

A photograph of several wind turbines in a field at sunset. The sky is a mix of orange, yellow, and blue, with the sun low on the horizon. The turbines are silhouetted against the bright sky. The foreground shows a dark, textured ground, possibly a field or a body of water.

Community Wind Projects: Challenges and Opportunities

Wind Powering America
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by

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Photo by David Ausberger

Introduction

- Community Wind (“CW”) has had good growth recently, on a percentage basis.
- CW accounts for a small percentage of the installed wind generation capacity
- It has held up as a possible way forward for the wind industry if there is no PTC or ITC
- My work is largely on the development of CW projects
- Does Tom Wind have a vision for the future long-term path forward for wind power?
- As an experienced developer it would be very easy for me to use all of my allotted time to tell you why CW is **unlikely** to be the path forward for the survival of the wind industry without the major federal incentives.
- Unfortunately for me, this was **not** my assigned task.....

Types of Community Wind Projects

- Non-profit municipal electric utility or a rural electric cooperative
 - Owns wind generation, or
 - Purchases power from wind generation typically owned by local residents
- Local residents owning wind generation and selling the power to a for-profit utility
- Schools or colleges using power from their own wind turbine
- Large farm operations using power from their own wind turbine
- Other businesses using power from their own wind turbine (not as common)

Federal and State Incentives

- Incentives have historically been the key to the development of community wind projects and projects usually use one or more incentives
 - Federal: 1603 Treasury grant, PTC, accelerated depreciation, USDA REAP grants, REAP or SBA loan guarantees, CREBs, New Market Tax Credits
 - State: Grants, PTC, sales tax exemptions, property tax abatements, investment tax credits, net billing requirements (or favorable excess power buyback rates), feed-in-tariffs
- A few community wind projects (perhaps 5-10%) that are owned by non-profit entities, forgo the primary federal incentives (1603, PTC, ITC) but may use other incentives (REAP, state incentives).

A Successful Wind Project Needs:

- A market for the wind power at a good price
 - Adequate wind resource
 - Financing – bankers that will trust you
 - Project must cash flow
 - Local champion
 - However.....
 - Sometimes projects are **not** done to make money by the owners
 - Goal of project may be giving the community what they want or meeting some environmental goal
- **Can this be done without the PTC or ITC?**

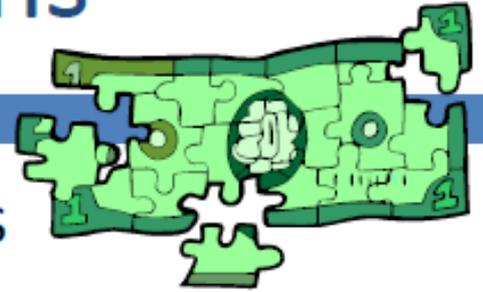
Examples of Not Using Federal Incentives

- **Grinnell College:** 50 kW turbine at an environmental research center in 2006, provides power to local facilities using net billing, no other incentives used
- **Waverly Light & Power:** Municipal utility installed two 900 kW turbines plus one more this year with no federal incentives
- **Schools in Iowa:** 9 of 11 schools in Iowa that have large wind turbines (50 kW to 1600 kW) did not use major federal incentives, although some did receive some modest REPI payments while they were available.

More Examples

- **Rural Electric Cooperative Projects:** One or more large turbines without using the PTC or ITC, but may use:
 - Very low interest rate bonds (subsidized)
 - \$250,000 to \$500,000 REAP grants
 - State based grants
- **Other Municipal Utility Projects:** Several single large turbines may use REAP or CDBG grants
- **Future Project at a Private College:** 5 MW project with 3 turbines in 2013-2014, will provide power to campus facilities, no federal incentives will be used, minimal state incentives will be used, will finance with cash
- **Negligible public opposition to these projects**

Creative Financing Solutions



- Equity raised through limited securities
- Lower development costs by offering equity in lieu of lease
- Combining multiple small projects to make financing attractive to large lenders
- Informal equity pools for development/construction financing
- Pre-paid PPA, with ownership flip mechanism
- Strategic pairing of tax credits, grants, incentives

Not impossible

- ❑ Farm Power - WA
- ❑ Community Solar - WA
- ❑ Coastal Community Wind - WA
- ❑ Cascade Community Wind – WA
- ❑ PaTu Wind – OR
- ❑ Oregon Community Wind - OR

"You have to have a vision and you have to stick to it. If you have the least bit of doubt, you won't get it done."

