

# YUKON ENERGY



**YUKON ENERGY CORPORATION**

**MINTO MINE PPA  
APPLICATION**

**FINAL ARGUMENT**

**April 4, 2007**

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## **1.0 INTRODUCTION**

### **Overview**

Yukon Energy Corporation (“YEC” or “Yukon Energy”) is seeking Yukon Utilities Board (the “YUB”, or the “Board”) review of the Power Purchase Agreement (“PPA”) between Yukon Energy and Minto Explorations Ltd. (“Minto”) for the supply of electricity by YEC to the Minto copper-gold project (the “Mine”). Yukon Energy considers this Agreement to represent an exciting opportunity to develop long term infrastructure in the Yukon to the benefit of YEC and Yukon ratepayers. When completed, the transmission facilities (the “Transmission Project”) that are to be developed by YEC as part of the Stage One development of the Carmacks-Stewart Transmission (CS) Project, including a spur line to be developed concurrently to connect the Mine to the CS Project, will enable YEC to deliver surplus hydroelectricity from the Whitehorse-Aishihik-Faro (WAF) grid to the Mine, displacing significant on-site diesel generation.

### **Extensive Information Request Process**

The process established by the YUB to review YEC’s February 8, 2007 PPA Application involved an extensive information request segment. YEC has answered 386 information requests from the following parties:

- Two rounds of information requests from the Board (60 questions);
- Three rounds of information requests from the Utilities Consumers’ Group (UCG) (191 questions);
- Two rounds of information requests from Peter Percival (PWP) (32 questions);
- One round of Information requests from the Yukon Electrical Company Limited (YECL) (93 questions); and
- One round of information requests from Yukon Conservation Society (YCS) (10 questions)

### **PPA Risks Further Mitigated by YTG Funding**

On April 2, 2007 Yukon Energy received a letter from the Government of Yukon (“YTG”) stating that YTG will provide YEC with a contribution of up to \$10 million for Stage One of the CS Project. This commitment is subject to YEC securing YUB approval of the PPA and receiving all necessary permits and approvals, including certificates as required for a regulated project under Part 3 of the *Public Utilities Act*.

It is YEC’s position that the PPA negotiated with Minto, even absent the new YTG funding, includes all of the provisions required for this Stage One CS Project to be feasible. However, there is no doubt the YTG’s new funding will serve to materially reduce the risk to ratepayers and ensure long-term rate stabilization.

## **All Relevant Information is Before Board**

YEC has provided all currently available and relevant information sought by the Board and intervenors and as a result the PPA has been subjected to a detailed and thorough YUB review. YEC submits that based on the evidence before the YUB, the Orders as requested by YEC in its Application should be granted.

## **Format for Final Argument**

Yukon Energy has focused its Final Argument on the key issues of concern raised in the information request process and, for the ease of the Board's review, the Final Argument generally follows the same format as the PPA Application including the following parts:

- Timing requirements and Conditions
- PPA Rates and Impact on the WAF System
- Protection for Ratepayers

## **2.0 TIMING REQUIREMENTS AND CONDITIONS**

Section 3.1 of the PPA includes a list of conditions that must be completed within certain timelines in order for the PPA not to be terminated. In general, these conditions act to protect the Parties from being obligated to proceed with the PPA unless the stipulated conditions are met within reasonable timelines.

Certain conditions, including YUB approval of the PPA by April 30, 2007, are for the benefit of both Parties and may only be waived, altered or the time period extended by written agreement between the Parties<sup>1</sup>. The remaining conditions are for the sole benefit of YEC, and act to protect YEC from being obligated to proceed with construction of the Transmission Project unless all necessary permits, approvals and construction contracts are satisfactorily obtained within reasonable timelines.

The information request process did not generally raise questions regarding either the nature or reasonableness of these conditions, or the timelines set out in the PPA for these conditions, although a few information requests sought confirmation that the timelines outlined in the PPA had been or were in the process of being met<sup>2</sup>.

- YEC provided updates on the YESAB filing (UCG-YEC-2-5), due diligence (YUB-YEC-1-29) and other project timelines (YCS-YEC-1-1).
- In YCS-YEC-1-1, YEC discussed how it is working with relevant regulatory bodies to achieve key targets set for April 30, 2007. YEC also indicated that, if necessary, and if it is in the

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<sup>1</sup> Approval of the PPA by April 30<sup>th</sup> is tied to YEC's need to place orders during May (with cancellation provisions) for long lead equipment such as power transformers to achieve in-service of the Transmission Project by Quarter 3 of 2008 and also to authorize proceeding with cost commitments for final engineering design. YEC is not prepared to undertake this next stage of cost commitments without approval of the PPA.

<sup>2</sup> UCG-YEC-2-2 wanted an update on the YESAB filing, UCG-YEC-2-5 wanted confirmation that agreements with Macquarie Bank were completed on February 15, 2007 and that due diligence was completed on February 28, 2007, and YCS-YEC-1-1 was concerned with due diligence and other project timelines.

interest of YEC, timelines would be extended, subject to such extensions not seriously undermining the viability of the project or exposing YEC to new and unacceptable risks.

Timely completion of the PPA conditions is critical as delays in the delivery of power to Minto will provide fewer benefits to ratepayers and could affect YEC risks regarding full recovery of its costs as discussed in UCG-YEC-2-1. It is expected that for each month the project is delayed the ratepayer benefits will be reduced by at least \$250,000 per month<sup>3</sup>; ratepayers would also be subject to additional economic impacts and reduced benefits under the terms and conditions of the PPA should the Commencement of Delivery be delayed beyond September 30, 2009.<sup>4</sup>

### **3.0 PPA RATES AND IMPACT ON WAF SYSTEM**

The PPA Application seeks Board approval of specific rates. The PPA Application also outlines expected power purchases by Minto, the YEC purchase of the Diesel Units at the Mine, and the resultant expected PPA impacts of these actions on the WAF system.

#### **3.1 PPA RATES**

The PPA Application seeks YUB approval of the Firm Mine Rate, Peak Shaving Rate Option and Low Grade Ore Processing Secondary Energy Rate. The proposed rates were set according to rate making principles and methods that have been adopted and previously applied by the YUB. YEC is confident that there is more than sufficient information and analysis provided in the PPA Application and in interrogatory responses for the Board to approve at this time the required rates set out in the PPA.

A fundamental issue raised in a number of IRs concerned the rationale regarding why approval for these rates is required so far in advance of providing grid service<sup>5</sup>. Approval for these rates is being sought at this time as, in order to commence construction of the Transmission Project in the timeframe envisaged by the PPA, both Parties required certainty regarding the nature of, and basic levels for, the rates that would be in effect for the Minto Mine in 2008 when delivery of Grid Electricity is assumed to commence. Without that certainty Minto was not willing to commit to being responsible for the obligations it has undertaken under the PPA, and without those commitments YEC could not proceed with development of Stage One of the CS Project.

Specific issues related to each of the PPA rates are reviewed below under the following headings:

- Firm Mine Rate/COS
- Peak Shaving Rate Option
- Low Grade Ore Processing Secondary Energy Rate.

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<sup>3</sup> YUB-YEC-1-4 provides more detail on the economic impact of delays to both YEC and Minto.

<sup>4</sup> See UCG-YEC-2-1 and YUB-YEC-1-30

<sup>5</sup> See YUB-YEC-1-1.

### **3.1.1 Firm Mine Rate/COS**

The PPA Application seeks YUB approval of the Firm Mine Rate for 2008, as set out in Schedule C of the PPA, for initial delivery of Mine Firm Electricity by YEC to Minto; approval is also sought for Section 3.5 of the PPA with respect to any future adjustment of the Firm Mine Rate after 2008.

During the interrogatory process, more than 50 questions were posed regarding the Firm Mine Rate and related cost of service ("COS") matters<sup>6</sup>. The following specific issues raised in these questions are addressed in YEC's Final Argument:

- The rationale for requiring approval today for a Firm Mine Rate for 2008;
- The sufficiency of the Firm Mine Rate for 2008, including the adequacy of the cost of service analysis and the appropriateness of the rate design;
- The Board's Jurisdiction, including the Board's ability to change the Firm Mine Rate; and
- The Firm Mine Rate's applicability to other Industrial Customers.

#### **Rationale for Requiring Firm Mine Rate Approval Today**

As reviewed in response to YUB-YEC-1-1, YUB approval of the Firm Mine Rate for 2008 is required for the PPA to proceed in order to address Minto's concerns regarding its financial commitments (including capital cost payments and minimum take-or-pay amounts) under this PPA<sup>7</sup>; these financial commitments by Minto also reflect essential YEC requirements to proceed with construction of the Transmission Project.

A fundamental requirement in order for the Parties to proceed with the PPA was to have some certainty with regard to the nature of, and basic levels for, the firm rates that would apply to Minto at the Mine in at least 2008 based on Yukon costs and regulatory principles and methods adopted in Yukon, on the understanding that the Parties would then also have a reasonable basis to assess the firm rates likely to apply thereafter to the Mine. The PPA sets a specific Firm Mine Rate only for 2008, and acknowledges that this rate (which is applicable to all Major Industrial Customers) can be changed after 2008 by the YUB.

Beyond 2008, the PPA confirms that Minto is relying upon the continuance of a relatively stable regulatory environment<sup>8</sup> as the basis for its take-or-pay commitments; however, recognizing the jurisdiction of the Board and the fact that this rate applies to all primary Industrial customers in Yukon, the PPA also clearly anticipates changes to the Firm Mine Rate after 2008 by the Board.

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<sup>6</sup> IR answers on this topic include YUB-YEC-1, 10, 16, 18, 20, 21, 23, 24, 25, 26, and 31; UCG-YEC-1-2, 11, 15, 17, 21, 23, 25, 26, and 27; UCG-YEC-2-6, 7, 8, 9, 25, 30, and 40; YECL-YEC-1-1, 2, and 16.

<sup>7</sup> In this regard, Minto specifically required of YEC that the parties negotiate an industrial rate for 2008 (the year when interconnection is expected) which would be acceptable to Minto (and consistent with cost of service principles in the Yukon) and that could be presented for approval to the YUB. Without YEC agreeing to such an approach (and without having the approval of the YUB to the rate negotiated), Minto was not willing to make such a commitment or agree to interconnect the Mine to the grid.

<sup>8</sup> It was assumed during negotiations, and it is expected by Minto and YEC, that the Board will follow standard COS principles and methods as set out in OIC 1995/90 and in prior Board decisions based on OIC 1995/90 when setting future rates.

In negotiating the terms and conditions of the PPA, Minto required some assurance that should the current environment with regard to the rate setting and rate regulation materially change to the extent that the cost of Grid Electricity, due to such change, was less attractive than diesel generation, there was some measure of relief available to mitigate any significant losses suffered by Minto. Under the provisions of section 3.5 of the PPA, if the YUB exercises its statutory authority in a manner that alters terms and conditions of the PPA (including issuing an order that increases the Firm Mine Rate in a manner inconsistent with the COS principles and methods set out in Schedule E of the PPA) and this materially adversely affects the cost savings to Minto under the PPA, then section 3.5 operates to reduce the minimum take-or-pay to offset those losses to Minto, and removes the YEC Security with regard to the Take-or-Pay Amount. However, all other security provided by Minto, along with all of Minto's other PPA obligations, will remain intact, including Minto's obligations regarding bill payments, Capital Cost Contribution payments, and the Decommissioning Cost Payments.

As noted, nothing in section 3.5 of the PPA negates Minto's obligation to pay the industrial rate (i.e., the Firm Mine Rate) as set by the Board from time to time after 2008 for grid electricity delivered to the Mine site.

#### **Firm Mine Rate for 2008 Meets the Requirements of OIC 1995/90**

Schedule C to the PPA sets out the Firm Mine Rate for 2008 agreed to by Minto (the only customer expected to be charged this rate in 2008) as well as YEC. Given Minto's agreement to this rate, and the expectation that Minto will be the only customer in the industrial class in 2008, the key test for YUB approval of the Firm Mine Rate for 2008 is to ensure that the rate is at least sufficient to recover COS for that year as required by OIC 1995/90, i.e., there is no requirement in this instance to ensure that the rate for 2008 equals COS, only that it is sufficient to at least to recover COS.<sup>9</sup>

YEC is confident that the Firm Mine Rate for 2008, as agreed to by Minto in the PPA, is more than sufficient to cover YEC and YECL costs for 2008 allocated to the Major Industrial Customer class by a comprehensive cost of service study based on principles and methods adopted by the Board and reasonable costs approved for both YEC and YECL. Further, the Firm Mine Rate design is also reasonable and consistent with past Board decisions.<sup>10</sup>

YEC has acknowledged in Attachment A of the PPA that the last comprehensive COS in Yukon was done for the 1996/97 GRA<sup>11</sup> and that no such comprehensive COS is available today for the Board.

In order to address this matter, YEC based its analysis in Attachment A to the PPA on the cost of service principles and methods outlined in Schedule E of the PPA<sup>12</sup> and reflected in OIC 1995/90, past decisions

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<sup>9</sup> Section 6(1) of OIC 1995/90 directs that, "the Board must ensure that the rates charged to major industrial power customers, whether pursuant to contracts or otherwise, are sufficient to recover the costs of service to that customer class; those costs must be determined by treating the whole Yukon as a single rate zone and the rates charged by both utilities must be the same."

