

Gas turbine project helps power the New Brunswick economy

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Energy projects don't just power homes, energy powers the economy. By building a stronger energy system, we make it easier for business to invest, industries to grow and new technologies to take root. If we want new jobs in emerging sectors like artificial intelligence (AI) or, if we want our manufacturing sector to grow, we must have a stable and reliable electrical grid.

New Brunswick has enjoyed a dependable and diverse grid with a mix of hydro, nuclear, renewable and thermal generation. But it is now under pressure because of population growth, increased electrification, existing manufacturing intensity and economic development. The provincial utility, NB Power, also operates older generating assets that are nearing end of life and it is adding significant amounts of new intermittent (variable) renewable generation.

Intermittent renewable generation, such as wind and solar, is important because it offers competitive prices with few emissions, but it's a source we can't count on all of the time. We need to back that up with fast, reliable generation that is also affordable. That's where natural gas can play a role. New gas generation facilities can act as a bridge to help balance the system as we maximize renewable opportunities, with projects such as the Renewables Integration Grid Security plant (RIGS) planned for southeastern New Brunswick.

If we want to bring on more wind and solar generation, we need something that can turn on instantly when the sun isn't shining or when the wind dies down, which frequently happens in the winter when our electricity demand is near its peak. Like a home generator, you don't use it every day, but you are glad it's there when you need it.

Natural gas is cost effective and flexible

With the growth in electricity demand, we don't have a choice. We need to add more generation and look for what is the most affordable and reliable while we continue to decarbonize. It's not about choosing between renewables or combustion generators, it's about combining them efficiently and effectively, so the system stays stable and affordable as we move through the energy transition.

If there were cheaper, cleaner and reliable energy alternatives, NB Power would use it. NB Power is required by provincial regulations to choose the most cost-effective generation for ratepayers. Battery storage will become more viable, but right now large-scale batteries are very expensive and don't last long enough to get through more than four hours without the wind or sun. Battery improvements are coming in the future, but not soon enough to help fix our electrical grid problems today.

Fast-start natural gas turbines are currently the most cost effective and flexible solution to back up renewables. When we combine adding more wind generation with a gas plant we are reducing emissions overall and adding more clean energy to the grid.

A map of New Brunswick's energy system shows southern New Brunswick is the centre for renewable energy, with the best wind and solar sources in the province. That's a strength, but it makes the grid less stable because that's where demand for electricity is also greatest. A gas turbine in the southeastern

part of the province will mean less outages and less reliance on imported power, which may not always be available from our neighbours when we need it most.

A natural gas turbine investment in New Brunswick will also support the economy, adding local jobs in construction and operation, creating contracting opportunities for local service companies, and partnering with First Nations and communities.

Energy is a regional resource

Energy doesn't stop at provincial borders and neither do weather patterns. As the proactive voice of energy in the region, the Atlantica Centre for Energy supports the Atlantic provinces working collaboratively on energy. The region is already highly interconnected, and it's one of our biggest strengths. When New Brunswick has extra hydro or wind, Nova Scotia can import it and vice versa. Regional cooperation improves reliability and affordability for everyone.

A project like RIGS strengthens that interconnection even further. It gives the grid more flexibility and stability, which helps all the provinces bring on more renewables without sacrificing reliability. It's the kind of infrastructure we need to enable more sharing of clean energy. It can also set us up for success as we look to add new large scale offshore wind projects, hydrogen and increased electrification.

A collaborative energy system isn't just about policy alignment; it's about building complementary assets that work together to make the region's grid stronger and cleaner. You can't build a clean electrical grid if people can't depend on it and can't afford it. Natural gas is the transition fuel in the equation for our problems today. It's cleaner than coal-fired generators and oil, and it can ramp up or down quickly, which makes it the best available technology for supporting renewables.

It's important for New Brunswick residents to understand why the natural gas plant project is being considered and how it fits with plans to add more renewables and battery storage. Growth and economic stability depend on a resilient, competitive energy system. By combining clean energy sources, flexible backup solutions and regional cooperation, New Brunswick will have a sustainable and reliable energy future.

Michelle Robichaud is president of the Atlantica Centre for Energy, the proactive voice of energy in Atlantic Canada, bringing together industry, government, education and research sectors, and the public to support sustainable energy growth in the region.