

Renewable Energy Working Group Meeting
April 27, 2009
Local Government Center, Salem

Meeting Notes

Links to the handouts and presentations mentioned in the notes are located on the REWG meeting website: <http://www.oregon.gov/ENERGY/RENEW/REWG/REWG-Meetings.shtml>

Energy Future and the Need for Renewables

Cylvia Hayes, REWG co-chair, gave an overview of the REWG and the charge for the REWG to implement the Renewable Energy Action Plan. She noted that we have invited other natural resource agencies and groups to today's meeting since the REWG and the other groups all have interests in renewable energy for combating climate change. She stated that there are trends showing that there is going to be explosive population growth and development in the west over the next few decades. In addition, scientific studies are showing that the western states will be experiencing some of the worst effects of climate change as well.

Cylvia gave an overview of Oregon's energy use and electricity sources. She stated that we still get more electricity from fossil fuel sources (natural gas and coal) than hydro. Noting the importance of conservation, she said that given the population growth, we are still going to need to add new electricity sources for Oregon while emphasizing efficiency and smart growth. Oregon's renewable portfolio standard (RPS) requires that 25% of our new energy sources will be renewable energy by 2025, which shows that Oregon is serious about a low-carbon future.

Cylvia stated that the solutions we implement to combat climate change and provide clean energy, must be developed with the idea of conserving our natural resources and protecting wildlife habitat. She noted a need to make sure that our actions are environmentally sustainable or ideally even environmentally restorative.

Panel 1: Energy Siting in Oregon

Hanley Jenkins, Union County planning director, provided handouts to the members (and they are on the REWG website). He noted that has participating with a group working on ways to explore the evolution of Oregon's method of dealing with the development of energy projects. Counties have the responsibility to process applications for wind energy facilities up to 104 MW in size, but he noted that counties can also choose not to process the applications and send them through the state energy siting process.

Counties have statutory requirements under the exclusive farm use statute ORS 215-283 sub 2G to review commercial facilities for the purpose of generating power for public use by sale. The applicant must demonstrate that the proposed use will not significantly impact farm or forest uses on surrounding lands. Counties generally process these applications through the conditional use permit process, which includes the planning commission and a public hearing procedure. Some, but not all, counties have adopted ordinances that are specific to the permitting of wind farms. Some issues have arisen due to the fact that the policies vary from county to county, but work is being done to reduce the variability.

The Land Conservation and Development Commission (LCDC) adopted an administrative rule related to thermal electric generating facilities in 1995. OAR Chapter 660, Division 33 (Agricultural Land) was provided for background. They describe high value farmland and the goal 2 exceptions process. LCDC revised these rules in January 2009 to better accommodate wind farms. This rule looks at the productivity capability of the ag lands and puts a larger burden for development on high value farmlands and a smaller burden on range lands. This rule does not address cultural resources, social issues, and wildlife habitat, therefore Association of Oregon Counties (AOC) formed a wind energy task force to look at these issues. AOC staff will be developing a model ordinance that counties can adopt and use for their conditional use permitting process. Wildlife management agencies have indicated that they would like to be involved in the local application process as early and often. Mike McArthur noted that AOC is now working on 2 different model ordinances – this one to apply for large wind farms and another related to the permitting of small-scale wind turbines (less than 100 kW).

Hanley provided an excerpt from the ordinance from Union County for commercial wind power generating facilities as an example of one of the specific ordinances that has been developed in Oregon. Counties are also responsible for carrying out their own comprehensive land use plans. Goal 5 of the plan requires counties to analyze and identify procedures for evaluating natural resources and provide some level of protection. For example, in Union County the Elkhorn Wind Farm location includes deer and elk winter range, and because of the requirements of the comprehensive land use plan, a cooperative wildlife management plan was required of the wind farm applicant.

Hanley noted that the local process includes some very important aspects. First, it is a conditional use application and the process allows the applicant to get to a tentative decision. This gives the applicant the opportunity to make modifications before final approval, public hearing, and adoption. Second, the timeline for review is generally compressed in comparison to the state process (months rather than a year or longer). Hanley provided a chart of the state and county process for comparison of the processes.