<sup>10</sup> UCG-YEC-2-06(f) and 2-40 compare the proposed Firm Mine Rate with the rate approved by the YUB in the 1996/97 GRA; see also YECL-YEC-1-16.

<sup>11</sup> See also YUB-YEC-1-10(4) and UCG-YEC-2-07(a)

<sup>12</sup> COS is described in detail in Section 4 of Attachment A of the PPA Application and discussed in YUB-YEC-1-18 (1).

of the Board based on OIC 1995/90 with regard to rates charged to Faro mine, and cost of service assessments regarding such rates and the Major Industrial Customer class. The Firm Mine Rate for 2008 is consistent with all rate making principles applicable to the Board. The COS provided is reasonable<sup>13</sup> in the absence of current GRA filings and joint COS studies prepared on a Yukon-wide basis by YEC and YECL.

YEC stated that it will consider the need for more detailed COS and rate design studies when YEC and YECL together proceed to file a GRA and joint COS for the Board. YEC submits that prior to such time, it is not feasible for YEC to provide a more comprehensive COS. Further, YEC is not asking the Board specifically to approve the COS submitted in the PPA Application. As noted in YUB-YEC-1-10(4), YEC considers the COS analysis conducted in Appendix A of the PPA Application appropriate and cost effective when consideration was given to the scale of the systems, the rate design objectives of OIC 1995/90 regarding rate equalization and COS requirements in setting Major Industrial Customer class rates.

Overall, YEC submits that the evidence currently available has confirmed that the proposed Firm Mine Rate is more than sufficient to recover the Yukon-wide utility costs of providing service to the Major Industrial Class in 2008 (assuming that the Minto Mine is the only customer in this class in 2008). While changes to the Firm Mine Rate for 2008 were suggested in IRs relating to COS matters, the evidence in the PPA Application and in the IR responses provided by YEC indicates that almost all of the suggested changes to the Firm Mine Rate would only cause the COS for the Major Industrial Customer class in 2008 to go down, i.e., the evidence regarding potential COS changes confirms that the 2008 rate that Minto has agreed to pay is more than sufficient to meet the requirements of OIC 1995/90. Further, none of the changes discussed in the IRs are expected to materially change the Industrial class COS for 2008. Some examples of leading COS-related IRs in this regard are:

- YUB-YEC-1-10(1) questioned YEC's rationale for classifying the CS line and other specific lines as 100% energy, suggesting that all transmission be allocated at 60% demand and 40% energy. YEC in reply to YUB-YEC-1-10(1) stated that there is "no reasonable basis for concern that other ratepayer interests are materially prejudiced by this classification approach." Under these suggested assumptions for alternative classifications there is a slight reduction in the Major Industrial Class average COS (in one instance from 10.00 cents per kWh to 9.86 cents per KW.h).<sup>14</sup>
- YUB-YEC-1-23 asked if Whitehorse #4 should be updated in a COS study to reflect a portion of it contributing to winter peak demands. In its reply, YEC agreed that some such refinement might be applicable in a new comprehensive COS and indicated that this change, if applicable, would result in a reduction of costs being allocated to the Major Industrial Customer class. YEC also noted that the new capacity planning criteria<sup>15</sup>, as they affect

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<sup>13</sup>YUB-YEC-1-20, states that "YEC believes it is fair for the YUB to approve a rate schedule as COS in Yukon does not materially hinge on detailed system studies regarding classification or allocation ratios".

<sup>14</sup> See Schedule YUB-1-10 (1)A in YUB-YEC-1-10. This IR also shows no material change in this rate if assume classification at 40% demand and 60% energy (as per non-Whitehorse Unit 4 hydro assets) for all transmission lines.

<sup>15</sup> "Conversely, an updated COS would also likely consider the revised capacity planning criteria adopted by YEC and the effect of the N-1 criteria in particular as regards classification of Aishihik generating costs, i.e., under the N-1 criteria Aishihik no longer contributes any capability to meeting winter peak demands and thus, in effect, is used only to displace diesel energy generation. The net effect of such a change would be to increase costs allocated to the Major Industrial Customer class. " (YUB-YEC-1-23)

- Aishihik generation costs, could result in other offsetting changes in costs allocated to the Major Industrial Customer class. YEC stated that it did not currently expect such changes overall to result in a material change to the Industrial class COS for 2008 as presented in the PPA Application.
- YECL-YEC-1-2(a) to (d) asked, in light of the Board's January 15, 2007 Report recommendations on capacity planning for industrial loads, why Attachment A of PPA Application allocated any generation or transmission costs classified as demand related to Schedule 39 and why YEC has proposed a firm rate for Minto. YEC reviewed its evidence in the Resource Plan Hearing, clarified that its current capacity planning criteria (the LOLE component) is intended to continue to include major industrial customer loads, and confirmed that the PPA in effect is based on Minto securing firm and reliable grid electricity from YEC.

### **Jurisdiction of the Board**

The PPA fully recognizes the jurisdiction of the Board, and does not act to limit the Board's jurisdiction over rate setting or rate regulation in Yukon.

The PPA is a contract between YEC and Minto, and the terms and conditions set out in the PPA are contractual obligations which bind only those Parties to the PPA. In this regard, the Board is asked to approve a specific Firm Mine Rate for 2008 (as well as other specific rates and matters), and to approve the overall PPA so as to ensure that none of its terms would impose non-prudent burdens on YEC or other ratepayers. Submission of the PPA to the Board for its approval, as well as the terms and conditions within the PPA, signify full recognition of the jurisdiction of the Board.

In approving the PPA, as discussed in YUB-YEC-1-16, the Board is not being asked to approve specifically the cost of service principles and methods set out in Schedule E of the PPA. In addition, the PPA places no limitations on the Board's jurisdiction with regard to making changes to the Firm Mine Rate after 2008<sup>16</sup>.

Once the YUB approves the 2008 Firm Mine Rate, section 3.5 of the PPA stipulates that the YUB, from time to time after 2008, can, without affecting YEC's security, alter the Firm Mine Rate based on the principles and methods stated in Schedule E of the PPA<sup>17</sup>. It is noted that while a change in the Firm Mine Rate after 2008 may have an impact on some terms and conditions of the PPA, Minto is not excused from paying the Firm Mine Rate set by the YUB from time to time after 2008 and will continue to pay the industrial rate set by the Board for the grid electricity used at the Mine Site.

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<sup>16</sup> YUB-YEC-1-31 addresses the impact of YUB amending this rate prior to 2008, i.e., the jurisdiction of the Board even in this regard is fully recognized.

<sup>17</sup> YUB-YEC-1-18 sets out that section 3.5 of the PPA "retains full YUB discretion to approve or change the Firm Mine Rate after 2008 based on COS principles and methods that the Board determines appropriate based on its mandate and responsibilities, and the evidence then available to the Board."

UCG-YEC-2-9 notes that section 3.5 of the PPA sets out a specific test that must be met before the take-or-pay is reduced and the YEC Security removed; a decision of the Board must contravene the cost of service principles and methods in Schedule E or alter the terms and conditions of the PPA and have an effect that is both material and adverse. This condition in no way fetters the Board's discretion to set rates and determine cost of service principles and methods, and YEC acknowledges in UCG-YEC-1-15, that "[t]he Board alone has the power to set rates and determine cost of service methods used for rate setting purposes pursuant to its constituent legislation and regulations."

### **Firm Mine Rate Applicable to all Major Industrial Customers**

YEC has not isolated Minto as the sole industrial customer to which the Firm Mine Rate applies. Schedule C to the PPA sets out the specific rate to be approved for 2008, and stipulates that this rate continues to apply to all primary industrial customers.

As noted in UCG-YEC-1-11(2) and (3), the Firm Mine Rate proposed is not intended to be solely applicable to the Minto Mine and it is also not being set or locked in for the life of the Minto Mine. The Firm Mine Rate has been determined in the PPA only for 2008, and is subject to adjustment thereafter by the YUB (see also response to YUB-YEC-1-16). It is intended that this rate (Rate Schedule 39) at any time will continue to apply to all Industrial customers, and that it will be adjusted, as required, from time to time to recover COS for the Major Industrial Customer class as it may evolve in future to include mine customers in addition to Minto.

#### **3.1.2 Peak Shaving Rate Option**

The Peak Shaving Rate Option is a component of Rate Schedule C in the PPA (and thus part of the Firm Mine Rate) which provides for a reduction in the Demand Charge if the customer commits not to exceed a stipulated Winter Contract Load whenever the temperature in Whitehorse is below -30 degrees Centigrade.

During the IR process, there were relatively few questions regarding the Peak Shaving Rate, and most queries concerned how the rate was determined and how it would operate<sup>18</sup>, whether the rate was consistent with the cost of service<sup>19</sup>, whether precedents existed for the rate<sup>20</sup> and how the rate would operate to benefit ratepayers.

Should Minto elect to utilize this option, the Peak Shaving Rate Option "benefits YEC by lowering the need to plan for and run peaking diesels"<sup>21</sup>. Although the impacts of diesel operation due to the Minto

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<sup>18</sup> YUB-YEC-1-33 provides an example of how the Peak Shaving Option would work. The response to YEC-YEC-1-22 addresses how this rate fits into YEC's capacity planning criteria.

<sup>19</sup> See UCG-YEC-1-04(1) and UCG-YEC-2-10(a). The proposed rate is shown to be sufficient to at least recover COS (keeping in mind that the COS for the Firm Mine Rate assigns costs to the Industrial class (for the purpose of assessing the Firm Mine Rate) based on its contribution to the coincident peak winter generation requirement.

<sup>20</sup> As discussed in UCG-YEC-2-10(b), other jurisdictions such as Manitoba, Newfoundland and Quebec have similar DSM programs.

<sup>21</sup> See PPA Application, section 4.1.2, page 7. See also UCG-YEC-1-04(2).

Mine will initially only affect the Mine Net Revenue Account (as reviewed in Attachment C to the PPA Application), over the long term the savings from this account will be passed on to all ratepayers.

The response to YECL-YEC-1-22 provides that peak shaving, as proposed in the PPA, is a DSM measure that should help to avoid the need for diesel fuel by contributing to a reduction of peak winter load requirements on WAF if, and when, sufficient additional new mine loads are added to the WAF system.<sup>22</sup>

### **3.1.3 Low Grade Ore Processing Secondary Energy Rate**

YEC is seeking approval of the Low Grade Ore Processing Secondary Energy Rate (Rate Schedule 35) as set out in Schedule D of the PPA.

During the interrogatory process over 30 questions were asked about this rate. Aside from questions on precedents,<sup>23</sup> COS<sup>24</sup>, the “avoided cost” basis for the rate and its non-variance over time<sup>25</sup>, and examples<sup>26</sup>, the key concerns that were raised can be summarized as follows:

- **specific reporting concerns** were raised with regard to how the use of secondary energy to process Low Grade Ore would be measured or audited to ensure that such energy would be used only to process Low Grade Ore at the Mine site and not for other purposes<sup>27</sup>;
- **general concerns about impacts** were raised with regard to the impact that the new secondary energy rate under Schedule D would have on other secondary energy users on the WAF grid<sup>28</sup>; and
- **general concerns about availability** were raised as to whether this rate would be available to other industrial customers.<sup>29</sup>

#### **Specific Reporting Concerns**

The Low Grade Ore Processing Secondary Energy Rate is interruptible and available only from surplus hydroelectricity not otherwise required by Rate Schedule 32 customers and may only be used for processing low grade copper ore as defined under Rate Schedule 35 (Schedule D to the PPA).

Assuming that YEC can ensure that Rate Schedule 35 applies only for use of the stipulated surplus hydroelectricity, concerns have been raised as to how reporting and metering provisions will ensure that this rate also only applies when Low Grade Ore is being processed by Minto under the terms of Rate Schedule 35. Further, in the event (as expected) that such energy sales are not metered separately from

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<sup>22</sup> The Resource Plan indicated that a combination of the Minto and Carmacks Copper Mine loads (which then assumed much lower Minto Mine loads than now apply in the PPA) would result in the LOLE criteria (which includes consideration of industrial loads) driving WAF capacity planning criteria requirements. In such circumstances any peak shaving as provided for in this rate would reduce WAF peak winter capacity requirements.

<sup>23</sup> See UCG-YEC-2-11(b), and 12; YECL-YEC-10(c) and (d)

<sup>24</sup> See UCG-YEC-1-23(13), 25(3) and 26(3); UCG-YEC-2-11(a).

<sup>25</sup> YECL-YEC-1-10(a); YUB-YEC-1-11.

<sup>26</sup> YECL-YEC-1-10(h) and (i).

<sup>27</sup> See YUB-YEC-1-11(2) and 5(1); PWP-YEC-1-19; UCG-YEC-1-5(3) and 19(2); YECL-YEC-1-10(b) and (e) .

<sup>28</sup> YUB-YEC-1-5(2)

<sup>29</sup> See YUB-YEC-1-5(3) and 11(1); YCS-YEC-1-02(a) to (d); YECL-YEC-1-10(f) and (g).

Firm Mine Rate energy use, reporting concerns have been raised as to how YEC will identify the Minto electricity use specific to this interruptible rate.

