



Energy Cost & Economic Impact Survey

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Background

Since 2005, the Northumberland Manufacturers' Association (NMA) has been actively representing manufacturers in Northumberland County. The purpose of the NMA is to promote continuous improvement, innovation, and high performance and productivity enhancements through collaboration, education and advocacy.

Energy costs continue to be an identified issue for our members and local industry, therefore, the NMA conducted a member manufacturer survey to seek feedback on electricity and other energy use costs, global adjustment charges and conservation measures.

The survey feedback will be used to support the NMA's efforts on raising awareness of the impacts of energy costs on Northumberland's manufacturing sector. It will also assist the NMA's participation on the Ontario Energy Coalition to advocate the need for more competitive industrial energy rates in Ontario.

Members were asked to participate in an anonymous survey. Information and company names collected are to be kept confidential, with only the aggregate responses reported.

Although the timing for the survey during peak summer shutdown and vacation period was not optimal, the response rate was higher than anticipated at 33%. A total of 12 responses were received from a total of 36 Member Manufacturers. Execution of a second survey may be considered in early 2017 to be inclusive of all manufacturers within the Northumberland region.

Methodology

The fillable pdf survey forms were developed with input from the Energy Advocacy lead and Board members. The final survey form asked respondents about their local economic impact, competing areas, types of Energy usage, costs and conservation efforts. Customers were asked to complete the questionnaire and return it to the NMA by email or fax.

Members were asked to participate on a confidential manner. The information collected is considered confidential to the NMA and names collected will not be shared. The survey results were combined into an excel format and only the aggregate responses are reported. Participation was voluntary.

A copy of the survey form is enclosed as appendix A

Survey Results

A total of 12 responses were received, from a total of 36 Member Manufacturers. A variety of manufacturers from various sectors ranging from small to large operations responded to the survey. To maintain confidentiality with responding members, the following is an aggregated survey result.

Economic Impact Locally

Respondents reported:

- Employing 1,442 individuals
- A total estimated annual payroll of \$ 99,203,000.00
- Estimated annual Municipal property taxes total \$2,156,315.00

Competing Regions

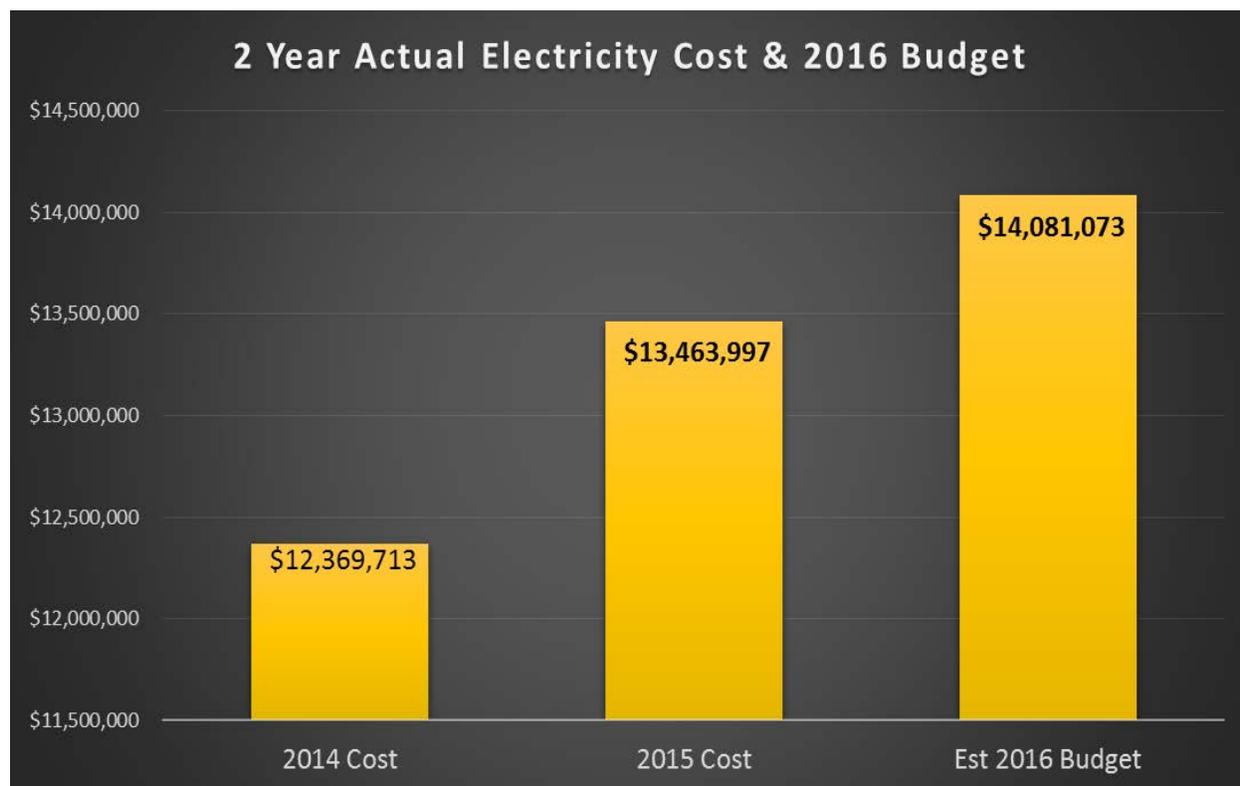
70% of respondents compete within North America, primarily the United States (US) and 25% have US based sister plants they directly compete with. In addition to the US, 30% also compete with China, Europe, South America, and Australia.

