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BRIGHT FUTURE

How to keep the Northwest's lights on, jobs growing, goods moving and salmon swimming in the era of climate change

Staff of the NW Energy Coalition
Steven Weiss, lead author

LIGHT in the RIVER

NW Energy Coalition

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Save Our wild Salmon

www.lightintheriver.org

Update 1, July 2009 - This version of ***Bright Future*** is formatted for simple download and black- and-white reproduction. Minor errors in the original have been corrected.

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EXECUTIVE SUMMARY

A *Bright Future* awaits Pacific Northwest families, businesses and communities. We can reach it by taking the clean-energy path. This report shows that we can act together to:

- Assure reliable, affordable, safe and coal-free energy.
- Create thousands of new jobs and income opportunities in cities, towns and countryside.
- Replace some hydropower to help restore salmon.
- Turn our cars and trucks into clean machines that also store electricity.
- Build tomorrow's economies.
- Curb our dependence on foreign fuels.
- Lead the fight against global warming.

We have built the foundation by saving far more energy and money in the last 20 years than experts thought possible. We are building new renewable-energy facilities at forecast-defying speed. **By ramping up current efforts we can turn our energy, transportation and salmon challenge into an *opportunity* for a *Bright Future.***

To do its part in fighting global warming, the Northwest electric system must reduce its greenhouse-gas emissions 15% below 2005 levels by 2020 and 80% by 2050. That will require not only developing more of our energy efficiency and renewable energy potential, but also – and critically – steadily retiring all the coal-fired power plants that now provide only 22% of the region's electricity but produce 87% of the power system's carbon-dioxide emissions.

The power system also must meet new demands as our population and economy grow, help restore endangered salmon and provide electricity to cars and trucks. To do this, we must save or develop 6,500 average megawatts (aMW)[1] of new carbon-free electricity by 2020 and another 19,100 aMW by 2050.

A **megawatt** – 1,000 kilowatts — is a common measure of power (or capacity). A **megawatt-hour** (MWh) or **kilowatt-hour** (kWh) is a measure of actual use over time. For example, a 1,000-watt light bulb burning for one hour uses 1 kilowatt-hour of electricity. An **average megawatt** (aMW) equals the total number of megawatt-hours used or produced in a year if a megawatt were generated through all the hours in a year; so, 1 aMW equals 8,760 MWh. Customers of Seattle City Light currently use about 1,100 aMW of electricity each year. In utility-speak, MW represent "capacity," or the *ability* to produce power, while MWh represent "energy," the use of that power for a *period of time*.

Energy efficiency is the powerhouse. We can save enough energy to meet *all normal demand growth*, roughly 60% of our total new power needs. An enforceable regionwide target to acquire 340 aMW of low-cost energy efficiency per year through 2050 is a reasonable goal given Northwest utilities' already solid energy-saving programs and because saving energy is cheaper and creates more jobs than any other option. Energy efficiency isn't sexy; it just works.

New clean renewable sources – wind, solar, geothermal, biomass, etc. – will provide the rest of our new power needs. Much of what we need by 2020 is already in the pipeline, mostly in the form of wind power. After 2020, falling costs will likely make solar the growth leader.

In parallel, we can create a **smart grid** to deliver these clean resources. A smart grid will shift from integrating fossil-fueled power with hydropower to integrating dispersed renewable sources in new ways. The transition is already underway, and will be accelerated by new policy innovations and some new transmission lines. And as our **cars, trucks and buses go electric**, their millions of batteries will act as a giant, dispersed storage system helping to provide back-up for the entire electric grid.

We can also build **salmon and the salmon economy** into our future, by replacing about 1,000 aMW of existing hydropower with new clean sources. This will allow removal of the four lower Snake River dams, or making equally effective alternative hydrosystem changes, to restore salmon and fishing and river-based jobs throughout our region.

This energy strategy **creates more jobs and prosperity** than any alternative. Carbon-free alternatives create up to four times as many jobs as fossil fuel options, create them in all parts of our region, employ local workers and keep millions of dollars circulating here that now leave the region or country. Lower energy bills due to efficiency measures help everyone, especially low-income families. And more salmon also means more jobs.

Some changes are needed to achieve this brighter future. To begin with, President Obama and the U.S. Congress should quickly set carbon emission limits consistent with scientists' recommendations and establish mechanisms to meet them, along with incentives and penalties.

But the Northwest must not wait for national action. The region can adopt *Bright Future's* carbon-reduction and clean-energy targets and start working toward them immediately. We need:

1. **Regional leadership from the Bonneville Power Administration.** BPA should set a regional floor of acquiring 340 aMW of new energy efficiency and 270 aMW of new renewable energy a year.
2. **A strong regional plan.** The Northwest Power and Conservation Council's 6th regional plan should call for enough energy efficiency and renewable energy to meet all demand growth and wean the region from coal power.
3. **Extension of state renewable energy standards.** The federal government or the states (including Idaho) must adopt or extend renewable portfolio standards now in place in Oregon, Montana and Washington state.
4. **Prohibition of new coal plant construction or extending the lives of existing ones.** Only by weaning ourselves from coal-fueled power can we reach our greenhouse-gas reduction goals.

Working together, we can create this *Bright Future* for ourselves and our children. We can keep the lights on, the goods moving, the good jobs growing, the rivers running and salmon swimming in the Pacific Northwest.

INTRODUCTION

The Northwest electrical power system faces immense challenges between now and 2050, the greatest of which are global warming and salmon extinction. We can leave our children a better Northwest if we meet them, and a far worse one if we do not. This paper examines these interrelated challenges and identifies means of meeting them that are clean, affordable and reliable while creating a vibrant economy and ensuring our nation's energy independence.

Our electricity system is responsible for developing, operating and distributing power resources sufficient to meet current and future electric needs. That fundamental charge is now complicated by climate change. The system produces nearly a fourth of the region's carbon dioxide emissions now,[2] a relatively low percentage by national standards, reflecting the system's hydro-heavy mix. But new demand will not be met with hydropower. Unless we choose clean-energy options, future generation facilities could emit nearly twice as much CO2 as the system now averages.[3]

Northwest utilities, overall, have been making great strides in adding new clean energy to their mix. Energy efficiency efforts have saved enough electricity in the last 30 years to power the city of Seattle three times over. More than 700 aMW of new, non-hydro renewables have come into the system in the past 10 years, and thousands more are at various stages of development.

This is the time to build on those accomplishments. To do its part in combating global warming, the system must cut overall greenhouse-gas emissions 15% below 2005 levels by 2020 and 80% or more by 2050 and still provide increasing amounts of power at reasonable costs.

Much of the new demand will come from increased population and economic activity, generally referred to as ordinary load growth. But climate concerns will create significant additional demand for electricity, particularly to replace carbon-intensive transportation fuels. And in addition to meeting those new demands, the region must progressively shut down existing coal plants to help stop global warming and to prevent and undo damage to our environment and its inhabitants.

Some of our current carbon-free power production may have to be curtailed. For example, as pools warm behind hydroelectric dams and temperatures rise in upstream spawning streams, already endangered Northwest salmon will need a larger share of basin water to escape extinction. The electric generation lost to assure salmon survival will have to be replaced.

Fortunately, our region is blessed with abundant resources and tools for meeting these challenges. Those begin with:

- Enough energy-and money-saving measures to meet all new demand.
- Opportunities to harvest both heat and electricity from the same unit of energy.
- Vast development potential for wind, solar, geothermal and other renewable energy sources.
- The prospect of building a "smart grid" to capture system-wide efficiencies and facilitate the integration of large amounts of intermittent renewable energy into the system.

Most of these solutions are available and affordable now, using off-the-shelf technologies. Others are quickly becoming both practicable and cost effective. After decades of incorporating

new sources into the grid, power system operators are well prepared to capitalize on these opportunities.

Thus the region has the resources and know-how to meet the climate challenge. Now it comes down to will — especially political will. Northwest decision-makers must adopt and adhere to strategies that will take us from the unsustainable present to the clean-energy future.

This paper presents a blueprint for keeping the lights on, the good jobs growing, the rivers running and salmon swimming in the Pacific Northwest.

Part I outlines and quantifies our challenge:

- Reduce CO2 pollution 15% by 2020 and 80% or more by 2050.
- Reduce dependence on imported petroleum.
- Meet all new electricity needs due to population and economic growth.
- Electrify our cars, trucks and transit.
- Phase out coal power.
- Provide the water needed for salmon survival and the clean power to replace lost hydroelectricity production.

In total, the Northwest will need just over 25,000 aMW of new energy efficiency and clean renewable energy by 2050, about a fourth of that by 2020.

Part II provides the game plan for meeting the challenge. The practical solutions begin with further accelerating the pace of regional energy efficiency achievements. By taking advantage of technological evolution and co-generation opportunities, the region can save enough electricity to cover the growth in ordinary power demands. Building the "smart grid" will help save energy, flatten demand spikes and allow thousands of "smart appliances" and electrically fueled vehicles to provide some much-needed storage for intermittently produced renewable energy. Storage will be important to help the system integrate up to 10,000 aMW of new clean renewable energy by 2050, a fraction of the region's renewable energy potential. Least-cost wind will dominate development in the beginning, but solar, geothermal, biomass and other technologies will increasingly become cost-effective.

As clean renewables are added to the grid, inflexible coal plants will be removed. Less polluting and more flexible natural-gas plants initially will run more often, but less over time as the smart grid develops, to fill in for dips in renewable energy generation.

Part III compares the costs of these feasible clean energy solutions with those of continuing along our current energy path. We look at two scenarios: continued *business-as-usual* and the *Bright Future* described in Parts I and II. We find that the new clean-energy initiatives needed by 2050 might collectively add about two-thirds of a cent more to the price of a kilowatt-hour of electricity than continued business-as-usual, even when we exclude the near-certain and rising costs of emitting carbon. The paper also includes an article (page 17) by noted Northwest economist Dr. Thomas Power on the job, income and business benefits of the *Bright Future* versus the *business-as-usual* path.

We conclude with policy recommendations aimed at realizing this low-carbon, clean, affordable, job-producing and salmon-restoring energy future.

I. THE SHAPE OF THE CHALLENGE

To do its part to stop the warming of our planet, the Northwest must reduce its greenhouse gas emissions at least 15% by 2020, and 80% or more by 2050. These targets, representing the verdict of the U.N. Intergovernmental Panel on Climate Change and consistent with the near-term goals of the Western Climate Initiative,[4] must be met if our region and our planet are to escape true climate-change catastrophe. Several states, including Washington and Oregon in this region, have adopted loftier goals, at least in the short term.

With its glowing history of clean-energy achievements, the Northwest electric power system and the people who run it are well prepared to meet and even exceed these goals. The system's challenge is to do so while satisfying rising electricity demands, adapting to climate-forced changes in supply and demand, retiring coal plants that now serve the region, modifying hydrosystem operations to avert salmon extinction, and integrating large amounts of intermittently generated new renewable energy.

Climate changes

Global warming will profoundly affect the regional power system in at least three interrelated ways. It will:

- Alter the predictable rain and snowfall patterns on which the hydrosystem so fundamentally depends.

- Shift the highest Northwest power demands from winter toward summer months, just as summertime hydropower potential is falling.
- Alter and intensify the competition for river and water resources to meet irrigation, transportation, recreation, flood control, municipal, fish and wildlife, industrial and overall power needs.
- Increase the number and severity of extreme weather events, including cold-weather events. The winter of 2008-09 featured record cold spells followed by quick melting and record flooding in some parts of the Northwest.

Just how these interactions play out is hard to predict; in fact, unpredictability is all that is certain. Most scientists agree that the hydrograph, or runoff pattern, is changing. Historically, slowly melting snowpack from late fall and winter precipitation, along with groundwater flows into the tributaries, have provided steady Columbia Basin river flows through summer to early fall. Salmon and steelhead migration has evolved around this pattern, as have the regional power and flood-control systems. Because of this pattern, large transmission lines were built to send excess hydropower to the Southwest in spring and summer and bring in power to meet high Northwest heating demands in winter.

Warming may not greatly affect precipitation totals, but will result in more rain and less snow.[5] Much of the rain will flow directly into streams. The snow that does fall will tend to melt earlier, beginning as early as December or January, resulting in a longer low-flow period and lower summer flows. The likelihood of earlier and more rapid snowmelt will affect the dams' flood-control operations. To guard against potential flooding, dam operators will have to lower storage reservoirs in the winter further than they currently do, decreasing the possibility of achieving 100% refill by the spring. Together these factors mean less stored water will be available for fish migration, irrigation and hydropower in some years.

Shallow run-of-the-river dams, such as the four lower Snake River dams in arid eastern Washington, will lose value as reduced water flow curtails their summer and fall electrical output. The hydrograph changes will reduce dam operators' ability to align generation with need, most critically during summer peaks when California utilities pay top dollar for our spare power.

Changing electric demand patterns are already evident. Reduced fall and winter heating loads and rising air-conditioning use are progressively shifting electric needs – both average and peak – from winter to summer.[6] Winters will still feature periods of extreme and even record cold, but those events do not negate the overall trend — either globally or regionally.

Summer will be the time of greatest competition for river resources – just when those resources are running low. For example, warming will raise water temperatures in reservoirs behind shallower, run-of-the-river dams to levels lethal to migrating salmon and steelhead.[7] In response, those dams will likely have to be run at minimum operating pool during warm months to keep the waters moving and temperatures down. Further changes could include curtailing or ending summertime navigation, extending irrigation intakes below minimum operating pools or, ultimately, removing the most problem-causing dams. All these responses will reduce the dams' generation capacity.[8]

The Northwest hydroelectric power system must adapt to these climate-related changes. It must cope with altered hydrological and power-use patterns. It must adjust and in some cases reduce hydropower generation to help maintain healthy rivers and wild salmon through the era of warming. It must do all this while simultaneously reducing direct, system-wide, greenhouse-gas emissions.

■ Growing electric demand

Projections of future electric demand vary according to assumptions about future power prices (higher prices reduce demand), new end-use technologies and the level of investment in energy efficiency. In September 2008, the region's official power planning agency, the Northwest Power and Conservation Council, forecast electric needs increasing about 1.7% per year.[9] As we will see below, current Northwest conservation programs are shaving that down to about 1% per year.

The Council's growth projection, which is generally consistent with Northwest utilities' estimates,[10] translates to about 340 aMW of additional electric demand each year.

Thus we project that the need for electricity for traditional uses will grow by about 4,000 aMW by 2020, and by another 12,000 aMW by 2050. For comparison, total current demand is about 21,000 aMW.

Today, Northwest utilities are exceeding regional energy efficiency targets. The region is now reducing usage by more than 200 aMW of energy a year through increased efficiency. Further energy efficiency efforts can capture the remaining 140 aMW needed to more than meet yearly demand growth. Demand growth projections, however, now must also account for the electrification of cars and trucks.

Drastic reductions in carbon emissions from transportation will be needed to slow global warming, and the Northwest electricity system must assist in that endeavor by providing clean power to charge batteries in millions of electric vehicles.

