

Everyone knows about the environmental benefits of wind energy, now technological advances have made it one of the lowest cost options for new electricity generation. Wind energy is an abundant and affordable source of energy, and like elsewhere in Canada and around the world, is becoming an increasingly important part of Alberta's electricity supply mix. Canada's first commercial wind farm was installed at Cowley Ridge in southern Alberta in 1993. Today, over 900 wind turbines with a capacity of over 1,400 megawatts produce enough electricity each year to power more than 600,000 Alberta homes.

Alberta has some of Canada's best wind resources, and combined with new turbine technology could supply at least 1/5th of Alberta's electricity demands. Wind energy produces clean and renewable electricity that complements and diversifies conventional energy sources, providing a hedge against volatile fossil fuel prices and helping to reduce greenhouse gas emissions and fight climate change.

Wind energy is producing other benefits for Alberta, too. Successful host communities are being further sustained by growth in incomes for rural landowners, new tax revenues, and employment opportunities for trades people and contractors. Here are just a few of Alberta's success stories...



Photo courtesy of Capital Power



Photo and cover photo courtesy of TransAlta

Responsible. Sustainable.

For all of these projects, an essential element of their success has been an open and responsive relationship with the communities in which they are located. As the voice of Canada's wind energy sector, CanWEA's mission is to actively promote that same kind of responsible and sustainable growth throughout our industry. A national non-profit association, CanWEA serves as Canada's leading source of credible information on wind energy and its social, economic and environmental benefits.

Join the conversation at windfacts.ca

Share your support for wind energy today by visiting www.friendsofwind.ca

 Canadian Wind Energy Association

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Wind. For My Community.

Providing clean, affordable power, new local jobs and investments for Alberta.



Vulcan County

Wind Farm: Blackspring Ridge Wind Project

Highlights: 350 construction jobs, 20 permanent positions, revenue sharing with landowners

The 300 MW Blackspring Ridge Wind Project, jointly owned by EDF EN Canada and Enbridge, is the largest wind facility in western Canada and among the biggest in the country. More than 350 jobs were created during the construction of the project. Comprised of 166 Vestas 1.8 MW turbines, the site generates enough emissions-free electricity to power 140,000 homes. The majority of the workforce was hired from southern Alberta and millions of dollars were injected into the Alberta economy. In addition to creating close to 20 permanent jobs in operations and maintenance, the Blackspring Ridge project provides significant economic benefits in other ways, including increased property tax revenues for Vulcan County and innovative revenue sharing with landowners across the 48,000-acre project site. EDF EN Canada, Enbridge and Vestas will also work collaboratively over the next five years to support the community adding to the nearly \$20,000 they have already awarded to local organizations.

Blade signing ceremony at the Halkirk Wind Farm. →
Photo courtesy of Capital Power



“ I am honored to have been involved in such a monumental project. To see all of the wind turbines across our beautiful countryside is truly remarkable. I think the Blackspring Ridge Wind Farm shows the world the huge opportunities for untapped renewable energy in southern Alberta. The community of Carmangay is proud to be part of this project, helping to reduce our carbon footprint and offering renewable energy for generations to come. ”

Mayor Kym Nichols, Village of Carmangay



Photo courtesy of EDF EN Canada

Paintearth County

Wind Farm: Halkirk Wind Farm

Highlights: \$40 million in tax revenue over 25 years, 16-18 full-time jobs

Capital Power's 150 MW Halkirk Wind facility has brought significant benefits to the community. Offices in the village of Halkirk house 16-18 full-time administrative, maintenance and operations personnel. Area landowners hosting the wind farm's 83 Vestas 1.8 MW turbines and other project infrastructure receive annual lease payments, while the village and the County of Paintearth benefit from a steady stream of new revenue. An estimated \$40 million in tax payments will flow to local municipalities and schools over the expected 25-year life of the project. At the peak of construction, there were about 270 workers on site, and about a quarter-of-a-million person-hours of labour were logged. Wherever possible, local hiring was done and local suppliers were used. Capital Power continues to give back to the community by supporting community initiatives and local organizations, as well as providing educational tours for local schoolchildren.

“ It means a lot for the county. It's a tax base, the landowners are getting revenue from the towers themselves, and I think the Village of Halkirk is really going to benefit because Capital Power has put up a shop and an office complex. That'll certainly help our village. ”

Mayor Dale Kent, Village of Halkirk

Municipal District of Pincher Creek

Wind Farm: Summerview phase 1 & phase 2

Highlights: \$12 million into the local economy during construction, + \$5.8 million annually

TransAlta's Summerview phase 1 & 2 wind projects, which have a combined capacity of 136.2 MW, produce enough electricity to power 55,000 Alberta homes and to offset more than 257,000 tonnes of CO² a year. They also provide the Municipal District of Pincher Creek with \$1.2 million in annual tax revenue to help fund new community services and infrastructure, and local landowners with over \$500,000 each year in royalty payments. Add in operating and maintenance support that includes eight full-time technicians, donations to community organizations ranging from the 4-H Club to the local hospital's Trees of Hope campaign and environmental research, and the ongoing local economic benefits add up to more than \$5.8 million a year. Another \$12 million was injected into the region's economy during construction of the projects, which created 45 person-years of employment and utilized the services of 28 local contractors.

Photo courtesy of David and Flora DeCock

Wheatland County

Wind Farm: Wintering Hills Wind Power Project

Highlights: Stable income for landowners, new tax revenue for county

The 88 MW Wintering Hills Wind Project is located in the heart of Alberta's farming country, about 21 kilometres southeast of the community of Drumheller. The project's 55 GE 1.6 MW turbines started to generate electricity in 2011, producing enough clean electricity to power about 35,000 homes a year. Approximately 150 workers were on site at the height of construction, with ongoing operations and maintenance carried out by a permanent staff of six. Royalties paid to landowners hosting wind turbines provide a stable source of income to help smooth commodity price swings, while property tax payments bring new revenue to Wheatland County. The project's owners, Suncor Energy and Teck Resources Limited, have contributed an additional \$50,000 to various community partners and projects in the region. Wintering Hills also has a positive impact on Alberta's environment, displacing more than 200,000 tonnes of greenhouse gases a year and helping Suncor and Teck meet their sustainability goals.

“ It's sure nice to have an idea of a pretty good chunk of income that you are going to have available in the next 20 - 25 years. You can make some plans and have a little money set aside. You're not always sure of a lot of other things when you farm, so this is kind of a nice, reliable number that you have to work with. ”

Gary Sproule, landowner

“ It was some added income for us, and it actually made it so that we could purchase our home quarter from my dad. It gave us that feeling of satisfaction that we own our own land and are able to not have a major mortgage because of it. It's important for me to have land for my family to live on and understand agriculture and the country way of life. It also makes me feel good when I look out and see those wind turbines turning. Basically it powers my farm. It is derived right off my land. ”

Dixon Hammond, farmer who hosts three wind turbines on his land

“ Having wind turbines on our land has been very positive. Knowing that they produce sustainable green energy is important to us and their revenue is a plus. The wind turbines came at an opportune time for us. The income they provided helped us as cattle producers to get through the BSE crisis. ”

David and Flora DeCock, landowners

