

Municipal Energy Profile – How Far Have We Come, and What's Next?

Presentation for the Municipal Corporate Energy Managers Webinar

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Outline/Agenda

1. **Municipal Energy Profile Objectives**
2. **Municipal Energy Preliminary Data Analysis**
 - **Consumption per Capita**
 - **Municipal Electricity Profile: 2006 vs. 2014**
 - **LED streetlights – don't lose momentum!**
 - **Energy Efficiency: Municipal Participation in Save On Energy**
3. **Municipal Energy Profile Next Steps**

Ontario Municipalities: Electricity Profile January 2008

Ontario Municipalities: An Electricity Profile

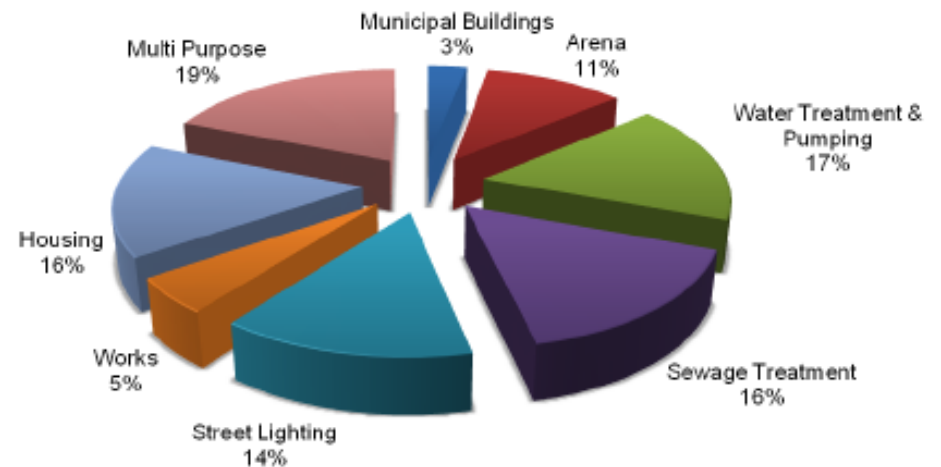
Ontario's 445 Municipalities:
Spend \$680 million annually on electricity
Consume 6.6 billion kilowatt hours of electricity per year
Represent 4.3% of Ontario's total electricity consumption

This Electricity Profile uncovered opportunities to reduce:
Spending by \$136 million per year – 20% of annual electricity cost
Consumption by 12% - representing 792 million kilowatt hours

January 25, 2008

Prepared by Power Application Group Inc. (PAGI) on behalf of the Ontario's
Independent Electricity System Operator (IESO)