At the outset, it should be noted that nothing in the PPA restricts when Minto may process Low Grade Ore using the Firm Mine Rate (Rate Schedule 39). Reporting concerns apply only when Minto seeks to secure the lower interruptible Rate Schedule 35 for processing Low Grade Ore. Rate Schedule 35 is available only to Industrial Primary Customers (customers also being served by Rate Schedule 39).

While nothing in the PPA restricts when Minto may process Low Grade Ore using the Firm Mine Rate, access to Low Grade Ore Processing Secondary Energy under Rate Schedule 35 is entirely dependant upon Minto satisfying the conditions set out in Rate Schedule 35 and section 4.1(b) of the PPA.

At this time Minto has not provided YEC with any specific proposed auditable reporting and control mechanisms beyond its overall plans to stockpile and monitor Low Grade Ores as mined at the Mine Site for processing after the high grade ores have been processed.<sup>30</sup> At such time as Minto determines that it will commence processing Low Grade Ore, the Parties intend to work together to determine acceptable auditable reporting and controls that will reasonably confirm to YEC that secondary energy provided pursuant to Rate Schedule 35 is only being used to process Low Grade Ore.<sup>31</sup> Pursuant to Rate Schedule 35, the customer must also provide reporting as is reasonably required by YEC to determine which portion of its recorded Demand and Energy in any billing month relates to secondary energy use for processing Low Grade Ore.<sup>32</sup> Rate Schedule 35 will only apply when reporting, as reasonably required by YEC, can be established to confirm or determine what is secondary energy as distinct from firm energy under the Firm Mine Rate, and further confirms that all such secondary energy has been used only to process Low Grade Ore. Failing such reporting being established and fully complied with, all energy use will be charged at the Firm Mine Rate.<sup>33</sup>

YEC submits that the reporting requirements in Rate Schedule 35, along with the provisions to charge all energy at the Firm Mine Rate if such reporting requirements are not met as reasonably required by YEC, are reasonable and sufficient at this time.

### **General Concerns about Impacts**

The agreed upon provisions set out in the PPA and Rate Schedule 35 ensure that other customers such as those served under Rate Schedule 32 will not be adversely impacted.

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<sup>30</sup> This is noted in YUB-YEC-1-11(2). The PPA provisions, however, demonstrate that Minto also has the option to process at least some of this Low Grade Ore (subject to the limits on access to Rate Schedule 35 energy set out in section 4.1(b) of the PPA during the period until June 30, 2015) from such stockpiles during years when high grade ores are still being processed.

<sup>31</sup> YUB-YEC-1-11(2) sets out that such auditing and control measures may include auditable reporting by Minto of actual disposition of Low Grade Ore in stockpiles or as processed concentrate at the Mine Site from time to time, records of specific exclusive use of mill processing equipment at certain times to process such Low Grade Ore, and records of actual energy use by such processing equipment at such times.

<sup>32</sup> Schedule D of the PPA (Rate Schedule 35) sets out this reporting requirement under item (2) at pages 1 and 2.

<sup>33</sup> YUB-YEC-1-11(2)

The availability of secondary energy under this rate will not adversely impact customers currently receiving secondary energy under Rate Schedule 32, will not limit the ability of other firm mine customers to receive energy at a firm rate in the future, and will not reduce Minto's take-or-pay obligations, as specified in the following provisions of the PPA:

- Condition (3) at page 2 of Schedule D to the PPA, specifically provides secondary energy under Rate Schedule 35 will only be available after customers served under Rate Schedule 32 have been supplied.<sup>34</sup>
- Since energy provided under Rate Schedule 35 is interruptible and only available from surplus hydroelectricity supplies, implementing this rate will not limit the availability of firm power sales to another mine in the future.
- Section 4.1(b) of the PPA also limits Minto's access during the period to June 30, 2015 to energy under Rate Schedule 35.
- Minto remains obligated under the PPA to the minimum take-or-pay commitments set out in section 6.2 of the PPA; however, Minto's payments for secondary energy under Rate Schedule 35 will contribute to Minto's take-or-pay.

In general, providing Minto with access to interruptible secondary energy at this rate means that any surplus hydroelectric power currently available (after serving Rate Schedule 32 customers) can be more fully utilized. To the extent that Minto is able to secure access to such interruptible energy, less water at dam sites will be spilled and wasted, additional net revenues will be secured by YEC, and Low Grade Ore that might not otherwise be processed will be processed.

In the event that other mines also are served from the WAF grid at the same time as Minto, the available surplus power is likely to be fully utilized and no secondary sales will continue to be available, i.e., the impacts from Rate Schedule 35 will then end. Absent such additional mine loads, Attachments B and C to the PPA also indicate severe limitations on secondary sales with Minto Mine loads prior to the end of the currently assumed Minto Mine life and by about 2021 without Minto Mine loads.

### **General Concerns about Availability**

With regard to the availability of Rate Schedule 35 to customers other than the Minto Mine, it is noted that the secondary rate set out in Schedule 35 evolved out of a process of PPA negotiations between YEC and Minto Mine<sup>35</sup>. While the rate is generally applicable for processing ore with less than 1% copper

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<sup>34</sup> See YUB-YEC-1-5(2); While the proposed interruptible rate set out in the December 21, 2006 Term Sheet did provide that Minto could gain priority access to available secondary energy if it paid the full energy charge, the interruptible rate negotiated under the PPA sets out that Minto may only gain access to secondary energy after the needs of current secondary rate customers have been met. This was provided to alleviate any concerns that Minto would gain access to secondary energy resources in priority or preference to current YEC secondary energy customers on the system. Minto will pay a rate of 6 cents per kW.h while customers on Rate Schedule 32 currently (first quarter of 2007) pay 5.9 cents per kW.h (Rate Schedule 32 is adjusted on a quarterly basis to reflect changes in alternative oil-based fuel energy costs).

<sup>35</sup> See YUB-YEC-1-11(1), YCS-YEC-1-2, UCG-YEC-1-5, 1-19

content at a mine site where copper is the prime source of mineral product, as indicated in YCS-YEC-1-2<sup>36</sup>, the criteria is intended to be specific to the circumstances of the Minto mine and it was not contemplated that the rate would be immediately applicable to other potential mine customers.<sup>37</sup>

If any other similarly situated mine emerges with an interest in this rate, and surplus hydroelectricity is still available for such loads, YEC has stated that it intends to review the terminology set out in Rate Schedule 35<sup>38</sup>.

YEC has also noted that in any event it is unlikely that surplus hydro would continue to be available for any WAF customers in the event that another major industrial mine was to be serviced concurrently with the Minto Mine. In addition, any surplus hydro supplies are forecast to gradually dissipate on WAF by 2020, making any long-term consideration of which future mines might be included or excluded under the rate a moot point<sup>39</sup>.

### **3.2 IMPACT ON WAF SYSTEM**

The PPA Application reviewed the impacts that the terms of the PPA and the Minto Mine loads would have on WAF loads, forecast generation (hydro, peaking diesel dispatch and baseload diesel dispatch), and secondary sales (based on surplus hydro and Rate Schedule 32). The impact of YEC's purchase of the Diesel Units at the Mine was also reviewed.

It has been noted in the PPA Application and during the interrogatory process that while service to the Mine might advance Aishihik Third Turbine, the purchase of the Diesel Units at the Mine Site might operate to defer plans for Mirrlees Life Extension in the context of having mine site diesel capacity available in the near term on the WAF system.

On March 30, 2007, the YTG government announced that it would use the new Eco Trust funding for YEC to install the Aishihik Third Turbine. As a result of this new government funding, Aishihik Third Turbine will now be advanced, consequently, the advancement of the Aishihik Third Turbine by the Mine as discussed in the PPA Application and in certain IR responses is no longer a relevant concern.

#### **3.2.1 Impacts on WAF Loads, Forecast Generation and Surplus Hydro Generation**

While intervenor questions indicated few concerns regarding the WAF Load forecasts, there were some questions regarding the relationship between the Mine loads and the need to accelerate development of the Aishihik Third Turbine. In addition, concerns have been noted that the added Mine load may affect diesel generation at Whitehorse.

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<sup>36</sup> Over 85% of Minto's Mine mineral product value is copper (YUB-YEC-1-11)

<sup>37</sup> See YCS-YEC-1-2

<sup>38</sup> See UCG-YEC-2-12

<sup>39</sup> See YUB-YEC-1-11(1)

### **Aishihik Third Turbine**

YUB-YEC-1-2 and YUB-YEC-1-12 address the potential need to advance construction of the Aishihik 3rd Turbine with the Minto Mine on the System<sup>40</sup>; the response to YUB-YEC-1-2 notes that the construction of Aishihik Third Turbine is primarily driven by the economic need<sup>41</sup> to offset the future diesel generation that is expected to increase under the Base Case load forecast without any new mines (the Minto mine load accelerates the timing of these benefits.)<sup>42</sup>

However, as noted above, the issues surrounding the timing and costs for this project that were noted in the PPA Application and IR responses are no longer material given the recent announcement of government funding for the Aishihik Third Turbine.

### **Yukon Diesel Generation**

UCG-YEC-1-25(2) notes the potential need to use Whitehorse or Faro diesels. YCS-YEC-1-3(b) implies that purchase of the Diesel Units may not be consistent with the objective to provide greater hydro power to the communities and mines in this area.

Overall, when addressing such diesel generation issues related to the PPA, it is important to note that Stage One of the CS Project provides an opportunity for YEC to reduce materially the reliance on diesel generation (and related greenhouse gas production) in the Yukon.

The potential impact this project will have on the reduction of diesel generation is demonstrated in the YESAB Addendum YESAB-YEC-2-5, YEC Table YESAB-YEC-5-4 (see Appendix A to this Final Argument) which used the peaking and baseload diesel amount indicated in Attachment B<sup>43</sup> of the PPA to

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<sup>40</sup> As stated in YUB-YEC-1-12, “[t]o the extent that this project is accelerated as a result of the PPA and the CS/MS Project, the incremental increase in expenses and return on rate base related to such accelerated development would be included as Incremental YEC Costs in the determination of Mine Net Revenue and, as such, would not affect rate schedules for other rate classes.”

<sup>41</sup> Attachment B of the PPA Application and YUB-YEC-1-2 discuss two potential load growth levels with regard to the Minto Mine:

- Surplus hydro without the Minto Mine (Base case) extends until 2020
- Surplus hydro from existing WAF facilities is fully utilized with the Minto Mine by 2013 or 2015 (depending on Mine loads assumed), but re-emerges after closure of the Minto Mine under these forecasts (closure assumed in Attachment B in 2015 or 2016, depending on assumed mill processing rates).

<sup>42</sup> As set out in Attachment B of the PPA Application, the addition of Aishihik 3rd Turbine to the WAF system would operate to mitigate losses by reducing diesel generation costs and extending secondary sales opportunities with overall savings through 2025 forecast to be slightly less than the forecast cost of the Aishihik 3rd Turbine. However, it was noted that advancing Aishihik 3rd Turbine (for instance, bringing it on line in 2010 as compared to 2013) would only result in slightly increased savings (savings of \$0.7 million (2005\$) at 32.5 GW.h/yr, and \$1.2 million (2005\$) at 42.0 GW.h/yr). In the PPA ratepayers are held whole from the costs incurred due to the advancement of Aishihik to serve Mine loads by the Mine Net Revenue Account as discussed in section 4.1.2 of the PPA Application.

<sup>43</sup> Attachment B of the PPA Application reviews the impact of the PPA and the Minto Mine loads as regards WAF loads, forecast generation (hydro, peaking diesel dispatch and baseload diesel dispatch), and secondary sales (based on surplus hydro and Rate Schedule 32).

demonstrate the amount of diesel that would be displaced as a result of the CS transmission project. This table indicates as follows:

- In the absence of the CS transmission project the Minto Mine would operate using diesel generation, and consequently, over the expected life of the Minto Mine, diesel generation in the relevant areas of Yukon (including WAF diesel, Pelly isolated diesel and Mine diesel) would be expected to be between 34.1 GW.h (2009) and 35.9 GW.h (2016) per year.
- By comparison, connecting the Minto Mine and Pelly Crossing to the WAF grid will reduce the forecast amount of diesel generation in this same area to between 0.8 GW.h (2009) and 7.2 GW.h (2016) per year.<sup>44</sup> This would result in savings of between 33.3 GW.h (2009) and 28.7 GW.h (2016) per year of diesel consumption.

In summary, the PPA's overall impact is to reduce significantly the amount of diesel generation in Yukon. This overall reduction is accompanied by slightly greater use of WAF diesel generation, including slightly greater use of such generation at Whitehorse.

As reviewed in YUB-YEC-1-8, YEC's purchase of the Diesel Units as part of the PPA will allow YEC to reduce its need to rely on Whitehorse diesel generation at times when WAF loads require use of baseload diesel generation.

