
TO: GENERAL COMMITTEE

SUBJECT: AUTHORIZATION TO SIGN APPROVAL FORM TO MOVE WASTEWATER TREATMENT FACILITY TO CLASS A BILLING

WARD: ALL

PREPARED BY AND KEY CONTACT: B. THOMPSON, MANAGER OF ENERGY, EXT #4557

SUBMITTED BY: R. PEWS, DIRECTOR OF CORPORATE FACILITIES

GENERAL MANAGER APPROVAL: P. ELLIOTT-SPENCER, GENERAL MANAGER OF COMMUNITY AND CORPORATE SERVICES

CHIEF ADMINISTRATIVE OFFICER APPROVAL: C. LADD, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That the Director of Corporate Facilities be authorized to execute the consent letter to have the Wastewater Treatment Facility opt into the Industrial Conservation Initiative (ICI) and move the Wastewater Treatment Facility to Class A billing for the Global Adjustment portion of the electrical bill for the plant.
2. That the Director of Corporate Facilities be authorized to execute future agreements (presently yearly) to remain in the ICI program that are in keeping with the general intent and purpose of the original agreement.

PURPOSE & BACKGROUND

3. Consumers who pay the Hourly Ontario Energy Price (HOEP), or have signed a retail contract, will see their electricity bills also include a line for the Global Adjustment (GA). This charge accounts for the differences between the market price and the rates paid to regulated and contracted generators and for conservation and demand management programs.
4. Under the Industrial Conservation Initiative (ICI), the GA rate for Class A customers (those with an average hourly peak demand of 5 MW or higher, as well as those with an hourly peak demand greater than 1 MW and less than 5 MW that opt in to the program) varies individually depending on their energy use during coincident peak hours. For example, if an organization is, on average, responsible for one percent of electricity demand during the five highest coincidental peaks of the year, then their rate represents one percent of all Global Adjustment costs.

ANALYSIS

5. An analysis conducted by the Energy Management Branch compared the cost of the global adjustment if the Wastewater Treatment Facility (WwTF) had been in the program in 2015 and 2016 to the actual cost paid. The analysis indicates moving to Class A billing would be very beneficial from a cost perspective (Appendix "A").
6. It should be noted that there is no way for the Energy Management Branch to know what the future pricing of the global adjustment will be under either cost structure and as such the actual

- costs that will occur. Energy Management does not, at present, believe there will be a significant change in either pricing structure that will negatively impact the benefit of moving to the new cost structure.
7. The main risk identified in changing cost structures would occur if the WwTF substantially increased its electrical energy demand on the five days used to calculate the global adjustment under the new pricing structure. The most obvious way this would happen is if the cogeneration unit was not operating on those five days. The cogeneration unit currently provides about 20% of the electricity used at the plant using bio gas as its fuel source. This would increase costs under either cost structure and an analysis by energy management still results in lower costs under the new structure based on historical data in this scenario.
 8. Energy Management staff will be monitoring and calculating the actual difference in costs if the change to the new cost structure is made and will make a recommendation to the Director of Corporate Facilities as to whether we continue in the program based on this analysis at each yearly renewal.
 9. The intent of the program is to reduce peak demand on high and very high electrical demand days by creating a financial incentive for high demand organizations to reduce demand. If the participating organization can reduce electrical demand on the five designated days versus their normal consumption profile, they will pay a lower electrical cost year round. Although the five days are not known ahead of time, provincial electrical demand is forecasted on the Independent Electricity System Operators (IESO) website at least a day ahead and when it is forecasted to exceed a designated level, organizations can take action to reduce peak energy use. This will usually mean organizations will take action on more than the five designated days but the actions taken would be designed to not impact performance.
 10. At this point staff is working out the details as to how this notification can be automated for Wastewater Operations Branch (WWOB) staff.
 11. The analysis indicates that in 2015 (May 2015- Apr 2016) under actual operating conditions we would have been billed \$162,028 dollars less and in 2016 (May 2016- November 2016) we would have been billed \$183,090 less. If the Cogeneration unit failed to operate it would substantially reduce the benefit but would still be below the actual cost paid.
 12. As of January 1, 2017, eligibility to participate in ICI as a Class A Customer was expanded to include customers with a peak demand greater than 1 MW. This should include the WwTF. A consumer may elect to be a Class A consumer in respect of a load facility for an adjustment period, by giving written notice of the election to its licensed distributor no later than June 15th of the calendar year in which the adjustment period begins.
 13. If the City is successful in opting in to the ICI program, the global adjustment calculation for the WwTF for the period May 1 2017 to April 30 2018 will be based on our contribution to the five highest peak days in the period May 1 2016 to April 30 2017.
 14. A copy of the written notice that has been used previously by Alectra for organizations to opt in to the ICI program is attached (Appendix B). A new form will likely be available after May 1st and is expected to be substantially similar.
 15. It was decided that, due to the time constraints from when the new written notice will be available and the fact that Alectra has indicated they expect it to be substantially or exactly the same information as required, staff should go to Council for approval to sign now.
 16. Should the new forms be substantially different, staff will come back to Council for approval.

