

**IN THE MATTER OF YUKON  
ENERGY CORPORATION  
("YEC") APPLICATION RE:  
THE POWER PURCHASE  
AGREEMENT BETWEEN YEC  
AND VICTORIA GOLD CORP.  
AND STRATAGOLD  
CORPORATION  
(COLLECTIVELY "VGC  
GROUP")**

**FINAL ARGUMENT**

**YUKON ENERGY CORPORATION**

December 22, 2017

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**YUKON ENERGY CORPORATION (“YEC”) APPLICATION REGARDING  
THE POWER PURCHASE AGREEMENT (“PPA”) BETWEEN YEC AND  
VICTORIA GOLD CORP. AND STRATAGOLD CORPORATION  
(COLLECTIVELY “VGC GROUP”)**

**YUKON ENERGY CORPORATION FINAL ARGUMENT**

**PREFACE**

**OVERVIEW OF APPLICATION**

Yukon Energy (“YEC”) filed an application (the “Application”) on November 10, 2017 seeking an Order from the Yukon Utilities Board (“YUB” or “the Board”) for requested approvals related to the implementation of the Power Purchase Agreement (“PPA”) that Yukon Energy has recently concluded with Victoria Gold Corp (“VGC”) and StrataGold Corporation (“StrataGold”) (collectively “VGC Group”). The PPA was provided as an Attachment A to the Application (capitalized terms in this Argument that are related to the PPA are as defined in the PPA).

Order 2017-10 directed the Application to be of limited scope and determined by way of a written proceeding with one round of interrogatories and written argument and reply. John Maissan (JM) and Utilities Consumers’ Group (UCG) are both participating as intervenors in this limited scope review process, and provided IRs to Yukon Energy on November 28, 2017 which were responded to on December 11, 2017.

As noted in YEC’s December 11, 2017 letter filed with the IR responses, the response to YUB-YEC-1-28 provided an update to information included in Section 6.0 of the Application (including a revised Table 3 and revised text in Section 6.2).

**SUMMARY OF REQUESTED APPROVALS**

In relation to the VGC Group PPA, Yukon Energy is requesting an Order of the Board approving:

1. The customer contribution payments by VGC Group to YEC under Section 6.1 of the PPA for YEC Capital Costs, including payments for:
  - Actual YEC Capital Costs for negotiation and conclusion of the PPA Agreement, estimated at \$200,000;
  - Actual YEC Capital Costs for the Initial YEC System Improvements, currently estimated at \$1,677,883;

- Actual YEC Owner's Costs for the McQuesten Substation, currently estimated at \$483,240; and
  - Actual YEC costs reasonably required for design, engineering, procurement, construction and commissioning of the Step Down Transformer at the McQuesten Substation, should one be determined to be required.
2. The Fixed Charge provisions as set out in Section 7.7 of the PPA, including:
- a. The initial Transmission Facilities Fixed Cost of \$118,621 per year, as documented in Attachment B to this Application, for use in determining the Fixed Charge under Section 7.7; and
  - b. Provisions to amend the Transmission Facilities Fixed Cost after the Transmission Facilities Development Operation Date based on YEC's adjusted annual costs as approved by the Board for depreciation and return on rate base related to the Transmission Facilities (which includes the Transmission Facilities Development) plus the SVC/Statcom and YEC's McQuesten Substation Costs (\$930,563 as per Section 6.1(d) and Schedule B of the PPA).<sup>1</sup>
3. Any related amendments to the Rate Schedule 39 Firm Mine Rate as required to conform with Attachment A to the PPA and to accommodate the PPA.

Yukon Energy's Application and interrogatory responses fully address and support the reasonableness and necessity of the requested approvals.

## **OVERVIEW OF YUKON ENERGY FINAL ARGUMENT**

Yukon Energy's Final Argument is divided into the following sections:

- Limited Scope of PPA Application – Consistency with Existing Approved PPAs;
- Differences Compared with Alexco PPA;
- Principled basis for Requested Approvals;
- Ratepayer Impacts; and
- Consistency with OIC Requirements.

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<sup>1</sup> The YEC McQuesten Substation Costs will be held in WIP and will accrue AFUDC until the Transmission Facilities Operation Date. Under the PPA provisions, these costs will then be included in the Transmission Facilities Fixed Cost per year, with 85% of the annual cost included in the Fixed Charge (or shared between VGC Group and any Other Industrial Customers).

## **1.0 LIMITED SCOPE OF PPA APPLICATION – CONSISTENCY WITH EXISTING APPROVED PPAS**

The VGC Group PPA provisions are generally consistent with existing PPAs approved by the Board between YEC and Minto Explorations Ltd and between YEC and Alexco. As is the case with the VGC Group PPA, the Alexco PPA included multiple industrial customer entities (namely: Alexco Keno Hill Mining Corp., ELSA Reclamation & Development Company, and Alexco Resource Corp.).<sup>2</sup>

YEC's response to UCG-YEC-1-18(f) describes key similarities and differences between the Minto, Alexco and VGC Group PPAs. This IR also highlights the areas of risk included in the Minto PPA that required complex loan and security and take-or-pay arrangements that were not required or included in the Alexco PPA.<sup>3</sup> With regard to the Alexco PPA and VGC Group PPA, there is no comparable new bulk transmission required to be developed solely for these customers, no loan provisions, and YEC is not required to purchase any on-site diesel units.

As noted in response to UCG-YEC-1-18(f), the Minto PPA as finally approved by the YUB was used as the template for the Alexco PPA; however, the Alexco PPA was considerably simplified compared to the Minto PPA due to different circumstances surrounding the negotiation of the respective agreements and provisions of service to each of the mines. The VGC Group PPA is based on the simplified approach used for the Alexco PPA, with modifications to address issues specific to the connection of the VGC Group mine and available Transmission Facilities Development options.

The VGC Group Mine will receive Grid Electricity from a segment of the same Yukon Energy transmission facilities used to supply Alexco pursuant to the Alexco PPA, i.e., the existing Mayo-Keno City 69 kV transmission facilities. Consistency of the VGC Group PPA with the approved Alexco PPA was therefore sought and achieved, including consistency on the following key provisions:

- 1. Rates applied to Industrial Customer (including Fixed Charge related to 85% of fixed annual YEC costs for the Mayo-Keno Transmission Facilities) –** Consistent application to the Industrial Customer of Rate Schedule 39 as approved by the Board from time to time, including a Fixed Charge specific to each Mine and based on the same principles as approved by the Board for the Alexco PPA, i.e., 85% of YEC fixed costs for the defined Transmission Facilities (in this case, for the segment from Mayo to McQuesten) with provision for adjustment and sharing of the Fixed Charge (as approved

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<sup>2</sup> See YUB-YEC-1-1 for clarification of VGC Group entities and directors.

