Northeast Superior Regional Energy Strategy

April 18, 2016

Contact: Robert Stupka
rstupka@urbansystems.ca

T: 250-762-2517
urbansystems.ca
## CONTENTS

### Introduction
- Vision 1
- Mission 2
- Guiding Principles 2
- Strategic Actions 2

### Background
- Geographical Scope and Key Challenges 4
- The Links Between Energy and Regional Well Being 5
- Opportunities for a Regional Approach 5

### Strategic Actions
- Strategic Action 1: Building Regional Capacity Through a Regional Energy Centre 8
- Strategic Action 2: Seizing and Leveraging Energy Funding Opportunities 11
- Strategic Action 3: Ensuring Transmission Capacity is Not a Limiting Factor 13
- Strategic Action 4: Develop Energy Generation Opportunities 14
- Strategic Action 5: Support Conversation 17
- Strategic Action 6: Pursue Carbon Credit Projects 20

### APPENDIX A - Funding Programs 21
Introduction

The Regional Energy Strategy is an initiative intended to give communities greater control and capacity in the development of energy resources and reducing energy costs in the region.

Energy is interrelated with the management of land and resources, and the economic well-being of the region. Energy is required to extract natural resources, support businesses, and serve the residents of the region. Energy can also be derived directly from local resources such as hydro, solar, or wind, or from by-products such as biomass. Energy can also be enabled through providing access to energy resources to markets by transportation and transmission infrastructure. Energy costs and demand have significant impacts on affordability in the region.

A regional approach provides a platform through which to build the capacity necessary for participation to develop energy resources and conservation initiatives for the benefit of the region. With a stronger emphasis on First Nation Communities and municipalities in Ontario’s Energy Plan and several programs available to encourage engagement and greater roles for communities this presents an important opportunity for the region to collaborate and have a strong voice for energy.

In a broader context, it is complimentary to other regional initiatives led by the Northeast Superior Chiefs Forum in the forestry and mining sector.

The Regional Energy Strategy is the outcome the Regional Energy Workshop held on December 9th and 10th, 2015. The purpose of the workshop was to explore the various challenges, opportunities and ideas for encouraging energy development and sustainability in the Northeast Superior region of Ontario. The communities represented in this region include four First Nations and three local municipalities:

- Brunswick House First Nations
- Chapleau Cree First Nation
- Missanabie Cree First Nations
- Michipicoten First Nation
- Municipality of Wawa
- Township of Dubreuilville
- Township of Chapleau

1 The workshop was led by Chapleau Cree First Nation on behalf of the Northeast Superior Region Chiefs Forum with funding support from the Ontario Aboriginal Economic Diversification Fund.
During the workshop participants developed and committed to a better future of cooperation among communities and industries and the strategic direction set-forth in the following Tenets:

**VISION**

To meet the collective energy needs while seeking efficient and beneficial development in the region.

**MISSION**

The mission of the strategy is to:

- Advocate for the region and regional initiatives over a 20-year planning horizon
- Provide a single coordinated clearing house for regional energy initiatives
- Encourage collaboration, leverage resources and coordination (natural, knowledge, energy) to enable local and regional opportunities to be developed

**GUIDING PRINCIPLES**

The following guiding principles were identified to guide the strategy:

- Collaborating Together - Sharing of resources, sharing of benefits
- Fairness and Equity
- Environmentally and Culturally Responsible
- Reliable Energy
- Affordable Energy
- For the Benefit of the Region
- Continual Improvement

---

1 In addition to the communities represented, the workshop also had participation from Tembec, Algoma Power Inc., OWA, Algona University, and IESO
Strategic Actions

The Regional Strategy Workshop Summary Report provides a summary of the energy challenges and opportunities in the region. It is a more detailed foundational document to support the Strategy’s implementation. It should be used as a reference to what is known about the energy in the region, programs available, SWOT identified by regional representatives related to energy, and identification of energy resources in the region.