About 23% of Northwest CO2 emissions come from electrical generation, and 46% from transportation.[11] We can reduce transportation-related emissions by:

- Cutting per-person vehicle miles traveled through electronic virtual transportation (videoconferencing, webinars and teleconferencing), mass transit, increased urban density and individual decisions to walk or ride bicycles.
- A wholesale switch to electric and hybrid-electric cars and trucks. Eventually, electricity-powered vehicles should achieve the petroleum equivalent of more than 100 miles per gallon.[12]

The electric power system has an opportunity to extend its own clean-energy leadership into the transportation sector, and get some very important benefits in return.

The Northwest Power and Conservation Council recently studied the grid impacts of a large regional move toward plug-in electric or hybrid gas/electric vehicles.[13] The study assumes that by about 2030, a fourth of the region's cars and small trucks – about 2.5 million vehicles – will be plug-ins, adding about 500 aMW to regional power needs.[14] By 2050, virtually all cars and trucks on Northwest highways – about 10 million vehicles – could be electrically powered, increasing demand about 2,000 aMW, nearly twice the electricity annually consumed by customers of Seattle City Light.

The greenhouse-gas emission reductions would be enormous. Using natural gas to generate electricity to fuel 2.5 million electric cars and small trucks would increase the electric system's total CO2 emissions by about 4 million tons a year; using renewables would add little or no CO2. Meanwhile, annual vehicle emissions would be slashed about 12 million tons, so even in the natural gas scenario, the net reduction would be at least equal to closing down three 400-megawatt conventional coal plants.

As we'll discuss later, the electric system would reap substantial additional benefits from the ability to remotely control the charging and discharging of electric vehicles' batteries while they're plugged into the grid.

Retiring coal plants

Although the regional power system is dominated by hydropower, it generates significant global-warming emissions – an estimated 59 million tons in 2005.[15] Most of that pollution comes from 14 conventional coal plants with a combined capacity of 7,310 megawatts.

The following list details the coal-fired power plants that serve Northwest electric needs, along with their primary owner, size and year of initial operation. Under the *Bright Future* scenario, almost all would be retired and replaced with affordable, carbon-free resources.[16]

Plant Name	Owner(s)	Size (in megawats)	Initial year of operation
Centralia 1	TransAlta	729	1971
Centralia 2		729	1972
Boardman	PGE, Idaho Power	560	1980
Valmy	Idaho Power, Sierra Pacific	254	1981
		267	1985
Bridger 1	Pacificorp	577	1974
Bridger 2		577	1975
Bridger 3		577	1976
Bridger 4		577	1979
Corrette	LP Montana	191	1968
Colstrip 1	PSE, PPL Montana	358	1975
Colstrip 2		358	1975
Colstrip 3	PSE, Pacific, PGE, Avista, PPL Montana	778	1984
Colstrip 4		778	1986
	Total	**7,310 MW**	

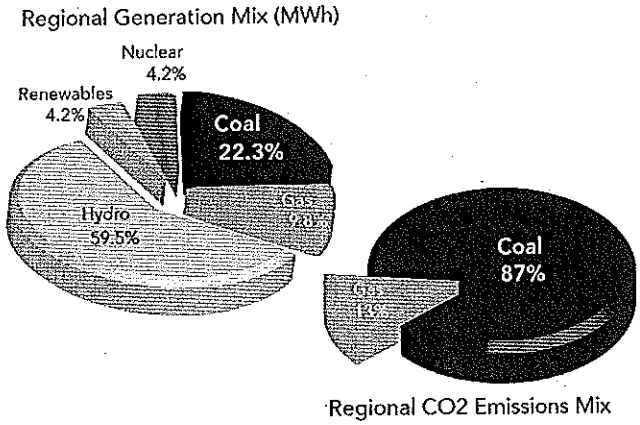
The focus on retiring coal rather than natural gas-fired plants makes sense for two reasons. First, gas plants generate less than half the CO2 per unit of power that coal plants do, produce fewer other pollutants, and come with lower capital costs. Second, new gas plants are more flexible for meeting shifts in demand, integrating variable resources such as wind, and reliably serving severe peaks.

Meeting the 15% by 2020 reduction goal means cutting annual CO2 emissions by nearly 9 million tons, equal to the output of three average-sized coal plants. The 2050 targets translate to annual emissions 50 million tons lower than today's, which means ending the emissions from 6,600 megawatts of coal – in other words, most of this region's coal plants.[17, 18]

Chart 1

Power and Pollution Sources

Coal provides a fraction of the regional electric system's power but the vast majority of its global-warming emissions.



■ Saving salmon

Most Columbia/Snake basin wild salmon and steelhead already are endangered or at risk, and climate change is increasing the stress on their spawning, rearing and migratory habitats. Preventing their extinction and restoring their abundance will require cold water, more free-flowing water and just more water, period. That means changing and, in some cases, reducing hydropower production, and developing emissions-free replacement power.

The lower Snake River stocks hold special ecological value. Because their spawning habitats in eastern Oregon and central Idaho are by far the highest, coldest, healthiest, best protected and best connected in the lower 48 states, these species have a better chance than other stocks of surviving global warming. Thus, protecting their migratory passage is like building a Noah's Ark for salmon survival.

The best available science indicates that the surest and perhaps only way to restore these wild salmon stocks is removing four federal dams on the lower Snake River by 2020 – an option that would reduce hydro generation by 1,075 aMW[19] and somewhat lessen the hydrosystem's ability to adjust generation to meet demand fluctuations or to capitalize on periods of high power sales prices.

As this report will show, increased energy efficiency and renewable energy development can easily replace the dams' annual energy production. Increased reliance upon natural-gas generation may be needed initially to replace another valuable service the dams provide to the power system: the ability to ramp up electricity production briefly either to meet spikes in demand, to smooth out variable generation from such resources as wind or solar power, or to deal with emergencies. This important service – known as "capacity" – may be performed in the short term by gas-fired combustion turbines that can vary their electrical output as rapidly as dams can. In general, existing gas turbines would be ramped up and down more often, although total annual generation might not increase. Some new gas plants may be needed for this purpose.[20]

The four lower Snake dams play a role – a small one relative to the regional hydroelectric system's overall storage capacity – in helping the system incorporate intermittent power, especially from generation sources such as wind. But that role can be performed by electricity storage, including plug-in cars and trucks with storage batteries, other emerging storage technologies and smart appliances, demand-side management or existing flexible gas-fired generation. Replacing the four dams' small contribution to renewable energy integration is part of a broader issue. To meet the region's carbon-reduction targets, we will need thousands of megawatts of new renewable energy from wind, solar, geothermal and biomass, and probably wave and tidal later on.

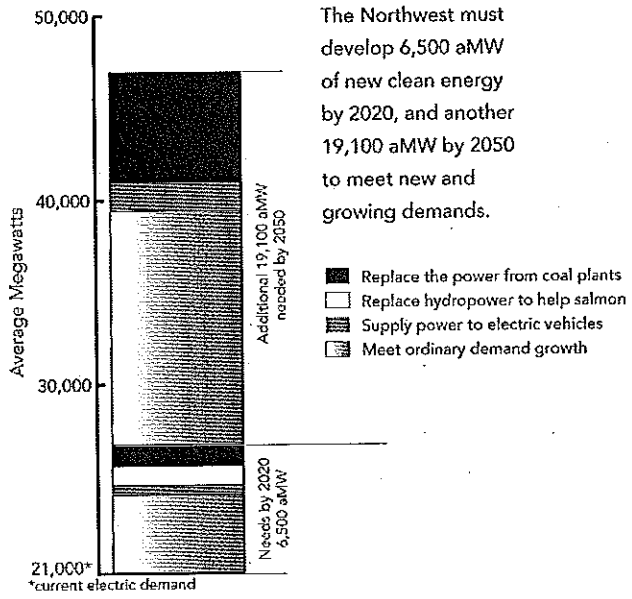
■ Summary

This paper looks at two benchmark years, 2020 and 2050, reflecting the timeframes used by international climate

Chart 2

How Much New Energy Will We Need?

The region's need by 2020 and 2050



scientists, proposed federal legislation and individual states. To meet the Northwest's carbon dioxide emissions-reduction targets for 2020, the power system must:

- Serve or avoid 4,000 aMW of new ordinary electricity demand.
- Serve 500 aMW of electric vehicle load.
- Replace a little more than 1,000 aMW of power plus up to 2,000 megawatts of capacity from the four lower Snake River dams.
- Retire and replace with clean energy the power from 1,000 aMW of existing coal plants.

Assuming those goals are met, meeting the Northwest power system's 2050 carbon dioxide emissions-reduction targets will require:

- Serving or avoiding another 12,000 aMW of new electric demand.
- Serving another 1,500 aMW of electric vehicle load.
- Retiring and replacing with clean energy the power from another 5,600 aMW of existing coal plants.

As Chart 2 shows, to satisfy growing demands while slashing greenhouse-gas emissions, the Northwest power system must develop 6,500 aMW of new energy efficiency and renewables by 2020, and another 19,100 by 2050, for a total of 25,600 aMW of new carbon-free power.

Part II lays out a reasonable, responsible and achievable plan for meeting our challenge.

II. SOLUTIONS

By 2050, the Northwest will need more new carbon-free power than the total amount of electricity the region now consumes. The power system must develop and incorporate 25,600 aMW of new energy efficiency and new clean power from renewable sources to fulfill its responsibilities for addressing climate change, keeping the lights on and recovering salmon.

We are not starting from zero, however. In the last few years, regional utilities have exceeded energy efficiency goals and significantly advanced renewable energy development. The Northwest has skilled citizen and utility problem-solvers and 30 years of experience with basic technical and policy tools to deliver energy efficiency and renewable energy resources. The states, provinces and federal governments of the United States and Canada are fashioning new policy tools, including renewable portfolio standards, emissions performance standards and carbon cap-and-trade or carbon tax systems.

These new policy tools join those we've plied successfully for years. We can draw on the rapidly filling regional toolbox to build a clean and affordable energy future with abundant salmon, thousands of good green jobs, a healthy economy and a stable climate. We need only the foresight and will to do so.

Energy efficiency

Energy efficiency (or energy conservation[21]) is the first and foremost strategy for combating climate change and satisfying growing power needs. Using power more efficiently is the surest, quickest, most reliable and least expensive way to reduce carbon emissions, and can be done without diminishing our quality of life. It's not about shivering in a dark house and foregoing basic comforts, but doing more with the same amount of power, or using less power to do the same things. As Amory Lovins famously noted, low-cost energy efficiency is not just a free lunch, it's the lunch you're paid to eat.

Efficiency is a boon to the power system and its customers and climate change increases the urgency of making significant energy efficiency gains. Global-warming concerns aside, energy efficiency should be pursued for the money it saves families and businesses, its role in enhancing national security and the good, local jobs it creates. Energy-saving products and efficiency programs bring many more regional jobs per kilowatt-hour than do large fossil-fuel plants.

In addition, energy efficiency:

- Often reduces loads most when system use is greatest. An efficient air conditioner, for example, produces the bulk of its savings on the hottest days.
- Reduces the need for power system reserves because it never suffers outages.
- Loses nothing in transmission[22] and, in fact, frees up valuable transmission capacity.
- Most importantly, though efficiency measures carry a cost, they reduce consumer bills immediately.

It's easy to see why policymakers make energy efficiency the No. 1 resource for stopping warming, saving money, creating jobs and helping salmon.

We can build on the Northwest's long and successful history of making electricity use more efficient as well as affordable. An even broader array of existing efficiency technologies must be deployed now to reduce our carbon impact while a more extensive set of technologies is developed. A reasonable goal is to meet all of the region's ordinary load growth – 4,000 aMW by 2020 and 12,000 more by 2050 – through more efficient use of our existing resources.

Given recent trends, these are quite plausible targets. We need to keep doing what we're doing now and more so.

What we're doing now. Typical efficiency measures have included insulating homes and replacing inefficient lights, air conditioners, space- and water-heating equipment, windows, appliances, motors, etc. Since 1978, according to the Northwest Power and Conservation Council, utility efforts have resulted in region-wide energy savings totaling nearly 3,700 aMW, enough to meet about 18% of current demand or the electricity needs of 3½ Seattles.

Those savings came at an average cost of less than 2.5 cents per kilowatt-hour — less than the wholesale cost of federal hydropower and 50-80% less than what utilities now pay for other new sources of power.[23] Energy efficiency cut regional demand growth in half over the last 30 years, saving Northwest families and businesses $1.6 billion per year while avoiding 14.3 million tons of CO2 emissions each year.

The Northwest has consistently outperformed experts' predictions of regional efficiency gains. The Northwest Power and Conservation Council produces 20-year regional power and conservation plans every five years, and here are some examples from the 1st Plan, released in January 1983:

- The 1983 plan called for achieving 85% of residential space heating savings potential by 2002. The region met that goal in 1992.
- The plan foresaw a 43% improvement in the efficiency of new residential refrigerators by 2002. The region met that goal a full decade earlier, even though most refrigerators had become larger and more were frost-free than before.
- Freezer and dishwasher efficiency improvements also far exceeded the plan's assessment of achievable potential. Freezers met the 20-year efficiency target in one year and by 2002 were using 45% less energy than the plan had considered achievable. In 2002, dishwashers were using 32% less energy than they did in 1983, far exceeding the plan's 24% savings goal.

Forecasters have found technological improvement difficult to predict. But it turns out that improvement is the rule, not the exception. Lighting is the classic example. In 2002, about 9% of all light bulbs purchased in the Northwest were compact fluorescents, which compared quite favorably with the national average of just over 1%. By the end of 2004, thanks to aggressive marketing and awareness campaigns, the region's average had shot up to 32%, while the national average rose to just 4%.

The lesson is clear: the more efficiency we do, the more efficiency we can do in the future. But the foregoing examples also illustrate a consistent under-estimation of conservation potential that continues through this day. The Council's most recent power and conservation plan, issued in 2004, called for annual acquisition of 120-140 aMW of new, cost-effective conservation. In 2007, utilities in the region acquired 207 aMW and in 2008 acquired 235 aMW.

Much more efficiency can be steadily acquired by maintaining and accelerating the current pace of savings achievement, and by pushing the development of new energy-efficiency technologies.

Growing opportunities. Energy efficiency tools constantly and often strikingly evolve. Technologies advance, designs change, system operations improve. The well of energy savings never runs dry.

Today, the promise of new energy efficiency technology breakthroughs is greater than ever. Here are some noteworthy examples:

- **Heat pump water heaters.** Using similar technology to the heat pumps now used for space heating, these units cut water-heating energy need in half.
- **Ductless heat pumps.** Heat pumps that can operate well below freezing are just becoming commercially available.[24] Because they're ductless, they can be installed at far less cost and thus can be cost effective for apartments, condos and other formerly uneconomic applications.
- **Solid-state lighting.** LEDs (light emitting diodes) are currently cost competitive in just a few niche applications, such as desk lamps and holiday lights, though costs are quickly falling. LEDs are

only about 10-20% more energy efficient (in terms of raw light output) than compact fluorescents, but feature far superior directionality, color rendition and controllability. They're good when dimmable lights are needed and in outdoor systems linked to motion sensors. As their applications expand, LEDs will drive the next generation of mercury-free efficient lighting technology.