### **3.2.2 Diesel Units at the Mine**

With regard to the purchase of the Diesel Units at the Mine Site pursuant to Part 10 of the PPA, issues raised during the interrogatory process generally addressed the rationale for the purchase of the diesel units, including the relationship of the Diesel Units to the Resource Plan. The key IRs concerning the Diesel Units include the following:

- YUB-YEC-1-8 reviews how the Diesel Units fit into the 20 year YEC Resource Plan, the benefits provided by the Diesel Units and how they may be deployed in the future to the benefit of YEC and its ratepayers.
- YCS-YEC-1-3(a) and YUB-YEC-1-8(1) address the impact that purchasing the Diesel Units may have on the planned overhaul of the Mirrlees;
- YECL-YEC-1-9(b) questions whether the units could be used by Minto to exceed its contract demand and how the units would be utilized in the event of a WAF outage;
- UCG-YEC-1-7, 1-9 and 2-23, 2-35 reviews the rationale behind the diesel purchase, whether the diesels were needed and whether they could be used by YEC as collateral; and

As noted in section 4.2.2 of the PPA Application and reiterated in YUB-YEC-1-8(1), these units will provide the following benefits to the WAF system:

- The purchase payment arrangements for the Diesel Units will enhance YEC's security with regard to the Minto obligations to pay the Mine Spur Capital Cost Contribution.

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<sup>44</sup> The analysis with the Carmacks-Stewart Case in this table (Appendix A) does not assess where "WAF Diesel" generation will occur within WAF as it would then be defined, i.e. with completion of Stage One of the CS Project, both the Minto Mine and Pelly Crossing would be connected to the WAF grid. The supporting analysis in YESAB Addendum YESAB-YEC-2-5, as well as in YUB-YEC-1-8, address factors affecting where such diesel generation would occur within WAF.

- The Diesel Units at the Mine site are to be purchased for a cost of approximately \$2.24 million<sup>45</sup>; it is anticipated that, once acquired, these assets will provide YEC with added security as to the recovery of the Minto customer contributions related to the Mine Spur.
- In consideration for the assignment of the Cat Leases YEC will provide monthly payments to Minto for the Diesel Units on the same basis as Minto's Mine Spur Capital Cost Contribution payments, e.g., in equal blended monthly payments of interest and principal over the first seven years of YEC service (unless otherwise provided for in the PPA).<sup>46</sup>
- YEC will be paying for the Diesel Units as Minto pays the costs of the Mine Spur and on the same general terms as the Mine Spur costs are paid off.
- These purchase payment arrangements for the asset will enhance YEC's security with regard to Minto's obligations to pay the Mine Spur Capital Cost Contribution.
- The units provide added security to YEC and Minto with regard to reliable supply at the Mine; pursuant to sections 10.4(b) and 4.8 of the PPA, Minto may only require that the Diesel Units be used (at Minto's cost) to supply electricity to the Mine in circumstances where (1) under section 4.8 Minto considers its equipment at the Mine to be at risk of damage from the supply of Grid Electricity by YEC under the Agreement, and (2) under 10.4(b) if YEC is unable to deliver Grid Electricity to the Mine. However, Minto may only require that the Diesel Units be used to supply the Mine in circumstances where YEC is also otherwise unable to use the Diesel Units to supply Electricity to the WAF grid. In both cases Minto will also pay the cost for fuel and operator assistance.
- When WAF diesel operation is required, YEC operation of at least two of the Diesel Units at the Mine Site (especially baseload operation) is expected to be cost effective (due to the minimization of line losses and related additional diesel generation requirements).
- In the near term these units provide cost effective contingency protection for WAF until such time as other potential major mine loads (e.g., Carmacks Copper) as well as capacity supply options are better clarified.
- The Diesel Units are portable and (subject to the terms set out in section 10.5 of the PPA) capable of being redeployed anywhere on either the WAF or Mayo Dawson grids, or they may be sold.

In answer to concerns about the impact the purchase of the Diesel Units would have on the plans to refurbish the Mirrlees it was noted that the cost of these units was competitive with the estimated cost of the Mirrlees Life Extension Project set out in the Resource Plan Hearing, and that in the event the PPA is approved and the CS/MS Project proceeds YEC will reassess the timing of the Mirrlees Life Extension project in the context of the available near term diesel capacity available to the WAF system from the Mine site.<sup>47</sup>

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<sup>45</sup> "Diesel Unit Purchase Price" at page 5 of the PPA sets out methods for determining the purchase price of the Diesel Units, which provide for deductions with regard to depreciation and maintenance expenses related to actual use in excess of certain stipulated hours of operation.

<sup>46</sup> UCG-YEC-1-7(1)

<sup>47</sup> See YUB-YEC-1-8(1) and YCS-YEC-1-3(a).

## 4.0 PROTECTION FOR RATEPAYERS

The Application identifies and discusses in detail both the expected material net benefits<sup>48</sup> as well as the risks to ratepayers arising from the PPA and construction of the Stage One CS/MS Project. In order to address YEC's overall objective to ensure that Yukon ratepayers are not adversely impacted by the project's costs in the near or longer term<sup>49</sup>, Part 5 of the Application specifically reviews the many provisions in the PPA that provide protection for ratepayers under the following three general headings:

- No Adverse Impact on Ratepayers –Specific ratepayer protection measures agreed to in the PPA include:
  - Minto Capital Cost Contribution
  - Mine Net Revenue Account to be established by YEC
  - Minimum Take-or-Pay obligations of Minto
  - YEC Security provided by Minto
  - Decommissioning Costs paid by Minto
  - Due Diligence by YEC.
- Risks of Shorter Mine Life and Temporary Shutdowns
- How the PPA Provisions Impact Other Industrial Customers

A large number of IRs were ultimately directed at assessing the risks and benefits arising from the PPA with specific concerns raised in relation to potential adverse ratepayer impacts and to potential intergenerational inequities (i.e., benefits created from assets paid for by today's ratepayers being shifted to future ratepayers). Many IRs also dealt with each of the above-noted ratepayer protection measures, in many cases attempting to clarify the PPA terms and their rationale or likely impacts.

Accordingly, to address the concerns identified in the IRs, ratepayer issues are addressed below under two broad headings:

- Overall Ratepayer Benefits and Risks Arising from the PPA
- Issues Raised Regarding Specific Ratepayer Protection Measures

### 4.1 PPA IMPACTS RE: OVERALL RATEPAYER BENEFITS AND RISK

In general, the IR process has highlighted the expectation that the PPA and Stage One CS/MS Project will provide positive benefits to ratepayers, provided that the Mine operates for its expected life at its

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<sup>48</sup> Attachment C to the Application reviews expected net amounts in the Mine Net Revenue deferral account by the end of the Mine life as currently assumed, showing how all related YEC incremental costs would be funded over that period by the Mine's payments to YEC and that the expected balance in this deferral account would also be sufficient to cover the CS Stage One Undepreciated Capital Costs, i.e., ratepayers would in effect be expected to secure through the PPA's terms the benefits of the CS Stage One infrastructure at no net near or long term cost. The CS Stage One development constitutes over half of the facilities required for the ultimate connection of the two power grids.

<sup>49</sup> Page 1, paragraph (C) of the PPA sets out that "it is the Parties' intention that other ratepayers in the Yukon Territory will not be adversely impacted by the costs of the Transmission Project required to provide Grid Electricity to the Mine."

expected power loads.<sup>50</sup> IRs tended to focus on two general topics of potential concern relating to overall PPA impacts ratepayers:

- **Ratepayer Risks:** IRs focused on PPA-specific risks that could prevent the expected benefits from materializing, particularly low probability (but high impact) risks, such as premature permanent closure of the Mine, that could result in material adverse ratepayer impacts; and
- **Timing of Ratepayer Benefits:** IRs focused on the deferral (or delay) of Mine related benefits due to the operation of the Mine Net Revenue Account.

#### 4.1.1 Ratepayer Risks

While the PPA recognizes the Parties' objective that other ratepayers will not be adversely impacted by the costs of the Transmission Project, the PPA and YEC's Application also recognize the real risks that adverse impacts to ratepayers may still occur. In the circumstances the risks can be divided into two categories: 1) normal risks associated with any major development; and 2) PPA specific risks.

The PPA Application and IR responses clearly acknowledge that there is always a risk of adverse impacts related to any development, and neither ratepayers nor YEC can be guaranteed absolute protection. For example, YUB approval of the PPA today does not mean that ratepayers would automatically be put at risk for all outstanding capital costs in the event of premature permanent closure of the Mine nor would such approval mean that YEC is free from risk. It will be for the YUB to determine in future GRAs how much of the project costs are placed into rate base and, after such a premature closure of the Mine (if it ever occurred), how the undepreciated cost of the Stage One CS/MS Project would ultimately impact ratepayers.

Given the range of IRs that directly or indirectly address these issues, ratepayer risks are reviewed below in the Final Argument under the following headings:

- Normal Risks Identified and Addressed in PPA
- PPA-Specific Risks Identified and Addressed in PPA
- Extreme Near-Term Scenario Risks Addressed
- Capital Cost Contribution Financing by YEC and Related Near-Term Ratepayer Risks
- Due Diligence and PPA Protections re: Mine Life – Management of Near-Term Risks
- Mine Net Revenue Account – Mitigation of Power Purchase Impact Risks
- Overview of Capital Cost Recovery Risk over Mine Life
- Security Provisions Related to Ratepayer Risks

In addition Appendix C addresses more detailed questions in relation to certain of the ratepayer protection measures outlined in section 4.0.

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<sup>50</sup> For example, YUB-YEC-1-6 reviews how ratepayers would receive direct benefits in the near term if the Mine Net Revenue Account was not set up. As reviewed in that IR response, 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.

### **Normal Risks Identified and Addressed in PPA**

Normal risks inherent in undertaking a project of this scope include potential regulatory approval schedule delays (new YESAB process, current YUB process and new Part 3 process, negotiation of a Project Agreement with the NTFN), and potential capital cost escalations and project construction delays due to tight construction and commodity markets.

The PPA addresses these normal risks by giving YEC full control over the decision to start construction while establishing at what point delays in Commencement of Delivery (or escalation of Mine Spur costs) begin to impact the timing and eventually the magnitude of Minto payment commitments for the Capital Cost Contribution and the Minimum Take-or-Pay Amount. IRs sought clarifications on these provisions, but did not generally appear to raise major concerns about the PPA impacts (beyond concerns about allowing Minto to pay the Capital Cost Contribution over several years rather than as an up front payment which concerns are addressed below).

### **PPA-Specific Risks Identified and Addressed in PPA**

Given the importance of Minto's load to the overall feasibility of the CS/MS Project, the PPA specifically addresses the added risks which arise from the development of the Mine and its planned operations, Minto's ongoing financial ability to fulfill its commitments, and the rights of YEC relative to other lenders involved in financing the Mine such as Macquarie Bank.

The PPA recognizes and addresses these risks through various measures, including:

- YEC's obligation to construct the line is conditional on the mine commencing commercial operation by June 30, 2007,
- provisions in the PPA require accelerated payment of the full Capital Cost Contribution if Minto fails to confirm Additional Reserves by December 31, 2008 (i.e., in four rather than seven years),
- provisions in the PPA which limit Minto being relieved of its take-or-pay commitments,
- provisions in the PPA which require security be given to YEC ("YEC Security"), limits on Minto's ability to alter its financing with its lenders (Section 6.6) and protections provided by the Direct Agreement, and
- the establishment of the Mine Net Revenue Account to address rate instability and longer-term rate impact risks to other ratepayers.

In general the PPA review process has focused (among other considerations) on the following PPA related ratepayer risk issues:<sup>51</sup>

- Minto's responsibility for the Mine Spur capital costs (YUB-YEC-1-7),
- the Capital Cost Contribution that Minto will provide towards the CS Stage One capital costs (PPA Application section 5.1.1, YUB-YEC-1-7);

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<sup>51</sup> Some of these measures and specific IRs in relation to those measures and other related IRs are addressed in more detail in Section 4.2 and Appendix C of this Argument).

- the issues and rationale related to YEC financing of the Minto Capital Cost Contribution (YUB-YEC- 1-34);
- Minto's Minimum Take-or Pay Amount obligations (PPA Application 5.1.3 and YUB-YEC-1-16)
- the security that the Minto will provide YEC with respect to its capital cost contribution commitments (PPA Application 5.1.4 and YUB-YEC-1-29, YUB-YEC-1-32 and YUB-YEC-1-34);
- the level and life of Minto's firm purchase power needs and the risk of Minto defaulting (PPA Application section 5.2 and YUB-YEC-1-3, YUB-YEC-1-14, YUB-YEC-1-32, and YUB-YEC-1-34); and
- the impacts arising from implementation of the Mine Net Revenue Account and its rationale (PPA Application 5.1.2 and YUB-YEC-1-6 and YUB-YEC-1-15).

As noted above, in the PPA Application and in the IR process, YEC has acknowledged that certain PPA-related risks cannot be fully mitigated.

The primary PPA-related risk that cannot be fully mitigated arises from YEC's financing of the Mine Spur and the CS Project contribution (together, the "Capital Cost Contribution") combined with the possibility that the Mine may shutdown prematurely. In particular there is a risk that Minto will default on the YEC Security at a time when the Mine Net Revenue Account is insufficiently developed to shield Yukon ratepayers from adverse impacts related to the Capital Cost Contribution not being fully paid.<sup>52</sup> In YEC's submission the evidence as reviewed below clearly demonstrates that the probability of this occurring is so extremely low that this risk provides no reasonable basis for not proceeding with the PPA and the CS/MS Project.

Other PPA-related risks that cannot be fully mitigated relate to potential rate instabilities and longer-term adverse rate impacts arising from the PPA power purchases from YEC. These risks include rate fluctuations caused by changes in YEC's annual net revenues from the Mine's power purchases (due to changes from year-to-year in Mine power requirements or YEC requirements for diesel generation) and potential rate increases at the end of the Mine life due to loss of Mine revenues and the fact that the CS Project costs will not be fully depreciated at that time. Although creation of the Mine Net Revenue Account substantively mitigates many of these specific ratepayer risks, as reviewed below, YEC also accepts these risks cannot be fully mitigated.

