

YUKON ENERGY CORPORATION

APPLICATION FOR AN
ENERGY PROJECT CERTIFICATE
AND AN
ENERGY OPERATION CERTIFICATE
FOR THE PROPOSED
CARMACKS-STEWART TRANSMISSION PROJECT

INTERROGATORY RESPONSES

April 27, 2007

YUKON ENERGY CORPORATION
APPLICATION FOR AN ENERGY PROJECT CERTIFICATE AND AN ENERGY OPERATION CERTIFICATE

UTILITIES CONSUMERS' GROUP
(UCG)

REFERENCE: Application, page 2; YESAB Review Process
Application, page 3, footnote 2; YESAB Project Proposal Submission

YEC indicates that the YESAB review process to date has included a pre-screening adequacy review of the Project Proposal Submission (October to December 2006), Supplementary Addendum provided January 24, 2007, and completion of YESAB's pre-screening Adequacy Review February 2, 2007. YEC also states that the public comment period on the Project Proposal Submission has been extended to April 4th, 2007 and that the YESAB continues to prepare a Draft Screening Report.

YEC indicates that the "YESAB Project Proposal Submission is for environmental and socio-economic assessment of the entire Carmacks-Stewart / Minto Spur Transmission Project".

QUESTION:

a) Please describe the difference between the transmission project being addressed in this Part 3 review and the project being addressed by the YESAB.
b) Please provide details of the amount of YESAB-related costs that have been incurred to date and forecast, separated by year.
c) Please provide details of the amount of YESAB-related costs related to the transmission project being addressed in this Part 3 review to date and forecast, separated by year.
d) Please explain how the YESAB-related costs incurred for facilities not being addressed in this Part 3 review will be tracked, accounted for and recovered from ratepayers.

ANSWER:

(a)

The transmission project being addressed as part of the Part 3 Hearing review and the project being addressed by the YESAB are essentially the same project except the Mine Spur to be reviewed in the YESAB review is not included as part of the Project for the purposes of the Part 3 review.

(b)

To date, the Corporation has incurred approximately $1,169,000 in YESAB-related costs, including stakeholder consultations. Management's forecast is that it will cost approximately $1,382,000 to complete the YESAB review, keeping in mind it is a new process and therefore it is difficult to accurately estimate the cost to completion.

c)

The allocation of common CS/MS costs to the Minto Spur and CSTP has not been finalized. To date, the Corporation estimates $1,015,000 of actual YESAB-related costs incurred to date, including stakeholder consultations will be allocated to the CSTP. Management's current forecast is that it will cost approximately $1,194,000 to complete the YESAB process, keeping in mind it is a new process and therefore it is difficult to accurately estimate the cost to completion.

d)

All YESAB-related costs in relation to the Minto Spur will be paid for by Minto. The Corporation has set up a separate account for tracking costs related to planning the construction of the spur line to the mine. This account will contain all direct planning costs associated with this line, as well as an allocation of common costs for planning the entire CS/MS project.

REFERENCE: Application, page 2

YEC indicates that "the Yukon Government has committed to provide new funding as required for up to $10 million of the capital costs for Stage One of the CSTP".

QUESTION:

a) Please provide all available detail on the conditions associated with the $10 million commitment.
b) Please confirm that the Yukon government's funding commitment to the transmission project being addressed in this Part 3 review now totals $10.45 million.

ANSWER:

(a) and **(b)**

The April 2, 2007 letter from Mr. Archie Lang, Minister of Energy, Mines and Resources to the Chair of the Yukon Energy Board provides all of the information and detail regarding the conditions associated with the $10 million YTG commitment that is available to Yukon Energy at this time. This letter was attached as Attachment D to the Part 3 Application.

As stated in the April 2, 2007 letter, YTG:

> will provide YEC with a contribution of up to $10 million for Stage One of the CSTP. This commitment is subject to YEC securing the Yukon Utilities Board approval of the Purchase Power Agreement with Minto explorations and receiving all necessary permits and approvals, including Energy Certificates obtained under the *Public Utilities Act*. These funds will be applied to those Stage One capital costs not already committed from Yukon Development Corporation and the Minto Mine.

YTG has separately provided $450,000 in funds to date towards CSTP project planning.

Accordingly, as shown in Schedule 1 of the Application, the Yukon government's funding commitment to Stage 1 of the CSTP being addressed in this Part 3 review now totals up to $10.45 million.

Additional YTG funding commitments are also provided for in the April 2nd letter for Stage Two of the CSTP, i.e., "[t]he Yukon government will work with YEC and industry to ensure that Stage Two can also be constructed in the future without any direct cost to other ratepayers." As shown in Schedule 1 of the Application, YEC has estimated that the YTG contribution to Stage Two could be as much as a further $10 million, (See also, response to YECL-YEC-1-2).

REFERENCE: Application, page 3; Stage One route
Application, page 3, footnote 5; Photomasics

YEC indicates that a detailed description of the Stage One route of the 138kV transmission line from Carmacks to Pelly Crossing is provided in the YESAB Supplementary Addendum, Map Line Segments (Attachment YESAB-YEC-1-3).

This footnote refers to photomosaics of the Project Site Area in Appendix 7B of the YESAB Project Submission.

QUESTION:

a) Please provide a copy of the referenced material from the YESAB proceeding.

ANSWER:

(a)

The referenced material is publicly available on the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB under Project # 2006-0286.

The photo mosaics provided in Appendix 7B, and listed in Document # 2006-0286-020-1 under the Project Proposal Listing are available either through the YESAB main office in Whitehorse, or through public libraries in Whitehorse, Carmacks, Pelly Crossing and Mayo, and at the YESAB district office in Mayo.

The replacement photo mosaics for CS segment 1.1, 1.2, 3.3, 3.4, 3.9, and 3.10 are provided in the YESAB Supplementary Addendum found on the YOR as Documents # 2006-0286-042-1 (Segments 1.1 and 1.2), # 2006-0286-043-1 (Segments 3.3 and 3.4) and # 2006-0286-044-1 (Segments 3.9 and 3.10).

REFERENCE: Application, page 3, footnote 4

YEC indicates that the Stage One CSTP and Mine Spur will provide long-term opportunities to supply new retail distribution customers in the Minto Landing area east of the Yukon River.

QUESTION:

a) Please provide the number of retail customers now available in Minto Landing area east of Yukon River.
b) Please provide the cost associated with hooking up customers at Minto.
c) Please confirm that total costs of the transmission project being addressed in this Part 3 review include the costs identified in (b).

ANSWER:

(a), **(b)** and **(c)**

Yukon Energy has heard of interest in the Minto Landing area by managers of the Minto Resort, members of Selkirk First Nations and Northwestel (regarding hydro grid power to their Minto Microwave site). YEC is not aware of the specific number of potential retail customers that are currently available, or that may be potentially available in the future, in the Minto Landing area east of the Yukon River. The total costs of the CSTP being addressed in this Part 3 review do not include costs for any distribution facilities to connect such customers to the CSTP. It is assumed that the distribution utility, YECL, will be responsible for hooking up such customers and YEC has no cost estimates for this distribution activity.

REFERENCE: Application, page 3, footnote 6

YEC indicates that the connection of the new substation facilities at Carmacks to the distribution facilities serving Carmacks will require a new distribution line connection by YECL and the decommissioning and removal of the existing Carmacks substation.

QUESTION:

a) Please provide details of the costs associated with the new distribution line connection by YECL and the decommissioning and removal of the existing Carmacks substation.
b) Please confirm that total costs of the transmission project being addressed in this Part 3 review includes the costs identified in (a).

ANSWER:

(a) and **(b)**

The new distribution line connection by YECL and the decommissioning and removal of the existing Carmacks substation by YEC are not part of the CSTP currently under review in this proceeding, and details on costs in this regard have not been developed by YEC and therefore cannot be provided. The specified decommissioning can only occur after the specified YECL distribution line connection has been installed.

REFERENCE: Application, page 3, footnote 7

YEC indicates that connection of the new substation facilities at Pelly crossing on Selkirk First Nation settlement land to distribution facilities (and the diesel plant) at Pelly Crossing will require a new distribution line connection by YECL.

QUESTION:

a) Please provide details of the costs associated with the new distribution line connection by YECL.
b) Please confirm that total costs of the transmission project being addressed in this Part 3 review includes the costs identified in (a).

ANSWER:

(a) and **(b)**

The new distribution line connection required by YECL at Pelly Crossing is not included as part of the CSTP being reviewed in this proceeding and details on costs associated with this distribution cannot be provided by YEC. It is expected that YECL will be responsible for this connection in terms of permitting, approvals, design, construction, operation and ownership.

REFERENCE: Application, page 4

YEC has provided a Project Area Map that identifies a substation at McGregor Creek.

QUESTION:

a) Please provide specific details of the proposed location for this substation.
b) Please provide a breakdown of the estimated costs of the proposed substation.
c) Please provide details on who will be responsible for paying the costs of the proposed substation.

ANSWER:

(a)

The map provided at page 4 of the Part 3 Application does not provide the location of any proposed substation at McGregor Creek. The map provides the location of the Carmacks Copper Mine if, and when, this mine is added to the system, as well as the location of McGregor Creek. However, no specific location for the substation is provided at this time. Should the Carmacks Copper Project proceed with grid power it is expected that the spur substation, to feed the mine, would be located in the vicinity of McGregor Creek adjacent to the 138 kV main CS transmission line.

(b) and **(c)**

The substation at McGregor Creek is not part of the CSTP being assessed at this time. If developed, it is assumed that any such switching or substation would be part of a spur line to the Carmacks Copper Mine, and that this mine would be responsible for paying the costs of such facility.

REFERENCE: Applications, page 5

YEC indicates that Chapter 5 of the YESAB Project Proposal Submission and Supplementary Information YESAB-YEC-2-1 provide a detailed description of the Project. YEC also indicates that the project proposal to the YESAB includes a full description of the route selection (Chapter 7) and consultation (Chapter 4) and that YEC's preferred transmission route selection was based on an iterative route selection and assessment process.

QUESTION:

a) Please provide a copy of the referenced material from the YESAB proceeding.
b) Please provide material from the YESAB proceeding which describes the iterative route selection and assessment process.

ANSWER:

(a)

The referenced material is publicly available on the YESAB Online Registry (YOR) or on the Yukon Energy website.

To download the entire Executive Committee Project Proposal (without appendices or reference materials) visit www.yukonenergy.ca.

To view only Chapters 7 and Chapter 4, along with relevant appendices and reference materials use the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB.

For information specific to Chapter 4, view the following on YOR:

Document # 2006-0286-005-1, Chapter 4: Consultation
Document # 2006-0286-016-1, Appendix 4: Consultation
Document # 2006-0286-024-1, Reference 4-R1: Consultation
Document # 2006-0286-025-1, Reference 4-R2: Consultation – Rounds One
Document # 2006-0286-026-1, Reference 4-R3: Consultation – Rounds Two and Three

For information on Chapter 7, please see below (b).

(b)

For information on the iterative route selection and assessment process (Chapter 7) view the following on the YOR:

Document # 2006-0286-008-1, Chapter 7: Alternative Routes
Document # 2006-0286-020-1 Appendix 7A & 7B: Alternative Routes
Document # 2006-0286-021-1, Appendix 7C: Alternative Routes – NTFN Letters
Document #2006-0286-031-1, Reference 7: Alternative Routes

REFERENCE: Application, page 5

YEC indicates that the route selection process included several rounds of consultation with the three Northern Tutchone First Nations (NTFN).

QUESTION:

a) Please provide copies of the agenda and minutes of all consultations with the three NTFNs.

ANSWER:

(a)

All publicly available information with respect to consultations with the NTFNs up to the time of filing is available in Chapter 4 of the Project Proposal Submission on the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB and on the Yukon Energy website at www.yukonenergy.ca.

Copies of the agenda and minutes of all consultation with the NTFNs are only available on YOR.

Meeting dates and records of personal communications are referenced as follows on the YOR:

- Document # 2006-0286-016-1, Appendix 4: Consultation

Records of meetings and activities organized by the First Nations (without Yukon Energy's direct participation) are referenced as follows on the YOR:

- Document # 2006-0286-024-1, Reference 4-R1: Consultation

All meeting agendas and minutes with the NTFN in which Yukon Energy was a participant are available are referenced as follows on the YOR:

- Document # 2006-0286-025-1, Reference 4-R2: Consultation – Rounds One

- Document # 2006-0286-026-1, Reference 4-R3: Consultation – Rounds Two and Three

Since the above filing there has only been one official meeting with the NTFNs. This meeting primarily dealt with issues that need to be addressed in order to conclude a Project Agreement, and was considered a preliminary internal discussion amongst the parties to the MOU. This meeting did not address route selection issues.

REFERENCE: Application, page 5

YEC indicates that, in May 2006, a Memorandum of Understanding ("MOU") was concluded between Yukon Energy and the three NTFNs and that all parties agreed that the development of this Project would provide meaningful benefits and opportunities for the NTFNs and their members, as well as all Yukoners, for a number of years. YEC also indicates that the MOU provided for joint support of the CSTP (as well as the Minto Spur), and established commitments with regard to a consultation process for the route selection and for a YESAB filing process.

QUESTION:

a) Please provide a copy of the referenced MOU.
b) If the referenced MOU does not specifically identify the agreement by all parties that the development of this Project would provide meaningful benefits and opportunities for the NTFNs and their members, as well as all Yukoners, for a number of years, then please provide documentation outlining this agreement.
c) If the referenced MOU does not specifically identify the joint support of the CSTP (as well as the Minto Spur), and established commitments with regard to a consultation process for the route selection and for a YESAB filing process, then please provide documentation outlining this support.
d) Please confirm that, if requested, the signatories to this MOU will be made available for cross-examination at the oral hearing scheduled to commence May 15, 2007.

ANSWER:

(a) through **(c)**

The MOU is a confidential agreement entered into between the First Nations and Yukon Energy. Yukon Energy does not have the authority to release the agreement to the public.

All publicly available material is available on the YESAB Online Registry (YOR) and on the Yukon Energy website. Information related to the MOU can be found in Chapter 4 of the project proposal submission.

To download the project proposal (without appendices or reference materials) go to www.yukonenergy.ca.

To download Chapter 4 specifically, go to the YOR at http://www.yesab.tzo.com/wfm/launch/YESAB and view the following referenced document:

- Document # 2006-0286-005-1, Chapter 4: Consultation

Letters of support from each of the NTFN's were provided in October 2006, before YEC filed its proposal for the Carmacks-Stewart/ Minto Spur Project with YESAB, and were attached to the proposal in an Appendix to Chapter 7. This document is available on the YOR and is referenced as follows:

- Document # 2006-0286-021-1, Appendix 7C: Alternative Routes-NTFN Letters

(d)

YEC witnesses will be available for cross examination at the hearing on all relevant matters. YEC is not planning, or able to require, that NTFN signatories to the MOU be made available for cross examination at the hearing.

REFERENCE: Application, page 5; NTFN Letter of Support
Application, page 5, footnote 8; Discussions on the Topic of Router Selection

YEC indicated that the NTFNs provided letters of support for the Project to YESAB in October, 2006.

YEC states that the Selkirk First Nation (SFN) and the Little Salmon / Carmacks First Nation (LSCFN) indicated the need to continue discussions on the topics of route selection (in three specific areas), access management and trap line mitigation measure, however each First Nation indicated that this could be done as part of the YESAB process and should not prevent the Project from proceeding with the YESAB screening.

QUESTION:

a) Please provide copies of the referenced letters of support.
b) Please confirm that, if requested, the signatories to these letters of support will be made available for cross-examination at the oral hearing scheduled to commence May 15, 2007.
c) If the concerns identified in footnote 8 are not outlined within these letters of support, please provide the related documentation.

ANSWER:

(a)

The referenced letters of support were filed (see Appendix 7C) with the Carmacks-Stewart/ Minto Spur Project proposal submission to YESAB and are publicly available on the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB and on the Yukon Energy website at www.yukonenergy.ca.

(b)

YEC witnesses will be available for cross examination at the hearing on all relevant matters. YEC is not planning, or able to require, that NTFN signatories to these letter of support be made available for cross examination at the hearing.

(c)

See UCG-YEC-1-11(a). All publicly available information is available on the YEC website or on the YESAB public registry.

REFERENCE: Application, pages 5 – 7

YEC indicates that an updated overview of the CSTP project economics was provided to the YUB as Exhibits B-16 and B-22 of the Resource Plan Hearing and that updates were also filed during the Board's review of the proposed Power Purchase Agreement and with the YESAB in the Supplementary Filing (as YESAB-YEC-2-5). YEC has now provided a further update in its Schedule 1.

QUESTION:

a) Please confirm YEC's understanding that evidence filed as part of the reviews of the Resource Plan, the PPA and the YESAB application form part of the record of this Part 3 review.
b) Please provide a copy of the referenced Supplementary Filing to the YESAB.
c) Please provide a chart comparing cost estimates (low, mid point and high) for each stage of the proposed transmission project for cost estimates from the 20-Year Resource Plan, the PPA review, the YESAB application and the updated costs in the current Application.
d) Please provide detailed explanations for the changes in cost estimates between the 20-Year Resource Plan and the current Application.

ANSWER:

(a)

YEC understands that all Exhibits filed to date in this hearing and any specific references made in the YEC Application for the Certificates (or in other filings in this proceeding) form part of the evidence filed as part of this review.

(b)

Materials are publicly available on the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB. The supplementary filing can be viewed on that website and is referenced on that site as follows:

- Document # 2006-0286-037-1, Supplementary Info Response

(c) and **(d)**

The cost estimates provided in each of the referenced proceedings has not, in essence, changed, other than as stipulated in Schedule 1 of the current proceeding (i.e., earlier estimates in 2005$ escalated for Stage 1 by 12% for in-service in late 2008, and for Stage 2 by 15% for in-service in later 2009).

REFERENCE: Application, page 5; Increased Payments to YDC
Application, page 5, footnote 10; Flexible Term Note

YEC refers to increased payments to YDC under the Flexible Term Note.

YEC indicates that the terms of the Flexible Term Note provide for payments of interest and principal to be deferred and abated, respectively, if YEC's power sales on the WAF distribution system are less than specified amounts.

QUESTION:

a) Please provide details of the level of YEC's electricity sales that would result in the referenced deferral and abatement of interest and principal payments.
b) Please explain how this will affect YEC's annual revenue requirement and the costs to be recovered from each rate class.
c) Please provide an analysis of the payments on interest and principal assuming mine loads of 75%, 50% and 25% of the current forecast are supplied through the proposed facilities.

ANSWER:

(a) and **(b)**

Footnote 10 in the Application provides basic information on the FTN terms and effective interest rate in 2005 and 2004; Appendix C (footnote 43) indicates assumed YEC WAF sales in 2008 (259.5 GWh) without the Minto mine or the CS Project. Under the FTN, no interest or principal is payable at YEC WAF sales of 200 GWh/year and full interest and principal are payable at 310 GWh/year of YEC WAF sales. Changes in FTN interest and principal payments affect YEC's average cost of debt used for the purpose of determining YEC's allowed return on rate base; rate base return costs to be recovered from each rate class reflect the allocation of YEC's return costs to generation, transmission and distribution functions and the subsequent classification and allocation of such costs among rate classes.

(c)

Attachment C in the Application (column 10 in Tables C-1 and C-2) indicated FTN incremental interest costs by year (2009 to 2016) with Minto mine loads at 32.5 GWh/yr

and 42 GWh/yr.[1] The impact is shown to decline over the period in each load scenario, as overall WAF loads separate from the Minto mine are assumed to grow at 1.85% per year.

By way of example, the following estimates apply for Table C-1 for the year 2009 (which shows an incremental FTN interest cost due to the mine of $0.516 million for 2009):

- **without Minto Mine**:
  - YEC WAF sales for year: 264.3 GWh/yr
  - FTN interest rate (64.3/110)*(.07) = 4.09%
  - FTN principal paid = (64.3/110)*$1.0 = $0.584 million
  - FTN interest = $1.056 million
- **with Minto mine**:
  - YEC WAF sales for year: 296.8 GWh/yr
  - FTN interest rate (96.8/110)*(.07) = 6.16%
  - FTN principal paid = (96.8/110)*$1.0 = $0.880 million
  - FTN interest = $1.571 million

If the Minto mine load changes for 2009, FTN charges will change accordingly;

- Growth in mine load per Table C-2 results in incremental FTN interest of $0.664 million for 2009.
- Decline in mine load to 50% of the assumed C-1 load would yield 50% of the FTN interest increase shown in Table C-1, or $0.258 million, and 50% of the principal payment increase shown above.
- On the same basis, incremental interest would be $0.387 million at 75% of the mine load and $0.129 million at 25% of the mine load.

The impacts as estimated above will change accordingly for each year after 2009.

YDC's contribution of $5 million as no cost capital for the CS Project more than offsets the FTN incremental cost impacts associated with the Minto mine connection to WAF. This YDC contribution is not affected by changes in the Minto load.

[1] The estimates by year are not changed from Attachment C tables in the PPA Application.

REFERENCE: Application, page 6; Ratepayer Benefits
Application, page 6, footnote 11; Ratepayer Benefits in Stage 1

YEC refers to potential net ratepayer benefits under stipulated assumptions.

YEC indicates that net ratepayer benefits in Stage 1 reflect use of the WAF hydro resources to displace diesel generation at Pelly Crossing and the Minto Mine.

QUESTION:

a) Please provide a chart showing the forecasted annual projected ratepayer benefits from 2008 through 2016.
b) Please provide an analysis of ratepayers benefits assuming mine loads of 75%, 50% and 25% of the current forecast are supplied through the proposed facilities.

ANSWER:

(a)

The projected ratepayer benefits from 2008 through to 2016 are described in Attachment C of the Part 3 Application which provides examples for how the Mine Net Revenue Account would operate during the eight calendar years of projected service to the Minto mine pursuant to the PPA. Column 13 of Tables C-1 and C-2 (at pages C-4 and C-5) shows the Mine Net Revenue incremental amount which essentially equates to the annual ratepayer benefits being accrued for future use at the direction of the Board. The amount varies by year and for different assumed mine loads (Table C-1 and Table C-2).

(b)

If mine loads of 75%, 50% or 25% of the current forecast are supplied through the proposed facilities then, assuming there are no changes with regard to the ore reserves to be mined, the mine life will essentially be extended. The same concept applies when comparing the 32.5 GWh Minto load with the 42 GWh Minto Load, i.e., for the larger annual power load the mine life is shorter as more ore at the Mine site is being processed in a shorter amount of time. Contrary to such assumptions, YEC understands that Minto is likely to do all that it reasonably can to increase annual processing rather than decrease it.

Ignoring any extension of mine life implied by such analysis, one example is provided below of the analysis of annual accrued ratepayer benefits in the Mine Net Revenue Account assuming 50% of the current forecast mine load or 16.25 GWh load/yr for the years 2009 to 2016. Benefits are reduced from those shown in Table C-1 of the Application, but still remain significant (e.g., at $8.7 million accrued by 2016).