- **Information technology and entertainment.** Huge savings are about to be realized in this rapidly growing sector. Virtual servers that share computing tasks will reduce the number of physical servers. "Dumb PCs" will access all files and programs from central servers, obviating the need for local storage and computing power. Improved desktops will cut power use 75%. Organic LEDs will cut flat screen energy use by the same percentage.
- **Better battery chargers and power supplies.** Residential and commercial plug loads are the fastest-growing component of residential and commercial building electric demand. In the next few years, new standards will mandate big improvements in battery chargers and power supplies for our billions of electronic devices.
- **Evaporative air conditioners.** Units using less than half the power of conventional units are rapidly dropping in price.
- **Super-efficient, low-emissions buildings.** Buildings incorporating efficient energy use with geothermal- and/or rooftop solar-generated power should be realized in the next 15 to 20 years.[25] The American Institute of Architects has endorsed the Architecture 2030 goal of making all new buildings low or "net-zero" carbon emitters by 2030. Several net-zero carbon buildings already exist.
- **Commercial and industrial load reductions.** Power demand can be dramatically reduced at computer data centers (called server farms), silicon chip factories and water treatment plants. A host of so-called "smart" technologies can be employed to optimize machine and building energy use.[26]

The pace of innovation should continue, providing new opportunities for future efficiency investments. Nearly two-thirds of all the conservation identified in the Council's 5th Power and Conservation Plan came from new measures and applications that were either too costly or not available when the 4th Plan was issued five years before.

Higher energy costs and growing awareness of the environmental cost of greenhouse-gas emissions will push innovation even further. History shows that we are in no danger of exhausting the so-called "low-hanging fruit" of cheap conservation. Rather, the more cost-saving energy efficiency we do now, the better we'll be positioned to seize on future technological advances and to make ever-greater efficiency gains.

Potential and recommendation. In Part I we noted the Northwest's need for more than 25,000 aMW of new clean energy by 2050. As the largest, cheapest, surest and most economy-boosting new carbon-free resource, energy efficiency is the cornerstone of our clean energy future.

The explosion in energy-savings options demonstrates that the region can significantly increase its efficiency targets and accomplishments. In fact, Northwest Power and Conservation Council senior analyst Tom Eckman believes 400 aMW per year of cost-effective savings, including those resulting from improved codes and standards, are quite achievable right now.[27] That level of achievement would more than cover all projected load growth.[28]

The forecast for ordinary growth in demand discussed earlier (1.7% per year) works out to about 340 aMW per year. A reasonable goal for the region is to cover this growth solely with energy efficiency programs. This result is consistent with a nationwide study recently released by the American Council for an Energy-Efficient Economy (ACEEE).[29]

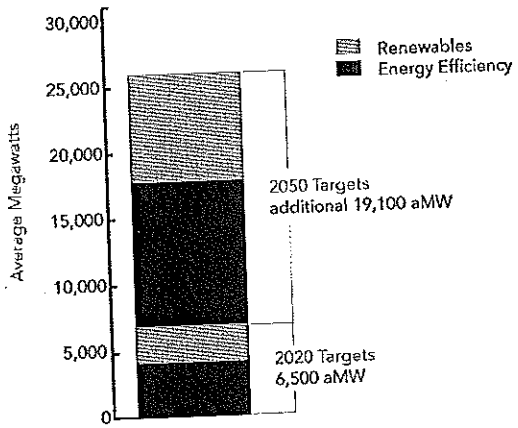
Thus we recommend establishing an enforceable region-wide savings target of at least 340 aMW a year, and reviewing and boosting that target every five years as new technologies arise and costs fall.[30] Utilities, businesses and other affected sectors should have great flexibility in how they meet their shares of the target, but achieving the target must be mandatory.

Chart 3 (*see next page*) illustrates how saving 340 aMW per year will set the region well on the way to meeting its climate challenge. And the more we save, the less we'll have to spend on more expensive new generation. The time has come for an aggressive strategic expansion of energy efficiency work – across business, government, consumers and utilities. We know the path; now it's a matter of steadily following it.

Chart 3

Meeting Future Needs with Clean Energy

To combat global warming and meet growing needs, the Northwest can develop 25,600 aMW of clean energy – 14,280 aMW of energy efficiency and 11,320 aMW of new renewable energy – by 2050.



■ Combined heat and power

Combined heat and power (CHP — sometimes called co-generation) is a significant and largely untapped efficiency resource. CHP involves recycling waste heat produced at an industrial site or commercial building from on-site electricity generation to supplant energy that otherwise would have been used. A typical example is installing a small gas-fired turbine that satisfies both the building's electricity needs and its hot water or steam needs. The turbine replaces less-efficient boilers and electricity from the grid. In the past, the region's low energy prices made this practice cost-effective only for large pulp mills, food processors and refiners. But higher fossil-fuel costs and new small-scale generating technologies have substantially increased opportunities, especially for smaller applications.

The Oak Ridge National Laboratory published a comprehensive study of Northwest CHP in 2004,[31] finding an estimated 14,425 megawatts of new technical potential in the region.[32] About two-thirds of that potential involves existing facilities, one-third new ones. The estimated total new potential compares to about 2,500 megawatts in service at the time of the study. Oregon currently leads the region by producing 18% of its power from CHP; Idaho gets 6% from CHP and Washington, the region's largest energy producer, comes in at less than 4%. Large industrial facilities account for more than 90% of the region's existing CHP, but about three-fourths of the future potential is found in small industrial and commercial/institutional settings.
The Oak Ridge study uses a cost-effectiveness filter to calculate CHP's "Economic Market Potential." With modest incentives covering 15% of initial capital costs and removal of grid-connection barriers, the study estimates that 5,100 megawatts of cost-effective CHP are available in the region.

While CHP has been heralded as a great efficiency opportunity for the past 20 years, the region has struggled to fully develop this resource. Proactive policy and regulatory actions will be necessary to increase deployment of CHP technologies.

■ The 'smart grid'

Just in its infancy, the "smart grid" uses information technology to connect and control myriad applications. For example, smart buildings, smart appliances and electric vehicles can be connected to residents and/or utilities via two-way, Web-based communications. The smart grid:

- Allows utilities to control and shape power demand and store energy based on real-time price information and grid reliability needs.
- Allows homeowners, businesses and factories to control power use, to save money and to schedule equipment operation.
- Helps utilities optimize their distribution networks and better incorporate renewable energy resources, small-scale distributed resources and load-management technologies.
- Lets customers and utilities analyze power-use patterns and uncover cost-savings opportunities.

Within the next 10 years, most energy-intensive appliances – including furnaces, water heaters, refrigerators, freezers, etc. – will be manufactured with chips that will connect them to the meter through a wireless home or business network.

This paper looks at only two major smart-grid applications: remote control and remote storage.

Remote control. A good example of smart grid potential is its application to rooftop commercial heating-ventilation-air conditioning (HVAC) systems. These expensive, energy-guzzling units can account for much of commercial buildings' energy use and contribute mightily to utilities' winter and summer peak demands. Surveys show that more than one in three commercial HVAC systems does not work properly, mainly because of stuck dampers, low refrigerant or dirty filters. In response, architects usually over-design the systems with extra capacity, fans and venting — raising costs significantly.

New systems include sensors and remote control technologies that can diagnose problems and inform

operators of problems when they arise, even at remote locations. Proper maintenance avoids premature replacements and saves energy. And since they can count on proper operation, architects need not over-design.

Utilities could use sophisticated remote controls to shut off HVAC units during power emergencies or to raise temperature settings a few degrees when power costs are high during a few peak summer hours. The savings can be shared with the building owner/user as payment for permitting limited utility control. The utility benefits because shaving peaks lessens the need to keep expensive spare generation on hand or to buy expensive market power.

The region has used some direct load-control devices (air conditioner cycling, for example) but only on a limited basis and often using one-way communication that does not permit dynamic interaction between the utility and the device (or customer). Idaho Power demonstrated the potential by shaving 48 megawatts off its summer peak in 2007 and 54 MW in 2008 through load-control programs involving irrigation and residential air conditioning.

Remote storage. As noted in Part I, electrifying millions of vehicles can slash transportation-sector emissions and lower driving costs. Most of the charging would occur during low-demand nighttime hours when the grid is underutilized, so the effect on power system demand would be minimal. In fact, transportation sector electrification may be more of an opportunity than a problem for the power system. It offers the possibility of vast, distributed energy storage.[33]

Vehicles can plug into the smart grid while their owners are at home or at work. Utilities may draw on those batteries to meet demand spikes and recharge them when demand drops. Millions of electric cars and trucks plugged into the grid thus would save utilities enormous amounts of money. They could help integrate huge amounts of wind and other intermittent renewables at low cost. Finally, the need for hydropower generation adjustment (ramping up and down to follow changes in loads), on which our region depends for grid flexibility, could be reduced, making rivers friendlier to fish.

Inexpensive chips that allow appliances to communicate with the grid offer tremendous storage opportunities. Remotely adjusting water heater and freezer temperatures by a few degrees would provide thousands of megawatts of extremely low-cost storage capacity and go largely unnoticed by consumers. The Council estimates that once a smart grid backbone is created, hooking up the region's water heaters would provide more than 15,000 MW of controllable capacity for only a few dollars per appliance.

Ice is another form of storage. During periods of low energy use, commercial air conditioners can switch to making ice, saved in thermal storage units. Later, the ice chills the cooling system as needed.

These smart grid applications provide two benefits: inexpensive integration of intermittent power, and demand reductions when the system is peaking or stressed.

New renewable generation

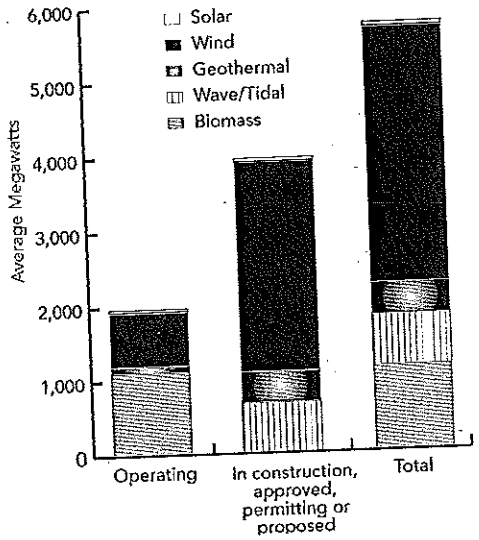
Energy efficiency is our gold mine for new, clean, affordable energy, but meeting the region's climate change and extinction challenges will require the power system to develop and integrate 7,000-10,000 aMW of new clean renewable energy on top of the roughly 1,800 aMW of wind and biomass energy now being produced.

Developing renewables. The pace of regional renewables development has accelerated in the past few years. The region's first commercial project (Foote Creek wind) went into operation in 1998. By August 2008, another 700 aMW of new non-hydro renewables — mostly wind — were providing clean energy to the Northwest.[34] That significant achievement pales in comparison to the new renewables now in the pipeline, as Chart 4 shows. While not all projects may be completed, the rising potential and investment interest are clear.

Chart 4

Current Renewables Development

Renewable energy facilities generating more than 5,000 aMW of electricity are already in operation or at some stage of development across the region.



Even the projects now in the pipeline represent just the tip of the iceberg in terms of Northwest cost-competitive renewables potential. Chart 5 details the region's wind, solar, biomass and geothermal energy potential.[35] It also shows that those four resources alone could more than meet all regional electric needs in 2050.

Montana holds the vast majority of that potential: more than 120,000 aMW, nearly six times the region's current electricity consumption. Most of that is wind, and capturing that resource would require a large investment in transmission capacity. But given the very high capacity factors of Montana wind resources (typical capacity factors greater than 40% compared to 30-35% for most existing sites), realizing at least a fifth of that potential should prove economic.[36]

Tapping our domestic wind resources brings a host of economic benefits, especially to counties and landowners in rural areas where the strongest wind resources are often located. Wind farms are compatible with farming and ranching, and royalties from hosting turbines can help keep farmers and ranchers on the land. Wind farms are also capital-intensive facilities, infusing money into the local economy during construction phases and paying property taxes to the host county as well as royalties to local landowners for the life of the project.

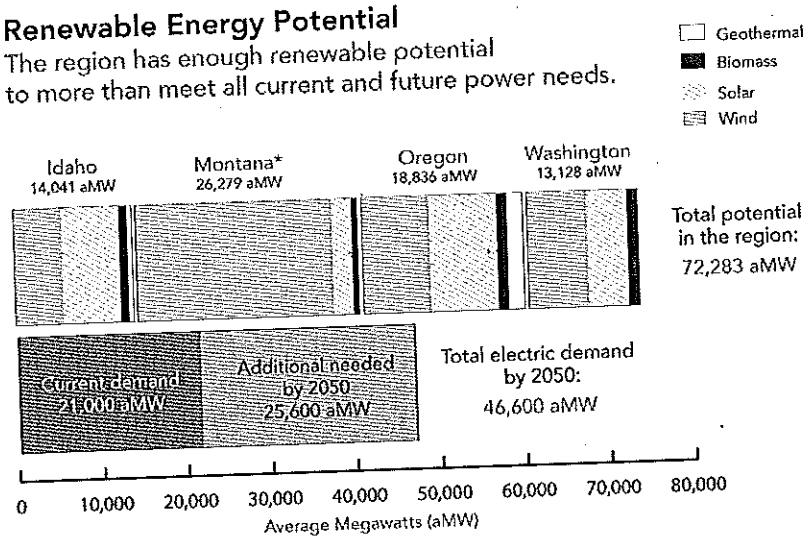
For example, the 24-MW Klondike Phase I Wind Farm in Oregon, a very small project compared to many being constructed today, contributes 10% of Sherman County's property tax. Landowners earn $2,000 to $7,000 annually for each modern wind turbine located on their land.

In contrast, $350,000-$500,000 leaves the Northwest economy each year to pay for the (mostly Canadian) fuel that generates just *1 aMW* of gas-fired electricity. A typical gas-fired turbine might drain the regional economy of more than $100 million every year.[37] Wind facilities also produce more than three times as many local jobs per kilowatt-hour than do coal or natural gas plants.[38] Wind energy is a homegrown energy source that strengthens the economy and increases the nation's energy security. Also, more and more wind and solar manufacturing plants are locating in the Northwest and the United States generally, creating local jobs in development, installation and operation of the new projects.

Technological improvements are lowering the costs of large- and small-scale solar, offshore wind, wave, algae and cellulosic ethanol, and second-generation geothermal resources. Solar is probably the most promising. Several very large (100- to 600-MW) utility-scale concentrating solar projects slated for the desert Southwest have already obtained approvals and utility purchase contracts.