<sup>3</sup> The Minto PPA included more complex arrangements based largely on the fact that Yukon Energy was, under the Minto PPA, loaning Minto the funds to provide capital contributions to the CSTP Stage 1 Line and Minto Spur line, and Minto was to repay these funds over a 7 year period. YEC was also incurring, under the Minto PPA, potential net costs for CSTP Stage 1 development, and sought security and minimum annual payments (take or pay provision) to offset risks related to such costs.

by the Board) when more than one Industrial Customer is using these facilities. YEC's Alexco PPA Application specifically addressed the limitation of the Fixed Charge to the established Mayo-Keno line, noting that Minto PPA provisions for a new industrial customer contributing to Carmacks Stewart Transmission Project (CSTP) capital costs would not apply to Alexco.

2. **Customer Contributions for Capital Costs to Connect** - Consistent commitment by the Industrial Customer to pay on an equivalent basis for all capital costs required to connect to the YEC grid, including commitment to pay for:
  - a. YEC's capital costs for any new substation or mine facilities spur facilities developed solely to connect the new Industrial Customer (in VGC Group PPA, as reviewed below, the VGC Group is directly undertaking the required works); and
  - b. YEC's costs to negotiate and conclude the PPA.
3. **No Take or Pay Provisions** – Consistent exclusion from the Alexco and VGC Group PPAs of any take or pay provisions similar to those included in the Minto PPA. As reviewed in response to YUB-YEC-1-26(a and b) and UCG-YEC-1-18(e), take or pay provisions are not required or appropriate when the Industrial Customer pays up front for all YEC transmission and substation capital costs required for the customer to connect to the grid.
4. **No Fixed Charge or other Cost Assignment related to Incremental Generation Costs** – Consistent exclusion from the Alexco and VGC Group PPAs (as well as from the Minto PPA) of any fixed charge or other cost assignment related to incremental generation costs.

As reviewed in response to YUB-YEC-1-20(e), there is no principled basis to include a portion of YEC's fixed generation costs in the fixed charge applied to an industrial customer.

As reviewed in response to UCG-YEC-1-17(a and b), within the current regulatory compact it would be considered unfair, inequitable and rate discrimination to make an individual customer or class of customers who receive comparable electrical service pay rates for thermal generation that were designed based on fundamentally different methodologies, e.g., incremental costs versus average costs, new versus old service.

## **2.0 DIFFERENCES COMPARED WITH ALEXCO PPA**

Differences in the VGC Group PPA compared with the Alexco PPA reflect issues specific to the connection of the VGC Group mine and available Transmission Facilities Development options. These differences do not modify fundamental principles adopted in the Alexco PPA.

Aside from specific Conditions Precedent set out in the VGC Group PPA to address steps for final implementation, the differences for the VGC Group PPA compared with the Alexco PPA include the following:

1. **Mine Facilities Spur** – VGC Group (rather than YEC) will build and own the Mine Facilities Spur, with the result that the two PPAs differ as regards this element.<sup>4</sup>
2. **Decommissioning Provisions** – The VGC Group PPA does not include any of the decommissioning provisions that are included in the Alexco PPA and the Minto PPA. Such provisions are relevant in a PPA only when YEC builds and owns facilities (e.g., a mine facilities spur) that will need to be decommissioned when the Industrial Customer no longer receives service. In the case of the VGC Group PPA, there are no such facilities (i.e., YEC will not own the Mine Facilities Spur, and YEC does not plan to decommission the McQuesten Substation when the VGC Group no longer needs service), and therefore there is no need for any decommissioning provisions.
3. **Added Provisions and Other Differences in VGC Group PPA** – The VGC Group PPA includes added provisions not found in the Alexco PPA and other differences to address issues specific to the connection of the VGC Group Mine as well as Transmission Facilities Development options relevant to the current PPA. These added provisions and other differences include the following:
  - a. **McQuesten Substation** – As per Schedule B of the PPA and in order to meet VGC Group’s proposed timing, the VGC Group PPA provides for this facility to be funded and developed by VGC Group with a provision for YEC funding of costs to enable 138 kV capability (YEC McQuesten Substation Costs), and with provision to transfer to YEC ownership and operation of the facility.<sup>5</sup> The PPA also provides for VGC Group to fund YEC costs for a Step Down Transformer if and when required by VGC Group at the McQuesten Substation, and for YEC McQuesten Substation Costs to be included in the Transmission Facilities Fixed Cost after the Transmission Facilities Development Operation Date.

The McQuesten Substation was included in the Stewart Keno City Transmission Project (“SKTP”) as reviewed and recommended by YESAB as part of the proposed grid development to replace existing end of life transmission (Mayo-Keno) and to secure added ability to supply or move power loads.<sup>6</sup> In this context, the VGC Group PPA is facilitating accelerated development of a facility that was being planned in any event for this portion of the grid.

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<sup>4</sup> Response to YUB-YEC-1-2 confirms that VGC Group will be responsible for all future maintenance activities and costs related to the Mine Facilities Spur.

<sup>5</sup> See Schedule B of the PPA. Details reviewed in IR responses include: YUB-YEC-1-27 and JM-YEC-1-2 re: ATCO Power Canada Limited role; YUB-YEC-1-5(a), YUB-YEC-1-13(a-b), YUB-YEC-1-16, YUB-YEC-1-17(c), UCG-YEC-1-9, UCG-YEC-1-23 re: McQuesten Substation capital costs, the rationale for YEC funding and recovering through rates specific costs related to 138 kV capability, and other related matters.

<sup>6</sup> See response to YUB-YEC-1-12(b,c,d) and YUB-YEC-1-5(a,b,c,d).

- b. **Initial YEC System Improvements, VGC Group Power Facilities, and Operating Agreement** - VGC Group is funding YEC capital costs prior to Commencement of Delivery for initial YEC system improvements to accommodate the sale of Grid Electricity by YEC to VGC Group for the Mine<sup>7</sup>. The PPA includes other provisions to be in place prior to Commencement of Delivery related to VGC Group Power Facilities (Schedule D) and an Operating Agreement (Schedule E). Collectively, these PPA elements reflect provisions to accommodate the magnitude of the VGC load and its location at the northern end of the existing grid.
- c. **Transmission Facilities Development Options** - The VGC Group PPA provides for connection of a relatively large Industrial Customer load to an existing end of life transmission facility that is serving the Keno region, i.e., the existing 69 kV line between Mayo and McQuesten.<sup>8</sup>
- i. As reviewed in Section 4.3 of the PPA Application, a new line from Mayo to Keno City is required to replace the end of life existing 69 kV line constructed in the 1950s. With or without the VGC Group Mine, this existing line needs to be replaced.
  - ii. The SKTP proposal as reviewed and recommended by YESAB addressed the requirement to replace existing end of life transmission (Mayo-Keno) and to secure added ability to supply or move power loads in this region; it included a new 138 kV transmission from Stewart Crossing to Keno City, with the McQuesten Substation and operation at 138 kV from Stewart Crossing to McQuesten and at 69 kV from McQuesten to Keno City.