Average Consumption by Usage

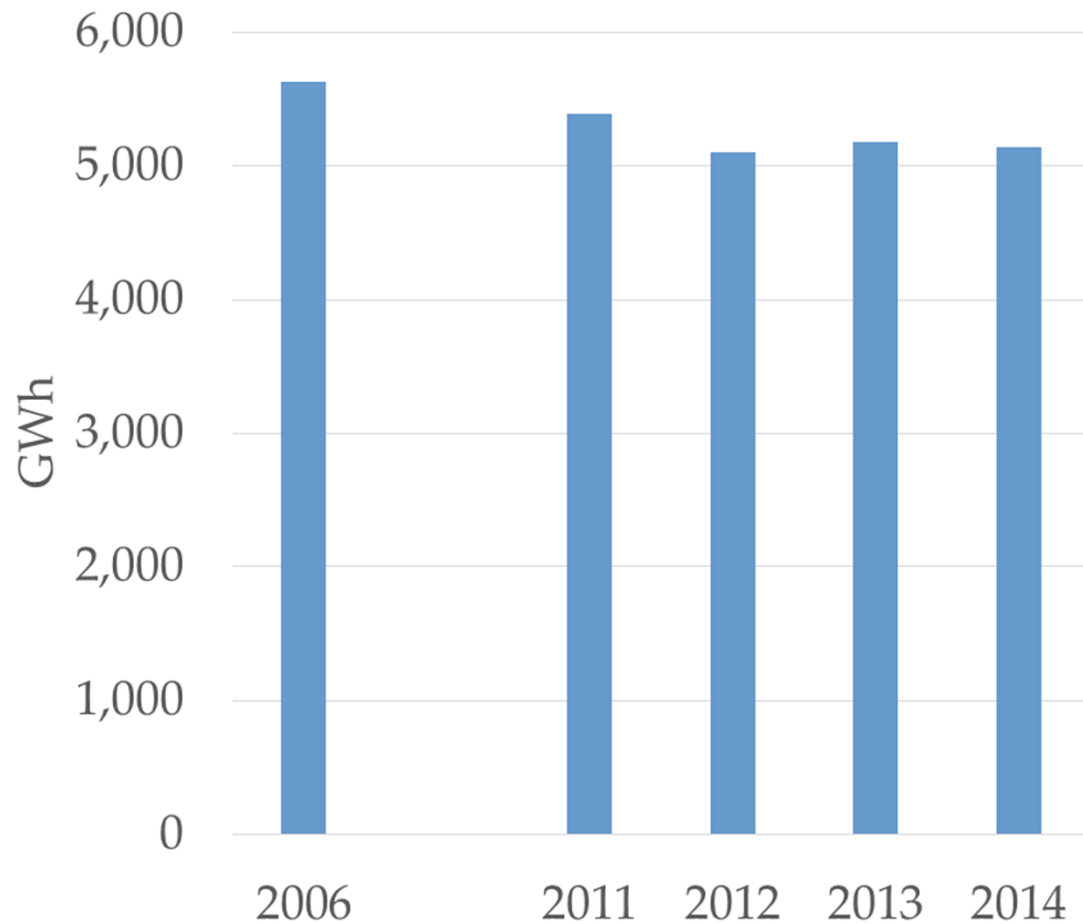


Municipal Energy Profile Study Objectives

- **Objective:** Develop an energy profile for municipalities in Ontario to observe any changes since the last profile, and to assess short-term (2020) and medium-term (2030) outlook and opportunities



