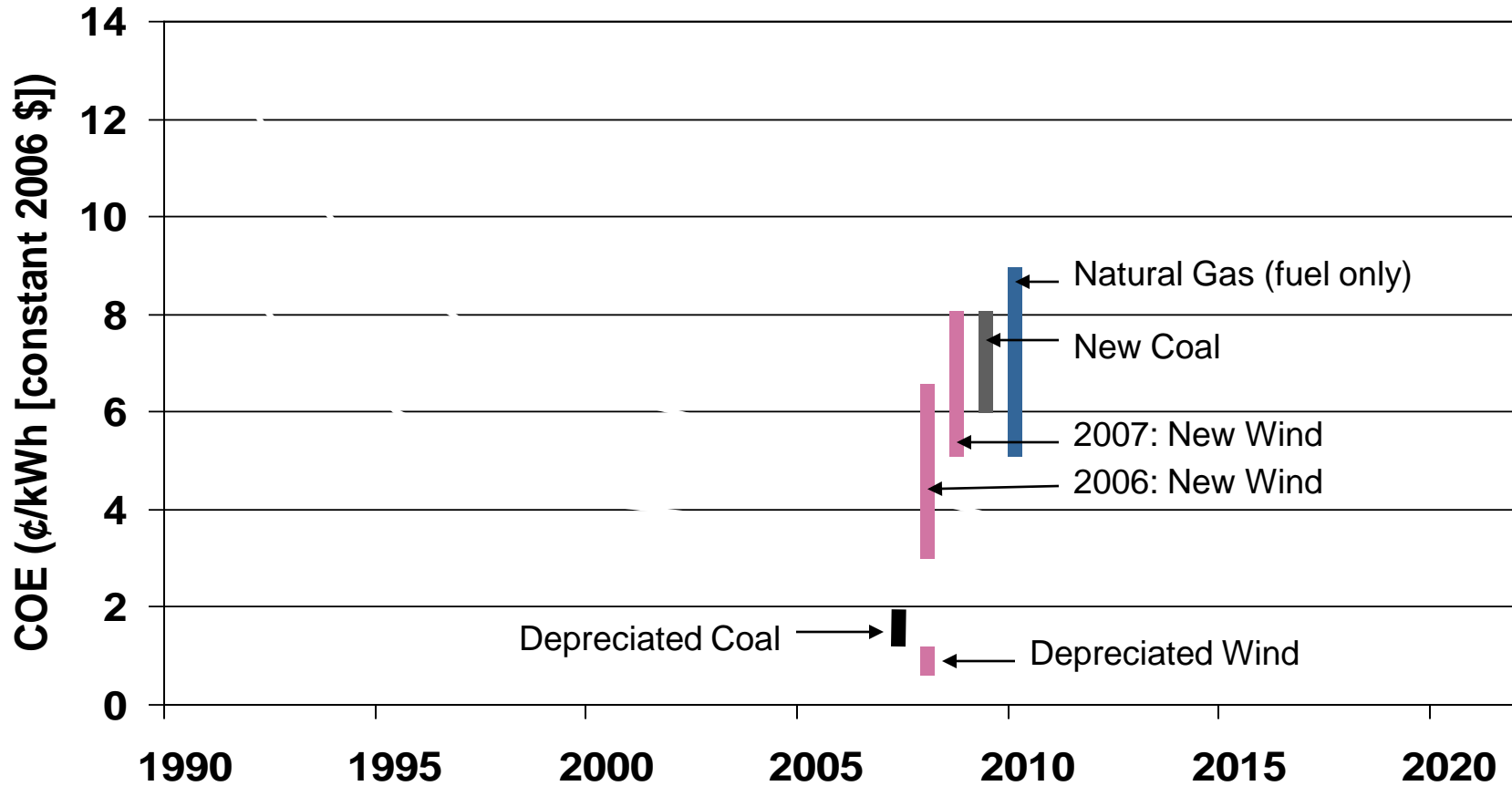


STATE CLEAN ENERGY POLICIES: TOOLS FOR ECONOMIC DEVELOPMENT

UTAH STATE LEGISLATURE
PUBLIC UTILITIES & TECHNOLOGY INTERIM COMMITTEE
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SARAH WRIGHT
UTAH CLEAN ENERGY

Comparative Costs of Energy



Trends in Renewable Energy

- ❑ Renewable energy resources are the fastest growing energy resources in the world.
- ❑ In 2007, US installed over 5,000 MW of wind energy (30% of the entire power producing capacity added). Utah's first wind farm came on line this summer (18.9 MW).
- ❑ New U.S. solar installations increased more than 40% from 2006 to 2007. Expansions of solar energy companies resulted in 6,000 new jobs, 265 megawatts of energy and more than \$2 billion of investment in the U.S. economy.