As a result, Section 4.5 of the VGC Group PPA includes provision for YEC to proceed on or before October 1, 2018 with one of two identified Transmission Facilities Development options<sup>9</sup> (under both options, the existing 69 kV line between Stewart Crossing and Mayo would remain, and at a minimum the existing Mayo-McQuesten 69 kV segment would be replaced):

- iii. Default option - Provide a new 138 kV line between Mayo and McQuesten Substation, to be operated at 69 kV;<sup>10</sup> or
- iv. Full SKTP development option – Subject to securing external funding as needed, a new 138 kV line from Stewart Crossing to Keno City, operated

<sup>7</sup> See Schedule C of the PPA. Details were reviewed in response to UCG-YEC-1-22.

<sup>8</sup> See response to YUB-YEC-1-4; YUB-YEC-1-12(b,c,d); and YUB-YEC-1-5(a,b,c,d).

<sup>9</sup> Costs for the two options reviewed in YUB-YEC-1-14. See YUB-YEC-1-13(c,d) for clarifications.

<sup>10</sup> See YUB-YEC-1-6(a,b,c) re: minimal impact on line losses of operating 138kV line at 69kV, and YUB-YEC-1-5(c) re: ability of the default option to supply the VGC Group and Alexco loads. For added review of the default option, see YUB-YEC-1-17(a-c) and YUB-YEC-1-12(h) re: default option required to address current requirements.

at 138 kV between Stewart Crossing and McQuesten Substation and at 69 kV between McQuesten Substation and Keno City.<sup>11</sup>

The VGC Group PPA recognizes that any Transmission Facilities Development (as defined in the PPA) will be implemented as part of planned and required overall grid development, rather than solely for the benefit of the VGC Group Mine.

- d. **More detailed provisions related to the Fixed Charge** – The VGC Group PPA includes more detailed provisions related to Fixed Charge adjustments in order to accommodate planned Transmission Facilities Development options as well as other conditions noted in the PPA, e.g., recovery of SVC/Statcom costs and YEC McQuesten Substation Costs. As with the Alexco PPA, the VGC Group PPA provides for sharing of the Fixed Charge when there is potential concurrent use of Transmission Facilities by VGC Group and Other Industrial Customers (including Alexco); however, the VGC Group PPA is more specific as to the basis for such sharing, i.e., based on calendar year energy use.
- e. **Other Notable Differences** – Other notable differences between the VGC Group PPA and the Alexco PPA include:
  - i. Meters – The VGC Group PPA addresses only one mine site and therefore does not include the Alexco PPA totalized metering provisions.<sup>12</sup>
  - ii. Load Power Factor of 96% leading – Section 5.1 of the VGC Group PPA includes a load Power Factor requirement of 96% leading.<sup>13</sup>

### **3.0 PRINCIPLED BASIS FOR REQUESTED APPROVALS**

As reviewed in Section 4.2 of the PPA Application, extension of electric power service to new customers seeking to connect to the Yukon Integrated System (YIS) is governed by Terms and Conditions of Service approved by the YUB for Yukon Energy and ATCO Electric Yukon (AEY). Maximum Utility Investment Levels (MILs) for connecting new residential, commercial and industrial customers were last reviewed in the joint Yukon Energy and Yukon Electrical 2009 Rate Application and approved in Order 2011-05.

The current industrial MIL policy for Yukon, as approved by the YUB, focuses on the following:

- Maximizing potential industrial customer investment to new transmission facilities developed to extend service to them; and

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<sup>11</sup> For details on full SKTP option (including final recommended approval from YESAB and Government of Yukon acceptance of the recommendation), see YUB-YEC-1-10(a,b,c), YUB-YEC-1-11(a,b,c,d), YUB-YEC-1-12(e-h), YUB-YEC-1-13(c,d).

<sup>12</sup> See JM-YEC-1-11 and UCG-YEC-1-24 for review of Section 8.1 of the VGC Group PPA regarding meter provisions.

<sup>13</sup> See YUB-YEC-1-18 for a review of this requirement and the reason for its inclusion.

- Retaining direct assignment of annual capital-related transmission costs for existing facilities, where appropriate, based on past practice in Yukon.

This policy reduces the risk of adverse ratepayer cost impacts to other utility ratepayers for new capital costs needed to connect a new major industrial customer, while facilitating enhanced transmission facility development where this is feasible to reduce costs for major new industrial loads. Section 5.7 of the PPA provides that the Terms and Conditions of Service apply to the Parties with regard to Grid Electricity delivered by YEC to VGC Group under the PPA including, without limitation, the provisions regarding the responsibility and liability of each Party. If there is an inconsistency between the Terms and Conditions and this Agreement the Terms and Conditions will govern.

The charges and capital cost contributions to be paid pursuant to the PPA are consistent with the principles included in the Minto PPA (approved by the Board in Order 2007-5) and Alexco PPA (approved by the Board in Order 2010-14 and 2011-1), and the Terms and Conditions as approved by Board Order 2011-05.

Sections 1 and 2 of this Final Argument have reviewed the consistency of the VGC Group PPA with existing approved PPAs, as well as key differences from the Alexco PPA. Sections 3.1 and 3.2 below focus on the specific approvals sought from the Board regarding PPA provisions for the Fixed Charge and the customer contribution payments by VGC Group to YEC for YEC Capital Costs. The final specific approval sought from the Board, i.e., related amendments to Rate Schedule 39 Firm Mine Rate as required to conform with Attachment A to the PPA and to accommodate the PPA, are noted in the PPA Application (Section 5.5, page 14) to include the following:

1. Revise the wording for the Fixed Charge to be applied to Alexco mine so as to enable amendment by the Board based on the VGC Group PPA;
2. Provide for a new Fixed Charge applicable to the VGC Group; and
3. Edit the "Available" section as needed to reflect today's Yukon Integrated Grid.

### **3.1 BASIS FOR FIXED CHARGE FOR SERVICE TO VGC GROUP MINE AS PERMITTED BY RATE SCHEDULE 39**

Yukon Energy is requesting Board approval of the Fixed Charge provisions as set out in Section 7.7 of the PPA, including the initial Transmission Facilities Fixed Cost of \$118,621 per year, as documented in Attachment B to this Application, for use in determining the Fixed Charge under Section 7.7, and provisions to amend the Transmission Facilities Fixed Cost after the Transmission Facilities Development Operation Date based on YEC's adjusted annual costs as approved by the Board for depreciation and return on rate base related to the Transmission

Facilities (which includes the Transmission Facilities Development) plus the SVC/Statcom and YEC's McQuesten Substation Costs (\$930,563 as per Section 6.1(d) and Schedule B of the PPA).

