

PORT ELGIN

COMMUNITY ACTION PLAN UPDATE MILESTONE 4

MARCH 2020




Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
<p>Presentations on Saving Energy (tips such as benefits of clothes lines, importance of insulation, etc.). Presentations should be aimed at the general public as well as churches, Rotary Club, local service clubs, etc.</p> <p>2015 and ongoing</p>	<p>EOS Eco-Energy, NB Power, etc.</p> <p>No cost involved. Staff time to coordinate events and speakers, workshop venues (could use Village Hall).</p>	<p>If local residents make changes and install clothes lines, insulate their homes, use less water, turn off lights, etc. Significant emissions can be reduced.</p>	<p>Presentations have been done including:</p> <ul style="list-style-type: none"> • “How to Save Energy at Home” with Rob Robichaud of NB Power took place at PEDVAC in Port Elgin in February 2015. People learned about how energy works, how much power certain appliances take and ways to save energy at home. • EOS hosted a talk on “Living off the Grid” in winter 2015. It took place in nearby Dorchester and more than 50 people from around the Maritimes attended! Off-gridders shared their experiences and lessons learned and answered technical questions about solar arrays. • In September 2015 EOS and Eco-Container Co. hosted a workshop on how to make your own rain barrel. It took place at PEDVAC. Participants learned a variety of designs and uses for rain barrels and how they can help save energy. Everyone received a 55 gallon food grade barrel to take home. • EOS had a booth at Port Elgin Moonlight community event in 2014 where youth were invited to make a candle holder out of jars and other recycled materials. • Other workshops in 2017-2018 included DIY Compost Bins, Zero Waste Living, a tour of Eco360 (local waste sorting facility). • Please see the EOS website for more details on projects: https://eosecoenergy.com/en/
<p>Hands-on learning opportunities about climate change, energy use, and emissions at Port Elgin Regional School.</p>	<p>EOS Eco-Energy</p> <p>\$1000. Funding would be part of a larger project funded by Environmental Trust Fund and/or Eco-Action. EOS would receive the</p>	<p>Talking about emissions reduction and saving energy at school will result in emissions reduction at the school and at home.</p>	<p>Various classroom visits have taken place:</p> <ul style="list-style-type: none"> • “EOS Renewable Energy Experience” took place at Port Elgin Regional School (PERS) in the winter of 2015. Grade 5 to 8 students took part. Students learned about solar and wind energy, conducted hands on experiments with classroom turbine and solar panel models and learned how to use kilowatt meters, They hypothesized what household gadgets used the most and least amounts of energy.

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
2015 and annually	funding and coordinate the project.		<ul style="list-style-type: none"> • EOS visited PERS during winter 2019 to talk about climate change, and students created climate change art pieces which were posted in the Port Elgin Village Office for three weeks. • During fall 2019 EOS visited PERS to brainstorm student lead climate action projects. Projects were designed including “Power Down Day”, waste reduction, a skateboard park, solar power for the school, habitat conservation, etc.
<p>Creation of Port Elgin Community Facebook Page and Community Newsletter. These avenues could be used to communicate and educate the public about emissions reduction and how to save energy.</p> <p>Begin in 2015-2016</p>	<p>Village office, councilors, community groups such as Pedvac, PERS, churches, Rotary Club, service clubs</p> <p>No resources needed, other than a leader to take the first step in creating these communication tools.</p>	<p>Emissions may be reduced, and energy saved by local residents who read the ongoing tips and information.</p>	<p>There is now a public Facebook group called Port Elgin Events. It has over 560 members and is the go-to place to post events, news and other happenings around Port Elgin. It can be found at: https://www.facebook.com/groups/473886952762321/</p>
<p>Solar Bulk Purchase.</p> <p>Coordinate a bulk purchase of solar panels to help reduce the upfront costs.</p> <p>2015/2016</p>	<p>EOS Eco-Energy</p> <p>EOS has applied for funding from the NB Environment Trust Fund and Eco-Action to promote solar energy across the Tantramar region.</p>	<p>The average family of 4 in Canada uses 9600kwh of electricity annually. In New Brunswick this translates into 2419kg of CO2. Thus, each house that switches to solar in Port Elgin could save</p>	<p>EOS coordinated its first solar bulk purchase in 2015. 60kw of panels were installed on four homes. While the homes are in the Tantramar region none of the homes are located in Port Elgin’s municipal boundaries.</p> <p>A bonus is that EOS has just completed a second, unplanned, solar panel bulk purchase and installations began in fall of 2019. As of February, 7 homes were going ahead with purchasing and installing solar panels. One installation was completed as of early February. One was started. Five are pending due to a variety of reasons including the need to wait for snow to melt off the roof before installation could begin or waiting for interconnection requests to be approved. The one home that is completed has a 4.96kw system with 16 panels installed. The other projects equal 40.61</p>