Tom Stoops, Oregon Department of Energy, stated that the Energy Facility Siting Council (EFSC) is the decision-making body for the permitting of large energy facilities. The council is made up of seven citizens appointed by the Governor, and the process for reviewing energy facility applications is set by the legislature. The market dictates the types of energy projects that come into EFSC. A traditional thermal generating facility (coal, nuclear, natural gas) that has a nameplate capacity of 25 MW or more must go through EFSC. For renewables, the legislature set a threshold of 35 MW, with a capacity factor set for each different type of renewables based on their intermittent nature. For wind and solar, it is 30%. All facilities go through the same process at EFSC. The electrical transmission system is also sited through EFSC if it is a 230 kV or larger line. Smaller lines are sited through the county conditional use permit process.

In the first step for permitting, the developer provides a Notice of Intent and this gives EFSC staff an indication of the project type that is being proposed and allows for coordination with other agencies, counties, and outside groups. Next, a project order is developed to show the

requirements for an application, and then the developer submits an application. If the application shows that the project meets the all of the state standards, the application is approved, however there are generally requests for more information before an application is considered complete. The quickest time frame for the process is 8-9 months, but a typical project application will take 12-16 month to be approved. After EFSC makes a decision, if a party doesn't agree with it, it can be contested to the Supreme Court.

A few key standards include – organizational expertise of the developer, does the project constructed include seismic standards, soil protection, how does the project influence land use, are their protected areas that will be impacted or avoided. Additionally, developers most post a retirement bond for the project so that it can be properly decommissioned. Wildlife habitat value is another important standard, along with scenic and aesthetic values, historic and cultural resources, recreation resources, and impact on public services. For any facilities that emit CO₂, Oregon does have a CO₂ standard that must be complied with. Transmission line developers must also show a “need.” The Oregon Department of Energy website does have a lot of detailed information on the EFSC process.

Panel 2: Industry Perspectives

Sara McMahon Parsons, Iberdrola Renewables, provided a detailed presentation on wind project siting as a handout. Iberdrola developed Klondike I & II, Hay Canyon, and Star Point through the county process, Klondike III and Leaning Juniper II through the EFSC process, and is now permitting Helix wind project. Sara agreed with the descriptions of the separate processes as described by the previous panel. One pro to the county process is that the county is very tied into the local issues.

Sara noted that there are 6 key elements to developing a project – wind, land, permit, transmission, buyer, and financing. A slight difference in the capacity factor of the wind makes a large difference in the revenue of a project. Willing landowners are also needed since they are siting projects primarily on private land. Going through the county, various permits are needed, whereas using the EFSC process it serves as a one-stop shop for all state permits. Being close to existing transmission is another important factor. A power purchase agreement is needed in order to assure project success. Developers are protective of the project plans because of the competitive nature of the business and the fact that most high capacity sites near transmission have already been developed or leased. For some projects the county process is more appealing because of the timeline, or the smaller project size may be more appropriate for a power purchase agreement.

One of the critical issues for Iberdrola is the ability to microsite. This allows developers to change the location of turbines (within a restricted area) as the project development is underway. A final layout is provided once the terrain and wind regime is known. Additionally, above ground collector lines are often needed because of the sensitive nature of some soils. Costs for mitigation are important to determine early on so conservation easements can be planned. Curtailment is a contentious issue for developers around the county, because the financiers are expecting certain outputs and don't want to see shutdowns. Macrositing and mitigation help reduce the need for curtailment. Iberdrola recommends that developers follow the Oregon

Columbia Plateau Ecoregion Wind Energy Siting and Permitting Guidelines (Guidelines) because they provide good information on how projects can be developed.

Paul Woodin, Community Renewable Energy Association, noted that he has been involved in looking at community-scale projects (10 MW and below) trying to understand the siting needs. There are 4 different scales of wind projects under development in Oregon - 100 kW and below, 101 kW-10MW, 11 MW-104MW, and 105 MW and above (EFSC). Each size has a unique set of circumstances, for instance the smaller projects have much smaller footprints. He is working toward developing a checklist for the requirements based on the type of terrain where the project will be developed. They are specifically looking at wheat land, forested land and possibly coastal land. Diane Henkels, Oregon Department of Energy, is working on this process with Paul and noted that they are creating the checklist with considerations for conservation as well as a goal of allowing proper renewable energy development.