Distributed small-scale solar, including rooftop photovoltaic and solar hot water systems, is another huge opportunity. Photovoltaic systems are not well suited to wetter parts of the region and are still quite expensive, but

Chart 5



* Montana's full wind potential is five times greater than shown here, but is constrained by lack of transmission.

costs are dropping rapidly. Solar hot water systems already are cost effective for many buildings with sunny rooftop access. The power produced by small, distributed projects requires no new transmission lines and avoids transmission and distribution losses that often exceed 10% of the total generation from remote sites. Given the downward trend in photovoltaic costs, our own homes and businesses eventually could produce much of the power we need.

The energy production of non-wind renewables is less variable than that of wind, and thus easier to integrate into the system. Solar power generation complements wind and closely matches demand patterns. Newer concentrating solar projects now incorporate thermal (e.g., liquid sodium) storage to extend their ability to provide reliable power on cloudy days or for hours after sundown. Solar can be the next wind, especially if we commit to making it so.

In the near term, low-cost wind will remain utilities' primary renewables choice.

Integrating renewables into the grid. The region must not only develop up to 10,000 aMW of new, clean renewable energy by 2050. It also must integrate that power into the system, which means matching a lot more variable generation, especially from highly variable wind, to shifting demand.

But for grid operators, this is no new problem. Today, demand can fluctuate 50% or more over the course of a few hours — for example, from a cool early morning to hot afternoon. Since baseload nuclear and coal plants running flat-out cannot be cheaply adjusted to follow loads, grid operators rely on the ramping ability of natural gas-fired turbines and hydropower.

As more renewables enter the system, their sheer number, variety and geographical dispersion will smooth out much of the intermittency. Advanced storage technologies combined with the smart grid — such as the use of electrically powered vehicle batteries and controllable water heaters — will help, as will increased energy efficiency efforts that lower demand peaks. In the interim, the system must make room for the new renewables by progressively closing inflexible coal plants and covering renewable power production gaps by running gas turbines more and spare hydro capacity if and when available.

■ Putting it all together

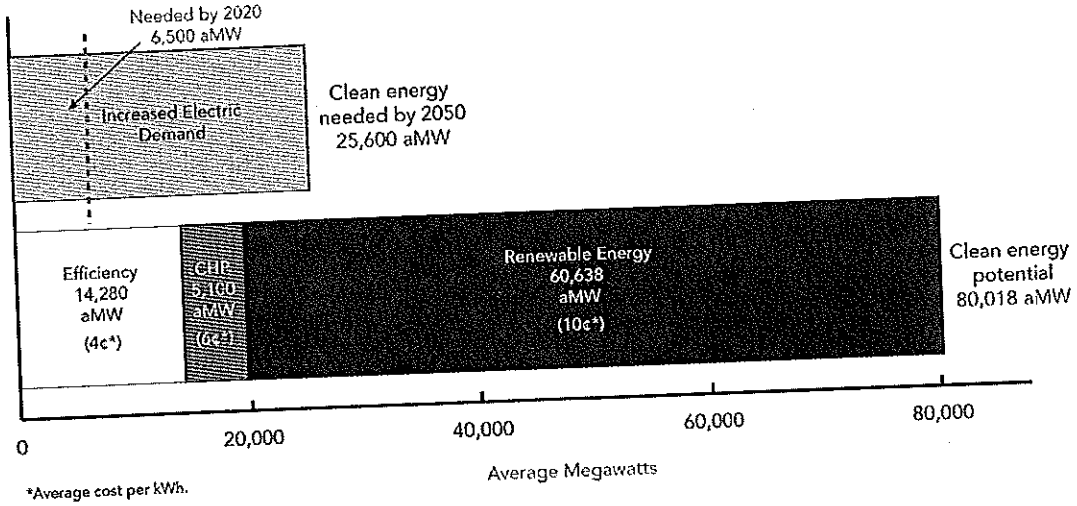
Added together, the region's reasonable potential for energy efficiency, combined heat and power and new renewables far exceeds our new clean energy needs. For 2050, in fact, total clean energy potential is more than three times the total new need.

Chart 6 dramatically dispels any misconceptions about the Northwest's ability to surmount its climate challenge. We have a cornucopia of clean energy resources, some of which could satisfy demand growth all by themselves. By achieving all money-saving energy efficiency and tapping just a fraction of the

Chart 6

Affordable Clean Energy Potential Dwarfs Need

The Northwest has more than three times the potential energy efficiency, combined heat and power (CHP) and new renewable energy needed to meet new electric demand between now and 2050 – all costing no more than natural gas-generated power (10.cents per kilowatt-hour in today's dollars).



*Average cost per kWh.

available new renewable opportunities, we can do our part in holding back global warming, adjusting to already occurring climate changes, and serving the needs of energy consumers and fish and wildlife.

We can meet the challenge. The questions are whether we have the will to do so and how much it will cost.

III. COSTS

We must make a choice. We can say we've accomplished enough and backslide toward *business-as-usual*, hoping against hope that our children and our world will miraculously escape the fiscal and physical tragedy of catastrophic climate change. Or the region's electric power system can continue to move forward, planning conscientiously and fulfilling its responsibilities in the fight against global warming. That path leads to the *Bright Future* that this paper has shown to be both possible and practical.

This section shows the *Bright Future* is affordable – in fact, it's an excellent bargain. It won't be free, of course. Comparing simple direct costs only, as this paper does, the *Bright Future* appears slightly more expensive than *business-as-usual*. That calculation comes with all the caveats appropriate to forecasting so far into the future.

A more comprehensive cost analysis would assess a much broader range of costs, avoided costs and other benefits. We'll touch on some of those before proceeding to the simple direct cost comparison.

■ Collateral costs and benefits

The extended benefits of the *Bright Future* strongly outshine *business-as-usual* benefits. The *Bright Future's* collateral benefits that are **not represented** in our simple cost model include:

- Restored salmon runs and fisheries, along with the sports, commercial and tribal fishing jobs and associated economic development.
- Energy, emissions and utility-bill savings from more efficient homes and businesses.
- Reduced transportation costs.
- Heightened national security.
- Local economic development and green jobs created by investments in renewable power and energy efficiency.

That last collateral benefit is taking on ever-greater importance. Farmers need supplemental income to stay on their land. County and local governments are desperate for the dollars needed to provide essential services. And *we need jobs* – well-paid, permanent and local jobs in energy efficiency services; jobs for Longshore workers unloading renewable-energy parts and systems at our ports; jobs making and selling energy-efficient and renewable-energy equipment; jobs in construction; jobs weatherizing low-income families' houses; and jobs saved or added because businesses pay less to heat and light their shops and factories.

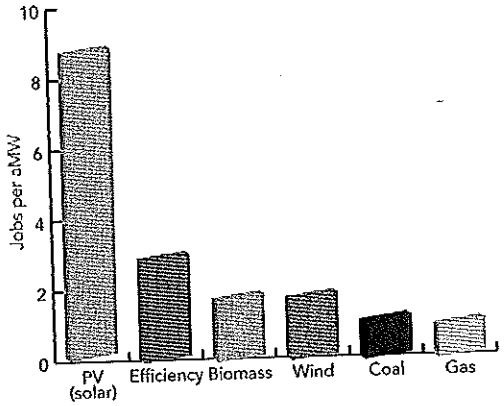
Business-as-usual severely limits job creation. Chart 7 contrasts the number of local and regional jobs associated with various means of generating (or avoiding production of) 1 aMW of electricity.[39] Energy efficiency brings three times as many jobs as coal or natural-gas generation, wind and biomass nearly twice as many. Solar photovoltaic's job potential is huge.

By instead choosing the *Bright Future*, the electric power system creates jobs and does its part to avoid the staggering costs of accelerated global warming to our economy and our environment, especially in the highly vulnerable Pacific Northwest. According to the Northwest Power and Conservation Council, the region's

Chart 7

Jobs per aMW

Saving energy and producing renewables such as wind, solar and biomass create far more local jobs per unit of power than do coal- and natural gas-fueled generation.



power system is now responsible for 23% of the region's greenhouse-gas emissions and *business-as-usual* will increase those emissions 18% by 2024, an additional 10.6 million tons of CO2 per year. And after 2020, when several states' renewable-energy standards have been met, power system greenhouse-gas emissions will grow even faster.

We lack reliable region-wide estimates of how much climate change will cost. We can get an idea of the types of costs from "Impacts of Climate Change on Washington's Economy,"[40] a study produced for the state's Department of Ecology and Department of Community, Trade and Economic Development.

Using scientists' projections of an average 2 degrees Fahrenheit rise (from the period ending in 1999) by the 2020s and a 3-degree rise by the 2040s, the study projects:

- A 50% rise, to $75 million a year, in wildfire-fighting costs by the 2020s, not including timber losses.
- Declining water supplies for Seattle, Spokane and Yakima, resulting in water conservation costs of $8 million a year in the 2020s and $16 million a year by the 2040s in *Seattle alone.*
- A dairy revenue decline of up to $6 million a year in two key counties by the 2040s because of warming's effect on dairy cows.
- $66 million a year in increased average crop losses in the Yakima area due to more frequent droughts.

Unspecified climate-change costs include those in public health, tourism and recreation due to heat-related virus intrusions, forest fire smoke and flooding. Though the study and its examples cover Washington state only, we can expect similar climate-change effects on the economies of Idaho, Montana and Oregon.

As noted, the Northwest electric power system now contributes nearly a quarter of the region's climate change impacts and costs — rising by millions of dollars each year under *business-as-usual*. Viewed in that light, the *Bright Future* is an enormous bargain for Northwest consumers and ratepayers despite the slight increase in direct costs needed to achieve it.

A tale of two paths

To play its part in taking us to a *Bright Future*, the region's electric power system must slash its CO2 emissions while spurring the economy and recovering endangered salmon. These goals can be reached. The solution lies in retiring rather than re-powering coal plants as they reach the ends of their useful lives, replacing with clean energy the power

CLEAN ENERGY: STIMULATING OUR ECONOMY AND INVESTING IN OUR FUTURE

By Dr. Thomas Power
Chairman Emeritus, Economics Department, University of Montana

Bright Future argues that a prompt transition to a low-carbon electricity system in the Northwest that also helps restore salmon and electrify our transportation fleet is practical and achievable. It is also better for our economy. It will create more jobs and more regional economic activity than our current electricity system, and it will outperform any alternative.

The non-carbon path is best for the economies of Washington, Oregon, Montana and Idaho for at least three reasons. First, it will create more jobs than any alternative – energy efficiency jobs, renewable energy jobs, salmon jobs, transportation jobs. Second, it will keep more of the dollars we spend on electricity circulating in our states, to benefit people here rather than going out-of-region or out-of-country. Third, it will help prevent the economic destruction that unabated global warming will cause in the Northwest. I will amplify each of these reasons.

Discussions of public policies to reduce greenhouse-gas emissions usually center on what those efforts will cost us. Although any prudent economic actor keeps cost in mind when making decisions, cost by itself is not the ultimate determinant. If it were, we would never buy anything! Most of us — when we attend a concert, purchase new clothes or buy a cell phone — do not primarily curse the price we have to pay. In general, if we make the right decision, we realize that the benefits of the purchase more than justify the price. The same will be true of greenhouse-gas reductions.

Our cost/benefit comparison determines whether we think we made the right decision and improved our well-being. That common economic frame of mind must be brought to the dialogue on greenhouse-gas reductions and global warming. What matters is not just the cost of greenhouse-gas reductions but also the benefits we obtain as a result. Some benefits are direct economic gains for our households and communities; others are the avoidance of the very bad consequences associated with global warming. This distinction can be thought of

Continued on page 18

Continued from page 17

as the difference between the carrots and sticks used to motivate our greenhouse gas-reduction actions.

Let's begin with the "carrots," the advantages of shifting to a low-carbon economy, separate and apart from the damages that global warming will do to the world as we know it. Then we will turn to "the costs of doing nothing" to limit global warming.

Stabilizing our economies. Our current high-carbon energy infrastructure provides relatively few and steadily decreasing numbers of jobs while draining large amounts of purchasing power from our communities and nation. As production of oil, coal and natural gas has risen, the jobs associated with those industries have declined. The switch to labor-displacing and machine- and energy-intensive technology has taken a steady toll on employment.

In addition, because fossil fuel production and central-station electric generation are usually concentrated in areas far away from population centers, paying for this energy drains money from our communities. The oil and some of the natural gas we buy drain money from the nation as a whole and flows to unstable and often unfriendly regimes around the world. Rather than circulating within our local economies, putting our neighbors to work and multiplying our collective wealth, our energy dollars are quickly sucked away, making our local economies poorer and less stable than they need to be.

Creating local jobs and income. Low-carbon energy strategies boost local employment and reduce the leakage of income from our communities in several ways.

First, energy efficiency measures and renewable energy sources tend to be more labor intensive than high-carbon energy industries. As a result, increasing our reliance on efficiency and renewables while reducing the use of fossil fuels creates more local jobs. One recent study found almost four times as many jobs associated with the low-carbon alternative than with continued reliance on the oil industry.

In addition, the types of jobs associated with energy efficiency and renewables match the skills of the readily available workforce in most communities. For instance, energy efficiency building retrofits require the skills of hundreds of thousands of construction trades workers laid off due to the housing construction downturn in 2008. These green jobs can be taken by locals rather than by some distant or foreign workforce.

Also, the materials used in improving the energy efficiency of our housing and building stock are much more likely to be made in the United States and obtained locally. The lower energy bills associated with efficiency improvements also reduce the leakage of purchasing power to distant energy suppliers, thus increasing the local job and income multiplier impacts of our spending. A low-carbon strategy does not burden our communities and households; it enhances them, providing more vitality and resilience to our hometowns.

Insurance against a catastrophic climate future. Of course, our focus on reducing our carbon footprint on this planet is driven by concern over the impact of high and rising greenhouse-gas emissions on the climate we share with all living creatures. These are serious impacts with which we in the Pacific Northwest have already had some experience. Higher temperatures and shifts in precipitation are projected to have all of the following impacts in the Pacific Northwest in the 21st century:

- A longer wildfire season with more, larger and more intense fires that will clog our valleys with health-threatening smoke, shut down many summer economic activities, and burden governments with control costs.
- Decreased summer stream flows that will create water shortages for irrigated agriculture and threaten even more the survival of endangered fisheries such as salmon.
- Extended drought-like conditions for dry-land agriculture east of the Cascades.
- Reduced snowpack in the mountains, affecting agriculture, hydroelectric generation, forestry, fisheries and both winter and summer recreation.
- Shoreline erosion from more intense storms and rising sea levels.
- Habitat and ecosystem changes affecting wildlife, forests and plant species.

Besides threatening some key regional industries, these climate changes threaten many of the very amenities that have made the Pacific Northwest an attractive place to live, work and raise a family and that have contributed significantly to the economic vitality of our communities.

We do not have to be certain that all of these things are going to happen or about the intensity of the impacts to begin to make substantial expenditures to protect ourselves from them. Almost all homeowners have fire insurance even though the probability of a home fire in any given year is incredibly tiny. Almost none of us bemoans our expenditures on fire and other catastrophic insurance. For our families' sake, those expenditures obviously make sense.

