

This compilation of comments was received via e-mail following this solicitation sent out on 5/8/08:

Oregon's Renewable Energy Working Group (REWG) met for the first time this year and would appreciate your input.

The REWG is looking for legislative concepts for the 2009 Legislative session that the REWG can help flesh out. The deadline for draft legislative recommendations from the REWG is the end of June and end of August is the deadline for final recommendations.

Please send me your ideas. Thank you.

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COMMENTS RECEIVED (not edited for content):

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One thing I would like to see clarified or specifically spelled out in the law or policy is that any hydro project that is certified by a national organization as Low impact be allowed to participate in the Oregon RPS.

MFID is working to gain Low impact certification and while we can sell RECS in the voluntary market I believe Oregon IOUs would not be able to use our RECs for compliance with the Oregon RPS. If my belief is correct this needs to be changed for two reasons

- 1 Our old hydro is not any different than old Utility Hydro (which gets to participate up to fifty Mws if certified)
- 2 It gives these older projects a tangible reason to make environmental improvements which of course will be good for the watersheds and all Oregonians in General.

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I would like to offer the following comments regarding the Sixth Pacific Northwest Power and Conservation Plan. In essence, I would suggest that onsite power storage technology be considered and encouraged for renewable power generation.

Power Storage at Wind and Solar Generation Sites

As part of the Sixth Pacific Northwest Power and Conservation Plan, power storage technology at wind and solar generation sites should be planned for and encouraged by policy decisions and rate incentives. Power storage technology offers a number of advantages, and technology exists that could be implemented more widely.

The Plan's paper identifies the following key issues, and power storage offers solutions to each one:

Climate change and related policies

- Additional ability to integrate renewable power smoothly reduces the carbon footprint of generation. Gas turbine plants are currently planned as a tool to offset the variability of wind.

Capacity to meet loads on an annual, daily, hourly, and sub-hourly basis

- Power storage offers smoothing of production and the ability to shift power capacity to the time of day when demand peaks

Expanding the menu of efficiency and generating resource choices

- Power storage offers the ability to consider wind and solar as a form of baseload power generation

Transmission constraints and their impact on electricity markets and resource development

- Power storage reduces the otherwise increasing variability in generation resulting from increasing wind and solar generation. Variability stresses transmission capacity.

Power plan interactions with the fish and wildlife program

- We no longer have the ability to spill water to offset the variability of wind power. Fish and wildlife management have priority.

Appropriate avoided cost measures for resource decisions

- Power storage technology should avoid the need for much greater transmission capacity. A reduced need for gas turbine plants should be another result of power storage and related power smoothing.

Wind and solar integration costs could be significantly lowered through the use of power storage technology located at generation sites.

In the Wind Integration Forum document 2007-1:

5) "There are steps we can take to increase integration capability and to lower integration costs. "

(4) "development and application of new flexibility technologies. Achieving these goals will require coordinated actions similar to those required to establish the Pacific Northwest Coordination Agreement of the Columbia River Treaty."

Power storage technology offers a solution for the new flexibility technologies.

Policies and rates should be structured to encourage on-site implementation of power storage technologies. Currently wind integration charges are proposed for future wind generation projects. The waiving of these charges for sites that implement power storage technology could be one form of incentive to encourage more rapid adoption. The system wide reduced requirement for transmission and gas generation should be reflected in incentives. Currently a premium is paid for renewable power generation. A slightly higher premium price could be paid for renewable power smoothed with power storage technology, and so help to make power storage technology economic for the wind power project developer.

While I don't want to favor any particular company's technology, I've attached information from VRB Power Systems, a presenter at the Pacific Coast Clean Energy conference that I attended.

This type of technology could be a solution for a list of problems that arise from the variability of wind and solar power. For example, in the attached PacifiCorp article from the Oregonian, PacifiCorp mentions the need to build a gas turbine plant to offset the variability of wind power.

It could be feasible that instead of building a gas turbine plant, that power storage systems like the ones made by VRB Power Systems could be installed at wind and large solar sites.

The power storage should offer “smoother” power than the combination of wind and gas turbines. Also, the smoother power should also minimize the extra transmission capacity that Bonneville Power and others would need to build. The storage systems also offer the ability to supply power “on demand”, and so add additional flexibility to the base supply. The storage systems should actually be more flexible than the dams on the Columbia, given the need to regulate water flow for salmon.

Also, power storage reduces the “carbon footprint”, as gas is not burned at a turbine plant.

The list of advantages, combined with the Oregon Business Energy Tax Credit incentive of a 50% tax credit and other possible rate and charge adjustments, should make this a financially feasible alternative, at least in Oregon. I haven’t heard anyone discussing this, especially in combination with the financial support of the BETC.

From a public policy point of view, I would think that encouraging power storage would offer great advantages. At VRB’s presentation, he mentioned that Europe is currently balking at the variability of Holland’s wind systems. With the coming rapid growth of wind and solar generation, thoughtful public policy and good planning for power storage should make the overall economics work.

There should be an advantage to looking at the problems Holland has, and avoiding them with good planning and public policy.

