

Websites:

British Columbia Sustainable Energy Association - Community Energy Co-operatives]:

- <http://www.bcsea.org/community-energy-co-operatives>

The Peace Energy Cooperative, based in Dawson Creek, BC, helps its members to invest in solar and wind energy, including playing an initial leadership role in the Bear Mountain wind project.

The Vancouver Renewable Energy Cooperative and Viridian Energy, based in the Cowichan Valley, are workers' cooperatives, owned and managed by their own staff, providing renewable energy installation and services.

GabEnergy, on Gabriola Island, BC, is a non-profit organization that promotes alternative energy systems and energy conservation. It offers a solar PV turnkey operation, buying panels and equipment in bulk from Sentinel, in Ontario, and assisting homeowners with site inspections and installation. They have assisted with five installs, including a 10 kw rooftop system which came in at \$2.60 a watt. They are currently planning a 20kw system to be installed on the community hall, to be owned and operated by islanders.

Sustainable Gabriola is a non-profit which undertakes sustainable energy related initiatives on the island, including cycle-paths, a community bus, and a heat-pump social enterprise which has seen 350 heat-pumps installed to replace baseboard heating through a bulk purchase arrangement, saving residents up to \$1,000 a year.

The Cowichan Valley Solar Bulk Purchase Group is a group of 30 people who came together in 2014 to make a bulk purchase of 700 solar panels (200 kw), and to work with Viridian Coop (see this page) to arrange the installs.)

Canada] British Columbia Sustainable Energy Association - Community Energy Co-operatives:

- <http://www.bcsea.org/community-energy-co-operatives>

Saskatchewan Community Wind is working to develop community-owned wind farms, financed by local Saskatchewan investors.

AgrisSolar is a farmer-owned solar energy co-operative in Ontario with 700+ members. It enables its members to invest in and develop their own solar energy plants, providing them with an alternative to leasing their property to an independent solar developer or purchasing their own solar units. Their approach enables members to reduce the risk, lower the cost through bulk purchasing, and share the administration and maintenance.

The Hearthmakers Energy Cooperative, based in Kingston, Ontario, is a non-profit organization which provides energy efficiency services and environmental education in Eastern Ontario, working to improve the environmental sustainability of homes, businesses and communities through a focus on water conservation and energy conservation.

The Toronto Renewable Energy Cooperative is a non-profit co-operative which develops community-owned renewable energy projects and educates Ontarians about renewable energy, energy conservation and community power. They have established **Solar Share**, which develops commercial scale solar energy installations using investments from any Ontario resident; **Windshare**, a 660 kw wind turbine on Toronto's waterfront with the capacity to power up to 250 homes, owned by more than 400 Ontarians who invested to make it happen; and **Lakewind**, a proposed 20 MW wind farm project near the Town of Bervie, east of Kincardine.

The **Beach Energy Cooperative**, based in the east end of Toronto, and founded in 2012 is pursuing a contract to install a 44kW rooftop array at Kew Beach Public School. <http://beachenergy.ca> and

The **Community Energy Co-op of New Brunswick** is a community-based co-op which invests and participates in renewable energy and energy efficiency projects in New Brunswick. They are poised to develop a detailed plan for a community-owned wind farm in Carleton County. Membership in the Coop brings various benefits, including an hour of free energy consultation.)

Gab Energy Power to the People:

- <http://www.gabenergy.com/> &

GabEnergy-subscribe@npogroups.org

&

Sustainable Gabriola:- http://sustainablegabriola.ca/06_energy.html &

info@SustainableGabriola.ca

SG's Energy Group

The common interest is in finding ways of using less energy - both as individuals and as a community - thus decreasing the island's reliance on off-island energy.

As well as doing what they can to reduce their personal energy use, those involved share information, discuss ideas and issues (eg - (what it takes to go off the grid, the pros and cons of smart meters, establishing Gabriola Electric to manage the island's electricity), and have participated in a few island-wide energy-related projects (examples below).

An intention is to establish a gulf island wide means of putting individuals interested in using less energy in touch with each other to share ideas and information.

