

# **ATCO Electric**

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## **YUKON**

October 24, 2016

Yukon Utilities Board  
Box 31728  
Whitehorse, YT, Y1A 6L3

Attention: Mr. Robert Laking  
Board Chair

Dear Sir:

**RE: ATCO Electric Yukon ("AEY")  
Updates to 2016-2017 General Rate Application**

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In preparing for the upcoming hearing, AEY has determined the following areas of its Application require correction, updating or clarification.

Changes to AEY's applied for 2016-2017 revenue requirements are summarized as follows:

- A formula error was found on Schedule 10.1 line 1. The numbers shown on line 1 of Schedule 10.1 for the 2016 and 2017 test period were calculated incorrectly and have been updated in the revised 2016-2017 Schedules

In the responses to information requests, AEY identified the following updates to the applied for revenue requirements for 2016-2017:

- YUB-YECL-73(c) - As stated in the response to this information request, the latest forecast debt rates have decreased from that used in the original application. These revised forecast debt rates for 2016 and 2017 have been included in the revised schedules.
- YUB-YECL-36(f) - As stated in the response to this information request, the defined benefit pension funding requirements have decreased from the 2015 amount of \$578,000 to \$505,000. The revised schedules reflect this change for 2016 and 2017.

A complete set of revised 2016-2017 Schedules that incorporate these changes are attached hereto as Attachment 1.

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# ATCO Electric

## YUKON

The updated revenue requirements and rate impacts are as follows:

	2016	2017
	(\$000s)	
ATCO Electric Yukon Retail Revenues	53,653	56,377
Cumulative Increase over Existing Rates	2,199	4,280
Cumulative Rate Increase %	4.0%	7.9%
Year Over Year Rate Increase %	4.0%	3.9%
<b>Net Cumulative Rate Increases % (including fuel reduction)</b>	<b>1.6%</b>	<b>5.4%</b>

Furthermore, AEY would like to clarify the following with respect to Appendix #8 the McIntyre Subdivision Replacement.

- AEY is seeking Board direction as to the appropriate treatment of the potential cost savings should the Kwanlin Dun First Nation accept Alternative 2, as it is set out on page 3 of Appendix #8. It is anticipated that this would alter the work required and result in potential cost savings in 2018-2020, outside the test years. Specifically, AEY is requesting the Board to provide direction as to whether or not the expected costs savings could be applied as an offset to the contribution required by the Kwanlin Dun First Nation for a future project.

Lastly, AEY has identified minor corrections to responses to information requests YUB-YECL-24(a), YUB-YECL-10(b) and UCG-AEY-14(c). Blacklined versions of these responses are attached to this letter.

Should you have any questions or concerns with the above please contact the undersigned.

Yours truly,

**Original Signed by:**

James Grattan, CPA, CA  
Director, Regulatory

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### **YUB-YECL-10 - REVISED**

**Reference:** Application, Section 9, Capital Additions, page 9-3, lines 18 to 28.

**Issue/sub-issue:** Streetlight conversion

**Quote:** “ATCO Electric Yukon has been in discussions with its customers/municipalities regarding recent developments surrounding converting existing streetlight to Light-Emitting Diode (LED) lamps. Considering there is significant capital outlay associated with the conversion of existing streetlights to LED and in order to understand the rate implications of LED streetlight conversion, ATCO Electric Yukon is seeking Board direction as to the appropriate method of accounting for the capital costs associated with customers requesting conversions of existing streetlights to LED. ATCO Electric Yukon considers there to be two available options:

- 1) A full customer contribution required for all associated capital costs;  
or
- 2) All capital costs associated with requested conversions would be a system cost, not subject to a customer contribution.”

**Request:**

- (a) Please provide a history of the discussions that YECL has had with its customer/municipalities with respect to the conversion of existing street lights to LED lamps. Who initiated the discussions and why?
- (b) Please provide the total costs of the project and a cost/benefit analysis if the streetlight conversion project were to go ahead.
- (c) Please provide the rationale or justification for the project being a system cost.
- (d) With respect to the installation of new streetlights, what types of lights does YECL install? Considering the discussions that YECL has had with its customers/municipalities regarding LED lamps, are there any plans for installing LED lamps when installing new street lights? If not, why not?

### Response:

(a) Discussions with customers and municipalities are constant and ongoing. Discussions with City of Whitehorse have been occurring for a number of years. LED technology has been evaluated for a number of years to ensure it would meet the requirements of the Road Authority. LED technology for street lights continues to evolve to produce a light spectrum and lighting pattern that is comparable to High Pressure Sodium (HPS) lighting technology. As LED lighting advances, consultation with customers to fit their lighting needs also continues. Customers have shown an interest due to the reduced electrical consumption of LED lights which could lead to reduced costs going forward. AEY sees the benefit of reduced loading on the electrical system and longer life span of equipment which could lead to reduced costs in Operation and Maintenance of the lights.