The Fixed Charge in Section 7.7 of the VGC PPA assigns VGC Group, or the VGC Group along with any Other Industrial Customer (defined as any other Industrial Customer using the defined Transmission Facilities), 85% of YEC's annual depreciation and return as approved by the Board (the "Transmission Facilities Fixed Cost") for the defined Transmission Facilities,<sup>14</sup> the SVC/Statcom, and YEC's McQuesten Substation Costs.<sup>15</sup> The remaining 15% of these annual costs are to be recovered through rates charged to all ratepayers (including the VGC Group and any Other Industrial Customer).

A Fixed Charge assignment adds to the direct bill of the affected Industrial Customer so long as the customer is receiving service per Rate Schedule 39. Unlike a capital cost contribution by an Industrial Customer, after the customer ceases to receive Rate Schedule 39 service the related annual YEC fixed costs will remain to be recovered through rates charged to all remaining ratepayers.

The basis for each of the three elements in the Transmission Facilities Fixed Cost, as well as for the 85% assignment of this cost in the Fixed Charge, are reviewed below.

### **3.1.1 85% ASSIGNMENT OF FIXED ANNUAL COST FOR TRANSMISSION FACILITIES**

The basis for the Fixed Charge in the VGC Group PPA at 85% of YEC's fixed annual costs for the defined Transmission Facilities was established by the Alexco PPA related to Industrial Customer use of these same transmission facilities.

The VGC Group Mine will receive Grid Electricity from a segment of the same Yukon Energy transmission facilities used to supply Alexco pursuant to the Alexco PPA, i.e., the Mayo-McQuesten segment of the existing Mayo-Keno City 69 kV transmission facilities. As reviewed in Section 5.5 of the PPA Application, the Alexco PPA as approved by the Board (Order 2010-4 and Order 2011-1) included a fixed charge to Alexco at 85% of YEC's approved annual fixed costs (depreciation and return) for the Mayo-Keno transmission, with provisions to collectively assign this charge to Alexco and other industrial customers connecting to these same transmission facilities. Accordingly, the VGC Group PPA provides for VGC Group to pay a Fixed Charge on the same basis as Alexco for use of these same transmission facilities.

The VGC Group PPA with regard to the 85% Fixed Charge related to Transmission Facilities annual fixed costs includes the following related provisions:

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<sup>14</sup> The defined Transmission Facilities at the outset are the Mayo-McQuesten line segment; this segment continues to be the defined Transmission Facilities with the default Transmission Facilities Development option. If the full SKTP Transmission Facilities Development option occurs, the Stewart Crossing-McQuesten transmission line becomes the defined Transmission Facilities.

<sup>15</sup> The latter two items (i.e., the SVC/Statcom cost and YEC's McQuesten Substation Costs) are included only after the Transmission Facilities Development Operation Date.

1. **Updated YEC Annual Fixed Cost of \$118,621 for 2019 (Attachment B to PPA Application):** Board approval is sought for an updated 2019 annual cost of \$118,621 for the existing Transmission Facilities as calculated in Attachment B to the VGC Group PPA Application, based on forecast costs for 2017. The 2019 annual amount for the Transmission Facilities Fixed Cost would be for the first year of VGC Group Mine operation, and would only include annual YEC fixed costs for the Transmission Facilities, i.e., no costs would yet be applicable in any rates for the SVC/Statcom or YEC's McQuesten Substation Costs.

YUB-YEC-1-23(a,b,c) provides details on the total assets included for 2017 and 2018 estimates used in Attachment B, and the timing options for Board approval of updates to these costs after the Transmission Facilities Development Operation Date, i.e., where feasible Board review and approval would occur as part of a YEC GRA, but a limited scope proceeding would be considered if necessary.

2. **Determination of initial Fixed Charge of \$8,402 per month:** The monthly Fixed Charge of \$8,402 that is initially applicable in the VGC Group PPA (as shown in the PPA Application) is derived per Section 7.7(c)(i) of the PPA as one-twelfth of 85% of the Transmission Facilities Fixed Cost.

YUB-YEC-1-21(b) provides a detailed calculation of this monthly Fixed Charge, which would apply to VGC Group when it is receiving Grid Electricity prior to the Transmission Facilities Development Operation Date and there are no Other Industrial Customers.

3. **Fixed Charge for Transmission Facilities after Transmission Facilities Development:** Section 7.7(b) of the VGC Group PPA provides for YEC, after the Transmission Facilities Development Operation Date, to apply to the YUB to amend the Transmission Facilities Fixed Cost based (among other factors) on YEC's adjusted annual costs for depreciation and return on rate base related to the Transmission Facilities.

The PPA Application provides an example at page 22 of potential impacts from an assumed \$25 million added to YEC rate base for a default option Transmission Facilities Development (the amount in effect also included provision for SVC/Statcom costs and YEC's McQuesten Substation Costs). Overall, the example shows an increase in VGC Group Fixed Charge to \$1.402 million per year (\$116,833 per month), and all ratepayers (including Major Industrial Customers) being responsible for the remaining 15% (\$0.248 million per year).

YUB-YEC-1-3(a) reviews how this change may vary depending on the Transmission Facilities Development option that occurs. Overall, any costs for the Transmission Facilities Development that is not otherwise externally funded will be used for the purposes of the calculation of the Fixed Charge to be paid by the VGC Group or any Other Industrial Customer served concurrently with VGC Group by the Transmission Facilities. YUB-YEC-1-3(b) notes that any change to Transmission Facilities Fixed Cost will require YUB approval, either as part of a YEC GRA, or through a limited scope proceeding if such was necessary.

4. **Fixed Charge for Alexco and any Other Industrial Customer:** The VGC Group PPA Fixed Charge is modelled after the Alexco PPA Fixed Charge, and includes provision to adjust the Alexco Fixed Charge at such time as Alexco resumes service as an Industrial Customer at a time when VGC Group is also receiving Grid Electricity. On the same basis, provision is made to adjust the Fixed Charge when any Other Industrial Customer is receiving electricity from YEC by way of the Transmission Facilities during a calendar year when VGC Group is also receiving Grid Electricity from YEC.

YUB-YEC-1-22(a,b) confirms that the Alexco PPA allows for changes in the Fixed Charge, and that YUB approval is required for such changes affecting Alexco or VGC Group. This response also notes that Section 7.7(c) of the VGC Group PPA sets out provisions to address allocation of fixed annual costs among VGC Group and Alexco (and any Other Industrial Customer) based on the portion of the Major Industrial Customer MW.h load on the Transmission Facilities during the calendar year. YUB-YEC-1-22(c) reviews the provision for YEC to use “commercially reasonable efforts” to obtain Board approvals as required, and notes that this same provision is in the Alexco PPA as approved by the Board.