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
		a significant amount of GHG emissions.	kw and 131 more panels. This means a total of 45.57kw installed as a result of the 2019-2020 solar bulk purchase. There is more interest in another solar bulk program in summer 2020. Residents appreciate the small incentive provided by the bulk discount's 10% off and the sense of community from doing the bulk program together. While the homes are in the Tantramar region, none of the homes are located in Port Elgin's municipal boundaries. Another bulk purchase is in the works for 2021.
Solar Potential mapping. Mapping of every rooftop in Port Elgin will show the potential for solar energy collection. It will help promote solar as a viable energy source.	EOS Eco-Energy EOS has applied for funding from the NB Environment Trust Fund and Eco-Action to promote solar energy across the Tantramar region.	The average family of 4 in Canada uses 9600kwh of electricity annually. In New Brunswick this translates into 2419kg of CO2. Thus, each house that switches to solar in Port Elgin could save a significant amount of GHG emissions.	This mapping was done for Port Elgin in the summer of 2015.
Workshops on Solar Energy. Workshops on a wide range of topics such as solar panels, solar hot water, PV technology, net metering, passive solar design, smart energy communities, etc. will be provided with a variety of speakers.	EOS Eco-Energy will coordinate the workshop series. EOS has applied for funding from the NB Environment Trust Fund and Eco-Action to promote solar energy across the Tantramar region.	The average family of 4 in Canada uses 9600kwh of electricity annually. In New Brunswick this translates into 2419kg of CO2. Thus, each house that switches to solar in Port Elgin could save	A solar workshop was coordinated for the summer of 2015. A solar home tour to three grid-tied homes in the Tantramar region took place February 4, 2017. Participants were able to tour homes, ask technical questions and get information from the homeowners on what it's really like to live on solar power. Information was also shared about NB Power's net-metering program. Another solar home tour took place in November 2019 to three different homes in the Chignecto border region. Sixty people registered and about thirty people were on a waiting list. The participants were divided into 3 groups of twenty. The groups rotated through the houses during the afternoon tours. The three houses consisted of a (a) modern off-grid family

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
2015-2016		a significant amount of GHG emissions.	<p>home, (b) a grid-tied photovoltaic and passive solar home with an electric car charger, and (c) a mock Earth-Ship with an off-grid solar panel photovoltaic system.</p> <p>As a result of a regional workshop on solar co-ops EOS helped establish Beausejour Renewable Energy, a renewable energy investment co-operative and social enterprise. Learn more about them at: https://beausejourcoop.wordpress.com</p>
<p>Solar Food Dehydrator Workshop. Solar power has a variety of useful applications. This workshop will help to educate the public while building useful dehydrators.</p> <p>Could be offered multiple times between 2015 and 2021</p>	<p>Pedvac</p> <p>No funding needed. Could charge participants a small registration fee. How-to guide, workshop space, event coordinator.</p>	<p>Direct emission reduction from the workshop would be small but still important. It may lead Port Elgin residents to take further steps to save energy and result in further emissions reduction.</p>	<p>EOS organized the solar food dehydrator workshop in 2017. It took place at PEDVAC in Port Elgin and the dehydrator is now housed at PEDVAC. Members of the public can use it. It also allows PEDVAC to dehydrate foods and herbs from its gardens for community meals.</p>
<p>Solar Hot Air Workshop. The sun has the power to warm spaces naturally. This workshop will teach participants how to harness the sun's warmth.</p> <p>2016-2017</p>	<p>Local off grid homeowners in southeast NB, EOS Eco-energy, Village of Port Elgin</p> <p>Could be offered for free depending on speaker(s), venue, advertising on social media and free community events listings.</p>	<p>Heating costs represent about 60% of homeowners' power bills according to NB Power. Saving energy with the use of solar hot air systems could reduce emissions significantly for homeowners.</p>	<p>This workshop has not been organized yet however two solar home tours have been offered by EOS Eco-Energy to residents of Port Elgin.</p>

