

FEDERAL GAS TAX FUND PROJECT SPOTLIGHT
MUNICIPALITY OF THE DISTRICT OF ARGYLE, MUNICIPALITY OF THE DISTRICT OF
YARMOUTH AND THE TOWN OF YARMOUTH
REGIONAL WIND ENERGY PROJECT - DRAFT

Municipality of the District of Argyle

Incorporated: April 17, 1879

Population: 8,252 (2011 Census)

Town of Yarmouth

Incorporated: August 6, 1890

Population: 6,761 (2011 Census)

Municipality of the District of Yarmouth

Incorporated: April 17, 1879

Population: 10,105 (2011 Census)

Project: Regional Wind Energy Project

National objective: Cleaner environment

Project outcomes: The production of wind energy will reduce dependency on carbon-based fuels and the production of greenhouse gas emissions in Nova Scotia. This will significantly contribute to making our communities healthier and more sustainable.

Federal Gas Tax Fund contribution to project: \$1,005, 862

Total project cost: \$1,005, 862

Other Gas Tax Fund projects under way in the region:

- Extended existing wastewater system in West Pubnico, District of Argyle
- Developed the Greenville Road Trail System and an urban trail system in the communities of Kelly's Cove and Rockville, District of Yarmouth
- Replaced all streetlights with LED technology, Town of Yarmouth and District of Yarmouth

THE THREE MUNICIPALITIES IN YARMOUTH COUNTY

The Municipality of the District of Argyle, the District of Yarmouth and the Town of Yarmouth make-up Yarmouth County in the western part of Nova Scotia. Rich in both Anglo-Scottish and French Acadian culture, the area is home to the largest Acadian community in the province. As a rural county, it has sizeable areas of inland wilderness, and numerous rivers, lakes and important coastal areas.

Yarmouth County's extensive coastline offers its communities access to international shipping opportunities and its nearby waters provide some of the world's largest lobster fishing grounds. Other important economic development opportunities in the area include agriculture, forestry, manufacturing, retail and health care.

The Town of Yarmouth is the fifth largest in Nova Scotia and serves as a commercial hub for the region. Several smaller communities within Yarmouth County, most of them situated along the coast and inland rivers, serve as rural centres. These include Tusket, Wedgeport, Argyle, the Pubnicos, Carleton, Port Maitland, Overton and Hebron, to name a few.

REGIONAL WIND ENERGY PROJECT

In times of tight budgets and limited resources, a few municipalities in Nova Scotia are taking bold steps to embark on renewable energy projects as means to generate revenue and contribute to the overall sustainability of their communities. In Yarmouth County, three municipalities have seized this opportunity and taken it one step further - by collaborating on a small, yet ambitious regional wind energy project.

As a means to explore options for developing regional renewable energy projects and build on the energy planning work already underway in the area, the District of Argyle, the District of Yarmouth and the Town of Yarmouth formed the Green Energy Committee. In 2014, the three units signed a Memorandum of Understanding (MOU) to formalize their partnership on the Committee. Recognizing the possibilities that exist to collaborate on community energy projects, the MOU articulates each municipality's commitment to fostering citizen engagement, mutual respect and sustainable, local opportunities.

Once the MOU was signed, the Green Energy Committee began work on determining the most appropriate regional wind energy project for the three municipal partners. The Committee determined that investing in small-scale wind (versus industrial-sized turbines) would maximize project benefits and minimize ecological, social and financial risks. A regional map was created to identify sites with good wind speeds, appropriate set-back requirements and access to three-phased power (which would allow the turbines to be connected directly to the distribution grid). Based on these requirements, the Committee then began exploring potential sites for a small-scale wind project to deploy two 50 kilowatt (kW) turbines.

While work was underway to select an appropriate site, the Green Energy Committee submitted an application to Nova Scotia's Community Feed-in Tariff (COMFIT) Program in January 2015 and received approval from the Department of Energy for a small wind project in Yarmouth County. As a project approved under COMFIT, the three municipal units can sell energy generated by the turbines to Nova Scotia Power (NSP) at a 20-year fixed rate of 49.9 cents per kWh.