Renewable Energy and Efficiency: Opportunities for Utah

- ❑ Renewable Energy and Energy Efficiency (RE & EE) are vital components of our energy portfolio.
- ❑ In 2006 nationally, RE & EE: 8.5 million new jobs and nearly \$970 billion in revenue. RE&EE sales outpaced the combined sales of Wal-Mart, Exxon-Mobil, and General Motors.
- ❑ Utah is one of the sunniest states in the nation, we have an excellent geothermal resource and a good wind resource – yet other states are reaping the economic benefits of these resources while we continue to fall behind.

Activities in the West

- Solar-power developer Ausra Inc. projects a 30,000-MW solar power market by 2020 in the western states of **California, Arizona, New Mexico, Nevada, and Colorado.**
- Abengoa Solar slated to build the 280-megawatt Solana CSP plant now under contract with **Arizona Public Service.**
- Vestas, the world's largest wind-turbine maker, opened its first U.S. manufacturing plant in **Colorado** – with plans for 2 more plants, they will employ 2300 Coloradans.

Utah Renewable Energy Policies

- ❑ Renewable energy goal of 20% by 2025 (SB 202 – 2008)
- ❑ Sales tax exemption that is set to expire in 2009 (SB 19 – 2004)
- ❑ Limited investment tax credit for solar and small scale renewable energy (SB223 -2007)
- ❑ Production Tax Credit for wind and geothermal 0.35 cents per kWh (SB223 -2007)
- ❑ Net Metering (SB 84 - 2008)

What are other states doing?



Oregon – Business Energy Tax Credit

- **What:** Business Energy Tax Credit - Investment Tax for renewable energy (up to 50%) and energy efficiency (up to 35%) – includes per project cost cap.
- **Why:** Industry Recruitment/Support local clean energy
- **How:** Deducted from the taxpayer's modified combined corporate tax liability (can be carried forward 5 yrs)

Oregon – Economic Benefits to State

2006 BETC and RETC credits totaled \$73.8 million, providing the Oregon economy with the following benefits in 2006:

- ▣ Net increase in economic output of \$142.7 million
- ▣ Net increase in state and local tax revenues of \$10 million
- ▣ 1,240 new Oregon jobs
- ▣ Net increased of \$18.6 million in wages
- ▣ Net decreased of \$48 million in commercial and residential energy costs

New Mexico - Alternative Energy Product Manufacturers Tax Credit

- ❑ **What:** Tax credit for manufacturing alternative energy products and components (capped at 5% of taxpayer's qualified expenditures)
- ❑ **Why:** Industry Recruitment/Support
- ❑ **Benefits:** New jobs, economic development, new industries and technologies
- ❑ **How:** Deducted from the taxpayer's modified combined tax liability (can be carried forward 5 yrs)

New Mexico – Attracting New Industry

- ❑ Schott Solar, Inc. manufacturing facility for solar PV modules and receivers for concentrated solar thermal power plants.
- ❑ Facility will create 350 jobs in the short term and 1,500 jobs when the plant is running to capacity.
- ❑ Economic impact is forecast at more than \$1 billion
- ❑ A total investment of \$500 million on 80 acres of land
- ❑ Company working with the New Mexico and Albuquerque Economic Development Departments to develop a training and recruitment program



