OBJECTIVE:
To seek Council’s approval to submit an application, on an annual basis as required, for the Class A Global Adjustment charge for the Nanticoke Industrial Water Pump Stations (as well any future eligible facilities).

RECOMMENDATIONS:
1. THAT Report CS-FI-14-2017 Nanticoke Industrial Water Pump Station Application for Class A Global Adjustment be received;
2. AND THAT the Treasurer and Manager of Water and Wastewater Operations be jointly authorized to submit an application to Hydro One to opt into the Class A Global Adjustment for the Nanticoke Industrial Water Pump Station;
3. AND THAT delegated authority be given to the Treasurer, together with the applicable Division Manager, to submit any future Class A Global Adjustment applications for eligible facilities, if determined to be financially beneficial, on an annual basis as required.

Prepared by: Mark Merritt, CPA, CA, Treasurer
Respectfully submitted: Karen General, CPA, CGA, General Manager of Corporate Services
Approved: Donald G. Boyle, Chief Administrative Officer

EXECUTIVE SUMMARY:
Starting January 1, 2017, as a result of changes to the Industrial Conservation Initiative for electricity usage, the eligibility threshold for Class A Global Adjustments has been reduced from the previous average monthly demand of 5 MW to 1 MW. With this change in legislation, Haldimand County now has one (1) hydro account (being the Nanticoke Industrial Water Pump Station) that has become eligible for the Class A Global Adjustment. Staff are seeking Council approval to submit an application, before the June 15, 2017 deadline, in order to enroll the eligible electricity account into the Class A Global Adjustment program, as well as any future electricity accounts if it is deemed beneficial to do so. The projected savings, as a result of opting the Nanticoke water facility into the Class A Global Adjustment program, is projected at approximately $400,000 annually, with the bulk of the savings directly passed on to industrial users due to their raw water usage. The County’s share of the savings is estimated at $40,000 or 10%, based on the volume utilized for the potable water system.
BACKGROUND:

The Global Adjustment (GA) is charged to all electricity customers in Ontario. For residential or low usage customers (annual consumption < 250,000 kWh), the GA is incorporated into the time-of-use or tiered rates and not seen as an individual line item on a customer’s electricity bills. For high usage customers (annual consumption > 250,000 kWh, of which the county has 15 accounts in total) or customers that have entered into a retail contract (similar to the County’s LAS hydro procurement program), the GA is charged directly and appears as a separate line item on the monthly electricity bill.

In 2010, the Industrial Conservation Initiative (ICI) was introduced by the Ontario government which created two categories of GA that may be applicable to high consumption users based on their peak electricity demand (i.e., peak monthly wattage demand). The two categories of GA that were created were Class A and Class B. Prior to 2010, all high consumption users were billed at the applicable Class B GA rate which is calculated monthly based on volumetric (kWh) electricity consumption. As introduced in 2010, customers that have a monthly peak demand of greater than 5 MW over a 12 month period have the option to be charged the Class A GA rate which is based on their percentage of contribution to the top five peak demand days for Ontario in each year. Finance and Water/wastewater staff have been reviewing the County’s potential eligibility for this program based on an understanding future changes were pending.

Starting January 1, 2017, the Ontario government introduced Ontario Regulation 429 which decreased the annual monthly peak demand threshold from 5 MW to 1 MW, allowing for an increased number of industrial/high consumption consumers to be eligible for the optional Class A GA rate. As a result of the threshold being decreased from 5 MW peak monthly demand to 1 MW, Haldimand County now has one (1) hydro account that has become eligible for the Class A GA rate. The facility that is now eligible under the decreased threshold is the Nanticoke Industrial Water Pump Station (IPS) located at the Nanticoke Industrial Water Treatment Facility. The IPS supplies raw water directly to large industrial users, as well as the Nanticoke water treatment plant (which, after treatment, distributes potable water to users located in the Nanticoke Industrial Park, Jarvis, Townsend and Hagersville).

The County’s 2017 hydro expenditure budget for the IPS facility, based on the class B GA rate, was estimated at $1,950,000. Electricity costs are then shared between Haldimand County potable water users and the applicable industrial users based on actual water demand. As a result, Haldimand County’s share of the annual electricity costs have been estimated at approximately $210,000 for 2017 with the remaining $1,740,000 divided between the applicable industrial users. Out of the total 2017 budget of $1,950,000 for the IPS facility, approximately $1,280,000 (or 66%) of the total budget is directly attributable to the GA charge under the current Class B framework. Based on the current industrial cost sharing arrangement, $127,800 of this GA charge has been allocated to Haldimand County with the remainder being distributed to the applicable industrial users.

