
Wind Power for Communities



A workshop for residents of rural Oregon

Why Wind?

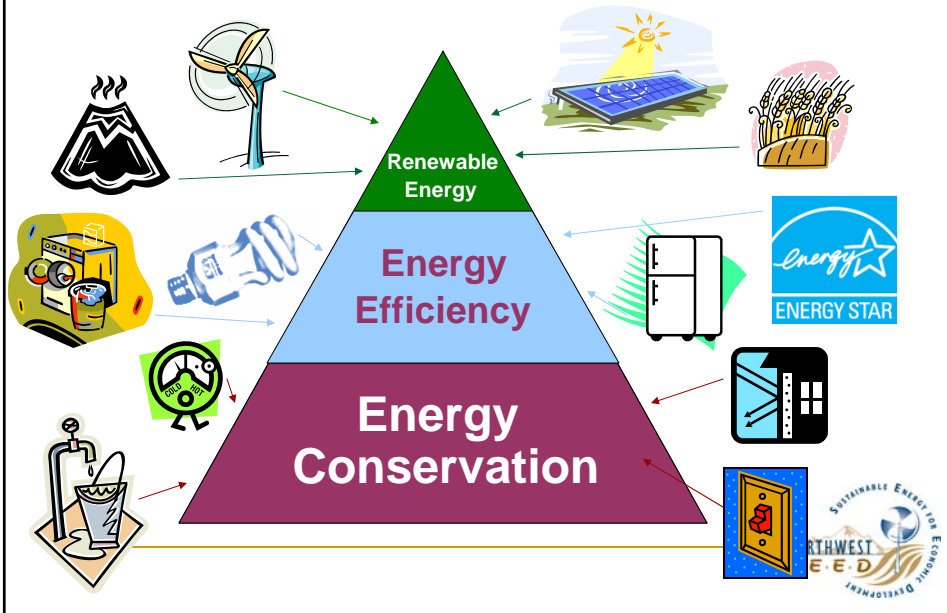


Why are we talking about clean energy?

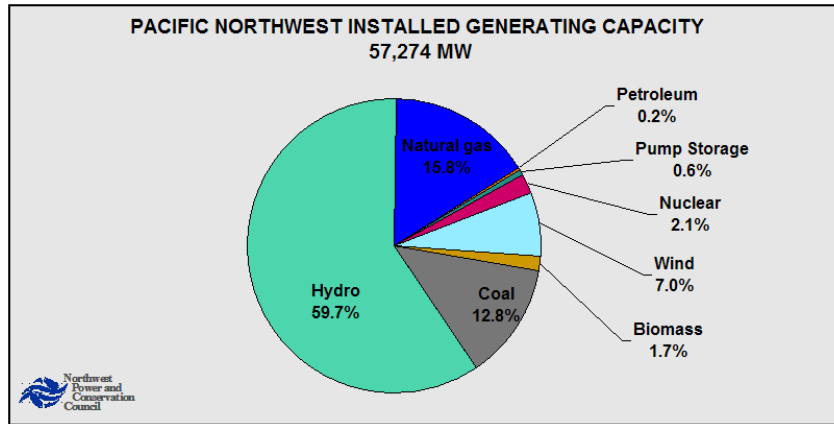
- The environment – Climate change, pollution
- The economy – Local jobs, energy prices
- National Security – Secure energy source, dependence on other nations



The Energy Pyramid



Northwest energy mix



Source: NW Power and Conservation Council; July 2009



Oregon's Wind Profile

- Existing projects (MW):1407.84
- Projects under construction (MW):426.2
- Rank In US (by Existing Capacity):6
- Rank In US (by Potential Capacity):23
- Potential Capacity (in MW):4870
- Annual Energy (in billion kWh):43

Source: American Wind Energy Association; June 27, 2009



Why is wind a good source of energy?