*-Ormand
Hilderbrand*

PaTu Community Wind

- 25% equity
 - ▣ 3 investors
- 25% tax credits & grants
 - ▣ OR BETC, Treasury Sec. 1603
- 50% debt
 - ▣ Co-Bank
 - ▣ SELP
- 20yr PPA with PGE

www.patuwind.com

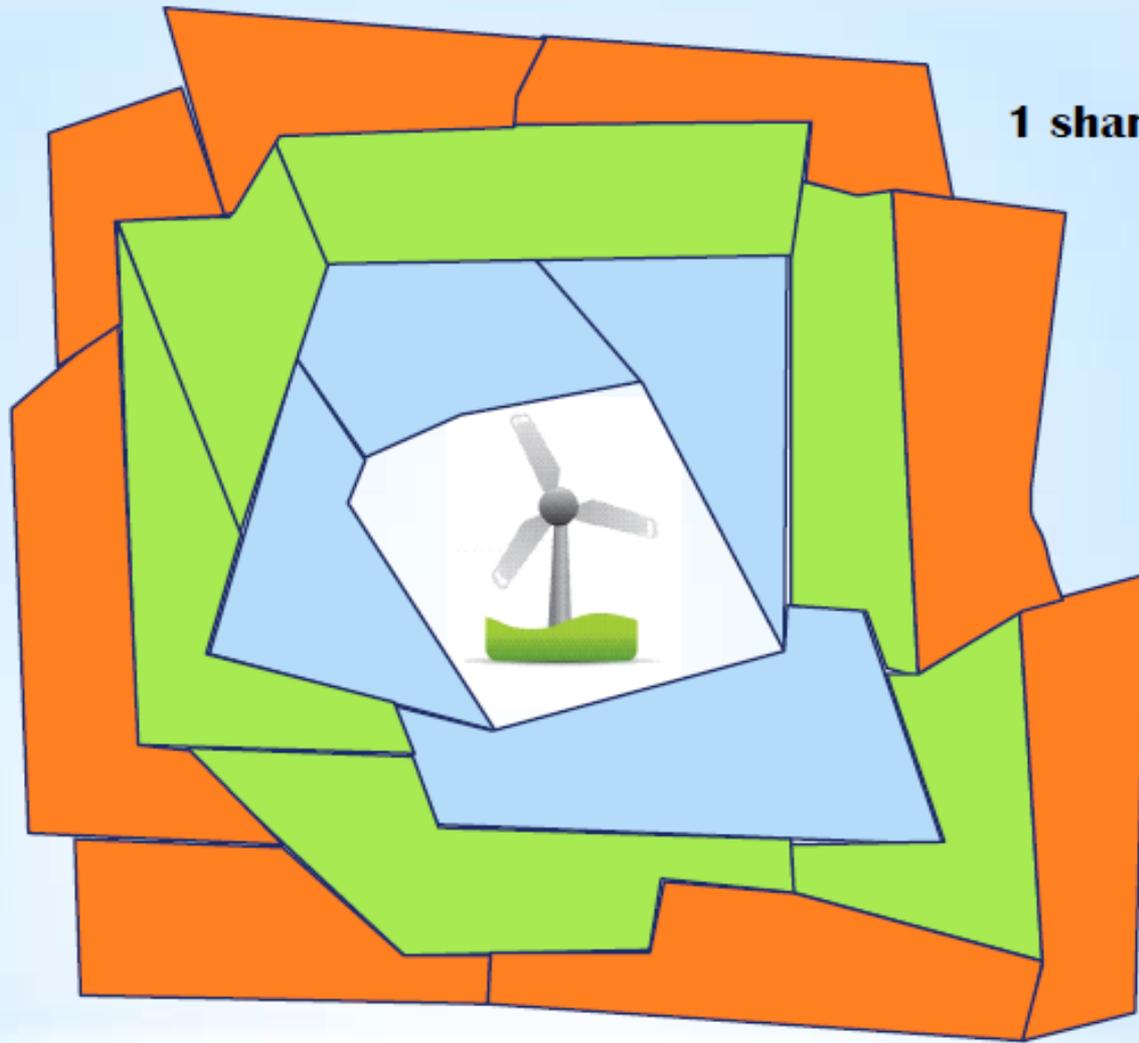


9 MW, \$22-24M

Rates of Return

-  = 5%
-  = 4%
-  = 3.5%

1 share - \$1000



Loan Rate
- Rate of Return
Program Admin \$\$

*The Zipcode Investment

Slide from Kirk Slack, Oregon Community Wind
Clean Energy States Alliance (CESA) Spring Meeting May 6-8, 2012

In Summary

- CW projects have been completed without the major federal incentives of the PTC and ITC
 - Of these only a handful have used no incentives
 - Most use some type of other incentive
- Looking to the future
 - The number of CW projects will depend upon the market for wind power
 - Price of grid power
 - RPS
 - Meeting environmental goals.