Table UCG-YEC-1-14 (b) Mine Net Revenue Account Example: Minto at 16.25 GWh/yr ($000) with Yukon Government's New Funding

		Mine Loads GWh/y 32.5	Minto Power Bills 0.10 thous $	Incremental increase in Diesel Generation w O & M			Incremental decrease in Secondary Sales			Pelly Diesel Savings thous $	FTN thous $	CS thous $	YEC Mine Diesels thous $	Mine Net Revenue Incremental thous $	Mine Net Revenue Account Accrued thous $	CS Stage One Undepreciated Capital Costs Accrued thous $
				w/o Mine thous $	w Mine thous $	Net thous $	w/o Mine thous $	w Mine thous $	Net thous $							
Mine Year	Year starting	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	2007															
2	2008	-	-	-	-	-	-	-	-		-	-	-	-	-	
3	2009	16.25	1,625	40	94	54	1,282	1,282	-	102	259	-	192	1,222	1,222	-
4	2010	16.25	1,625	65	131	66	1,308	1,308	-	102	244	-	267	1,149	2,371	-
5	2011	16.25	1,625	94	179	85	1,334	1,334	-	102	228	-	259	1,155	3,526	-
6	2012	16.25	1,625	132	243	111	1,361	1,361	-	102	210	-	251	1,155	4,682	-
7	2013	16.25	1,625	182	330	148	1,388	1,388	-	102	191	-	242	1,146	5,828	-
8	2014	16.25	1,625	251	443	192	1,416	1,416	-	102	170	-	234	1,131	6,959	-
9	2015	16.25	1,625	343	591	248	1,444	1,302	142	102	132	-	225	1,008	7,967	-
10	2016	16.25	1,625	467	776	309	1,473	972	501	102	46	-	217	754	8,721	-

Notes:

1. Commercial operations are expected to commence in Q2, 2007. Table assumes YEC commences delivery Jan 1, 2009, and mine operations cease Dec 31, 2016.
2. Diesel Generation with Operating and Maintenance costs, as well as Secondary Sales, are from table similar to PPA Application Attachment B.
   PPA Application Attachment B changes reflect new WAF sales to Pelly Crossing as well as the Minto mine (Pelly Crossing has minor impact relative to Mine impacts).
   PPA Application Attachment B reflects YEC and YECL secondary sales - YEC's share as required for Mine Net Revenue is estimated at 80% of the amounts shown in columns 6, 7 and 8.
3. Pelly Crossing diesel saving assumes only YEC portion of diesel saving at $.068 per kWh.
4. Assumes 0% interest per annum earned on the account to fund YEC's regulated rate base because the account is greater than CS Stage One Undepreciated Capital Cost.
5. Other costs such as those related to the PPA hearing, and YEC net earnings on financing Minto's Capital Cost Contribution (7.5% interest exceeds YEC's WACC), would also be included in the Mine Net Revenue Account

1

REFERENCE: Application, page 6

YEC indicates that the Yukon government has committed to provide new funding for Stage Two of the CSTP.

QUESTION:

a) Please provide documentation of this referenced financial commitment to Stage Two.

ANSWER:

(a)

This commitment was provided in the April 2, 2007 letter attached to Yukon Energy's Part 3 Application. (See also response to YECL-YEC-1-2 and UCG-YEC-1-2.)

REFERENCE: Application, page 6, footnote 13

YEC provides an example of the load and capital contribution that could be expected if the Carmacks Copper Mine were connected to the proposed facilities and that Carmacks Copper is currently in the initial permitting stage based on a proposal which assumes use only of on-site diesel generation.

QUESTION:

a) Please confirm that for purposes of this Part 3 review, the referenced load and capital contributions should not be considered by the Board when addressing the feasibility of the proposed facilities under review.

ANSWER:

(a)

The Application only references the Carmacks Copper Mine load and contribution to indicate the potential industrial load that has been assumed to date (as per the Resource Plan Hearing) to be a precondition for proceeding with Stage Two of the CSTP (see Board Report on Resource Plan Hearing, January 15, 2007, page 32 as reviewed at page 14 of the Application). Accordingly, the Board should continue to consider this information when assessing terms and conditions to be recommended to the Minister for proceeding with Stage Two of the CSTP.

REFERENCE: Application, page 7, footnote 14

YEC indicates that updated timelines for Stage Two will be developed when warranted based on discussions with industry and the Yukon Government and that the project proposal submission to the YESAB (Figure 5.4-2) assumed in-service in quarter 3 of 2009.

QUESTION:

a) Please explain the timelines associated with applications to the Yukon government, the YUB and other regulations regarding Stage 2 of the proposed transmission project.
b) Please provide a copy of the referenced material from the YESAB proceeding.

ANSWER:

(a)

The timelines for Stage Two are based on late 2009 in-service, and in effect assume that the Carmacks Copper mine is ready to be in operation by that time, that a firm PPA commitment by that mine is in place by approximately the end of 2007, and that all approvals and permits required to proceed (including YTG funding commitments) with Stage Two CSTP, as well as the Carmacks Copper Mine spur, are in place by approximately fall 2008. Given current planning to secure Stage Two permits and approvals as part of current proceedings, the major new permits and approvals (and YESAB review) requirement is anticipated to be related to the Carmacks Copper mine spur. If the Carmacks Copper Project is delayed from the fall 2008 date then the in-service date for the grid connection would be pushed back accordingly as well.

(b)

The referenced material is publicly available on the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB and on the Yukon Energy website at www.yukonenergy.ca. In the case of the referenced Figure 5.4-2, YEC notes that this schedule was prepared in September 2006 and details within this figure and its footnotes do not reflect the updated situation today. For example, contrary to the footnotes, final design on Stage Two would be done in 2008 (not 2007), and likely not until after a PPA with Carmacks Copper was negotiated and approved by the YUB; also, as set out in the

Part 3 Application (Figure 3.2-1), preliminary design work is being done on quarter 2 of 2007 (not quarter 1 of 2007).

REFERENCE: Application, page 8

YEC indicates that delays in bringing the proposed transmission project into service will adversely affect the Minto mine and existing ratepayers.

QUESTION:

a) Please describe in detail the adverse impacts that would be realized by the mine and existing ratepayers if the project's completion date was delayed by 1 month, 6 months and 1 year.

ANSWER:

(a)

As has been amply noted in the PPA process[1] and in the Part 3 Application, the CSTP development is very sensitive to timing considerations, particularly with regard delivery of power to the Minto Mine.

The Part 3 application at page 6 sets out that, "the sooner Stage One of this Project (as well as the Minto Spur) is built, and delivery of grid power to the Minto Mine commences, the sooner (and longer) ratepayers can start to capture the benefits of these new firm sales for surplus WAF hydro generation over the limited life of the Mine."

PPA IR YUB-YEC-1-4 sets out that "timely completion of the project will yield material ratepayer benefits equal to at least $250,000 per month of avoided delay (reflecting expected minimum Minto payments), ignoring additional impacts that arise under the PPA if delay extends beyond September 30, 2009." Basically, any delay in commencement of delivery will mean deferring potential ratepayer benefits from providing service to the mine. Since the mine has a limited life expectancy, the earlier the commencement of delivery to the mine, the longer the period available to YEC to make sales to the mine and realize the benefits of providing surplus grid electricity to the Mine at the Firm Mine Rate.

With regard to Minto, every month of delay in Commencement of Delivery means another month of foregone benefits as the benefits of cheaper grid electricity will not be

[1] See for example, PPA Hearing IRs YUB-YEC-1-4 and UCG-YEC-2-1 and Part 3 Application at page 13.

available. The longer the delay in service, the smaller the savings available to Minto, making Minto's investment in the Mine Spur and Carmacks-Stewart project less economic each day service to the Mine is delayed. Estimates of Minto cost savings by year were provided in Attachment D to the PPA Application.

Generally, each month of delayed delivery also means an additional month that Minto will be running diesel units and producing carbon emissions and other pollutants; as estimated in the Part 3 Application, for each month of project delay there will be 2,000 tonnes more CO2 emissions.

Since there are adverse impacts arising from benefits foregone to both parties to the document, section 3.3 of the PPA commits YEC to exercise commercially reasonable efforts to design, engineer, procure, construct and commission the Transmission Project along the route on a timely basis in order to provide for Commencement of Delivery as soon as reasonably possible on or before September 30, 2008 (or as soon after as is reasonably possible), and provides consequences to YEC in terms of further adverse impacts on its potential to recoup its investment should the project be delayed beyond certain determined dates. Under section 3.1 "if Commencement of Delivery occurs after September 30, 2009, the Capital Costs for the Mine Spur included in the Capital Cost Contribution will not include any interest on such Capital Costs after January 1, 2010. If Commencement of Delivery occurs after March 31, 2010, the Capital Cost Contribution payment will be adjusted under Section 5.3, 5.4 or 5.5." of the PPA. In effect, these added costs under the PPA arise after a one year delay period beyond the September 30, 2008 target date for Stage One in-service.

Further, under section 6.3(b) the Minimum Take or Pay Amount will be reduced by $250,000 for each added month of delay after September 30, 2009.

Thus, delays in delivery one year beyond September 30, 2008 will provide adverse impacts in terms of benefits foregone and also will provide PPA-related adverse impacts in terms of a reduction in interest charged and a reduction in the available take-or-pay amounts for each month of added delay.

REFERENCE: Application, page 8

YEC discusses the activities leading up to an in-service date for the proposed facilities.

QUESTION:

a) Please explain why YEC is requiring a quick response from the YUB and Yukon government on the proposed project when YESAB review process will not be completed until mid to late-summer.
b) Please explain how a YUB report of recommendations to the Yukon government acts as rationale for Yukon Energy to pre-order materials and equipment when any decision from the YESAB would still be pending.
c) Please provide YEC's current best estimate of the timelines to acquire all required permits, certificates and approvals.
d) Please provide a copy of the Access Agreement with NTFN when completed.
e) Please provide a copy of the Project Agreement with NTFN when completed.
f) Please explain why YEC is requiring a quick response from the YUB and Yukon government on the proposed project when the required permits will not be acquired until mid to late-summer.

ANSWER:

(a), **(b)** and **(f)**

As has been noted throughout this process and the PPA process, Stage One of the CSTP is very sensitive to timing considerations. In response, YEC's work plan identifies opportunities (such as early ordering of long-lead equipment) to secure the earliest possible in-service date for the project approach. In addition, for prudent risk-management and the protection of ratepayers, YEC's work plan also has a number of decisions points (milestones) in the CSTP work plan where it evaluates whether it is prudent to proceed with the next step(s) of the CSTP project. These timely decision points facilitate YEC's management of project risk.

Approval of the PPA by April 30, 2007 as set out in section 3.1(a) of the PPA is tied to the need to place orders during May (with cancellation provisions) for long lead equipment required for an in service of the Transmission Project by Quarter 3 of 2008, and also to authorize proceeding with cost commitments for final engineering design. As noted in the Part 3 Application, YEC is not prepared to undertake final engineering

design or order long lead equipment without approval of the PPA. Timing and scheduling are key to viability of the project and enhancing benefits to all parties, and if the long lead equipment is not pre-ordered before final permits and approvals are secured, material delays will occur for project in-service.

These basic YUB processes must be completed before YEC will undertake the above-noted commitments. The approval of the PPA and the completion of the Part 3 Hearing and the issuance of a YUB report to the Yukon government will each provide YEC with a basis for assessing whether there are insurmountable issues to be resolved or whether it is viable to proceed with the project.

Issuance of the draft YESAB screening report will also provide YEC with a basis for assessing the prudence of proceeding in advance of the final YESAB report and all final permits and approvals. As noted in all filings to date, risk assessments with regard to the YESAB and permitting processes focus on timing rather than concerns about ultimate outcomes.

(c)

The Application sets out YEC's estimated timelines for all permits, approvals and certificates in Schedule 3.2.3 and related text. YEC's current best estimate is that YESAB-related timelines may be delayed by two to four weeks from those estimated by YEC in the Application.

(d)

YEC will not have a final Access Agreement with NTFN prior to completion of the current YUB proceeding, but is confident that this will be secured by the time required to commence construction.

(e)

YEC will not have a final Project Agreement with NTFN prior to completion of the current YUB proceeding, but is confident that this will be secured by the time required to commence construction.

REFERENCE: Application, page 8

YEC indicates that in order to secure the earliest possible construction start date, Stage One construction preparation involving preliminary engineering and costing has been planned to begin in March 2007.

QUESTION:

a) Please confirm that YEC is currently incurring costs for preliminary engineering and costing prior to the YUB and YESAB issuing and decisions / recommendations regarding the proposed facilities.
b) Please provide details of the costs and cost commitments to date.

ANSWER:

(a)

Yes.

(b)

Please see response to UCG-YEC-1-22(d).

REFERENCE: Application, page 8

YEC indicates that prior to completion of the YESAB review process, it will order long-lead equipment (with cancellation provisions) in May / June.

QUESTION:

a) Please provide details of the referenced long-lead equipment and its costs as well as the cancellation provisions.

ANSWER:

(a)

The long-lead delivery equipment is expected to include transformers, reactors and synchronous condensers. The scope of the preliminary engineering includes the specification and tendered pricing and delivery of this equipment. Cancellation cost will not be known until this work is completed.

REFERENCE: Application, page 9

YEC indicates that a Request for Proposal for engineering services was released in February, 2007 and an award of contract to Wardrop Engineering was completed in March 2007.

UCG understands that the RFP was issued to five short listed and pre-qualified bidders.

QUESTION:

a) Please provide details of the Expression of Interest process conducted by YEC including a copy of the notice, details of the firms that responded, and how this list was narrowed down to those invited to bid on the work.
b) Please explain how the short-listed bidders were pre-qualified. Provide all related correspondence and submissions related to the pre-qualification process.
c) Please provide a copy of the contract with Wardrop Engineering.
d) Please confirm that the contract with Wardrop Engineering is worth over $450,000 and the timeframe for deliverables.
e) Please provide a breakdown of the contracted costs that are associated with the transmission project being addressed in this Part 3 review.
f) Please provide details of how much of this Wardrop contract is considered “take-or-pay” (i.e., how much would need to be paid if the need for the required services was postponed indefinitely).
g) Please provide details of the other bidders to provide these services.

ANSWER:

(a) and **(b)**

The Expression of Interest process was a way for the Corporation to develop a short list of companies that had the experience, resources available in the forecast project time frame and desire to design the power line project. Two methods were used to select likely proponents: first, national advertisements were taken out on September 5th and 8th, 2006 in the Globe & Mail newspaper (see UCG-YEC-1-22 Attachment 1); second, Corporation management approached a number of firms that are known to be competent service providers in this area to encourage their participation. A total of 10 companies responded to the call. Each company’s proposal was evaluated using a combination of quantitative and qualitative evaluation criteria that assessed corporate and staff

experience in line and substation design and included reference checks with previous customers. From this process, five proponents were invited to bid on the design engineering project. All related correspondence and submissions are confidential and cannot be disclosed.

(c)

This is a commercial contract and is confidential between the parties.

(d)

The contract as signed with Wardrop is not to exceed $454,000 and the contractor has committed to deliver preliminary engineering studies (including cost estimates) to YEC by May 18, 2007.

(e)

Yukon Energy estimates that approximately $393,000 of these costs will be allocated to the CS Project and $61,000 to the Minto Spur.

(f)

There is no “take-or-pay” provision in the Wardrop contract.

(g)

The identification and the details of the bids made by other bidders are confidential and cannot be disclosed.

Advertisement in Globe & Mail, September 5th and 8th, 2006

Request for Expression of Interest

Yukon Energy Corporation (YEC) is a publicly owned electrical utility. We are the main generator and transmitter of electrical energy in the Yukon. Our headquarters are located near the Whitehorse Rapids hydro plant in Whitehorse, with community offices in Mayo, Faro, and Dawson City.

YEC intends to design and construct a 138 kV transmission line in the central Yukon over the course of 2007 and 2008. The line will be 175 km in length. Two medium sized substations, three small substations and a 30 km 34.5 kV spur line will be part of the project. Line and substation engineering will commence in the fall of 2006. The scope of work will include the line and substation engineering with options to include procurement and to provide construction inspections on the owner's behalf.

YEC is seeking Expressions of Interest from organizations which have both the interest and resources available in this time frame. The successful candidates will be used to develop a pre-qualification list for a detailed Request for Proposal.

For information in the package please contact:
Yukon Energy Corporation
Attention: Rick Rondeau, Assistant Buyer
#2 Miles Canyon Road
(P.O. Box 5920),
Whitehorse, Yukon Y1A 6S7
Tel (867) 393-5335
Fax (867) 393-5301
rick.rondeau@yec.yk.ca

Expressions of Interest will be received up to September 15, 2006 by main, courier fax or e-mail.

REFERENCE: Application, page 11

YEC indicates that Chapter 8 of the YESAB Project Proposal Submission provides a detailed explanation of the expected environmental and socio-economic impacts of the proposed project.

QUESTION:

a) Please provide a copy of the referenced evidence.
b) If not already included in the referenced evidence, please provide details of the costs associated with addressing the expected environmental and socio-economic impacts of the proposed project.

ANSWER:

(a)

The referenced material is publicly available on the YESAB Online Registry (YOR) and on the Yukon Energy website.

To download the entire Executive Committee Project Proposal (without appendices or reference materials) visit www.yukonenergy.ca.

To view Chapter 8 specifically, go to the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB.

Chapter 8 can be viewed on the YOR and is referenced as follows on that registry:

- Document # 2006-0286-009-1, Chapter 8: Environmental and socio-economic effects assessment

Chapter 8 has no supporting appendices or reference materials.

(b)

There are no estimates available at this time; however, any costs associated with addressing expected environmental and socio-economic impacts of the project are not expected to be material in the context of overall project costs. This matter will be

addressed during the final detailed design phase, after review of the draft YESAB screening report.

REFERENCE: Application, page 12

YEC indicates that the proposed project will provide opportunities for local jobs and business activity during construction and subsequent periodic right-of-way clearing and maintenance.

QUESTION:

a) Using the activity listing at the bottom of page 9 of the Application, please provide details of the local hires and business opportunities.
b) Please describe the hiring policies that will be used to ensure job opportunities for all Yukoners.

ANSWER:

(a) and **(b)**

The information available at this time on job and business opportunities related to the Project is provided in the Project Proposal Submission to YESAB Executive Committee, September 2006, Chapters 5 (sections 5.8 and 5.9) and 8 (section 8.3.2).

The referenced material is publicly available on the YESAB Online Registry (YOR) and on the Yukon Energy website.

To download the entire Executive Committee Project Proposal (without appendices or reference materials) visit: www.yukonenergy.ca.

To view Chapters 5 and 8 specifically, go to YOR at http://www.yesab.tzo.com/wfm/launch/YESAB.

Chapter 5 can be viewed on the YOR, and is referenced on that site as follows:

- Document # 2006-0286-006-1, Chapter 5: Project Description

Chapter 8 can be viewed on the YOR, and is referenced on that site as follows:

- Document # 2006-0286-009-1, Chapter 8: Environmental and socio-economic effects assessment

REFERENCE: Application, page 12, section 4.1; Review of 20-Year Resource Plan Application, page 12, footnote 19; Approved PPA

YEC suggests that evidence provided during the review of the 20-Year Resource Plan confirmed "the technical, economic and financial feasibility of proceeding at this time with Stage One of the CSTP, subject to negotiation and approval of the PPA with Minto"

"In the absence of an approved PPA, the Board cannot make a firm recommendation on the Carmacks-Stewart line."

QUESTION:

a) Please explain YEC's position that the review of the 20-Year Resource Plan, the YUB's resulting recommendations and the Yukon government's decision to call for a further review of the project confirmed the technical, economic and financial feasibility of the proposed project.

ANSWER:

(a)

The Resource Plan Hearing terms of reference from the Minister's June 5, 2006 letter included, with regard to the CSTP, consideration of the necessity for the proposed project and, to the extent then known, the project's physical and engineering characteristics and the economic consequences of these characteristics, with emphasis on the following:

- Need for project spending commitments to meet load forecast requirements;
- Capability of existing generation and transmission facilities to meet forecast load, taking into consideration YEC's proposed capacity planning criteria;
- Consideration of options and selection of proposed spending commitments on reasonable grounds; and
- Consideration of potential risks from all causes.

Based on the Resource Plan Hearing, the YUB's resulting recommendations isolated one outstanding issue before the Board could make "a firm recommendation" to proceed with Stage One of the CSTP (i.e., negotiation and approval of PPA with Minto). No other

outstanding issues were identified as regards need, technical, economic or financial feasibility, or with regard to options or risks.

The PPA Application and hearing has addressed the one outstanding issue identified by the Board with regard to Stage One of the CSTP. The new funding commitment by YTG of up to $10 million to Stage One has provided further support for the economic and financial feasibility of the Stage One CSTP.

REFERENCE: Application, page 12, section 4.1

YEC indicates that the WAF system can provide significant surplus hydro electric generation over at least the next 12 years under expected non-industrial load growth and that this surplus hydro generation capability provides the near term opportunity to support Stage One development of the proposed transmission project.

QUESTION:

a) Please confirm that the proposed facilities will not adversely affect the surplus hydro electric generation position and the current WAF system's ability to provide service to non-industrial load.
b) Given the anticipated surplus generation for at least the next 12 years, please explain the need to add the third turbine at Aishihik within that 12-year period.
c) Please explain why non-industrial ratepayers would be required to pay for any of the costs associated with or resulting from the proposed third turbine at Aishihik.

ANSWER:

(a)

Stage One development of the CSTP will materially utilize (and thereby reduce) the surplus hydro generation position; it will not adversely affect the current WAF system's ability to provide service to non-industrial load.[1]

(b)

The need to build the Aishihik 3rd turbine while there is surplus generation on the system is to displace peaking diesel generation that is expected to increase under the base-case load forecast (without mine loads), as reviewed in the Resource Plan proceeding. It is an economic opportunity project, not a capacity driven project, and reflects ongoing diesel displacement benefits in both the short-term (peaking diesel use) and the long-term when the surplus hydro generation is no longer available. As noted in the Board's Report to the Minister in January 2007, the opportunity to accelerate development of this project prior to 2013 is defined by new industrial mine load (i.e., WAF load increases

[1] Attachment B to the PPA Application reviewed impacts on WAF generation. Attachment C to the current Application shows how current ratepayers will accrue net benefits (through the Mine Net Revenue Account) from the Stage One CSTP development and its connection to the Minto mine.

beyond the base-case forecast); this opportunity is materially further enhanced by the recently announced trust funding for this project by the federal government.

In Appendix C, Table C-1 and Table C-3, of the 20 Year Resource Plan Hearing the analysis demonstrated that the Aishihik 3rd Turbine is economic in 2009 with mine load of 10 MW (NPV saving out way NPV costs). This mine load in effect assumed Minto at 14 GWh/yr and Carmacks Copper at 50 GWh/yr.

The Board recommended Aishihik 3rd Turbine proceed in 2013 unless the actual loads turn out higher or lower than the load under the base-case forecast, i.e., the forecast with no mine loads (YUB Report to Commissioner in Executive Council re YEC 20-Year Resource Plan, page 30). A Minto load of 32.5 GWh per year as provided for in the PPA is significantly above the base-case forecast and thus may justify the construction of the Aishihik 3rd Turbine earlier than 2013. In addition, the recently announced government funding of at least $5 million for this project significantly reduces the cost of the project to YEC, leading to greater economic benefits for any given level of industrial mine load.