If you're interested in joining this network, or want more information, send a note to

webmaster@sustainablegabriola.ca

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Other Islands:

Of great interest is how citizens on the **Danish island of Samsø** and the **Scottish island of Eigg** have established their own grids and become independent of the

mainland utility companies: (More to come)

<http://www.ngpower.eu/news/samsø-energy-self-sufficient/>

[- <https://www.youtube.com/watch?v=4UE5PI4p2nY> & - <http://www.dac.dk/.../samsoe-a-role-model-in-self-sufficiency/>]

<http://www.youtube.com/watch?v=l3n-6YHquno>)

[Kootenay Lake Eastshore. BC] **Rural Alternative Energy & Resiliency** - Guide to Eastshore Energy Sources by Eva Snyder, Selkirk College Teckservice Student Intern - 2014:

- <http://www.yasodhara.org/.../up.../Booklet-AE-Digital-Feb-17.pdf>

&

- <http://selkirk.ca/.../de.../files/RDI/Booklet%20AE%20Digital.pdf>

[USA] **British Columbia Sustainable Energy Association - Community Energy Co-operatives:**

- <http://www.bcsea.org/community-energy-co-operatives>

(The Community Power Network, with over 100 members, provides its member organizations with resources and technical assistance, and helps to connect groups to the broader movement for community renewable energy.)

Renewable Energy Cooperatives in America

In California, **Cooperative Community Energy**, founded in 2001, is a full-service solar coop that has helped nearly 1,000 members to install solar energy, doing custom design and complete project management.

In Massachusetts, the **Vineyard Power Co-operative** has installed a 99 kw solar system on the Chilmark landfill, meeting 50% of the municipal power demand. Their mission is to be a 21st century utility, producing electricity from local, renewable resources while keeping the benefits within the community.)

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Renewable energy on Gabriola Island by Natalie Dunsmuir - Island Tides Reprint from Volume 26 Number 15 - August 07, 2014:

- http://islandtides.com/ass.../reprint/greenenergy_20140807.pdf

With the costs of renewable energy still high enough to discourage many from investing in it, a non-profit organization, GabEnergy, has decided that it is time to step up to the plate and help their island become more sustainable. Their goal is to source, sell and

supply solar panels at the lowest possible cost, so that residents of Gabriola Island will be encouraged to come together into a greener future.

The organization is fairly new - it was only six months ago that the group decided it was time to increase the renewable energy on their island - but it has already come far. Along with the beginnings of a plan to install a ten kilowatt solar array at the Gabriola Commons, GabEnergy is in the process of becoming a co-operative. Members will be able to buy shares, helping to fund a solar farm in their neighbourhood, in turn benefiting from the renewable energy that it will produce. Solar arrays feed power back into the grid-system so that the community as a whole feels the positive impact.

"We need to get people off their addictions to fossil fuels," says **Michael Mehta**, an environmental social scientist and co-director of **GabEnergy**. Mehta's own house is powered by solar technology and he is working to help neighbours and community members introduce green energy into their lives. "Five [systems] are being installed as we speak," he told Island Tides.

Many people are skeptical of the power that solar energy can generate on our rainy west coast. The Gabriola area receives around 2,000 hours of sunlight a year, if a solar array was installed on every fifth or sixth house on the island, Mehta says, enough electricity would be generated to supply the community with all of its energy needs during the daytime.

So what of the costs? GabEnergy has built a relationship with a solar supplier in Ontario and now feels confident in being able to supply the green technology at the lower possible price. A recent partnership with Bullfrog Power, one of Canada's leading renewable energy providers, has also provided financial backing to the project. Shares in the newly forming co-operative are estimated at \$500, the price of one panel and the technology to run it.

With so much success already coming their way, GabEnergy is planning for the future. They are currently trying to find the land - or the rooftops - for a solar farm and are investigating other means of generating green energy. "Solar is the low-hanging fruit," Mehta says. The company is looking ahead, towards the possibilities of wind and tidal energy.

As well as being climate-friendly, solar technology is a way of bringing energy sources closer to home. On Gabriola, it's about community power. GabEnergy hopes to harness that power in a way that is clean and affordable to everyone.

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Mehta proposing energy co-op for Gabriola by Rachele Stein-Wotten - Gabriola Sounder - July 02, 2013:

- <http://www.soundernews.com/.../mehta-proposing-energy-co-op-f...>

The proposal by one Gabriolan to start a renewable energy utility co-operative on the island is gaining momentum fast, with some already pledging shares before a co-op has even been established.

Michael Mehta brought forward the idea at a public meeting at the end of May and has since joined forces with Sustainable Gabriola and the Commons who are now the shepherds of the project.