As a result of the initial research and response from the workshop, based on those findings, six Strategic Actions are identified in this plan:

**Strategic Action 1:** Building Regional Capacity through a Regional Energy Centre

**Strategic Action 2:** Seizing and Leveraging Energy Funding Opportunities

**Strategic Action 3:** Ensuring Transmission Capacity is Not a Limiting Factor

**Strategic Action 4:** Develop Energy Generation Opportunities

**Strategic Action 5:** Support Conservation

**Strategic Action 6:** Pursue Carbon Credit Projects

Each strategy area is described in more detail in Section 3.0.
Background

Geographical Scope and Key Challenges

The geographical scope of this strategy is in the Northeast Superior Region of Ontario and includes the Chapleau Crown Game Preserve and portions of the Magpie and Martel Forests. It is a region of Ontario made up of rural first nation and municipal communities with land rich in natural and energy resources. The communities include: Brunswick House First Nations, Chapleau Cree First Nation, Missanabie Cree First Nations, Michipicoten First Nation, Municipality of Wawa, Township of Dubreuilville, and Township of Chapleau.

The resources in the region provide potential for economic development to the First Nation and non First Nation communities, yet with limited developmental activity it has become an economically depressed area. Population decline due to limited employment opportunities and high costs is a key challenge amongst communities in the region.

Figure 1: Regional Energy Strategy Area
The Links Between Energy and Regional Well Being

In this part of the Province, the link between energy, economic development and community well being is closely tied.

These links include:

- Rising energy costs are affecting household affordability and the ability to do business in the region. According to a survey in 2011, total energy costs in the region is $23.2 million – money that is leaving the region (Suthey Holler, 2011). This is despite the fact that the region is a net exporter of electricity. As such there is significant economic leakage from the region that could otherwise be retained;
- Potential new energy resources that could be developed but, are constrained by the capacity of electrical infrastructure;
- Mining proposals that could benefit from new, more economical, local energy resources to enable development;
- Forestry waste products that could be used to provide a local supply of wood pellets and larger combined heat and power projects;
- Other energy resources such as hydro, solar, and wind power that could either displace energy costs or provide local economic development opportunities; and,
- Retrofits on inefficient buildings and replacement of inefficient equipment that could create local jobs and reduce energy costs.

Opportunities for a Regional Approach

The concept of a regional approach to energy is tied with a desire by the communities for a greater role in resource development in the region. To be an equal partner in the process to ensure there’s a balanced commitment by industry, First Nations, government, and municipalities.

The initiative is a proactive endeavour, an opportunity to for the Region to define its energy future.

The opportunities related to energy can generally fall into two areas:

1. Retaining and reducing energy costs of residents, business, and local government in the region, and
2. Developing energy projects that provide new revenue to the region.

The trend of electricity prices going up as a consequence of cost of maintaining system infrastructure and building new capacity, fossil fuels remaining unstable, and the cost of self-generating going down. This represents a substantial opportunity for communities to become more energy independent.
These opportunities can occur at local and regional scales, but all could benefit from building regional capacity that enables collaboration and coordination.

A similar approach has been successfully applied in the region’s forestry sector to create the first Enhanced Sustainable Forest Licence and let the community members be guardians on the ground. That approach has built collaboration among communities and industry to ensure the sector can viably operate within the region while respecting the region’s environmental, social, and cultural well being. It has provided capacity and empowerment for the forest communities related forestry development decisions so that the needs of communities and industry can best be met. In the bigger picture, third regional approach related to the mining sector will be developed.
Taking a coordinated regional approach to energy planning will help smaller communities join together to create a critical mass to build capacity, collaborate to create opportunity and cost-effectiveness, and to influence provincial planning and policy in the region.

Current provincial and regional level planning processes is intended to have a system that meets future demand and is therefore a responsive process. There’s an opportunity for communities and regions to be proactive with what the needs and priorities of the region are to remove barriers and influence programming that better meets their needs / aspirations. One voice provides a stronger certainty needed to attract investment.
Strategic Actions

Strategic Action 1: Building Regional Capacity Through a Regional Energy Centre

Information leads to good decision making. Building regional capacity to participate in the clean energy sector is the foundation to be able to identify and develop clean energy projects in the region, and to ensure that training and employment opportunities exist for community members.

Building capacity can include a number of initiatives depending on the opportunities and regional priorities. Some examples include:

- Organizational capacity to identify, manage, seek funding, and implement opportunities;
- Technical and trade capacity to understand and develop energy resources;
- Financial capacity to be able to pursue and participate in projects;
- Institutional capacity to be able to make decisions and represent the region’s interests in developing energy resources; and,
- Educational capacity to be able to provide opportunities for learning and participation in the clean energy sector.

As well, during the Regional Energy Workshop, the need for a clearing house – “Northeast Superior Regional Energy Centre” (NSREC) to provide coordination and capacity to the region was identified as a key priority.

