


National Rural Assembly: Green Jobs Work Session

June 28-30, 2011
St. Paul, MN



Environmental and Energy Study Institute

Carol Werner,
Executive Director
cwerner@eesi.org



Environmental and Energy Study Institute

Carol Werner,
Executive Director
cwerner@eesi.org

- Founded in 1984 by a bipartisan Congressional caucus, today EESI is an independent 501 (c) 3 non-profit organization that receives no Congressional funding.
- EESI serves as a trusted source of non-partisan information on energy and environment policy development for Congress, businesses, foundations and the general public.
- Visit our website: www.eesi.org to find out more!

<http://www.facebook.com/eesionline>
<http://twitter.com/eesionline>

Jobs in a Green Economy



- There are a **broad** range of clean jobs including not only direct industry jobs, but the supply chain components and indirect or induced jobs that also are part of a green economy.
- Jobs that improve the efficiency of fossil fuel technologies can be considered green.
- Examples: **industry**- a solar company, supply chain, **indirect**- the accountant for a clean energy company, **induced**- the deli that opens next to the company storefront.

www.eesi.org

Energy Efficiency Jobs

Activity	Person-Years Of Employment (PYE*) per \$1 million	2008 Spending (in \$B)
Ratepayer-funded Efficiency Activity	6.2	\$5.2
Low Income Weatherization	8.9	\$0.53
Energy Service Companies (ESCOs)	2.5	\$4.9
Insulation	8.9	\$7.1
Federal and State Govt EERE Offices	6.5	\$0.24

*1 PYE is the equivalent of one person working full-time for one year

**Table reprinted from LBNL Report "Energy Efficiency Service Sector: Workforce Size and Expectations for Growth", Sept. 2010

www.eesi.org

Renewable Energy Jobs

Type of Renewable Energy	U.S. Job Estimates	Relation to Industry
Wind	75,000	Direct/Indirect
Solar	93,500	Direct/Indirect*
Hydropower	200,000-300,000	Direct
Geothermal	18,300	Direct/Indirect
Biomass	14,000	Unknown
Biodiesel	51,893	Unknown
Ethanol	70,402; 69,564; 260,711	Direct; Indirect; Induced
Total	853,370-953,370	

*Estimate comes from a direct survey of solar employers, who reported the number of workers who spend 50% or more of their time in solar.



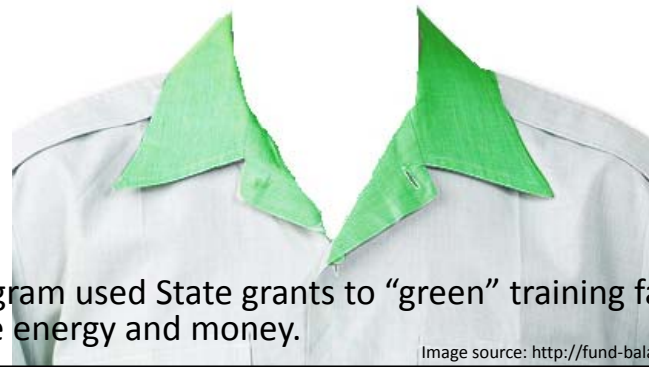
Education & Workforce Training

- Importance of Community Colleges
 - Western Texas College: Electrical Lineman Training
 - Northeast Community College, Nebraska: Wind Technician Training; Advanced Green Manufacturing-Cabinetry
- Do most green jobs require a 2 or 4 year degree?
 - Varies, but accredited programs and certification are important to building consumer confidence
 - State Energy Offices are very involved
 - Weatherization Program providing important training

www.eesi.org

“Green- Collar” Training in NY

- The Wayne Finger Lakes (WFL) Board of Cooperative Education Services (BOCES) provides hands-on career and technical education/continuing ed. to 1,100 students and 1,200 adults per year



- Program used State grants to “green” training facilities, save energy and money.

