

Workshop Title: Energy Efficiency & Renewable Energy Opportunities for Urban Businesses

Panelist Names:

- Eric Nill, Advanced Energy Systems
- John Sandin, Northwest Energy Efficiency Alliance
- Travis Reeder, Eugene Water & Electric Board

Moderator: Sasha Luftig, Good Company

Note Taker: Nancy Toth, Eugene Water & Electric Board

Room: 117

Estimated Attendees: 7

Background and Context (Sasha Luftig): It's important to look at both energy efficiency and total energy consumption. For example, many businesses or processes might become more energy efficient, but consume more total energy overall. Addressing both aspects is important to consider.

Sandin: Why do utilities pay consumers to buy less of their product (i.e. conserve)? Answer: cost of re-capitalization, cost of acquiring additional sources of energy is often higher

Nill: Amory Lovins coined the term negawatt, basically a unit of power not generated due to energy efficiency.

Nill: Talked about an example of a business that eventually was able to produce more of a product with the same amount of energy through increased efficiency.

Reeder: EWEB has had an energy conservation program for 30 years. People who did energy retrofits a long time ago are now looking for new opportunities with the new technologies that now exist.

Nill: Most people participate in energy efficiency initiatives because of financial reasons (bottom line). There are tax credits for Oregon businesses to invest in solar that take what is usually a 20-25 year payback period down to a 4 year payback period in many cases.

Reeder: Utilities also provide tax credits, low-interest loans. Businesses often take advantage of these programs to increase energy efficiency often for customer perception reasons. Solar is the most popular; also LED lighting. Energy efficient motors are a great idea, but do not have as much customer appeal as solar and lighting projects.

Sandin: It is a good idea for businesses to track energy use now in order to get a baseline for when carbon emission regulation happens in the future.

Nill: Even if a business is renting their space, if they have a 5-year lease and a renewable energy project has a 4-year payback period, it may be a worthwhile investment. Renewable energy projects are also advantageous because the amount of value that they add to the base value of the building is exempt from property tax.

BETC (Business Energy Tax Credit): This program is offered through the Oregon Dept of Energy and allows businesses that invest in energy conservation and renewable resources, among other things, to get a tax credit of 35% of eligible project costs (or 50% for solar projects). Depending on the project cost, this credit is generally taken over a 5-year period. Currently, revisions are in process which may limit the size of a project that qualifies for these tax credits.

Energy efficiency consultants: Can calculate appropriate times for shut off of certain manufacturing or other processes, look for air leaks in a system that may compromise efficiency, etc. They are *systems* experts, and can help with eliminating waste.

Reeder: EWEB provides incentives for energy efficient office equipment, lighting, commercial kitchen equipment, insulation. EWEB also works with University of Oregon faculty and graduate students to design effective daylighting systems for interested businesses. EWEB has a solar net-metering program where businesses can install PV solar electric systems and sell excess power back to the grid (meter spins backwards) for retail rates. Businesses also get a financial incentive for installing the system (\$1/watt up to \$25,000). The direct generation program is for businesses with larger systems of 10-1000 KW. In this case, systems have a separate meter installed and can connect directly to the EWEB grid and sell electricity to EWEB. EWEB provides no upfront money or incentive, but buys power back for more than retail rate (currently 11 cents per kilowatt hour).

Nill: Energy consultants can perform site visits, help businesses follow procedures for tax credits, access commercial loans, Dept of Energy loans. Another type of project involves third party ownership, where an investor covers the cost of installing a solar electric project on another business' building. These partners enter into a power purchase agreement where the business agrees to buy back the power generated from the project at near market rates. Generally, after about a 20-year timeframe, the business has the option to acquire the (now-depreciated) system from the original investor for a good price.

Kendall Toyota has a new LEED-certified platinum building with large solar component.

There is a Lane County initiative to provide financing for solar installation (loan as part of property deed); based on Berkeley, CA and others.

Reeder: The Consortium for Energy Efficiency website (www.cee1.org) provides list of energy efficient products. Another good resource is the Energy Star website (<http://www.energystar.gov/>).

Q&A

How do you track footprint for energy use? Check Energy Star website (<http://www.energystar.gov/>)

Can you install solar on sloped roof? Yes, potentially, depending on the exact details of the roof. There are also new types of very attractive solar modules which are translucent, allowing much more light, and can be constructed in a trellis-like structure. These have been used in parking lots, where a solar installation covers a designated area of the lot.

Are there community energy projects going on? Ashland has one – selling individual solar modules to offset energy bill. Community is buying these modules. See One Block off the Grid: www.1bog.org

What about federal incentives? Dsire.org: database of programs related to renewable and energy conservation.