(b) The per light installation cost ~~and early retirement cost~~ provided in CW-YECL-27(a) was used to estimate the total cost of converting all existing HPS streetlights with LED streetlights in AEY's communities at approximately \$2.0M. The project would need to be completed over several years due to resource constraints. The estimated cost to replace existing HPS lights in AEY's thermal communities is approximately \$0.27M.

Please refer to YUB-YECL-10(b) Attachment 1 for a cost/benefit analysis of net impact to revenue requirement for converting lights in the thermal communities and hydro communities for two scenarios 1) costs are considered to be system costs and 2) costs are fully contributed by the customer.

(c) The rationale for a system cost would be that the initial light asset cost was contributed by the customer when the light was originally installed in accordance with the approved Terms and Conditions of Service of the time. At the end of useful life when the asset needs replacement, the customer is not required to contribute again and the cost becomes a system cost.

(d) AEY has recently sourced LED lights that can effectively replace HPS lights for the 100 watt and 150 watt HPS street light equivalents. There is also a LED replacement for sentinel lights. As these lights are equivalent replacements AEY is utilizing the LED lights now. The 250 watt HPS equivalent LED street light needs to be evaluated for adequacy in highway applications. AEY is currently working with Yukon Government to provide an acceptable LED lighting option for highway use, as LED lights must meet required lighting specifications and be approved for use by the designated Road Authority. AEY is currently evaluating options for a LED replacement for decorative lights and plans to provide an option by the end of 2016.

### **YUB-YECL-24 - REVISED**

**Reference:** Application, Appendices – Business Cases, Appendix #3

**Issue/sub-issue:** Watson Lake Bi-Fuel Project

**Request:**

- (a) Will YECL seek any additional funding from the federal and Yukon governments to fund the Watson Lake Bi-Fuel project costs? Please clarify if the additional funding is distinct and separate from the funding identified in the following quote in the Application in Section 12, page 12-2, item 2, lines 13-16, PDF page 225 of 292:

“2. A portion of ATCO Electric Yukon project execution costs for projects identified in this study to be viable so that the entire financial burden of introducing renewable and alternative energy in the Yukon’s diesel communities is not put on Yukon electric ratepayers.”

- (b) How will replacing reliance on diesel with reliance on LNG meet the governmental objective of introducing renewable energy such that some level of project funding is ensured?
- (c) Please explain why YECL no longer proposes that ATCO Gas be involved in the Watson Lake Bi-Fuel project.
- (d) Does YECL consider there is any legislative or regulatory impediment(s) to owning “all of the assets required” or providing any of the services stemming from this project?
- (e) Of the costs disclosed on Table 1: Watson Lake Bi-Fuel Project Phase 1 and 2 Capital Cost, please identify all costs that will be paid to ATCO Gas.
- (f) Of the costs disclosed on Table 1: Watson Lake Bi-Fuel Project Phase 1 and 2 Capital Cost, please provide the amount of Watson Lake bi-fuel project study costs that are held in WIP at the end of each year 2013 through 2017.
- (g) Please provide the original historical cost and accumulated depreciation related to the assets being purchased from ATCO Gas.
- (h) Why would YECL choose a new unit which requires field modifications to burn both diesel and natural gas versus purchasing a new unit that is factory capable of burning both fuels with name plate performance ratings?

### Response:

- (a) ~~AEY does not intend to seek additional funding for t~~The Watson Lake Bi-Fuel Project was included in a funding proposal put forth from to the Federal ~~and Yukon~~ governments. The requested funding was not received. -The analysis presented to the Board indicates the project is cost effective for rate payers under many projected future scenarios. This project is consistent with the Federal and Yukon governments' goal of reducing or eliminating the use of diesel in northern and remote communities by offsetting approximately 50% of the diesel consumed for power generation in Watson Lake.
- (b) Please refer to AEY's response to YUB-YECL-24(a).
- (c) It is AEY's interpretation of Board Order 2014-06 and 2015-02 that there was a concern over affiliate transactions and a perceived above market return provided to an ATCO Affiliate. To alleviate the Board's concerns, AEY decided to complete this project without any ongoing ATCO affiliate involvement. AEY will purchase the assets specific to this project at book value from ATCO Gas without markup.
- (d) AEY does not consider there to be any legislative or regulatory impediments to owning all assets associated with this project and proposes to do so under the revised business case in Appendix #3 of the Application. Specialized services related to the onsite LNG equipment, that AEY does not currently have the expertise to perform, will be contracted with qualified services providers. AEY will own all assets, as ATCO Gas will no longer be providing equipment through a lease or any ongoing services as was originally conceived.
- (e) The costs that will be paid to ATCO Gas are composed of \$821,000 spent to date, plus a final payment to the equipment supplier once the equipment is delivered of approximately \$373,000. The total payment from AEY to ATCO Gas will be approximately \$1,194,000. Of these costs, approximately \$102,000 will be payable to ATCO Gas for labor plus expenses. The other approximately \$1,092,000 has, or will be paid directly to third party, competitively tendered suppliers for services, such as engineering, design and the purchase of LNG equipment.

