



## **Oregon Wild Green Energy Policy – 2/16/2011**

Oregon Wild's mission—to protect Oregon's wildlands, wildlife, and waters—is directly affected by the continued use of fossil fuels. Pollution and climate change, along with the harmful impacts of drilling, mining, and transportation of these fuels, pose a very serious threat to the natural treasures we work to protect. It is critical that the United States move away from fossil fuels and swiftly toward renewable, non-polluting, and environmentally sustainable sources of energy.

Given the enormous growth in energy use and consumption of fossil fuels over the last century, Oregon Wild recognizes that it is unrealistic to expect an immediate shift to renewable energy. However, a conservative strategy based on improved energy efficiency, transitions to cleaner fuels, and the investment in and the rapid adoption of renewable energy technologies, such as wind and solar power, offers enormous promise.

The need for renewable energy, and the economic opportunities it presents, must be tempered by a realistic evaluation of its impacts. Poorly designed or sited renewable energy projects can have serious negative environmental impacts. Oregon Wild urges policy makers, project developers, utility companies, and others to carefully consider the following issues when evaluating renewable energy proposals.

### **National Energy Policy**

Development of a sound national energy policy is critical to establishing a rational, coherent approach to developing individual renewable energy projects around the country. Current policy appears to simultaneously promote and subsidize growth in fossil fuel extraction, transportation, and consumption, while also seeking to foster more renewable energy development. This approach is doomed to fail. The goal of a sound national energy policy must be to *couple* the development of renewable energy with absolute reductions in fossil energy use, therefore providing that the cumulative social and environmental impacts of our overall energy use decreases.

### **Site Selection**

The most controversial issue in renewable energy project development in Oregon today is site selection. Technologies such as wind and geothermal power provide important alternatives to fossil fuels, but poor site selection can lead to serious environmental problems. While renewable energy projects are generally thought of as “green,” they are in fact often large industrial facilities with associated infrastructure, including road networks, transmission corridors, and resource demands. If sited poorly, such facilities can seriously degrade wildlife habitat, watershed values, as well as scenic and Wilderness values. In addition, some renewable technologies, such as geothermal developments, can have more direct impacts on environmental quality, such as excessive diversions from rivers and streams and water pollution.

During site selection for renewable energy facilities, the following principles must be considered:

- Priority should be given to locate new energy projects on already-developed areas, primarily on private lands. Ecologically intact areas, particularly those with high habitat values for fish and wildlife, roadless areas, , potential wilderness areas, and areas with high scenic values should be avoided. Responsible parties should assess wildlife habitat use at the regional scale so that low-impact sites can be identified within that framework.
- Wildlife impacts should be fully evaluated and avoided to the maximum extent possible. Lands near wildlife refuges, wetlands, major migration corridors, conservation reserves, roadless areas, and critical habitat for at-risk species are generally unsuitable for the industrial facilities associated with major renewable energy projects.
- Mitigation for significant environmental impacts should be a requirement for any new energy facilities, although mitigation plans should not be used to justify development in otherwise unsuitable areas.
- To the maximum extent possible, new projects should be sited to take advantage of existing infrastructure, such as road systems and transmission corridors.
- To the greatest extent possible, minimize the “footprint” of transmission projects, including roads, towers and concrete pads, and cleared areas.
- Facilities should be sited to ensure the highest possible degree of safety to humans and the environment. Proximity of facilities to homes, sensitive wetlands and streams, and endangered species habitat should be considered, as should steps to minimize the risk of harm in the event of an accident.

Developers should consider the following priority areas during site selection:

Most Appropriate

- Private lands not adjacent to Wilderness, wildlife refuges, or other similarly sensitive areas, and without impacts to rare species
- Previously developed lands
- Lands in close proximity to transmission corridors, road networks, and other infrastructure

Acceptable, with Safeguards

- Sites where credible environmental reviews have found minimal wildlife impacts, and minimal effects to other important values (scenic, Wilderness, clean water, etc.)
- Sites near major areas of energy consumption (including industrial facilities, cities and towns, etc.)