(c)

In effect, as recognized in the Board's Report to the Minister on the Resource Plan, the rationale for non-industrial ratepayers being required to pay for any costs associated with, or resulting from, the Aishihik 3rd Turbine development is based on the extent to which this project, over time, acts to reduce diesel generation costs charged to ratepayers. Accordingly, the Board concluded that Aishihik 3rd Turbine in-service by 2013 was likely to be feasible to serve base case loads without consideration of any mine loads. Based on this assessment, and the long-term benefit to non-industrial ratepayers from the project, it follows that non-industrial should be required to pay for annual costs of service related to this project.[2]

The PPA Application outlined how the Mine Net Revenue Account (rather than non-industrial ratepayers) would be charged any incremental costs associated with accelerated timing of such development due to the Minto Mine connection resulting from the PPA.

[2] Ignoring the impact of the PPA (Mine Net Revenue Account), and assuming prudent timing for development, the overall impact of new mine loads in this context would be expected to reduce the share of Aishihik 3rd Turbine annual costs of service allocated to non-industrial customers.

The new government funding of at least $5 million for this project will in effect reduce the costs to be recovered from ratepayers and accelerate the timing for proceeding with this project. For example, based on the base-case analysis (i.e., no industrial loads) provided in Appendix C of the Resource Plan submission (January 2006) for Aishihik 3rd Turbine in-service in 2009 (Section C.2), provision of $5 million of government funding would yield ratepayer savings (NPV) over only the 20 year plan period in excess of $3.5 million and in effect render the project economically feasible to proceed for 2009 in-service without any new industrial loads. In this context, the new industrial loads (e.g., Minto mine) connected by the CSTP will enhance these ratepayer savings, rather than be a precondition for accelerating the timing of this development.

REFERENCE: Application, page 13

YEC submits that its analysis (using the proposed Mine Net Revenue Account) indicates that ratepayers will now benefit through out the Mine's life from offsets to YEC's regulated rate base and that the Mine Net Revenue Account is now projected at $15.6 million by the year 2016 under the 32.5 GWh/yr Mine load.

QUESTION:

With capital contributions of $10.45 million from the Yukon government, $7.2 million from Minto Exploration and the $5 million in YDC flexible funding:

a) On an annual basis, please provide the total net amount that YEC proposes to place into its regulated rate base related to the proposed project.
b) Please provide the annual returns on equity expected to be included in YEC's revenue requirement for 2008 – 2016 related to the transmission project being addressed in this Part 3 review.
c) Please provide details of the financing that will be required to support the construction of this proposed project including amounts and parties providing the financing.
d) Please provide annual costs of financing to be included in YEC's revenue requirement for 2008 – 2016.
e) Please provide details of the annual operation and maintenance costs of this proposed transmission project for 2008 – 2016.
f) Please provide details of the annual operation and maintenance costs of generation / transmission / distribution infrastructure to provide electricity to Minto for 2008 – 2016.
g) Please provide the annual personnel-related costs (new and current) associated with the operation and maintenance of the proposed facilities, including management time and costs, for 2008 – 2016.
h) Please provide the annual cost to service the $5 million YDC flexible note for 2008 – 2016.
i) Please provide the amount of YUB-related costs related to the proposed project to date and forecast, separated by proceedings and by year.
j) Please provide details of the estimated annual mitigation costs incurred by existing resource users (i.e., First Nations trap line, outfitting, agriculture, etc.).
k) Please provide annual mitigation costs for the Environmental Protection Plan.
l) Please provide details of any other annual costs associated with the proposed project.

ANSWER:

(a), **(b)**, **(c),** and **(d)**

Based on mid point cost estimates in Schedule 1 to the Application (which shows no expected net YEC costs for Stage One), all capital costs for the Stage One CSTP will be funded through the identified contributions and no costs will remain to be recovered from the Mine Net Revenue Account or from rate base. Accordingly, based on these expected costs, there will be no returns on equity or annual costs of financing to be included in YEC's revenue requirement with regard to Stage One of the CSTP.

If actual Stage One CSTP capital costs exceed the contributed funds (by YTG, YDC and Minto), the net resulting capital cost would go into regulated rate base at the project's in-service date and earn an annual debt and equity return. This annual return, along with related depreciation, will be charged under the PPA to the Mine Net Revenue Account during the life of the Mine.

YEC has not at this time developed specific financing plans for the project, e.g., beyond the contributions noted, YEC financing will be required for the Minto contributions under the PPA.[1]

(e), **(f)**, **(g)**, **(h)**, **(j)**, **(k)**, and **(l)**

YEC has not to date prepared details with regard to;

- annual operation and maintenance costs of the CSTP Stage One (average annual O&M costs have been estimated at $100,000; actual costs will vary over the life of the facilities)[2];
- similar assessments as regards annual costs to provide electricity to Minto (beyond the detailed COS estimates provided for 2008 in Attachment A of the PPA Application and the incremental costs assessments provided in Attachment C to the Application);

[1] Based on PPA Hearing IR UCG-YEC-2-22, the weighted average cost (equity and debt) for YEC financing is currently expected to be less than the 7.5% interest to be paid by Minto under the PPA. Any such net benefit (or net cost) would be allocated to the Mine Net Revenue Account under the PPA.

[2] In response to Resource Plan Hearing IR YUB-1-11, YEC provided estimates of annual additional operation and maintenance for each of the near term projects proposed in the Resource Plan. With regard to the CSTP, the response noted that the level of annual operating and maintenance costs is expected to be small, and has been estimated at $0.1 million/year (2005$), which is consistent with or above the level of O&M spending on the Mayo-Dawson project. (The estimate reflects YEC experience with the Mayo Dawson Project in 2003 involving operating and maintaining two diesel plants and a 228 km 69 kV transmission line.)

- annual personnel-related costs (new and current) associated with the operation and maintenance of the proposed facilities; and
- estimated annual mitigation costs or other annual mitigation costs of the EPP.

Overall, YEC is satisfied that none of the above annual cost factors will have any material impact on the feasibility assessments being carried out at this time for Stage One or Stage Two of the CSTP.

Attachment C to the Application reviews the impact of annual incremental costs that may materially affect the Stage One CSTP development, including diesel generation costs, loss of secondary sales, FTN costs[3], Pelly diesel cost savings, and the YEC Mine Diesels.

(i)

YUB-related costs for the Resource Plan, PPA Hearing and the current hearing have yet to be determined overall by the Board. YEC to date has only recorded its costs on YUB-related costs for these activities, which to date are approximately $630,000.

[3] YEC is not aware, under item (h) in this IR, of any "annual cost to service the $5 million YDC flexible term note". The $5 million to be provided by YDC is a contribution to the CSTP.

REFERENCE: Application, page 13

YEC submits that its analysis (using the proposed Mine Net Revenue Account) indicates that ratepayers will now benefit throughout the Mine's life from offsets to YEC's regulated rate base and that the Mine Net Revenue Account is now projected at $15.6 million by the year 2016 under the 32.5 GWh/hr Mine load.

QUESTION:

a) Please provide an analysis of the proposed Mine Net Revenue Account assuming mine loads of 75%, 50% and 25% of the current forecast are supplied through the proposed facilities.
b) Please provide details of the benefits and costs to ratepayers of the proposed transmission project under each of the load forecasts in (a).

ANSWER:

(a) and **(b)**

Details of the incremental benefits and costs are demonstrated in the Mine Net Revenue example in Appendix C of the Application. With regard to the impact on the Mine Net Revenue Account of different mine loads, please see response to UCG-YEC-14(b).

REFERENCE: Application, page 13

YEC identifies 2 alternatives to the Stage One development of the CSTP and the Mine Spur.

QUESTION:

a) Please provide construction costs per kilometer for power line facilities in other jurisdictions. Provide detail for various line voltage levels (i.e., 25 to 35 kV, 69 kV, and 138 kV).
b) Please provide updated engineering costs per kilometer by Wardrop Engineering for 138 kV line.

ANSWER:

(a)

Comparable costing information from other jurisdictions is not available for these voltage ranges as different utilities allocate and report costs differently, in particular with respect to owner's costs.

(b)

The update engineering costs per kilometer are not yet competed by Wardrop.

REFERENCE: Application, page 14

YEC submits new mine developments and Yukon government funding will enable potential in-service of Stage Two by Fall 2009.

QUESTION:

a) Please provide details and timing of the mine developments and Yukon government funding that would be required to enable this Fall 2009 in-service date.
b) Please provide details of the timing for applications to the Yukon government and the YUB related to Stage Two to enable a Fall 2009 in-service date.
c) Please provide details of the timing of Stage 2 assuming Minto mine loads for 75%, 50% and 25% of the current forecast are supplied through the proposed Stage One facilities.

ANSWER:

(a) and **(b)**

See response to UCG-YEC-1-17 with regard to timelines, and UCG-YEC-1-15 and 16, as well as YECL-YEC-1-2, with regard to funding by the Mine and by government.

(c)

At this time, the timing of Stage Two is not assumed to be affected by the range of Minto mine loads assumed in the question, i.e., the Resource Plan Submission analysis justifying Stage Two, based on two mine developments, assumed Minto load at only 14 GWh/yr, or 43 % of the current 32.5 GWh/yr forecast load and 33% of the potential 42 GWh/yr load.

REFERENCE: Application, page 14

YEC submits that a full analysis of the expected capacity and load requirements (demand and energy) of the Yukon systems under various load scenarios is discussed in Chapters 4 and 5 of the Resource Plan and these capacity and load requirements were fully reviewed by the YUB at that time.

QUESTION:

a) Please confirm that all referenced analysis was conducted without obtaining current and forecast load information from YECL.

ANSWER:

(a)

As reviewed in the Resource Plan Hearing, such information was not provided to YEC by YECL. The Board's Report to the Minister on the Resource Plan, at pages 4 and 5, reviewed the non-industrial forecasts used by YEC and YEC's arguments as to the adequacy of the forecasts for the purpose of the Resource Plan. The Board concluded that the forecast, at an aggregate level, is satisfactory for this type of planning process.

REFERENCE: Application, page 15 and footnote 24

YEC indicates that the YUB recommended proceeding with the Aishihik 3rd Turbine in service in 2013 unless YEC can justify an earlier in service date. YEC suggests that an earlier in-service date would be based on "economic reasons" – specifically additional near-term industrial mine load (e.g., Carmacks Copper) and/or any government grant assistance to facilitate such infrastructure development.

QUESTION:

a) Please confirm that there are no near-term industrial mine loads driving the consideration of advancing the in-service date of the third turbine.
b) Please confirm that the announced $5 million government funding will not cover all costs of the third turbine.

ANSWER:

(a)

The Minto Mine would justify an advance in the in-service date of the Aishihik 3rd Turbine. See UCG-YEC-1-26(b) for more on the need for the Aishihik 3rd Turbine.

(b)

The $5 million government funding will not cover all the costs of the Aishihik 3rd Turbine. The Aishihk 3rd Turbine is estimated at $7 million (2005$) to construct.

REFERENCE: Application, page 16

YEC submits that the major regulatory risk with regard to the Stage One CSTP remains material delays in schedule which could adversely affect project costs and benefits.

QUESTION:

a) Please explain why YEC does not consider the YUB's total / partial denial or conditional approval of the proposed Purchase Power Agreement a significant risk for the proposed project.

ANSWER:

(a)

The risks related to PPA approval have received full recognition in the PPA and in the PPA hearing, and have been treated as a precondition to further progress on the Transmission Project.

As set out in UCG-YEC-1-19, a Board-approved PPA is a precondition to moving forward with ordering long lead equipment for in service of the Transmission Project by Quarter 3 of 2008, as well as to proceed with cost commitments for final engineering design. These basic YUB processes must be completed before YEC will undertake the above-noted commitments, let alone consider start of construction.

REFERENCE: Application, page 16

YEC indicates that the YUB recommended in its January 2007 report to the Yukon government that YEC adhere to all outstanding recommendations as outlined in the Auditor General's report and, in addition, in any subsequent major project YEC should detail how it has adhered to the direction in the Auditor General's report.

QUESTION:

a) Please identify where in the current application YEC has detailed how it has adhered to the direction in the Auditor General's report.
b) If this detail has not been submitted, please provide it.

ANSWER:

(a) and **(b)**

Yukon Energy reviewed in detail its response to the Auditor General's report in both the Revenue Requirement and Related Matters Application heard by the YUB in April 2005 and the Resource Plan review (which resulted in the YUB's January 2007 report). Yukon Energy's Part 3 Application does not specifically reference how Yukon Energy has adhered to the recommendations outlined in the Auditor General's report. However, as reviewed in both of the above-noted applications, Yukon Energy has responded to all of the Auditor General's recommendations all of which have been taken into account in planning for the Carmacks-Stewart Transmission Project.

Although these issues have been discussed in some detail in previous applications, a summary of Yukon Energy's responses to the Auditor General's report and how those responses relate to the Carmacks-Stewart Project are outlined below.

> *26. **Recommendation:** To avoid underestimating total project costs, the Yukon Energy Corporation should ensure that the scope and costs of capital projects are adequately defined and identified when seeking project approval.*

Yukon Energy's response

Yukon Energy's response to the Auditor General's recommendation in this regard was to create an interdepartmental Project Review Committee for all capital project plans. This structure has been implemented. In addition for the purposes of the Carmacks-Stewart Project, a specific Oversight Committee has been established which is involved in all strategic, and any key, decisions made in relation to the Project. In addition the Project has been continually reviewed by the Board of Directors who have been involved throughout the planning process.

Throughout the planning process for the Carmacks-Stewart Transmission Project, the description of scope and forecasts of costs have been detailed. The approach adopted in relation to this Project also allows for two further key decisions points (decisions which will have to be made by the Board of Directors).

- First, in late May when the preliminary cost estimates are received from Wardrop; and
- Second, after the bids are received for the construction of the line (which will likely occur in August or early September 2007).

*35. **Recommendation:** The Yukon Energy Corporation should request that the responsible minister seek an order from the Commissioner of the Executive Council to designate future major capital projects as regulated projects, in accordance with the Public Utilities Act, so that such projects are reviewed by the Yukon Utilities Board and public hearings are held, if necessary, before the projects proceed. The minister may wish to consider proposing legislative amendments to require that all major capital projects be reviewed by the Yukon Utilities Board prior to approval.*

Yukon Energy's response

This project was designated as a regulated project by the Yukon Government. Furthermore, in addition to the Part 3 review being undertaken in this proceeding, Yukon Energy brought forward the Carmacks-Stewart Transmission Project for review by the YUB as part of its Resource Plan process. The project was scrutinized by all parties and the YUB as part of that process. In addition, the YUB has undertaken a public review of Yukon Energy's PPA application which is directly related to the Carmacks-Stewart Transmission Project.

> *42. **Recommendation:** The Yukon Energy Corporation should develop a project management policy to establish standards and procedures for the designation, authorization, financial control, and conduct of capital projects. In implementing capital projects, it should prepare a project brief that includes a statement of objectives and clearly defines roles, responsibilities, accountability, implementation approach, detailed budgets, and controls.*

Yukon Energy's response

As discussed in some detail at the Resource Plan hearing Yukon Energy has implemented policies relating to capital planning (see Exhibit B-17 of the YUB's Resource Plan review). In addition to the detailed internal planning processes undertaken in relation to all capital planning for Yukon Energy in relation to this project (including the creation of the Oversight Committee which oversees the management of the Project), Yukon Energy will retain outside project management to ensure that Yukon Energy's objectives are met, roles are carefully defined and detailed budgets are set and followed.

> *59. **Recommendation:** The Yukon Energy Corporation should establish and follow a contracting policy and clear contracting procedures that provide for transparency and competition and ensure best value. It should ensure that:*
>
> - *contracting requirements are properly planned for,*
> - *contracts are entered into only by those who have the authority to do so,*
> - *contracts clearly specify deliverables, maximum price, and cost ceilings,*
> - *contracts include provisions for auditing claims, where appropriate; and*
> - *payments are made only within authorized limits.*

Yukon Energy's response

As reviewed at the Resource Plan hearing, contracting policies (taking into account the Auditor General's recommendations) have been implemented. See Exhibit B-17 in the Resource Plan proceeding. These policies have been followed in relation to this project.

*75. **Recommendation:** In implementing capital projects, the Yukon Energy Corporation should:*

- *apply good project management practices,*
- *ensure compliance with contract provisions,*
- *issue formal change orders where necessary,*
- *ensure that work does not proceed unless authorized, and*
- *monitor work, so that when problems arise, appropriate action can be taken on a timely basis.*

Yukon Energy's response

Policies referenced in Exhibit B-17 of the Resource Plan hearing process have been implemented and are being followed in relation to the Carmacks-Stewart Transmission Project. The issues raised in relation to this recommendation have been, and will continue to be, addressed through the implementation of the contracting policies and the structures set up by Yukon Energy to deal with this project. For example, a specific Oversight Committee has been established to oversee amongst other things the types of issues raised in this recommendation.

*81. **Recommendation:** In implementing capital projects, the Yukon Energy Corporation should make use of dispute resolution provisions in contracts and agreements to resolve disputes with contractors in an efficient and timely way.*

Yukon Energy's response

Yukon Energy will ensure that appropriate dispute resolution provisions are put in place for the construction contract.

*92. **Recommendation:** The Yukon Energy Corporation should establish sound financial management and cost controls for implementing capital projects. Such controls should ensure that the scope and costs of projects remain within the approved budgets and that change orders and cost overruns are properly authorized.*

Yukon Energy's response

As previously discussed in the Resource Plan hearing process, Yukon Energy believes it has sound financial management and cost control policies in place. It has (and fully intends to in the future), followed these controls for the Carmacks-Stewart Transmission Project (taking into account the issues raised in relation to Mayo-Dawson).

REFERENCE: Application, page 16

YEC acknowledges that some degree of risk remains for Stage One of the CSTP under certain "extreme" scenarios where the Mine permanently closes prematurely in its initial years of operation and Minto defaults on the YEC Security.

QUESTION:

a) Please confirm that by "extreme", YEC means "significantly adverse" rather than "unlikely".

ANSWER:

(a)

Cannot confirm. As set out in PPA IRs YUB-YEC-1-14, YUB-YEC-1-32, and YUB-YEC-1-34, the above-noted reference is to a "worst case scenario" and describes significant adverse circumstances that are also extremely unlikely.

REFERENCE: Application, page 16

YEC submits that the Mine Net Revenue Account acts to protect ratepayers in this regard by ensuring that net incremental revenues are retained in order to provide a cushion, to the extent feasible at any time, against risk related to the Mine operation as well as against the balance of YEC's Stage One capital costs not yet depreciated.

QUESTION:

a) Please explain how the proposed Mine Net Revenue Account protects Yukoners who are both ratepayers and taxpayers.
b) Please explain why the proposed Mine Net Revenue Account only addresses incremental revenues and costs instead of average embedded costs upon which industrial rates must be based.
c) Please confirm that the proposed Mine Net Revenue Account is worthless if the mine operates for only a couple of years at a time when commodity costs warrant.

ANSWER:

(a) and **(b)**

The Mine Net Revenue Account is a regulatory account designed to accrue incremental net benefits or costs from providing service to the Mine and to hold Yukon ratepayers whole from some of the negative impacts that may result due to providing service to the mine (such as fluctuations in rates due to intermittent closures or due to permanent mine shutdown). Taxpayer issues are outside the scope of what this account is designed to accomplish and outside the scope of this process. The account is also not designed to address COS issues (average embedded costs) considered in setting the Firm Mine Rate; based on the operation of this account, no COS impacts on other rate classes are anticipated during the operation of the mine.

(c)

Cannot confirm. Any benefits retained in this deferral account will benefit ratepayers no matter how small or how large the contributions to the account are in each year. Attachment C to the Application, for example, indicates accrued net benefits of approximately $5 to $6.2 million after only two years of mine operation. Incremental

benefits will be retained in the account to provide a cushion in circumstances where the mine temporarily shuts down or slows production. Without the account, in circumstances where the mine only operates for a few years at time, ratepayers would be exposed to extreme rate instability as rates would go down when the mine was operating and jump up during periods of shut down. Securing and deferring these benefits and holding them in the account until the accrued balance equals or exceeds an amount sufficient to at least offset YEC's capital cost risks (see Attachment C, Tables C-3 and C-4) will ensure that there will be net benefits available to ratepayers before any rate reductions are considered due to the PPA.

REFERENCE: Application, page 16

YEC submits that risks remain during the Stage One development despite the provision of funding by the Yukon government and that these risks reflect YEC's financing of the Minto capital cost contribution.

QUESTION:

a) Please provide reasons why other ratepayers (through YEC) should be responsible for this risk to the benefit of a single customer (i.e., the Mine).
b) Please explain how ratepayers could be fully protected from being responsible for this risk.

ANSWER:

(a) and **(b)**

The Capital Cost financing arrangements pursuant to the PPA with Minto Mine were thoroughly discussed and addressed in the PPA IR process as well as in Final Argument and Reply Argument in that proceeding.

It has been noted throughout the PPA review process, and in the Application, that providing service to the Mine will benefit ratepayers other than this "single customer" through the sale of surplus hydraulic power at the Firm Mine Rate, the provisions of the Mine Net Revenue Account, and through the provision for long term infrastructure that will benefit ratepayers for years after the Minto mine has ceased operations.

It has also been noted that the PPA has incorporated a suite of measures such as the Mine Net Revenue Account, YEC Security, and Take or Pay arrangements to mitigate risks to ratepayers.

Finally, it is noted in the Application (Attachment C), that the magnitude of the Stage One risks is further significantly reduced by the provision of new government funding. (See response to UCG-YEC-1-36 as to the continued relevance of the Mine Net Revenue Account in this regard.)

REFERENCE: Application, page 17

YEC submits Stage One of the CSTP provides for a major infrastructure development that "facilitates" future interconnection of the WAF and Mayo-Dawson grids.

QUESTION:

a) Please explain whether the Stage One portion of the proposed project is feasible without other proposed stages of this project.
b) Please confirm that rather than "facilitates", Stage One "obligates" future interconnection of the WAF and Mayo-Dawson grids.

ANSWER:

(a)

Yes.

(b)

No.

REFERENCE: Application, page 17

YEC submits that timely completion of Stage One CSTP and the Minto Spur Project will yield material ratepayer benefits of approximately $250,000 per month of avoided delay.

QUESTION:

a) Please confirm that the referenced $250,000 is simply the anticipated gross revenues to YEC per month from the Mine.
b) Please provide annual estimates (2008 – 2016) of the net revenues per month from the Mine after accounting for fully loaded costs of providing service. Please be specific on the costs that YEC assumes will be covered by the revenues.

ANSWER:

(a)

Confirmed.

(b)

Attachment C to the Application provides annual estimates of the net revenues from the Minto Mine (2009-2016) based on incremental assessments of revenues and costs as noted and explained. YEC has not developed estimates per month on this basis, or estimates of COS assessments (embedded costs). See also UCG-YEC-1-36.