Dave McClain, Everpower Wind Holdings Company, noted that he is working on projects all over the US and is seeing a similar process and dialogue on these issues. His company uses the Guidelines as a template for all of their projects in Oregon and also does a lot of pre-site screening. He noted that the process is not as much “siting” as it is “licensing.” Everpower works on a lot of sites that are forested on the west side, and that poses a special set of challenges since it is in a different ecosystem than where most wind projects have been developed. He stated that transmission capacities are reaching their limit, and expanding and siting new transmission will be critical.

Dave noted that the counties do a great job of processing permits and the process works well. Habitat mitigation banking and other creative ways deal with mitigation will be needed on a statewide basis. He stated that the Renewable Portfolio Standard (RPS) creates a 6000 MW market for renewables, and the source for much of that energy has yet to be found. Developers are out there scrambling to find good project locations and feasible projects. He has a concern with the fact that the EFSC process includes a contested case analysis, which takes a lot of time and money. He feels that the county process is much easier to use for a small renewable projects, since the issues are ecologically-driven in rural areas. He sees about 1000 MW of potential wind development on the west side of Oregon and Washington.

Tom noted that the longer, and more stringent process for EFSC is necessary because of the statutory requirements. There are many reasons why any applicant may submit an incomplete application, such as for interconnection obligations. He feels that the EFSC process is important and necessary for the state’s largest energy plants since they will be on our horizon for 30-50 years.

Overview of Oregon Columbia Plateau Ecoregion Wind Energy Siting and Permitting Guidelines

Suzanne Leta Liou, Renewable Northwest Project, co-chaired the process to develop the Guidelines in 2007-08. Many stakeholders participated in the process, including state and federal agencies, wind energy developers, conservation groups, counties, and renewable energy advocates. While the focus is on the Columbia Plateau Ecoregion, the main components can apply across the state. The Guidelines are voluntary and meant to apply to county-permitted as

well as EFSC projects. They include a cumulative impacts review and recommendations, which is a good tool and unique among wind siting guidelines nationally. They were developed because of the expanding development of wind energy, the need for balancing resource conservation, and providing solutions and tools for everyone in the process. The mortality rates for birds and bats from wind farms in the Pacific Northwest have been relatively low, but the group agreed that being proactive on the issue would be positive for the industry. The key areas include: macrositing, pre-project surveys, micrositing, operational monitoring, and mitigation. She noted that there needs to be some ongoing work on other areas including sage grouse habitat and forested lands, which are not addressed in the guidelines. Suzanne's presentation is available on the REWG website. To see the Guidelines online, visit: http://www.oregon.gov/ENERGY/RENEW/Wind/docs/OR_wind_siting_guidelines.pdf

Panel 3: Stakeholder Perspectives

Mike McArthur, REWG co-chair and Sherman County landowner, noted as a rural landowner, he has a few different perspectives on renewable energy development. One is as someone who would own land where a project could be developed (and thus getting lease payments or revenue), the second is that of the farmer of the land where a project could be developed, and the third is that of a landowner who lives or owns property adjacent to a project. He noted that as a landowner, there is a great deal of benefits and the installations of turbines are generally compatible with farming methods. He noted that much of the land farmed in Eastern Oregon is leased for farming operations from someone who is not the owner. So the leasee may need to modify their lease and also adapt to having fields dissected by new roads and turbines.

He stated that in general, residents of Sherman County have responded positively to wind development, but as more and more land has been developed, attitudes have begun to change. Mike noted that he currently lives on a non-farm parcel surrounded by other farms, and a wind project has been proposed that would include turbines within a couple thousand feet of their house. His wife is very health conscious and concerned about potential long-term effects of noise or other unknown effects. They are also wondering about the impact of having a turbine in their viewshed. It's all about perspective.