Regional Energy Centre

It is suggested the Regional Energy Centre provides advocacy, coordination and capacity in the region in the clean energy sector. It would:

Implement the Strategy

- Lead the implementation and updating of this strategy;
- Coordinate quarterly meetings of the Regional Energy Centre’s steering committee;
- Manage the Regional Energy Centre’s budget and funding;
• report annually of the Regional Energy Centre’s current and future initiatives and budget needs.
• Lead a Regional Energy Advisory committee to provide input for IESO’s needs assessment for the East Superior Region occurring every 5 years.
• Develop a website to post centre activities, events and programs, and information resources.

**Being a Connector in the Region**

• be a resource and connector to the region’s communities and industries interested in developing energy and resources projects in the region.
• regularly liaise with community representatives to identify opportunities for collaboration and support implementation of clean energy and conservation in the region;
• assess opportunities for business ventures;
• collaborate with the Centre for Forestry and Centre for Mining to identify and develop opportunities in those sectors for renewable energy and conservation;
• Collaborate with industry and mining representatives and their energy managers under the Industrial Accelerator Program to identify self generation, conservation, and local employment opportunities;
• liaise with local energy providers including Algoma Power, Great Lakes Power, IESO
• liaise with the Renewable Energy Facilitation Office regarding FIT project development

**Be a Technical Resource for the Region**

• identify and develop regional energy opportunities identified in community energy plans;
• engage in the Collaboration on Home Energy Efficiency Retrofits in Ontario (CHEERIO) to help design and implement energy efficient retrofit programs in the region;
• assist with policy development such as standards, programs and bylaws that enable energy conservation and clean energy development;
• assess new energy technologies and their feasibility and applicability to the region;

**Procurement and Funding Support**

• procure work led by the Regional Energy Centre;
• provide procurement support to communities for energy related work led by communities;
• Strategically coordinate the use of funding programs;
• track and pursue funding proposals that are regional in nature;
• provide support for energy related funding for projects local in nature;

**Building Capacity**

• bring training in clean energy and energy efficiency to the region
• track and publish energy costs in the region;
• attend energy conferences and training that could benefit the region
The Regional Energy Centre would be led by a full time energy specialist coordinator with support staff and a budget that would enable them to procure specialized consulting services to help meet their mandate. The Centre will be steered and accountable to a committee comprised of one “Energy Champion” representative from each community who would lead implementation their community’s specific energy action.

This will provide a platform for communities to work together collectively, make sure their needs are represented, and build regional capacity. The Centre would also be well connected with the region’s economic development officers and chief administrative officers.

The goal of the Regional Energy Centre is to be non-political and have a sustainable operating budget, yet supported by the communities it represents.

It will be supported by a membership fee from each of the communities which will be leveraged to obtain grant funding. Services provided by the Regional Energy Centre for specific initiatives that are not funded through specific programming will be charged accordingly on a not for profit basis plus the cost of any contractors or consultants. A portion of revenues from the implementation of Centre led projects will be reinvested in the operation costs of the Centres.
Strategic Action 2: Seizing and Leveraging Energy Funding Opportunities

There are numerous policies and programs available to Ontario communities to engage in energy planning and development. This includes programs identified in Ontario’s Long Term Energy which is encouraging greater community engagement and participation by First Nations and Municipalities and programs that support economic development.

The funding programs are identified below and detailed further in Appendix A.

- New Municipal Energy Plan
- Enhance Existing Municipal Energy Plan
- Aboriginal Community Energy Plan
- Aboriginal Community Energy Plan Update
- Education and Capacity Building Program
- Energy Partnership Program Partnership Stream
- Energy Partnership Project Development Stream.
- Aboriginal Economic Diversification Fund

These funding sources can provide direct economic benefit to the region in addition to the initiatives they can enable.

A Community Plan for Every Community

As a starting point, it is recommended that all communities undertake individually a Community Energy Plan. This plan would provide important information of the on the ground potential opportunities that could help in making strategic regional decisions on pursuing initiatives through leveraging of resources.

Being Strategic About Funding

Since each community in the region can potentially apply for funding through these programs there is an opportunity leverage and coordinate the funding toward investigating and furthering specific energy related projects that could be applicable to all communities.