### **Extreme Near-Term Scenario Risks Addressed**

YEC has fully acknowledged in response to YUB-YEC-1-14<sup>53</sup> that there exists an "extreme worst case scenario" which represents the greatest material risk to ratepayers once the Project is constructed.

Under this "extreme worst case scenario", ratepayers would be exposed to risk if the mine permanently closed in the early years of the Mine life, and Minto defaults on the YEC Security.<sup>54</sup> In such

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<sup>52</sup> See YUB-YEC-1-14, 32, and 34. Under this "extreme worst case" scenario, the Minto Capital Cost Contribution, minimum take or pay obligations and decommissioning costs would all remain essentially unpaid.

<sup>53</sup> See also YUB-YEC-1-32 and 1-34.

circumstances, YEC would be unable to fully recover the capital costs, or decommissioning cost payments because the Mine Net Revenue Account would be insufficiently developed to insulate YEC and its ratepayers from such adverse impacts.

The risk of this “extreme worst case scenario” occurring is greatest in the short term. However, over time the impacts on ratepayers due to the PPA are alleviated by the operation of the Mine Net Revenue Account, minimum take-or-pay obligations, and the security provisions included in the PPA.

### **Capital Cost Contribution Financing by YEC and Related Near-Term Ratepayer Risks**

In light of the apparent near-term ratepayer risks related to Minto’s Capital Cost Contribution payments, issues were raised in the IRs relating to why YEC had agreed to finance the Capital Cost Contribution, rather than requiring Minto to pay this amount prior to interconnection.

It has been Minto’s consistent position throughout the PPA negotiation process that it is unable to obtain conventional debt financing to pay for the Capital Cost Contribution or provide a letter of credit.<sup>55</sup> During the negotiation process up front capital contributions were rigorously pursued by YEC, but it became apparent that without YEC financing, the Mine would not connect to the grid.

In the end, YEC’s agreement to finance Minto’s capital cost contribution was based on Minto’s special circumstances, the overall magnitude of expected ratepayer benefits related to the PPA, and the negotiated terms and conditions established in the PPA to protect YEC and YEC ratepayers. Although it is not without risk, YEC strongly believes that the ability to facilitate a major infrastructure development for the Yukon (interconnection of the MD and WAF grids) using YEC’s surplus hydro especially given Minto’s commitment to contribute \$7.2 million to the capital costs of the CS Project presented an exciting opportunity for YEC and Yukon ratepayers.

YEC has not lightly taken on this risk. To address this situation, YEC looked to precedents from other jurisdictions to design a financing option that was acceptable to both Parties.<sup>56</sup> In designing the capital cost financing for the Mine Spur, YEC utilized an existing precedent from Newfoundland and Labrador (the Duck Pond Mine) approved by the regulator in Newfoundland where upfront capital cost financing provided by the incumbent utility was recovered in equal monthly amounts of principal and interest over slightly less than the expected life of the Mine. YEC utilized the Duck Pond Mine precedent and enhanced it with the following provisions designed to mitigate risk:

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<sup>54</sup> YECL-YEC-1-8 sets out that based on the investments arranged by Macquarie and BMO after extensive separate due diligence reviews, YEC does not see a near term permanent closure as a likely risk once the Mine is in commercial operation (which is a condition that must occur before YEC proceeds to start to construct the Transmission Project). Nevertheless, YEC has also carried out its own extensive due diligence review as described in YUB-YEC-1-29.

<sup>55</sup> See YUB-YEC-1-34 and YECL-YEC-1-4.

<sup>56</sup> This, and the following paragraph, are discussed in greater detail in YUB-YEC-1-34. The financing option utilized in the PPA was modeled on the Duck Pond Mine example from Newfoundland and Labrador where the utility provided for upfront costs but was paid back after commencement of delivery to the mine in equal blended payments of principal and interest with the full amount being paid off in advance of the expected mine shutdown date.

- Minimum take or pay contributions
- Mine Net Revenue Account
- Purchase of the Diesel Units at the Mine on similar payment terms as the Capital Cost Contribution for the Mine Spur
- Decommissioning Costs
- YEC Security.

While there is always risk inherent in developments of this type, the terms and conditions included in the PPA were designed to prevent or mitigate potential net cost impacts to Yukon ratepayers, and to secure long-term ratepayer benefits from both the Mine and the Stage One CS/ MS Project.

### **Due Diligence and PPA Protections re: Mine Life – Management of Near-Term Risks**

In managing and assessing the near-term risks, YEC has carried out due diligence to confirm that the Mine has sufficient ore reserves and other capability needed (at the current planned mill processing rate) to continue operation according to Minto's current mine plan (7.2 years of Mine life), with a very strong likelihood of confirming in 2007/2008 Additional Reserves as needed for a Mine life of at least 10.2 years. Specific protections are included in the PPA to accelerate payments if the Additional Reserves are not so confirmed.<sup>57</sup> Minto's Minimum Take-or-Pay Amount obligations under the PPA, with a secured commitment for least \$24 million of power purchases within the first eight years of YEC service, also establish protection for YEC.

Within this context, and reflecting principles adopted in the Duck Pond Mine precedent, YEC has negotiated arrangements in the PPA whereby the Capital Cost Contribution is expected to be fully paid at least one year prior to the end of the expected Mine life (or within 7 years, whichever is earlier).<sup>58</sup> The basic premise underlying this approach is that, so long as there is at least one year's ore reserves yet to be processed, the Mine's owners (Minto or any other owner or party stepping into Minto's place) will have ample self-interest to continue ongoing power purchases from YEC (at costs well below any on-site diesel generation option) and will pay off the Capital Cost Contribution (as a component of the Firm Mine Rate), as part of such power purchase requirements.

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<sup>57</sup> The PPA includes specific terms and conditions under Part 5 with regard to the payment of the Capital Cost Contribution that seek to ensure that the principal and interest is repaid prior to the Mine shutdown date, even in the event of a shorter than expected Mine life. Section 5.2(d) of the PPA provides that Minto must provide documentation to YEC by December 31, 2008 which confirms to the satisfaction of YEC, acting reasonably, Minto's ability and commitment to process additional high grade ore reserves at the Mine prior to December 31, 2017 sufficient to sustain an additional three years of processing at the Mine at the daily processing level; otherwise, YEC may require Minto to pay the outstanding balance of the Capital Cost Contribution on the earlier of either the fourth Annual Payment Date (i.e., three years earlier than otherwise provided for in the PPA) or prior to December 31, 2013

<sup>58</sup> Under part 5 of the PPA the Capital Cost Contribution is must be paid off at least one year prior to the expected end of the Mine's life. Currently, as reviewed in section 5.2 of the PPA Application and Attachment B to the Application, YEC anticipates that the Mine will operate at the stipulated daily processing levels for at least eight years after Commencement of Delivery (i.e., until at least September 2017) with provision for the Capital Cost Contribution and accrued interest to be paid off within seven years of Commencement of Delivery (i.e., by September 30, 2015 if YEC delivery starts on schedule, and before September 2016 if Commencement of Delivery is delayed but still accomplished before September 2009).

Further, as set out in the PPA Application and in IR responses, after a few years of operation, as the Mine continues to meet its obligations under the PPA (including the Capital Cost Contribution payments and the minimum take or pay amount obligations), the Mine Net Revenue Account will grow and the risk of a major adverse financial impact to ratepayers will diminish.

Finally, it is also important to note that although Minto may default on its obligations prior to the end of the expected Mine life, the Mine assets will remain and, if sound and valuable, the remaining ore reserves are likely to be processed by others using YEC power either pursuant to the PPA or under Direct Agreement.<sup>59</sup>

### **Mine Net Revenue Account – Mitigation of Power Purchase Impact Risks**

The operation of the Mine Net Revenue Account also addresses rate instability during and after the Mine life due to a variety of factors including instability caused by temporary events (e.g., temporary shutdowns), increasing incremental YEC costs related to the Mine load (due to increased diesel generation needs over time), and the eventual loss of the Mine's revenue (when it permanently closes) and the need for other ratepayers then to pay for any remaining Stage One CS Project undepreciated capital costs.

Prior to the commitment of the Yukon Government's new funding, the Mine Net Revenue Account operation was generally expected to defer overall ratepayer impacts (positive or negative) until the end of the life of the Mine, or at least until this deferral account had increased sufficiently to equal or exceed the CS Project Stage One Undepreciated Capital Costs.<sup>60</sup>

The new government funding will now enable ratepayers to benefit to some degree throughout the Mine's life from offsets to YEC's regulated rate base. In addition, with this new government funding, the Mine Net Revenue Account is now projected at \$15.6 million by the year 2016 under the 32.5 GWh/yr Mine load (rather than \$10.7 million in Table C-1 of the PPA Application). Accordingly the recent commitment of the Yukon Government's new funding for up to \$10 million of the capital costs of the Stage One CS Project not only materially reduces ratepayer risks, it will also further enhance ratepayer benefits.

### **Overview of Capital Cost Recovery Risk over Mine Life**

As noted above, the likelihood of adverse impacts falling on YEC and ratepayers will dissipate during the life of the Mine as the Minto Power Bills, Minimum Take-or-Pay Amounts and Capital Cost Contributions are paid by Minto and Mine Net Revenue Account increases.

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<sup>59</sup> If the default occurs while the Current Bank Financing remains outstanding.

<sup>60</sup> Attachment C to the PPA Application, which provides examples as to the operation of the Mine Net Revenue Account from 2009 through to the end of 2016 without the new government funding, indicates that the deferral account might reach this level between the fourth and sixth year on YEC service, depending on the annual power purchase level assumed.

Using the mid-point capital cost estimates, and assumptions adopted in one of the cases reviewed in Attachment C to the PPA Application Appendix B, Table B-1 demonstrates this point. Over the first four years of grid service to the Mine (until the end of 2012 assuming that service begins at the start of 2009) the outstanding unpaid capital cost (i.e., risk) remains relatively constant<sup>61</sup>, while over the same period (from 2009 to 2012) Mine Net Revenue continues to accrue in the deferral account. After the fourth year of service to the Mine, as the Mine commences to make Capital Costs Contributions for the \$7.2 million contribution to the CS Project, the outstanding principal begins to significantly decrease. By the end of the seventh year (2015 in this example) the Capital Cost Contribution is totally paid to YEC and the amount accrued in the deferral account is also more than sufficient to cover the Undepreciated CS Stage One Capital Costs.

In summary, Table B-1 confirms under the stated assumptions that the PPA risk management measures will cover all of the Stage One CS/MS Project capital costs (as well as all related incremental YEC expenses) during the expected Mine life. Although Appendix B, Table B-2 shows a case where the PPA risk management measures would not cover all of the Stage One CS Project capital costs during the currently expected Mine life assuming high capital cost estimates, this will no longer be the case because of the recently announced \$10 million dollar contribution to Stage One of the CS Project from YTG.<sup>62</sup>

### **Security Provisions Related to Ratepayer Risks**

Notwithstanding a default by Minto early in the Mine's life, the PPA and the Direct Agreement also contains provisions that provide YEC and Yukon ratepayers with protection where operation of the Mine remains viable using electricity delivered by YEC.

Under the Direct Agreement, should Minto default and the Mine remain viable using electricity delivered by YEC under the terms of the PPA, Macquarie Bank has the option to step in and honour Minto's commitments to YEC until the Mine's financial issues are resolved. If this occurs, (or if Macquarie Bank chooses to sell the Mine to a third party), it is anticipated that Grid Electricity will still be required to operate the Mine. This is so because under any reasonable scenario Grid Electricity will be significantly less costly than the alternative of supplying electricity using diesel generation.

The Direct Agreement also provides an additional layer of protection for YEC. The Direct Agreement provides that if Minto (or an agent of Minto) does not pay the amounts owing under a Minto Power Bill within 30 Business Days of the invoice being rendered YEC may terminate power to the Mine. In these

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<sup>61</sup> Section 5.2 of the PPA provides for equal blended payments of principal and interest on the Mine Spur Capital Cost Contribution for each of the seven years after service to the Mine commences; however, for the first four years after Commencement of Delivery to the Mine, Minto only pays the interest accrued on the Carmacks-Minto Landing Capital Cost Contribution and payment of the principal amount of the Capital Cost Contribution remains outstanding until the fourth annual payment date at which time Minto commences to make equal blended payments of interest and principal on the Carmacks-Minto Landing Capital Cost Contribution such that this amount is fully paid out by the seventh annual payment date. The PPA includes provisions to accelerate and/or delay these payments under certain conditions.

<sup>62</sup> With this level of YTG funding, the Capital Cost Contribution payment risks remain as shown in Appendix B; however, YEC and ratepayer risks for the balance of the CS Project costs are now either fully or almost fully mitigated prior to the start of YEC service to the Mine.

circumstances, any amounts due and owing to YEC under that invoice would become a lienable liability against the Mine property and assets pursuant to the Miner's Lien Act. Under these circumstances these amounts will have priority to the Current Bank Financing. YEC's ability to terminate power supply expeditiously, combined with the available Miner's Lien right, will therefore allow YEC to significantly reduce the risk of the Mine going significantly into arrears for both electricity and loan payments.