Ken Popper, The Nature Conservancy, noted that wind power affects what they do in a couple of ways – it is a positive way to combat climate change however it may also have an impact on habitat. Location and proper siting are the key issues. Three main goals include avoiding sensitive and high quality habitats, avoiding unfragmented native landscapes, and taking into account cumulative effects. TNC provides comments on project applications and provides resource information to applicants and agencies, but they would rather play a more up front role, sharing science and information, participating in site guiding activities, and regional planning efforts.

Ken highlighted one component of the Guidelines – the cumulative impacts appendix. He noted that cumulative impacts are the additive or incremental effects of past, present, and the foreseeable future actions taken as a whole. As wind projects have begun to fill in within the Columbia Plateau area, TNC has become more concerned about cumulative impacts such as avian mortality from turbines as well as habitat loss due to development. Habitat loss due to fragmentation and degradation and decreased population viability are more indirect impacts that

can be caused. He noted that if a similar process was used for all projects and a central depository for project information was available, that would be helpful and useful for minimizing impacts. Ken's presentation is on the REWG website.

Brent Fenty, Oregon Natural Desert Association, noted that there has been a lot of interest in development of renewable energy projects in Oregon's high desert. About a dozen wind projects have been proposed here in the past couple of years and they fall largely in unfragmented habitat and unique wildlife areas. ONDA has concerns about wind development being proposed in Oregon's key wildlands, and high quality natural areas. He presented research and a series of maps that ONDA has been developing to show areas of potential renewable energy development, transmission infrastructure, as well as specific wildlands and high conflict natural resource areas (wilderness and other protected areas). These are in draft form currently, but will be coming out in a report in the coming weeks. Low to moderate conflict areas are much more preferable for wind development in order to help conserve habitat values. Brent's presentation is on the REWG website.

Michael Lang, Friends of the Columbia River Gorge, noted that his organization seeks to protect and enhance the resources of the Columbia River Gorge National Scenic Area. The scenic area act requires that development must blend into the landscape, and not adversely affect scenic, natural, cultural or recreation resources outside of urban areas. It also protects wildlife and open space resources within the area. Friends does support sensible wind energy and other industrial development in the right areas. He stated that landscape aesthetics do have objective and measurable standards, due to deviation from form, line, and color. They use standards developed by Bureau of Land Management. The group is also concerned about wildlife impacts, including barotraumas (non collision, but an extreme shift in barometric pressure which can be fatal to bats). The rules and laws outside of the scenic area boundary vary by jurisdiction. Friends supports the idea of mapping to avoid sensitive areas, the adoption standards to avoid environmental and aesthetic impacts, requirement of full environmental and design review, requirement of accurate before and after visual simulations of proposals, and monitoring and responding to wildlife mortality. Michael's presentation is on the REWG website.

Bob Sallinger, Audubon Society of Portland, noted that Audubon does support the development of wind power as a way to deal with many challenges before us. They do have concerns with the high rate at which it is being developed, the lack of care to protect natural resources, and potential wildlife impact is also a concern of many of their local members. He noted that with wind power there is an opportunity to avoid a situation that has arisen with hydropower by taking the proper ecological considerations up front.

Bob stated that the most recent report on bird population indicate that about 25% of bird species are in decline and in arid and grasslands, this is even higher. He noted that even though wind turbines are not a large stressor on the overall bird population, they are one of many man-made impacts and should be placed with proper care to reduce the potential for impacts. Habitat loss, habitat displacement, and direct impacts are all ways wind turbines can affect avian species. The Guidelines are a great first step in addressing these issues, especially the macrositing section, the mitigation standards, and the cumulative impacts section. Opportunities for moving forward include increased funding for the Oregon Department of Fish and Wildlife, extending the

Guidelines statewide, outreach to make people aware of the Guidelines, and the issue of standardizing the different siting processes across the state. Audubon is hopeful that a statewide standard can be developed so that developers, agencies, and conservation groups can be proactive about development decisions.