REFERENCE: Application, page 17; Terms and Conditions of PPA Agreement
Application, page 24; Recommendations to the Decision Bodies

YEC submits it requires approval by YUB of the terms and conditions of the PPA Agreement by April 30, 2007.

YEC submits that before any Yukon, federal or First Nation permit or approval can be issued, YESAB must complete its report and make recommendations to the relevant Decision Bodies under the YESAA. Further, unless delays are to occur, all of these Decision Bodies must also issue Decision Documents agreeing with the YESAB recommendations before any permits or approvals can proceed.

QUESTION:

a) Please confirm that regulatory permits and approvals required for the proposed project cannot be finalized until the YESAB Final Report is issued and the relevant Decision Bodies have accepted its recommendations.
b) Please provide the current estimate of when the YESAB Final Report is expected to be released and the expected timeline for all decision bodies to review and accept the YESAB recommendations.
c) Please explain whether the April 30 requirement in the proposed PPA will have been met if the YUB issues an interim approval subject to the review and acceptance of the YESAB Final Report.
d) Please confirm whether the April 30 requirement in the proposed PPA requires that the YUB approve the proposed PPA as originally submitted.
e) Please confirm that if the parties to the PPA cannot agree to waive or extend the time period for obtaining YUB approvals, the PPA will be terminated.

ANSWER:

(a)

Regulatory permits to be provided by Yukon government, First Nation governments and federal authorities cannot be finalized until the YESAB Final Report and recommendations have been issued and decision bodies have issued decision documents. The YESAB process does not have any bearing on the timing of YUB approvals or recommendations.

(b)

The anticipated Project schedule is set out on page 10 of the Part 3 Application. The current schedule anticipates YESAB Final Recommendations and Report by the end of June 2007, with final permitting complete by the end of July 2007. (See UCG-YEC-1-19(c) - YEC's current best estimate is that YESAB-related timelines may be delayed by two to four weeks from those estimated by YEC in the Application.)

(c)

No. Condition 3.1 (a) of the PPA requires that the Board approve the PPA, including the conditions set out under 3.1(a)(i) through(vii), on or before April 30, 2007.

(d)

Yes.

(e)

Yes, in the event that the PPA is not approved by the YUB by the stipulated date.

REFERENCE: Application, page 18

YEC submits it is assuming risk during Stage One of the CSTP with regard to the up front capital cost payments for the Mine Spur. YEC indicates that Minto has consistently said that it did not have the capability to obtain conventional debt financing to pay YEC at the outset (or to provide a letter of credit for same) for the capital requirements to interconnected to the grid.

QUESTION:

a) Please explain how any business operation that is supposed to be financially viable for the longer term cannot obtain conventional debt financing or a letter of credit.
b) Please provide details of the options to providing financing for Minto that were reviewed and reasons why these options were discarded.
c) Please explain why Minto was not able to secure conventional debt financing given the size of the organization of which it is a part.
d) Please explain why Minto is not able to use the annual $3 million savings by connecting to the grid to help secure conventional debt financing.
e) Please confirm that material cost saving benefits are still available to the Minto Mine from grid electricity service even if the Carmacks to Minto Landing 138 kV portion of Stage One was not built and the Mine was required to pay 100% of the cost estimated for the basic additional facilities (i.e., for additional 35 kV line facilities between Carmacks and Minto Landing) to connect the Mine with the WAF grid.

ANSWER:

(a) through **(d)**

All of these questions have been asked and answered during the PPA review process and have been addressed in Final Argument in that process.[1]

Minto's consistent position throughout the PPA negotiation process has been that it is unable to obtain conventional debt financing to pay for the Capital Cost Contribution or provide a letter of credit. During negotiation, upfront financing was rigourously pursued

[1] Final Argument (Appendix C) and page 20; Reply Argument (16-18 and 39); PPA IR YUB-YEC-1-34, YEC-YECL-1-4.

by YEC; however, Minto was immoveable on the point and it became clear to YEC that the Mine would not connect to the grid without YEC financing.

YEC understands that virtually all of the Minto's current financing is committed to developing the Mine site (and repaying a portion of the secured Current Bank Financing) and to developing the Additional Reserves which will serve to extend the mine life and ensure that YEC receives full repayment on its investment and is able make power sales to the Mine at the Firm Mine Rate for years to come. It is noted that the more developed the Mine Site, the more secure YEC's investment and the less likely the risk that the mine will default.

YEC also understands that Minto's assessments of net savings secured from the PPA is only a portion of the savings estimated in Attachment D of the PPA, i.e., Minto has noted that a material portion (e.g., about 50%) of any savings in effect are recovered by governments or other parties through increased tax and/or royalty payments.

(e)

The financing arrangements to the Mine under the PPA are generally based on the scenario described (i.e., where no 138 kV CS Project facilities are built) where the Mine will pay 100% of the cost estimated for the basic additional facilities (i.e., for additional 35 kV line facilities between Carmacks and Minto Landing) to connect the Mine with the WAF grid. As reviewed in Attachment D of the PPA Application, material benefits remain for Minto under these arrangements.

The MOU with NTFN sets out the requirement to extend to Pelly Crossing any Stage One development of transmission facilities to connect the Mine. Accordingly, it is not likely that connection of the Minto Mine to the WAF grid on a timely basis would be feasible without concurrent connection to Pelly Crossing. On this basis, as with the PPA, the transmission line from Carmacks to Minto Landing (even if 35 kV) would not serve only the Minto Mine, i.e., it would also serve at least Pelly Crossing, and would not be decommissioned after the Mine closed. Accordingly, the PPA arrangements might not in this context require any adjustments.

If the CS Project was not built, and the 35 kV line facilities between Carmacks and the Minto Mine were to be built as an extended "Mine Spur" to serve only this one customer (as implied by the question), YEC does not consider it likely that the Mine could be

connected to the WAF grid on a timely basis. If the relevant First Nation and other approvals could still be secured on a timely basis, then YEC would likely require PPA arrangements under this specific scenario for the entire line similar to those now required for the Mine Spur, i.e., customer contribution based on actual costs with equal blended principal and interest payments throughout the first seven years of service. It is not known if Minto would agree to accept the added cost risks associated with such a requirement; however, YEC would expect that material benefits would remain for Minto under these arrangements.

While material benefits would be available to the Mine from the development the 35 kV line between Carmacks and Minto Landing, Minto has stated that it cannot proceed if up front financing is required by Minto for its customer contributions to YEC.

REFERENCE: Application, page 18

YEC submits it is assuming risk during Stage One of the CSTP with regard to the up front capital cost payments for the Minto Spur. YEC was only able to provide one recent example of a regulator approving this type of upfront financing by a utility in support of providing service to an industrial customer.

QUESTION:

a) Please provide a copy of the referenced Order No. P.U.12 (2005) of the Board of Commissioners of Public Utilities in Newfoundland and Labrador.
b) Please provide any other regulatory decisions / orders related to this project.
c) Please provide a copy of the transmission construction contribution agreement associated with the transmission interconnection with the Duck Pond Mine.
d) Please confirm whether the regulator was asked to approve the transmission construction contribution agreement and provide the Board's decision.
e) Please confirm that the regulator in the Duck Pond Mine proceeding directed that the owners of the mine pay the full costs of preliminary engineering and related work associated with the construction of a transmission interconnection to the mine site.
f) Please provide a comparison between Newfoundland and Labrador Hydro and YEC (i.e., number of customers – industrial, non-industrial, rate base, annual capital budget, revenue requirement, return on rate base).
g) Please provide any examples found during YEC's searches of similar applications that were not approved by the regulator.

ANSWER:

(a)

Please see UCG-YEC-1-42 Attachment 1.

(b), **(c)**, **(d)** and **(e)**

Please see UCG-YEC-1-42 Attachment 2, which provides the utility's application for approval of the relevant capital expenditure and contribution arrangement whereby the mine customer will pay the full capital costs of the transmission interconnection over a five-year period. The attachment includes a copy of the contribution agreement. The application asked the regulator to approve the customer contribution as well as the

capital expenditure, which approval was provided by Order No. P.U. 12 (2005) (see (a) above).

Please see UCG-YEC-1-42 Attachment 3 for Order No. P.U. 3(2005) pertaining to this project, which is the only other related order that YEC had obtained. This order approved the capital spending for preliminary engineering and related work, and for the contribution of this amount by the customer.

(f)

	NLH[1]	YEC[2]
Number of Industrial Customers	5	0
Number of Non-industrial Customers	40,100 (including one wholesale customer)	1,700 (including one wholesale customer)
Rate Base ($millions)	$1,489	$141
Revenue Requirement ($millions)	$432,	$26
Return on Rate Base ($millions)	$111, (7.4%)	$9.4 (6.7%)
Annual Capital Budget ($millions)	$41	$7.5[3]

Notes:

1. Newfoundland and Labrador Hydro data were taken from 2006 GRA revised filing dated November 2006. Annual Capital Budget data was taken from Newfoundland and Labrador BOARD OF COMMISSIONERS OF PUBLIC UTILITIES order No. P.U. 35 (2006).
2. From Yukon Energy 2005 Required Revenues and Related Matters Application
3. Includes relicensing and feasibility studies.

(g)

No examples were found of similar applications that were not approved by the regulator.

Certified to be a true copy of the original documents dated at St. John's Newfoundland land this 19th day of April 20 05.
A. Thistle

NEWFOUNDLAND AND LABRADOR

AN ORDER OF THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

NO. P. U. 12(2005)

IN THE MATTER OF THE *Public Utilities Act,* R.S.N.1990, c. P-47, as amended (the "*Act*")

AND

IN THE MATTER OF an application by Newfoundland and Labrador Hydro ("Hydro") for approval of (i) the construction of a transmission interconnection to the Duck Pond Mine Site, owned by Aur Resources Inc., situated to the southeast of Millertown, pursuant to Section 41(3) of the *Act*; and (ii) a customer contribution for the transmission interconnection, pursuant to Section 41 (5) of the *Act*.

WHEREAS Hydro is a corporation continued and existing under the *Hydro Corporation Act*, is a public utility within the meaning of the *Act*, and is also subject to the provisions of the *Electrical Power Control Act, 1994*; and

WHEREAS Section 41(3) of the *Act* requires that a public utility shall not proceed with the construction, purchase or lease of improvements or additions to its property where:

(a) the cost of the construction or purchase is in excess of $50,000; or

(b) the cost of the lease is in excess of $5,000 in a year of the lease

without the prior approval of the Board of Commissioners of Public Utilities (the "Board"); and

WHEREAS Section 41(5) of the *Act* requires that a public utility obtain the prior approval of the Board of any contributions demanded of its customer; and

WHEREAS by Order No. P.U. 53(2004) the Board approved Hydro's 2005 capital expenditure program with a total budgeted cost of $42,431,000; and

WHEREAS by Order No. P.U. 3(2005) the Board approved Hydro's application for the capital expenditure of $120,000 for preliminary engineering and related work associated with the construction of a transmission interconnection to the Duck Pond mine site owned by Aur Resources Inc., and for the contribution of that amount by Aur Resources Inc. to Hydro; and

WHEREAS by Order No. P.U. 11(2005) the Board approved Hydro's application for approval of additional proposed capital expenditures for: i) the Cat Arm Road Rehabilitation; ii) the Upper Salmon Power Canal Slope Stabilization; iii) the replacement of a failed diesel unit at Ramea; and iv) a lease at Hopedale for a total of $3,153,700 bringing the total of the previously approved proposed capital projects for 2005 to $45,704,000; and

WHEREAS Hydro and Aur Resources Inc. have executed an agreement whereby Hydro will construct a transmission interconnection of approximately 45 kilometers between Hydro's Buchans Terminal Station and the Duck Pond mine site owned by Aur Resources, and whereby Aur Resources Inc. will pay the full capital cost of the transmission interconnection over a five-year period; and

WHEREAS Hydro has applied for the approval of an additional capital expenditure of $5,705,500 for the construction of the said transmission interconnection (for a total of $5,825,500 for this capital project), and for the approval of the full contribution of that amount from its customer, Aur Resources Inc., in accordance with the terms of a transmission construction contribution agreement dated March 21, 2005; and

WHEREAS in response to Information Requests PUB-1 to PUB-3 submitted to Hydro by the Board it was determined that Hydro had conducted an examination of the 2003 annual report of Aur Resources Inc., as prepared by PricewaterhouseCoopers, and had determined the estimated life and the scheduled start-up date of the mine; and

WHEREAS the Board has considered the application, the responses to its Information Requests PUB-1 to PUB-3, the transmission construction contribution agreement, and the explanations provided by Hydro, and is satisfied that the proposed expenditure is prudent and necessary and that the capital contribution proposed to be received by Hydro is reasonable and appropriate.

IT IS THEREFORE ORDERED THAT:

1. Pursuant to Section 41 (3) of the *Act*, the Board approves the additional 2005 capital expenditure of $5,705,500 for the construction of a transmission interconnection of approximately 45 kilometres to the Duck Pond Mine site owned by Aur Resources Inc., an intended industrial customer of Hydro.

2. Pursuant to Section 41 (5) of the *Act,* the Board approves the contribution from Hydro's intended industrial customer, Aur Resources Inc., of $5,705,000 for the construction of the aforesaid transmission interconnection.

3. Hydro shall pay the expenses of the Board incurred in connection with this matter.

Dated at St. John's, Newfoundland and Labrador, this 19th day of April 2005.

Robert Noseworthy,
Chair & Chief Executive Officer.

Darlene Whalen, P.Eng.,
Vice-Chair.

G. Fred Saunders,
Commissioner.

G. Cheryl Blundon,
Board Secretary.

BY HAND

March 21, 2004 Should be 2005

Board of Commissioners
of Public Utilities
P.O. Box 21040
St. John's, NF, A1A 5B2

Attention: Cheryl Blundon – Director of Corporate Services and Board Secretary

Dear Ms. Blundon**:**

Re: Application for Approval for Capital Expenditure and Contribution - Transmission Interconnection to Duck Pond Mine

Enclosed please find an original and ten copies of:

- Hydro's application,
- supporting affidavit and Transmission Construction Contribution Agreement,
- Capital Project Explanation, and
- draft order.

The enclosed pertains to the proposed transmission interconnection for Hydro's new industrial customer, Aur Resources Inc. This application follows Board Order No. P.U. 3 (2005), which approved the expenditure of $120,000 for preliminary engineering for this project. As is more fully explained in the enclosed documents, Hydro is seeking the Board's approval of this capital project of and the contribution arrangement that Hydro has made with its new customer Aur Resources Inc. whereby the customer will pay the full capital costs of this transmission interconnection project over a five-year period.

We trust that you will find the enclosed to be in order. Should you have any questions or comments about any of the enclosed please contact the undersigned.

NEWFOUNDLAND AND LABRADOR HYDRO

Geoffrey P. Young
Legal Counsel

Encl.
c.c. Mr. Peter McCarter, Aur Resources Inc.

IN THE MATTER OF the *Public Utilities Act*, (R.S.N.L. 1990, C. P-47) (the "Act"); and

IN THE MATTER OF an application by Newfoundland and Labrador Hydro for approval of (i) the construction of a transmission interconnection to the Duck Pond Mine Site, pursuant to Subsection 41(3) of the Act; and (ii) a customer contribution for the transmission interconnection, pursuant to Subsection 41(5) of the Act.

TO: The Board of Commissioners of Public Utilities (the "Board")

THE APPLICATION OF Newfoundland and Labrador Hydro ("Hydro") states that:

1. The Applicant is a corporation continued and existing under the *Hydro Corporation Act*, is a public utility within the meaning of the Act and is subject to the provisions of the *Electrical Power Control Act, 1994*.

2. By Order No. P.U. 53 (2004) the Board approved the Applicant's proposed 2005 capital expenditures in the amount of $42,431,000.

3. Aur Resources Inc. is a mining company that is developing a mine site known as Duck Pond, situated to the southeast of Millertown, Newfoundland, with a requirement for power in November of 2005. It

will become an industrial customer of Hydro with a connected load of 15 MW of power which Hydro has agreed to supply.

4. By Order No. P.U. 3 (2005), pursuant to subsection 41(3) of the Act, the Board approved the 2005 capital expenditure of $120,000 for preliminary engineering and related work associated with a 45 km transmission interconnection to the Duck Pond Mine Site. By that Order, the Board also approved, pursuant to subsection 41(5) of the Act, the contribution by that customer of $120,000 for that purpose.

5. Hydro's estimated total cost for the construction of the transmission interconnection is $5,825,500, which includes the estimated $120,000 for preliminary engineering and related work that has already been approved. The project comprises all work pertaining to the construction of a 45 km, 69 kV, single pole, three-phase transmission line, line termination at Hydro's Buchans terminal station, and a new two-transformer terminal station at the Duck Pond Mine Site. Attached hereto are an Explanation of this proposed project and a breakdown of those costs.

6. At this time, Hydro has no other customers to be connected on this line so it is appropriate that Aur Resources Inc. pays the full capital cost of this project. Aur Resources Inc. has agreed to pay the estimated

$120,000 costs of the preliminary engineering and related work and has also agreed to pay the remainder of the full costs for the construction of the transmission interconnection (which remainder is estimated at $5,705,500) over a five-year period with financing costs calculated at Hydro's weighted average cost of capital. A copy of that agreement is attached to the affidavit of Mr. James R. Haynes.

7. **THE APPLICANT THEREFORE REQUESTS** that the Board approve:

(a) pursuant to Subsection 41 (3) of the Act, the remaining capital costs of the Duck Pond Mine Site transmission interconnection capital project as set out in this Application in the amount of $5,705,500, and

(b) pursuant to Subsection 41 (5) of the Act, the contribution of the amount of $5,705,500 plus financing costs according to the terms set out in the Transmission Construction Contribution Agreement dated March 21, 2005 between Hydro and Aur Resources Inc.

DATED at St. John's, Newfoundland and Labrador, this ____ day of March 2005.

NEWFOUNDLAND AND LABRADOR HYDRO

_____

Geoffrey P. Young
Counsel for the Applicant
Newfoundland and Labrador Hydro
P.O. Box 12400
Columbus Drive
St. John's, Newfoundland and Labrador
A1B 4K7

Telephone: (709) 737-1277
Telecopier: (709) 737-1782

IN THE MATTER OF the *Public Utilities Act*, (R.S.N.L. 1990, C. P-47) (the "Act"); and

IN THE MATTER OF an application by Newfoundland and Labrador Hydro for approval of (i) the construction of a transmission interconnection to the Duck Pond Mine Site, pursuant to Subsection 41(3) of the Act; and (ii) a customer contribution for the transmission interconnection, pursuant to Subsection 41(5) of the Act.

TO: The Board of Commissioners of Public Utilities (the "Board")

AFFIDAVIT

I, James R. Haynes, Professional Engineer of St. John's, in the Province of Newfoundland and Labrador, make oath and swear as follows:

1. THAT I am employed by Newfoundland and Labrador Hydro, the Applicant herein, in the capacity of Vice-President, Production, and as such I have knowledge of the matters and things to which I have herein deposed, and make this affidavit in support of the Application.

2. THAT I have read the contents of the Application and they are correct and true to the best of my knowledge, information and belief.

SWORN TO BEFORE ME in the City of St. John's, in the Province of Newfoundland and Labrador, this day of , 2005.

_____

_____
James R. Haynes

THIS TRANSMISSION CONSTRUCTION CONTRIBUTION AGREEMENT made at St. John's, in the Province of Newfoundland and Labrador on the 21st day of March 2005.

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO**, a corporation and an agent of the Crown constituted by statute, renamed and continued by the Hydro Corporation Act, Revised Statutes of Newfoundland, Chapter H-16, (hereinafter called "Hydro") of the first part;

AND **AUR RESOURCES INC.**, a company organized under the laws of Canada (hereinafter called the "Customer") of the second part.

WHEREAS Hydro is a fully regulated public utility and provider of electrical power and energy within the Province of Newfoundland and Labrador and as such is subject to the *Public Utilities Act*, c. P-47, R.S.N.L. 1990, and the *Electrical Power Control Act, 1994,* c.E-5.1, S.N.L. 1994; and

WHEREAS the Customer desires to purchase electrical power and energy from Hydro at the Customer's Duck Pond mine site as an Industrial Customer; and

WHEREAS at present no other customers of Hydro exist to be served by Hydro in the vicinity of the Duck Pond mine site; and

WHEREAS the estimated economic life of the Duck Pond mine is between six and seven years which is much shorter than the normal expected useful life of a transmission line and, therefore, the transmission cost recovery methods that would normally apply to Hydro's industrial customers are not appropriate; and

WHEREAS the parties desire to enter into an agreement whereby Hydro will construct, and the Customer will pay the full cost of constructing the transmission interconnection required to provide electrical service to the Duck Pond mine.

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

1.01 In this Agreement, including the recitals, unless the context otherwise requires,

(a) **"Board"** means the Board of Commissioners of Public Utilities for Newfoundland and Labrador;

(b) **"Contribution"** means the principal amount to be paid to Hydro by the Customer to reimburse Hydro for the costs of constructing the Transmission Interconnection;

(c) **"Mine Site"** means the Customer's mine site at Duck Pond situated to the southeast of Millertown, Newfoundland;

(d) **"New Hydro Industrial"** means an industrial customer of Hydro, other than the Customer, that is served at a voltage of not less than 69kV at the primary side of any transformation equipment;

(e) **"Transmission Interconnection"** means the approximately 45 kilometer, 69,000 volt transmission line and associated station equipment to be installed and owned by Hydro to bring power from Hydro's Buchan's Terminal Station to the Mine Site;

1.02 In this Agreement all references to dollar amounts and all references to any other money amounts are, unless specifically otherwise provided, expressed in terms of coin or currency of Canada which at the time of payment or determination shall be legal tender herein for the payment of public and private debts.

1.03 Words in this Agreement importing the singular number shall include the plural and vice versa and words importing the masculine gender shall include the feminine and neuter genders.

1.04 Where a word is defined anywhere in this Agreement, other parts of speech and tenses of the same word have corresponding meanings.

1.05 Wherever in this Agreement a number of days is prescribed for any purpose, the days shall be reckoned exclusively of the first and inclusively of the last.

1.06 The headings of all the articles are inserted for convenience of reference only and shall not affect the construction or interpretation of this Agreement.

1.07 Any reference in this Agreement to an Article, a Clause, a subclause or a paragraph shall, unless the context otherwise specifically requires, be taken as a reference to an article, a clause, a subclause or a paragraph of this Agreement.

1.08 This Agreement may be executed in two or more counterparts, each of which when so executed shall be deemed to be an original, but all of such counterparts together shall constitute one and the same instrument.

ARTICLE 2
CONSTRICTION OF TRANSMISSION INTERCONNECTION

2.01 Hydro agrees to construct the Transmission Interconnection, in accordance with the estimated costs and timetable (schedule) as set out on Schedule "A" annexed hereto.

2.02 Should Hydro determine at any time during the construction period that the total estimated cost to complete or that the completion date will exceed that estimated in Schedule "A", Hydro will notify the Customer of such determination and will discuss with the Customer possible remedial action appropriate to be taken to address such cost overruns and/or delays.