The same is true when it comes to the uncertainties about the future impacts of climate change. For us, our children and our grandchildren, it makes sense to be "buying insurance" against the worst outcomes even if they are uncertain. One economic estimate, for instance, applied conventional insurance rules of thumb to what Americans would be willing to pay to avoid a one chance in 100 that global warming would lead to catastrophic economic outcomes in this century. The study also considered a higher probability of catastrophic economic outcomes from global warming — one chance in 15. The "economic catastrophe" was an economic collapse similar in magnitude to that of the Great Depression, an indefinite 22% decline in national GDP.

For the lower likelihood catastrophic outcome, the estimate was that Americans would be willing to pay about one-half of 1% of GDP each year for the equivalent of an insurance premium. For the higher probability catastrophic outcome, they would be willing to pay 2.5% of GDP. In terms of the 2008 GDP, these two rational global warming national insurance premiums would be $65 billion and $365 billion per year — $580 and $3,200 per household per year.

Clearly even relatively low probability but high-impact threats to the future of our children and grandchildren justify a significant level of expenditure now to protect against that future threat. That is why most of us voluntarily purchase a broad variety of different types of insurance.

Of course the cost of our efforts to control global warming matters. But so do the benefits those efforts will bring to our homes, businesses, communities, children and grandchildren. When all of those benefits are considered, we individually and collectively should face that cost with a feeling of satisfaction and the knowledge that we are making a great investment in the future.

from the four lower Snake River dams, and aggressively developing our energy efficiency, new renewables and combined heat and power resources.

Projected power needs under both the *business-as-usual* and *Bright Future* scenarios are based on ordinary demand growth of 1.7%, which we have modeled as 340 aMW a year through 2020 and then ramping up to 400 aMW per year through 2050. To that, the *Bright Future* adds replacement of the 1,000 aMW of power now produced by the four lower Snake River dams and the systemic flexibility (capacity) the dams provide. It also adds replacement of 1,000 aMW of existing coal generation with clean energy by 2020 and another 5,600 aMW (basically retiring all remaining coal) by 2050. And it foresees provision of 500 aMW by 2020 and 2,000 aMW by 2050 to power electric vehicles, compared to 100 aMW and 500 aMW, respectively, under *business-as-usual*.

To cover future needs, *business-as-usual*:

- Extends the lives of the 14 coal plants now serving the region, all of which will reach the ends of their expected operating lives well before 2050.
- Greatly increases natural gas generation.
- Continues to acquire energy efficiency at the current rate of 230 aMW a year.
- Develops only the 2,000 aMW by 2020, and 2,800 aMW by 2050, of new clean renewable energy currently mandated by law in the various states.[41]

The *Bright Future* path:

- Adds another 110 aMW per year of more expensive — but still cost-effective — energy efficiency and combined heat and power, thus covering all annual demand growth.
- Accelerates renewable energy development to 2,500 aMW by 2020 and to an additional 9,320 aMW between 2020 and 2050.

Cutting to the chase

To calculate and then compare costs, we multiply the amount of new resources[42] specified under each scenario by known or predicted resource costs[43] in today's dollars, levelized to incorporate both capital and operating expense:

- The 230 aMW of new yearly energy efficiency the region now achieves come at an average price of about 2½ cents per kilowatt-hour[44] and should cost the same in subsequent years. We use 3 cents as a conservative estimate, however.

- The 110 aMW of additional efficiency to meet rising demand in the *Bright Future* will cost more — averaging 6 cents per kilowatt-hour, which is still far less than new gas-fired or renewable power and about the same as electricity from re-powered coal plants (not including future carbon emissions fees).
- New renewable power costs 10 cents per kilowatt-hour, including the expense of integrating the often-intermittent generation. New natural gas-fired power under *business-as-usual* would cost the same, assuming no drastic increase in gas costs.

While the lost energy generation from removing the lower Snake River dams in the *Bright Future* scenario is reflected in the new clean-energy needs total, replacing the dams' capacity function is not. We calculate that cost as $83 million a year[45] which must be added to the *Bright Future* side of the ledger. On the other hand, we get to subtract 2 cents per kilowatt-hour of avoided variable costs — fuel, operation and maintenance — for backing down coal plants and 6 cents for backing down gas.[46] These assumptions are summarized in Chart 8.

The cost comparisons for 2020 and 2050 total the resource costs and savings for each scenario. The actual calculations are on page 22. They show that by 2020, the new system-wide costs of meeting demand through *business-as-usual* will total nearly $2.2 billion (on top of current costs). Taking the *Bright Future* path will cost just over $3.5 billion. When that $1.3 billion cost difference is divided by total demand,[47] the result is a difference of **0.67 cents per kilowatt-hour** for the average regional electric customer. To put this into perspective, typical retail residential rates adjusted for inflation are expected to be in the 7-11 cents/kWh range, depending upon individual utility resource costs.[48]

Costs for the entire period ending in 2050 total about $12.4 billion under *business-as-usual* and about $14.2 billion for a *Bright Future*. The rate impact of the difference is about the same as in 2020 — **0.58 cents per kWh.**[49]

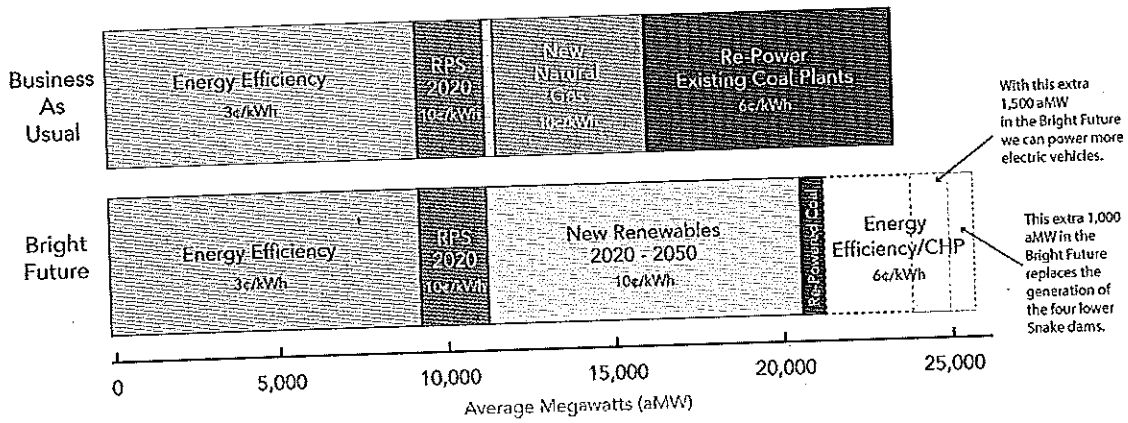
So the bottom line is that creating our *Bright Future* might raise the price of electricity two-thirds of a cent per kilowatt-hour more than would *business-as-usual*, representing roughly a 7-9% increase over current electricity rates. For comparison, the region's publicly owned utilities increased their retail rates by as much as 100% to incorporate the costs of the failed nuclear power construction initiative of the 1970s and '80s. The publicly and investor-owned utilities that had "bet on the market" were forced to raise rates as much as 60% as a result of the deregulation crisis of 2000-2001.

Again, this cost comparison ignores the non-energy savings customers would realize through reduced energy use, the reduced costs of transportation via electric vehicles, the economic stimuli from more local jobs and more efficient use of energy and national security benefits. Nor does it reflect the tremendous environmental and social costs of unchecked climate change. Two-thirds of a penny per kilowatt-hour is a small price to pay for the benefits and the avoided costs of the *Bright Future*.

Chart 8

Fueling the Future

We have two choices for providing our electrical needs by 2050.
We can either develop more of our ample energy efficiency resources
or extend the lives of toxic coal plants and increase our reliance on natural gas.



IV. RECOMMENDATIONS & CONCLUSION

The emissions reduction challenge presented by the scientists of the Intergovernmental Panel on Climate Change and adopted by the Western Climate Initiative requires development of enough carbon-free energy efficiency and new renewable resources to meet all new demand and essentially replace the power from 14 existing coal-fired power plants. Now is the time for effective leadership to pursue these goals aggressively and to recognize that replacing the power from the four lower Snake River dams adds only incrementally to the broader challenge.

Some immediate policy changes are needed to achieve a *Bright Future*:

1. **Capping global-warming emissions.** President Obama and the U.S. Congress should quickly set carbon emission limits consistent with scientists' recommendations and establish mechanisms to meet them, along with incentives and penalties. *But the Northwest must not wait for national action.* The region can adopt *Bright Future*'s carbon-reduction and clean-energy targets and start working toward them now.
2. **Regional leadership from Bonneville Power Administration.** The Obama administration should direct BPA to actively wield its substantial power and leadership to set a regional annual floor of 340 aMW of new energy efficiency and 270 aMW of new renewable energy.
3. **A strong regional plan.** The Northwest's official power planning agency, the Northwest Power and Conservation Council, is developing its 6th Northwest Power and Conservation Plan, forecasting power needs for the next 20 years and prescribing the resources used to meet them. The Council plan should call for enough energy efficiency and renewable energy to meet all demand growth and wean the region from coal power.
4. **Extension of state renewable energy standards.** The renewable portfolio standards now in place in three Northwest states top out by 2025. Either the federal government or the states (including Idaho) must extend a progressive standard beyond 2025. The pace of renewables development must continue so we can close the door on coal power.
5. **Prohibition of new coal plant construction or extending the lives of existing ones.** Only by rejecting coal-fueled power can we reach our greenhouse-gas reduction goals. This can be accomplished through federal action or strong emissions performance standards adopted by individual states.

These steps will set us well on the way toward a *Bright Future* for ourselves and our children. Working together, we can keep the lights on, the economy and good jobs growing, the rivers running and salmon swimming in the Pacific Northwest.

Cost Comparison through 2020

Resource Type	Bright Future aMW*	Business-As-Usual aMW	Levelized Cost cents/kWh	2020 Cost Bright Future Cost ($millions)	2020 Cost Business-As-Usual ($millions)	Added cost per year of Bright Future in 2020 ($millions)
Low cost EE (230 aMW/year)	2,760	2,760	3	$725	$725	$0
Higher cost EE/CHP (110aMW/year)	1,320		6	$694		$694
Avoided coal variable costs	1,000		-2	($175)		($175)
Capacity of dams	2,000 MW			$83		$83
New renewables	2,500	2,000	10	2,190	$1,752	$438
Extra gas variable costs	580		-6	$305		$305
Total additional	6,580	4,180		$3,517	$2,172	$1,344
				Average regional bill impact of Bright Future compared to Business-As-Usual**		0.67 cents/kWh

* Capacity of dams shown in MW.
** Bill impact is calculated by dividing total added cost of Bright Future by the total Business-As-Usual loads (22,920 aMW in 2020; 35,650 aMW in 2050).

Cost Comparison through 2050
(includes 2020 figures)

Resource Type	Bright Future Energy Need aMW*	Business-As-Usual Energy Need aMW	Levelized Cost cents/kWh	2050 Bright Future Cost ($millions)	2050 Cost Business-As-Usual ($millions)	Added cost per year of Bright Future in 2050 ($millions)
Low cost EE (230 aMW/year)	9,660	9,660	3	$2,539	$2,539	$0
Higher cost EE/CHP (110aMW/yr)	4,620		6	$2,428		$2,428
Avoided coal variable costs	6,600		-2	($1,156)		($1,156)
Capacity of dams	2,000 MW			$83		$83
New renewables	11,320	2,300	10	$9,916	$2,015	$7,902
Repowered coal	710	7,310	6	$373	$3,842	($3,469)
New gas		4,540	10		$3,977	($3,977)
Total additional	26,310	23,810		$14,183	$12,373	$1,810
				Average regional bill impact of Bright Future Compared to Business-As-Usual**		0.58 cents/kWh

* Capacity of dams shown in MW.
** Bill impact is calculated by dividing total added cost of Bright Future by the total Business-As-Usual loads (22,920 aMW in 2020; 35,650 aMW in 2050).

Endnotes

1. A megawatt – 1,000 kilowatts -- is a common measure of power (or capacity). A megawatt-hour (MWh) or kilowatt-hour (kWh) is a measure of actual use over time — for example, a 1,000-watt light bulb burning for one hour uses 1 kilowatt-hour of electricity. An average megawatt (aMW) equals the total number of megawatt-hours used or produced in a year if a megawatt were generated through all the hours in a year; so, 1 aMW equals 8,760 MWh. Customers of Seattle City Light currently use about 1,100 aMW of electricity each year. In utility-speak, MW represent "capacity," or the ability to produce power, while MWh represent "energy," the use of that power for a period of time.

2. "Carbon Dioxide Footprint of the Northwest Power System," Northwest Power and Conservation Council, Nov. 2007: 4.

3. "Carbon Footprint": 7.

4. The Western Climate Initiative (WCI) is a growing consortium of Western U.S. states and Canadian provinces. Its members are Arizona, British Columbia, California, Manitoba, Montana, New Mexico, Oregon, Utah, Washington, Quebec and Ontario. The WCI (www.westernclimateinitiative.org) has set a goal of reducing aggregate emissions to 15% below 2005 levels by 2020. For the longer term, the WCI partners are committed to making greenhouse gas emissions reductions "sufficient over the long term to significantly lower the risk of dangerous threats to the climate" and use as their guide the Intergovernmental Panel on Climate Change Fourth Assessment Report which states: "Current science suggests that this will require worldwide reductions between 50% and 85% in carbon dioxide emissions from current levels by 2050." It must be noted that the WCI goals are actually fairly conservative. For example, California Assembly Bill (AB) 32, passed by the Legislature and signed by the governor in 2006, calls for enforceable emission limits to achieve a reduction in CO2 emissions to the 1990 rate by 2020. Washington Governor Gregoire's climate-change executive order and Senate Bill 6001, passed in 2007, include the same target for CO2 reductions. Oregon House Bill 3543, passed by the legislature and signed by Governor Kulongoski in 2007, declares that it is state policy to stabilize CO2 emissions by 2010, reduce them 10% below 1990 levels by 2020, and 75% below 1990 levels by 2050.

5. McCabe, G.J. and D.M. Wolock, 1999. "General Circulation Model Simulations of Future Snowpack in the Western United States." Journal of the American Water Resources Association 35: 1473-1484.

6. Until recently, the region did not have to plan for summer peaks. Instead it was recognized that if it had sufficient resources to deal with a severe winter "Arctic Express," the system would have ample resources in the summer. That situation has changed, as evidenced by the Council's recently adopted Adequacy Standards that track both summer and winter peaks. See: http://www.nwcouncil.org/library/2008/2008-07.htm

7. See, e.g., Miles, E., et al., 2007. HB 1303 Interim Report: A Comprehensive Assessment of the Impacts of Climate Change on the State of Washington (Seattle, Wash.: University of Washington JISAO CSES Climate Impacts Group).