For example, each community could apply to the same funding program and investigate the potential and economics, polices of a different initiative in depth on a regional level (e.g. solar, biomass, district heating, lighting retrofits, passive house construction, wind, etc.)

All communities would then benefit from the collective studies, each of whom would be completed in greater depth, consistency, and less duplication than if each community completed the same report in isolation. Being strategic with what funding program will be used for a specific initiative will make sure projects fit the funding programs to increase chances for success.
Leveraging Scale for Multiple Projects

If an initiative makes economic sense is one community of the region there are likely other similar initiatives throughout the region. Implementing multiple similar initiatives could reduce upfront costs, and leverage scale (a significant factor for project economics) and implementation funding by procuring multiple projects at once or developing one large project instead of multiple smaller ones.

This would allow for joint proposals which would enable more funding to become available and a greater chance for success since the overall benefits would be greater.
Strategic Action 3: Ensuring Transmission Capacity is Not a Limiting Factor

Limited transmission capacity in the region constrains the region to develop large scale electricity resources.

IESO manages the overall planning of Ontario’s grid to ensure that overall the system is able to meet the current and future energy managing needs by balancing the needs and generation sources. Regionally, distribution companies bring the energy to users in the region, while transmission companies connect and transmit electricity to the power grid. For the NSRCF Study region, there is a 10 MW limitation for local generation due to congestion limitations of the energy transmission infrastructure. The infrastructure constraint has limited projects such as the Becker Cogeneration facility to operate at its fully rated capacity. It will also limit the development of new hydro and wind projects in the region.

IESO evaluates the regional energy demand and transmission infrastructure requirements every five years in 20-year planning horizons. According to IESCO, Regional Advisory Committees are intended to ensure that representatives of municipalities, First Nation and Métis communities and local businesses can participate in the planning of their regions’ energy needs. The last Regional Needs Assessment, completed for the East Lake Superior Region in 2014 identified that there were no new electricity needs within the next ten years that require regional coordination. Consequently, a Regional Advisory Committee was not formed.

The Regional Energy Centre could form a Regional Advisory Committee every five years to proactively engage with IESCO Regional Infrastructure Planning Needs Assessment. This would avoid situations where network restrictions continually inhibit potential opportunities from being developed and allow the region’s energy infrastructure needs to be assessed on a more proactive basis aligned with the Region’s aspirations.
Strategic Action 4: Develop Energy Generation Opportunities

There are significant opportunities for communities in the region to participate in developing energy generation opportunities in the region. Depending on the level of engagement, these opportunities can provide direct revenues to the communities in addition to economic development opportunities. There are three general types of opportunities for engagement: Small scale generation projects, large scale generation projects, and load displacement projects.

Small Scale Generation Projects

The Feed-in Tariff program (FIT) and Micro feed in tariff program provides communities, businesses, residents, and community organizations the opportunity to develop renewable energy projects with a capacity of less than 500 kW. These types of projects are more readily implemental because they are not affected by the transmission capacity limitations in the region, have less stringent regulatory constraints, and do not have to wait and compete for a large scale power purchase call. The FIT program also provides rate enhancements for projects with municipal and First Nation participation.

The rate provided for the FIT program is based on the technology and intended to provide a reasonable rate of return to project proponents. These rates are updated periodically to reflect changes in technology costs. Contract terms are 20 years except for water projects which have 40 year terms.

Table 2: FIT / MicroFIT Price Schedule (January 1, 2016)

