

Community. Power.

What is

Community Power?

Community Power is locally owned and sited green power generation (e.g. ExPlace turbine).

It is sustainable energy at a human scale, both rooted in and responsible to the local community.

It includes power generated from environmentally friendly sources such as wind, solar, methane recapture and run-of-river hydro.

Community Power results in a more distributed energy system and more egalitarian system of electricity generation and transmission.

Community power projects may be owned and operated by co-operatives, farmers, and municipalities.

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Small projects, not small turbines

Community Power is essential for renewable energy development in Ontario!

Over 20 communities in Ontario are actively pursuing community power projects!

Community Power has been essential to the success of the wind power industry in Germany and Denmark, the world's 1st and 4th largest wind industries.

10 Benefits of Community Power

- ✓ **More Renewable Energy**
The success of wind energy in Denmark and Germany is largely due to community ownership.
- ✓ **Stimulates Economic Development**
Creates new skilled jobs and long-term investment throughout Ontario.
- ✓ **Strengthens Rural Communities**
Generates new income for farmers and rural landowners.
- ✓ **Increases Local Acceptance**
Democratic ownership, community involvement and member education encourages acceptance.
- ✓ **Conserves Energy**
Increased member education and awareness leads to reduced consumption.
- ✓ **Saves Money**
Generating energy closer to where it is used reduces transmission and distribution costs.
- ✓ **Protects the Environment**
Reduces air pollution and the emission of gasses that contribute to climate change.
- ✓ **Improves Health**
Reduces smog-related illnesses and premature deaths.
- ✓ **Ethical Investment**
Offers a socially responsible investment for the every-day Ontarian.
- ✓ **Improves Grid Reliability**
Smaller scale, localized generation helps avoid massive 'Blackouts' of August 14th, 2003.

Ontario

Sustainable

Energy

Association

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Who is OSEA?

The Ontario Sustainable Energy Association (OSEA) is a provincial non-profit association of local organizations who are developing sustainable energy projects in and for their communities.

Emerging Community Projects in OSEA's Membership

Community Wind Projects

Organization	Project	Location	Size
WindShare	Ashbridges Bay	Toronto	1 MW
TREC	LakeWind	Rural Ontario	10-20 MW
Hearthmakers	TradeWinds (Kingston)	Wolfe Island/Kingston	36 MW
PEC Wind Co-op	Co-development with Visionquest	Prince Edward County	1-3 MW
WindFall Ecology Centre	Georgina Island	Lake Simcoe Area	10MW
Positive Power	Hamilton Drumlin	Hamilton Area	1 MW
Positive Power	Hoover's Point	Lake Erie Area	3 MW

Other Groups Pursuing Wind

Organization	Location
Eco-Energy Durham	Port Hope/Durham Area
SERG	Schreiber Area (Lake Superior)
PURE	Shelbourne/Orangeville Area
CFRE	Lion's Head Area
TREC North	Temagami Area

Community Micro-Hydro & Bioenergy Projects

Organization	Location
GREEN	Grand River Area

Community Solar Projects

Organization	Location
ecoPerth	Perth Area
CREW	Kitchener/Waterloo Area
Eco-Choices Ottawa	Ottawa Area

These projects represent:

- 100 MW of new, renewable, distributed electricity generation within the next 5 years;
- Approximately 75,000 Ontario constituents directly participating in renewable energy development and production;
- Up to \$100,000,000 in new investment, along with skilled employment during the construction and operations phases of the project;
- More energy dollars staying at home - typically, 75% to 90% of every dollar paid on an electricity bill leaves our communities. Since citizens will own community power projects, more \$\$ will stay in the community to re-circulate, providing spin-off economic benefits.

The long-term benefits to Ontario communities are significant!

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Ontario Government Policies and Community Power Work Together!

ELECTRICITY

Government Policy Principles

- Creation of more supply
- Permit private generation, within a regulated framework and public controls

Community Power Principles

- Community power drives incremental new project development & greater acceptance
- Best of both worlds – private ownership, rooted in and responsible to local communities

COMMUNITIES

Government Policy Principles

- Creating clean communities: clean air, water, and tougher hazardous waste disposal regulations.

Community Power Principles

- Community green power cleans the air and does not produce any hazardous waste. Bio-gas provides new use for waste by-products, protecting groundwater.

ECONOMY

Government Policy Principles

- Promote economic development for rural, agricultural and northern communities
- Build a more innovative economy
- Create new jobs

Community Power Principles

- Renewables such as wind and bio-gas are usually sited in rural, agricultural and northern communities.
- Wind power is an explosive new industry, growing 30% annually worldwide.
- OSEA estimates that an aggressive wind development program could produce 97,000 new jobs in Canada by 2012.

AGRICULTURAL

Government Policy Principles

- Ensuring sustainable, dependable farm incomes
- Develop new markets for Ontario agricultural products (e.g. ethanol, bio-diesel)

Community Power Principles

- Wind and bio-gas generate new revenue sources for farmers, with long-term, stable income streams.
- Biogas provides new markets for agricultural by-products.

CLEAN AIR PLAN

Government Policy Principles

- Replace coal with cleaner power generation through renewable energy technologies
- More aggressive development of renewable energy
- Encourage conservation
- \$150 million/year in development funding for green electricity
- Reduce health care costs associated with smog and pollution

Community Power Principles

- Community power stimulates the development of clean energy.
- Implementation of Advanced Renewable Tariffs will stimulate rapid growth in renewables
- Member education results in greater energy awareness and reduced consumption.
- A portion of the \$150 million in development funding can be channelled to the creation of a Community Green power Innovation Fund.
- Community energy offsets dirty coal, leading to improved air quality and less smog-related illnesses.



