

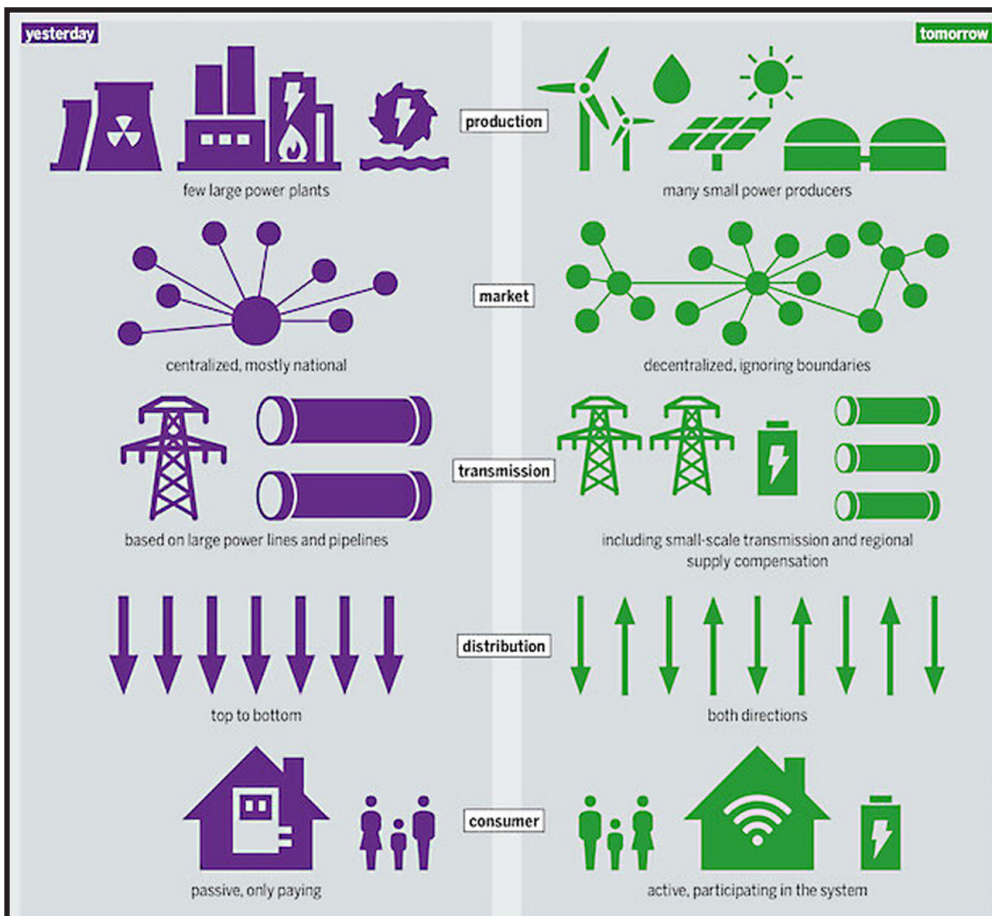
Watt's Happening? #260

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Solar Co-ops

Helping everyone go solar!



As we move rapidly to a clean energy world, many things will change for the better. Energy production will come from many different and smaller sources; it will become much less centralized so transmission losses will be much less; and thanks to clean energy cooperatives we can all participate in the system instead of being just passive energy consumers.

Germany is a world leader in the adoption of clean energy. Today, almost 60% of their electricity comes from solar and wind power.

That's great, but here's the cool part: roughly half of Germany's renewable energy facilities are in the hands of farmers, citizen groups and the members of almost 1,000 cooperatives!

That's right, co-ops. This includes 1.4 million solar power installations and 29,000 on-shore wind turbines creating over 400,000 jobs. The profits they generate stay in the hands of local community cooperatives and their member/investors.

Across Canada, dozens of solar cooperatives are making headway with the goal of making it easy for more and more people to invest in their local clean energy economies. Your roof may be too shaded for your own personal solar power system, or you may live in a condo or apartment where adding solar can be difficult or impossible.

But community energy co-ops give you another option to invest in the solar revolution and to join the fight against climate change . . . and generate a return on your solar investment!

HERE'S HOW IT WORKS

1) The renewable energy co-op (across Canada the energy is usually solar) creates a project that they offer as an investment opportunity for their co-op members. The technical and financial details are all worked out to show that the project will turn a profit, and now it is time to raise the cash to build it.

2) They then sell shares in the co-op to their members to raise the necessary funds.

3) They use the revenue from the sale of energy generated to pay back the investors and earn a return over time.

How co-ops can generate income from solar varies from province to province. It can be direct sales into the free market power grid (like Alberta) or from money saved from reduced power bills, by putting solar on a town's municipal building, for instance. The co-op owns the solar array and splits the energy savings with the municipality. That's a win for everybody.

PEACE ENERGY COOPERATIVE

"We are democratizing energy," says Joanne Dueck, president of Peace Energy Co-op (PEC) in Dawson Creek, BC, western Canada's first renewable energy investment co-op based on the European model. "We are generating investment in local solar projects and making clean energy more accessible to everyone."

PEC specializes in custom solar system design, supply and installation. They have installed more than one million watts of solar for homes and municipalities in their main service area of northeast BC and northwest Alberta.

Their Peace River Energy Project is planned to be one of western Canada's first grid-scale co-op owned and operated solar farms, slated for construction next year.

Today there are about 45 active renewable energy cooperatives like PEC across Canada.

COMMUNITY SOLAR

Co-ops are one good way to develop solar projects that are usually larger than a home's roof but smaller than an immense solar farm. These "community solar" projects benefit multiple local people instead of just a single homeowner or huge multinational developers.

Having many small projects distributed across a landscape has many clear environmental benefits. Community-scale solar projects are cheaper than individual residential installations per watt installed due to economies of scale; the local grid is more resilient to disruption; and line losses are reduced when power is transmitted over only short distances

to the end users, in this case, the local communities where the solar facilities are located.

VIRTUAL NET METERING

Experience shows that solar co-ops tend to be most successful at raising money from folks willing to take small, steady returns on their solar investment over a long period of time, rather than expecting big returns quickly.

Although new in Canada, virtual net metering may soon become available in BC but is already working in Saskatchewan, Nova Scotia and some other provinces. With this arrangement solar power produced in one location is credited for use at other locations, a system that opens up many possibilities for local energy ownership.

One example is in Nelson, BC which hosts Canada's first community "solar garden" (2017). Members of the community have invested in solar energy production on a per-panel basis. Investors include renters, homeowners, business owners, churches, schools and the local college. These investors receive a credit on their Nelson Hydro electric bill once per year in proportion to the original investment and the annual solar energy generated over the life of the 25 year agreement. Up to 2022 Nelson Hydro has credited about \$33,000 to subscriber's utility accounts.

EUROPE PROVES THE MODEL

The European model of investment co-op can work in Canada too. Early on, the Ontario government gave generous incentives for solar, wind and energy cooperatives. The results were astounding.

Ontario's Solar Share is a prime example. Since 2010 Solar Share has raised more than \$80 million from 2,200 members for 51 solar projects across the province. Together the projects generate some 15 megawatts of capacity and earn roughly \$7 million per year for their investors.

A 2023 study of citizen-led energy initiatives in Europe found more than 10,000 clean energy projects involving more than 2 million people. Together they have invested some \$16 billion in the projects that generated close to 10 Gigawatts of renewable energy. Most of these projects use the investment cooperative business model.

In spite of almost universal Canadian government indifference, the solar co-op model is slowly beginning to work in this country too. Local cooperative ownership of clean energy: it just makes sense, and cents!