YUB-YEC-1-22(d) provides an estimate of the amended Alexco Fixed Charge (if Alexco was an Other Industrial Customer concurrent with VGC Group receiving Grid Electricity), using 2020 as an example with \$118,621 assumed as the Transmission Facilities Fixed Cost and with loads for each mine as assumed in PPA Application Table 3 for 2020, i.e., Alexco load at 23.17% of total for Major Industrial Customers using the Transmission Facilities. Based on these assumptions, the Alexco Fixed Charge for 2020 would be \$1,947 per month (versus the current Alexco Fixed Charge of \$7,298/month), and the VGC Group Fixed Charge would be \$6,455/month.

### ***Regulatory Background***

The regulatory background for the Alexco PPA 85% assignment of annual fixed costs for the Transmission Facilities to a Fixed Charge for Alexco, as well as other related issues for the VGC Group Fixed Charge, were reviewed in response to various IRs, including the following IR responses:

- UCG-YEC-1-15(a-d) – The response reviews at a high level the regulatory basis for the 85% allocation and threshold, based on principles approved by the NEB and YUB for specific cases where the mine load on the specified transmission facilities exceeded 95% of the total load using the facilities.
- YUB-YEC-1-7(a-d,f) – The response reviews the basis for consistency with the Alexco PPA Fixed Charge and 85% allocation of YEC fixed annual costs for the Transmission Facilities. It includes reference to the following:
  - YEC is not aware of any change in conditions or circumstances that would justify adopting at this time a different threshold for use of these transmission facilities to supply the VGC Group Mine.

- Evidence and Board determinations in the earlier Alexco PPA that lead to approval of the Alexco Fixed Charge (a copy is attached of the 1985 NEB report re: NCPC and the Faro Mine fixed charge, and references are provided to YUB reports or Orders in 1992, 1993, 1996 and 2010 related to review of this matter).
- The Fixed Charge and 85% threshold must relate to a specific segment of transmission where there is clear evidence of development and dominant use specifically for industrial purposes, i.e., the Alexco PPA did not apply any Fixed Charge derived from the Mayo-Dawson line, or from the CSTP facility being developed; the earlier Faro Mine fixed charge was limited to the WAF segment from Whitehorse to Faro, despite this mine's large overall share of all load on the balance of WAF; the VGC Group cost allocation would similarly not in principle apply to the segment from McQuesten to Keno City (or to the Mayo-Dawson 69 kV line, the CSTP, or WAF).
- YUB-YEC-1-20(a-d,f) – Re-iterates that there is no basis for an industrial customer to make similar Fixed Charge assigned cost contributions towards other grid infrastructure beyond facilities either built specifically for the customer or used almost exclusively for the customer, including additional references to the NEB 1985 report. The determination of the approved Alexco Fixed Charge is reviewed in detail, with attachments, including reviews from that proceeding of the basis for limiting the Fixed Charge costs to the Mayo-Keno line. The following summary conclusions were provided:
  - For the VGC Group PPA Yukon Energy did not consider any other alternatives in setting the 85% threshold for the Fixed Charge determination.
  - The 85% threshold for VGC Group Fixed Charge is based on well-established Yukon precedent dating back to the mid-1980s, and the specific PPA related provisions approved by the Board for Alexco with regard to industrial use of the same specific transmission facilities.
  - The reasonableness of this threshold was reviewed during the 2010 Alexco PPA proceeding and approved by the Board as a result of the proceeding [see Order 2010-14 and Order 2011-01]. As the VGC Group's Eagle Gold mine is planned to operate in the same region as Alexco, using the same infrastructure, it was not considered appropriate at this time to consider alternatives to the 85% threshold.

### **3.1.2 INCLUSION OF SVC/STATCOM IN TRANSMISSION FACILITIES FIXED COST**

As reviewed in Section 6.1 of the PPA Application (pages 18-19), the SVC/Statcom to be installed at Stewart Crossing South Substation before the Transmission Facilities Development Operation Date will provide voltage support equipment (a Static-Var Compensator or a Statcom) that enhances the Mayo Dawson transmission grid import ability from WAF following contingencies.

This enhancement, along with the upgrade of conductors on at least the Mayo-McQuesten line, will enable the Maximum Electric Demand limits in the PPA to be increased to supply all of the VGC Group Mine's forecast requirements, and will also enhance significantly Yukon grid long-term capability to supply customers on the northern grid.<sup>16</sup>

YEC costs for the SVC/Statcom (i.e., costs that are not otherwise externally funded) are included in the Transmission Facilities Fixed Cost used to determine the Fixed Charge under the VGC Group PPA, reflecting the concurrent requirement for this transmission facilities improvement in order to provide reliable service to Industrial Customers throughout the northern portion of YEC's grid. As per the provisions of the VGC Group PPA, 85% of YEC's fixed annual costs for this facility will be assigned to the Fixed Charge shared among Industrial Customers served by the Transmission Facilities.

### **3.1.3 INCLUSION OF YEC'S MCQUESTEN SUBSTATION COSTS IN TRANSMISSION FACILITIES FIXED COST**

As reviewed in Section 5.4 of the PPA Application (pages 13 and 14), YEC's McQuesten Substation Costs to enable this substation to operate in future at 138 kV will be retained in YEC's Work in Progress (WIP) and will accrue AFUDC in accordance with current policy until the Transmission Facilities Development Operation Date. After that date, these costs will be added to YEC's rate base and included in the Transmission Facilities Fixed Cost, whereby 85% of YEC's fixed annual cost will be included in the Fixed Charge applicable to VGC Group and any Other Industrial Customer using the Transmission Facilities.

As reviewed in YUB-YEC-1-17(c), the McQuesten Substation was included in the SKTP proposal as reviewed by YESAB prior to development of the VGC Group PPA. This facility is assumed to be a key element of the SKTP proposal, with or without the VGC Group Mine. The McQuesten Substation development timing (i.e., prior to funding decisions related to the full SKTP, as well as prior to other new Transmission Facilities Development) is the one thing triggered by the VGC Group Mine development, reflecting the need for a connection of this mine to the existing grid prior to any new transmission facilities development such as the SKTP proposal.

As reviewed in YUB-YEC-1-13(c,d), the two Transmission Facilities Development options identified in the VGC Group PPA each include installation of 138 kV transmission capability to the McQuesten Substation from either Mayo or Stewart Crossing. Accordingly, it is necessary for YEC to ensure that the initial McQuesten Substation development by VGC Group includes full 138 kV capability. This capability, however, is not required for VGC Group connection to the existing 69 kV grid, and YEC's McQuesten Substation Costs for this capability will only be brought into rate base when the Transmission Facilities Development Operation Date occurs with 138 kV

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<sup>16</sup> As noted in footnote 25 of the PPA Application, these two enhancements are estimated to increase the L180 (Mayo to McQuesten Substation) capability to supply the VGC Group Mine from 9.7 MW to 16.7 MW and increase the MD import limit from WAF from 11 MW to 19 MW. The forecast VGC Group Mine peak load in year six of operation is approximately 12.7 MW (see Table 1 of PPA Application).

transmission to this substation. Regardless as to whether initial operation after that date is at 69 kV or 138 kV, the facilities are a critical part of the new transmission facilities developed in this region and will increase the total transmission capacity of the line to facilitate additional (future) industrial load and/or local renewable resource supply development.