www.eesi.org

Image source: <http://fund-balance.com/?p=545>

Veteran Green Jobs: Denver, CO

- Meaningful employment of veterans in growing fields
- Weatherization Assistance Program (WAP) won \$11.8 million ARRA grant
- Worked with Governor’s Energy Office and Community College system, provided technical weatherization and energy training plus employment opportunities

www.eesi.org

Ca Energy Commission: \$29.6 million for Clean Jobs

- Statewide projects focused on existing commercial and residential building energy/water efficiency retrofits
 - EnergySmart Jobs: - Jobs Created or Retained: 1,200
 - Energy Technology Assistance Program (ETAP) - Energy Savings: 117,000 mW hours (~52,000 tons of CO₂)

Jobs
+ Energy Efficiency
+ Incentives
= Lower Costs

www.eesi.org

Project on Straw Bale Homes

Training Native American vets on straw bale construction

- Straw bale homes:
 - Affordable
 - Energy Efficient
 - Local & Sustainably produced materials
 - Fire & Seismic Resistant
- Benefits:
 - Generate new jobs
 - Generate small business growth
 - Provide affordable housing
 - Grow rural economies



*For more information see http://eesi.org/062008_Straw-Bale_Construction www.eesi.org

Project: On Bill Financing for Energy Efficiency Retrofits

- Pilot with the South Carolina Electric Cooperative Association
- SC legislature approved the revolving load fund to start the program allowing loans on efficiency retrofits to be paid through a homeowner's bill
- Savings are tangible, jobs are generated, comfort improved, etc.
- Plan to scale project up to go statewide and then national
- For more information: <http://www.eesi.org/resp>



Robert Hersey in front of his home in Richland County, South Carolina, which received a Duro-last roof covering that insulates year-round and reduces solar heat gain in summer. Read more about Robert's story here: <http://bit.ly/gogRDJ>

www.eesi.org

Solar Energy Programs

Success Stories

- San Jose, California obtained a power purchase agreement to have a **1.3 mW solar energy system installed on a municipal facility**, with an estimated savings of more than \$500,000 over the next 20 years.
- Gainesville, Florida, which implemented the first **European-style Solar Feed-In Tariff** in the U.S., which has increased the amount of solar energy produced from 328 kW (in 2009) to almost 7 mW today.
- Strategies from Pendleton, Oregon, for using **tax credits** to make solar installation affordable for businesses and homeowners, and find out how the city got two solar energy systems installed that were paid for by a third party.

Benefits

- Provide communities with power from secure, domestic sources
- Produce clean energy that helps meet greenhouse gas reduction targets and climate change goals set at the state and local levels
- Develop new economic opportunities and create new local jobs
- Improve regional economic competitiveness.

www.eesi.org



International Policies

- **UK Green Deal**
 - A framework by the UK government for private firms to offer consumers energy efficiency improvements to their homes, community spaces and businesses at no upfront cost, and recoup payments through a charge in installments on the energy bill.
 - For more information: <http://www.decc.gov.uk/en/content/cms/legislation/legislation.aspx>
 - Image source: <http://www.energy-uk.org/blog/energy-saving-hints-and-tips/new-green-deal-applauded-wwf-green-building-council/>

www.eesi.org



Growing Green Jobs:

Advocating for Policies Supporting a Green Economy in Rural America

- White House announces Rural Council
- H.R.2207 : “**Grants for Renewable Energy Education for the Nation Act**” to provide support to develop career and technical education programs of study and facilities in the areas of renewable energy.
 - Renewable Energy Facilities Grants
 - Clean Energy Curriculum Development Grants
 - \$100,000,000 requested
 - Sponsored by Rep. McNerny, CA

www.eesi.org




Current Legislation




- **Long term consistent policy** is essential to drive innovation and market development (eg, Germany, China, CO, TX, PA)
- S.1000 -- Energy Savings and Industrial Competitiveness Act of 2011 (Hearing held June 9, 2011)
 - Introduced May 16, 2011 by Senators Jeanne Shaheen [NH], Rob Portman [OH] & Christopher Coons [DE]
 - Includes building energy codes, appliance standards, worker training and capacity building, building efficiency finance, electric motor rebate program, industrial efficiency and competitiveness, federal agency energy efficiency, etc.
- FY 2012 Appropriations – eg, Energy & Water, Agric., DoD
 - Tonko (NY) amendment to restore state energy & Wx
- Clean Energy Standard discussion (Bingaman-Murkowski)