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
<p>Residential Compost Program.</p> <p>Reduce residential waste by offering composters at reduced price.</p> <p>2017/2018</p>	<p>Village Office</p> <p>If a \$20 rebate was given to 100 households in Port Elgin that would equal \$2000. This funding could come from the Gas Tax Fund of the MTA Green Investment Fund.</p>	<p>According to Earth Day Canada (www.earthday.ca) composting can reduce household waste up to 50%.</p>	<p>There has been no action on this.</p> <p>In 2017 EOS organized a bulk purchase of compost bins for the Tantramar Region from Eco-Container Co. Eight bins were purchased. EOS also organized a bulk purchase of reusable food wrap (to eliminate the need for plastic wrap) and more than 57 packages were ordered.</p>
<p>Meatless Monday.</p> <p>Students in Grade 5 will work with the cafeteria to offer meatless dishes every Monday.</p> <p>2015-2016 school year (Grade 5 students in 2014/15 will be in grade 6)</p>	<p>Grade 5 students, teachers and cafeteria staff</p> <p>No funding needed. Meeting time with students and staff, vegetarian and vegan recipe ideas would be needed.</p>	<p>According to www.cok.net, eating meatless meals one day a week could save 3.6kg CO2 per year per person.</p>	<p>Port Elgin Regional School has not started a meatless Monday program, but the school has planted a vegetable garden and vegetables from the garden are served in the cafeteria.</p>
<p>Walk to School.</p> <p>Bring back Walk to School, one day a week per month. Busses stop down the street and all students walk to school. Encourage those who live close to the school to walk instead of getting a drive.</p>	<p>Students in grades 5, and 7/8 will talk to their teachers and principal about bringing this program back.</p> <p>None, other than a note home to parents to explain the Walk to School program.</p>	<p>A Litre of gasoline emits 2.38kg of carbon dioxide. Emissions will be saved by driving less.</p>	<p>This program has not been implemented in several years.</p>

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
Begin the program in 2015-2016 school year.			
<p>Garden at Port Elgin Regional School.</p> <p>Garden plan is complete. Planting will begin spring 2015.</p>	<p>Port Elgin Regional School and parent volunteers</p> <p>Cost of materials covered by Port Elgin School and their grant(s). Volunteers to do the planting, etc.</p>	<p>The land was previous mowed so this will save some emissions.</p>	<p>The garden was first planted in 2015. It was bordered last year and a significant amount of top-soil was added. The kids have been given fresh carrots and celery for about 3 years now. The school now has plans (and has obtained funding) to build a greenhouse for winter. They hope to have a daily salad bar.</p> 
<p>Students will do their best to turn off lights, recycle more, compost, etc.</p> <p>This project can be implemented immediately</p>	<p>Students in grades 5 to 8</p> <p>Funding not needed. Students could make posters to put up around their school.</p>	<p>Saving energy with these simple steps will help contribute to emissions reductions.</p>	<p>PERS has installed 3 new fountains with water bottle refilling stations. Two were installed during the summer of 2019 and the third is set to be installed shortly. One of the fountains has already eliminated the need for a thousand plastic water bottles. According to one source, a 500mL plastic water bottle will produce 82.8 grams of CO2. Therefore, not using 1,000 plastic water bottles prevents 82.8 kg of carbon dioxide from entering the atmosphere.</p>
<p>Community garden</p> <p>Plant a community garden at Pedvac.</p> <p>Pedvac's garden will be roughly 1000 sq. ft.</p>	<p>Pedvac</p> <p>Volunteers to dig and build garden beds.</p> <p>Applying to United Way Day of Caring. Pedvac is</p>	<p>Emissions will be reduced by eating more locally grown food. A litre of</p>	<p>Pedvac planted a community garden a couple of years ago and it includes vegetable as well as fruit trees. It helps provide fresh foods to the food bank and decreases the need to transport foods long distances.</p>