Not Acceptable

- Areas in or near significant wetlands, wildlife migration corridors, or habitat for rare species (both terrestrial and aquatic)

- Less developed areas on public lands, including roadless areas, designated and potential wilderness areas, areas with high habitat, areas, areas with unique archeological values, etc.

### **Transmission**

In addition to the direct environmental impacts caused by the construction of renewable energy facilities, very serious effects may result from the infrastructure development needed to support new projects, particularly transmission corridors. These corridors often require vegetation to be cleared in a swath one hundred yards or more wide, and run for great distances (in effect creating ribbons of clear-cut forests, bulldozed grasslands, and drained wetlands).

During the development of transmission infrastructure (in conjunction with new energy facilities or as stand-alone projects), the following must be considered:

- Priority should be given to areas where existing infrastructure is sufficient to support new energy projects, and the need for new transmission facilities is minimal.
- Where new transmission facilities are needed, priority should be given to construction corridors that follow existing rights of way (such as existing power line corridors and roads).
- New transmission corridors should avoid public lands where possible, and absolutely avoid sensitive roadless areas, potential wilderness areas, wetlands, areas with high scenic values, and habitat for rare species (whether on public or private lands).
- To the greatest extent possible, minimize the “footprint” of transmission projects, including roads, towers and concrete pads, and cleared areas.
- Consider burying power lines to avoid wildlife impacts.
- Where environmental harm does result due to the construction of new transmission corridors, mitigation must occur.

### **Taking a Cautious Approach**

Not all renewable energy projects are created equal. While hydropower produces fewer greenhouse gas emissions than coal power, the collapse of Northwest salmon runs provides clear and abundant evidence that hydropower is not environmentally benign. As a result, new hydropower facilities or efforts to retrofit turbines of existing irrigation or municipal water supply dams should not be given significant consideration in Oregon as potential forms of renewable energy.

In Oregon, biomass energy generally implies the combustion of wood from forested land to heat homes and buildings, or to generate electricity. Depending on the source of fuel and the type of plant, the development of biomass energy may have a net environmental positive or negative impact. Where biomass facilities are fueled by scientifically sound forest restoration projects, and where the energy is used to directly offset fossil fuel use, biomass energy developments can provide a lower-carbon alternative to fossil fuels. However, biomass fuel derived from clearcutting or logging of mature and old-growth

trees is unacceptable. It is important that such facilities not generate yet another industrial demand on publicly-owned forests.

It is also very important that biomass facilities are appropriately sized to match the availability of local fuels, as the fuel required to transporting woody biomass across long distances negates any carbon benefits. Finally, the air pollution resulting from biomass should be fully evaluated when considering any proposed facility, particularly if it is located near homes and communities.

New technologies, such as wave energy, have generated significant interest in Oregon. Oregon Wild has considerable concerns about wave energy development, particularly with regard to the operations' buoy mooring lines and their impacts on whales and other wildlife. Oregon Wild encourages the exploration of safe wave energy development that avoids impacts to whales, fish and other marine life. Until these impacts can be better understood and avoided, Oregon Wild opposes the development of large-scale wave energy projects off Oregon's coasts. Similarly, off shore wind energy projects are still largely unproven for coastal areas of the Pacific Northwest.

### **Unacceptable Technologies**

Growing interest in renewable energy projects will inevitably lead to efforts to repackage failed technologies as "green." Likely among these is nuclear power, which poses an unacceptable level of long-term environmental risk. Other proposals, such as pumped-water-hydro (where water is pumped uphill from an existing source during times of low power demand, in order to be used to generate electricity at times of high demand) are of dubious value. Utilities and decision makers should avoid pumped-hydro and other similar technologies, except in very limited instances where water supply issues and habitat values are minimal.

### **Environmental Review**

Renewable energy projects should be subject to rigorous and transparent environmental review under both federal and state laws. If such reviews are not conducted and when certain energy projects may cause significant impacts, developers can expect conservationists to rigorously pursue citizen enforcement of the Endangered Species Act, Clean Water Act, and National Environmental Policy Act to ensure environmental harm does not occur.

