

Wind Energy

**Oregon Renewable Energy Working Group
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OREGON
DEPARTMENT OF
ENERGY



Klondike I, Sherman county



Community-owned small wind farms

Wind projects in Oregon, Feb 2006

- ◆ 338 MW currently operating
- ◆ About 750 MW approved by local and state government, in various stages of development
- ◆ Another 750 MW (or so) in the permitting stage
- ◆ Mostly large wind farms

Installation Klondike I



Wind Energy and the REAP's goals

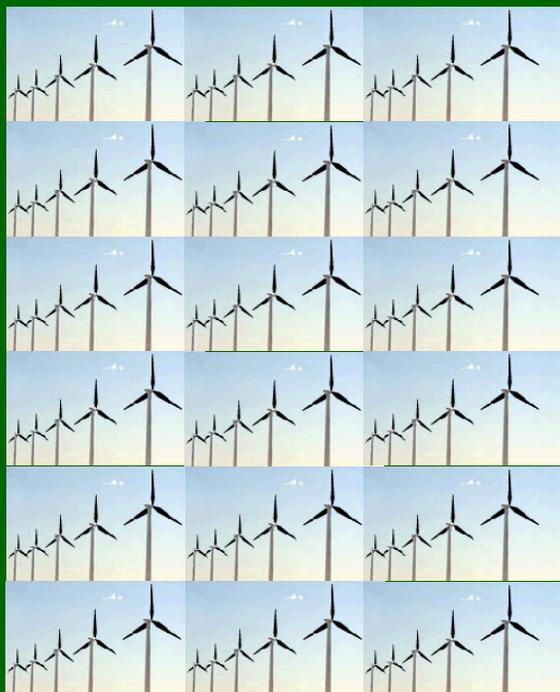
If all of these wind farms come on line, it will result in about 600 aMW of wind energy, which is about

- ◆ 3% more than the REAP's goal of 580 aMW for the year 2015*
- ◆ slightly less than 40% of the REAP's goal of 1600 aMW for the year 2025*

*assuming 1% annual load growth

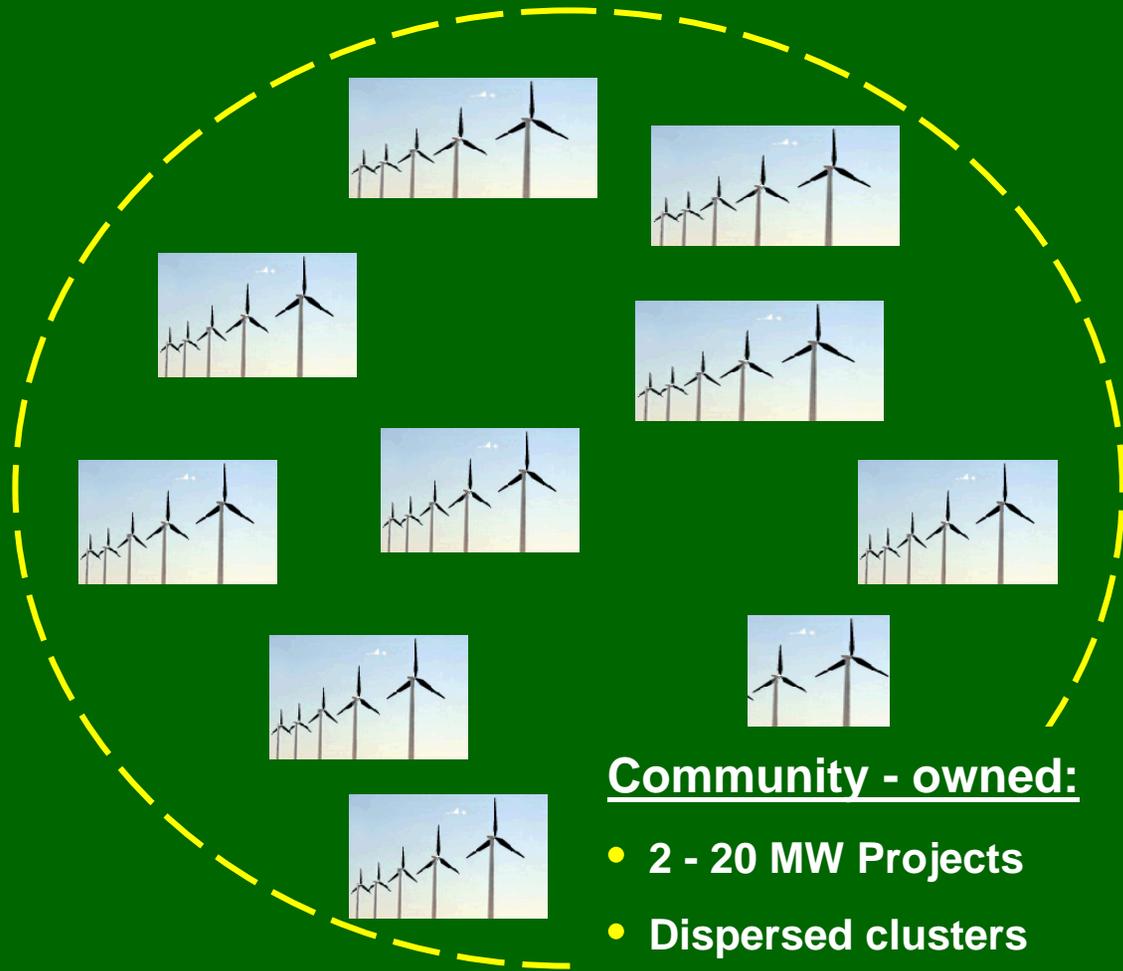


Room For Different Wind Farm Models



Investor - owned:

- 50 - 200+ MW projects
- Concentrated



Community - owned:

- 2 - 20 MW Projects
- Dispersed clusters
- Aggregated

“Peaceful Coexistence”

Source: John Deere

Wind energy cost competitiveness

- ◆ **Large wind farms**, like Klondike II in 2005, at market cost, no need for “above-market-cost” contribution by the Energy Trust of Oregon
- ◆ Since then, wind turbine prices have gone up, but so have natural gas prices
- ◆ **Major barrier: transmission** (East-West and North-South)



Cost competitiveness (cont'd)

Community-based or locally-owned small wind farms:

- ◆ need simple PURPA rule :
 - ◆ standard contract for small projects (10 MW and less)
 - ◆ contract length of 15 to 20 years
 - ◆ rates based on avoided costs
- ◆ need **extra incentives** (like production based payments) in most places
- ◆ need **standardized interconnection** protocols for “distributed energy” resources.

Oregon Wind Working Group

- ◆ Members represent a wide variety of stakeholders, including grass roots organizations, local and state governmental entities, and utilities
- ◆ In part funded by US DOE's Wind Powering America, with ODOE as coordinator
- ◆ Focus on locally-owned small to medium sized wind farms as part of rural economic development efforts
- ◆ First meeting in Portland in the summer of 2002, other meetings in Pendleton, The Dalles, Redmond, Lakeview, Klamath Falls, Port Orford, and Rockaway Beach