It is also important to emphasize that the PPA and the Direct Agreement provide for the Macquarie Bank Financing to be fully paid off after the first few years of the Mine life <sup>63</sup> leaving YEC with a first charge security interest over the Mine and its assets in the case of the default and permanent closure of the Mine.

### **Extensive Due Diligence Undertaken by YEC**

It must be emphasized that YEC would not be contemplating the arrangements detailed in the PPA if the information provided by Minto did not satisfy YEC and its advisors that the Mine was fully capable of meeting its obligations to YEC under the PPA.

YEC retained experienced consultants to undertake extensive legal and financial due diligence with regard to the Mine<sup>64</sup>, Minto and Sherwood Copper. The findings of these consultants are sufficient for YEC to conclude that the due diligence condition outlined in section 3.1 has been satisfied (subject to one minor outstanding issue being negotiated between the parties).<sup>65</sup> Further, the financial institutions that have entered into loan agreements and debentures with Minto have also conducted their own extensive due diligence with regard to the Mine's circumstances, and much of this due diligence was also examined by YEC's advisors. Such institutions would not have advanced loans to Minto if the operations at the Mine were not considered to be a sound investment.

#### **4.1.2 Timing of Ratepayer Benefits**

##### **Use of Mine Net Revenue Account Focuses on Rate Stability**

In contrast to IRs addressing near-term ratepayer risks as reviewed above, a few IRs focused on the operation of the Mine Net Revenue Account and the resulting deferral (or delay) into the future the use of the Mine-related benefits.

In order to provide the intended ratepayer protection, the Mine Net Revenue Account prevents revenue received from the Mine from being used in the near term to lower rates, i.e., that revenue will be removed from YEC earnings and set aside in this account for future ratepayer use. The operation of this

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<sup>63</sup> Minto has committed for this to be fully paid off by November 30, 2009 in the event that the BMO financing removes any call upon the SLF Agreement financing. It is noted that the \$40 million BMO financing recently announced is not conventional secured debt financing, but is a convertible debenture which actually acts to enhance YEC Security by removing a material portion of the Macquarie Current Bank Financing ranking ahead of the YEC Security.

<sup>64</sup> Summarized and reviewed in YUB-YEC-1-29.

<sup>65</sup> For further details on the due diligence undertaken, see Appendix C - section C.5.

account is intended to focus on one of multiple rate setting objectives (rate stability) and, YEC submits, is entirely appropriate and prudent in the Yukon context.

### **This Deferral Account Addresses Yukon Specific Issues**

In response to YUB-YEC-1-15, YEC has submitted that this deferral account provision is a sound and principled method to address basic concerns about Stage One CS/MS Project and related PPA risks, as well as potential rate instabilities that may otherwise be associated with such a project. Accordingly YEC does believe it is in accord with regulatory, COS and rate design principles especially in light of the Yukon context within which this project is being proposed including:

- **Faro mine era of rate instability:** The last era of Faro mine activity in the 1990s was associated with material rate instability for most Yukon ratepayers, i.e., rates jumped up and down depending on the state of mine activity in any year such that ratepayers came to view the mine (which had provided the base for development of the cost effective hydro generation and transmission infrastructure) as having a bad effect on Yukon rates. Neither Minto nor YEC want to see the PPA lead to another similar era of rate instability tied to mining activity; in this regard, rate instability related to near term rate reductions due to positive and material Mine Net Revenues will not be allowed before investment risk outcomes have been sufficiently resolved.
- **Faro experience with mine-related ratepayer risks:** Material concerns emerged in Yukon during the 1990s about the impact of mine-related ratepayer risks relating to bad debts, operating performance, temporary shutdowns and permanent shutdowns. The PPA is founded upon Minto providing a major Capital Cost Contribution that goes well beyond paying for the facilities being built for its sole use or what the ESRs would necessarily require (see response to YUB-YEC-1-7); in addition, Minto is providing a material \$24 million minimum take-or-pay power purchase commitment and other commitments secured by the YEC Security. Minto is providing these key commitments on the condition that a Mine Net Revenue Account is established in order to prevent rate instabilities and to further minimize Mine-related risks to other ratepayers.
- **YEC investment in CS Project development of long term infrastructure:** YEC is utilizing the PPA and sales to the Minto Mine to support investment in Stage One of the CS Project long-term infrastructure development. In order to ensure that future ratepayers are not adversely affected when this Mine closes, the deferral account was provided for in the PPA to ensure that near term ratepayer benefits are retained to offset the balance of undepreciated CS Project capital costs. This specific objective is now likely to be addressed primarily through the YTG's new funding of up to \$10 million for the Stage One CS Project; however, as noted, risks remain regarding the substantive Capital Cost Contribution until it has been fully paid, as well as potential risk related to any cost overruns or other factors that act to reduce Mine Net Revenues.

As noted above, this deferral account addresses many concerns associated with rate instabilities and risk and is not being provided solely as protection against potential future negative earnings related to mine activities. YEC believes that the security provisions in the PPA reflect a strong element of protection for YEC and ratepayer interests well beyond what has been provided in the past by other mines. Nevertheless, YEC is also aware of the risks that remain and the role of the deferral account in helping ratepayers to address many of these risks.

### **Specific Response to Questions Raised About the Mine Net Revenue Account and Rate Stability**

Overall, the evidence as reviewed above demonstrates how the Mine Net Revenue Account is anticipated to prevent any material ratepayer impacts (positive or negative) during most years of the expected Mine life. New YTG funding will mitigate some, but not all, of the ratepayer risks addressed by this deferral account; accordingly, this deferral account remains relevant. To complete this section of the Final Argument YEC would like to refer to several responses to questions raised about this account.

In response to YECL-YEC-1-6(e), which asked if the Mine Net Revenue Account “creates intergenerational inequities between customers who are paying for the system today and those who may benefit in the future”, YEC noted that costs of assets that provide long-term value are assigned to the ratepayers of the day in all utility rate settings, even though in many cases future generations will also benefit. For example, today’s ratepayers in Yukon, BC, Manitoba, etc., are benefiting materially from rates that reflect the investment of past generations in lower cost hydraulic generation assets rather than just diesel or other thermal generation.

In response to YUB-YEC-6, it was acknowledged that without the Mine Net Revenue Account, positive incremental net revenues from the Mine and the Stage One CS/MS Project likely could be used to lower rates initially in the near-term for all rate classes. Yukon ratepayers would thereby receive immediate direct benefits so long as such positive incremental net revenues continued. However, even without consideration of new events or the impact of adverse risks these benefits will steadily diminish over the Mine life causing further rate instability.<sup>66</sup>

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<sup>66</sup> Although the Mine Net Revenue Account does prevent immediate rate decreases it also protects against future rate increases thereafter due to the Project or the Mine. If the Mine Net Revenue Account was not established, the initial rate decreases would need to be followed by ongoing rate increases for all rate classes simply to match steadily shrinking annual net benefits related to the declining hydro surplus. The result might well be seen as ongoing adverse impacts on Yukon ratepayers, both from new rate instability and from rate increases as, and when, they occurred. Attachment C to the PPA Application provides forecasts of annual Mine Net Revenue incremental annual amounts (column 13) starting at \$1.95 to \$2.7 million positive in year 1 of full YEC service and falling to zero or negative \$0.3 million in the final year of Mine operation, i.e., the amount of positive benefits without the Mine Net Revenue Account would fall each year, and would become negative near, or after, the end of the Mine life. At the end of the Mine life, without the Mine Net Revenue Account, all ongoing annual costs still remaining for the CS Project facilities (e.g., such annual charges related to about \$8.5 million in undepreciated capital costs) would also need to be charged to the remaining ratepayers through increased rates.

YEC's response also noted that without the Mine Net Revenue Account any realized risks related to temporary or premature Mine shutdowns or closures, CS capital cost escalations beyond those already assumed, or premature reductions in surplus hydro generation due to other new mine loads or other higher-than-expected WAF load increases, would all have a direct impact on reducing the initial direct benefits suggested by Attachment C or on increasing the ongoing rate increases required from other Yukon ratepayers as such direct benefits are reduced.

In summary, these answers reiterate that the Mine Net Revenue Account is a deferral account that provides rate stability for Yukon ratepayers during the Mine life while ensuring that in the future Yukon ratepayers are eligible to receive any positive net benefits arising from PPA and Stage One CS/MS Project. In any event, with or without the Mine Net Revenue Account, Yukon ratepayers will ultimately receive all of the direct net benefits that arise from these activities.

ALL OF WHICH IS RESPECTFULLY SUBMITTED



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P. John Landry, Counsel for Yukon Energy Corporation

April 4, 2007

**APPENDIX A:  
PEAKING AND BASELOAD DIESEL**

Appendix A  
Peaking and Baseload Diesel (in litres)

Peaking and Baseload Diesel in Litres (re: Tables 20 - 1 and 20 - 2 in response to YESAB-YEC-1-20)																					
WAF Peaking Diesel Efficiency (kW.h/litre)	3,480																				
Pelly Isolated Diesel Efficiency (kW.h/litre)	3,500																				
WAF Baseload Diesel Efficiency (kW.h/litre)	3,900																				
Minto Isolated Diesel Efficiency (kW.h/litre)	3,700																				
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Base Case without Carmacks-Stewart Project (Table 20 - 1)</b>																					
WAF Peaking Diesel (GW.h)	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.0	1.4	1.9	2.4	3.2	4.1	5.1	6.3	7.8	14.0	20.8	27.8
WAF Peaking Diesel (000 litres)	0.0	0.0	6.4	26.2	52.6	83.0	118.6	162.8	220.5	297.3	399.1	531.7	700.3	909.7	1,164.1	1,467.2	1,614.2	133.2	0.0	0.0	0.0
WAF Baseload Diesel (GW.h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	7.3	14.0	20.8	27.8
WAF Baseload Diesel (000 litres)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	185.2	1,871.5	3,589.0	5,338.3	7,120.0
Total WAF Diesel (GW.h)	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.0	1.4	1.9	2.4	3.2	4.1	5.1	6.3	7.8	14.0	20.8	27.8
Total WAF Diesel (000 litres)	0.0	0.0	6.4	26.2	52.6	83.0	118.6	162.8	220.5	297.3	399.1	531.7	700.3	909.7	1,164.1	1,467.2	1,799.5	2,004.8	3,589.0	5,338.3	7,120.0
Pelly Isolated Diesel (GW.h)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Pelly Isolated Diesel (000 litres)	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6	428.6
Total Utility Diesel (GW.h)	1.5	1.5	1.5	1.6	1.7	1.8	1.9	2.1	2.3	2.5	2.9	3.4	3.9	4.7	5.6	6.6	7.8	9.3	15.5	22.3	29.3
Total Utility Diesel (000 litres)	428.6	428.6	435.0	454.8	481.1	511.5	547.1	591.3	649.1	725.9	827.7	960.3	1,128.8	1,338.2	1,592.7	1,895.7	2,228.0	2,433.3	4,017.6	5,766.9	7,548.5
Minto Isolated Diesel (GW.h)	0.0	0.0	12.3	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minto Isolated Diesel (000 litres)	0.0	0.0	3324.3	8783.8	8783.8	8783.8	8783.8	8783.8	8783.8	8783.8	8783.8	8783.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Diesel (GW.h)	1.5	1.5	13.8	34.1	34.2	34.3	34.4	34.6	34.8	35.0	35.4	35.9	3.9	4.7	5.6	6.6	7.8	9.3	15.5	22.3	29.3
Total Diesel (000 litres)	428.6	428.6	3,759.3	9,238.6	9,264.9	9,295.3	9,330.9	9,375.1	9,432.8	9,509.7	9,611.5	9,744.0	1,128.8	1,338.2	1,592.7	1,895.7	2,228.0	2,433.3	4,017.6	5,766.9	7,548.5
<b>Carmacks-Stewart Case: Minto at 32.5 GW.h per year + Pelly at 1.5 GW.h per year (Table 20 - 2)</b>																					
WAF Peaking Diesel (GW.h)	0.0	0.0	0.0	0.6	0.8	1.0	1.3	1.8	2.3	2.9	2.4	0.0	2.5	3.3	4.2	5.3	4.1	0.0	0.0	0.0	0.0
WAF Peaking Diesel (000 litres)	0.0	0.0	6.4	159.4	222.8	294.2	387.1	506.2	656.1	840.8	695.7	0.0	730.8	946.4	1,207.4	1,517.3	1,185.5	0.0	0.0	0.0	0.0
WAF Baseload Diesel (GW.h)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	7.2	0.0	0.0	0.0	0.0	2.4	9.0	15.7	22.5	29.5
WAF Baseload Diesel (000 litres)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	328.7	1,839.4	0.0	0.0	0.0	0.0	618.7	2,305.0	4,022.5	5,771.8	7,553.4
Total WAF Diesel (GW.h)	0.0	0.0	0.0	0.6	0.8	1.0	1.3	1.8	2.3	2.9	3.7	7.2	2.5	3.3	4.2	5.3	6.5	9.0	15.7	22.5	29.5
Total WAF Diesel (000 litres)	0.0	0.0	6.4	159.4	222.8	294.2	387.1	506.2	656.1	840.8	1,024.4	1,839.4	730.8	946.4	1,207.4	1,517.3	1,804.2	2,305.0	4,022.5	5,771.8	7,553.4
Pelly Isolated Diesel (GW.h)	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pelly Isolated Diesel (000 litres)	428.6	428.6	428.6	428.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Utility Diesel (GW.h)	1.5	1.5	1.5	2.1	0.8	1.0	1.3	1.8	2.3	2.9	3.7	7.2	2.5	3.3	4.2	5.3	6.5	9.0	15.7	22.5	29.5
Total Utility Diesel (000 litres)	428.6	428.6	435.0	588.0	222.8	294.2	387.1	506.2	656.1	840.8	1,024.4	1,839.4	730.8	946.4	1,207.4	1,517.3	1,804.2	2,305.0	4,022.5	5,771.8	7,553.4
Minto Isolated Diesel (GW.h)	0.0	0.0	12.3	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minto Isolated Diesel (000 litres)	0.0	0.0	3324.3	5378.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Diesel (GW.h)	1.5	1.5	13.8	22.0	0.8	1.0	1.3	1.8	2.3	2.9	3.7	7.2	2.5	3.3	4.2	5.3	6.5	9.0	15.7	22.5	29.5
Total Diesel (000 litres)	428.6	428.6	3,759.3	5,966.3	222.8	294.2	387.1	506.2	656.1	840.8	1,024.4	1,839.4	730.8	946.4	1,207.4	1,517.3	1,804.2	2,305.0	4,022.5	5,771.8	7,553.4
Notes:																					
1. 2007 Minto Diesel estimated at 50% of first year level of 24.6 GW.h																					
2. 2008 Minto Diesel estimated at 50% of first year level and 50% of full operational level (12.3 GW.h + 16.3 GW.h = 28.6 GW.h)																					
3. 2008 Minto Isolated diesel is only isolated 3/4 of a year before connecting to the grid in Q3 2008 (28.6 GW.h * 75% = 19.9 GW.h)																					
4. 2008 Minto assumes connected to the grid in 3rd quarter 2008 (32.5 GW.h * 25% = 8.1 GW.h)																					
5. Assumes no Aishihik 3rd turbine or new baseload generation																					
6. Isolated means not connected to the grid																					
7. After interconnection and YEC purchase of Minto diesel units, all generation from these units is reported as WAF peaking or WAF baseload																					
8. "Isolated" in this table means not connected to the grid. "Pelly Isolated Diesel" are owned and operated by YECL and are part of Yukon's electricity generation system.																					
Minto Isolated Diesel are owned and operated by Minto Mine and are not part of Yukon's electricity generation system.																					