ANALYSIS:

As a result of the regulatory changes noted above, staff are seeking authority from Council to submit an application to opt-in to the Class A GA rate for the Nanticoke IPS water facility. In discussion with the County’s local distribution company (LDC), Hydro One, there are key dates that must be met in order to be approved for the Class A GA rate, as follows:

- May 31, 2017: deadline for LDCs to calculate and issue the peak demand factors for eligible customers with an average peak demand of 1 MW or greater;
- June 15, 2017: deadline for customers in the >1MW and ≤5MW range to opt in to participate;
- June 23, 2017: deadline for LDCs to revise coincident peak data based on customer opt outs/ins;
- July 1, 2017: eligible customers that have opted in will be billed under Class A (at beginning of the next adjustment period).
The expected benefit of the optional Class A GA rate for this year is not fully known as the official peak demand calculation has not been formally submitted to the County by Hydro One (deadline being May 31st annually). However, based on discussions with Hydro One, the annual GA savings for the next 12 month cycle is estimated at being 30% by moving to the Class A GA rate. Based on discussions with the industrial users of the Nanticoke IPS, the preliminary projected savings received from Hydro One seem to be reasonable estimates based on their experience at other locations.

As mentioned, under the Class A GA program, users are charged the GA rate based on their percentage contribution to the top five peak demand days (for the relevant hours) each year. In other words, the greater the user’s share of energy during high demand periods, the greater the GA cost to be incurred. Peak demand hours generally occur in:

- Summer months during heat waves (between hours of 2 pm and 8 pm); or
- Winter months during extreme cold periods (between hours of 5 pm and 7 pm).

Based on when the peak demands are forecasted to occur, the County has the ability to augment their electricity demand during these anticipated peaks in order to decrease our future share of the total GA. The County will work directly with the industrial users to forecast peak demand days/hours and adjust operations accordingly. By reducing the County’s contribution to the hourly demand peaks, it is possible that the calculated GA savings, being the difference between the current Class B charge and the opted Class A charge, will increase beyond the current estimates outlined in this report. Opting into the Class A GA rate will require a staff commitment to actively work with the industries to forecast and mitigate the facility contribution to the daily Ontario demand peaks. Simply opting for the Class A GA without any monitoring/mitigation efforts from the County and industries would not be sufficient to generate significant savings on its own.

If, in the future, the annual peak demand threshold is further decreased, or if current/new facilities have peak electricity demands that exceed the current 1 MW threshold, it is also recommended that staff be delegated the authority to enroll those accounts into the Class A GA rate program, as long as it continues to be financially beneficial to do so. Staff are also seeking delegated authority from Council to apply for the Class A GA rate on an annual basis, if required, given the strict timelines noted above, as it may not be practical for staff to seek Council approval to opt-in to the Class A GA rate annually. The current timeline only allows 15 days for staff to analyze the peak usage data as received from Hydro One, determine the financial benefit of opting into the Class A GA rate, and to submit the appropriate documents by the June 15th deadline. Once opted in, the County will not be able to withdraw participation in the Class A GA rate until the following year.

**FINANCIAL/LEGAL IMPLICATIONS:**

Based on a preliminary analysis, the below table summarizes the projected savings of approximately $400,000, as a result of the optional Class A GA rate over the next 12 month period (July 1, 2017 – June 30, 2018). The potential County share of the savings are estimated at approximately $40,000 annually. It is important to note though, that these values are subject to change based on the actual peak demand factors to be received from Hydro One by May 31, or as a result of changes in the industrial user allocations. Any actual savings as a result of the opted Class A GA will be noted as a positive budget variance at year-end, as well as incorporated into future Rate Supported Operating Budgets.
Table 1: Projected Nanticoke IPS Savings between Class A and Class B Global Adjustment

<table>
<thead>
<tr>
<th></th>
<th>2017 Electricity Budget</th>
<th>2017 Budget for GA (class B)</th>
<th>Estimated Annual Savings between Class A and B GA*</th>
<th>Revised 2017 GA Estimated (class A)</th>
<th>Estimated Annual Savings</th>
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</thead>
<tbody>
<tr>
<td>Haldimand County</td>
<td>$207,250</td>
<td>$127,793</td>
<td>30%</td>
<td>$89,455</td>
<td>$38,338</td>
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<tr>
<td>Industrial Users</td>
<td>$1,739,520</td>
<td>$1,150,137</td>
<td>30%</td>
<td>$805,096</td>
<td>$345,041</td>
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<tr>
<td>Total</td>
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<td>$1,277,930</td>
<td></td>
<td>$894,551</td>
<td>$383,379</td>
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</tbody>
</table>

STAKEHOLDER IMPACTS:
The preliminary estimated GA electricity savings, as a result of opting into the Class A GA for the Nanticoke IPS water facility, is approximately 30%. By opting into the Class A GA rate, both the County, as well as the industrial users of the facility, will benefit from the annual projected savings.

REPORT IMPACTS:
Agreement: Yes
By-law: No
Budget Amendment: No
Policy: No

ATTACHMENTS:
1. Industrial Conservation Initiative FAQ's for LDC’s – March 2017