www.eesi.org



Policies that Work



- Long term, transferable incentives that can be carried over to future years work best.
 - South Carolina's *Energy Freedom and Rural Development Act* (2008): incentives focused on diversifying feedstocks for biofuel facilities and research
 - Oregon's Business Energy Tax Credit (BETC): Biorefinery projects and equipment used to produce biofuels are eligible for a tax credit (against taxes due) for 35-50 percent of the project costs
 - For more information: http://eesi.org/021610_state_biofuel_paper
 - State Clean Energy Funds
- 1603 Program: Payments for Specified Energy Property in Lieu of Tax Credits (expires end of 2011)
 - allows taxpayers eligible for the federal business energy investment tax credit (ITC) to take this credit or to receive a grant from the U.S. Treasury Department instead of taking the business ITC for new installations. The new law also allows taxpayers eligible for the renewable electricity production tax credit (PTC) to receive a grant from the U.S. Treasury Department instead of taking the PTC for new installations.
- Government Procurement Policies

www.eesi.org

Resource Assessment by State

- What are your local resources? Efficiency, wind, geothermal, hydro, solar, biomass (including wastes)
- Find out what your state is spending on energy that would otherwise be spent locally if it were producing its own energy – keep dollars local!
- Look at community's energy use, costs & resources
- Money saved by implementing green technology can be reinvested in the community and grow businesses, represents real savings in energy and pollution
- Opportunities: greening of schools, work with co-ops, and municipal utilities

www.eesi.org

Resource Assessment by State



- Link to state-by-state success stories (NASEO):

http://naseo.org/programs/sep/recovery/SEP_Success_Stories-2011-02.pdf

States with Renewable Portfolio Standards

- Refer to NREL & ACE³ databases for more detailed information

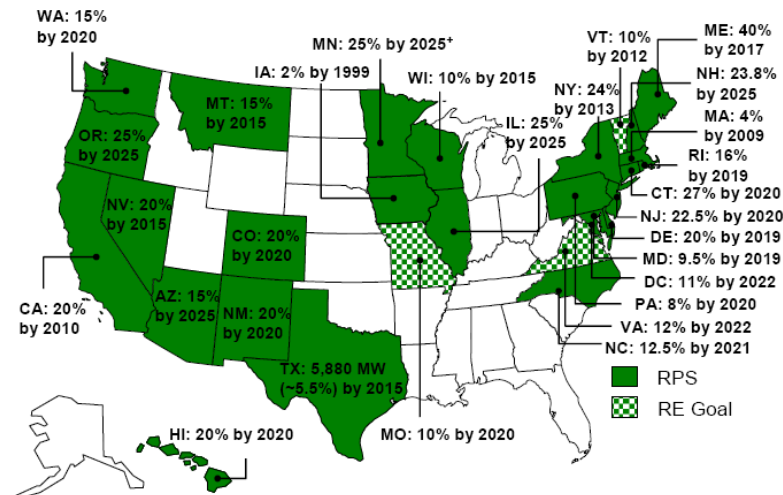


Image source: <http://www.nrel.gov/analysis/pdfs/41409.pdf>

www.eesi.org

Takeaways

- Prepare your approach to identify what offerings your target community finds most compelling.
- Engage potential partners early to identify opportunities to expand your program's impact.
- Tap into other local programs and local utility expertise to learn quickly.
- Connect with local and regional experts for guidance on how to reach your goals.
- Understand who is trusted most in your community before determining the best voice for your program.
- Leverage relationships within your community and across the state to identify resources and spread the word widely.
- Adjust tactics quickly in response to stakeholder feedback.
- Advocate locally – and with your federal policymakers! You can make the difference!

www.eesi.org