ENVIRONMENTAL MATTERS

17. There are no environmental matters related to the recommended motion.

ALTERNATIVES

18. The following alternatives are available for consideration by General Committee:

Alternative #1

General Committee could recommend that the amended agreement not be executed.

This alternative is not recommended as the City is forecasted to benefit financially by this change

Alternative #2

General Committee could recommend that the amended agreement be executed but not provide authority for the Director of Corporate Facilities to execute any other amending agreements.

Although this alternative is available, it would require a separate staff report to be presented yearly when the IESO renews the arrangement.

FINANCIAL

19. There are no direct financial costs for the Corporation, but it is anticipated that the WwTF electrical bill will be lower than budgeted as a result of the Director of Corporate Facilities executing the consent letter.

LINKAGE TO 2014-2018 STRATEGIC PLAN

20. The recommendation(s) included in this Staff Report are not directly related to the goals identified in the 2014-2018 Strategic Plan.

APPENDIX A

WwTF GA Cost				
2015	System GA Cost (\$ Millions)	Actual	Estimated	Difference
January	\$ 628			
February	\$ 459			
March	\$ 707			
April	\$ 929			
May	\$ 939	\$ 61,246	\$ 42,862.80	\$ 18,383.22
June	\$ 943	\$ 56,888	\$ 43,045.37	\$ 13,842.52
July	\$ 904	\$ 46,931	\$ 41,265.31	\$ 5,665.36
August	\$ 879	\$ 47,848	\$ 40,128.82	\$ 7,718.73
September	\$ 713	\$ 39,832	\$ 32,561.30	\$ 7,270.63
October	\$ 743	\$ 46,958	\$ 33,894.06	\$ 13,063.85
November	\$ 1,119	\$ 71,128	\$ 51,087.56	\$ 20,040.48
December	\$ 1,000	\$ 61,629	\$ 45,624.16	\$ 16,004.70
2016				\$ -
January	\$ 1,071	\$ 61,394	\$ 48,864.77	\$ 12,529.26
February	\$ 1,064	\$ 63,125	\$ 48,549.84	\$ 14,574.81
March	\$ 1,120	\$ 77,319	\$ 51,124.07	\$ 26,194.76
April	\$ 1,091	\$ 77,584	\$ 49,782.19	\$ 27,801.69
May	\$ 1,061	\$ 71,506	\$ 38,173	\$ 33,332
June	\$ 995	\$ 59,088	\$ 35,816	\$ 23,271
July	\$ 982	\$ 49,392	\$ 35,331	\$ 14,061
August	\$ 879	\$ 44,837	\$ 31,617	\$ 13,221
September	\$ 968	\$ 55,627	\$ 34,823	\$ 20,804
October	\$ 1,062	\$ 68,390	\$ 38,227	\$ 30,162
November	\$ 1,076	\$ 65,901	\$ 38,724	\$ 27,177
December				
Total		\$ 414,740	\$ 252,712	\$ 162,028
PDF 2016	0.000036	\$ 414,740	\$ 252,712	\$ 162,028
PDF 2015	0.000046	\$ 711,880	\$ 528,790	\$ 183,090

APPENDIX B

Company Letterhead

June (before June 15th), 2016

PowerStream Inc.
161 Cityview Blvd.,
Vaughan ON L4H 0A9

Re: Consent To PowerStream Inc. To Provide Electricity Info to Ministry of Energy & IESO

_____ (the 'Applicant'), hereby irrevocably authorizes and consents to the IESO, Transmitter and PowerStream Incorporated (the 'LDC') Releasing, disclosing, providing, delivering and otherwise making available to the Ministry of Energy (the 'Ministry') and the Independent Electricity System Operator (the 'IESO'), or their agents, successors or assigns, any and all information relating to the Applicant and the Facility including but not limited To connections, proposed connections, meters, meter data (including historical data), testing data, billing data, and other load data for buildings on which a Facility is proposed to be located or is located and LDC account, Transmitter account or Metered Market Participant (as defined in the IESO Market Rules) Account (as applicable) of the Applicant or the Facility as the Ministry, its agents, successors or assigns may advise is required in connection with the Industrial Conservation Program (the 'ICI Program').