The first potential project site identified spanned two hay fields, in Overton, Yarmouth County. A business plan was developed to lease the land; however, consultations revealed the community did not support this location for siting the turbines. As all three municipalities agreed it was imperative to choose a location that was supported by the local community, the Green Energy Committee withdrew the Overton site as an option and began searching for another location.

After further consideration and community consultation, the municipal partners decided to install the project on a parcel of land in Wellington, Yarmouth County. This site not only has a good wind regime and access to three-phased power, but it exceeds municipal setback requirements for siting small wind turbines. As an additional measure to increase the project's stability, the District of Yarmouth purchased the land in January 2016.



Construction began in the spring of 2016 and both turbines were up and spinning before the summer's end. By the 1st of September, the turbines began generating power at the COMFIT rate, thus officially commencing the 20-year contract with NSP for renewable energy generation.

Based on projections, the municipalities stand to gain from investing in this sustainable, local form of energy production. The turbines represent an approximate investment of \$1,006,000 and are owned by the municipal partners – all of which used allocations from the federal Gas Tax Fund to finance their portion of the project. Through the sale of energy, the turbines are projected to net \$2.4 million in net positive cash flow over a 20-year period. This is the equivalent to an 8.69 percent internal rate of return, which will be shared by the three units.



In addition to creating a new revenue stream for the municipalities, their investment in renewable energy will reap other significant benefits. By generating electricity using a local, renewable resource, the partners will reduce their dependence on fossil fuels, thereby reducing their production of harmful emissions. Decreased emission levels, including greenhouse gases, will help diminish associated health and climate risks. Also, locally produced energy will contribute to more stable, long-term electricity rates, as the price for the energy generated is fixed for two decades. This is good news for everyone involved, as the project is expected to generate approximately 360,000 to 400,000 kWh of energy annually, enough to power upwards of

120 homes in the area. Looking at it in another way, by offsetting the use of fossil fuels, this volume of renewable energy will displace as much as 280 metric tonnes of greenhouse gas emissions annually.

“Our municipalities will directly benefit from this wind project. We see it as our contribution to reducing greenhouse gas emissions and creating more energy security in Nova Scotia through the use of local, renewable energy. It’s an important initiative for us as individual units for and the region, and we all share a sense of pride for partnering on its development,” says Warden Richard Donaldson, District of Argyle.

This regional approach to renewable energy not only provides direct net positive cash flow for the partnering municipalities, but also allows them to share in the costs and the risks, thus making the project's financial impact more palatable for each unit. This partnership also makes the generation of wind energy viable for the Town of Yarmouth, which has zoning and set-back restrictions that prevents the installation of wind turbines within its municipal boundaries.

“So much of what we do as municipal leaders transcend boundaries,” says Mayor Pam Mood, Town of Yarmouth. “By working regionally, we can develop projects that as individual municipalities may not have been possible. Such is the case with our wind energy project where we share the investments, revenues and risks. Ultimately, this project speaks to our resourcefulness as municipalities and our high mutual regard for each other as neighbours, as we work together with the common goal of serving our communities.”

Recognizing the value of partnerships, these three municipalities are no strangers to regional cooperation. Much to their credit and to the benefit of each, they have a history of sharing services and making strategic investments as a means to save costs, build capacity and enhance local services. Their collaboration on this renewable energy project may very likely represent the next generation of shared services in the region.

“By working together, we are able to create economic development opportunities for our municipalities while contributing to the sustainability of the region. This project is a win-win as it is delivering significant benefits locally and beyond,” says Warden Leland Anthony, District of Yarmouth.

So in effect, this small-wind energy project - thou no small feat to coordinate and deploy - seems to be a natural extension of their commitment to collaboration and sustainability. By being strategic in their spending and forward-thinking with this initiative, the Districts of Yarmouth and Argyle, and the Town of Yarmouth have put the federal Gas Tax Fund to very good use by investing in a more sustainable future - both environmentally and economically. Each has shown leadership by creating an opportunity to supplement their budgets through local energy production – a decision that is bold yet astute, and one that will pay dividends and accrue benefits well into the future!