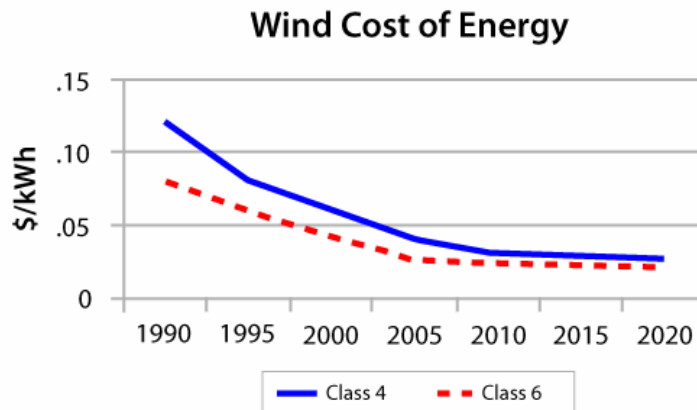


Wind turbines are a proven technology

- Wind turbines for electricity first used on farms in early 1900's
- Modern wind farms have been running since the 1980's
- Large wind turbines are certified by Germanischer Lloyd
- Small wind turbines working on certification process



The cost of electricity is competitive



Source: US Dept. of Energy



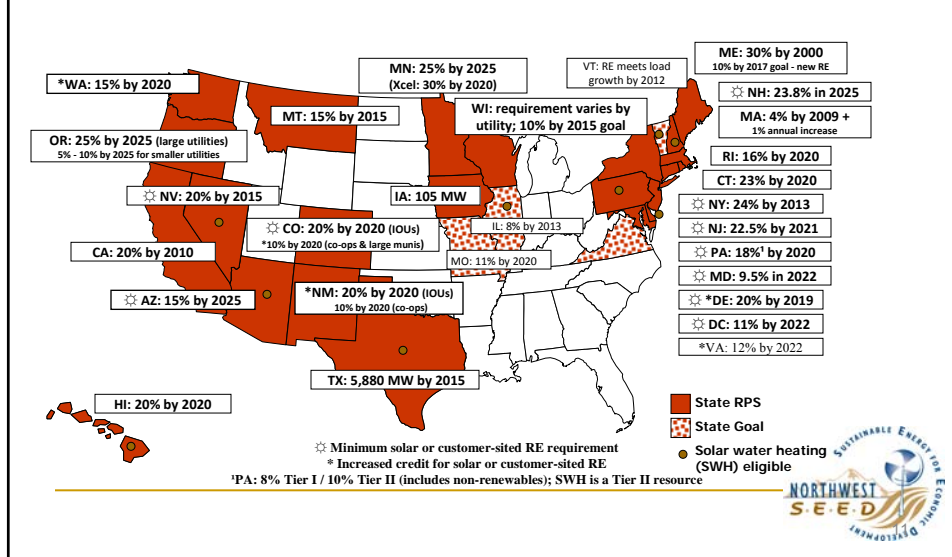
Incentives Enacted to Foster Wind Energy Growth

- **The PTC**, first enacted in 1992, and recently reauthorized in 2005, provides a 1.9-cent per kilowatt-hour credit (adjusted periodically for inflation) for electricity produced from a wind energy facility during the first 10 years of its operation.
- **State renewable portfolio standard (RPS)** laws requiring renewable energy will result in 50,000 MW of wind energy by 2020 (assuming no further states enact RPS requirements)



Wind Industry Projected Growth in the United States

Renewable Portfolio Standards (RPS) by State



The environmental impacts of wind energy are small

- Minimal emissions
- Minimal land use
- No transportation costs to move “fuel”

Environmental issues do exist:

- Bird and bat kills
- Habitat loss
- Visual impacts



Economic Development Opportunities

Example: 954 megawatts of new wind power in the Pacific Northwest created:

- \$1.38 billion in new capital investment;
- between \$2 million and \$3 million in annual royalty payments to rural landowners;
- between \$5.8 million and \$6.8 million each year in local property tax revenues;
- nearly 1,400 construction jobs during peak construction periods;
- roughly 80 new permanent family-wage jobs for operation and maintenance.

Source: Renewable Northwest Project



Wind Development in Oregon

- OR has a good wind resource!
- Many areas with a good wind resource are already using land in a way that is compatible with wind development
- Oregon is “wind friendly” – Energy Trust, ODOE, State RPS



Why isn't there more wind development?

- Financing barriers
 - Capital intensive
 - Incentives with date limits
- Environmental Impacts
- Turbine Availability
- Integration with transmission and current electricity generation



Dennis Schwartz



Is Wind a Good Fit for You?

- What is your wind resource?
- What kind of wind development is appropriate for your land?
- How involved would you like to be in a project?
- We will try to help you answer these questions and more!