<table>
<thead>
<tr>
<th>Renewable Fuel</th>
<th>Project Size Tranche</th>
<th>Price (¢/kWh)</th>
<th>Percentage Escalated&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar (PV) (Rooftop)</td>
<td>≤ 10 kW</td>
<td>29.4</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>&gt; 10 kW ≤ 100 kW</td>
<td>24.2</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>&gt; 100 kW ≤ 500 kW</td>
<td>22.5</td>
<td>0%</td>
</tr>
<tr>
<td>Solar (PV) (Non-Rooftop)</td>
<td>≤ 10 kW</td>
<td>21.4</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>&gt; 10 kW ≤ 500 kW</td>
<td>20.9</td>
<td>0%</td>
</tr>
<tr>
<td>On-Shore Wind</td>
<td>≤ 500 kW</td>
<td>12.8</td>
<td>20%</td>
</tr>
<tr>
<td>Waterpower</td>
<td>≤ 500 kW</td>
<td>24.6</td>
<td>20%</td>
</tr>
<tr>
<td>Renewable Biomass</td>
<td>≤ 500 kW</td>
<td>17.5</td>
<td>50%</td>
</tr>
<tr>
<td>On-Farm Biogas</td>
<td>≤ 100 kW</td>
<td>26.3</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>&gt; 100 kW ≤ 250 kW</td>
<td>20.4</td>
<td>50%</td>
</tr>
<tr>
<td>Biogas</td>
<td>≤ 500 kW</td>
<td>16.8</td>
<td>50%</td>
</tr>
<tr>
<td>Landfill Gas</td>
<td>≤ 500 kW</td>
<td>17.1</td>
<td>50%</td>
</tr>
</tbody>
</table>
The FIT program is encouraging participation of Aboriginal Community, Municipal, and Community Organization participation in the development of renewable energy projects by offering price adders to projects that involve their economic participation. The minimum level of participation is 15% and the value of the adders doubles when participation is greater than 50%. Adders apply for all projects except for solar PV.

Table 3: FIT Price Adders, January, 2016

<table>
<thead>
<tr>
<th>Participation Level (Economic Interest)</th>
<th>Aboriginal Participation Project</th>
<th>Community Participation Project</th>
<th>Municipal or Public Sector Entity Participation Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 50%</td>
<td>1.5</td>
<td>&gt; 50%</td>
<td>1</td>
</tr>
<tr>
<td>≥ 15% &lt; 50%</td>
<td>0.75</td>
<td>≥ 15% ≤ 50%</td>
<td>0.5</td>
</tr>
<tr>
<td>≤ 50%</td>
<td>1</td>
<td>≤ 50%</td>
<td>0.5</td>
</tr>
</tbody>
</table>

FIT projects such as solar PV, bioenergy, and small scale wind could be developed in a collaborative way among the communities to reduce overall upfront feasibility and project development costs and benefit from economies of scale.

Large Scale Power Generation

The Industrial Accelerator Program provides financial incentives to encourage investments to reduce electricity from the consumers. This includes self generation for up to 20 MW of capacity. Self generation projects can both reduce energy costs in the region helping retain industries in addition to enabling the development of local energy opportunities and associated economic benefits.

It is therefore recommended that potentially developable resources within the region be identified so it is ready to develop these projects as opportunities arise.

The potential of energy resources including bioenergy, hydro power, wind and solar energy in the region are identified in the Regional Energy Workshop Summary Report. These resources could

1 The FIT program is encouraging participation of Aboriginal Community, Municipal, and Community Organization participation in the development of renewable energy projects by offering price adders to projects that involve their economic participation. The minimum level of participation is 15% and the value of the adders doubles when participation is greater than 50%. Adders apply for all projects except for solar PV.
result in potential projects to develop under the FIT program. Generally:

• Wood waste in the region is generally committed however, bioenergy opportunities could exist from roadside residues and salvaging wood in fire kill areas. Wood pellets available from Rentech provide a reliable source of fibre to the region.
• Potentially viable wind resources exist in the region.
• Smaller wind projects are generally more difficult to prove viable but community scale or self generation industrial opportunities may exist. Larger scale opportunities may exist in the region, but would be limited by infrastructure constraints.
• Hydro generation exist in the region. They are generally smaller in scale < 5 MW.
• Solar resources in the region are generally good and similar to those in southern Ontario.
Strategic Action 5: Support Conservation

Energy costs in First Nations and rural communities represent a significant economic burden to community members and governments. The most significant portion of energy costs are attributed to buildings and housing. Families in First Nations communities typically face double the home energy costs over other families. Given the remote nature of many of these communities, they also may not have access to lower cost energy sources such as natural gas and be reliant on propane or electricity.

With the energy sources being purchased off reserve, energy costs pose significant economic leakage that could otherwise be reinvested in the community for housing, social programs, and other priorities. Often inefficient buildings and housing are also uncomfortable to live in and pose health risks such as mold.

In response, conservation helps communities, businesses, and residents reduce their energy costs retaining those dollars within the community as well as provide local employment opportunities. From a regional context, there is an opportunity to develop programming, and a shared resource to support implementation, education, and marketing. A coordinated approach to conservation will also help build a market for energy retrofit contractors and suppliers supporting economic development in the region. It will also make the case for providing related training to the region.