General comments noted that the cost of energy is impacting the ability to compete. Respondents noted that competitors in the United States (US), including their own US based sister plants were of particular concern. Two respondents noted that to remain viable in today's market, they offset increased electricity costs by not investing in other plant infrastructure and programs that may ultimately make them less competitive overall.

Electricity

All but one company responded that their primary source of power is electricity. Of that, 81.8% of respondents are large consumers, using more than 250,000 kilowatt hours (kWh) per year. The majority of the large users are Class B with a peak demand of over 50KW and under 5MW.

Figure A: 2 Year Actual & 2016 Budget



Estimated electricity costs for respondents is reflected above in Figure A. Reported costs reflect a 2015 increase of 8.846% over 2014. The average respondents budget estimate for 2016 reflected a 13.835% increase over 2014 actual costs and 4.583 % increase over 2015 actual billed cost. Several members noted that the Global Adjustment is an unknown budget expense therefore they cannot budget with any confidence as they don't know what their bill will be.

Based on the detailed monthly charges reflected in Figure B, in the first quarter of 2016 the Global Adjustment portion of electricity bills increased, although actual electricity usage decreased. It was noted that this type of increase is difficult to justify and explain, particularly to corporate offices not located in Ontario.

As reflected in Figure C, the total reported electricity billing for respondents was \$5,945,833. Global Adjustment charges represent more than half of all of the total billed charges. Actual electricity charges represented 9%, Global Adjustment 59%, Delivery charges 13% and the remaining 19% being debt retirement and regulatory charges.