**APPENDIX B:  
YEC CAPITAL COST RISK OVERVIEW**

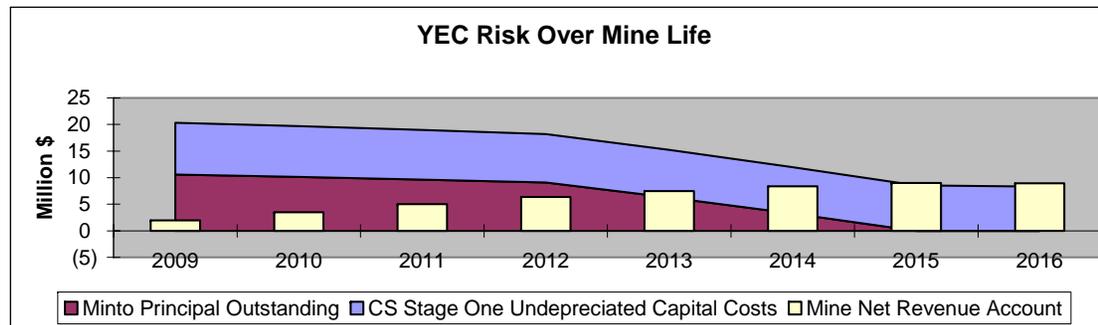
**Appendix B, Table B-1  
YEC Capital Cost Risk Overview (Mid-Point Cost Estimates)**

**YEC Capital Cost Risk Overview - Minto Mine at 32.5 GWh/year (million \$)  
Mid-Point Capital Cost Estimates**

Year End	Minto Capital Cost Contribution		YEC Costs		Mine Net Revenue Account			Risk
	Mine Spur Principal Outstanding	CS \$7.2 million Principal Outstanding	CS Stage One Unde depreciated Capital Costs	Total Capital Costs at risk	Mine Revenues	Mine Net Revenue Attachment C	Mine Net Revenue Account	Net Capital at Risk
	1	2	3	4	5	6	7	8
<b>In-service Cost</b>	<b>3.83</b>	<b>7.2</b>	<b>22.58</b>					
<b>Less Contributions</b>			<b>(12.65)</b>					
<b>Initial Net Cost Risk</b>	<b>3.83</b>	<b>7.20</b>	<b>9.93</b>	<b>20.96</b>				
<b>2009</b>	3.39	7.20	9.73	20.33	3.25	1.95	1.95	18.37
<b>2010</b>	2.93	7.20	9.53	19.66	3.25	1.52	3.47	16.19
<b>2011</b>	2.42	7.20	9.33	18.96	3.25	1.53	5.00	13.96
<b>2012</b>	1.88	7.20	9.14	18.22	3.25	1.35	6.35	11.87
<b>2013</b>	1.30	4.97	8.94	15.21	3.25	1.13	7.48	7.73
<b>2014</b>	0.67	2.58	8.74	11.99	3.25	0.88	8.36	3.63
<b>2015</b>	(0.00)	(0.00)	8.54	8.54	3.25	0.63	8.99	(0.45)
<b>2016</b>	-	-	8.34	8.34	3.25	(0.04)	8.95	(0.61)

Notes: General assumptions per PPA Application, Attachment C, Table C-1 - Minto at 32.5 GWh/year.

1. Table assumes YEC commences delivery Jan 1, 2009, and mine operations cease Dec 31, 2016.
2. Minto Capital Cost Contribution is financed by YEC at 7.5% per year cost of capital as per the PPA. Table shows principal outstanding at year end.  
Table ignores extent to which Diesel Units purchase by YEC offsets Mine Spur principal outstanding (\$2.24 million cost financed on same terms).
3. Net Capital at Risk equals column 4 less column 7.



**Note: The above does not provide for YTG's new funding of up to \$10 million to Stage One CS Project Capital Costs.**

**Table B-2**  
**YEC Capital Cost Risk Overview (High Cost Estimates)**

**YEC Capital Cost Risk Overview - Minto Mine at 32.5 GWh/year (million \$)**  
High Capital Cost Estimates

Year End	Minto Capital Cost Contribution		YEC Costs		Mine Net Revenue Account			Risk
	Mine Spur Principal Outstanding	CS \$7.2 million Principal Outstanding	CS Stage One Unde depreciated Capital Costs	Total Capital Costs at risk	Mine Revenues	Mine Net Revenue Attachment C	Mine Net Revenue Account	Net Capital at Risk
	1	2	3	4	5	6	7	8
<b>In-service Cost</b>	<b>4.6</b>	<b>7.2</b>	<b>25.9</b>					
<b>Less Contributions</b>			<b>(12.65)</b>					
<b>Initial Net Cost Risk</b>	<b>4.6</b>	<b>7.20</b>	<b>13.25</b>	<b>25.05</b>				
<b>2009</b>	4.16	7.20	12.99	24.35	3.25	1.76	1.76	22.58
<b>2010</b>	3.70	7.20	12.72	23.62	3.25	1.21	2.98	20.64
<b>2011</b>	3.19	7.20	12.46	22.85	3.25	1.23	4.20	18.64
<b>2012</b>	2.65	7.20	12.19	22.04	3.25	1.06	5.26	16.78
<b>2013</b>	2.07	4.97	11.93	18.96	3.25	0.84	6.10	12.87
<b>2014</b>	1.44	2.58	11.66	15.68	3.25	0.59	6.69	8.99
<b>2015</b>	0.77	(0.00)	11.40	12.16	3.25	0.35	7.04	5.12
<b>2016</b>	-	-	11.13	11.13	3.25	(0.31)	6.73	4.40

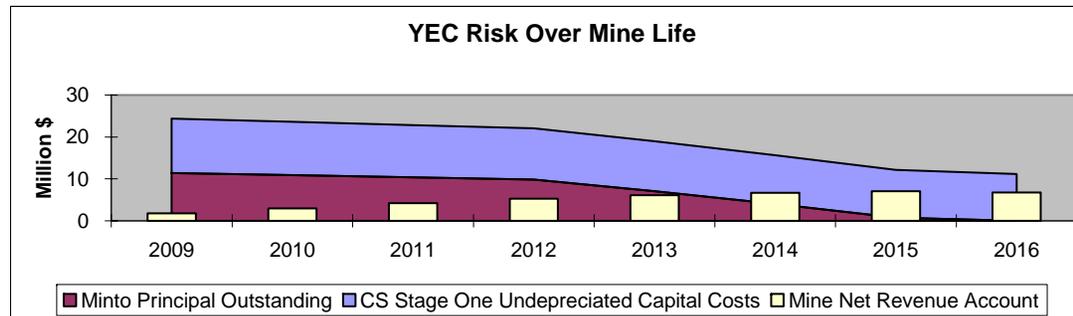
Notes: General assumptions per PPA Application, Attachment C, Table C-1 - Minto at 32.5 GWh/year.

1. Table assumes YEC commences delivery Jan 1, 2009, and mine operations cease Dec 31, 2016.

2. Minto Capital Cost Contribution is financed by YEC at 7.5% per year cost of capital as per the PPA. Table shows principal outstanding at year end.

Table ignores extent to which Diesel Units purchase by YEC offsets Mine Spur principal outstanding (\$2.24 million cost financed on same terms).

3. Net Capital at Risk equals column 4 less column 7.



**Note: The above does not provide for YTG's new funding of up to \$10 million to Stage One CS Project Capital Costs.**

**APPENDIX C:  
ISSUES RAISED REGARDING SPECIFIC  
RATEPAYER PROTECTION MEASURES**

**APPENDIX C:  
ISSUES RAISED REGARDING SPECIFIC RATEPAYER PROTECTION MEASURES**

In addition to general issues regarding overall ratepayer benefits and risks, many IRs raised more detailed issues in relation to specific ratepayer protection measures outlined above. Although these matters in some instances are addressed already in this Final Argument (section 4), Appendix C attempts to deal with some of the more detailed issues.

**C.1 Capital Cost Contribution**

During the interrogatory process the following concerns were raised:

- What principles were used to determine the Capital Cost Contribution amounts, and whether these principles complied with principles set out in the ESR's,<sup>67</sup>
- Whether the \$7.2 million CS Project contribution could be amended if the Capital Costs for that line were greater than anticipated,
- The applicability of the above-noted principles/processes for determining capital cost contributions to other industrial customers in the future,<sup>68</sup> and
- Concerns also touched upon the timing of the contribution and the rationale for why Minto did not provide any up-front costs for the Mine Spur Capital Costs or the CS Project Capital Cost Payments.<sup>69</sup>

As described in YUB-YEC-1-17 and as noted earlier in the argument, Minto was unable to provide one-time upfront capital payments through conventional debt markets<sup>70</sup>; thus, YEC and Minto together developed an approach within the PPA that accommodated Minto's limited ability to obtain upfront financing for the development of transmission infrastructure, while facilitating capital investment in long-term YEC transmission infrastructure that would provide benefits to all of YEC's customers into the future. The PPA includes measures that provide for Minto's investment in YEC infrastructure to materially exceed the cost incurred to serve that particular customer, while YEC's upfront risks due to investment in the Mine Spur and CS Project will be addressed and mitigated through the Minimum Take-or-Pay Amount obligation, the YEC Security and the Mine Net Revenue Account. As thoroughly reviewed in YUB-YEC-1-7, the Capital Cost Contribution for the Mine Spur includes all actual YEC Capital Costs (which exceeds requirement set out in the ESRs), while the CS Project contribution is defined as a fixed sum of \$7.2 million<sup>71</sup>.

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<sup>67</sup> YUB-YEC-1-7; YECL-YEC-1-3

<sup>68</sup> YUB-YEC-1-7; YECL-YEC-1-3; YECL-YEC-1-4 for approach taken with regard to the particular circumstances of Minto Mine/ Duck Pond example; YECL-YEC-1-5 for discussion of why certain government programs/ methods were not utilized.

<sup>69</sup> The method of payment is set out in section 5.2 of the PPA and a discussion of this issue is detailed in UCG-YEC-1-23(b); YUB-YEC-1-34 provides the rationale for this approach.

<sup>70</sup> See YUB-YEC-1-34 and YECL-YEC-1-4.

<sup>71</sup> PWP-YEC-1-12 sets out how the \$7.2 million figure was arrived at. UCG-YEC-1-23(a) confirms there is no adjustment mechanism for 7.5% the Cost of Capital figure to be utilized and this amount was considered more than adequate to protect ratepayer interests.

As reviewed in YUB-YEC-1-7, the ESRs provide that when only one customer is to be served by specific transmission facilities, that one customer must pay a minimum amount towards the full actual cost of the facilities so required to the extent that the present value of annual costs is expected to exceed annual rate payments over the expected life of the service. In this instance, as reviewed in the same IR, Minto in effect has committed to pay more than the minimum ESR requirements.

