

# SEWG Meeting Notes

April 17, 2007

## ***Policy Infrastructure***

1. Taxes and Incentives
  - A. Players: Legislature; ODOE; ETO; COUs; Feds; OSEIA, more
  - B. Specifics
    - Redirect fossil fuel windfall profits into alternative energy
    - Coherent residential program that is easy to understand
    - If RPS bill passes – move money into small projects
    - Solar loan/financing packages
    - BETC pass-through – working with industry, utilities, agencies to get out the word on new net metering rules
  - C. Barriers:
    - Low energy cost - no recognition of peak power cost
    - Low ROI
    - Tax codes
    - Incentive programs don't all mesh well
    - Property tax for 3<sup>rd</sup> party owners and utilities
2. Labor, codes and licenses
  - A. OSEIA, BCD, IBEW, NECA, OUS, IECO, AOC, LOC, City of Portland
  - B. Specifics
    - Solar-ready facilities
    - Electricians being pushed beyond their roles
    - Statewide solar access code
    - Earmarking workforce development money for solar
  - C. Barriers:
    - Legislation and rules dictated by strong groups, lobbies
    - Current building codes
    - Permitting cost standardization
    - Everything must be done by electrician
    - Absence of competent technological capability engineering
    - Solar hot water connections must be done by plumber (not solar contractor)
3. Utility regulatory environment and collaboration
  - A. Players: OSEIA, OPUC, utilities, BPA, ODOE
  - B. Specifics
    - RPS could be configured to have peak power component
    - Time of use metering and rates
    - Aggregation of meters
    - COUs to collaborate on policies, programs and interconnections
    - Solar needs to be considered in portfolio modeling to value peak metering
    - Consideration of resource lives
    - WREGIS
  - C. Barriers
    - Interconnection issues
    - Disconnect requirements
    - Subsets of interconnection

Separate REC meter  
Net metering rules only apply to PGE and PacifiCorp

**Policy Opportunities: Prioritize and Clarify - - Develop the concept:**

1. Extend property tax exemption to 3<sup>rd</sup> party owners, including utilities, of solar systems.
2. Simplify and streamline residential incentive programs.
3. Extend current PUC net metering policies statewide.
4. Allow solar thermal license holders to complete 100% of solar thermal system installations.
5. Utility resource planning is required to consider solar energy as a peak demand resource.
6. Create motivating solar loan financing packages.
7. Pass legislation that establishes a statewide solar access code.
8. Standardize permitting and inspection.
9. Clarify licensing rules to allow roofing work associated with solar installation to be accomplished by non-licensed individuals.

Some Other Ideas:

10. Install solar on all new State-owned buildings (HB

***Manufacturing Recruitment and Business Development***

1. Establish a photovoltaic manufacturing cluster by 2010.
2. Establish a business incubator/center of excellence for solar companies.
3. Get utilities involved through targeting peak capacity value

***Local Market and Public Education (Demand Side Development)***

B: No incentives for do-it-yourself  
Solution: Inspection – certified process

B: Cost  
Solution: Increase incentives; Provide low cost loans; Create incentive for re-commissioning old systems

B: Accessibility  
Solution: Mainstream it

B: Awareness  
Solution: Public service announcement; Outreach; High-profile installations; Home shows; Schools; Solar Tour; Solar Magazine; Campaigns

B: Barriers to new construction...  
Payback does not go to contractor  
Solution: tax credit to builder; increase demand; value CO2 offset  
Non-solar friendly designs  
Solution: solar design standards; solar access laws; solar-friendly roofs  
Solution: Home builder tax credit; Mandate solar in building codes; Target realtors; Establish CO2 cap per house; Target builders/developers; Marketing to home builders, realtors, lenders, architects

B: Solar is Undervalued  
Actual does not match perceived  
Technical maturity  
Distrust of contractors/technology  
Lack of infrastructure  
Lack of maintenance  
Accessibility – actual and perceived  
Complicated process

B: Lack of awareness for agricultural solar uses, like water pumping

B: No tax liability  
Solution: 3<sup>rd</sup> party matching

## ***Workforce Development***

Division of Labor:  
Sales  
System Design  
Installation

Consider consequences of NABCEP certification, system design size, inverter, wiring, technical specifications, and the authority to purchase

**Barriers:** Availability of competent installation workers -  
1 apprentice to 6 journeymen  
Insufficient apprentice opportunities  
\$30/hr vs. \$12/hr (many available for \$12)  
Learning curve (like from the regular electrician pool)  
Seasonal curve to work

Solutions:  
- Provide incentives for electrical journeyman to take on apprentices,  
- 1/3<sup>rd</sup> of cost subsidized to take on apprentice

**Barrier:** Limited access to educational opportunities  
Solutions: - **Increase coursework availability/accessibility by making classes accessible**

**online/web/video, nights and weekends**

- Obtain grants to develop these new learning tools

**Barrier:** We lack the installer and training agent base right now. Current installer training agents can absorb only about 1 of every 10 available trainees.

- Licensure requires 1:1 ratio of training agents to trainees to achieve 4000 hours PV, 2000 hours thermal (6000 hours for both), 280-290 hours of classroom instruction.
- Have already pushed BOLI on the 1:1 issue
- Electricians vs. LRTs (limited renewable energy technician) – too few training agents specialize and are available to train LRTs
  - i. System is imitating long established programs
  - ii. Safety
  - iii. Other states' activities in this area

**Barrier:** Financial/Market constraints

- Constrained linear growth
- Tight margins (3%)
- High demand (unmet?) for solar installations – creating 1-2 mo. Backlog

**Barrier:**

***Opportunities***

OSEIA – New construction developers 5 classes

Homebuilders – when the buying public demands, solar industry will go in

**Federal Department of Labor – WIRED Grant submitted**

- **Oregon should convene all parties: those in renewables, alternative energy, and energy efficiency**
- Group estimates it will take \$5 million to take renewables mainstream

Apprenticeship committee  
Pre-Approval

**Standardized method, level or training**

**Training Status: Identify all training that is available; Quantify the training that is accomplished; Determine the training that is needed.**

- OSEIA has a white paper addressing part of this
- Include all levels of the vertical industry from manufacturers, electronics, system integrators, electricians, installers, etc.

**Incentives for Electricians/Journeymen**

Make the path to achieve contractor status part of the business training

**Provide cost assistance for companies**

1/3 of cost is subsidized  
Require them to take on an apprentice

Create a philosophical framework, or messaging around workforce development, for the industry, such as:  
“The green wave that lifts all boats”

**Establish Oregon leadership position in solar workforce development**

Create regional (bioregional) partnerships

Build on Oregon's history/reputation for leading environmentalism  
Become a model that other countries look to