In summary, YEC's McQuesten Substation Costs will in effect be treated as part of the Transmission Facilities Development that results in establishing new facilities into the McQuesten Substation with 138 kV capability. To the extent that such costs are not otherwise externally funded, the YEC annual fixed costs related to rate base will be included in the Transmission Facilities Fixed Cost applicable to Fixed Charge determinations per the VGC Group PPA.

### **3.1.4 IMPLICATION OF CHANGE TO THE 85% ASSIGNMENT**

YUB-YEC-1-7(g) addresses the impact on the VGC Group PPA if the Board does not accept the 85% threshold and suggests a different threshold.

The 85% threshold is a key element of the VGC Group PPA for which Yukon Energy is seeking Board approval. Absent such approval, a key precondition to the PPA would not be met, and VGC Group and YEC would need to review and determine on what basis (if any) they might be able to continue with a revised PPA. In summary, the following impacts would need to be considered:

- Removal or reduction of the 85% threshold and related Fixed Charge would reduce costs assigned to VGC Group and increase costs to be recovered from all other ratepayers, and create inconsistencies with the approved Alexco PPA and with the earlier Faro mine threshold and fixed charge.
- Increase of the 85% threshold and related Fixed Charge would increase costs assigned to VGC Group and reduce costs to be recovered from all other ratepayers, and create inconsistencies with the approved Alexco PPA and with the earlier Faro mine threshold and fixed charge.

As reviewed in response to YUB-YEC-1-21(a), the existing Alexco PPA would be impacted if the Board were to direct an allocation other than 85%; however, there would be no impact on the existing Minto PPA.

## **3.2 BASIS FOR CUSTOMER CONTRIBUTION FOR CAPITAL COSTS**

Yukon Energy is seeking approval of the Board for the customer contribution payments by VGC Group to YEC under Section 6.1 of the PPA for YEC Capital Costs, including payments for:

- Actual YEC Capital Costs to negotiate and conclude the PPA, estimated at \$200,000;
- Actual YEC Capital Costs for the Initial YEC System Improvements as set out in Schedule C of the PPA, currently estimated at \$1,677,883;

- Actual YEC Owner's Costs for the McQuesten Substation as set out in Table B-1 of Schedule B to the PPA, currently estimated at \$483,240; and
- Actual YEC costs reasonably required for design, engineering, procurement, construction and commissioning of the Step Down Transformer at the McQuesten Substation, should one be determined to be required.

Based on Yukon precedent (including the Minto and Alexco PPAs and the Terms and Conditions of Service as approved by Board Order 2011-05), industrial customers are required today to make contributions towards new transmission infrastructure built specifically to provide industrial service to their mine site. In addition, based on the Alexco PPA, industrial customers are required today to make contributions towards YEC's costs to negotiate and conclude a PPA with the customer. Each of the above YEC Capital Costs items to be recovered from VGC Group under Section 6.1 of the PPA are either costs to negotiate the PPA or new transmission infrastructure to be built or installed specifically to enable industrial service to be provided to the VGC Group Mine. Accordingly, past precedent and practice provide the basis for Board approval of these PPA provisions.<sup>17</sup>

Section 4.2 of the PPA commits the Parties to develop and turnover the McQuesten Substation to YEC under the terms and conditions set out in Schedule B to achieve the McQuesten Substation Operation Date on or before February 28, 2019. Schedule B of the PPA provides that VGC will fund all of the related costs for the McQuesten Substation, except for the costs associated with the McQuesten Substation being able to operate at 138 kV (which amount will be payable by YEC to VGC at the time the Substation is transferred to YEC). Based on these provisions, there is no requirement for Board approval of VGC Group contributions to fund the cost of the McQuesten Substation.

Section 6.1(d) of the PPA provides for VGC Group to invoice YEC for the YEC McQuesten Substation Costs of \$930,563 under Section B.4 of Schedule B of the PPA associated with the McQuesten Substation being able to operate at 138 kV. As reviewed in response to YUB-YEC-1-5(a) and YUB-YEC-1-17(c), the following factors indicate that there is no basis under the current circumstances for VGC Group to be required to contribute under Section 6.1 of the PPA to YEC's Capital Costs for these specific facilities at the McQuesten Substation:

- The YEC McQuesten Substation Costs relate only to incremental fees, costs and expenses associated with the McQuesten Substation being able to operate at 138 kV voltage.
- This feature is not required today for the VGC Group to connect to the grid, and therefore there is no basis today to require VGC Group to fund this feature.
- YEC is providing the initial funding as needed to ensure that this feature is cost effectively included in the initial substation design to accommodate the planned Transmission Facilities Development which will result in 138 kV transmission capability being connected to the McQuesten Substation from either Mayo or Stewart Crossing.

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<sup>17</sup> UCG-YEC-1-22(c), UCG-YEC-1-23(a) and (b), and UCG-YEC-1-24 review YEC invoice status related to these YEC Capital Costs.

- As reviewed in the PPA Application (Section 5.4, page 14), the YEC McQuesten Substation Costs will be held in WIP until the Transmission Facilities Development Operation Date, and then included in the Transmission Facilities Fixed Cost that determine the Fixed Charge for VGC Group and any Other Industrial Customer using the Transmission Facilities.

## 4.0 RATEPAYER IMPACTS

The PPA Application and subsequent responses to IRs confirm that VGC Group Mine operation with the PPA is expected to provide positive benefits to all other non-industrial ratepayers and that the PPA also protects other ratepayers from hang over cost risks when the VGC Group Mine closes.

### *Ratepayer Impacts from VGC Group Mine Operation*

Section 6.2 of the PPA Application, with updates to Table 3 and related text as provided in YUB-YEC-1-28, focused on three years (2020, 2021 and 2025) to provide an indication of ratepayer impacts from the VGC Group Mine connection over a range of reasonably high potential grid load conditions that could occur in the initial six years of VGC Group Mine operation and absent any new renewable generation capability. The analysis was not intended to provide a forecast of what load is likely in each year, i.e., the loads in 2020 and 2021 in this analysis assumed material industrial mine requirements at both Minto and Alexco, neither of which has been committed at this time. As reviewed in YUB-YEC-1-28 and UCG-YEC-1-5(a), YEC does not have information needed to provide useful additional analysis regarding forecast overall rate levels in future years or ratepayer impact variances due to the VGC Group Mine for each of the six years of initial operation, the expected minimum further four years of operation, or the expected five years of closure activities.