Panel 4: Agency Perspectives

Ron Anglin, Oregon Department of Fish and Wildlife, noted that their underlying goal is wildlife policy that will prevent serious depletion of any indigenous species and make sure that there are optimum benefits for future generations. Their funding primarily comes from hunting and fishing licenses and tags along with some federal funds. ODFW's role is larger in the EFSC process than the county planning process. With the counties, it is more of an advisory role, whereas the role with state-sited projects includes implementation of their habitat mitigation policy and it carries more weight.

Ron's presented a map that showed potential wind project sites, key wildlife habitat areas, and conservation opportunity areas, where mitigation could take place. He noted that transmission expansion is not always described with new project proposals and not knowing where it will be is a cause for concern. He further noted that the footprint of wind projects may be larger than just the turbine pad and roads, as has been indicated. From a wildlife perspective it is much larger. He provided data about sage grouse usage of a lek site that was seriously impacted when a 500 kV transmission line went in 0.7 mile from the site. Sage grouse are very faithful to the sites that they have picked out for breeding and nesting, but disturbance can effect this cycle. More research is needed on how wind turbine might impact specific species and habitat, so that they can advise developers on how to create projects with low impact.

The rush to develop renewables is creating a situation where all of the agencies involved in permitting projects are buried with work, due to understaffing and lack of funding. Resources need to be pooled more so that project review can occur appropriately and efficiently. He noted that they do encourage consistency among counties through statewide guidelines. They are also very interested in getting involved with projects as early as possible to help make sure the projects can go forward with wildlife in mind. Finally, he noted that there might need to be a standard to define "green, sustainable energy." Ron's presentation is on the REWG website.

Jim Johnson, Oregon Department of Agriculture, noted that he is the land use and water planning coordinator for ODA and has a background in county and regional planning. From an agricultural perspective, he noted that there are big differences in spot facilities versus linear facilities. There are two areas that they typically look at for projects: comparing alternative sites for a project and mitigation opportunities if a project gets sited on agricultural lands. He noted that the agricultural industry in Oregon is very diverse – over 220 different commodities are grown here – so there are many different types of practices and operating characteristics that have to be considered. Many aspects must be considered from the ag point of view: intensive and extensive practices, high value farmland soils can be used as a surrogate, but not the only aspect, cultivated versus non-cultivated lands, and infrastructure elements (irrigation, drainage lines, transportation corridors).

Co-location of facilities, such as locating within an existing right-of-way, is a good way to avoid impacting farmland. Creating “orphaned lands” by cutting across a corner of a parcel should also be avoided. Developers should practice proper soil remediation so the land can continue to be used for agriculture. Access to facilities should be controlled to the extent possible to help avoid vandalism, trespassing, and liability issues. Project developers should respect infrastructure installed and used by the farmers, and cultural practices should be considered so that farmers can continue their operation. When considering transmission, projects should be looked at in segments to help pick the best paths. EFCS has done a good job of taking these things into consideration.

Doug Young, US Fish & Wildlife Service, noted that FWS is being directed from the Interior Secretary to determine a path forward on issues around habitats of importance as well as concentrations of species of high importance. They are being asked to help move renewable energy forward in a manner that does not shortcut their standard processes. They have a goal of finding ways to collaborate more effectively by starting early in the process and creating partnerships. In 2003 FWS developed national voluntary guidelines for proper development of wind facilities and those are currently being updated.

The Endangered Species Act and the Migratory Bird Treaty Act are two key drivers for FWS. A decision on listing of sage grouse will be out sometime in 2009, and may impact resource opportunities in Oregon. They are interested in helping influence well-sited projects to avoid and minimize impacts to these sensitive species. The agency is struggling to figure out how to put staff and resources where they are needed to help make sure this happens. He noted that it would be good if they could focus on the most likely developable project areas, and have a time out on the areas that are more speculative and understudied. It would be good to have the emphasis fall on the areas of lowest conflict for early development so that there is time to take a closer look at the areas that are more sensitive.