Projects should also adhere to Oregon land use regulations; developers should not seek to skirt such safeguards by dividing their projects into smaller units or other means of concealing environmental impacts.

### **Fiscal Responsibility**

As technology progresses, renewable energy is increasingly cost-competitive with traditional energy sources such as coal and natural gas. However, fossil fuels still enjoy an enormous competitive advantage in the form of state and federal subsidies (both direct, such as cheap leases on federal public lands, and indirect, such as the public being left with the bill for addressing harm to endangered species). Oregon Wild believes it is

appropriate for state and federal agencies to promote the development of renewable energy projects through the use of conservative tax credits and other mechanisms, while reducing subsidies for fossil fuel use.

It is also important that agencies recognize the potential for abuse. Efforts to promote renewable energy development should not occur at the expense of other environmental priorities, nor should they create artificial “bubbles,” such as subsidies for biomass development which distort the market and create an unsustainable demand for logging in public forests.

### **Summary**

Oregon Wild believes the rapid adoption of renewable energy technologies, combined with common-sense programs to increase the efficiency of energy use and decrease overall consumption, are vital in the fight against global warming and other serious environmental problems. Oregon’s economy and environment stand to benefit greatly from efforts to develop truly “green energy.” However, as renewable technologies assume a larger share of Oregon’s energy portfolio, it is critical that utilities, consumers, and public decision makers consider the aforementioned concerns regarding environmental review, as well as important site and transmission decisions that will protect Oregon’s wildlands, wildlife and waters.

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Formerly Oregon Natural Resources Council (ONRC)

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## **Summary: How green energy choices rank for Oregon** **February 16, 2011**

Conservation – the cheapest, most cost effective, most environmentally friendly step that can be taken to reduce our fossil fuel use.

Distributed generation – large energy generation facilities often require hundreds of miles of new power lines, roads, and other facilities to actually get energy to where it is needed. Smaller energy generation facilities sited near the communities that need added supply should take priority

Wind power – wind energy facilities can be an environmental boon. Sited responsibly, wind energy holds enormous promise. Poor choices on where to build could lead to serious environmental harm.

Solar power – like wind, solar holds tremendous promise. However, solar projects may require a very large industrial footprint on the land and require very significant energy inputs to manufacture. Some solar technologies also require significant water resources operate, and unsuitable for areas where water resources are scarce.

Wave energy – still in its infancy, this technology could pose significant risk to whales and other wildlife. Oregon Wild recommends a cautious approach until its effects are fully understood.

Biomass energy – there has been tremendous political interest in forest biomass in Oregon, but so far the economics for large-scale biomass just don't add up. Biomass projects should be based on wood generated through forest restoration, and must not create a new and unsustainable industrial demand on our forests.

Geothermal energy – careful site location and attention to air and water impacts are critical to geothermal energy projects. Locations in important wildlife areas, or near prominent natural features, such as hot springs in the Cascades, Alvord Desert, and elsewhere, are generally unsuitable. Geothermal projects that require significant new water resources are generally unsuitable for areas where water resources are over-allocated.

Coal – among the dirtiest of all fossil fuels, coal still produces the lion's share of energy in the United States. Coal use should be phased out as quickly as possible, particularly in the case of aging power plants that lack modern pollution controls (such as PGE's Boardman facility).

Natural gas – cleaner burning than coal, responsible natural gas could serve as a bridge fuel to truly clean energy. However, natural gas pipelines pose an extremely serious risk to Oregon's wildlands and rivers. Current pipeline proposals include 100-yard wide clear cuts stretch across hundreds of miles of forests, wetlands, and rivers.

Hydropower – the collapse of Northwest salmon runs is clear evidence that hydropower is not an environmentally benign technology. Hydro-electric facilities should not be considered green power.

Nuclear power – perhaps the most expensive and dangerous technology ever devised for boiling water, nuclear power is fraught with environmental pitfalls. Radioactive waste that remains deadly for tens of thousands of years, the potential severe consequences of accidents, and the enormous cost of subsidies borne by US taxpayers make nuclear energy a dead-end technology.