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
<p>Plots will be available for local residents. Eating local healthy food and reducing emissions will be promoted.</p> <p>Beginning in summer 2015 and continuing.</p>	<p>applying for grants to cover cost of materials (compost, lumber, soil, signage, etc.).</p>	<p>gasoline emits 2.38kg of carbon dioxide.</p>	
<p>Sustainable Transportation</p> <p>Encourage carpooling, walking and explore options for a community transportation service. Port Elgin is a small rural community without taxi, bus or train service. Residents need cost effective transportation to medical appointments and to get groceries in Sackville (35km away) and Moncton (70km away).</p> <p>Ongoing project</p>	<p>Village of Port Elgin, EOS, local students, etc.</p> <p>Education campaign. Research funding (\$10,000) for community transportation service. Local Community Inclusion Network and/or United Way may be options for funding for a translation service feasibility study or pilot project.</p>	<p>Reducing the number of vehicles on the road will reduce a significant amount of emission. The average 40 litre car will emit over 95 kg of GHG emissions with each fill up.</p>	<p>Tantramar Rural Rides is now up and running in the Tantramar Region including Port Elgin. It serves primarily seniors, individuals with disabilities, and low-income households. The program is also accessed frequently by rural residents to reach essential services within denser centers. Anyone residing in the Tantramar region, including Port Elgin and all surrounding areas can access the service. The door to door service is run by a paid coordinator and many volunteer drivers. The program tries to place more than one passenger in a car if possible so this service is also helping to reduce emissions. Find out more about the service at: http://ruralridesnb.com/tantramar/ According to the service, carpooling in terms of rides from Port Elgin is quite rare as the route is not conducive to picking up other passengers.</p>
<p>Skateboard Park</p> <p>Explore the idea of a local skateboard/scooter park. Help get kids</p>	<p>Local students, Village of Port Elgin</p> <p>Funding for development of the park could be obtained</p>	<p>According to ca.complex.com just one hour of gaming time spent on an Xbox 360 will use</p>	<p>EOS met with PERS students in September 2019 who would still like to make a skateboard park happen in Port Elgin.</p>

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
<p>active and away from video games.</p> <p>Long-term project.</p>	<p>from the Family and Youth Capital Assistance Program (NB Regional Development Corp.). Funding cost will depend on location, size of park and features chosen. A portable park with a few wood ramps could be \$3000. A 10,000sq ft park may cost around \$100,000 and require regular maintenance of the surface material (birch, skatelite, etc.) (Source: Skate Park Association International http://www.spausa.org)</p>	<p>0.3kwh of power. This translates into 76g of GHG emissions. Thus, a skateboard park is a fun way to get local youth outside, active and not using any energy but their own.</p>	
<p>Additional Emission Reduction Community Activities (New since Port Elgin's PCP plan was written)</p>			
<p>Retrofit Installs</p> <p>Install LED light bulbs, high efficiency showerheads and hot water pipe wrap in homes across the Tantramar region, with priority for lower income residents.</p>	<p>EOS Eco-Energy to lead the installs with materials supplied by NB Power. Funding from WA Action</p>	<p>2.0 tonnes (estimate)</p>	<p>LED light bulbs, high efficiency shower heads and hot water pipe wrap have been installed in many homes in the Tantramar region.</p> <p>In year one of the program (2016-2017) EOS installed the retrofit items in 53 homes in the Tantramar region. For a total of over 32,000 kwh saved annually. This included four homes within the municipal boundary of Port Elgin for an annual savings of 2,946.21kwh. 736 kg of CO2 emissions were saved in Port Elgin.</p> <p>In year two of the program (2017-2018) an additional 35 homes were visited by EOS staff and 21,079 kwh saved annually. Unfortunately, homes tracked by NB Power account number and so we are not sure which ones were located in Port Elgin.</p>

Activity + Timeline	Partners /Resources Needed	Estimated Emissions Reduction	Milestone 4 Update
			<p>In year three (2018-2019) of the program, EOS visited 10 houses for a total of 1,193 kg of emission reduction. None of the houses were in Port Elgin.</p> <p>In year four; 566 kg of CO2 emissions were saved annually.</p> <p>Total emissions saved from retrofit installs equals: 6,552 kg CO2</p>
<p>Draft-proofing work parties</p> <p>Work parties to seal air leaks in homes and non-profit organizations.</p>	<p>EOS to lead and coordinate the program with expert guidance from home energy advisors with blower door units. Funding from Eco Action, WA Action, NB ETF</p>		<p>Visit EOS's webpage on draft-proofing parties to learn more about the project (https://eosecoenergy.com/en/party/) and visit the EOS YouTube channel to see a video about the parties (https://www.youtube.com/watch?v=HfGgw6_6NTY&t=129s).</p> <p>From 2016 to 2019: 48 metric tonnes of emissions have been saved because of the project and 27 buildings have been draft-proofed.</p> <p>Three of the buildings were in Port Elgin – Pedvac (2018) and the Masonic Lodge (2019). Pedvac's party resulted in an annual emissions reduction of 3.6 tonnes while the Lodge had a 0.2 tonne annual reduction. The final building was a house but only a marginal reduction was made.</p> <p>Emissions saved in Port Elgin equals until spring 2019: 4 tonnes (annually)</p> <p>An additional 1.1 tonnes of annual emissions were saved from the draft proofing party done in January of 2020.</p>