8. These changes generally reduce the market value of the dams' output as well. Generation in the spring, when the power is least needed, is much less valuable than summer power. These changes are already being seen. (Their value as zero-carbon resources is little affected by changes in the generation pattern, however, so long as the total output is not reduced.)

9. In April 2009, the Council reduced its forecast further to a 1.3% rate of growth, reflecting the recent economic crisis. Our analysis, however, assumes a growth rate of 340 aMW per year, about 1.7% annually, through 2020, and an overall rate of about 380 aMW per year through 2050 to be conservative.

10. E.g., PacifiCorp 2007 Integrated Resource Plan (IRP), p. 61.

11. "Carbon Dioxide Footprint of the Northwest Power System," Northwest Power and Conservation Council, Nov. 2007. p. 5. www.nwcouncil.org

12. Bio-fuels may also play a part, especially if the use of cellulose and algae can be harnessed economically.

13. July 2008 analysis by the Northwest Power and Conservation Council, "Impact of Plug-in Hybrid Vehicles on Northwest Power System: A Preliminary Assessment," by Massoud Jourabchi.

14. Our cost analysis moves the target date to 2020 to reflect increased concern over climate change.

15. Carbon Dioxide Footprint of the Northwest Power System," Northwest Power and Conservation Council, Nov. 2007, p. 2. www.nwcouncil.org. All quantities are short tons (2,000 pounds) of CO2.

16. Permanent storage of coal plants' CO2 emissions might become feasible someday, but for now we assume the costs of carbon capture and storage to be prohibitive.

17. This paper's analysis uses the full 7,310 MW of coal capacity. Outages and maintenance reduce average actual output to about 82% of that number, or 6,000 aMW. Since we model replacement of the coal plants with energy efficiency and renewables that have almost no "downtime," our analysis is quite conservative.

18. "Carbon Dioxide Footprint of the Northwest Power System," Northwest Power and Conservation Council, Nov. 2007. www.nwcouncil.org. Puget Sound Energy owns several turbines that can run on either diesel fuel or natural gas; these units seldom run at all, and very rarely use oil, so the oil share of emissions is negligible.

19. The four lower Snake River dams (Ice Harbor, Lower Monumental, Little Goose and Lower Granite) have a collective nameplate generating capacity of 3,033 aMW, possible only on a few spring days of maximum water flow, or for short periods when flows are lower. Their combined average yearly output is about 1,075 aMW. This average amount is often compared to that of the load of Seattle City Light. However, that comparison is misleading, because it is based on averages. In reality, if Seattle were to rely upon these dams, it would be blacked out most of the summer and fall, while being oversupplied in the spring.

20. Recent modeling done by the WCI shows that as new renewables are deployed in response to renewable requirements and global-warming concerns, existing gas plants are used more for integration purposes than for baseload generation. The modeling shows that some new gas peakers may be needed, but the total amount of generation from gas is actually reduced. Sept. 23, 2008, "Recommendations for the WCI Regional Cap-and-Trade Program," Appendix B.

21. The terms "energy efficiency" and "conservation" are generally interchangeable. We prefer the former, because it points toward smarter use, not just less use.

22. Losses due to the transmission of power from the power plant to an end user are 8-12% of the total power generated. And the higher end of this range occurs during hot afternoons when the system is stressed.

23. It must be noted that large-scale hydropower is "tapped out," meaning that in the future all utilities — whether customers of BPA or not — face those higher costs.

24. Heat pumps for space heating use only about one-fourth the energy of conventional gas or electric heating and/or air conditioning. Widespread use will reduce energy consumption significantly.

25. In 2007 the California Energy Commission recommended changing the state's building codes to require net-zero-carbon performance in residential buildings by 2020 and in commercial buildings by 2030. See: http://www.enn.com/ecosystems/article/30652.

26. May 14, 2008. http://www.nwcouncil.org/library/releases/2008/0514.htm

27. Tom Eckman, during May 8, 2008, Q&A after his presentation, "Conservation — How Much and How Fast," Oregon Public Utility Commission.

28. Preliminary drafts of the Council's 6th Plan say more than 6,000 aMW — 300 aMW per year — of new cost-effective efficiency are achievable during the plan's 20-year period. Past experience suggests that the total will increase as new technologies come online.

29. http://www.aceee.org/pubs/e084.htm

30. Similar efficiency standards have been adopted by several states; Congress is discussing a national efficiency standard.

31. "Combined Heat and Power in the Pacific Northwest: Market Assessment," August 2004, by Energy and Environmental Analysis Inc., for the Oak Ridge National Laboratory.

32. This study's region included Oregon, Washington and Idaho, but not western Montana. We have subtracted the Alaska numbers.

33. Larger, more centralized power storage is also close at hand and will likely be developed to help smooth the intermittency of large solar and wind facilities.

For example, some large central concentrated solar plants now being planned for the desert Southwest will incorporate molten sodium heat storage so they can generate into the early evening when demand is still strong. Other technologies such as flywheels and exotic batteries are also receiving large amounts of venture capital financing.

34. Figures on renewable development from the Renewable Northwest Project: http://www.rnp.org.

35. "Renewable Energy Atlas of the West," Land and Water Fund of the Rockies, et al., p.13.

36. For purposes of this analysis, we assume that only 20% of Montana's wind and solar potential will become available to the Northwest region.

37. Natural gas fuel cost assumes a 55% efficient combined cycle plant with a 90% capacity factor using natural gas at $4-$10/mmBtu.

38. Jobs per aMW generation figures come from "Putting Renewables to Work: How Many Jobs Can the Clean Energy Industry Generate?" by Daniel M. Kammen, Kamal Kapadia and Matthias Fripp of the Energy and Resources Group, Goldman School of Public Policy, April 13, 2004. Energy efficiency figures come from ACEEE executive director Bill Prindle, quoted in "The First Fuel," State Legislatures, March 2008 by Glen Andersen.

39. Kammen, et al, and Prindle

40. "Impacts of Climate Change on Washington's Economy: A Preliminary Assessment of Risks and Opportunities," Washington Economic Steering Committee and University of Oregon, November 2006.

41. Washington 15% by 2020 = about 1,200 aMW. Oregon – 25% by 2025 = about 1,500 aMW. Montana – 15% by 2015 = about 130 aMW.

42. Unless noted, the costs of existing resources are the same under both scenarios and thus are not included in this comparison.

43. Most future price estimates come from PacifiCorp's 2007 Integrated Resources Plan (IRP). We must note that each cost assumption is subject to change over time. We periodically update current assumptions on our Web site, but changes in load growth, gas prices and resource costs tend to be minor or countervailing, and overall results do not change much.

44. An average megawatt of efficiency is equal to 8,760,000 kilowatt-hours per year.

45. PacifiCorp's 2007 IRP estimates $5,500 per megawatt for annual operation and maintenance of an existing single-cycle combustion turbine and up to $41,400 per megawatt annually for a new plant. To be conservative, we use the latter figure.

46. PacifiCorp's 2007 IRP, pp. 95-96.

47. We divide by the larger business-as-usual scenario loads rather than the lower *Bright Future* loads, because the former is the load that would have materialized if the extra energy efficiency in the Bright Future were not acquired. This makes the comparison a realistic measure of the added costs to serve that (business-as-usual) load whether through new resources or energy efficiency.

48. Utilities that purchase power from BPA, for example, would have rates at the low end of this range, because in a carbon-constrained future that agency's zero-carbon hydropower sales to California would become very valuable. Revenues from those sales go to further reduce public power rates.

49. An earlier version of this paper underestimated business-as-usual costs, resulting in a slightly higher difference (0.68 cents).

About *Light in the River* reports

Light in the River is a new collaborative project that seeks Northwest solutions to global warming that will serve as models for the nation.

Light in the River's report series, and the conversation we hope it engenders, offers and explores solutions that will counter global warming; preserve healthy waters, fish, farms and communities; and advance initiatives to achieve these goals.

These reports are factual and forward-looking. They start from today's realities but focus on tomorrow's imperatives. Each report will express its authors' informed views, rather than hew to any project sponsor's party line. Given the tough challenge posed by global warming, each paper will tackle tough questions but do so with determination to find and implement solutions.

About Light in the River

This project owes its name to Don Sampson, a leader of the Confederated Tribes of the Umatilla Reservation. Some years ago, in a talk near the Columbia River, Mr. Sampson acknowledged the light from the river: electricity from the river's dams illuminating the room in which he spoke. He then asked equal regard for the light **in** the river: the salmon whose illuminations reach deep and far. Writer David James Duncan found the same image independently when, in *My Story as Told by Water*, he called salmon "a fire in water – an impossible watery flame."

For these leaders, and for others, the light is in the salmon, in the waters bearing them, and in all that both nourish.

The *Light in the River* project offers hope by seeking practical steps to counter global warming while protecting our waters and wild salmon that give us health, food, livelihoods and endless inspiration. **www.LightInTheRiver.org**

About the NW Energy Coalition

Based in Seattle, with offices and staff in Oregon, Idaho and Montana, the NW Energy Coalition is an alliance of more than 110 environmental, civic and human service organizations; unions and faith communities; and progressive utilities and businesses throughout the region. Since 1981, the Coalition has provided policy guidance and promoted development of energy efficiency and clean renewable energy, consumer protection, low-income energy assistance, and fish and wildlife restoration in the Columbia and Snake rivers.
Visit **www.nwenergy.org**

Michelle, Kayce (UTC)

From: Nathan Baker [[redacted]@gorgefriends.org]
Sent: Friday, August 27, 2010 5:06 PM
To: Andrew M. Montaño; Posner, Stephen (UTC)
Cc: EFSEC (UTC)
Subject: Friends' Exhibits Part 8
Attachments: FF (Appellants' Reply Brief (SEP-08-35)).pdf; DD (Skamania County Hearing Examiner Decision (SEP-08-35)).pdf; EE (Appellants' Pre-Hearing Brief (SEP-08-35)).pdf

Attached.

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SKAMANIA COUNTY
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COMMUNITY DEVELOPMENT
DEPARTMENT

BEFORE THE HEARING EXAMINER
FOR SKAMANIA COUNTY

In the Matter of the Appeals of **Friends of the Columbia Gorge, Save our Scenic Area, Gifford Pinchot Task Force, and Columbia Riverkeeper** Of a SEPA DNS.	)	NO. SEP-08-35 FINDINGS, CONCLUSIONS, AND DECISION

SUMMARY OF DECISION

The appeals of the October 8, 2008 Determination of Nonsignificance issued for the County's proposed zoning text and map amendments are **GRANTED.**

SUMMARY OF RECORD

Background

Skamania County seeks to amend the text and maps of its zoning code (Title 21 Skamania County Code) consistent with its adopted Comprehensive Plan and subarea plans. The County issued a Determination of Nonsignificance for the proposed amendments (known as the Planning Commission Recommended Draft) on October 8, 2008. Save our Scenic Area, and a group of organizations including Friends of the Columbia Gorge, Gifford Pinchot Task Force, and Columbia Riverkeeper filed appeals of the Determination of Nonsignificance on October 22, 2008.

Hearing Date

The Hearing Examiner for Skamania County held an open record hearing on the appeals on January 21 and 22, 2009.

Testimony

The following individuals presented testimony under oath at the open record appeal hearing:

1. Karen Witherspoon, Director of Community Development, Skamania County
2. Heather Watson, Assistant Planner, Skamania County
3. Dean Apostol, Landscape Architect[1]
4. K. Shawn Smallwood, Ph.D., Ecologist[2]
5. Richard James, E-Coustic Solutions, Acoustical Engineer[3]
6. Nina Pierpont, M.D., Ph.D., Physician[4]
7. Nathan Baker, Staff Attorney, Friends of the Columbia Gorge

[1] Please refer to Exhibit G.1 for Mr. Apostol's qualifications.
[2] Please refer to Exhibits G.4 and C.21 for Mr. Smallwood's qualifications.
[3] Please refer to Exhibit 7.1 for Mr. James' qualifications.
[4] Please refer to Exhibit 1.1 for Dr. Pierpont's qualifications.

Legal Counsel

- Attorney J. Richard Aramburu represented Appellant Save our Scenic Area
- Attorney Richard A. Poulin represented Appellants Friends of the Columbia Gorge, Gifford Pinchot Task Force, and Columbia Riverkeeper
- Attorney Peter Banks, Skamania County Prosecutor, represented Skamania County

Exhibits

The documents listed on Appendix A to this Decision (Exhibit List) were admitted into the record. Additional documents were filed on January 26, 2009, after the Hearing Examiner had closed the record to new evidence. The Hearing Examiner did not consider the January 26 documents and they are not admitted into the record.

In addition to the documents identified in Appendix A, the Hearing Examiner considered the following legal memoranda:

- Pre-Hearing Brief of Appellants Friends of the Columbia Gorge, Inc.; Gifford Pinchot Task Force; and Columbia Riverkeeper (December 9, 2008)
- Opening Brief of Save our Scenic Area (December 9, 2008)
- Response Brief of Skamania County (January 2, 2009)
- Reply Brief of Appellants Friends of the Columbia Gorge, Inc.; Gifford Pinchot Task Force; and Columbia Riverkeeper (January 15, 2009)
- Citations to Exhibits of Appellants Friends of the Columbia Gorge, Inc.; Gifford Pinchot Task Force; and Columbia Riverkeeper (January 29, 2009)
- SOSA's Exhibits Citations and References (January 29, 2009)

The Hearing Examiner also considered the 2007 Comprehensive Plan, the Carson Community Subarea Plan, the Swift Subarea Plan, the West End Community Comprehensive Subarea Plan, and the Skamania County Code.

