

# Energy Conservation in the Arctic

Arctic Energy and Emerging Technologies  
Conference & Tradeshow

Inuvik, June 13, 2017



ARCTIC ENERGY ALLIANCE

# Presentation Outline

- The Arctic Energy Alliance
- Conservation, efficiency, and renewables
- Project highlights
- Programs
- Contact information



# Introduction to AEA

## Mission

“To promote and facilitate the adoption of efficient and renewable energy practices by all members of NWT Society.”



Yellowknife Office

Partnering is at the core of  
everything we do

# AEA Regional Offices



**South Slave – Hay River**



**Tlicho – Whati**



**Dehcho – Fort Simpson**



**Sahtu – Norman Wells**



**Beaufort-Delta – Inuvik**

# AEA Inuvik Regional Office



Aurora Research Institute  
Inuvik  
867-777-2068  
877-755-5855 toll free



**Sheena Adams**  
Regional Energy Projects Coordinator

# Our Clients

- Homeowners and occupants
- Businesses
- Institutions
- Communities
- Community & Indigenous governments
- Non-profits

# What We Do

- Free information & advice
- Administration of rebate programs
- Home energy assessments
- Commercial & institutional yardstick and targeted assessments
- Workshops & training
- Community energy planning
- And more!

# Conservation, Efficiency, & Renewables



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# ENERGY PRIORITIES PYRAMID

RENEWABLE ENERGY



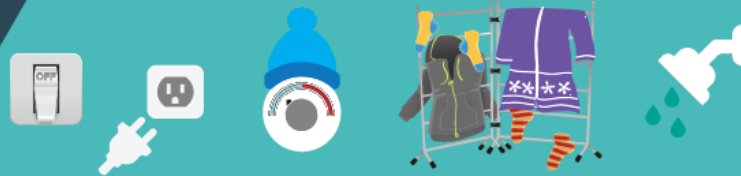
Biomass Energy  
Wind Power  
Solar Power

ENERGY EFFICIENCY



Replace Old Lights with LED Lights  
Use Energy Efficient Appliances  
Improve Insulation

ENERGY CONSERVATION



Turn off Lights and Gadgets  
Turn Down Thermostats  
Hang Clothes to Dry  
Take Shorter Showers



# Dene Principles

*This land was created by "the one who provides for all," and we come from this land. We recognize our equality with this land and all living things.*

*We recognize and respect the natural laws, which regulate the cycles and seasons, the rhythms of the earth, the way of the animals.*

*No one individual has the right to own the land. As the ones who come from this land, we have a collective right to use the land and its resources to ensure our survival as a people. We also have a collective responsibility to protect the land and resources for our children and grandchildren.*

*We take only what we need from the land. We honour and give thanks to the spirit of the land and that which we take from the land. We do not waste anything that we take from the land, but share it with who all are in need.*

*The survival of the whole group (family, community) is more important than the accumulation of individual wealth or status.*

*Individual rights and freedoms are respected and encouraged within the larger, more important context of a collective identity and collective responsibilities for the survival and well-being of the entire group.*



George's Riffle



Chai's (Yellow Lake)

*The laws of the Dene, which have been passed down to us by our elders, teach us how to respect the land, ourselves, and each other. They teach us how to live in balance and good health, and how to protect ourselves and our children. We must continue to live by these laws and pass them on to our children.*

*We respect and care for each other, in particular, we honour and provide for our elders, who care for us and passed on gifts of generations past. We also honour and provide for our children who will pass on the ways of the Dene to generations yet to come.*

*We come from male and female, and we respect and honour the contributions which both men and women make working together for the survival of the people.*

*We respect and honour our leaders and medicine men and women who share their special skills, experiences, wisdom, and powers for the benefit of our people. We don't expect them to work for us or serve us, but we look to them for guidance and instruction to help us govern ourselves in a good way.*

*Everyone has the right to be heard and to take part in the decision-making process on discussion of matters which will affect us.*

*We respect the right of Dene, in family groups, in communities, or in regions, to make decisions, without interference from outside, with respect to matters which affect them alone in their territory.*

## From the Dene Principles:

***"We take only what we need from the land ...***

***We do not waste anything"***

Energy conservation and energy efficiency are not new concepts!

# Energy Efficiency Northern Style



# Projects



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# Community Energy Planning

- Two communities, two years, funded by Natural Resources Canada
- Planning, implementation, and follow up
- Focus on energy savings but also on capacity building within the communities selected