ARTICLE 3
PAYMENT OF TRANSMISSION CONTRIBUTION

3.01 The Customer shall pay all Contribution amounts as set forth herein, together with applicable financing amounts, that are due and payable until the Contribution, or the reduced Contribution as the case may be, together with all applicable financing charges thereon, have been paid in full.

3.02 Subject to Clause 3.06 hereof, the Customer agrees to pay to Hydro commencing April 1, 2005, and for each month thereafter until March 1, 2010, a total of 60 Contribution payments. Initially, the amount to be paid each month shall be $113,832.05, calculated to recover the estimated principal amount of the Contribution of $5,705,500.00 together with financing costs calculated at 7.32%, which is Hydro's current weighted average cost of capital as approved by the Board. As of April 1, 2006, the amount to be paid each month thereafter until March 1, 2010 shall be adjusted to reflect the actual costs to Hydro of constructing the Transmission Interconnection, the amounts paid as of that date, and Hydro's weighted average cost of capital as of that date, all to enable Hydro to recover its costs of constructing the Transmission Interconnection, together with financing costs calculated at Hydro's weighted average cost of capital.

3.03 The Customer shall have the right at any time to pay the amount of the Contribution then still owing by it to Hydro and thereby satisfy its obligations hereunder to pay the Contribution.

3.04 In the event that prior to March 1, 2012 Hydro serves one or more New Hydro Industrials from the Transmission Interconnection, Hydro shall file an application to the Board for the purpose of determining the amount, if any, by which the Contribution shall be reduced or, where applicable, refunded based on amounts that Hydro has received or will receive from such New Hydro Industrials.

3.05 In the event that the Contribution is reduced under clause 3.04, the monthly Contribution payment amount shall remain the same but the number of Contribution payments to be made shall be reduced accordingly until the Contribution is paid in full, together with all requisite adjustments to the calculation of the applicable financing costs.

3.06 If the Customer voluntarily or forcibly abandons its operations at the Mine Site, commits an act of bankruptcy or liquidates its assets, then there shall, forthwith, become due and payable to Hydro by the Customer, as stipulated as liquidated damages without burden or proof thereof, a lump sum equal to any principal then outstanding plus financing costs as aforesaid calculated to the date of payment to the outstanding principal.

ARTICLE 4
COSTS OF TRANSMISSION INTERCONNECTION

4.01 Throughout the engineering, procurement and construction of the Transmission Interconnection, Hydro will endeavour to ensure that the costs related to construction of the Transmission Interconnection do not exceed those necessary to meet Hydro's normal standards for such work.

4.02 Hydro shall cause to be kept proper books of account, records and supporting materials covering all matters relevant to the calculation of the Contribution and the reasonable verification thereof. The Customer may, on reasonable notice and at its own costs, ask for and carry out an independent audit and Hydro shall, for such purpose and at all reasonable times, permit agents of the Customer to inspect and audit and make copies from all such books of account, record and supporting materials relevant to the calculation of the Contribution.

4.03 Hydro shall furnish the Customer with monthly written reports, within 10 business days of the end of such month, summarizing in reasonable detail the progress made by Hydro in connection with the construction of the Transmission Interconnection, including the costs incurred to the relevant date in connection therewith.

4.04 Should Hydro propose to engage any third party contractors to carry out any elements of the work comprised in the construction of the Transmission Interconnection with a cost in excess of $300,000 and any such subcontracting is not subject to a public tender process, then Hydro shall advise the Customer of such as soon as reasonably practicable and provide the Customer with the ability to provide input in connection with the terms of any such subcontracting of work.

ARTICLE 5
PAYMENT OF ACCOUNTS AND NOTICE OF CLAIMS OF CUSTOMER

5.01 Hydro will render its accounts monthly and the Customer shall, within twenty (20) days after the date of rendering any such account, make payment in lawful money of Canada at the office of Hydro in St. John's, Newfoundland, or in such other place in the said Province as Hydro may designate, without deduction for any claim or counterclaim which the Customer may have to claim to have against Hydro arising under this Agreement or otherwise.

5.02 All amounts in arrears after the expiration of the period of twenty (20) days referred to in Clause 3.01 shall bear interest at the rate of one and one-half (1-1/2%) percent per Month.

5.03 If the Customer is in default for more than thirty (30) days in paying any amount due Hydro under this Agreement, then, without prejudice to its other recourses and without liability therefor, Hydro shall, upon ten (10) days written notice to the Customer of its intention so to do, be entitled to suspend the supply of power and energy to the Customer until the said amount is paid, and if the supply is so suspended, the Customer shall not be relieved of its obligations under this or under any other Agreement.

5.04 The Customer and Hydro will submit to the other in writing every claim or counterclaim which each may have or claim to have against the other arising under this Agreement within sixty (60) days of the day upon which the Customer or Hydro has knowledge of the event giving rise to such a claim.

5.05 The Customer and Hydro shall be deemed to have waived all rights for the recovery of any claim or counterclaim that has not been submitted to the other party pursuant to and in accordance with Clause 5.04.

ARTICLE 6
MODIFICATION OR TERMINATION OF AGREEMENT

6.01 Except, where otherwise specifically provided in this Agreement and only to the extent so provided, all previous communications between the parties to this Agreement, either oral or written, with reference to the subject matter of this Agreement, are hereby abrogated and this Agreement shall constitute the sole and complete agreement of the parties hereto in respect of the matters herein set forth.

6.02 Any amendment, change or modification of this Agreement shall be binding upon the parties hereto or either of them only if such amendment, change or modification is in writing and is executed by each of the parties to this Agreement by its duly authorized officers or agents and in accordance with its regulations or by-laws.

ARTICLE 7
SUCCESSORS AND ASSIGNS

7.01 This Agreement shall be binding upon and enure to the benefit of the parties hereto and their respective successors and assigns, but it shall not be assignable by the Customer without the written consent of Hydro.

ARTICLE 8
ARBITRATION

8.01 Any dispute or differences between the parties hereto concerning this Agreement which cannot be resolved or settled by the said parties shall be settled by final and binding arbitration in the City of St. John's, Newfoundland, at the request of either party pursuant to the provisions of the Arbitration Act (Newfoundland and Labrador), subject to the specific terms hereof. The party desiring arbitration shall notify the other party of its intention to submit any dispute(s) or difference(s) to arbitration as well as a brief description of the matter(s) to be submitted for arbitration. Should the parties fail to agree on a single arbitrator to settle the relevant dispute(s) or difference(s) within fifteen (15) days of delivery of the aforesaid notice, then each such party shall within thirty (30) days thereafter nominate an arbitrator having expertise with respect to the subject matter(s) under dispute (failing which nomination by a party, the arbitrator nominated by the other party may proceed to determine the dispute alone as he or she shall deem fit) and the two (2) arbitrators so selected shall select a chairman of the arbitral tribunal of similar expertise to act jointly with them. If said arbitrators shall be unable to agree in the selection of such chairman within thirty (30) days of the expiry of the aforesaid thirty (30) day arbitrator nomination period, the chairman shall be selected as contemplated in the Arbitration Act (Newfoundland and Labrador). The costs of the arbitration shall be borne by the parties hereto as may be specified in the determination of the arbitrator(s). The arbitrator(s) shall further be authorized to retain such legal counsel and other professional advisors to under any advice to the arbitrator(s) as the arbitrator(s) deem appropriate. The decision of the single arbitrator or any two (2) of the three (3) arbitrators, as the case may be, shall be non-appealable, final and binding with respect to the issue(s) in dispute.

ARTICLE 9
GOVERNING LAW AND FORUM

9.01 This Agreement shall be governed by and interpreted in accordance with the laws of the Province of Newfoundland and Labrador and, subject to Clause 8.01, every action or other proceeding arising hereunder shall be determined exclusively by a court of competent jurisdiction in the Province, subject to the right of appeal to the Supreme Court of Canada where such appeal lies.

9.02 This Agreement is subject to the approval of the Board.

ARTICLE 10
ADDRESS FOR SERVICE

10.01 Any notice, request or other instrument which is required or permitted to be given, made or served under this Agreement by either of the parties hereto, shall be given, made or served in writing and shall be deemed to be properly given, made or served if personally delivered, or sent by prepaid telegram or facsimile transmission, or mailed by prepaid registered post, addressed, if service is to be made

(a) on Hydro, to

The Corporate Secretary
Newfoundland and Labrador Hydro
Hydro Place
P.O. Box 12400
St. John's, Newfoundland
CANADA. A1B 4K7
FAX: (709) 737-1782
or

(b) on the Customer, to

Aur Resources Inc.
30-32 Route 370, Box #9
Millertown, NL
A0H 1V0
FAX: (709)852-2126

Attention: Mine Manager

10.02 Either of the parties hereto may change the address to which a notice, request or other instrument may be sent to it by giving to the other party to this Agreement notice of such change, and thereafter, every notice, request or other instrument shall be delivered or mailed in the manner prescribed in Clause 10.01 to such party at the new address.

IN WITNESS WHEREOF Newfoundland and Labrador Hydro and the Customer has each executed this Agreement by causing it to be executed in accordance with its by-laws or regulations and by its duly authorized officers or agents, the day and year first above written.

THE CORPORATE SEAL of **Newfoundland and Labrador Hydro** was hereunder affixed in the presence of:

Witness

VICE PRESIDENT PRODUCTION

Asst. Corporate Secretary

DULY EXECUTED by **Aur Resources Inc.** in accordance with its By-Laws in the presence of:

Witness

Executive Vice-President,
Corporate Affairs

Vice-President, Development Projects

Page 1 of 2

HYDRO PROJECT SUMMARY

Capital Project **Fast Track Proposal** **Business Unit.Cost Code:** 13490500.541100 **Revision:**

Project Title: Duck Pond Mine - Power Supply **Date Prepared** 2005, February 10

Location: Buchans to Duck Pond **Category:** Necessary **Start Date** 2005, February 28

Division: TRO **Dept.** TRO Engineering **Completion Date** 2005, October 31

Classification: Transmission - System Transmission Additions **Work Type Code:** Other

Asset Number: _____ **Asset(s) Retirement/Transfer involved ?** NO *If Yes, Attach Particulars*

Project Cost: *($ x1,000)*	**2005**	**2006**	**BEYOND**	**TOTAL**
Material Supply	2,626.0			2,626.0
Labour	599.0			599.0
Consultant				
Contract Work	1,630.0			1,630.0
Other Direct Costs	55.0			55.0
O/H, AFUDC & Escalation	424.5			424.5
Contingency	491.0			491.0
TOTAL	**5,825.5**			**5,825.5**

Background:
Aur Resources is constructing a mine site in the vicinity of Millertown and has requested Hydro to supply Electrical Power to the site. All costs are fully recoverable from Aur Resources.

Description:
Supply of design, materials, environmental monitoring, and construction of approximately 45 kilometers of 69 kV, single-pole, three-phase transmission line from Hydro's existing Terminal Station at Buchans to the mine site, installation of a line termination at Buchans Terminal Station and construction of a new, two transformer station at the mine site. The cost estimate is reduced by approximately $650,000.00 due to a shorter line length and elimination of the escalation cost.

Strategic Alignment:
Not applicable

Alternatives:
Not applicable.

Operating Experience:

HYDRO PROJECT SUMMARY

Capital Project **Fast Track Proposal** **Business Unit.Cost Code: 13490500.541100** **Revision:**

Not applicable.

Justification:
AUR Resources is constructing a mine site in the vicinity of Millertown and has requested Hyrdo to supply Electrical Power to the site. All costs are fully recoverable fro AUR Resources.

Future Plans:
No future plans.

Project Initiator "Business Unit Manager"		Manager Initiating Dept.		Department Director "Managing Dept"	
Project Estimator "Asset or Labour Staff or Support Eng. Group"		Department Director "Initiating Dept."		Divisional Vice-President	

Form 60-0521 Rev. 04/Dec

TL 264 (Duck Pond) PROJECT SCHEDULE - 2005

Date: February 23, 2005 (status, DRAFT)
by Wilber Dyke
Week Ending Date

2005

January					February				March				April				May					June				July					August				September				October				November				December			
2	9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11	18	25

Capital Budget Approval ,Final Design & Construction

- *Prliminary design and field data collection*
- *Design and Cnstruction Budget Approval*

Terminal Stations

- *Buchans TS (install and commission)*
- *Duck Pond TS (civil works)*
- *Duck Pond TS (install and commission)*
- *Major Equipment Delivery*
  - *Transformer*
  - *Breaker*

Environment

- *Project registration*
- *Permits*
- *EPP*

Transmission Line, 69KV Single Pole

- *Clearing Contract*
  - *Tender*
  - *Evaluate*
  - *Award*
  - *Start Construction*
  - *Area 1*
  - *Area 2*
- *Erection Contract*
  - *Tender*
  - *Evaluate*
  - *Award*
  - *Start Mobilization*
  - *Area 1, Pole Erection*
  - *Area 1, Structure Framing*
  - *Area 1, conductor Stringing*
  - *Area 2, Pole Erection*
  - *Area 2, Structure Framing*
  - *Area 2, Conductor Stringing*
  - *Final Inspection and Commissioning*
  - *Energize TL 264*
- *Engineering Design*
  - *Stake Area 1*
  - *Cut Centerline & Profile Area 2*
  - *Design Area 1 & 2*
  - *Stake Area 2*

2005 CAPITAL PROJECTS OVER $50,000

EXPLANATION

Project Title: Transmission Interconnection - Aur Resources Inc.

Location: Buchans Terminal Station to Duck Pond Mine Site

Division: Transmission & Rural Operations

Classification: Transmission

Project Description:
Aur Resources Inc. has requested transmission voltage electrical service to its Duck Pond Mine Site situate approximately 25 km southeast of Millertown. Hydro has proposed a 69 kV single pole, three-phase transmission line from Hydro's existing terminal station at Buchans to the mine site, installation of a line termination at the Buchans Terminal Station, and construction of a new, two-transformer station at the mine site. This project will be commenced and completed in 2005.

Project Cost: *(x $1,000)*	**2005**	**2006**	**Total**
Material Supply	2,626.0	0.0	2,626.0
Labour	599.0	0.0	599.0
Consultant	0.0	0.0	0.0
Contract Work	1,630.0	0.0	1,630.0
Other Direct Costs	55.0	0.0	55.0
Corp O/H, AFUDC & Esc.	424.5	0.0	424.5
Contingency	491.0	0.0	491.0
	5,825.5*		**5,825.5***

Operating Experience:
None.

Project Justification:
This project is being constructed at the request of this new industrial customer so that Hydro can provide electrical service to the new Duck Pond Mine. Hydro has entered into an agreement whereby the full cost of this project will be contributed by this customer, to be recovered over a period of five years, with financing costs. At this time there are no other customers to be served from this transmission interconnection.

Future Plans:
None.

**Includes $120,000 previously approved for preliminary engineering work (P.U. 3 (2005)).*

(DRAFT ORDER)
NEWFOUNDLAND AND LABRADOR
AN ORDER OF THE BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

NO**. P.U. __ (2004)**

IN THE MATTER OF the *Public Utilities Act*, (R.S.N.L. 1990, C. P-47) (the "Act"); and

IN THE MATTER OF an application by Newfoundland and Labrador Hydro for approval of (i) the construction of a transmission interconnection to the Duck Pond Mine Site, pursuant to Subsection 41(3) of the Act; and (ii) a customer contribution for the transmission interconnection, pursuant to Subsection 41(5) of the Act.

WHEREAS Hydro is a corporation continued and existing under the *Hydro Corporation Act,* is a public utility within the meaning of the Act and is also subject to the provisions of the *Electrical Power Control Act, 1994*; and

WHEREAS Section 41(3) of the *Act* requires that a public utility shall not proceed with the construction, purchase or lease of improvements or additions to its property where:

(a) the cost of construction or purchase is in excess of $50,000; or

(b) the cost of the lease is in excess of $5,000 in a year of the lease

without the prior approval of the Board of Commissioners of Public Utilities (the "Board"); and;

WHEREAS Section 41(5) of the *Act* requires that a public utility obtain the prior approval of the Board of any contributions demanded of its customer; and

WHEREAS by Order No. P.U. 53 (2004) the Board approved Hydro's 2005 capital expenditure program; and

WHEREAS by Order No. P.U. 3 (2005), the Board approved Hydro's application for the capital expenditure of $120,000 for preliminary engineering and related work associated with the construction of a transmission interconnection to the Duck Pond mine site owned by Aur Resources Inc. and, for the full contribution of that amount by Aur Resources Inc. to Hydro; and

WHEREAS Hydro and Aur Resouces Inc. have executed an agreement whereby Hydro will construct a transmission interconnection of approximately 45 kilometers between Hydro's Buchans Terminal Station and the Duck Pond mine site owned by Aur Resources and, whereby Aur Resources Inc. will pay the full capital cost of the transmission interconnection over a five-year period; and

WHEREAS Hydro has applied for the approval of an additional capital expenditure of $5,705,500 for the construction of the said transmission interconnection (for a total of $5,825,500 for this capital project), and for the approval of the full contribution of that amount from its customer, Aur Resources

Inc., in accordance with the terms of a transmission construction contribution agreement dated March 21, 2005; and

WHEREAS the Board has considered the application, the transmission construction contribution agreement, and the capital budget explanation provided by Hydro, and is satisfied that the proposed expenditure is prudent and necessary and that the capital contribution proposed to be received by Hydro is reasonable and appropriate.

IT IS THEREFORE ORDERED THAT:

1. Pursuant to section 41(3) of the Act, the Board approves the additional 2005 expenditure of $5,705,500 for the construction of a transmission interconnection of approximately 45 kilometres to the Duck Pond Mine site owned by Aur Resources Inc., an intended industrial customer of Hydro.

2. Pursuant to section 41(5) of the Act, the Board approves the contribution from Hydro's industrial customer, Aur Resources Inc., of $5,705,000 for the construction of the aforesaid transmission interconnection.

Dated at St. John's, Newfoundland and Labrador, this day of

2005.

_____

_____

_____

_____

P. U. 3 (2005)

IN THE MATTER OF THE
Public Utilities Act, R.S.N.1990,
c. P-47, as amended (the "*Act*")

AND

IN THE MATTER OF an
application by Newfoundland and
Labrador Hydro ("Hydro") for
approval of preliminary engineering
and design work for a transmission
interconnection of the Duck Pond Mine
Site owned by Aur Resources Inc., an
intended industrial customer of Hydro,
pursuant to Section 41(3) of the *Act*.

WHEREAS Hydro is a corporation continued and existing under the *Hydro Corporation Act*, is a public utility within the meaning of the *Act*, and is also subject to the provisions of the *Electrical Power Control Act, 1994*; and

WHEREAS Section 41(3) of the *Act* requires that a public utility shall not proceed with the construction, purchase or lease of improvements or additions to its property where:

(a) the cost of the construction or purchase is in excess of $50,000; or
(b) the cost of the lease is in excess of $5,000 in a year of the lease

without the prior approval of the Board of Commissioners of Public Utilities (the "Board"); and

WHEREAS by Order No. P. U. 53 (2004) the Board approved Hydro's 2005 capital expenditure program with a total budgeted cost of $42,431,000; and

WHEREAS on January 14, 2005 Hydro filed an application with the Board, pursuant to Section 41(3) of the *Act*, seeking approval of additional 2005 capital expenditures totaling $120,000 for the preliminary engineering and related work to be carried out in January and February of 2005 associated with a 55 km transmission interconnection to the Duck Pond Mine site owned by Aur Resources Inc., an intended industrial customer of Hydro; and

WHEREAS Hydro has entered into an agreement with Aur Resources Inc. which provides that this intended industrial customer will pay to Hydro the full cost of this preliminary engineering and related works; and

WHEREAS Hydro anticipates that, in due course, it will make further application to the Board for approval of the construction of the transmission interconnection on the basis that those capital costs will be fully contributed by the intended customer; and

WHEREAS the Board has considered the application and is satisfied that the proposed expenditure is prudent and necessary in order to preserve a timely commencement of the transmission interconnection project.

IT IS THEREFORE ORDERED THAT:

1. Pursuant to Section 41 (3) of the *Act*, the Board approves the additional 2005 expenditure of $120,000 for the preliminary engineering and related work associated with a 55 km transmission interconnection to the Duck Pond Mine site owned by Aur Resources Inc., an intended industrial customer of Hydro.

2. Pursuant to Section 41 (5) of the *Act,* the Board approves the contribution from Hydro's intended industrial customer, Aur Resources Inc., of $120,000 towards the preliminary engineering and related work associated with a 55 km transmission interconnection to the Duck Pond Mine site.

Dated at St. John's, Newfoundland and Labrador, this 18th day of January 2005.

Robert Noseworthy,
Chair & Chief Executive Officer.

Darlene Whalen, P.Eng.,
Vice-Chair.

G. Cheryl Blundon,
Board Secretary.

REFERENCE: Application, page 18

YEC submits it is assuming risk during Stage One of the CSTP with regard to the up front capital cost payments for the Mine Spur and that the Power Purchase Agreement protects it if the Minto Mine shuts down prematurely.

QUESTION:

a) If the Mino mine shuts down prematurely, where is the evidence that Macquarie Bank or some other firm will honour Minto's commitments?
b) Is Macquarie a mining firm as well as a financial institution?
c) Please explain how the proposed Power Purchase Agreement puts YEC at a disadvantage rather that an advantage.

ANSWER:

(a), **(b)** and **(c)**

These are all PPA-related questions.

The Direct Agreement sets out that if the mine shuts down and is in a situation of default, Macquarie Bank may initiate a Step-in Period pursuant to section 3.3 of that agreement. Under the Step-in provisions, Macquarie would covenant to be fully responsible, without limitations or conditions, for the payment of all amounts as they accrue due to YEC under the PPA during the Step-In Period. There is no guarantee that Macquarie would initiate a Step-in Period; however, if Macquarie does so choose then it would be bound pursuant to the provisions of the Direct Agreement. The arrangements recognize the inherent interest that Macquarie is likely to have in relying on purchased grid power, rather than diesel generation, in the event that the mine remains profitable to operate, based on its remaining ore reserves.

While Macquarie Bank is not a mining firm it is a financial institution that specializes in natural resources advisory services. In order to protect its interests in the event of a default by Minto, Macquarie would be expected to examine available options to retain mining expertise as required if the mine remained profitable to operate based on its remaining ore reserves.

Essentially the PPA is designed to yield benefits to YEC and other ratepayers through the sale of surplus hydraulic supply to the Minto mine at firm mine rates, while also providing for long term infrastructure development to the long term benefit of the Yukon. YEC would not have pursued this agreement if it did not present a considerable advantage to YEC and its ratepayers. The PPA was designed to mitigate risks to YEC and other ratepayers, and any potential material adverse impacts are restricted to extreme and unlikely scenarios as amply noted throughout the PPA review process.

REFERENCE: Application, page 18

YEC submits that the Yukon government funding for Stage Two is assumed to address the specific risks related to other concurrent mine developments on the Mayo-Dawson system (e.g., UKHM) combined with the potential impact of new added mine loads on renewed base load diesel generation requirements.

QUESTION:

a) Please provide a fuller explanation of these referenced risks.