Figure B: Electricity Billed Costs to May 2016

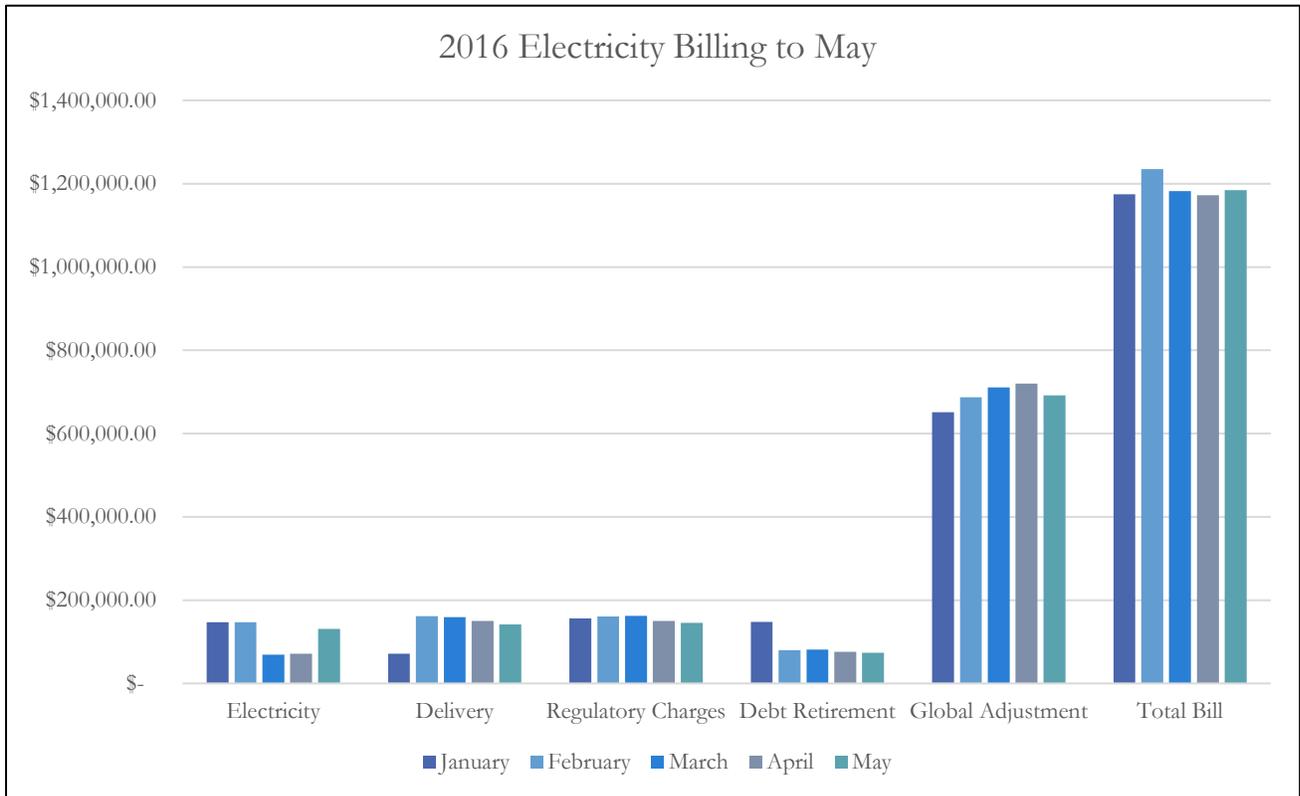
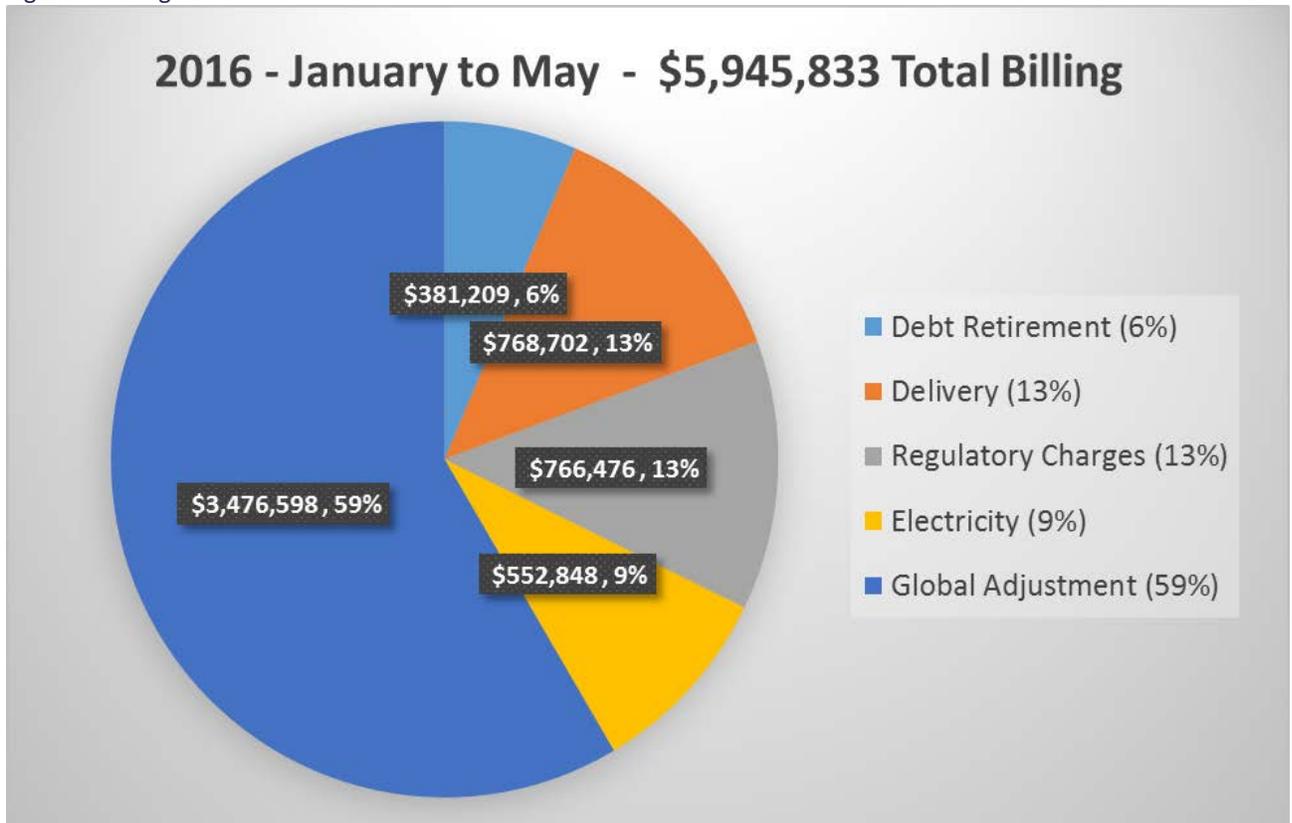