	<u>Cost</u>
ATCO Gas Labor	\$102,000
Competitively Tendered Third Party Costs to Date	\$719,000
Competitively Tendered Third Party Costs Future	\$373,000
<b>Total to ATCO Gas</b>	<b><u>\$1,194,000</u></b>

- (f) Please refer to the following table.

<b>Watson Lake Bi-Fuel - WIP Continuity</b>					
	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Opening WIP Balance	-	344	426	494	247
Add: Costs	344	82	67		
Less: Amortization of Costs				(247)	(247)
Closing WIP Balance	<b>344</b>	<b>426</b>	<b>494</b>	<b>247</b>	-

AEY is proposing amortizing the costs through the amortization of deferred charges. Further discussion of the initial engineering and feasibility costs is in the response to YUB-YECL-75.

- (g) This equipment has never been put into use and as such, no depreciation has been accumulated. The original historical cost, accumulated depreciation and net book value is shown below:

Gross Asset Value:	\$1,194,000
Accumulated Depreciation:	\$0
Net Book Value:	\$1,194,000

- (h) Until AEY receives YUB approval for the Watson Lake Bi-Fuel project, AEY wants to minimize the funds committed to this project. At the time AEY tenders the Watson Lake Unit 2 Replacement, requests will be made for both diesel and Bi-Fuel enabled generating units. AEY will determine what unit is most prudent to purchase. Once the Watson Lake Bi-Fuel project is complete, factory enabled dual fuel units will be considered as generating units are due for replacement.

## **UCG-AEY-14 - REVISED**

**Reference:** May 11, 2016 Application, page 2-5

AEY has updated the time frames used for determining weather-normalized use per customer and has applied the growth rates experienced over 2013 to 2015 to derive the forecast use per customer for the 2016 and 2017 test years.

**Request:**

- (a) Please provide evidence and statistical analysis that the 3 year average methodology is a superior forecasting tool when compared to the 20 year average methodology.
- (b) Please confirm that the proposed 3 year average methodology will be more volatile than the current longer term methodology.
- (c) Please provide the 2016 and 2017 sales forecast by class using the existing longer term methodology.

**Response:**

- (a) AEY reviewed the R Square from the regression analyses that were performed on each community. Changing the "Normal" HDD horizon from a 20 year average to a 3 year average resulted in the R Square slightly increasing for some communities and slightly decreasing for other communities. However, the impact was minimal for all communities, and in all cases the R Square still remained statistically significant.

Additionally, AEY also reviewed the T-Stat from the regression analyses and is able to confirm that the values for all communities are above the threshold of 2.0.

Please also refer to AEY's response to YUB-YECL-7.

- (b) AEY is uncertain whether a three year average methodology would be more or less volatile. Notwithstanding, AEY submits that 3 years is more representative of recent trends in UPC. Please refer to AEY's response to YUB-YECL-7(b).
- (c) Please refer to Table 1 for the 2016 and 2017 sales forecast by class restated below based on the longer term methodology. For the working papers in Excel, with formulae intact, please refer to CW-YECL-25(b) Attachment 1 and CW-YECL-25(b) Attachment 2.



**Table 1**  
**ATCO Electric Yukon Sales by Customer Class**  
**(MWh)**

	Actual			Test Period	
	2013	2014	2015	2016	2017
Residential	148,780	147,253	148,605	148,074	153,155
Commercial	159,322	154,709	155,346	152,415	153,778
Street Lights	3,719	3,765	3,886	3,944	4,008
Private Lights	551	544	519	493	472
<b>Total Retail Primary</b>	<b>312,372</b>	<b>306,272</b>	<b>308,356</b>	<b>304,926</b> <sup>1</sup>	<b>311,413</b>
Secondary Sales	3,959	5,415	7,030	9,429	9,429
Wholesale Sales	356	495	430	427	427
<b>Total Company</b>	<b>316,687</b>	<b>312,182</b>	<b>315,816</b>	<del><b>313,592</b></del>	<del><b>319,289</b></del>
				<b>314,782</b>	<b>321,269</b>

Note:

1) 2016 Forecast includes 3 months of actuals for January, February & March.