Further, based on the principle of charging such costs to Minto based on it being the only user of the facilities, Minto would at most be responsible only for the actual costs of those parts of the Mine Spur developed solely to meet the needs of the Mine. This would not include those parts of the Mine Spur located on the east side of the Yukon River that may also serve the locality of Minto Landing, or the 138 kV CS Line that would remain long after the Mine closed and that would be maintained as long term infrastructure in order to meet the needs of Yukon ratepayers. While the negotiated PPA does not provide up front Minto financing for the Mine Spur, Minto has agreed to pay the full cost of the Mine Spur (not just the cost of those aspects of the spur that solely serve Minto's needs and that will be decommissioned after the Mine shuts down operations) and Minto has agreed to pay \$7.2 million towards the Stage One CS Project that will also provide long-term service to other Yukon ratepayers.

The principles and rationale underlying the CS Project Capital Cost Contribution are also clarified in YUB-YEC-1-7, which amongst other things notes that the development of this infrastructure works to the general benefit of all Yukon ratepayers.

- During the negotiation process it was determined that due to the anticipated cost savings to Minto, due to the provision of Grid Electricity provided by the Transmission Project, Minto could afford to pay the mid-point capital costs (at 35 kV) (\$7.2 million) that would otherwise be required in order to connect the Mine to the grid.
- Thus, based on the overall benefits to ratepayers that would be provided from the CS Project facilities and on the specific benefits that would accrue to Minto due to the provision of Grid Electricity from the Project, YEC has based the CS Project contribution on the premise of securing the "maximum reasonable customer capital contribution" towards the CS Project facilities' capital costs, based on the notional portion of the Stage One CS Project otherwise required by the Mine to secure grid service. This was based on reasonable costs estimated for the line segment and voltage level that the Mine would otherwise require to receive Grid Electricity without the CS Project as currently planned at 138 kV.
- As a condition of paying towards the capital costs of the CS Project, the \$7.2 million contribution is a fixed amount and is not subject to further adjustment.<sup>72</sup>

In a motion subsequent to the interrogatory process, an intervenor (Peter Percival) alleged that the preliminary cost estimates provided by YEC were not sufficiently detailed for the Board review. In a letter dated March 20, 2007, YEC reiterated its response to PWP-YEC-1-9 and 1-10 noting the following: (1)

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<sup>72</sup> The response to YUB-YEC-1-9 confirms that the Capital Cost Contribution for Stage One of the CS Project will not be increased and the contribution by Minto will not be recalculated. Section 5.7 of the PPA sets out that New YEC Industrial Customers as defined under the PPA will be required to pay capital cost contributions towards their fair share of the CS Project and spur lines "based on the segment and voltage level of a transmission line that each New YEC Industrial Customer would require to receive Electricity in the absence of the Transmission Project or the CS Project."

YEC has provided the cost estimates available at this time,<sup>73</sup> and (2) preliminary detailed cost estimates will be available when the engineering consultant<sup>74</sup> has completed the first phase of planned engineering work in May 2007. More definitive cost estimates cannot be provided before the initial engineering phase of work has been completed. However, as noted in the March 20, 2007 letter to the YUB: "The PPA protects YEC fully against being required to proceed with the Transmission Project in the event that final costs or schedule would render the project not feasible, in YEC's judgment at any time up to when final approvals and costs are available."

## **C.2 Minimum Take-or-Pay Commitment**

During the interrogatory process questions on the minimum take or pay arrangements addressed how this commitment would operate<sup>75</sup> and what guarantees existed in the PPA to ensure that the take-or-pay contract would be fulfilled<sup>76</sup>. Concern was also raised about provisions in the PPA (section 3.5 and 6.3 of the PPA) that would operate to reduce the Minimum Take-or-Pay Amount and remove the YEC Security with regard to the take or pay provisions<sup>77</sup>.

Section 6.2 of the PPA requires Minto to provide YEC with power purchase payments of at least \$24 million within the first eight years after Commencement of Delivery (subject to some noted exceptions under section 3.5 and 6.3 of the PPA), regardless of the amount of Grid Electricity provided by YEC or consumed by Minto. This commitment to pay at least an average \$3 million per year during the first eight years of service (in addition to the Capital Cost Contribution) provides material near-term revenues from sales of surplus hydro which, in combination with the Mine Net Revenue Account, are expected to enable YEC to recover the full expected costs of the Stage One CS Project over the life of the Mine even without any new government funding.<sup>78</sup>

For more detail on the how the minimum take-or-pay obligation would work under various scenarios see the following:

- Minimum take-or-pay payment obligations (see UCG-YEC-1-1(4), UCG-YEC-1-2(2), UCG-YEC-1-14, UCG-YEC-1-23(e))
- Temporary Shutdowns UCG-YEC-1-23(e)
- Reduced Commitment under PPA section 6.3 and 3.5<sup>79</sup> (see YUB-YEC-1-16 and UCG-YEC-12-9(b))

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<sup>73</sup> It is noted in the March 20, 2007 letter to the YUB that preliminary engineering and related cost estimates have yet to be prepared; however, the basis for YEC's current cost estimates were reviewed during the Resource Plan Hearing in Exhibit B-16, at page 10.

<sup>74</sup> YEC hired Wardrop Engineering as the engineering consultants in mid March.

<sup>75</sup> See UCG-YEC-1-2, 1-3,-1-8, 1-18.

<sup>76</sup> See UCG-YEC-1-8, 1-23(e).

<sup>77</sup> See YUB-YEC-1-16; UCG-YEC-2-9(b); UCG-YEC-2-30.

<sup>78</sup> See YUB-YEC-1-34

<sup>79</sup> Sections 6.3 and 3.5 of the PPA detail the circumstances under which the take-or-pay commitment by Minto may be reduced. Under section 6.3, if Grid Electricity is not available for more than 120 hours in any Payment year, the commitment will be reduced by \$342 for each hour in excess of the 12-hour threshold; or if the Commencement of Delivery occurs after September 30, 2009 the commitment will be reduced by \$250,000 for each month that Commencement of Delivery is delayed beyond September 30, 2009.

### **C.3 YEC Security**

Under section 6.5 of the PPA Minto has provided YEC with a charge over all Minto's assets second only to the Current Bank Financing. Section 6.5 (f) of the PPA provides that the YEC Security will be discharged only when the Capital Cost Contribution and accrued interest under Section 5.2 (a) and (b), the Decommissioning Cost Payments as required under Section 11.2 (b) and the Minimum Take-or-Pay Amount obligations under section 6.2 have been paid in full.

The points noted below address specific issues that were raised concerning YEC's security.

The BMO debenture financing operates to reduce the total amount of Current Bank Financing as indicated in UCG-YEC-1-16. It is noted in YUB-YEC-1-34<sup>80</sup> that this financing enhances the YEC Security as it removes a material portion (\$20 million with the later repayment date) of the Macquarie Current Bank Financing that ranks ahead of the YEC Security. Further, the BMO financing operates to enhance the overall viability of the Minto Mine as it enhances the Mine's ability to process ore as currently planned and also facilitates processing of Additional Reserves. This financing provides a further demonstration to YEC of the confidence that major financial institutions hold with regard to the viability of this project following their own due diligence reviews of the Mine.

Sherwood intends to use the BMO financing to remove any need for the \$20 million subordinated debt facility announced on October 17, 2006, reducing the level of bank debt ahead of YEC's claims. It is noted in YUB-YEC-1-34 that the 5% interest paid under the unsecured BMO financing is materially below the 7.5% cost of capital charged by YEC to Minto under the Capital Cost Contribution financing.

It should be also noted that YEC also has security with the Diesel Units in the event the Mine closes prematurely. The purchase payments for the Diesel Units enhance YEC's security with regard to the Minto obligations to pay the Mine Spur Capital Cost Contributions.

### **C.4 Decommissioning Costs**

The PPA requires approval of provisions respecting Decommissioning Costs as set out in Part 11 of the PPA. Minto will be responsible for all Decommissioning Costs incurred by YEC for the Mine Spur and the YEC Security will act as continuing security to ensure the payment of the Decommissioning Cost Payment under section 6.5 (e) of the PPA.

There were few questions regarding the decommissioning provisions of the PPA.

YECL-YEC-1-19 queried how the costs were derived, PWP-YEC-1-13 and UCG-YEC-1-9 queried how Decommissioning Costs would be recovered in circumstances of default.

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<sup>80</sup> See YUB-YEC-1-34, Footnote 1.

As provided in part 5.1.5 of the PPA Application, and in PWP-YEC-1-13 and UCG-YEC-1-9 (4), estimated decommissioning costs are to be provided for out of the Accrued Decommissioning Fund which will set aside an amount equal to 25% of the actual capital costs of the Mine Spur. The Accrued Decommissioning Fund will invest the decommissioning cost payment of \$850,000 at 6.5% per annum such that it will cover the costs of decommissioning the full Mine Spur. This decommissioning cost payment amount will be adjusted under section 11.2 (c) to reflect the actual Minto Spur Capital Costs. It is intended that within three years after this payment the invested Accrued Decommissioning Fund will equal the estimated decommissioning costs.

The ultimate aim of the decommissioning provisions under Section 11 of the PPA is to ensure that Minto pays all costs required to decommission the full Mine Spur and that at the time of decommissioning these costs have accrued in a fund and are available to pay the total cost of decommissioning after the Mine shuts down and YEC commences decommissioning activities. As noted in UCG-YEC-1-9 (4), the YEC Security provisions under section 6.5 of the PPA cover the decommissioning cost payment and the YEC Security cannot be discharged until that payment has been paid in full pursuant to section 11.2(b) of the PPA. See PWP-YEC-1-13, for a discussion regarding assurances that there should be no need to seek recovery of any excess costs at the time when actual decommissioning occurs.

### **C.5 Due Diligence**

The due diligence review of the Minto Mine has been reviewed in Section 4.1 of the Final Argument.

In order to conduct its comprehensive due diligence, YEC required access to Minto's confidential commercial information; YEC was only able to obtain access to such information after entering into confidentiality agreements with Minto under which YEC and its advisors agreed not to disclose any confidential information.<sup>81</sup>

In response to a UCG motion urging the Board to order YEC to provide this confidential information, YEC has noted the extensive amount of information regarding the PPA already made available to the Board and to other parties to this proceeding: YEC has made the entire Power Purchase Agreement public, the entire record available for review by the Board is also available for review and comment by other parties to the proceeding, and YEC has also made a detailed summary of the nature of the confidential documents and the information contained therein available in YUB-YEC-1-29 (to the extent permitted by the confidentiality agreement signed by YEC).

YUB-YEC-1-29 thus thoroughly outlines the approach taken to due diligence on the part of YEC and its advisors and the anticipated conclusions at this time. The due diligence focussed on legal, technical and financial issues that were of concern to YEC with regard to Minto's ability to fulfill its obligations under the PPA and its ability to make payments regarding the Mine Spur Capital Cost Contribution, the CS Capital

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<sup>81</sup> In UCG-YEC-2-24, 3-20 and 3-21, UCG requested that these confidential documents or due diligence reports be provided to the board and intervenors and has since filed a motion to the Board stating that YEC's response is insufficient and that these documents should be provided to all parties to this proceeding; YEC responded in a letter to the Board dated March 13, 2007 and a letter of reply to UCG's motion dated March 19, 2007.

Cost Contribution, the minimum take-or-pay and decommissioning cost payments in the context of its other financial obligations incurred under the Macquarie Financing, MRI Agreement and unsecured financial debentures. Based on currently available information, Davis identified no issues that would impact on Minto's ability to fulfill its obligations under the PPA.

Behre Dolbear reviewed the economic viability of the project, and in its expert opinion, has concluded that after consideration of issues relating to possible delay, cost overruns and other issues identified in the confidential information, the Mine continues to show positive (after tax) cash flow over its life which is adequate to the task of securing all debt obligations including those due to YEC under the PPA while also generating returns for its shareholders.<sup>82</sup>

### **C.6 PPA Application to Other Industrial Customers**

The PPA with Minto will provide a guide for future arrangements with other industrial customers including such components as Capital Cost Contributions and the Firm Mine Rate. Section 5.7 of the PPA provides that New YEC Industrial Customers, as defined in the PPA, will be required by YEC to pay a Capital Cost Contribution for their appropriate share of Capital Costs of the CS Project and any spur lines.

YUB-YEC-1-7 discusses how this contribution amount was arrived at for Minto. Capital Cost Contributions will be required for future mines to pay their appropriate share of the Capital Costs of the CS Project and any spur lines.

The Firm Mine Rate set for Minto for 2008 will be subject to change by the YUB in the future to recover COS for the Major Industrial Customer class when and if it evolves to include other mine customers as described in UCG-YEC-1-11(2) and (3).

Not all areas of the Minto contract will be replicated with future industrial customers. For example, in YECL-YEC-1-3 (g) YEC explains that the financing agreement with Minto in the PPA will not automatically be agreed to for future industrial customers as each situation is different.

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<sup>82</sup> Assuming no further forward sales contracts are negotiated, the sale of all concentrate is subject to commodity risk after April 11, 2011, when the forward sales contract expires; however, a conservative long-term annual price of copper is expected to be in the order of US\$1.20-\$1.30/lb. The financial consultants concluded that "based on these prices and assuming the debt to Macquarie is paid as required under their present financing, the projected cash flows post 2010 are adequate to serve Minto operating expenses and debt obligations including Minto debt obligation under the PPA."