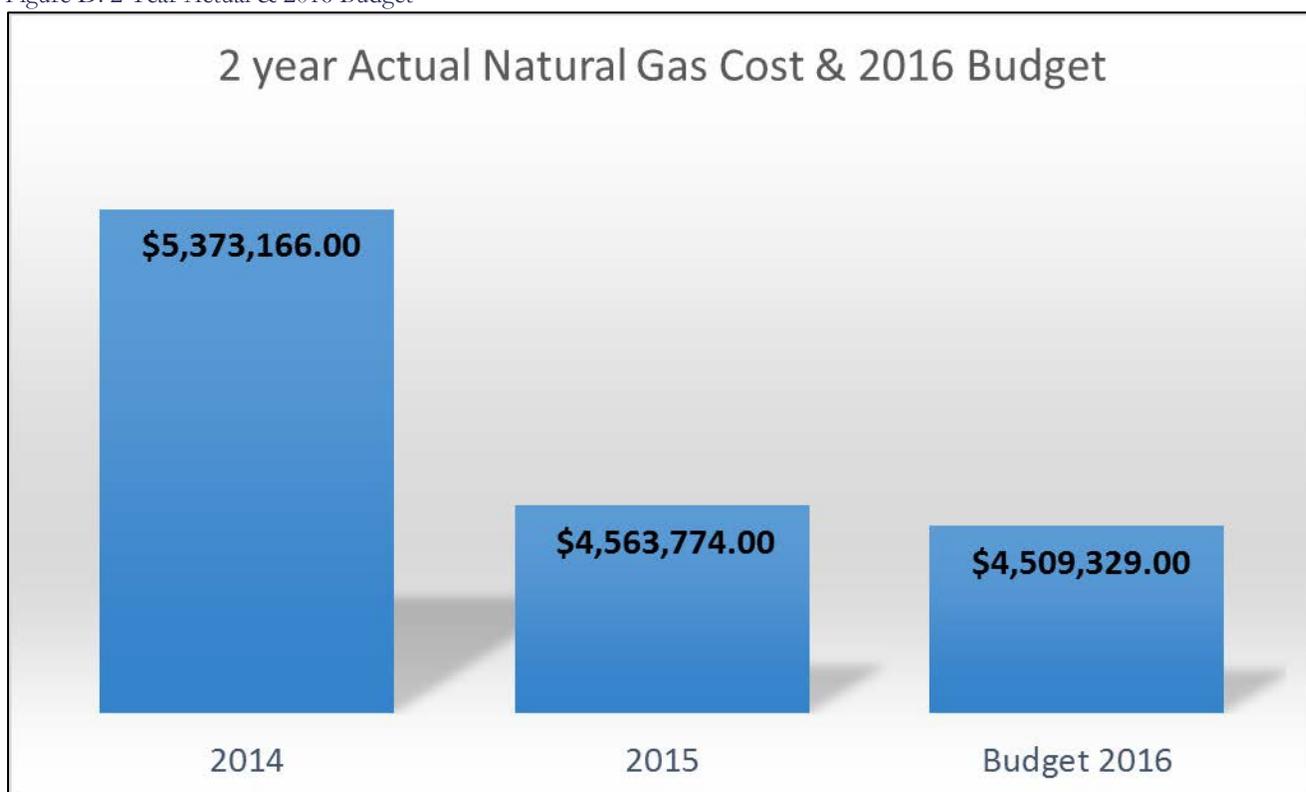
Figure C: Billing Breakdown to date 2016