In summary, the 2021 case in Table 3 as revised (YUB-YEC-1-28) demonstrates ratepayer impacts with a high potential industrial load (assumed at approximately 127 GW.h sales) where incremental LTA thermal generation accounts for 64% of the incremental generation needed for the VGC Group Mine. For each of the other two cases examined in Table 3 (2020 and 2025, each with lower overall grid load due mainly to lower industrial load levels), incremental LTA thermal generation accounts for a lower share of the incremental generation needed for the VGC Group Mine – highlighting the extent to which overall industrial load levels and timing are determinative of material changes in LTA thermal generation impacts among each of the first six years of VGC Group Mine operation.

Table 3 as revised shows the VGC Group impact on YEC net costs to be recovered from all ratepayers beyond direct revenues from VGC Group. Based on this assessment, the overall net impact of the Mine under the assumptions adopted is to reduce future rate increase pressures. YEC net revenue requirement amounts that need to be recovered from all ratepayers are reduced as follows with the VGC Mine load:

- \$1.96 million reduction in 2020, when assume total grid load includes Minto and Alexco mines;

- \$1.93 million reduction in 2021, when assume three mines in operation (shows scenario where the increase in LTA thermal cost more than offsets the increase in revenues from higher VGC Group load); and
- \$3.33 million reduction in 2025, when assume VGC Group Mine is the only mine on the grid (shows impact of higher revenues due to higher VGC Group load, combined with lower LTA thermal cost per kW.h VGC Group sales due to lower overall grid load without Minto or Alexco mine loads).

The above Table 3 ratepayer benefits would be increased in 2020 and 2021 if non-VGC Group industrial loads (Minto and Alexco) are less than assumed in this analysis. Ratepayer benefits would also be increased in each of these years to the extent that new renewable generation capability is developed (independent of the VGC Group Mine connection) that reduces the incremental LTA thermal generation associated with the additional VGC Group Mine load.

As reviewed in Section 6.2 of the PPA Application, the above Table 3 assessments do not address potential impacts from any Transmission Facilities Development costs that YEC may need to be included in rate base. The high level assessment provided at page 22 of the PPA Application indicates that, assuming approval of the Fixed Charge provisions in the PPA, an assumed \$25 million added to YEC rate base for such transmission development could add \$1.4 million per year in Fixed Charge cost to VGC Group and Other Industrial Customers, and \$0.248 million per year to all ratepayer general rates.

In summary, based on the assumptions in Table 3 as revised, even if the Transmission Facilities Development results in an addition of \$25 million to YEC's rate base the overall impact on all ratepayers from the PPA, the VGC Group Mine load and the new facilities development would still be a reduction in YEC net revenue requirement amounts to be recovered from other non-industrial ratepayers.

The response to JM-YEC-1-8 addresses potential reductions in secondary sales revenues associated with increased grid loads from industrial and other customers, and notes that the maximum potential impact on secondary sales revenue reduction is clearly less than the Table 3 ratepayer savings from VGC Group sales.

The response to YUB-YEC-1-29 notes that the expected reduction in VGC Group Mine load during the 90-day winter period indicates that this Mine would likely not be considered as a winter peaking load customer. The response also notes that YEC does not anticipate that VGC Group's summer load will have any material impact on YEC's ability to store water over the summer months to produce a reliable winter peak capacity of 70.5 MW.

Section 4.1 (page 5) of the PPA Application notes that connection of the VGC Group Mine and other potential industrial loads will not affect the dependable capacity planning assessments based on the N-1 criterion (which excludes consideration of winter peak industrial loads), and is also not expected to change the assessment that dependable capacity on the grid currently satisfies the Loss of Load expectation (LOLE) capacity planning criterion so long as the N-1 criterion is met. This assessment is re-enforced by the expectation, as set out in Section 5.1(d) of the PPA, that Mine Electric Demand during an approximate 90 day period between

December 1 and March 31 of every year will be reduced so as not to exceed approximately 6,000 kV.A. The response to JM-YEC-1-3 provides added information on the referenced 90-day period, and the extent that VGC Group is not expected to run at peak loads during the coldest periods in December.

***Ratepayer Protection from Hang Over Cost Risks***

The PPA protects other ratepayers from hang over cost risks when the VGC Group Mine closes.

This protection relates directly to the PPA Section 6.1 provisions for VGC Group customer contributions and funding to cover all new capital costs directly related to connection of the VGC Group Mine to the YEC grid.

As reviewed in response to JM-YEC-1-9(b), when the VGC Group Mine closes, the loss of sales eliminates the net benefits to all ratepayers that occur with the Mine operating. Aside from loss of these net benefits, however, there are no "hang-over" transmission facilities costs directly due to the Mine that would adversely impact remaining ratepayers. This response noted the following in this regard about SKTP costs:

- Costs related to the Stewart Keno City Transmission Line Project (SKTP) are not directly due to the VGC Group Mine.
- As reviewed in the PPA Application, the VGC Group Mine is providing added impetus for the SKTP now to proceed, in whole (the full SKTP) or at least (with the default option) for the 'end of life' line from Mayo to McQuesten Substation.
- If external funding is confirmed sufficient for the full SKTP to proceed, there will be no material new rate base costs to affect ratepayers.
- If only the default option is developed, however, the rate base costs for this required line replacement will directly affect YEC rates.
- In the event that the default option is what is implemented, there is an opportunity over the period that the VGC Group's Eagle Gold mine is operating for this industrial customer to make significant contributions (i.e., 85%) through the Fixed Charge towards the annual YEC depreciation and return expenses related to the rate base cost for these new Transmission Facilities. Specifically, absent the connection of the Eagle Gold mine and/or an Other Industrial Customer using these same Transmission Facilities, the cost for upgrade to, and/or replacement of, these facilities would be paid fully by all other ratepayers.
- In this respect, the VGC Group Mine connection (as well as any Other Industrial Customer connection) provides an added overall benefit to ratepayers during its operation by reducing the costs that other ratepayers would otherwise have to contribute towards the line in its initial years of operation.
- After these initial years of operation, the rate base cost for this new line will also have been reduced by the depreciation to date, and consequently the return costs to be borne by other ratepayers will be reduced compared to the initial years of operation.

## 5.0 CONSISTENCY WITH OIC DIRECTIONS

The Board is required, when considering rate related changes in the PPA, to comply with existing OIC directions that affect rates, including:

- Cost of Service related OIC directions specific to industrial customer rates; and
- OIC directions that govern changes to existing rates.

PPA consistency with each of the above OIC directions is reviewed below.

### 5.1 COST OF SERVICE RELATED OIC DIRECTIONS

Section 4.5 of the PPA Application notes that OIC 1995/90 requires that rates to major industrial customers must be sufficient to recover the costs of service to that customer class determined by treating the whole Yukon as a single rate zone.