Cathie Jensen, Bureau of Land Management, noted that her agency is facing similar challenges. Right now in Oregon there are about 120,000 acres of BLM land that have been permitted for wind testing (met towers). There are an additional 155,000 acres under application for wind testing. There are also 3 project applications in for wind development – 2 large and 1 small – and the large projects will require an EIS. They have developed an MOU with EFSC that tries to combine the NEPA process with the EFSC process for siting for efficacy with the public process. They are also developing maps that can be overlaid to show all resources and habitats of importance. They would like to see how these could help indicate feasibility for both public and private lands. They are seeing a strong emphasis for helping fast track renewable energy projects, but the large ones still require going through the EIS process. Cathie provided a handout of projects that are under application.

There was a discussion about small-scale projects and whether they should be required to do the same amount of mitigation and monitoring. Many people agreed that extensive post-construction monitoring can be very costly and could shut down a community wind project. Those in place among other large projects (infill) may be able to benefit from the studies that have already taken place and additional studies may not be needed.

Discussion & Next Steps

Cylvia noted that REWG could work toward putting together a policy structure that seeks to limit green energy development on undisturbed, sensitive habitat (greenfields) in exchange for expediting development of clean energy projects on intensively managed ag and forestlands. She indicated that the groups represented here will need to collaborate to help make the tough decisions that need to be made in the face of climate change and the need for renewable energy. Ken noted that we should be careful not to make too many decisions before we have enough information to for adapting to climate change; the decisions we make now will help us to slow down the rate, but we're not going to be able to stop it. Hanley stated that the groups need to agree on what the acceptable science is, and what the standards should be. Coordinated research is needed since all parties have a stake in it; the funding burden should be shared.

Holly Michael, ODFW, stated that there are regional planning efforts underway on this issue as a part of the Western States Wildlife Council. They are developing maps that show the areas with the greatest renewable development potential and the lowest wildlife conflicts; those maps will be completed in June and presented to the Governors for their endorsement. Cylvia noted that there could be an incentive for development in the areas with lowest conflict, and Holly stated that the concept is under discussion.

Mike asked Sara how quickly the transmission capacity would be full. She noted that from Iberdrola's perspective, things are looking okay for the next several years, but they do have projects that are under development near existing lines with capacity. They will also be working with BPA to help pay for upgrades to their system in the next few years as well. Investment in major transmission may occur in 5-6 years, but it will depend on what build out is occurring from BPA.

Mike asked if there was any coordinated effort among these groups and agencies on issues of wildlife and energy development. Doug noted that the Guidelines development process brought the groups together, but there has not been an ongoing coordinated process beyond that. Mike indicated that maybe the need for this coordination should be brought to the attention of the Governor. Cylvia noted that maybe the REWG should take the lead and outline some next steps, such as reviewing these maps that will be coming out, getting the right people together, and helping move these issues forward. She stated that the REWG also needs to circle back and look at the Renewable Energy Action Plan (REAP) and there are now a couple of issues (1) transmission and (2) wildlife issues may rise to the top as priorities. Mike noted that it is still unclear if the Oregon Energy Planning Council will tackle issues like this. Cylvia stated that ultimately a strategic plan is needed for the REAP, as well as a better understanding this group's role with the OEPC. Cylvia asked if funding (private) could be sought to pay for someone to help with this current need.

Cathie noted that as an agency they can't give preference to one applicant over another and they also have to process them as they come in. Mike noted that one big piece of the puzzle that is missing is the utilities – they are not in the room today but are a key player with how resources are being developed. Jeff Bissonnette stated that the utility's planning process (integrated resource planning) is ongoing and resources are being planned out to 2015 or so, but beyond that there are many unknowns.

Mike reiterated that the next step will be to send a report to the Governor on the discussions of today.

Public Comment

Jim Walls noted that there are concerns with the current Waxman-Markley (federal) cap and trade bill as they relate to federal forest biomass (i.e. it is excluded). He will provide some information to Robin to send to the group. He also noted that while he was in Washington DC last week, he met a professor from the University of Washington that gave an interesting presentation on methanol and Oregon's resources for developing it. He asked if the group would be interested in hearing her talk. Mike agreed that it would be a good future topic.

Next Meeting

We would like to plan the next REWG meeting for mid- to late summer, after the legislative session has ended. We are hoping to get some feedback from the Governor's office on the continuing role for the REWG. More details will be forthcoming.