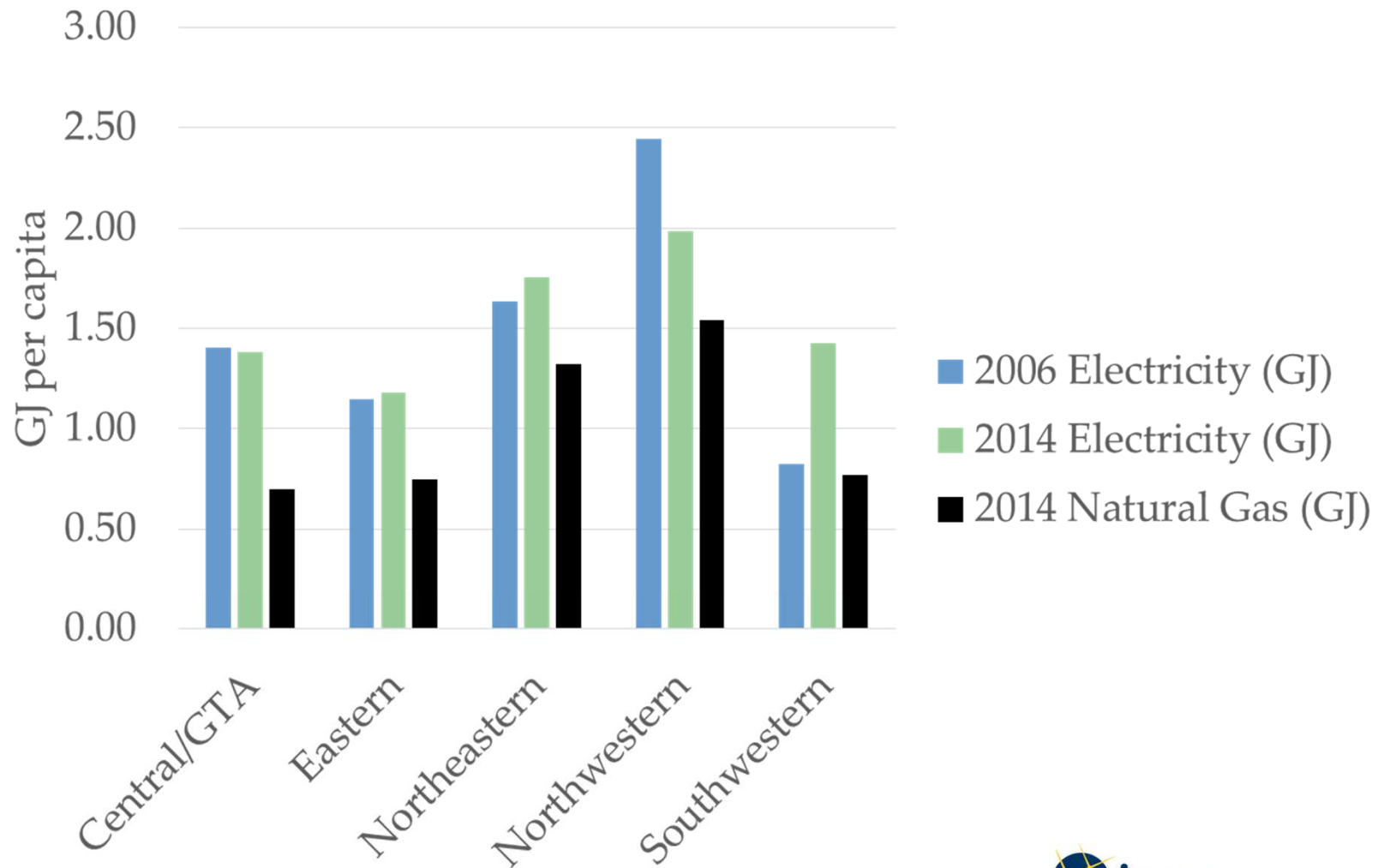
Municipal electricity consumption



- In 2006, municipalities (excluding social housing) represented **3.7%** of Ontario's total electricity consumption, or 5,631 GWh*
- In 2014, municipalities (excluding social housing) continued to represent **3.7%** of Ontario's total electricity consumption, or 5,139 GWh (10% reduction)

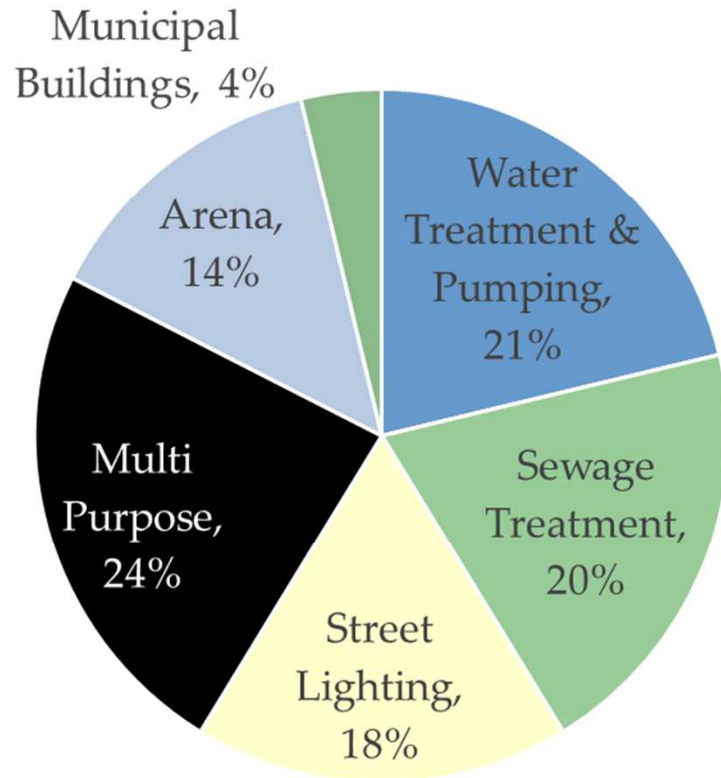
*Ontario Municipalities: An Electricity Profile, 2008

