

CLIMATE TALK

Reducing Carbon Emissions and Dollar Exports Would Improve the Local Economy

Bob Owen

Ino and Middleton

Early this month, we had our annual reminder that atmospheric carbon dioxide levels climbed last year. Humanity continues burning fossil fuels and destroying forests. Climate warming continues as greenhouse gases like carbon dioxide and methane continue to accumulate in the atmosphere.



At the national and international level, we must put a price on fossil carbon so that we extract and burn less of it. A good way to do that is to enact Citizens' Climate Lobby's proposed revenue-neutral carbon fee and dividend proposal. That is national legislation, but we should also focus on the local level.

There is much that we could do in the Chequamegon Bay Region to reduce our greenhouse gas emissions. Two local efforts will probably result in substantial progress in the next year.

First, Bayfield Electric Cooperative ("BEC") is surveying its members on whether and to what extent they would participate in a community solar project. Initial responses have been positive. BEC is likely to announce later this year that it will pursue a solar project of at least 150 kW size. In addition to being a good deal for participating members, who will get solar energy at a good price, the co-op community solar project also helps BEC's power supplier, Dairyland Power Cooperative, diversify from coal-fired to clean energy. This benefits all co-op members by reducing their future vulnerability to costs associated with carbon fees or regulatory mandates to coal-fired utilities. The atmosphere will also benefit from the coal not burned and the carbon dioxide and methane not emitted.

Second, on a larger scale, Northland College will decide in a few months on a plan to replace its use of Xcel Energy electricity and natural gas with a combination of local renewable biomass to fuel a combined heat-and-power (CHP) plant and solar energy. In the meantime, the college is proceeding with efficiency measures which will save money.

What can individual residents do? We can do a lot.

First, those of us served by BEC can participate in its community solar project. More BEC members subscribing to more panels would mean an even more cost-effective project. Just south of the BEC service area, Price Electric Cooperative could also develop its own community solar project.

Second, many of us have potential for significant cost-effective efficiency measures in our homes. Like Northland, we should pursue them and capture the dollar savings.

Third, property owners with good solar access served by Xcel Energy should consider getting an estimate on a solar installation on their own property before the federal 30% solar energy tax credit downshifts to 10% at the end of 2016.

Fourth, people considering building at locations not currently receiving electric service should get estimates for an off-grid solar or wind/solar installation. Often nowadays an off-grid electric system is more cost effective than paying to extend the grid to a new location. Both solar and battery costs have declined, wind equipment has improved, new lithium-ion batteries are becoming available, and off-grid equipment, including D.C. appliances and stand-alone inverters, has greatly improved. We can now be grid independent, resilient, carbon neutral, sustainable, and comfortable.

What can businesses do? They can emulate Northland too. While a CHP plant might not make sense for a small business, a solar array often does. Almost every business and government building has opportunities for cost-saving energy efficiency measures.

What can communities, including Eco Communities, do to aggressively reduce their carbon footprints? First, they should pursue cost-effective energy efficiency too. Second, they can install their own solar projects, for example in connection with water supply and water treatment facilities.

Third, they can start regulating Xcel Energy so that it acts responsibly by investing in clean energy in Wisconsin too, not just in every other state in which it operates.

Towns, villages, and cities can regulate Xcel gas and electric utility operations under Sec. 196.58, Wis. Stats., which provides:

The governing body of every municipality may:
Determine by municipal regulation the quality and
character of each kind of product or service to be
rendered by any public utility within the municipality

Under this statute, local municipalities could get together and determine that Xcel must reduce its sales of fossil natural gas and obtain a minimum percentage of the electric energy it sells in the communities from local renewable energy sources of reasonable modernity or efficiency. Bay Front cannot meet either standard. The only facility that does in Ashland and Bayfield Counties is the small White River Hydro Plant.

Xcel's 98-year-old Bay Front Plant is a rate-base-padding anachronism. Functioning more as a pond heater than a power plant, last year Bay Front required a large natural gas input to "achieve" a thermal efficiency of about 20.7 percent, while producing power at 9 cents per kWh. Every wind farm and modern gas-fueled plant in Wisconsin produces cheaper electricity. Our climate and our wallets can ill afford such waste. We could be getting three times as much useful energy (power and heat) out of the wood chips Xcel

feeds into Bay Front, displacing both non-renewable electricity and a substantial amount of natural gas, with large climate and economic benefits.

Exporting money to Minnesota to pay for power Xcel generates in that state and transmits to Lake Superior Counties, losing ten percent en route warming the feet of roosting birds, and exporting money to Alberta to pay for natural gas we would not need to use if we built biomass-fired CHP plants locally are both economic insanity. Local communities can terminate the insanity by regulating and requiring Xcel to produce renewable energy in modern facilities locally (as it is already doing elsewhere).

We can improve both our climate and our economy by becoming more energy efficient and producing more renewable energy locally.

Robert H. Owen, Jr.
1311 Middleton St.
Middleton, WI 53562

Robert Owen is a wind and renewable energy consultant. A seasonal resident of Ino, he is a member of the Chequamegon Chapter of Citizens' Climate Lobby.