all rate classes, provide rate design recommendations that comply with previous Board directions and comply with current OICs, provide updated terms and conditions

> of service, and contain a review on investment levels. As supported by both utilities, the Board expects the application to contain stakeholder input." (emphasis added)
>
> The Utilities state that "[f]urther opportunities to review stakeholder issues may be available during the YUB Phase II review process

Request:

a) What features of the Application, as filed, are the result of, and are shaped by, stakeholder input?

b) Have the Utilities sought or received any additional stakeholder input following the January 15, 2010 stakeholder submissions?

c) If the answer to (b) is yes, then please identify this input and indicate how, if at all, the Utilities incorporated this stakeholder input into the Application?

d) At what point in the YUB process does YEC/YECL propose reviewing outstanding issues with stakeholders? Please make reference to the process schedule set out in Order 2010-6.

e) What issues do the Utilities still seek stakeholder input for resolution?

CW-YEC/YECL-31

Issue: Collaborative Process

Reference: Application, page 7-1

Preamble: The Utilities state:

> 1. Briefing with Yukon Government - The Companies met and presented background information related to its application to representatives of Yukon Government (Energy, Mines and Resources and the Energy Solutions Center) on November 4, 2009. Copies of the presentations provided to the Yukon Government by YEC and YECL are provided in Appendix 7.1 Attachment A.

Request:

a) Was the Yukon Government informed of the residential rate restructuring proposed in YEC's original application and denied in Board Order 2008-16?

b) Where does the information respecting the rate restructuring appear in Appendix 7.1 Attachment A?

c) Please outline any concerns presented by the Yukon Government in relation to the presentation materials in Appendix 7.1, Attachment A.

d) What input from the Yukon Government have the Utilities incorporated into the Application? Please provide appropriate references to the Application.

Procedure

CW-YEC/YECL-32

Issue: Procedure

Reference: Cover Letter of March 1, 2010

Preamble: The Utilities state:

> The Companies have provided herein two rate design discussions (Tab 4YEC and Tab 4YECL). Each Company will be prepared to speak to their discussion as part of this proceeding.

The City wishes to understand how the Utilities will speak to and defend the respective rate designs options, and the procedure envisioned in so doing.

Request:

a) Will utility witnesses who speak to the two rate design options sit on the same panel or will they sit separately?

b) Will the Utilities provide one panel to speak to all the issues on which they agree, such as the rate design described as YEC's Option B?

c) Will there be a separate YEC panel to speak to the Option A rate design and other issues with which YEC may not agree with YECL?

d) Will there be a separate YECL panel to speak YECL's proposed rate design and any issues with which YECL may not agree with YEC, such as YEC's Option A?