Municipal energy consumption per capita

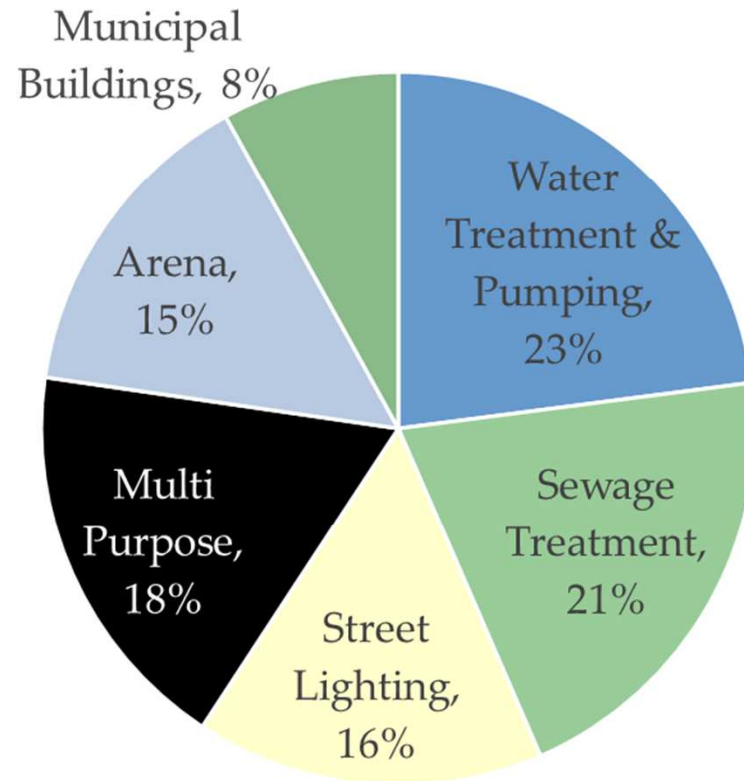


Municipal electricity profile: 2006 vs 2014

AVERAGE CONSUMPTION BY USAGE, 2006

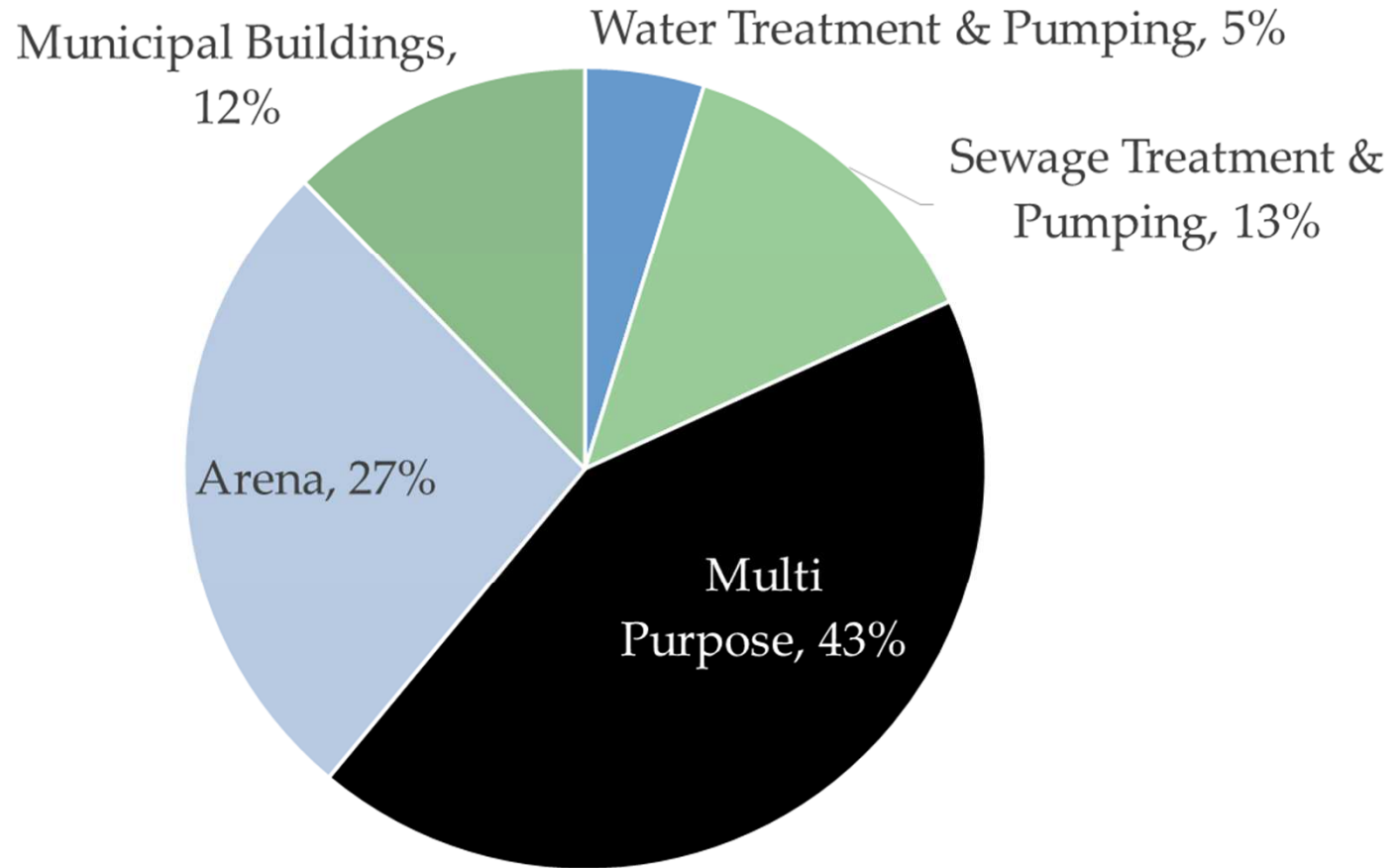


AVERAGE CONSUMPTION BY USAGE, 2014