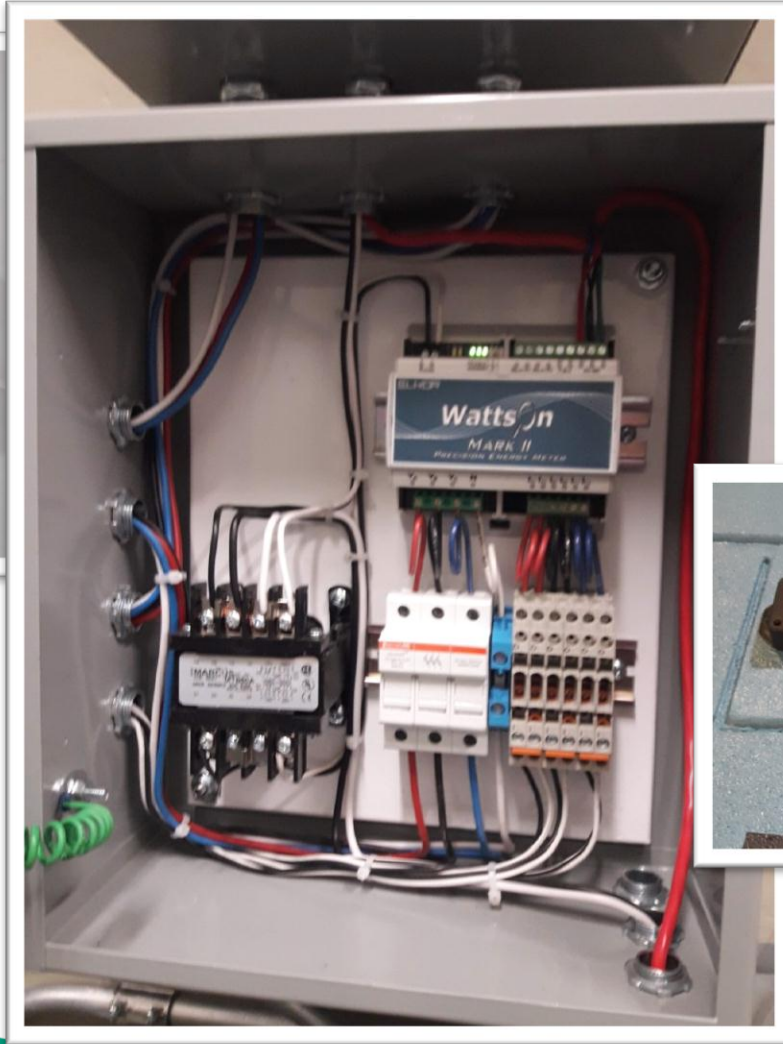
# Community Energy Planning



# Community Energy Planning



# Energy Conservation and Efficiency



# Energy Conservation and Efficiency

2016-17 lightbulb swap

## Estimated Annual Savings - Residential

640,000 kWh

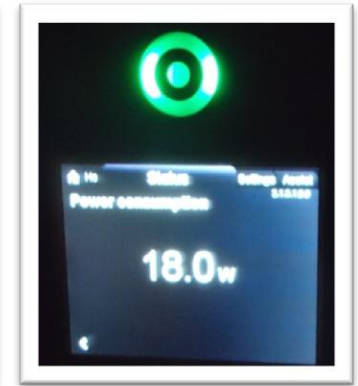
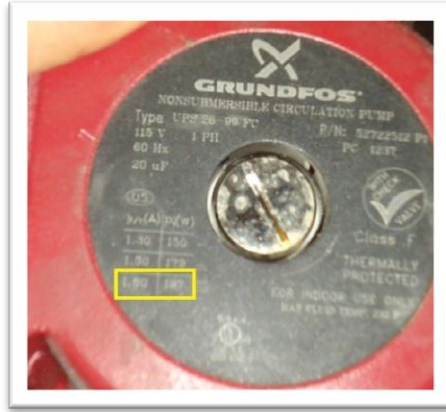
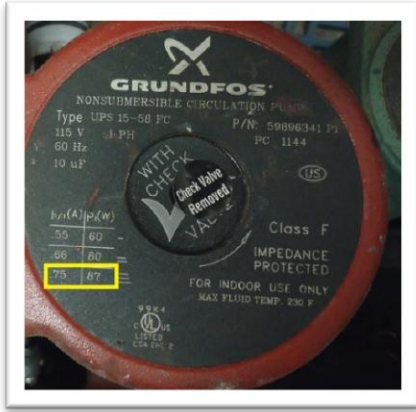
\$189,000 in electricity costs

425 tonnes of GHGs

**Cost of the bulbs:**

**\$119,000**

# Energy Conservation and Efficiency



# Energy Conservation and Efficiency

| Program                               | Number of Rebates in 2017-18 | Total Annual Savings |   |
|---------------------------------------|------------------------------|----------------------|---|
| Energy Efficient Appliances           | 836                          | Not available        |   |
| Businesses                            | 21                           | \$200,000            | >1million kWh   |
| Community Governments and Non-Profits | 7                            | \$120,000            | 113,000 kWh<br>32 kW peak demand<br>3,900 L oil<br>13,000 L propane<br>105 tonnes GHG |

# Renewable Energy



ALLIANCE

# Renewable Energy



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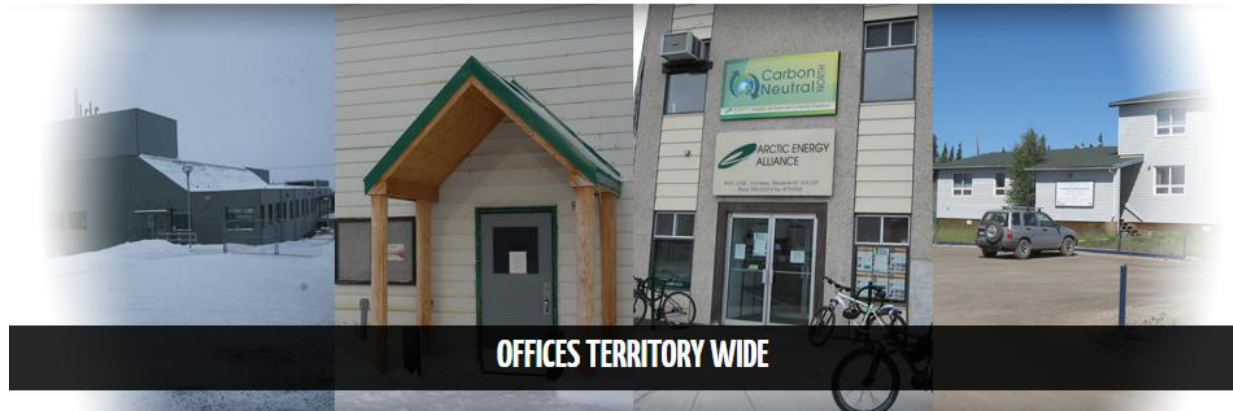
# Arctic Energy Alliance Programs



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# For more information

[www.aea.nt.ca](http://www.aea.nt.ca)



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