ANSWER:

(a)

The interconnection (though Stage Two of the CS Project) of the Mayo-Dawson and WAF grids will provide long term infrastructure which would allow for surplus hydro on either system to be used to meet load requirement on either grid. Over the short term, the timing of this interconnection has been a cause of some concern; however, the provision of YTG funding and industry contributions will ensure that this grid connection is provided at greatly reduced cost or risk to ratepayers (and without material risks related to timing considerations).

A fuller explanation is provided below.

On the matter of UKHM reopening, proceeding with Stage Two of the Transmission Project without government funding would have meant that YEC (and ratepayers) would be responsible for the costs of the Stage Two line planned to provide surplus energy to the WAF system. However, if there were another concurrent mine development on the Mayo Dawson system, such as the United Keno Hill Mine (UKHM), there would be greatly diminished capacity and hydro energy contributions from MD to WAF and those near term benefits from interconnection of the grids would effectively be negated along with any material near term net benefit to ratepayers relative to the costs incurred to enhance the system, i.e., ratepayers would be exposed to risks related to the balance of the Stage Two capital costs. The provision of industry and YTG funding sufficient to offset the Stage Two capital costs would remove the risk of ratepayers being exposed to any such Stage Two capital costs due to UKHM reopening.

On the matter of new mine loads leading to renewed baseload diesel generation, footnote 21 at page 14 of the Part 3 Application references the Resource Plan Hearing and provides that, "ratepayer benefits associated with Stage Two are subject to the assumption of surplus generation resources on Mayo Dawson (MD) system, which would not be available to the extent that new industrial development (e.g. UKHM) occurs concurrently on the MD system", and "[w]ithout new near-term generation supplies assumed in the Plan from MD as well as Aishihik 3rd Turbine (and Marsh Lake in the initial plan), the Plan indicated that serving both Minto and Carmacks Copper mines would lead to new baseload WAF diesel generation even at earlier lower Minto mine loads." (See also YUB-YEC-1-6.) As noted, the YTG and industry funding act to remove any net capital cost for Stage Two CSTP development, thereby protecting ratepayers against the risk of needing to pay for such costs.

REFERENCE: Application, page 19

YEC submits that opportunity projects are pursued solely based on the ability to make the most of existing assets, and to have long-term beneficial impacts on ratepayers. In the event such positive rate benefits cannot be secured, these projects would not be pursued.

QUESTION:

a) Please explain what is meant by "rate benefits" and what is included under "long term beneficial impacts on ratepayers".

ANSWER:

(a)

Please see Appendix C, Tables C-1 and C-2, column 13 for the Mine Net Revenue Incremental Increase otherwise known as the ratepayer benefit. Column 14 shows the Accrued Mine Net Revenue Amount that, subject to the YUB Approval, can be provided as contributions towards capital costs and thereby retaining ratepayer benefits until after the discharge of the YEC Security.

In each year that the accrued Mine Net Revenue Amount exceeds the CS Stage One Undepreciated Capital Costs, rate benefits will also be secured by use of this account to offset YEC's regulated rate base.

Long term beneficial impacts include establishment of long term transmission infrastructure assets that will be of benefit to future generations such as legacy infrastructure developed previously, e.g. the Whitehorse and Aishihik hydro and WAF transmission, which allow Yukoners' today to enjoy the lowest cost power in the North.

REFERENCE: Application, page 19

YEC indicates that one of the key principles underlying the PPA was that the cost of the Transmission Project required to provide grid electricity to the Mine would not adversely impact other ratepayers in Yukon. YEC also submits that "the Mine Net Revenue Account is one of the key measures included in the PPA to ensure that there would be no impacts (adverse or beneficial) on ratepayers".

QUESTION:

a) Please explain why ratepayers should not receive any beneficial impacts resulting from the proposed facilities.

ANSWER:

(a)

This is a PPA related question. Please see PPA Hearing IR YUB-YEC-1-6[1], as well as UCG-YEC-1-45 in the current proceeding.

[1] "With or without the Mine Net Revenue Account the PPA and the Stage One CS/MS Project are expected to provide positive benefits to ratepayers…" (page 1).

REFERENCE: Application, page 20

YEC indicates that updated projections of the Mine Net Revenue Account reflect the PPA provisions with the Yukon government's new funding.

QUESTION:

a) Please confirm that no updates of the proposed Mine Net Revenue Account reflecting the Yukon government's new contributions were submitted during the PPA review process for testing by intervenors or consideration by the Board.

ANSWER:

(a)

Confirmed. The new contributions were only confirmed to YEC on April 2, 2007.

REFERENCE: Application, page 21

YEC indicates that it is continuing to consult with the NTFNs on topic which include specific route finalization and route impact mitigation issues (i.e., access management and buffers), as well as trap line mitigation. YEC also indicates that it will be concluding discussions with the NTFNs on a Project Agreement as provided for in the MOU.

QUESTION:

a) Please provide copies of the agenda and minutes / notes of the referenced consultations with the NTFNs.
b) Please provide an update on the issues being addressed in the referenced Project Agreement and a copy of the Project Agreement upon completion.
c) Please provide details of consultations that have been undertaken with residents living in the Riverdale area of Whitehorse – the largest group to be potentially adversely impacted by diesel generation requirements in Whitehorse as a result of the proposed project.

ANSWER:

(a) and **(b)**

Please see UCG-YEC-1-9 and UCG-YEC-1-19 (d) and (e).

(c)

Consultation with Whitehorse area residents on the CSTP has occurred through the Resource Plan consultation process and provision for public comment during the YUB and YESAB review processes.

YESAB has asked YEC to provide information that addresses or characterizes the concerns raised in comments received by YESAB regarding the effects of increased diesel burning at the Whitehorse location resulting in reduced air quality and potential health effects. YEC anticipates that its response will be filed shortly with YESAB under the heading YESAB-YEC-3-1. Once filed, it will be posted on the YESAB Online Registry (YOR) at http://www.yesab.tzo.com/wfm/launch/YESAB.

REFERENCE: Application, page 21

YEC indicates that it developed a Public Involvement Plan and distributed newsletters in May 2006 and in March 2007.

QUESTION:

a) Please provide a copy of the Public Involvement Plan.
b) Please provide a copy of the May 2006 newsletter.
c) Please provide the distribution list for the newsletters and an explanation of how they were made available.
d) Please provide a breakdown of the costs of the Public Involvement Plan and newsletters between the transmission project being addressed in this Part 3 review and all other facilities.

ANSWER:

(a)

The referenced material, which is described in Chapter 4 of the Project Proposal Submission (September 2006) to the YESAB Executive Committee, is publicly available on the YESAB Online Registry (YOR) or on the Yukon Energy website.

To download the entire Executive Committee Project Proposal (without appendices or reference materials) visit: www.yukonenergy.ca.

To view Chapter 4 – First Nations and Other Publics Consultation, along with relevant appendices and reference materials use the YESAB Online Registry (YOR) at: http://www.yesab.tzo.com/wfm/launch/YESAB.

The Public Involvement Plan for the Project may be found on the YESAB Online Registry here:
Document # 2006-0286-024-1, Reference 4-R1: Consultation

(b) and **(c)**

The May 2006 Newsletter is publicly available at:
www.yukonenergy.ca/downloads/db/538_Newsletter_may06_final.pdf

The distribution for the May newsletter and an explanation of how it was made available is provided in Chapter 4 of the Project Proposal Submission on pg. 4-8. Copies were mailed directly to the stakeholders identified as affected or interested publics (the list of stakeholders can be found in Appendix 4A, which is Document # 2006-0286-016-1 on the YOR identified above in (a)). In addition, 7,900 copies were distributed in the May 26th edition of the Yukon News; copies were distributed at all face-to-face public consultation events throughout the rounds of public consultation,and a copy of the May 2006 newsletter is also provided in Appendix 4A identified above.

The March 2007 Newsletter is provided in Attachment A of the Application. It is also available on Yukon Energy's website at:
http://www.yukonenergy.ca/downloads/db/754_Newsletter_march07_final.pdf

The March 2007 Newsletter used the same distribution list identified above, and was updated with the addition of representatives of First Nation and government department staff to reflect changes between newsletters. Additional interested individuals who came forward during the public consultation process were also included in the March 2007 Newsletter distribution.

(d)

The Public Involvement Plan and related newsletters deal with the CS/MS Project facilities in their entirety and do not distinguish between the project as submitted to YESAB for review and the CSTP being reviewed as part of this Part 3 review process. For related costs of the YESAB process for the CSTP, please see UCG-YEC-1-1; the Public Involvement Plan component is an integral part of the YESAB process and its costs have not been separately assessed.

REFERENCE: Application, Attachment A

YEC indicates that the proposed project "will benefit all Yukon ratepayers, Minto Mine, governments and others".

QUESTION:

a) Please provide details of the benefits being provided to "governments" and "others" and who these parties are.

ANSWER:

(a)

Residual effects, including benefits issuing from the Carmacks Stewart/ Minto Spur Transmission Project are thoroughly addressed and described in Chapter 8 of YESAB Project Proposal which is publicly available on the YESAB Online Registry (YOR), or on the Yukon Energy website.

To download the entire Executive Committee Project Proposal (without appendices or reference materials) visit: www.yukonenergy.ca.

Chapter 8 can be viewed on the YOR and is referenced as follows on the registry:

- Document # 2006-0286-009-1, Chapter 8: Environmental and socio-economic effects assessment

Chapter 8 has no supporting appendices or reference materials.

The governments referenced in the March 2007 newsletter include the federal government, the territorial government, NTFNs and any relevant local governments. "Others" are other members of the public (which may include other individuals or groups) who will benefit from the project including the local community and First Nation members and local businesses. This may include community members from Carmacks, Pelly Crossing, Stewart Crossing and Mayo, major customers, private land owners, and resource users including trappers.

The long-term positive effects of the Project Infrastructure include effects on federal and territorial government fiscal flows due to continued direct and indirect tax revenues and royalties stemming from the operation and maintenance of transmission lines and substations, as well as any related development benefits (jobs, spending, cost savings, taxes, royalties) flowing from industrial customers in the area connected to the project. The NTFNs are also negotiating a Project Agreement with YEC that will provide NTFNs the opportunity to provide brushing and clearing services for the CSTP on a sole source basis and that may also provide project-related economic opportunities and benefits sharing.

During periods of the Project's life where construction, maintenance and decommissioning activities are required, local communities and community members will benefit due to increased local employment and increased local business spending. Brushing and clearing crews will be sourced locally for the Project from NTFN, and trucking/hauling is also expected to be sourced locally. Also, a small number of labourer positions and trucking/hauling services may be sourced locally for line construction. Substation clearing and site preparation will be sourced locally, and substation building construction may be sourced locally as well, depending on the building specifications. Businesses providing services ancillary to construction, such as lodging, meals and fuel, are also expected to see small positive effects.

The Transmission Project will also allow Pelly Crossing, a community currently relying on diesel generation, access to hydro power and the Mine Spur will provide some potential long term infrastructure in the Minto Landing area on the east side of the Yukon River. Generally, the project will encourage economic development along the corridor and enhance overall system reliability and flexibility benefiting the Yukon as a whole. The existence of the project may also facilitate future mining development in the region.

REFERENCE: Application, Attachment A

YEC indicates that the "Northern Tutchone First Nations will have the opportunity to provide, on a sole source basis, all route clearing and brushing activities related to the project".

Auditor General's Report on Mayo-Dawson Transmission Line Project Paragraph 44 – Although the YEC did issue a request for proposal in a few cases, for this project we found that it awarded 12 contracts (each with payments over $50, 000) on a sole-source basis. We found no explanation in the Corporation's files to justify this approach. The lack of a competitive process diminishes opportunities to identify the best contractor or get the best possible price for quality services. We are particularly concerned about certain contracts and payments discussed in the following sections of this report.

Paragraph 59 – Recommendation. The Yukon Energy Corporation should establish and follow a contracting policy and clear contracting procedures that provide for transparency and completion and ensure best value.

QUESTION:

a) Please provide the justification to sole source these activities to the NTFNs.
b) Please provide details of any other project-related services for which opportunities to provide on a sole basis have already been guaranteed.
c) Please explain how YEC's sole-sourcing process follows the intent of the Auditor General's recommendation.

ANSWER:

(a)

As referenced in Yukon Energy's Application under Part 3 of the Act, in order to construct the line it is necessary that Yukon Energy be granted access rights over NTFN settlement land. A condition to gaining such access from the NTFN was that Yukon Energy had to enter into a Project Agreement. A sole source opportunity for the clearing activities in relation to the Project was agreed to between the parties as part of the negotiations. Senior management and the Board of Directors were fully informed of this decision. Before the opportunity will be made available to NTFN they must satisfy Yukon Energy (acting reasonably) that their nominee has the capacity and ability to carry

out the clearing contract and can do so at a competitive price and in accordance with Yukon Energy's reasonable requirements.

The approach taken by Yukon Energy in this instance is consistent with the approach adopted by utilities in other jurisdictions when dealing with First Nations issues (e.g. Manitoba Hydro).

(b)

The two key contracts for the construction of the line relate to the engineering services and the construction contract. In the case of the engineering services (as will be the case in relation to the construction contract) the contract was done on a tendered basis. Sole source contracts in the future will only be entered into if there is a reasonable explanation as to why it should be sole sourced and the guidelines set out in Yukon Energy's Goods and Services Guidelines GS005 and GS0010 (Exhibit B-17 in the Resource Plan hearing) are followed.

(c)

Please see Exhibit B-17 in the Resource Plan hearing, more particularly the Goods and Services Guidelines GS005 and GS0010.

YUKON ENERGY CORPORATION
APPLICATION FOR AN ENERGY PROJECT CERTIFICATE AND AN ENERGY OPERATION CERTIFICATE

YUKON CONSERVATION SOCIETY
(YCS)

REFERENCE:

Page 6, fifth paragraph: "There is no timetable or plan for final disposition or decommissioning of the CSTP facilities…".

QUESTION:

a) Does YEC have a fiscal reserve or similar financial tool that is intended to provide monies at some future date for decommissioning?

ANSWER:

(a)

The CSTP is intended to provide long term infrastructure in the Yukon and there are no plans for decommissioning, thus, it is impractical to develop reserves for decommissioning at this time. Please note that Board Order 2005-12 disallowed continued inclusion of future removal and site restoration costs in YEC depreciation, which had previously provided for accrual of amounts to provide monies at some future date for such costs.

Please refer to Section 5.1.5 of the PPA Application and Part 11 of the PPA for decommissioning plans for the Minto spur.

REFERENCE:

Page 8, Permitting and Approvals: "Recognizing that delays in bringing this Project into service will adversely affect the Minto mine and existing ratepayers, the schedule describes the anticipated timing of the additional activities required to achieve in-service of Stage One as soon as possible during or after the targeted 3rd quarter of 2008…"

QUESTION:

a) Does YEC have contingency plans should delays be experienced in obtaining permitting and approvals? YCS does not request to see the plans, but would like to know if YEC has planned this contingency.

ANSWER:

(a)

Yukon Energy's contingency plans are based on a series of project milestones with go or no-go decision dates linked to these milestones in order to manage financial exposure to project risks such as permitting and regulatory approvals, or changes in project cost estimates and schedules.

As reviewed at page 17 of the Part 3 Application, the PPA timeline conditions in Section 3.1 of the PPA (particularly as regards securing needed permits and approvals by certain dates) are generally provided for the benefit of YEC and Yukon ratepayers and protect YEC from any obligation to proceed with construction if such permits and approvals are unduly delayed. YEC has indicated that, if necessary, and if it is in the best interests of YEC, such timelines may be extended by YEC, subject to such extensions not seriously undermining the viability of the project or exposing YEC to new and unacceptable risks.[1]

The PPA nevertheless provides for various consequences in the event that YEC is delayed in providing Commencement of Delivery to Minto, and Section 3.3[2] sets out the consequences for YEC should Commencement of Delivery be delayed beyond

[1] See also PPA Hearing IR YCS-YEC-1-1.

[2] Section 3.3 of the PPA sets out that, "If Commencement of Delivery occurs after March 31, 2010, the Capital Cost Contribution payments will be adjusted under Section 5.3, 5.4, or 5.5." See also, PPA Hearing IRs UCG-YEC-2-1, YUB-YEC-1-3 and YUB-YEC-1-4.

September 30, 2009. These consequences will be fully considered by YEC when assessing the implications of any delay.

REFERENCE:

Page 9, Separation of Design and Construction Contracts.

QUESTION:

a) Does YEC intend to make hiring Yukon contractors a priority in the bid process for the construction contracts? If so, please provide details on how this will be done.

ANSWER:

(a)

The MOU with NTFN provides NTFN with the opportunity to provide, on a sole source basis, all route clearing and brushing activities (see also response to UCG-YEC-1-51). The MOU provides for open, competitive tendering of the main construction construct for the transmission line and substations. (See also, YEC's Project Proposal Submission to YESAB Executive Committee, September 2006: Sections 5.8 and 8.3.2; no companies within Yukon are known to have the capacity and experience in transmission line construction to bid on this project.)

REFERENCE:

Page 11, third paragraph: “Planned mitigation includes an Environmental Protection Plan to be finalized following the YESAB Screening Process, which will be designed to provide direction to contractors regarding the requirements of Yukon Energy and the regulator.”

QUESTION:

a) Does YEC intend to make the Environmental Protection Plan available for public review as soon as it is finalized, and prior to the contractor commencing work?

ANSWER:

(a)

The Environmental Protection Plan (EPP) is to be prepared to provide direction to contractors regarding the requirements of both Yukon Energy and regulators,, and as such it will be finalized after the YESAB assessment process is complete and regulatory permits and approvals are secured. As the EPP will reflect the outcomes of the regulatory review process, it will not be made available for further public review prior to the contractor commencing work. Extensive public review of the project with respect to environmental concerns occurred as part of the YESAA process earlier this year from February 2 to April 4. (See also, YEC Project Proposal Submission to YESAB Executive Committee, Section 8.6.)

REFERENCE:

Page 13, fifth paragraph: "It is expected that each month the project is delayed will result in at least $250,000 less ratepayer benefits and 2,000 tonnes more of CO_2 emissions…"

QUESTION:

a) Does YEC have detailed calculations on how the 2,000 tonnes of CO_2 emissions were arrived at? If so, please provide them.
b) Does YEC keep accurate track of all CO_2 emissions it generates? If so, please provide them.

ANSWER:

(a)

Key Assumptions:

- Minto 32.5 GW.h per year = 2.708 GW.h per month (or 2,708,000 kW.h)
- Minto Isolated Diesel Efficiency (kW.h/litre) = 3.7 (Table YESAB-YEC-5-4, Supplemental Information filed by YEC in January 2007, YESAB-YEC-2-5)
- CO_2 emission factor = 2.73 kg/litre of diesel fuel (Environment Canada 2002 as provided in YEC's Project Proposal Submission, September 2006: page 6-19)

Calculations:

- Diesel fuel per month = 2,708,000 kW.h / 3.7 kW.h/litre = 731,982 litres
- CO_2 emissions per month = 731,982 litres * 2.73 = 1,998,310 kg (or 1,998 metric tonnes)

(b)

Yukon Energy tracks its diesel fuel use which can be converted to CO_2 emissions using the conversion factor from the response to a). The table below, YCS-YEC-1-5-1, lists YEC's historic diesel fuel used on the WAF grid from 1990 to 2006.

Table YCS-YEC-1-5-1
YEC WAF Diesel (liters)

	Whitehorse	Faro	Total
1990	5,589,608	3,442,759	9,032,367
1991	2,375,404	4,342,253	6,717,657
1992	2,929,901	6,097,653	9,027,554
1993	1,619,303	2,726,575	4,345,878
1994	75,005	56,504	131,509
1995	5,546,909	4,797,391	10,344,300
1996	14,772,961	12,312,131	27,085,092
1997	12,874,465	8,509,367	21,383,832
1998	688,373	1,307,824	1,996,197
1999	2,809,800	593,133	3,402,933
2000	240,306	172,257	412,563
2001	44,916	132,936	177,852
2002	130,309	145,176	275,485
2003	43,970	106,523	150,493
2004	35,004	54,064	89,068
2005	13,389	8,815	22,204
2006	185,812	203,694	389,506

REFERENCE:

Page 15, fourth paragraph: "As a result of the PPA and the acquisition of the Minto Mine Diesel units, the timing of the Mirrlees Life Extension project will need to be reassessed as discussed in PPA IR YUB-YEC-1-8."

QUESTION:

a) Does YEC have a timeline for when this reassessment will take place? If so, please provide this timeline.

ANSWER:

(a)

Any reassessment of the timing of the Mirrlees Life Extension project is contingent upon the approval of the PPA, YEC and Minto securing all required permits and approvals pursuant to section 3.1 of the PPA, and YEC proceeding with construction of the CSTP. At Commencement of Delivery, YEC will inspect the Diesel Units and determine whether the condition of the units is consistent with the Conditions to Assignment set out under section 10.2 of the PPA, which would require YEC to purchase the units under the terms and conditions of the PPA. Thus, it is expected that timing of the Mirrlees Life Extension project will be reassessed after the Transmission Project is finally committed and construction on the project has commenced.

REFERENCE:

Page 16, fourth paragraph: "The major regulatory risk with regard to the State One CSTP remains material delays in schedule which could adversely affect project costs and benefits."

PREAMBLE:

YEC should not be intending to blame regulators for any increase in project costs. In the opinion of YCS, YEC would be the responsible party for affected costs and benefits due to not adequately anticipating a proper time frame for obtaining regulator approvals.

QUESTION:

a) Has YEC developed contingency plans if regulatory delays do occur? YCS does not request to see the plans, but would like to know if YEC has planned for this contingency.

ANSWER:

(a)

See YCS-YEC-1-2.

REFERENCE:

Regarding the Low Grade Ore Processing Secondary Energy Rate and its impacts on other secondary energy customers.

QUESTION:

a) Does YEC have a written policy regarding terms and conditions for any and all new applicants who wish to apply for secondary energy rates? If so, please provide it.

ANSWER:

(a)

The terms and conditions for existing and any new applicants for secondary power are defined in the electrical rates schedules (and Electric Service Regulations) as approved by the YUB. In the case of secondary energy applicants, the applicable schedules are Rate Schedule 32 which can be found on Yukon Energy's website and Rate Schedule 35 which is in the PPA application. As demonstrated by the PPA with Minto, YEC has been prepared to develop new proposed secondary rate schedules for YUB approval in response to new opportunities to enhance secondary energy use.[1]

[1] See YEC's Final Argument (section 3.1.1) and Reply Argument (section 7.0) in the PPA Hearing for review of related issues, including response to YUB-YEC-1-11 and YCS-1-2. As stated in YUB-YEC-1-11:"YEC intends to review this terminology if another mine emerges that might potentially meet such a criterion in circumstances where the rate might also be available due to surplus hydro still being available" (page 1-2); however, it was also noted that should another mine come onto the WAF system during the life of the Minto Mine, it is unlikely that there would be any surplus hydro available. Surplus hydro supplies are also expected to gradually disappear on WAF between now and about 2020.

REFERENCE:

Regarding the YEC purchased of the diesel units at the Minto Mine.

QUESTION:

a) Does YEC regard its purchase of the diesel units at the Minto Mine as a substitute of the Mirrlees refurbishment?