The proposal involves starting up a publicly owned utility generator that could eventually produce clean energy on-island.

Michael, who has served on the board of SaskPower and wrote his PhD on Ontario Hydro and nuclear power, said being a stand-alone utility company wouldn't necessarily mean disconnecting from BC Hydro's grid and could still make use of their transmission system. "What we're talking about is an administrative structure that empowers the community to be responsible for their own electricity."

Power generation could be phased in, he said.

He sees a combination of tidal, wind, solar and geothermal.

One option, he said, is setting up a solar farm in the south end, which could be installed on donated land. For a 100 kW farm, which would be the largest in B.C., panels would cost roughly \$100,000, which could be covered by 100 people buying \$1,000 shares.

"There's a huge cost savings in doing this as a community – buying bulk."

Upfront capital costs can be expensive, and Michael said potential funding sources include the BC Carbon Tax Credit, and organizations that help communities build capacity.

As far as the cost to the customer for such clean energy, Michael said it will be difficult to beat BC Hydro who are operating on an economy of scale.

"There is a risk that when you start something new on a smaller scale with greener technologies that the price will be higher." He said the price of green technology continues to drop; however, whereas the costs of conventional energy and large scale technology are going up.

Another advantage of a publicly run utility, Michael said, is a cost structure could be established to accommodate lower income customers.

Representatives from **Sustainable Gabriola and the Commons** met with Michael last Friday to discuss next steps.

Bob McKechnie with Sustainable Gabriola said that sustainable energy use and generation are a key part of the non-profit's sustainability plan. He said meeting attendees agreed the process will be fully open to the public and hope that local

government will be supportive of the initiative. He said they've already received messages from people on and off the island interested in being a part of a co-op.

Plans are to hold a public forum in the near future. In the meantime anyone interested in being part of the discussion can join the list-serve GabEnergy-subscribe@npogroups.org.

Michael said the process will include deciding how much external advice is needed or desired in a community-led initiative.

"If you're going to run your own utility company you're going to need people who are experts ... in the technology, transmission and distribution, billing, customer relations, policy, regulatory oversight, tariffs, all the legislation.

"This isn't going to be easy, but I really think it's worth doing."

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Gabriola Island plans break from BC Hydro - Independent energy co-operative would set own rates - CBC British Columbia - June 21, 2013:

- <http://www.cbc.ca/.../bc-gabriola-island-solar-tidal-power.ht...>

(Please Comment)

(video 02:11) Gabriola Island's off-grid plans - CBC News - June 21, 2013:

- <http://www.cbc.ca/player/play/2393016863/>

(B.C. community is working to generate their own electricity)

(Stephen.Smart@CBC.ca : Michael Mehta, Island Power Proponent - Jim Phillipoff, Gabriola Resident)

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(video 02:54) RAW: Island plans break from Hydro - CBC News - June 21, 2013:

- <http://www.cbc.ca/player/play/2392995027/>

(Michael Mehta says Gabriola Island wants to generate electricity)

(The Electroform Movement)

Residents of Gabriola Island, near Nanaimo, B.C., are in the early stages of a plan to generate and distribute their own power, which could mean a break with Crown corporation BC Hydro.

Michael Mehta, a Gabriola resident formerly involved with SaskPower, is leading the initiative to form an energy co-operative.

He hopes to combine tidal, solar and other green initiatives to make the island energy independent.

Mehta says strong currents make Gabriola Island an ideal spot to generate electricity from tidal power, which he estimates could provide up to a quarter of the island's needs.

"The goal is to move towards net zero, which means we don't use any more power than we produce," he said.

Mehta said that so far there has been a positive response from Gabriola Island's 4,000 residents, some of whom said they liked the idea of independence from BC Hydro.

"On an island like Gabriola, where we have people that are in some cases quite poor, a utility company that is owned by the community could set a rate structure that reflects income," Mehta said.

"So we can meet all the social needs that a big corporate entity like BC Hydro might not be able to."

BC Hydro says it is looking forward to hearing more about the plan as the community moves ahead.

"I don't recall ever seeing a proposal like this from a community that wants to generate its own power," said BC Hydro spokesman Ted Olynyk. "But I'd love to sit down and talk with them and see what their plans are."

With files from the CBC's Stephen Smart