New Mexico – Renewable Energy Production Tax Credit

- ❑ **What:** \$0.01 /kWh for wind and biomass; \$0.027/kWh (average) for solar
- ❑ **Why:** Encourage development of community- and utility-scale renewable energy
- ❑ **Benefits:** attract new industries, new jobs, economic development, energy security and diversification
- ❑ **Max Incentive:** Wind and biomass - first 400,000 MWh/yr for 10 years; Solar electric - first 200,000 MWh/yr for 10 years
- ❑ **Statewide cap:** 2 million MWh annually plus an additional 500,000 MWh for solar electric
- ❑ **Carryover Provisions:** Excess credit refunded to the taxpayer

Minnesota – Community-Based Energy Development (CBED) Initiative

- ❑ **What:** Electric utility tariff to encourage community-owned projects (includes Municipal and Cooperative Power Companies, farmers, ranchers, schools, local governments).
- ❑ **Why:** Local ownership of renewable energy projects keeps the financial benefits of ownership in the community.
- ❑ **Benefits:** Direct, indirect, and induced economic benefits and jobs in rural communities
- ❑ **Criteria:** 51% of the revenues from the power purchase agreement must flow to Minnesota-based owners and other local entities.

Minnesota – Communities Benefit from Local Energy Projects

- **57.3 MW C-BED projects completed**
57 MW under contract
721 MW in negotiation
(as of June 2008)
- US General Accounting Office study (2004) found that local ownership of wind systems generates an average of **2.3 times more jobs and 3.1 times more local dollar impact compared to "out of area" interests.**
- EX: A single 40 MW project built in Pipestone County, Minnesota, would generate about \$650,000/yr for local economy.



In contrast, 20 locally owned projects at 2 MW each (40 MW total) would generate about **\$3.3 million/yr** in the same county.

Table ES2**U.S. Renewable Energy and Energy Efficiency Industries in 2030**

	Revenues (Billions of 2006 Dollars)		
	Base Case	Moderate Scenario	Advanced Scenario
RE	\$95	\$227	\$597
EE	\$1,818	\$2,152	\$3,933
Total	\$1,913	\$2,379	\$4,530
	Total Jobs Created (Direct Plus Indirect – Thousands)		
	Base Case	Moderate Scenario	Advanced Scenario
RE	1,305	3,138	7,918
EE	14,953	17,825	32,185
Total	16,258	20,963	40,103

Source: Management Information Services, Inc. and American Solar Energy Society, 2007.

ECONOMIC AND JOBS IMPACTS OF THE RENEWABLE ENERGY AND

ENERGY EFFICIENCY INDUSTRIES: U.S. AND OHIO (Roger H. Bezdek, Ph.D., 2007, ASES)

Seizing Utah's Opportunity

- Utah shouldn't be left behind
- There are a myriad of policy options to benefit diverse industries, create jobs and save energy.
- Utah Clean Energy is a non-profit organization - available to provide technical assistance and information to the legislature as you review policy options.

Resources

- **American Solar Energy Society Green-Collar Jobs Report:**
ases.org/index.php?option=com_content&view=article&id=29&Itemid=16
- **Concentrating Solar on the Rise in the Southwest:**
www.bizjournals.com/albuquerque/stories/2008/04/07/focus1.html?b=1207540800%5E1615363
- **Minnesota State Clean Energy Policy Summaries:**
dsireusa.org/library/includes/map2.cfm?CurrentPageID=1&State=MN&RE=1&EE=1
- **Minnesota Community-Based Energy Development:** c-bed.org/minnesota.html
- **New Mexico State Clean Energy Policy Summaries:**
dsireusa.org/library/includes/map2.cfm?CurrentPageID=1&State=NM&RE=1&EE=1
- **Oregon State Clean Energy Policy Summaries:**
dsireusa.org/library/includes/map2.cfm?CurrentPageID=1&State=OR&RE=1&EE=1
- **Oregon Business Energy Tax Credit:** oregon.gov/ENERGY/CONS/BUS/BETC.shtml
- **Schott Solar Manufacturing Facility in New Mexico:**
us.schott.com/english/news/press.html?NID=226
- **Vestas Manufacturing Facilities in Colorado:**
vestas.com/files//Filer/EN/Press_releases/Local/2008/AM-080826-LPMUK-06.pdf

Thank you! Questions?

Sarah Wright, Director

UTAH  **CLEAN ENERGY**

801-363-4046

sarah@utahcleanenergy.org

www.utahcleanenergy.org