ANSWER:

(a)

No, YEC does not view the purchase of the diesel units at the Minto Mine as necessarily a substitute of the Mirrlees refurbishment. However, as stated in PPA Hearing IR YUB-YEC-1-8(1) “In the event that the PPA is approved and the CS/MS Project proceeds, YEC will reassess the timing of the Mirrlees Life Extension plans in the context of having the Mine Site diesel capacity available in the near term on the WAF system” (page 1-2). (See also PPA Hearing IR YCS-YEC-1-3(a), and in the current proceeding the response to YCS-YEC-1-6.)

REFERENCE:

Regarding the relationship between Stage One of the Carmacks-Stewart Transmission Project and the need for and the timing of the Aishihik third turbine.

QUESTION:

a) Have all regulatory approvals required for the Aishihik third turbine been obtained? Can YEC provide a list of such regulatory approvals? If so, please do so.

ANSWER:

(a)

Yes, as reviewed in the Resource Plan Hearing, all regulatory approvals required for the Aishihik 3rd Turbine project have been secured.

When YEC relicenced the Aishihik Water licence HY99-011 (copy provided in YEC 20-Year Resource Plan UCG-YEC- 2-4 Attachment 1) it included a full review of the Aishihik 3rd Turbine.[1] In the Report to the Commissioner in Executive Council regarding the YEC 20-Year Resource Plan, the YUB supported Aishihik construction in 2013, and suggested that only a review for timing was required if YEC wanted to construct the turbine prior to 2013[2].

[1] The only possible licence that may be required is a sewage disposal permit pertaining to the construction camp depending on the size of the construction force.
[2] YUB Report to Commissioner in Executive Council re YEC 20-Year Resource Plan, page 41.

YUKON ENERGY CORPORATION
APPLICATION FOR AN ENERGY PROJECT CERTIFICATE AND AN ENERGY OPERATION CERTIFICATE

YUKON ELECTRICAL COMPANY LIMITED (YECL)

REFERENCE: **March 13, 2007 letter to the Board from YEC, March 20, 2007 letter from the Minister of Justice to the Board and Page 1 of April 2, 2007 Application for An Energy Project Certificate and an Energy Operation Certificate Regarding the Proposed Carmacks-Stewart Transmission Project**

The two proposed stages of the Carmacks-Stewart Transmission Project (CSTP or Project) and confirmation of the scope of the Application for an Energy Project Certificate and an Energy Operation Certificate

PREAMBLE:

In the introduction to its Application, YEC applies to the Minister of Justice for an energy project certificate and an energy operation certificate for the proposed CSTP. While it is not entirely clear whether this means both Stage One and Stage Two, under the heading "Project Summary Description", (Page 3 of the Application) YEC states the CSTP will be located in the Yukon interior region between Carmacks and Stewart Crossing.

In prior correspondence regarding the scope of the impending application YEC writes in Section 2(b)(i)(ii), of its March 13, 2007 letter to the Board:

> YEC, as proponent, is required under Section 39 of the Act to submit such application for each certificate and such applications must contain the information prescribed by the Minister.
>
> Stage One application – YEC currently is only seeking a certificate, if needed, to proceed with Stage One of the CS project. YEC currently therefore plans at this time to submit a Part 3 application only for Stage One.
>
> Stage Two recommended by YUB to require separate later YUB review – The Board's January 15, 2007 report on the Resource Plan addressed the CS project by stage, and recommended that Stage Two only proceed after YEC has a firm commitment to connect the Carmacks Copper Mine (which implies a power purchase arrangement as well) and then comes back to the Board

> for review of specific proposals to develop Stage Two. YEC is currently not in a position to proceed with Stage Two as recommended by the YUB.
>
> In further correspondence regarding the scope of the impending application, the Minister of Justice writes to the Board on March 20, 2007.
>
> I can advise that on March 16, 2007, the government designated the Carmacks-Stewart Transmission project as a "regulated project" under Part 3 of the Public Utilities Act. As a result of the designation, I anticipate that the YEC will in the very near future make an application for an energy project certificate and an energy operation certificate under Part 3 for Stage One of the project.

QUESTION:

a) Please confirm whether YEC's April 2, 2007 Application includes a request for certificates that encompass both Stage One and Stage Two of the CSTP.
b) If the application does not include a request for certificates that encompass both Stage One and Stage Two, when does YEC anticipate being able to file an Application for Stage Two and under what context?
c) If the Application does include a request for certificates that encompass both Stage One and Stage Two, please explain why YEC is in a position to proceed with both Stage One and Stage Two as of April 2, 2007 given it was not in a position to proceed on March 13, 2007. More specifically, does YEC now have a firm commitment from the Carmacks Copper mine to connect?

ANSWER:

(a)

Yes.

(b)

N/A.

(c)

YEC is in a position now to proceed with an application for Certificates for both Stage One and Stage Two of the CSTP based on the Letter provided by Minister Lang on April 2, 2007 (see explanation in UCG-YEC-1-2).

Prior to receipt of this commitment, specifically for Stage Two (see YUB-YEC-1-4(d)), YEC was not prepared to include Stage Two in this Application even though the YESAB review and all permitting are addressing Stage Two as well as Stage One. YEC's prime concern was that even with a Carmacks Copper commitment, Stage Two would not likely be a feasible project for YEC to pursue.

However, with the YTG commitment (see YECL-YEC-1-2), it became clear that if, and when, Carmacks Copper commits to develop infrastructure and connect to the grid (and negotiate a PPA with Yukon Energy), YEC would now be able to proceed with Stage Two without the same adverse impacts and risks for ratepayers that previously existed. Further, including Stage Two in the Application for the Certificates would be more cost efficient than requiring separate YUB reviews for each stage, and would allow YEC the ability to proceed on a timely basis if circumstances so warranted.

YEC notes that securing permits, approvals and certificates does not mean that either Stage One or Stage Two of the CSTP will proceed. Even with approved PPAs, as required for each mine customer, YEC still needs to secure and approve construction tender documents for YEC's Board of Directors final approval in order to proceed with construction of either Stage One or Stage Two.

YEC does not currently have a firm commitment from the Carmacks Copper Mine; further, as set out in the Application, Schedule 1 assumes that new mine development and Yukon Government funding will enable potential in-service of Stage Two by the fall of 2009. For a more detailed review of timing assumptions, please see UCG-YEC-1-17 and UCG-YEC-1-30).

REFERENCE: Attachment D of YEC's Part 3 Application for an Energy Project Certificate and an Energy Operation Certificate

Interpretation of April 2, 2007 letter from the Minister of Energy, Mines and Resources to YEC

PREAMBLE:

In his April 2, 2007 letter to YEC, the Minister writes:

> I am writing to inform you that the Yukon government will provide YEC with a contribution of up to $10 million for Stage One of the CSTP. This commitment is subject to YEC securing the YUB approval of the Power Purchase Agreement with Minto Explorations and receiving all necessary permits and approvals, including Energy Certificates obtained under the Public Utilities Act. These funds will be applied to those Stage One capital costs not already committed from Yukon Development Corporation and the Minto.
>
> The Yukon Government will work with YEC and industry to ensure that Stage Two can also be constructed in the future without any direct cost to other ratepayers.

QUESTION:

a) Please confirm YEC's interpretation of the above statements and, more specifically, what YEC believes the Minister means when he effectively states that Stage One and Stage Two of the CSTP be constructed without any direct cost to other ratepayers.
b) Please confirm YEC's interpretation of the statement the $10 million for Stage One is subject to YEC securing the YUB approval of the Power Purchase Agreement. More specifically, if the YUB disallows one or more components to the Power Purchase Agreement, is the $10 million for Stage One still available?
c) Please describe what evidence YEC has that Stage Two will not have any direct cost to other ratepayers? More specifically, what confirmation does YEC have that the Stage One and Stage Two contributions referred to in the April 2, 2007

letter and YEC's Application will come from the Yukon Territorial Government or industry?

d) Regardless of YEC's previously stated intent to not adversely impact ratepayers in the currently submitted PPA between YEC and Minto, if the future unfolds in a way that results in direct costs being allocated to and or incurred by other ratepayers, what would YEC propose to do?

ANSWER:

(a)

YEC interpretation of the Minister's letter can be seen in Schedule 1, page 7 of the Application.

(b)

YEC interprets YTG funding for Stage One as conditional on approval of the PPA as submitted.

(c)

YEC has provided the evidence available to it (see Attachment D to the Application, which provides the April 2, 2007 letter from the Minister).

(d)

The PPA hearing has addressed in detail the impact of ratepayer risk and the extent to which some degree of risk remains for Stage One of the CSTP under certain extreme scenarios where the Mine permanently closes prematurely in its initial years of operation and Minto defaults on the YEC Security. See, YEC PPA Final Argument section 4.1.1 Ratepayer Risks. Also see PPA IRs YUB-YEC-1-3, YUB-YEC-1-14, YUB-YEC-1-32, and YUB-YEC-1-34. In the current Application, see pages 16 to 20 as well as YUB-YEC-1-7.

REFERENCE: YUB Report to Executive Commissioner YEC 20-Year Resource Plan

YUB Report to Executive Commissioner and Planning Criteria and Alternatives Available to Meet Insufficient Transmission Capacity

PREAMBLE:

On January 15, 2007, the YUB presented its recommendations regarding the hearing into YEC's 20-Year Resource Plan. The Board has concluded, based on the N-1 planning criteria, the WAF system is currently affected by insufficient transmission capacity, and based on the LOLE planning criteria, it would face inadequate generation resources as early as 2008, assuming the base-case load forecast materializes.

QUESTION:

a) Please prepare an economic comparison[1] of the YEC's diesel / Carmacks-Stewart transmission line solution as compared to the Board's alternative of a second Aishihik line as detailed in Table 5.5 of the YUB Report to the Commissioner. The Board's alternative should also include the cost and benefits of constructing a 34.5 kV line to serve both the Minto mine and Pelly Crossing. In order to accurately assess the total cost of each alternative, (i.e., the total societal costs) the only contributions that should be included under either alternative should be "customer contributions". Please provide all supporting details and spreadsheets to complete this economic comparison.

ANSWER:

(a)

YEC does not agree with YECL's assumption that the YDC contribution, the $10.45 million government funding for Stage One, or further government funding commitments for Stage Two, should all be ignored. The justification for Stage Two has continued to stipulate this requirement. As regards Stage One, even if the PPA with Minto has

[1] As detailed by the Board, this economic comparison should include a cash-flow analysis that would include annual production costs, such as fuel requirements and O&M costs, as well as capital costs, properly escalated to the year that each new project is place in-service under each expansion plan. Then, for each plan, the annual cash-flows would need to be present valued, using appropriate economic parameters, to a reference year for comparison.

provided a justification for proceeding with Stage One without the necessity for government funding, there is nothing in the Board's Report on the Resource Plan to suggest that YDC or government funding should be ignored if it acts to reduce risks or costs to ratepayers.[2]

Absent YECL's proposal to ignore YTG funding, the requested economic comparison of the CSTP versus a second Aishihik line will basically remain as presented in the Board's report (except for the ability today to flesh out the major diesel generation savings benefits of the PPA with Minto).[3]

YEC also notes that the Board's assessment did not include building a 34.5 kV line to serve both the Minto mine and Pelly Crossing, and that any such "solution" would not serve as long term infrastructure capable of connecting the WAF and MD grids.

A 34.5 kV option, if acceptable to the parties, might be assumed not to alter the capital cost contribution agreement between YEC and Minto. As stated in PPA IR YUB-YEC-1-34 "YEC was informed that without financing by YEC the Mine would not interconnect with the grid" (page 1-2). However, there would be no basis under this scenario for either the YDC or YTG contributions. Looking only at Stage One, and ignoring the Carmacks Copper mine load, the net economic result would presumably be almost the same (but with a slightly lower NPV) as YEC's Application for Stage One[4]; however, Yukon ratepayers would not secure any long-term infrastructure development benefits towards connection of the two grids.

[2] In its report, when addressing the economic comparison of the alternative solutions, the Board specifically assumed that capital costs for both Stage One and Stage Two of the CSTP would have no cost to ratepayers (see page 27), and that YEC would only commit to this project under this situation.

[3] In Table 5-12 of its report, the Board compared the Capital Costs for the two alternatives and found the Aishihik 2nd Line to cost approximately $10 million more then YEC Expansion Plan with the CSTP. The Board's economic comparison of the CSTP solution versus a second Aishihik line (as set out in Table 5-12 of its report) essentially was reduced to a comparison of capital costs, assuming no material difference at that time in diesel fuel savings (which assumption the PPA now fundamentally changes). If YTG funding is ignored, as suggested by YECL, the net cost of the full CSTP (after assumed contributions from Minto and Carmacks Copper mines, would approximate $18.9 million (Schedule 1, mid point costs), which would be offset by NPV of diesel fuel savings from Minto and Pelly of $19.7 million, i.e., prior to considering and net benefits from access to the surplus capacity and hydro energy on MD, the CSTP would still have a net cost of zero (and likely a small net benefit) versus the net capital cost of a second Aishihik line (of some $16 to $19 million in 2005$, less the savings as shown in Table 5-12 in Mirrlees Life Extension costs of some $4.6 million).

[4] The 34.5 kV line would yield basically the same fuel savings and hydro surplus generation sales benefits under the PPA with all capital costs fully funded by Minto other than the extension from Minto Landing to Pelly Crossing and perhaps the Carmacks substation.

REFERENCE: Part III Terms of Reference from the Minister
Is it prudent to extend the line from Minto to Pelly Crossing at this time?

PREAMBLE:

The Minister has asked whether it is prudent to extend the line from Minto to Pelly Crossing at this time.

QUESTION:

a) Please prepare an economic analysis of all costs and benefits to interconnect Pelly Crossing from the Minto spur line using a 34.5 kV power line.
b) Please prepare an economic analysis of all costs and benefits to interconnect Pelly Crossing from the Minto spur line using a 138 kV power line.

ANSWER:

As discussed in PPA IR UCG-YEC-2-26 footnote 1, service to Pelly Crossing was required in order to secure support for Stage One from the NTFN.[1]

Using the same calculation as in YUB-YEC-1-2 for mine customer capital cost contributions, costs to interconnect are estimated below for the options noted.

(a)

Minto Substation to Pelly Crossing using 34.5 kV line
This option is not proposed in YEC's Application. It is assessed below as follows:

Distance = approximately 29 km
Cost per km for 35 kV line ($2005) = $85,000/ km (no YTG or YDC funding assumed)[2]

[1] "The MOU with NTFN also clearly assumes that support for Stage One development assumes extension of WAF grid service to Pelly Crossing as well as the Minto Mine. In this regard, a 35 kV extension from Minto Landing to Pelly Crossing might be considered – but this would need as to long-term economics of such single community extension that (due to the line voltage) cannot in any useful way contribute towards further extension to connect the WAF and MD grids. Absent approval and commitment to maintain such a line to Pelly Crossing, any 35 kV connection to serve only the Minto Mine would need to include Minto's agreement to pay all costs to decommission the full line at the end of the Mine's life", (PPA IR UCG-YEC-1-26, page2).

[2] The YDC contribution was based on support for long-term infrastructure development that contributes to connection of the two grids. YEC has no basis to assume that YTG funding support would be provided for this alternative.

29 km * $85,000 /km = $2.5 Million * 10% planning costs * 12% escalation to ($2008 in service dollars) = $3.0 Million

The NPV (2007$) of getting Pelly Crossing off of diesel fuel is approximately $2.3 million as shown in Schedule 1.

Overall, the above assessment for this 34.5 kV connection alternative indicates costs exceeding benefits by approximately $0.7 million.

Despite these net costs, if the 34.5 kV option was adopted, YEC would note that Stage One connection to Pelly Crossing is a requirement under the MOU for NTFN support (and agreement to access to required settlement lands) of any Stage One transmission connection from WAF to the Minto Mine.

(b)

Minto Substation to Pelly Crossing using 138 kV line

This option is proposed in the YEC Application as part of Stage One CSTP development. It is assessed below as follows:

Distance = approximately 29 km
Cost per km for 138 kV line ($2005) = $160,000/ km (before considering YTG and YDC funding contributions)
40 km * $160,000 /km = $4.6 Million * 10% planning costs * 12% escalation to ($2008 in service dollars) = $5.7 Million

As noted in part (a) above, the NPV ($2007) of getting Pelly Crossing off of diesel fuel is approximately $2.3 million.

Overall, the above assessment for this 34.5 kV connection alternative, before considering YTG and YDC funding contributions, indicates costs exceeding benefits by approximately $3.4 million.

Notwithstanding the higher net costs for the 138 kV option compared to the 34.5 kV option, as discussed in PPA IR UCG-YEC-2-26 footnote 1, a 35 kV line "cannot in any useful way contribute towards further extension to connect the WAF and MD grids" (PPA IR UCG-YEC-1-26, page 2). Thus, despite the higher cost this alternative makes the most sense from a long term infrastructure planning standpoint.

Once YTG and YDC funding contributions are fully considered, as described in the YEC Application, the 138 kV alternative will have no net capital cost, i.e., this options will show an overall net benefit for ratepayers equal to the Pelly Crossing diesel generation savings (about $2.3 million).

REFERENCE: Page 6 of Part III Application (footnote 13)
Potential provision of grid power to Western Copper

PREAMBLE:

YEC notes that an 11 km 138 kV spur would be required from Western Copper's mine site to the CSTP in the McGregor Creek area.

QUESTION:

a) Please provide the expected distance from the Western Copper mine spur interconnection point back to Carmacks.
b) Please provide evidence that supports YEC's conclusion that the Western Copper mine site requires a 138 kV transmission service and what other voltage levels were studied.
c) Please provide evidence that the costs of two separate 34.5 kV lines serving each of the Minto and Western Copper is more expensive than the 138 kV option.

ANSWER:

(a)

The Carmacks Copper Spur connection back to Carmacks is 42 km.

(b) and **(c)**

The peak power loads for the Carmacks Copper mine of up to approximately 10 MVA were concluded to require a voltage well in excess of one 34.5 kV line. One 69 kV line might be installed on its own to serve Carmacks Copper, but offers no opportunity for cost savings relative to a 138 kV line - whereas a 138 kV line also meets the requirement for cost-effective long term CS Project infrastructure to connect the two grids.[1]

[1] The Carmacks Copper Transmission Line Project Application assessment prepared by YECL in March 1995, as manager for YEC, also proposed a 138 kV design for supply of power from WAF (Carmacks) to the Carmacks Copper mine for a mine load between 40 and 50 GWh/yr.

The option of separate 34.5 kV lines to each mine was examined initially, but was not considered further based on several factors unrelated to costs, including the need for 138 kV infrastructure to support any long-term connection of the two grids, the feasibility of Stage One development at 138 kV for the CS Project based on the YDC and Minto contributions (and the cost-effectiveness of then proceeding with 138 kV spur connection to this mine), NTFN requirements for the Stage One line to be developed along the Klondike Highway to Pelly Crossing (i.e., the option of a line to Minto on the west side of the Yukon River was not acceptable to Selkirk First Nation, whose settlements lands would be required for any route to the Minto mine), and the fact that two 34.5 kV lines would be otherwise required to serve the Carmacks Copper mine size of load.

In the case of the Carmacks Copper mine, two 34.5 kV lines were not expected to offer any cost savings over one 138 kV line, except to the extent one of the two lines was jointly used (from Carmacks to McGregor Creek) to serve the Minto mine as well as the Carmacks Copper mine. As noted in several previous filings, a 34.5 kV line to serve the Minto mine is less expensive (in terms of gross costs prior to customer contributions) than the CS/MS Project as proposed and planned at this time. Even though the cost of 34.5 kV lines was likely to be comparable when serving the Carmacks Copper mine, this option offered no room for expansion or extension.

One of the primary cost considerations for the Carmacks Copper spur line voltage is the fact that by keeping the spur line at 138 kV there is only one voltage transformation (saving in cost and reduced line losses). Yukon Energy also plans to utilize an existing 138 kV/4.16kV transformers at Faro that would be redeployed to the Western Copper mine site.

REFERENCE: PWP-1-9 and PWP-1-10 in the Minto PPA proceeding; Board Order 2007-03 Reasons for Decision – Section 1.6
Cost estimates for Stage One and the Spur Mine to Minto

PREAMBLE:

In Board Order 2007-03, the Board reviewed the information requests made by Percival and concluded it was not prepared to direct YEC to provide any further information in the proceeding, as it questioned the relevance of this information; however, the Board did consider that this information was likely relevant to the Part 3 review to be directed by the Government of the Yukon.

QUESTION:

a) Please respond to question PWP-1-9 in the Minto PPA proceeding.
b) Please respond to question PWP-1-10 in the Minto PPA proceeding.

ANSWER:

(a) and **(b)**

YEC reiterates its reply of March 20, 2007 with regard to PWP-YEC-1-9 & 1-10, namely (a) it has provided the cost estimates available at this time, and (b) preliminary detailed cost estimates will be available when Wardrop has completed the first phase of planned engineering, i.e., further cost estimates cannot be provided until this engineering phase of work has been completed in mid to late May, 2007.

REFERENCE: Terms of Reference Section 5(b)
Impact of Minto's Processes on the Grid's Power Quality

PREAMBLE:

YEC has an obligation to the existing customers connected to the grid to ensure new as well as existing customer loads do not negatively impact the power quality of other customers. Minto's processes may cause unacceptable voltage fluctuations on the grid fed system that will be seen by other customers.

QUESTION:

a) Please provide a copy of International Electro-technical Commission (IEC) standards 1000 3-7 and 1000 4-15.
b) Does YEC plan and operate its system to ensure IEC standards 1000 3-7 and 1000 4-15 are met? If not, please explain what standards YEC uses.
c) Based on YEC's proposal to serve Minto via a 138 kV main line and 25 kV spur line, please provide the following information for each of the locations of Minto Landing, Pelly Crossing, Carmacks and the Whitehorse area:

    i. Will voltage flickers upon motor start up of Minto's equipment cause voltage flickers to be outside of the limits set out by IEC 1000 4-15 and IEC 1000 3-7 and how often? More specifically;
        1. What are the largest flicker levels that will be seen by other customers?
        2. How often does YEC expect flickers over 2% each day for other customers?
        3. How often does YEC expect flickers over 3% each day for other customers?
        4. How often does YEC expect flickers over 4% each day for other customers?
        5. How often does YEC expect flickers over 5% each day for other customers?

    ii. Will Minto's process be such that loading up of the motors will cause current inrushes (and consequent voltage fluctuations) that are outside the limits set out by IEC 1000 4-15 and IEC 1000 3-7 and how often? More specifically:

1. What are the largest flicker levels that will be seen by other customers?
2. How often does YEC expect flickers over 2% each day for other customers?
3. How often does YEC expect flickers over 3% each day for other customers?
4. How often does YEC expect flickers over 4% each day for other customers?
5. How often does YEC expect flickers over 5% each day for other customers?

iii. Please illustrate how your answers in (i) and (ii) compare to the standards as set out in IEC 1000 4-15 and IEC 1000 3-7.

d) Based on an alternative proposal to serve Minto and Pelly Crossing via a 34.5 kV line, please provide the following information for the locations of Minto Landing, Pelly Crossing, Carmacks and the Whitehorse area:

i. Will voltage flickers upon motor start up of Minto's equipment cause voltage flickers to be outside of the limits set out by IEC 1000 4-15 and 1000 3-7 and how often? More specifically:
   1. What are the largest flicker levels that will be seen by other customers?
   2. How often does YEC expect flickers over 2% each day for other customers?
   3. How often does YEC expect flickers over 3% each day for other customers?
   4. How often does YEC expect flickers over 4% each day for other customers?
   5. How often does YEC expect flickers over 5% each day for other customers?

ii. Will Minto's process be such that loading up of the motors will cause current inrushes (and consequent voltage fluctuations) that are outside the limits set out by IEC 1000 4-15 and IEC 1000 3-7 and how often? More specifically:
   1. What are the largest flicker levels that will be seen by other customers?
   2. How often does YEC expect flickers over 2% each day for other customers?