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Community Power in Ontario: Policy Recommendations

1) Implement Advanced Renewable Tariffs

Since 1991 when Germany introduced its ground-breaking renewable energy tariffs, the country has installed more than 14,000 MW of wind generating capacity - more than twice that is installed in all of North America. **One-third of all German wind capacity, about \$7 billion CAD, is owned by farmers, households, small businesses, and co-operatives.** Spain, France, and a host of other countries have followed Germany's example and introduced similar renewable tariffs. This has resulted in the spectacular growth of wind energy in Europe. In 1999, the German parliament amended the renewable energy law and updated it for the new millennium. The Renewable Energy Sources Act includes additional technologies and introduced a multi-tiered system for determining the price paid for renewable sources of electricity. Subsequently, the French government followed the German example and introduced what it calls **Advanced Renewable Tariffs.**

OSEA Recommendation:

Ontario should implement Advanced Renewable Tariffs as soon as possible for projects less than 10 MW in size. These tariffs should order simplified interconnection from qualifying renewable projects and specify the price that will be paid for each kilowatt-hour generated for a minimum of 20 years.

2) Create a Community Green Power Innovation Fund

This fund (modeled on the support that the Toronto Atmospheric Fund provided to the Toronto Renewable Energy Cooperative's wind turbine) would provide loans and grants to a number of community-based groups to assist them through the resource assessment and project development phases of their projects.

OSEA is calling on the Federal and Provincial governments to each contribute 50% of the necessary financing for this fund.

OSEA Recommendation:

The Province applies to the Federal Government for a portion of the \$320.7 million Kyoto Budget. The Kyoto Budget is intended for governments and communities whereby the Provincial Governments will be given priority to apply.

Proposed Community Green Power Innovation Fund

Total Fund: \$5,000,000

= \$2,500,000 loans

\$2,500,000 grants

= ~15 community-scale projects of 10 MW each

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Lessons from Europe

Community Power has significantly aided the growth of the renewables industry in Europe.

Wind power is a major source of electricity in both Denmark (20%) and Germany (4%).

A key factor in their success has been community ownership.

- √ 5% of the Danish population own shares in local wind co-ops.
- √ By Contrast, in the UK, where energy policy has favoured large utilities and private consortiums, wind power deployment has floundered because of planning opposition

Germany	Denmark
Largest installed capacity of wind turbines in the world - 14,000 MW	4th largest installed capacity in the world - over 3,000 MW
Wind power supplies 4% of the country's electricity demand	Wind power supplies about 20% of the country's electricity demand
1/3 of wind power generation owned by associations of local landowners & residents	85% wind power generation facilities owned by community co-ops and individuals
Over 200,000 households own shares in wind turbine facilities	Over 100,000 households own shares in wind turbine facilities
Keys to Success <ul style="list-style-type: none">• Policies to support community power and local ownership• Stable price for wind generated electricity• Clear Planning guidelines	

A high level of local and preferably community ownership of wind power is essential if there is to be solid public acceptance of the technology in Ontario.

Backgrounder

Background to Recommendations

Implement Advanced Renewable Tariffs

Advanced Renewable Tariffs are the world's most successful mechanism for stimulating the rapid development of renewable energy. They are simple, transparent, and egalitarian, offering to farmers, co-operatives, and others a straight-forward means to commercializing wind, low-impact hydro, biomass, and solar energy projects.

Advanced Renewable Tariffs guarantee the right to connect a wind turbine, a small hydro plant, photovoltaic panels, or a biomass generator to the grid as well as **guarantee the price that will be paid for every kilowatt-hour of electricity produced.**

Advanced Renewable Tariffs differ from net metering by specifying a price paid for all generation delivered to the grid. Unlike net metering which is often limited to generators less than 100 kW, Advanced Renewable Tariffs are typically paid to all generators regardless of size. OSEA suggests initially limiting Advanced Renewable Tariffs in Ontario to projects less than 10 MW for community-owned projects until the province becomes familiar with the mechanism.

Advanced Renewable Tariffs are the ideal means for the province to meet its renewable energy target. Renewable Portfolio Standards are simply targets for the development of a certain amount renewable energy by a certain date. Often these standards don't specify how the targets are to be reached. Bidding or tendering in response to a Request for Proposals is one way to meet these targets. Advanced Renewable Tariffs are another. Surveys by economists of renewable energy development worldwide have found that **Advanced Renewable Tariffs result in more generating capacity installed more quickly than any other mechanism.** These tariffs also result in more dynamic markets with more manufacturers and more suppliers than other strategies.

Advanced Renewable Tariffs are in use by several European countries, including Germany, Spain, France, Portugal, and others. As a result of Advanced Renewable Tariffs, Germany is the world's leading developer of wind energy, and the world's second largest developer of solar photovoltaics power systems.

Fixed Tariffs, like the renewable tariffs used in Europe, have been and are being used in North America. California's use of fixed-price contracts during the early 1980s resulted in the installation of more than 1,200 MW of wind-generating capacity within five years. This is enough capacity to generate one percent of the state's supply. Minnesota utility Excel, under a state-mandated program, currently offers fixed-price contracts to wind projects less than 2 MW.

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Community. *Power.*

Facilitating the transition to a sustainable energy economy through the development and support of community-based sustainable energy initiatives.