Upon consideration of the testimony and exhibits admitted at the open record hearing, the Hearing Examiner enters the following Findings and Conclusions:

FINDINGS

General

1. Skamania County seeks to amend the text and maps of its zoning code (Title 21 Skamania County Code) consistent with its adopted Comprehensive Plan and subarea plans. The amendments would apply to all lands within unincorporated Skamania County that are not designated as Columbia River Gorge National Scenic Area (hereafter, "National Scenic Area" or "Scenic Area").[5] The Scenic Area generally includes the southern portion of Skamania County, although there are "islands" of urban area (including unincorporated land) that are not within the Scenic Area. Thus, the proposed

[5] Land uses within the National Scenic Area are governed by Title 22 of the Skamania County Code (Columbia River Gorge National Scenic Area Ordinance).

amendments would apply to some parcels that, while not designated as Scenic Area, are surrounded by Scenic Area lands. *AR-50; Testimony of Ms. Witherspoon; County Exhibit 2.*

2. In the testimony and written materials there are references to two proposed drafts of Title 21 – the (1) Board-Initiated Draft and the (2) Planning Commission Recommended Draft. The Board-Initiated Draft was the first draft of the proposed amendments. The Planning Commission Recommended Draft contains the changes to the first draft that were recommended by the Planning Commission after considering public comment. The changes are substantial. The draft of Title 21 that is under review is the Planning Commission Recommended Draft, found in the record at AR-72 to 226.[6] *AR-51.*

3. According to the 2007 Comprehensive Plan, Skamania County is approximately 1,070,080 acres in area. It is the only county in Washington State that spans the crest of the Cascade Mountains. Approximately 80 percent of the County (855,000 acres) is within the Gifford Pinchot National Forest. Approximately five percent of the County (59,876 acres) is owned by the State of Washington.[7] Approximately 85,000 acres of the remaining land is within the National Scenic Area. *2007 Comprehensive Plan, pages 17-18.*

4. The planning documents in effect for the portions of Skamania County outside of the National Scenic Area include the 2007 Comprehensive Plan, the Swift Subarea Plan, the West End Community Subarea Plan, and the Carson Community Subarea Plan. With respect to those lands governed only by the 2007 Comprehensive Plan (i.e., not within a subarea), there are three land use designations: Rural I (2,758 acres), Rural II (13,440 acres), and Conservancy (817,826 acres). *AR-57.* The zoning classifications currently in effect for those designations include the following: Residential 1, 2, 5, and 10, Rural Estate, Community Commercial, Commercial Recreation, Industrial, Resource Production 10 and 20, Natural, and Unmapped. *SCC 21.24.021.* In addition, there are two zoning classifications applicable to the Northwestern Lake area – Residential 2 and Residential 5. *SCC 21.55.*

5. The Swift Subarea includes approximately 92,191 acres, and the Comprehensive Plan indicates that approximately 34,000 of the acres are privately owned.[8] There are six land use designations within the Swift Subarea, including Swift Recreational, Swift Commercial Resource Lands, Swift Forest Lands 20, Mountain Recreational 20,

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[6] The proposed zoning map is found at AR-232.

[7] The County provided slightly different numbers in its brief – a total land area of 1,073,370 acres, with 932,034 acres consisting of state or federal public lands and the remaining 141,336 acres (13 percent) privately owned. *Response Brief of Skamania County, page 1.* These numbers do not affect the outcome of the decision.

[8] There is some discrepancy between the total acreage reported in the Environmental Checklist and the total acreage reported in the Comprehensive Plan. The total acreage in this finding is based on the Environmental Checklist. It is not clear whether the acreage of privately owned land has also changed from what is reported in the Comprehensive Plan.

Mountain Recreational 10, and Mountain Recreational 5. *2007 Comprehensive Plan, page 18; Swift Subarea Plan, pages 14 – 21; AR-57.*

6. The West End Subarea includes approximately 60,000 acres, and the Comprehensive Plan indicates that approximately 31,000 of the acres are privately owned.[9] There are seven land use designations within the West End Subarea, including Rural Lands 2, Rural Lands 5, Rural Lands 10, Forest Lands 20, Commercial Resource Lands, Neighborhood Commercial, and Community Commercial. *2007 Comprehensive Plan, page 18; West End Subarea Plan, Figure 3-1; AR-57.*

7. The Carson Subarea includes approximately 2,000 acres. There are four land use designations within the Carson Subarea, including High Density Residential, Rural Residential, Rural Estate, and Business Center. *AR-57; Carson Subarea Plan, pages 2 – 5.*

8. Much of Skamania County is classified as "Unmapped", meaning that no zoning has been assigned.[10] Within unmapped areas, "all uses which have not been declared a nuisance by statute, resolution, ordinance, or court of jurisdiction are allowable." *SCC 21.64.020.* Land uses within unmapped areas are not subject to the standards or conditions of the zoning code. *Id.*

9. The unmapped lands in Skamania County are mostly commercial forestland or Gifford Pinchot National Forest. According to County Ordinance No. 2008-01, at least 15,000 acres of the unmapped lands are privately owned. *Exhibit H.4; Testimony of Ms. Witherspoon.*

10. Skamania County has had a moratorium in effect since July 10, 2007 (date of adoption of most recent Comprehensive Plan) on the following development activities on unmapped lands:

    - The acceptance and processing of any building, mechanical or plumbing permits on any parcel of land that is 20 acres or larger that was created by deed since January 1, 2006
    - The acceptance and processing of land divisions
    - The acceptance and processing of SEPA checklists related to forest practice conversions

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[9] There is some discrepancy between the total acreage reported in the Environmental Checklist and the total acreage reported in the Comprehensive Plan. The total acreage in this finding is based on the Environmental Checklist. It is not clear whether the acreage of privately owned land has also changed from what is reported in the Comprehensive Plan.

[10] Prior to 2007, the County's Comprehensive Plan only addressed the southern portion of Skamania County. *2007 Comprehensive Plan, pages 10 and 21.*

Exhibit H.4. The reasons for the moratorium include that much of the unmapped land is on rugged terrain that is not served by County roads or electricity, and that many areas are prime habitat for federal or state listed species of fish and wildlife. *Exhibit H.4.*

11. The Planning Commission Recommended Draft (and associated zoning map) would accomplish the following:

- Zone all previously unmapped land, including the land under federal ownership.
- For the land outside of the subareas, eliminate the Resource Production 10 and 20 zones and add Business Park, Forest Lands 20, and Commercial Resource Lands 40 zones.
- Zone the Swift Subarea consistent with the Swift Subarea Plan (zoning designations: Mountain Recreational 5, 10, and 10, Swift Forest Lands 20, Swift Commercial Resource Lands 40, and Swift Recreation).
- Zone the West End Subarea consistent with the West End Subarea Plan (zoning designations: Rural Lands 2, 5, and 10, West End Forest Lands 20, West End Commercial Resource Lands 40, and Neighborhood Commercial).
- Add a new section to the zoning code (SCC 21.70.170) on alternate energy systems, which would apply to the installation of any alternate energy facility located within unincorporated Skamania County, except for the General and Special Management Areas of the National Scenic Area (*AR-203*).

A list of all of the proposed zoning designations and the acreage allocated to each is set forth in the Environmental Checklist at AR-56 to 57. *AR-50, 51, 56, and 57; County Exhibit 2.*

12. The proposed Alternate Energy Systems section contains standards relating to the following facilities:

- Rooftop Wind Energy Systems[11]
  Key provisions:
  - One per structure
  - Maximum height: 15 feet above maximum for structure
- Small-Scale Wind Energy Facilities[12]
  Key provisions:
  - No limit on number
  - Maximum height: 65 to 80 feet
  - Minimum property line setback: 1.1 times the height
- Large-Scale Wind Energy Facilities[13]

[11] The proposed definition for rooftop wind energy system is "a small wind energy system that is installed onto a structure supplying power directly to that structure." *AR-82.*
[12] The proposed definition for small-scale wind energy facilities is "Wind turbines which will be used primarily to reduce on-site consumption of utility power to farms, homes, or businesses." *AR-83 (SCC 21.08.010).*

Key provisions:

- No limit on number
- Maximum height: 500 feet
- Minimum property line setback (exterior): 50 feet plus height of structure
- Minimum setback from residential structures or zones: one-half mile

- Large-Scale Solar Facilities[14]
- Geothermal Resources[15]
- Bio-Energy Facilities[16]

Key provision:

- Minimum setback from residential structures or zones: one-half mile

AR-203 to 214 (SCC 21.70.170).

13. The current zoning ordinance does not contain any standards relating to alternate energy systems, although geothermal energy facilities are identified as conditional uses in the R-1, R-2, R-5, R-10, Rural Estate, and Resource Production zones. *SCC 21.28.030, 21.32.031, 21.36.031, 21.40.030, 21.44.030, and 21.56.030.* The County would regulate wind power facilities as "utilities" under the existing code. *Testimony of Ms. Witherspoon.* Public Facilities and Utilities[17] are allowed in the residential and Rural Estate zones. Semi-Public Facilities[18] are conditionally allowed in the residential and Rural Estate zones, and Semi-Public Facilities and Utilities are conditionally allowed in the Resource Production zones. *SCC 21.28.020 and -.030, 21.32.020 and -.031, 21.36.020 and -.031, 21.40.020 and .030, 21.44.020 and -.030, and 21.56.030.* The Hearing Examiner was not able to locate any use classification relating to private utility systems.

14. Under the Planning Commission Recommended Draft, rooftop wind turbines would be allowed outright in the residential zones, and small-scale wind energy facilities would be

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[13] The proposed definition for large-scale wind energy facility is "An electricity-generating facility consisting of wind turbines or other such devices and their related or supporting facilities that produce electric power from wind to be sold and used off-site." *AR-79 (SCC 21.08.010).*

[14] The proposed definition for large-scale solar facilities is "photovoltaic energy systems and/or solar thermal technology energy systems that use reflective materials that concentrate the sun's heat energy to drive a generator that produces electricity." *AR-79 (SCC 21.08.010).*

[15] The proposed definition of geothermal energy facilities is "A facility used to produce electricity by extracting and converting the natural thermal energy from the earth." *AR-78 (SCC 21.08.010).* There are no standards for Geothermal Resources other than compliance with RCW 78.60.

[16] The proposed definition for bio-energy is "Includes a range of biomass feedstock and technologies for conversion of these materials into useful energy." *AR-76 (SCC 21.08.010).*

[17] "Facilities which are owned, operated, and maintained by public entities which provide a public service required by local governing bodies and state laws." *SCC 21.08.010 (70).*

[18] "Facilities intended for public use which may be owned and operated by a private entity." *SCC 21.08.010 (73).*

allowed in the residential zones with administrative review.[19] In addition, "public, semi-public and/or private facilities and/or utility systems" would be allowed outright in the residential zones. Although the proposed definitions for "public facilities and utility systems" and "semi-public facilities and utility systems" include "electrical transmission, distribution and generation facilities", the electrical generation facilities that fall under more restrictive definitions (such as wind turbines) would not be regulated as a "public, semi-public and/or private facilities and/or utility systems." Thus, a large-scale wind energy facility would *not* be allowed outright in a residential zone.[20] *AR-81, 82, 99, 100, 102, 103, 105, 106, 108, 109; Testimony of Ms. Witherspoon.*

15. Although alternative energy systems would be regulated under the Alternative Energy Systems section of the zoning code, it is not clear how certain traditional electricity generating facilities, such as coal-fired plants, would be regulated. The Planning Commission Recommended Draft does not contain use categories or specific standards for such facilities. If categorized as "public, semi-public and/or private facilities and/or utilities" they would be allowed outright in most zones. *See generally AR-76-84; Opening Brief of Save our Scenic Area, page 10.*

16. Under the Planning Commission Recommended Draft, large-scale wind energy facilities and bio-energy facilities (the most controversial uses) would not be allowed outright in any zone.[21] Instead, they would be conditional uses in the following zones:

- Industrial
- Forest Lands 20 (large-scale wind energy only)
- Commercial Resource Lands 40
- Carson Industrial Zone (large-scale wind energy only)
- West End Forest Lands 20 (large-scale wind energy only)
- West End Commercial Resource Lands 40
- Swift Forest Lands 20 (large-scale wind energy only)
- Swift Commercial Resource Lands 40

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[19] Small-scale wind energy facilities would not be allowed within the High Density Residential Zone of the Carson subarea. *AR-139.*

[20] To avoid confusion, the Hearing Examiner urges the County to clarify this issue in the final version of the zoning code. Appellant SOSA made much of the fact that the language "electrical transmission, distribution and generation facilities" could be read as including wind-energy and other alternative energy facilities. However, the Hearing Examiner considers this to be a language problem (albeit a significant language problem) rather than an environmental review problem. It is clear that the County intends to regulate wind-energy and other alternative energy facilities in accordance with the stricter standards established for those facilities, and it is the Hearing Examiner's opinion that no reviewing official looking at the larger statutory scheme could reasonably interpret otherwise. Consequently, the Hearing Examiner will not evaluate the environmental impacts of the proposed zoning code on the false assumption that large-scale wind energy facilities would be allowed outright in the residential zones.

[21] Under the prior Board-Initiated Draft, large-scale wind energy facilities would have been administrative review uses in some zones, and allowed outright in others. *See e.g., AR-121, 128, and 148.*

AR-122, 125, 128, 148, 161, 163, 179, 182. None of the zones identified above would allow residential uses.

17. Although the 2007 Comprehensive Plan specifies that the Hearing Examiner "may deny a conditional use permit if he or she finds the use is inappropriate for the area" (2007 Comprehensive Plan, Policy LU.6.1, page 31), the proposed criteria for conditional use permit approval do not appear to give the Hearing Examiner discretion to deny a conditional use permit. Proposed SCC 21.16.070(A) states, "If the Hearing Examiner determines that the use is *not compatible* with permitted or existing uses in the specific area of the proposed use then the proposed use may be approved or approved with conditions to make it compatible with the area." *AR-88 (emphasis added).* The quoted language is a change from the current SCC 21.16.070, which states, "If the Hearing Examiner determines that the use is not compatible with permitted or existing uses in the specific area of the proposed use then the proposed use shall be denied." *SCC 21.16.070(A).*

18. The 2007 Comprehensive Plan does not contemplate the type of energy facilities described in the Planning Commission Recommended Draft. With respect to the Conservancy designation, which includes the majority of the County and which could be implemented by the Residential 10, Forest Lands 20, Commercial Resource Lands 40, and Natural zones (see 2007 Comprehensive Plan, Figure 2-2, and AR-97 to 98), the Comprehensive Plan lists only the following utility uses as being appropriate within the designation: "Public facilities and utilities, such as parks, public water access, libraries, schools, utility substations, and telecommunication facilities." *2007 Comprehensive Plan, page 26.*

19. Ms. Karen Witherspoon, Director of Community Development for Skamania County, was the Responsible Official for State Environmental Policy Act (SEPA) review of the code amendments. Ms. Witherspoon issued a Determination of Nonsignificance (DNS) for the Planning Commission Recommended Draft on October 8, 2008.[22] *AR 47-48.*

20. On October 7, 2008, the County mailed notice of the DNS to numerous agencies, tribes, and interested parties, including the Washington Department of Fish and Wildlife, the Washington Department of Natural Resources, the United States Forest Service, the Washington Department of Ecology, and the Columbia River Gorge Commission. *AR-64-68.* The County published the DNS in the Skamania County Pioneer on October 8, 2008. *AR-69-70.*

21. No agency submitted comments directly in response to the October 8, 2008 DNS. *Testimony of Ms. Witherspoon.* However, on June 5, 2008 the Washington Department of

[22] Ms. Witherspoon had issued a DNS for the Board-Initiated Draft also, and the DNS was appealed by some of the Appellants in this case. Ms. Witherspoon withdrew the DNS in response to the changes recommended by the Planning Commission. *See AR-50.*

Fish and Wildlife (WDFW) submitted a comment letter on the original Board-Initiated Draft that contained the following language:

> WDFW would like to re-iterate our calls for a cumulative effects analysis of regional wind power development in the Columbia River Gorge. Such an analysis is typically not possible or required during permitting and siting of an individual wind power development. The County zoning update process is the best opportunity we have to conduct this analysis of potential adverse environmental impacts from development of wind power sites, as well as associated power lines, roads, and other infrastructure. Such an analysis would evaluate the number, location, and type of turbines; the number and type of species in an area; species behavior; topography; and weather factors influencing direct and indirect mortality factors.