Tracking Energy Costs and Targeting Conservation

The greatest precursor to energy efficiency is understanding energy consumption and energy economics. The Regional Energy Centre should enable this understanding through tracking fuel costs in the region and providing a platform for sharing energy and tracking energy consumption of public buildings. Through tracking and sharing, communities can compare energy costs of similar building types and identify opportunities for conservation. The highest consuming buildings could have energy audits completed and the findings shared to all communities so that they can identify similar opportunities for improvements within their buildings.

Funding applications and support from IESO could also be coordinated to support specific actions that could be applied to a number of buildings providing economies of scale.

Raising Awareness and Enabling Behaviour Change

User behaviour not only significantly influences energy consumption, but because of Ontario’s time of use rates, it also impacts how much energy costs. User behaviour therefore can include turning off equipment and lighting when not in use, as well as understanding what products use more energy that can change when and how they are used.

The Regional Energy Centre can raise awareness and enable behavioural change in a number of ways:
They can provide workshops to help residents, businesses, and governments, understand their conservation potential.

- The Regional Energy Centre can publish energy usage information for a typical home and identify opportunities for affordable improvements and connecting them with funding programs. This would be far more cost-efficient than every community undertaking this individually.
- The Regional Energy Centre can also develop information for individual buildings that could prompt people to take action.

One tool that could be helpful is the Heat Energy Assessment Technologies (HEAT)¹ which identifies heat loss through roofs by flying over communities with a thermal camera. This information is made available through an online map to allow residents to become aware of their home’s relative energy efficiency. Incentive programs connected with on-bill financing could be developed enable attic insulation and air sealing improvements. Contractors could be connected with the program to provide an economic development opportunity.

A similar online tool could be used to identify rooftop solar PV potential²³ and project economics. In both cases, the costs of implementation would be significantly more affordable with regional collaboration and if the flying were completed in conjunction with air photo or LIDAR mapping.

In support of some of these initiatives, there are several supportive programs that the region could take advantage of to facilitate energy efficiency:

**On-bill financing for energy efficiency retrofits**

The Province has changed its Local Improvement Charge (LIC) regulation so that they can act as a loan from the municipality to the homeowner, recovered by the municipality in installments through the property tax administrative system over many years. This provides the homeowner with access to lower interest rates as they are protected from default. Many initiatives could be cash flow positive from the outset. Retrofits that have longer term returns can also be attractive because the debt is attached to the property, not the owner when they sell their property. A key opportunity for the Regional Energy Centre is to join other municipalities in the Collaboration on Home Energy Efficiency Retrofits in Ontario, CHEERIO to collaborate in the design of an LIC-based energy retrofit programs.

**Ontario EcoSchools resources about energy conservation to the curriculum.**

The EcoSchools program is an innovative model of sustained environmental awareness and behavioural change. Ontario EcoSchools fosters leadership skills and environmental citizenship.

---

¹ [http://www.saveheat.co/](http://www.saveheat.co/)
² [http://geoweb.dnv.org/applications/solarapp/](http://geoweb.dnv.org/applications/solarapp/)
³ [https://helioscope.folsomlabs.com/](https://helioscope.folsomlabs.com/)
Through actions both in and outside the classroom, students address Energy Conservation, Waste Minimization, School Ground Greening, and Environmental Stewardship. There are 52 school boards and 1,745 schools in Ontario who are part of the program. Participation provides schools with access to resources and toolkits, workshops and webinars, and funding programs. Currently, there are no school represented in the Northeast Superior Region. The Regional Energy Centre could support EcoSchools by providing regionally relevant information related to energy as well as support the schools with implementing renewable energy and conservation projects.

**Save on Energy Programs**

Save On Energy coupons are available to provide savings on a wide range of energy-efficient products. The coupons are available only at participating retailers that may not be available in local communities. Heating and cooling incentives also exist to encourage the installation of high efficiency equipment. The Regional Energy Centre could work with IESO and local retailers to make the coupons available and encourage to purchase of more energy efficient products.

**Ontario Electricity Support Program**

The Ontario Energy Board offers a program that provides a monthly credit to eligible customers based on household net income, household size, and if the home is electrically heated. The funding support ranges between $30 and $75.