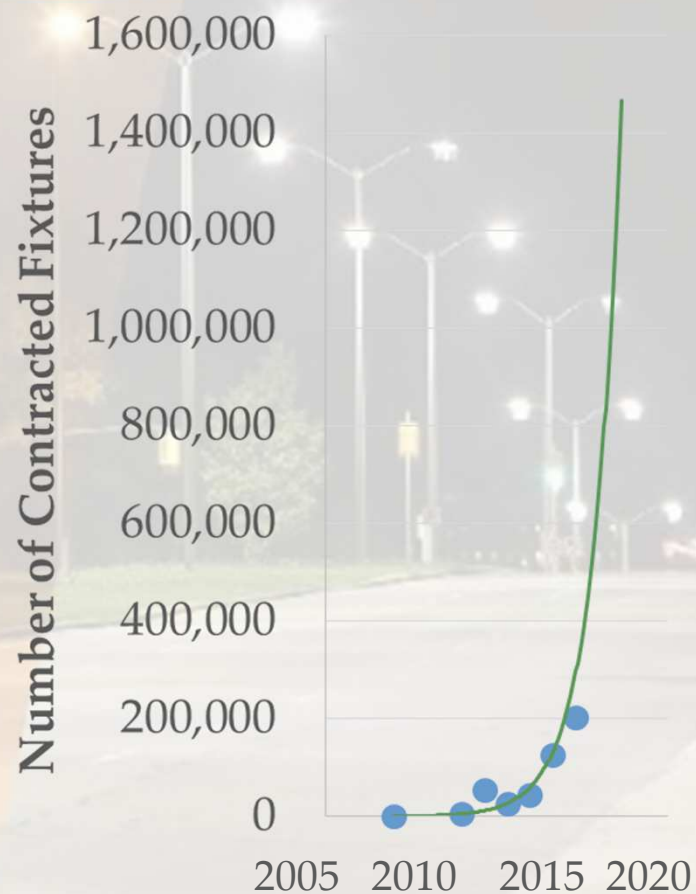
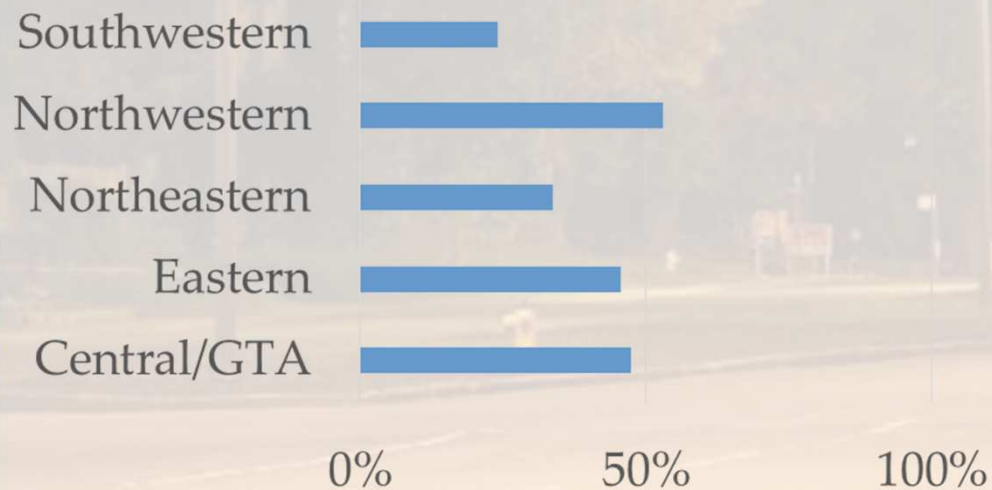
**Ontario Municipalities: An Electricity Profile, 2008*

Municipal natural gas profile: 2014



LED street lighting – don't lose momentum!