Responses to YUB-YEC-1-8(a-e), as well as YUB-YEC-1-7(e,f) and UCG-YEC-1-13(c), address issues related to available cost of service (COS) study information, the timing and requirements for any new cost of service study, and the overall ability for the Board at this time to address this OIC requirement with regard to industrial customer rates with and without the VGC Group Mine and PPA.

In summary, the evidence and Board determinations in the 2009 GRA Phase II proceeding provide a solid basis for determining that industrial customers served by YEC in 2009 (and today) are paying more than the current costs (as determined by a cost of service consistent with the Board's directions, normal regulatory principles, and OIC 1995/90 directions) to serve them. The response to YUB-YEC-1-8 reviews in detail Appendix A to Board Order 2010-13, and other available information on changes since that time, and in summary provides the following conclusions:

- The Board's reasons for rejecting the 2009 COS as filed in the original 2009 GRA Phase II application of YEC and YECL (the Companies) related to load factors for the non-industrial classes and (potentially) to the impact of OIC 2008/149 rendering no specific need for approval of a COS study at that time.
- In contrast, Appendix A to Board Order 2010-13 did not identify any specific issues in the 2009 COS study relating to load factor estimates for the industrial class COS assessment, and also provided directions on the bulk power COS assessments that determine over 95% of industrial costs of service in 2009. The industrial COS can be separately assessed on this basis for the purpose of the OIC direction without the need for concurrent determination of COS for other customer classes.
- The available evidence for 2009, including the COS update provided in the Compliance Filing by the Companies in February 2011 in response to Board Order 2010-13, indicates that there is nothing to suggest any basis on which the industrial class revenue to cost (R/C) ratio for 2009 could possibly be estimated at anything but being greater than 1.0.

- The Companies updated COS, complying with the Board's bulk power COS methodology directions, increased the industrial R/C ratio from 111% in the application as revised to 113.7% for the Compliance Filing.
- The Board's noted concern in Appendix A of Order 2010-13 regarding General Service customer load factors in the 2009 COS study was that the R/C ratio may be too low for this customer class; if this concern is supported in the next COS study, it would only serve potentially to raise (rather than lower) the R/C ratio as estimated for the industrial customer class.
- Review of rate changes, industrial load factor changes, and bulk power cost of service changes since 2009 all indicate that there is no reasonable basis for concern that the R/C ratio for industrial customer COS might today, or in the period when VGC Group Mine is expected to be connected, deteriorate to the extent needed to fall below 1.0 (and thereby raise concern that industrial customer class rates are not sufficient to at least recover costs of service as required by OIC 1995/90). Evidence was noted in the response to indicate that the industrial COS R/C ratio with VGC Group Mine connected may rise above the 113.7% estimated for 2009 in the Companies' Compliance Filing.
- Table 3 (before and after the revisions in YUB-YEC-1-28) and related analysis in the PPA Application for the VGC Group mine provides added support to the above statement. Table 3 looks only at the basic incremental cost and revenue impacts of adding the VGC Group load, highlighting that increased revenues are expected to exceed increased YEC costs. Based on this evidence, and the evidence reviewed for 2009 and subsequent time periods, it is clear that the VGC Group Mine load will be paying rates that are in excess of allocated cost of service estimated in accordance with directions in Board Order 2010-13 and OIC 1995/90.

As reviewed in response to YUB-YEC-1-7(f), the Board in Order 2010-14 approved the Alexco PPA (including the 85% threshold for the Fixed Charge determinations) after Board Order 2010-13 had rejected the COS study filed by the Companies as part of the 2009 GRA Phase II proceeding. Overall, the Alexco PPA was approved, with its related rate changes linked to the Fixed Charge, notwithstanding the absence of a recent approved COS study.

Subsequent to the Alexco PPA approval, the Board has also approved general rate changes affecting for the 2012-13 GRA without any noted concern that Rate Schedule 39 is failing to meet the COS related directions in OIC 1995/90 for major industrial customer class rates. Based on all of the above considerations, the Board is able to proceed with approval of the VGC Group PPA rate-related provisions without any concern that any resulting rates for major industrial customers would not be sufficient to recover the costs of service to that customer class as required by OIC 1995/90.

## **5.2 OIC DIRECTIONS THAT GOVERN CHANGES TO EXISTING RATES**

OIC 2014-23 directs that the Board must ensure that, up to December 31, 2018, rate adjustments for retail customers and major industrial customers apply equally, when measured as percentages, to all classes of retail customers and the class of major industrial customers.

As reviewed in response to YUB-YEC-1-19, the Board last made a change to the Rate Schedule 39 fixed charge in Board Order 2010-14, when it approved the Alexco PPA. At that time, the Board was subject to OIC 2008/149, which in effect provided the same basic rate direction as the current OIC 2014-23 governing changes to existing rates. At that time, no issue of compliance with OIC 2008/149 was raised regarding the change to the Rate Schedule 39 fixed charge. Similarly, no issue was raised at that time regarding the extent to which OIC 2008/149 provisions overrode the need to confirm compliance of Rate Schedule 39 charges with OIC 1995/90 directions under Section 6(1) (i.e., that rates to major industrial customers are sufficient to recover the costs of service).

The PPA specifies that the earliest date for Grid Electricity service to VGC Group Mine is in March 2019. As reviewed in response to YUB-YEC-1-19, the amendments to the Firm Mine Rate (including the Fixed Charge) in Schedule A to the PPA do not require any change to Fixed Charge amounts to be charged to any customer prior to the December 31, 2018 expiry date for OIC 2014-23. Further, as reviewed in the response, the specific wording changes to be approved by the Board for the Firm Mine Rate (Rate Schedule 39) do not specify any dollar amounts – the only actual dollar amount that the Board is to approve at this time related to the PPA is the Transmission Facilities Fixed Cost amount of \$118,621 that will be used to determine the VGC Group initial Fixed Charge after Commencement of Delivery.

In the event that the OIC 2014-23 provisions expire on December 31, 2018, the Board will clearly not be constrained by these provisions in addressing change to the Fixed Charge in 2019 and beyond.

In the event that a new OIC extends beyond the end of 2018 the OIC 2014-23 directions governing changes to existing rates, the Board can then assess whether the Fixed Charge changes required by the VGC Group PPA are sufficient to raise any compliance concerns. As demonstrated in the 2009 GRA Phase II approved changes to rate design for various retail customer classes, the Board retains the ability under this OIC direction to change rates so long as the overall percentage rate adjustment remains the same for each of the specified customer classes. If such compliance concerns are found to exist, the Board will have the flexibility to adjust other provisions of Rate Schedule 39 as required to ensure compliance.

**ALL OF WHICH IS RESPECTFULLY  
SUBMITTED**



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P. John Landry  
Counsel for Yukon Energy Corporation

December 22, 2017