First Nation and Metis applicants who meet the program eligibility criteria receive a higher level of assistance.
Strategic Action 6: Pursue Carbon Credit Projects

Ontario will soon be implementing a cap and trade system for carbon pricing. The plan will provide government imposed limits on greenhouse gas emissions from companies, with those who want to burn more fossil fuels can buy carbon credits from those that burn less than allowed. By enabling conservation and renewable energy projects, the region could be a generator of carbon credits. Carbon credits could also be generated and sold through a number of trading platforms.

Examples of potential carbon offset projects include: Renewable energy such as the wind farm example above, or installations of solar, small hydro, geothermal and biomass energy can all create carbon offsets by displacing fossil fuels. Other types of offsets available for sale on the market include those resulting from energy-efficiency projects, methane capture from landfills or livestock, destruction of potent greenhouse gases such as halocarbons, and carbon-sequestration projects (through reforestation, or agriculture) that absorb carbon dioxide from the atmosphere.

Carbon offsets must demonstrate additionality and be independently verified. Since verification is a cost that is required on an annual basis, larger projects benefit by having the cost of verification represent a smaller portion of the value of the total offset. A regional approach to carbon offset projects therefore could be beneficial by providing a greater project scale that could involves one large project or several smaller projects under one offset. Generally, in Ontario, carbon credits would most likely involve methane reduction, forestry, and displacing carbon intensive heating fuel since the GHG emissions of grid electricity is relatively low.
## APPENDIX A - Funding Programs

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Intent</th>
<th>Target</th>
<th>Funding</th>
<th>Intake Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Municipal Energy Plan</td>
<td>Understand local energy needs, identify opportunities for energy efficiency and clean energy, and develop plans to meet their goals.</td>
<td>Ontario and Regional municipalities</td>
<td>50% of eligible costs up to a maximum of $90,000 to develop a MEP</td>
<td></td>
</tr>
<tr>
<td>Enhance an Existing Energy Plan</td>
<td>for enhancing an existing energy plan, such as updating utility or building data and/or creating new implementation plans or maps.</td>
<td>Ontario and Regional municipalities</td>
<td>50% of eligible costs up to $25,000 to enhance existing MEP</td>
<td></td>
</tr>
<tr>
<td>Aboriginal Community Energy Plan (ACEP)</td>
<td>A comprehensive long-term plan to improve energy efficiency, reduce electricity consumption and assess opportunities for renewable energy solutions.</td>
<td>Ontario Aboriginal Communities</td>
<td>$90,000 + $5,000 for remote communities</td>
<td>March 4, June 3, October 7 intakes</td>
</tr>
<tr>
<td>Aboriginal Community Energy Plan (ACEP) Update</td>
<td>for enhancing an existing energy plan</td>
<td>Ontario Aboriginal Communities</td>
<td>$25,000 + $5,000 for remote communities</td>
<td>March 4, June 3, October 7 intakes</td>
</tr>
</tbody>
</table>
| Education and Capacity Building (ECB) Program | To support projects in communities that build education and capacity related to energy for:  
1. Supporting Transmission  
2. Skill and capacity development for internal resources  
3. Development of engagement strategies  
4. Open category. | Aboriginal Communities, municipalities, non-profit organizations | Up to $50,000 - $150,000 depending on the initiative | Not announced, potentially December 2016. |
<table>
<thead>
<tr>
<th>Program Name</th>
<th>Intent</th>
<th>Target</th>
<th>Funding</th>
<th>Intake Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Partnership Program</td>
<td>Funding for legal, technical and financial due diligence to explore partnerships for:</td>
<td>Aboriginal Communities – FIT Projects, LRP Projects, Transmission Projects</td>
<td>Currently under development</td>
<td></td>
</tr>
<tr>
<td>Partnership Stream</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aboriginal Communities – FIT Projects, LRP Projects, Transmission Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Partnership Project</td>
<td>Funding Soft costs associated with developing a renewable energy project for FIT projects</td>
<td>Aboriginal Municipalities and Communities</td>
<td>1 to 3 FIT Projects: The lesser of (a) 50% of Actual Project Expenses; and (b) $75,000.00 per FIT Project</td>
<td>Currently under development</td>
</tr>
<tr>
<td>Development Stream</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboriginal Economic Diversification Fund</td>
<td>Provides grants and financing to promote economic development and improve socio-economic outcomes for Aboriginal people. Three funding streams:</td>
<td>Aboriginal communities, businesses, and organizations</td>
<td>$100,000 - $250,000 (for regional partnerships) per project per year.</td>
<td>February, 2017</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>