

Leading by Example

State Energy Office Efficiency Programs and Policies

David Terry
April 2003

STATE ENERGY OFFICES AND PARTNERS

Labs for New Policies and Programs

- Nexus of energy, environment, and transportation
- Leading by example with public facilities efficiency
- State-federal partnerships

ENERGY, ENVIRONMENT, AND TRANSPORTATION

- National coordination among NARUC, ECOS, NASEO, and others
- Pilot policies and programs to meet energy and environmental goals
 - Texas, Georgia
- Sustainable Development
 - Oregon

ENERGY, ENVIRONMENT, AND TRANSPORTATION

Oregon Business Energy Tax Credit Program for Sustainable Development

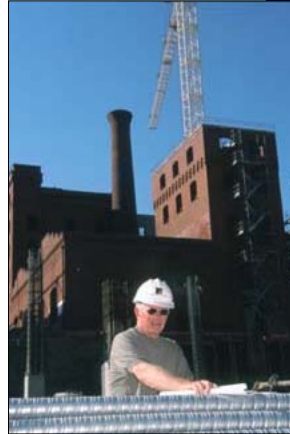
- Began in 1980
- 6,475 tax credits issued
- Total project cost of about \$550 million
- Projects save or generate energy worth over \$100 million per year



ENERGY, ENVIRONMENT, AND TRANSPORTATION

Oregon Tax Credit Eligibility:

- Project must involve energy efficiency, recycling, or renewable resources
- Provides a tax credit up to 35% of eligible project cost
- Tax credit is taken over 5-year period (or 1-year if under \$20,000 in eligible costs)



ENERGY, ENVIRONMENT, AND TRANSPORTATION

- Oregon Tax credit based on LEED certification - existing, recognized national program
- LEED easily adapted to tax credit and requires minimal staff
- Oregon requires application **BEFORE** project begins
- Building must receive silver, gold or platinum rating and minimum 1 energy point, 1 commissioning point
- Eligible costs based on the building square footage



ENERGY, ENVIRONMENT, AND TRANSPORTATION

- **Ecotrust's Natural Capital Center (Portland, OR)**

70,000 square feet

First 10,000 sq. ft. @ \$9.29 = \$ 92,900

Next 40,000 sq. ft. @ \$4.29 = \$171,600

Next 20,000 sq. ft. @ \$2.86 = \$ 57,200

Total in eligible costs \$321,700

- 35% of eligible costs = **\$112,595 tax credit**

LEADING BY EXAMPLE

Energy Efficient Government Facilities

- Budget concerns a catalyst for efforts to improve efficiency in state local facilities
 - Kansas, Maryland, Texas, Hawaii, Oregon
- Load reduction strategies and incentives
- Renewable portfolio standards, incentives, green power purchasing requirements
 - Maryland, Pennsylvania, California, Texas, New Mexico
- Adoption of new building codes, improved implementation

STATE-FEDERAL PROGRAMS AND PARTNERSHIPS

- Increase State Energy Office Energy Star product and promotion efforts
- Cooperative research, development, demonstration, deployment
- SEP: state direction of cost-shared resources to meet national goals

ORNL's SEP ENERGY AND COST SAVINGS REPORT



\$1 in SEP Funding Yields:

- \$7.23 in annual energy cost savings
- 1.17 million source BTUs saved
- \$3.54 in “leveraged” funding from the State and private sector (not including public benefits funds)

STATE ENERGY PROGRAM

Total Annual Emission Reductions

Carbon	719,251.8 metric tons
VOCs	127.2 metric tons
NOx	5,739.0 metric tons
PM ₁₀	144.8 metric tons
SO ₂	7,655.7 metric tons
CO	968.7 metric tons

TEXAS



LoanSTAR Program

Purpose and Goals:

- Reduce building energy consumption and taxpayers' energy costs through efficient operation of public buildings

Program Activity:

- Revolving loan program financing energy efficiency projects for State agencies, colleges and universities, school districts, county hospitals and local governments
-
- Legislatively mandated capitalization of \$95 million, minimum
 - Loans repaid from cost savings generated by funded projects
 - 144 loans totaling over \$164 million

TEXAS

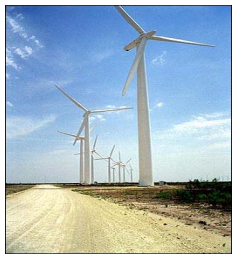


LoanSTAR Program

Results:

- *Energy Savings*
 - Energy savings exceed 18 million MMBTUs = electricity use of 440,000 homes for a year
 - Total energy cost savings top \$125 million
 - Projected energy savings to surpass \$500 million, over the next 20 years
- *Emission Reductions*
 - CO₂ – 1,342,235 tons
 - SO₂ – 3,076 tons
 - NOx – 4,699 tons

NEW MEXICO



Wind Energy Program

Purpose and Goals:

- Develop commercial wind power in New Mexico
- Produce clean, affordable electricity for New Mexicans

Program Activity:

- Wind Resource Assessment and Monitoring - \$210,500
 - 6 of the most promising sites selected for intense monitoring
 - All 6 determined to have significant commercial potential
- Economic Impact Studies - \$50,000
 - Detailed economic benefits of wind power to 5 counties
- Wind Development Guide/Case Study - \$150,000
 - Step-by-step guidance documents for wind development in New Mexico

NEW MEXICO



Wind Energy Program

Results:

- **Energy Savings**
 - Wind power will offset some of State's 99% fossil-fired power generation
- **Leveraging**
 - \$400,00 in SEP funds garner nearly \$90 million in State incentives for wind projects
- **Other**
 - Over 200 MW of wind capacity scheduled on line by end of 2003
 - New State public policy incentives resulting from Wind Energy Program:
 - ❖ Renewable Energy Production Tax Credit
 - \$0.01/kWh provides \$8million/yr for 10 years \$80 million (maximum)
 - ❖ Industrial Revenue Bond Financing of Wind Projects
 - Lower interest rates and exemption from Gross Receipts Tax for wind equipment \$7 million (minimum)
 - ❖ Renewable Portfolio Standard
 - Effective July 1, 2003, 10% by 2011
 - Wind Program instrumental in getting legislation passed

CALIFORNIA



Builder Energy Code Training

Purpose and Goals:

- Save energy through energy code training for large production builders in CA, NV
- Improved compliance with California's Residential Building Energy Efficiency Standards (Title 24)

Program Activity:

- Training is provided in quality energy-related construction practices (insulation, space conditioning, plumbing, etc.)
- More than 400 builder companies and 3,000 builder and local building department staff have participated
- Prior to the program, new homes complied with the standards only 15% of the time. Following training, participating builders were in compliance 77% of the time
- Approximately 125,000 new homes have directly benefited

STATE ENERGY PROGRAM

SEP Program Benefits are Even Greater...

- ORNL report quantifies benefits of 14 SEP program areas, representing about 60% of funding
- Not addressed by report are benefits related to:
 - energy emergency planning and preparedness,
 - State Energy Office involvement in public- and private-sector energy policy and program plan development