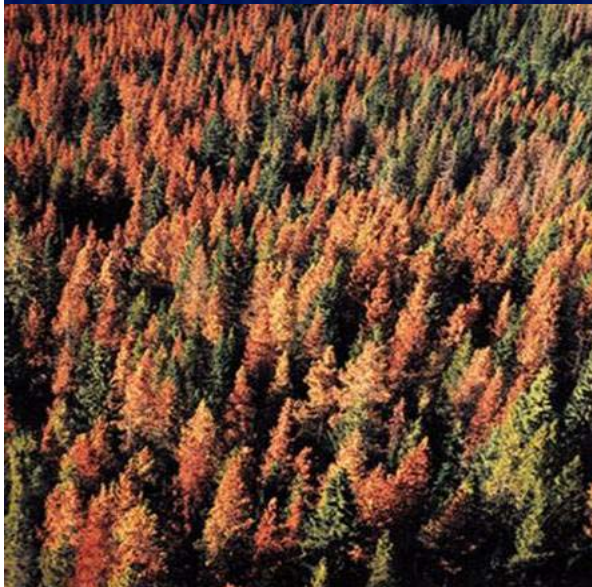




Community Wind Power for Rural Economic Development



Maine wind power
presentations Oct. 22-
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What is this about?

- **Why community wind? Superior economic benefits, promotion of wind power overall**
- **Obstacles to community wind growth**
- **Policies to build up community wind – state and federal**

Community Wind 101: A Primer for Policymakers

- **Based on new white paper issued by 25x25 Alliance, Energy Foundation and Harvesting Clean Energy**
- **Intended as general primer to educate policymakers and advocates**
- **Based on extensive literature survey, peer review of results by top experts in wind, both large players and community wind developers**

Community Wind advantages

- **Complementary with corporate development – pioneering role in new wind areas**
- **Fills a market niche for smaller projects that can be less attractive to commercial developers or that can fit local grids where transmission congested**
- **Vastly diversifies the number of people and institutions that can participate in and benefit from wind power development**
- **Broadens investor base and the political support for wind power**

Wind economic benefits

- Rural landowners earn \$2,000-\$10,000 in annual royalties per turbine.
- Each 100 MW generates annual property tax payments of \$500,000-\$1 million
- Two to five operations and maintenance jobs are created for each 50-100 MW in capacity, while each megawatt under construction provides 1-2 jobs plus revenues for local businesses
- Community wind generally at smaller scale but MW for MW benefits can multiply 2-3 times and up

NREL – 40 MW outside v. 20 2 MW local

	Outside	Local
Income	\$1.3 million	\$4 million
Jobs	18	41

Tom Wind – Iowa study

	Large Wind/ Outside Owners	Small Wind/ Local Owners
Stay in Community	\$12,220	\$65,900
Stay in State	\$5,100	\$100,300
Leave the State	\$148,000	\$21,300

Big Stone County, MN

- **Direct and indirect annual local economic benefits for 10.5 MW wind farm**
- **Corporate model provides \$249,388 and 4.3 jobs.**
- **Community model provides:**
 - **\$1,259,188 and 14.5 jobs at five percent capital cost**
 - **\$639,739 and 8.2 jobs at eight percent capital cost**

UMinn conclusion

- **“An increasing body of empirical evidence indicates that corporate and community wind development structures are not equal in terms of their local economic impacts, not limited to the owners themselves. In particular, mounting evidence points to the idea that community wind has greater economic impacts on local economies during the operational phase of the project, due to local spending multiplier effects associated with the higher income streams.”**

Community Wind obstacles

- Higher costs due to a lack of economies of scale for smaller projects
- Federal tax and financial incentives that cannot be fully utilized by community-scale players
- Problems interconnecting with power grids and finding power markets
- Lack of local support infrastructure

Federal Tax Policy Issues

- **Wind capital investment includes fuel supply, so tax incentives needed to help with high upfront capital costs**
- **Many community wind investors unable to fully use the prime wind policy support tools in the U.S**
 - **Production Tax Credit which now provides 2.1 cents per kilowatt hour generated for the first 10 years of operation.**
 - **Accelerated depreciation which allows assets to be written off in five rather than 20 years.**

Smaller players disadvantaged

- Need for tax appetite - \$125,000 for 2 MW installation
- Limits on eligible income, from turbine or “passive,” not direct business or wage
- Flip model used as workaround

Suggested fixes

- Expanded income definition to active
- Greater incentives for community projects
- Feed-in law, guaranteed interconnection with high payment rates – Inslee Renewable Energy Jobs and Security Act. H.R. 6401
- Successfully used in Europe, being implemented in Ontario, looked at in 5-6 states

Grid interconnection

- **Standardized grid interconnection arrangements and agreements lower transaction costs – Critical**
- **Now in 37 states, federal best**
- **Net metering limited, mostly under 2 MW**
- **New Jersey, Colorado at 2 MW – good overall models**
- **Haynes, IREC, “Connecting to the Grid”**

State models

- **Notable – Wisconsin, Iowa, Illinois, Nebraska, Massachusetts, New York, Oregon, Colorado**
- **Minnesota the stand-out**
- **Shoemaker, FLAG, “Community Wind: A Review of Select State and Federal Policy Incentives”**

Minnesota key elements

- **Production incentive –**
 - **first 200 MW, 1.5 cents kWh to 2 MW over 10 years**
 - **C-BED to proposed feed-in**
- **Guaranteed market – state portfolio standard includes small wind carve-out, 160 MW of 2 MW or less**
- **Standardized agreements**
- **Capital assistance**

Generating supportive business infrastructure

- Key to reducing costs
- Resource assessment, project development, wind technology, bulk purchases, financing, operations and maintenance.
- Concentrated policy support for community wind has generated a dense network of professional services and suppliers in Minnesota

Minnesota key takeaway

“... as more and more community wind projects are built, development costs are also declining, due to the emergence of a local network of contractors experienced in wind power project construction, as well as increasing developer experience in managing the development process. This experience, along with that of community wind in Europe, highlights the importance of a long-term policy focus that will allow the emergence of a development infrastructure to cost-effectively support community wind projects.” – Bolinger et al



Conclusions

- **Benefits of local ownership - more prosperous rural economies, stronger power grids and the growth of wind power overall justify an increased community wind priority**
- **Obstacles to community wind, though formidable, are not insurmountable**
- **Smart policies combined with innovative ownership models are creating community wind projects around the U.S., particularly in notable hotspots where states are taking an active policy lead**

Community Wind 101 at:

- www.25x25.org
- www.ef.org
- www.climatesolutions.org
- www.harvestcleanenergy.org