3. How often does YEC expect flickers over 3% each day for other customers?
4. How often does YEC expect flickers over 4% each day for other customers?
5. How often does YEC expect flickers over 5% each day for other customers?

iii. Please illustrate how your answers in (i) and (ii) compare to the standards as set out in IEC 1000 4-15 and 1000 3-7

ANSWER:

(a)

Yukon Energy does not own or use these standards.

(b)

Yukon Energy uses CSA Electric Power Transmission and Distribution Standards, and in particular CAN-3-C235-83 entitled Preferred Voltage Levels for AC Systems, 0 to 50,000 V. Yukon Energy's engineer on the CS project may use additional standards if the engineer determines that such standards are warranted as part of the engineer's design work.

(c)

Yukon Energy's engineers are currently conducting a dynamic system modeling study that will identify power quality issues and ensure that their design addresses the need for acceptable power quality for all other electrical customers connected to the grid. The PPA also includes provisions (section 4.6) regarding Minto standards for usage of electricity supplied by YEC so as to limit the disturbances that are permitted and to confirm Minto's responsibility (at its cost) to operate its equipment so as not to have unacceptable disturbance impacts on the grid system.

REFERENCE: Terms of Reference Section 5(b)
Impact of Extending the Grid to Serve the Minto Mine

PREAMBLE:

YEC has an obligation to the existing customers on the electrical system do not have their power quality negatively impacted as a result of the interconnection of new customers. Minto's processes may cause unacceptable power quality concerns.

QUESTION:

a) When the system is extended to Minto and reactors, capacitor banks and/or synchronous condensers switch in or out, what will be the impact to voltage and frequency when the system is at 100% of peak load, 75% of peak load and 50% of peak load?
b) Please provide the results any dynamic stability studies done to date to investigate the impact of customers on the grid due to the loss of a generator after the interconnection of Minto in the grid.
c) As the combination of reactive and capacitive components can create a resonant circuit, especially with very little load, please provide the results of your studies on this issue.
d) Since the announced hiring of Wardrop Engineering on March 30, 2007, has YEC's engineering staff had any meetings surrounding the work Wardrop Engineering has been tasked to complete? If yes, have any issues been identified that were not previously considered by YEC as part of its 2005 Carmacks – Stewart Project Economics?
e) Please elaborate on whether costs incurred to mitigate any of the issues identified in d) above are included in the capital cost estimates provided in Schedule 1 of the Application. If not, what are the expected capital cost increases?

ANSWER:

(a), **(b)**, and **(c)**

See YECL-YEC-1-7(c). YEC notes that it has extensive experience with past transmission and generation developments to serve mine loads at Faro and Mayo that were equal or bigger than the Minto mine load.

(d)

Meetings have been held. There were no significant issues identified to date that had not previously been considered by YEC.

(e)

None identified to date.

REFERENCE: Terms of Reference Section 5(b)
Impact of Extending the Transmission Grid to tie the "Mayo-Dawson Grid" to the "WAF" grid

PREAMBLE:

YEC has an obligation to existing customers that new loads and existing loads do not negatively impact the power quality of other customers.

QUESTION:

a) When the transmission system is extended to Stewart Crossing (and the two grids are tied together) and the reactors or capacitor banks or synchronous condensers switch in or out, what will the impact be to the voltage and frequency when the system is at 100% of peak load, 75% of peak load and 50% of peak load?
b) What is the forecasted impact to the voltage or frequency when the existing systems separate from one another when the system is at 100% of peak load, 75% of peak load and 50% of peak load?
c) What is the forecast impact to the voltage or frequency when the existing systems are tied together when the system is at 100% of peak load, 75% of peak load and 50% of peak load?
d) What is the status of dynamic stability studies done to investigate the loss of a generator on this new system? Have any issues been identified to date?
e) The combination of reactive and capacitive components can create a resonant circuit, especially with very little load. If this has been studied, what are the results? If this has not been studied, is it part of the terms of reference?

ANSWER:

(a), **(b)**, **(c)**, **(d)** and **(e)**

See YECL-YEC-1-7(c).

The power quality concerns listed above are the reason why Yukon Energy has commissioned Wardrop to conduct an extensive dynamic system modeling study that addresses all reasonable conditions. YEC expects to have the results of this study completed by the middle of May.

REFERENCE: Terms of Reference Section 5(b)
Design choices and considerations for the proposed main line to serve Minto and Pelly Crossing

PREAMBLE:

There are a wide variety of choices available to YEC regarding the design of the proposed power line. Factors to consider, in part, include current and forecast load, line losses and capital costs.

QUESTION:

a) Please explain and provide evidence for what YEC has chosen to design and build for the following:
   1. Right of way width
   2. Structure design
   3. Structure composition (materials)
   4. Conductor size

ANSWER:

(a)

YEC has chosen to design and build the following for the CSTP:

1. Right of way width: Yukon Energy is using a 60 m ROW in order to allow for minor realignments of the individual pole structures and line within the right of way (ROW) during construction, control of other activities or tree growth (danger trees) outside of the cleared areas (approx 30m) but within the overall ROW that would affect the reliability and safety of the line, and other potential future activities.
2. Structure design: Yukon Energy selected a wood pole H frame design based on the good performance of this design in the Yukon used for their other 138 kV transmission lines for more than 30 years.
3. Structure composition (materials): The structure composition is wood pole with steel crossarms. The use of the steel crossarms addresses the primary failures experiences on YEC's existing 138 kV transmission system.

4. Conductor size: The conductor size will be determined based on the results of the engineers' electrical system modeling studies. The conceptual engineering and costing done was based on a conductor size of 266 MCM which matched the size of the Whitehorse to Faro 138 kV transmission line.

YUKON ENERGY CORPORATION
APPLICATION FOR AN ENERGY PROJECT CERTIFICATE AND AN ENERGY OPERATION CERTIFICATE

YUKON UTILITIES BOARD
(YUB)

REFERENCE: Application, page 11

PREAMBLE: Diesel Generation

Item 5. b iii Terms of Reference requires the Board to address the implications of the ongoing use of diesel generation at Minto and other locations that could receive grid service from Stage 1. At page 11 of its application, YEC estimates that Stage 1 could reduce total output of CO_2 by close to 24, 100 tonnes per year based on reducing diesel consumption eight to nine million liters per year at Minto and 0.5 million liters at Pelly Crossing. The Board would like to put these figures into a more meaningful context. For example, Board staff has calculated that 9 million liters of diesel is equivalent to the usage of about 45 pickup trucks, assuming 20,000 km per year and a fuel consumption of 10 liters per 100 kilometers.

QUESTION:

a) Please provide the Board with some context for the elimination of about 9 million liters of diesel consumption annually and the associated CO_2 reductions. For example, please calculate this in terms of the equivalent number of pickup trucks removed, or in terms of other familiar equivalencies of CO_2 production.
b) What is the current price for diesel fuel?
c) Based on the price indicated in part (b), what is the economic benefit to Minto of proceeding with grid connection?

ANSWER:

(a)

As noted in the application, in terms of context, the 24,100 tonnes per year of CO_2 noted is greater than the current total diesel generation by both YECL and YEC in the Yukon (16,480 tonnes).

YEC is not sure it understands the question as regards equivalent number of pick-up trucks, or the example calculated by Board staff.

If a truck uses 10 litres per 100 km and drives 20,000 km per year then it consumes 2,000 litres per year of fuel. 9,000,000 litres divided by 2,000 litres equals 4,500 trucks per year. Thus according to the suggested measure the savings of diesel from getting

Minto Mine and Pelly off diesel may be equal to removing 4,500 trucks from Yukon's roads, based only on looking at fuel use (and assuming the trucks use diesel fuel). We are not aware, without more review, of the extent to which CO_2 emissions per litre are the same for use in a truck as in a diesel generator.

(b)

April 2007 fuel prices for stationary diesel use range from 84 cents per litre in the Whitehorse area to 90 cents per litre in the Mayo area. The fuel price in the Minto and Pelly Crossing is approximately 88 cents per litre, excluding GST.

(c)

At the current estimate fuel price of 88 cents per litre Minto would save approximately $4.5 million dollars a year with hydro; however it is noted that approximately 50% of the increased savings will be paid in taxes, and that Minto is making a $7.2 million contribution to the main line and paying for the Minto spur (estimated at $3.8 million).

REFERENCE: Application, page 6

PREAMBLE: Other Potential Loads

At page 6 of its application, YEC discusses "added power loads and capital contributions from other new mine developments in the CSTP area". YEC's footnote 13 discusses, as an example, a possible 48 GW.h per year load at the proposed Carmacks Copper Mine.

QUESTION:

a) Please provide any other potential loads that YEC believes may materialize to be served from the Stage-1 project.
b) What would YEC determine the contribution to be for an additional industrial load equal to the duration of Minto but half the load? Assume spur costs are separate.
c) What would YEC determine the contribution to be for an additional industrial load equal to the duration of Minto but one and one-half (1.5) times the load? Assume spur costs are separate.

ANSWER:

(a), **(b)**, and **(c)**

YEC is not aware at this time of any potential mine loads, besides Carmacks Copper, that might be likely to materialize in the next few years to be served from the Stage One CSTP. However, there are other known mining resources in the area that could be mined in the future.

YEC has not required contributions by industrial loads to the CSTP to be based on duration of the load or on the simple magnitude of the load. As set out in the PPA with Minto, industrial customer contributions are to be based on the distance of the CSTP required for service from WAF and the voltage level of the CS transmission service required. YEC does not expect that there would be any situation that it would propose to build less than a 25 kV to 35 kV line to a mine.

Below are examples of how the CSTP capital cost contributions have been determined for the Minto mine (PPA) and the Carmacks Copper mine (Schedule 1 to current Application), ignoring spur costs.

Minto Mine Capital Contribution (at 32.5 GW.h/yr or 42 GW.h/yr)

CS Distance on CS line = 69.1 km

Cost per km for 35 kV line ($2005) = $85,000/ km

69.1 km * $85,000 /km = $5.9 Million * 10% planning * 12% escalation to ($2008 in service dollars) = $7.2 Million for in-service in late 2008.

Carmacks Copper Capital Contribution

CS Distance = 42 km

Cost per km for 138 kV line ($2005) = $160,000/ km

42 km * $160,000 /km = $6.7Million * 10% planning * 15% escalation to ($2009 in service dollars) = $8.5 Million for in-service in late 2009.

REFERENCE: Application, page 14

PREAMBLE: Diesel Generation

YEC discusses, in footnote 21, the potential for additional Mine loads to ultimately require additional baseload diesel.

QUESTION:

a) Please elaborate on the extent to which adding the Aishihik third turbine mitigates the risk that additional baseload diesel would be needed.

ANSWER:

(a)

Please refer to Resource Plan (January 2006) Appendix C. Table C3 (Aishihik 3rd Turbine in 2009, Base Case with 10 MW Mine Loads) shows the following:

- **Diesel displacement by Aishihik 3rd Turbine**: The Aishihik 3rd Turbine can displace 5.4 GW.h/yr of diesel generation per year (long-term baseload diesel). Accordingly, this would save 1,385,000 litres of diesel fuel per year. This is the extent to which adding the Aishihik 3rd Turbine mitigates the risk that additional baseload diesel would be needed. (As shown in Appendix C, in initial years the Aishihik 3rd Turbine also displaces material volumes of peaking diesel generation.)
- **Baseload diesel requirements with 10 MW Mine Loads (64 GWh/yr for 2008-2016)**[1]: With or without Aishihik 3rd Turbine, the 10 MW Mine Load case with 64 GWh/yr combined mine load for 2008 to 2016 shows baseload diesel generation being required on WAF (growing to 37.8 GWh in 2016 without Aishihik 3rd Turbine, or 32.4 GWh with Aishihik 3rd Turbine).

[1] The Resource Plan 10 MW Mine Load scenario assumed combined near term development and connection to WAF of the Minto and Carmacks Copper loads at a combined 9 MW peak load. The Minto Mine load at that time (January 2006) was assumed for 2007-2018 at only 14 GWh/yr (2 MW); the Carmacks Copper load was assumed for 2008-2016 at 50 GWh/yr (7 MW); accordingly, the assumed combined mine load for 2008-2016 therefore was 64 GWh/yr. Today, with Minto Mine loads forecast to be at least 32.5 GWh/yr, combined loads for these two mines would approximate 80 GWh/yr.

Accordingly, if Carmacks Copper joins the system, Aishihik 3rd Turbine development will assist in displacing diesel generation; however, unless other infrastructure is built the system will still need baseload diesel generation.

By way of comparison to other projects reviewed in Appendix C to the Resource Plan, the CSTP interconnection to the MD hydro grid is expected initially to result in up to 15 GW.h/yr of additional hydro for the WAF grid assuming there are no other mines on the MD system, while Marsh Lake Fall/Winter Storage was at that time expected to provide an additional 7.7 GW.h/year of long-term average hydro energy. Table C-7 in Appendix C reviewed a case with the 10 MW Mine Loads, assuming Aishihik 3rd Turbine in 2009 and Marsh Lake Storage (2008) with the Carmacks-Stewart connection (2008) also in service, showing baseload diesel generation still being required in 2016 even with all of these YEC resource projects in place.

REFERENCE: Application, page 7

PREAMBLE: Capital Costs

In Schedule 1, YEC provides a range for the capital costs of the project from $19.3 to $25.9 million. The Board wishes to understand the risks of cost overruns.

QUESTION:

a) Please discuss the risk that the capital costs could exceed $25.9 million.
b) At what cost estimate would YEC determine that the project was no longer financially viable?
c) Does Government of Yukon funding push the economics of the project ahead a further $10 million?
d) When did YEC first become aware of potential contributions from the Government of Yukon?

ANSWER:

(a)

Current capital cost estimates for Stage One CSTP in Schedule 1 were prepared during the Resource Plan hearing review, prior to preliminary engineering, based on 2005$ conceptual engineering cost estimates as provided in the PPA Application and the Resource Plan Hearing, and adjusted upwards by 12% to reflect inflation and interest during construction (assuming in-service by end of quarter 3 of 2008). The capital cost estimate of $25.9 million for Stage One CS reflects potential increases of about 19% from the mid-point construction period line cost estimates due to tight market conditions; in current market conditions, risk certainly will remain that tender costs and final costs at completion could be 20% or more over estimated costs. All cost estimates will be updated when the preliminary engineering is completed in May.

(b) and **(c)**

The $10 Government of Yukon funding materially enhances the project economics such that the project could remain feasible even if the costs exceed $25.9 million. YEC has not determined a specific cost level where the Stage One project was no longer financially viable. Project feasibility may be affected by many factors aside from capital

cost, including timing for development and the assumed level and duration of industrial loads expected to be served.

(d)

The current CSTP proposal was initially conceived in 2005 as a project requiring material contributions from the Government of Yukon, and initial planning was funded by a YTG grant of $450,000.

YEC first became aware of the likely possibility of the Government of Yukon contributing additional funding to Stage One of the CSTP project late in the week of March 19-23, 2007, and delayed submitting its application for the Certificates until this possibility was confirmed by the Minister through correspondence to YEC. YEC became aware of the likely possibility of Stage Two funding later in the following week. On April 2, 2007, YEC received the YTG letter (Attachment D to the Application) which provided confirmation of the CSTP funding by YTG. YEC filed the Part 3 Application the same day.

REFERENCE: YEC Application to Approve Power Purchase Agreement between Yukon Energy Corporation and Minto Exploration Ltd. – Schedule 1, page 4

PREAMBLE: Economic Benefit

Overall Stage 1 – Benefits: Schedule 1 shows net benefits ranging from $10.59 million (low costs) to $4.69 million (high costs) to YEC. On page 5 of YECL's argument in the PPA Proceeding, reference is made to NPV saving to Minto of $18.7 million.

QUESTION:

a) Do you agree with the assessment of the approximate NPV to Minto?
b) If you disagree, what do you estimate the NPV of the benefit to Minto to be? How did you derive your estimate?
c) How do you reconcile the NPV of the benefit to Minto versus the benefit to Yukon ratepayers?

ANSWER:

(a), **(b)** and **(c)**

As indicated by YECL (the Argument was quoting an IR provided by YEC during the PPA Hearing), the Minto NPV of $18.7 million was calculated by YEC in Attachment D to the PPA Application to reflect Minto's estimated NPV with the PPA. See Table D-1 of the PPA Application, where the $18.7 million NPV estimate is provided and shown to include $16.6 million related to the PPA power purchases by Minto (the balance relates to YEC payments to Minto for purchase of the Diesel Units). This NPV estimate does not assess net returns to Minto after all taxes or royalties (which Minto claims will reduce benefits by 50% or more)[1], nor does the 7.5% discount rate assumed in this analysis reflect the much higher discount rate that Minto applies to its own cash flow assessments.

Please note that the "Schedule 1" Stage One benefits quoted above are in 2005$ and come from the PPA Application. As such, the above do not reflect Schedule 1 of the

[1] See YUB-YEC-1-1 (c).

current Application which shows Stage One net benefits (in-service 2007$) to YEC ranging from $19.7 million (low costs) to $16.48 million (high costs).

Based on the above, the current NPV benefit estimates to Minto and YEC are very similar due to the impact of the YTG's new funding.

Prior to the new YTG funding, the PPA Application noted as part of its analysis the differences in NPV benefits at 7.5% to YEC and Minto. The analysis in Attachment D reflected assumptions as to diesel prices and discount rates as per Minto's public release from its July 2006 Feasibility Study financial assessments; however, Minto has informed YEC that it does not itself assess NPV net benefits on this basis.[2]

In the final analysis, the PPA was negotiated to provide material net benefits to both parties without attempting to secure equal NPV net benefits for both parties when such net benefits are assessed using any one specific set of assumptions.

[2] YEC is informed that NPV net benefits from Minto's perspective are materially lower than shown in Attachment D to the PPA Application, based both on deductions needed to reflect incremental taxes and royalties that Minto must pay on such savings plus the effect of a much higher discount rate that Minto views as being applicable to the Mine's incremental cash flow investments and savings.

REFERENCE: Report to Executive Commissioner Yukon Energy Corporation 20-Year Resource Plan, page 33

PREAMBLE: Pelly-Stewart Transmission Line

The Board does not recommend the Pelly-Stewart line as a project to satisfy a need for capacity in the WAF system, as the cost of this line ($15.2 million) does not justify the limited capacity contribution of 6 MW (and decreasing as the load on the MD grid increases).

QUESTION:

a) If the United Keno Hill Mine re-opens, thus diminishing capacity contributions from MD to WAF, even with the Carmacks Copper Mine going forward, is there a justification for the Stage-2 development?
b) If the Aishihik third turbine project goes forward, is the excess capacity from MD required? Would there still be a need to develop Stage 2?

ANSWER:

(a) and **(b)**

Assuming Aishihik 3rd Turbine is completed, with the addition of Carmacks Copper any excess hydro generation capacity from Mayo-Dawson is still expected to be required to minimize baseload diesel generation requirements when both mines are being served from the WAF grid. This need was demonstrated in Appendix C to the original Resource Plan submission, even assuming Minto loads at only 14 GWh/yr plus availability of Marsh Lake Fall/Winter Storage adding over 7 GWh/yr of new hydro generation. (See UCG-YEC-1-26 for more detail on the timing of Aishihik 3rd Turbine, and YUB-YEC-1-3 for review of Appendix C analysis regarding baseload diesel requirements with Carmacks Copper and Minto mine loads combined.)

The ultimate benefit of the interconnection (through Stage 2 of the CS Project) of the Mayo-Dawson and WAF grids is the ability, in future, for any surplus hydro on either system to be used to meet load requirement on either grid. In the short term, the timing of this interconnection has been a topic of discussion, as has been the removal/reduction of near surplus hydro benefits if UKHM is also operating and reducing both capacity and energy benefits otherwise available; however, with YTG funding and

industry contributions, as now required in this Application, this connection could be done at no cost to the ratepayers even if UKHM reopens (see UCG-YEC-1-44).

In addition to the ability to utilize the surplus hydro available from time to time on both electrical grids to supply hydro power to new customer loads on either grid, there is an added benefit of being able to use the reserve capacity on either grid to function as reserve capacity on the other grid. For example, when Stage Two goes ahead, the standby diesel generation at Mayo (2 MW) and Dawson City (5 MW), can be used as reserve capacity on the WAF grid, thereby helping to minimize the capital cost of adding new diesel or extending the life of old diesel generation on the WAF grid to meet grid reserve capacity requirements. The same is true of the reverse, i.e. that all reserve capacity on the WAF is available to function as reserve capacity on the Mayo-Dawson grid.

REFERENCE: Application, page 16

PREAMBLE: Mine Net Revenue Account

The Minister has asked the Board to review the impacts of the Board's finding in the PPA application in relation to the Mine Net Revenue Account proposed in the PPA and its impacts, if any, on rates and risks to ratepayers.

QUESTION:

a) As the Mine Net Revenue account is supposed to protect ratepayers in "certain extreme scenarios where the mine permanently closes prematurely in its initial stages of operation", please elaborate on the anticipated value of this account in each of the first two years of the mine's operation and the risks to ratepayers if the mine closes in either of these years.

ANSWER:

(a)

The quote from page 16 also assumes "and Minto defaults on the YEC security", and references PPA IRs YUB-YEC-1-14/32/34.

The amount in the Mine Net Revenue (MNR) account (i.e., its anticipated value) in each year (including each of the first two years) is shown in column 14 of Table C-1 and C-2 (32.5 GW.h and 42 GW.h scenarios), Attachment C to the Application. The year one MNR value ranges from $2.5 million to $3.2 million, while the year two value ranges from approximately $5.0 million to $6.2 million. The MNR benefit in this situation would be to retain and secure these amounts (rather than allow such amounts to be used solely for rate reductions in these same years) to apply against outstanding YEC capital costs at risk if the mine permanently closes. Aside from offsetting such capital cost risks, to the extent feasible, the MNR account would also prevent overall rate instability likely to occur if the mine permanently closed in the first two years.

Table C-3 and C-4 column 8 shows, assuming 32.5 GW.h/yr, the net YEC capital at risk to ratepayers for both the mid-point (Table C-3) and high (Table C-4) cost estimate scenarios. If the mine closes permanently in year one, this net amount at risk ranges

from $8.1 million to $12.2 million; if it permanently closes in year two, this net amount at risk is reduced to between $5.2 million and $9.5 million.