Municipalities Implementing LED Street Lighting

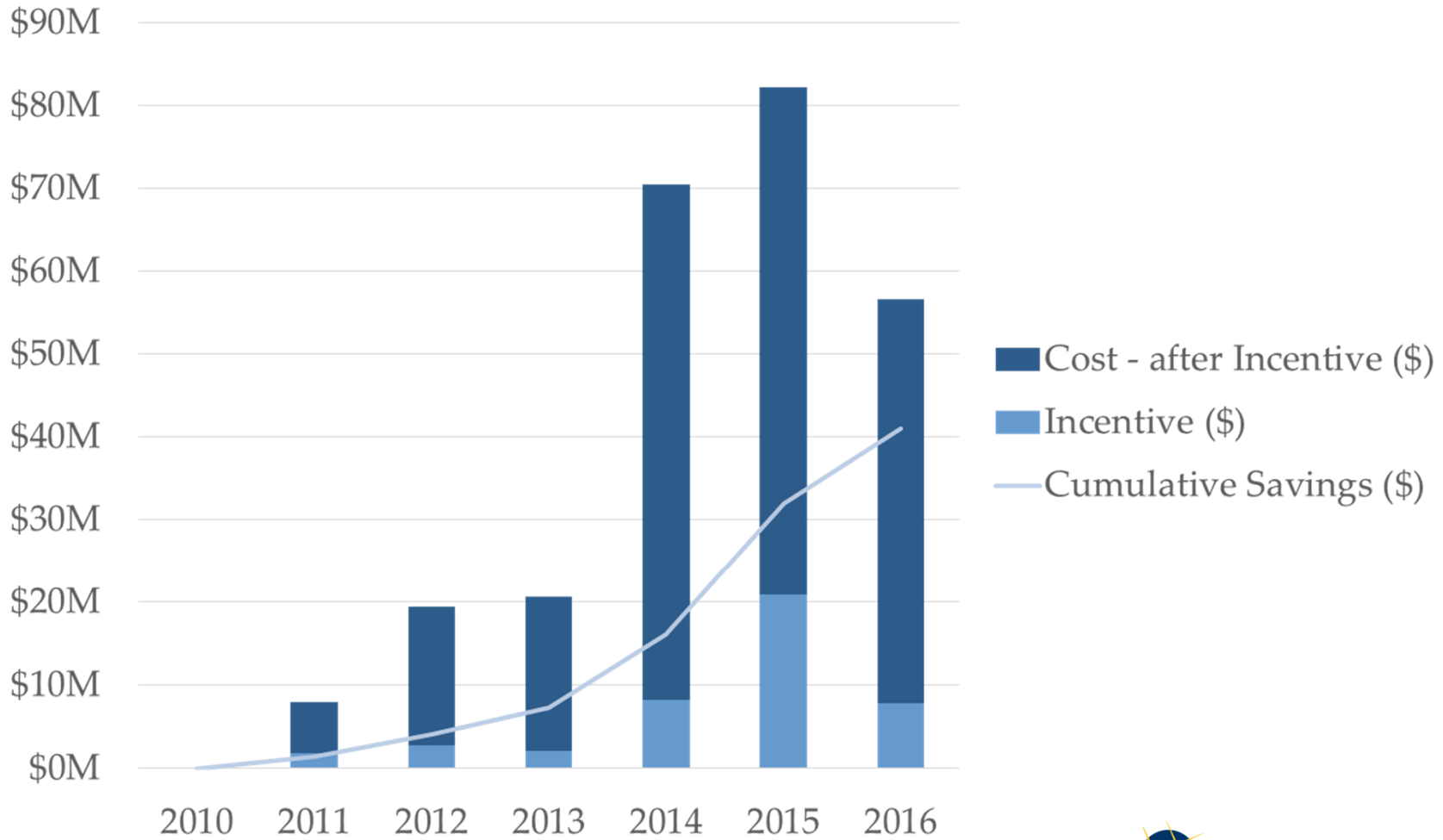


Municipal Participation in



- At least **74%** of municipalities and municipal service boards have completed at least 1 project under Save on Energy
- Municipalities have received approximately **\$49M** in incentives, and saved **330 GWh** to date
- **91%** of these incentive dollars were delivered through the Retrofit Program