Here’s the VRB website for further info: <http://www.vrbpower.com/>

Again, while I don’t want to necessarily favor any one technology, the presentation I heard at the Pacific Coast Energy Conference started my thoughts regarding the ability of power storage to be a solution to the looming wind integration problem. At the conference it was mentioned that PacifiCorp has successfully used this technology for three years in Utah at a wind farm. This made me realize that technology solutions may be currently available.

I offer these comments as an individual involved in the industry as a CPA, and these are my personal comments, not the comments of our firm as a whole.

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Here is another suggestion that I have earlier discussed with Oregon Economic Development, and that could be considered by the legislature. Oregon Economic Development could set up an entity to request Federal New Market Tax Credits for use to attract renewable energy equipment manufacturing and to attract renewable energy projects that are on the leading edge of technology. By having the State set up it’s own entity to request an allocation of these Federal

New Market Tax Credits, the State would have control of the use of these Federal credits, and could further leverage the State's Business Energy Tax Credit program.

Federal New Market Tax Credits are allowed to be used in qualifying census tracts. These qualifying census tracts may also be areas that could benefit from economic development.

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- 1) I think the state wide planning goals need to be modified to reflect the RPS legislation and the fact that it creates a new mandate that cuts across all planning guidelines. There is a need to make it clear that renewable energy development is consistent with agriculture and forestry land use guidelines. There is a goal for energy conservation, but not one for renewable energy development. The goals express the state's policies on land use and on related topics, such as citizen involvement, housing, and natural resources. Most of the goals are accompanied by 'guidelines,' which are suggestions about how a goal may be applied. Oregon's statewide goals are achieved through local comprehensive planning. State law requires each city and county to adopt a comprehensive plan and the zoning and land-use ordinances needed to put the plan into effect and be consistent with the Statewide Planning Goals.
- 2) I suggest that the EFSC establish a realistic expedited review process for renewable energy facilities. Eliminate the contested case aspect for projects less than 200 MW. Establish a set of guidelines that have to be met, not contested. Shorten the timeframe to less than six months. Completion review of the application, a mitigation hearing (not a contested case hearing), stipulation of approval, issue a permit, fast track appeal, loser pays.

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Greetings and thank you for this opportunity. This is a long shot, and somewhat off-topic at first glance, but is becoming a critical issue in our region. The lack of adequate workforce housing is having, and is going to have a negative impact on renewable energy projects in rural Oregon.

Let me explain.

Sherman County has an acute housing shortage for renewable energy employees. Oregon's land use laws dictate that new workforce housing can only be built within the Urban Growth Boundary. DEQ mandates adequate wastewater and water facilities. Existing communities have a high population of seniors on fixed incomes that have moved from the farm 'into town'. Grants and loans are available to help with the capital infrastructure issues but those programs from the state impose a monthly rate high enough to cover the loan payments and ongoing operation of the system. The existing households can be faced with \$50 to \$100 rates and are obviously hesitant to support that type of project at the ballot box.

I think you will find this situation in most smaller rural Oregon communities.

I would like to explore amending the ORS and Admin Rules that govern OECD's community wastewater and water programs and create a provision that provides for a reduced initial rate and

depends more upon future construction. i.e. The rates will be set according to future growth potential, not the existing population or number of households.

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I believe the time is right to advocate for a feed in tariff. What appeals to me is to frame policy around the goal in the SB838 which states:

Community-Based Renewable Energy Projects

SECTION 24. Goal for community-based renewable energy projects.

- The Legislature declares that it is the goal of the state that by 2025, at least 8% of Oregon's electricity come from projects with a generating capacity of less than 20 megawatts. All agencies shall establish policies and procedures promoting this goal.

It seems to me the most effective way to achieve this 8% goal is to create a feed in tariff which pays an above market rate for kilowatt hrs delivered to the grid primarily from distributed wind and solar projects although other technologies can be included. While there are a number of thorny issues, the rates should be technology specific and take into account available energy densities. They should be set such that capital costs can be amortized over a reasonable period, say seven years for wind and ten years for solar. The sum of the above market rate and the cost of electricity would remain constant over the amortization period. Thus, if the price of electricity increases the incentive payment would decrease. Projects would be accepted on a first come first served basis up to the 8% goal in the RPS. Projects enrolled in this program would not be eligible for the BETSY or other state incentives. All utilities, PUD's included, would have to accept applications up to 8% of their load and would be permitted to recover the cost of the incentive payments in their rate base.

Other states are already tackling this issue including Michigan HB 5218, California AB 1807, and Minnesota HF 32537. There has also been some federal interest, in particular Representative Jay Inslee (D) Washington who gave a notable speech at the Washington International Renewable Energy Conference (WIREC) which supported the concept of a national feed in tariff.

What I am recommending is the group review these initiatives and craft a version which is tailored to renewable policy in Oregon. I would also suggest getting Paul Gipe involved as he has a great deal of specific knowledge regarding feed in tariffs, see http://www.wind-works.org/articles/feed_laws.html.