Natural Gas

Only one respondent noted that Natural Gas was their primary source of power. However, 75% of respondents use natural gas as their secondary source, with half of those reporting they are large high load factor customers using 100,000 m³ or more daily. Figure D below reflects the estimated natural gas costs for the past 2 years and 2016 forecasted budgets. The majority of large high load factor customers had a significant reduction in the reported gas costs in 2015 compared to costs in 2016. General comments did not provide an explanation for the decrease therefore further investigation would be required to fully understand the cost reduction in 2015 and further reduction in 2016 budgets.

Figure D: 2 Year Actual & 2016 Budget



Other Energy Sources

No other primary energy sources were identified. One respondent noted the use of wood as a secondary source.

Of those surveyed, 50% do not foresee any changes in their primary source of energy, 40% unknown and 10% could see a change as necessary to remain in business.

Energy Conservation Efforts

Only one respondent noted conservation efforts have taken on a new direction due to the greenhouse gas (GHG) emissions reporting requirements and Cap & Trade regulation in effect this year. General comments noted a move of electrical applications to natural gas. It was also noted that based on cost a future strategy will take into account carbon pricing effects and if it will erode the gas cost position.

Half of the respondents reported they had participated in Conservation Programs with the last 3 years and as a result all reported a reduction in the consumption. Not all respondents identified savings, however two respondents reported a cost savings ranging between 5-10% in electricity costs and one reported a savings of 25% in natural gas costs.

90% of respondents that participated in Conservation Programs reported they realized an increase in the Global Adjustment charge on their bill that may have impacted their anticipated conservation savings.

Conservation programs identified included lighting, heating and gas consumption studies, saveONenergy, lighting retrofits, and equipment upgrades.

Additional Comments

- Global Adjustment represents 40-59% of electricity bill.
- Global Adjustment is an unknown budget expense – you just don't know what your bill will be.
- Significant conservation projects reduced overall consumption however increase in Global Adjustment charges masked savings.
- Investigating alternative combined heat & power options i.e.: Natural Gas Cogen on-site to reduce energy costs.
- Cannot compete with US based sister plants.
- With drops in demand, overall efficiency decreases when not operating 24/5

NOTE: Additional comments were not included if there was a risk of compromising confidentiality and the identity of the responding manufacturer.

Energy Cost & Economic Impact Survey - June, 2016

The NMA actively participates on the Ontario Energy Coalition to advocate for more competitive industrial energy rates in Ontario. Several members have recently identified an increasing electricity cost, primarily the global adjustment charge, is negatively impacting their ability to compete in North America. To support the NMA's efforts on this issue, we need your feedback on your electricity and other energy use costs, global adjustment charges and conservation measures. The information received will be aggregated to support advocacy on this issue.

NOTE: The information collected will be stored confidentially and used for Energy advocacy planning purposes by the NMA. Names collected will not be shared and only aggregate responses will be reported. Participation is voluntary.

Member Information

Company Name:

Address:

Contact Name:

Phone #:

Email:

Corporate Head Office Location:

1. Economic Impact Locally

1.1 Estimated Annual Payroll:

1.2 # of Employees:

1.3 Estimated Annual Property Taxes:

2. Competing Regions

2.1 Are your major competitors located outside of Ontario, in:

North America

Other (Specify)

2.2 Do your competitors include North American sister plants:

Yes

No



6.5 Specific to Electricity

Did you see an increase in the Global Adjustment charge on your billing that may have impacted anticipated conservation savings?

Yes

No

Comments:

6.6 Do you foresee any changes in your primary source of energy in the next 5-10 years?

Yes

No

Unknown

If Yes, briefly detail:

Additional Comments:

Thank you for Participating.

Please return your completed survey by fax to 905-372-2238
Or email to: judy.selvig@thenma.ca