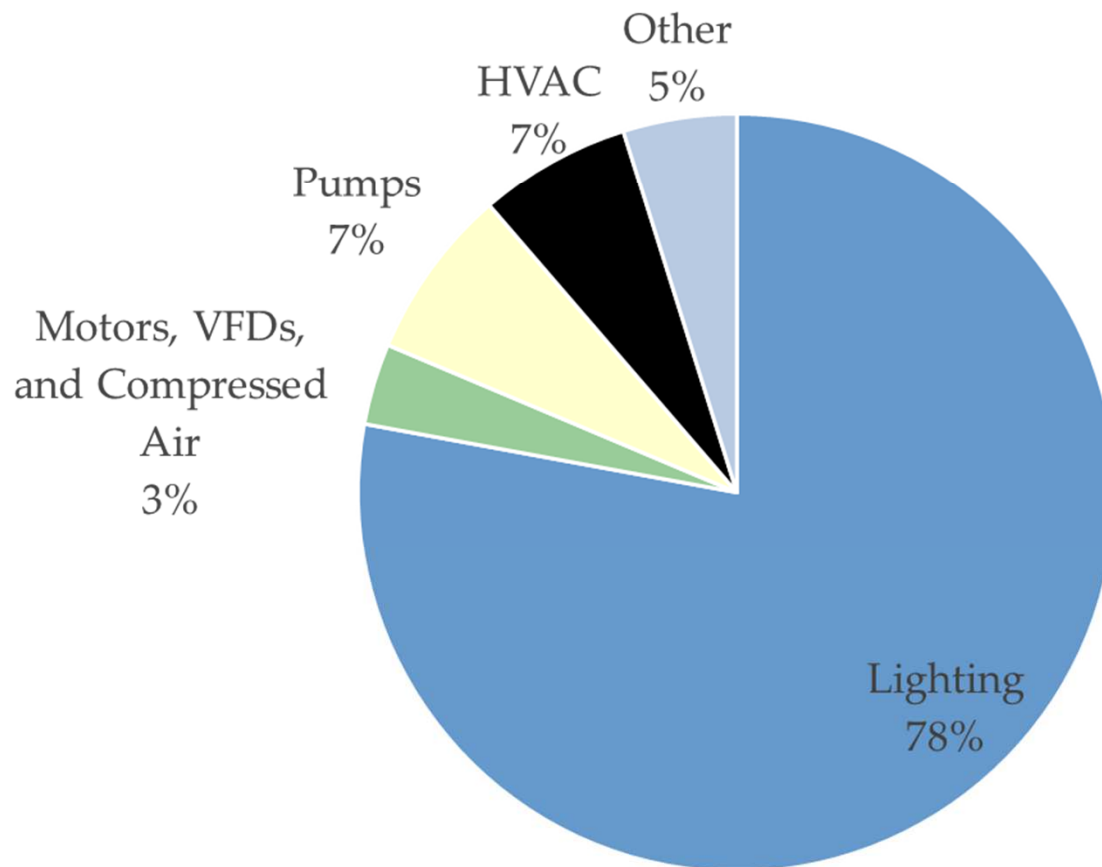
Municipal Investment and Savings through



Municipal Savings Achieved through



MUNICIPAL ELECTRICITY SAVINGS FROM THE RETROFIT PROGRAM TO DATE, BY MEASURE



Building Capability in Municipalities

- Municipalities have demonstrated a strong level of engagement in energy efficiency through their participation in various capability building initiatives
 - Since 2013, **20** municipal organizations received funding through the IESO's **Training & Support** initiatives to receive industry recognized training and accreditation, such as Building Operator Certification and Certified Energy Manager training
 - There are currently 15 funded **Energy Managers** (12 situated in municipalities, 3 situated in social housing organizations)



What does this all mean?

- ❑ Municipalities are now more empowered on decision-making on community energy planning and playing an increasingly important role maintaining a reliable electricity supply
- ❑ Municipalities are leveraging technologies and efficiency measures to control operating costs and enable more self-sustaining energy options
- ❑ The IESO is playing a role in facilitating innovation and the use of emerging technologies, energy saving technologies
- ❑ There are still opportunities for savings

Municipal Energy Profile Study Next Steps

- **Municipal participation in the forthcoming survey** will help inform the development of initiatives and support programs which will help your municipality achieve its energy conservation goals.

For more information, please contact *Vicki Gagnon* (Vicki.Gagnon@ieso.ca) or *Katelyn Brunskill* (Katelyn.Brunskill@icf.com)



Thank you! – *Any Questions?*

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