Exhibit C.12. No cumulative effects analysis has been conducted for the proposed zoning code amendments, although some of the specific language changes requested by WDFW (i.e., not allowing large-scale energy uses outright on commercial resource lands) have been incorporated into the Planning Commission Recommended Draft. *Exhibit C.12; AR-128.*

22. The County did not consider the June 5, 2008 WDFW letter in the environmental review of the Planning Commission Recommended Draft because of the timing of the submittal. In compiling its environmental review record the County made a distinction between those comments submitted in response to the October 8, 2008 DNS, the comments submitted in response to the DNS for the prior Board-Initiated Draft, and the comments submitted to the Planning Commission on the ordinance itself. Ms. Witherspoon testified that WDFW submitted a later letter (also not included in the environmental review record) that did not include a request for a cumulative effects analysis. *Testimony of Ms. Witherspoon.*

23. Save our Scenic Area filed an appeal of the DNS on October 22, 2008. *AR-30 through 40.* The appeal was timely under the 14-day deadline specified in the DNS. *AR-47 to 48.* The appeal alleged that the proposal (mainly, the portions relating to wind turbines) would have probable, significant, adverse impacts on the following:

- Birds and animals,
- Noise,
- Geology, soils, and topography,
- Fire and hazard,
- Relationship to existing land use plans,
- Land use and housing,
- Light and glare,
- Aesthetics and scenic resources,
- Special areas (i.e., Columbia Gorge National Scenic Area),

- Recreation,
- Transportation,
- Water Supply and Aquifers, and
- Human health.

In addition, Save our Scenic Area alleged that the County did not actually consider environmental factors prior to issuing the DNS, that the proposal would result in cumulative impacts, and that the proposal would set a precedent for further actions with significant environmental effects. Save our Scenic Area requested that the Hearing Examiner reverse the issuance of the DNS and order the County to prepare an Environmental Impact Statement (EIS). *AR-35 through 40.*

24. The organizations Friends of the Columbia Gorge, Gifford Pinchot Task Force, and Columbia Riverkeeper jointly filed an appeal of the Determination of Nonsignificance on October 22, 2008. *AR-3 through 24.* The appeal was timely under the 14-day deadline specified in the DNS. *AR-47 to 48.* The appeal alleged the following (paraphrased):

- An EIS must be prepared for non-project actions that may lead to significant adverse impacts.
- The County improperly relied on the Klickitat County FEIS.
- The County failed to consider cumulative impacts, and the precedent set by the proposal.
- The County failed to consult with other agencies.
- The County failed to consider impacts to special and sensitive areas, wildlife, rare plants, native plant communities, and water resources.
- The County failed to ensure consistency with the Comprehensive Plan, Critical Areas Ordinance, and federal wildlife laws.
- The County did not analyze the impacts of the Northwestern Lake Recreational zones, or the impacts of increased residential development.
- The County did not consider or adequately protect against impacts to cultural resources and recreation, noise impacts, fire risk, transportation impacts, and impacts associated with new energy transmission infrastructure.

AR-6 through 23.

25. The County stipulated to all Appellants' standing to challenge the DNS. There are declarations in the record from members and/or staff of Friends of the Columbia Gorge, Columbia Riverkeeper, and Gifford Pinchot Task Force, some of whom reside in Skamania County, that their interests would be adversely affected by the proposed zoning code amendments. According to the declarations, members of the Appellant organizations pursue recreational and wildlife viewing activities in or near the areas that would be affected by the zoning ordinance. *Argument of Mr. Banks; Exhibits F.4 through F.9.*

26. In response to the appeals, the County argued that the scope and impact of the zoning amendments is smaller than argued by the Appellants because most of Skamania County consists of public land, that the court decision *King County v. Boundary Review Board*, 122 Wn.2d 648 (1993) is not applicable, that the State of Washington has preempted local control over wind power projects, and that the proposed amendments would be an improvement over the existing regulatory scheme. *Response Brief of Skamania County.*

27. In the Environmental Checklist for the Planning Commission Recommended Draft, the County discloses, in general terms, the presence of mountainous terrain, water features, threatened and endangered species, bird migration routes, and unstable soils within the County, but claims that the proposal would have no impact on those and other elements of the environment because it is a non-project action. In the supplemental sheet for non-project actions, the County does not identify or analyze the impacts associated with the type of development that might result from the proposed amendments, but indicates that the impacts of future development would be determined and mitigated on a project-specific basis based on County regulations. *AR-50 to 62.*

28. Assistant Planner Heather Watson prepared the September 30, 2008 Environmental Checklist, in consultation with Ms. Witherspoon and other County staff. As background research, Ms. Watson reviewed the Planning Commission Recommended Draft of the zoning code amendments, a Final Environmental Impact Statement (FEIS) issued by Klickitat County for its Energy Overlay Zone (AR-71),[23] the August 2003 Wind Power Guidelines promulgated by the Washington Department of Fish and Wildlife (AR 351-359), and some SEPA checklists and threshold determinations issued by other jurisdictions for legislative actions. Although Ms. Watson was aware that the County had been approached regarding a possible wind energy development, she did not consider the project in preparing the Environmental Checklist because no application had been filed. *Testimony of Ms. Watson.*

29. Although both Ms. Witherspoon and Ms. Watson reviewed the Klickitat County FEIS prior to issuance of the DNS, neither provided testimony or other evidence identifying which specific portions of the FEIS or supporting studies were persuasive in making the determination. In addition, neither provided evidence suggesting that Skamania County and Klickitat County have similar environmental conditions. *See generally, Testimony of Ms. Witherspoon and Ms. Watson.* Although the checklist notes, "The Eastern portion of Skamania County that abuts Klickitat County was included in studies prepared for this [the Klickitat County] EIS" (*AR-50*), no specific references to the studies, or conclusions drawn from the studies, were provided.[24] In addition, the assumptions used by Klickitat

[23] Klickitat County is immediately east of Skamania County.

[24] By chance, the Hearing Examiner found a reference to eastern Skamania County in the Avian Study Report attached to the Klickitat County FEIS (AR-71, Appendix B). The study indicates that two avian sampling points were in southeast Skamania County, in the general vicinity of the panhandle that extends south of the Klickitat County line. The area represented by the sampling points is an extremely small fraction of Skamania County as a whole. *AR-71, Appendix B, Figure 1.*

County in evaluating the environmental impacts of the Energy Overlay Zone are not reflected in the proposed zoning text. For example, the Planning Commission Recommended Draft would allow a maximum wind turbine height of 500 feet, whereas the visual impact analysis conducted by Klickitat County was based on a height of 100 feet. *AR-205; AR-71, page 3-108.* The 500-foot height limit was not based on environmental factors; its purpose was to ensure that the type of turbines currently in existence would be conforming. *Testimony of Ms. Witherspoon.*

30. Prior to adoption of its Energy Overlay Zone, Klickitat County, like Skamania County, did not have ordinances that specifically addressed energy development. Energy facilities were reviewed on a case-by-case basis through the conditional use permit process, which, the FEIS notes, "has led to a lack of consistent policy for energy facility siting." *AR-71, page 1-3 to 1-4.* Klickitat County issued a Determination of Significance (DS) for the non-project action on June 6, 2002, and issued the FEIS in September of 2004. *Exhibit H.2; AR-71.*

31. In the FEIS, Klickitat County predicted that the Energy Overlay Zone might encourage greater energy development within the Overlay boundaries, and discourage energy development outside of the Overlay boundaries "because of the greater uncertainty in the permitting process". *AR-71, page 1-6.* The prediction turned out to be accurate. The development of wind power facilities in Klickitat County has far exceeded the projections contained in the FEIS. Whereas the FEIS assumed that four wind power projects (1,000 MW generating capacity total) would be developed in Klickitat County between 2004 and 2024, as of January 30, 2008 there were 12 wind power facilities in Klickitat County (1500+ MW) that were permitted and/or constructed or had permits pending.[25] These facilities are depicted on a Klickitat County Wind Projects Map. *Exhibit E.2.* During the past year, applications for two wind facilities in addition to those depicted on the map have been filed.[26] *Exhibits E.3, E.4, and E.5; AR-71, page 1-2.*

32. Skamania County is a member of the Mid-Columbia Economic Development District (MCEDD), and Skamania County Commissioner Paul Pearce serves on the MCEDD Board of Directors as the Chair of the Executive Committee. The counties that constitute MCEDD, in addition to Skamania County, include Klickitat County (WA), Sherman County (OR), Wasco County (OR), and Hood River County (OR). *Exhibit H.10, page 1; Exhibit H.13.*

33. The mission of MCEDD is "to promote the creation of family-wage jobs, the diversification of the economic base, and the growth, development and retention of business and industry within the five-county district." *Exhibit H.10, page 2.* One of

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County line. The area represented by the sampling points is an extremely small fraction of Skamania County as a whole. *AR-71, Appendix B, Figure 1.*

[25] Although the map depicting the wind power facilities is dated January 30, 2008, it includes some projects that did not receive SEPA threshold determinations until April of 2008. *Exhibit E.2, Exhibit 6.3, Exhibit 6.4.*

[26] It should be noted that one of those projects – the Goodnoe II Project – included approximately 320 acres of land owned by the Washington Department of Natural Resources. *Exhibit E.5.*

MCEDD's projects has been to establish the Columbia Gorge Bi-State Renewable Energy Zone (CGBREZ). "This self-declared zone was created to reduce the region's dependency on federal subsidies, bring economic vitality to the region, establish a national model for energy self-sufficiency, and provide a model of self-reliance for other rural economies in the 21st Century. *Exhibit H.10, page 9; see also Exhibit D.6.*

34. Skamania County has demonstrated its support of the CGBREZ, and its interest in wind power in particular, in several ways. On December 18, 2007, the Skamania County Board of Commissioners passed Resolution 2007-59, which "endorses the creation of the Columbia Gorge Bi-State Renewable Energy Zone." *Exhibit H.9.* In the preamble to the resolution, the Commissioners identify the counties within the zone as possessing "world class renewable energy assets including wind, sun, biomass, water and geothermal" and as desiring to develop renewable energy projects. *Exhibit H.9.* On September 30, 2008, the Skamania County Board of Commissioners passed Resolution 2008-51, which endorses several policies and actions relating to the CGBREZ, such as streamlining government permitting, encouraging investment in new energy technologies, and expanding regional transmission capacity for renewable energy projects. *Exhibit H.12; Exhibit H.11.* On December 23, 2008, the Board "discussed the need for the County to pay for Skamania County Economic Development Director to attend an upcoming conference of the American Wind Energy Association". *Exhibit H.14.*

35. Skamania County contains areas that have been mapped by the U.S. Department of Energy National Renewable Energy Laboratory as Wind Power Class 4 ("good") or better. The wind power classifications range from Class 1 to Class 7, with Class 1 referring to "poor" resource potential (wind speeds not exceeding 12.5 miles per hour at 50 meters), and Class 7 referring to "superb" resource potential (wind speeds of 19.7 miles per hour or greater). *Exhibits D.1 and D.2.*

36. To facilitate potential wind energy projects, there are existing high-voltage Bonneville Power Administration electric transmission lines in the southern portion of Skamania County and on the west side of Swift Reservoir. *Exhibits H.1, D.1, and D.2.*

37. Skamania County has not yet received an application to develop a large-scale wind energy facility. However, SDS Lumber has approached Skamania County on multiple occasions over the past several years to discuss a possible large-scale wind energy project (Saddleback Project) on its property within the County. Ms. Witherspoon met with representatives of SDS and entities such as the Bonneville Power Administration on two or three occasions for "pre-application meetings" to discuss the permitting requirements for the project. Multiple pre-application meetings have been held because of changes in the development team. The project, if developed, would consist of at least 40 wind turbines. Although the last formal pre-application meeting was approximately two years ago, individuals associated with the project have been involved in the County's code update process and the president of SDS was present at the subject appeal hearing. *Testimony of Ms. Witherspoon.*

38. The Bonneville Power Administration (BPA) has produced a map entitled "Current and Proposed Wind Project Interconnections to BPA Transmission Facilities" (Exhibit D.4). This map depicts the SDS Saddleback project as a proposed wind generation facility of 70 megawatts (MW). The project location is in the southeast corner of Skamania County. *Exhibit D.4.*

39. Although no party was able to identify any specific wind power projects located or proposed on National Forest land, United States Forest Service regulations do not preclude the development of wind energy facilities. Wind energy uses are governed by the Forest Service's special use regulations set forth in 36 CFR 251, subpart B. Applications for wind energy facilities are processed in accordance with 36 CFR 251.54, Forest Service Manual 2726 ("Energy Generation and Transmission"), and Forest Service Handbook 2709.11 ("Special Use Administration"). In September of 2007, the Forest Service proposed amendments to the manual and handbook to specifically address wind energy uses. *72 Federal Register 184; Exhibit D-9, page 4-29; see also Testimony of Mr. Apostol.*

40. Although under SEPA each project is reviewed on an individual basis, there appears to be a general consensus among reviewing officials that large-scale wind energy facilities generate the type of impacts that are appropriately reviewed through an environmental impact statement. *Exhibits E.3, E.5, 6.1, 6.2, 6.3, and 6.4; Testimony of Ms. Witherspoon.* A typical large-scale wind energy facility includes numerous turbines that are arranged in "strings", electrical collector and/or transmission lines connecting the turbines to each other and to the electrical grid, access roads to each of the turbines, electrical substations, and support structures. The following examples of wind energy proposals in the region illustrate the scale of development associated with large-scale wind energy facilities:

Lakeview Light & Power Project (Harvest Wind) in Klickitat County (as described in DS issued April 25, 2008):

- 55 turbines with a maximum height of 410 feet each
- New 3.1-mile long electrical transmission line
- New substation occupying two acres
- An operations building
- Approximately 20 miles of new access roads
- 98.6 acres of land impacted (46.6 acres of temporary construction impact and 52 acres of long-term impact)

Exhibit 6.3.

Pacific Wind Development Project (Juniper Canyon) in Klickitat County (as described in DS issued April 11, 2008):

- 167 turbines with a maximum height of 492 feet each
- Two new substations occupying a total of 15 acres
- Unpaved access roads connecting the turbines and other facilities

Exhibit 6.4.

Windy Point Partners, LLC Project (Windy Point II) in Klickitat County (as described in DS issued July 9, 2008):

- 61 turbines
- Possible new substation
- Approximately 17 miles of new access roads
- 76 acres of land permanently disturbed

Exhibit 6.1.

Northwest Wind Partners, LLC Project (Goodnoe II) in Klickitat County on private and DNR land (as described in DS issued July 11, 2008):

- 17 turbines (added to an existing facility)
- Electrical transmission lines
- 15 acres of land permanently disturbed

Exhibit 6.2.

Stateline Wind Project in Walla Walla County, Washington and Umatilla County, Oregon (as described in Federal Register, June 5, 2000):

- 250 to 450 245-foot-tall turbines, arranged in several strings and spaced 200 to 300 feet apart
- New substation occupying one to two acres
- Eight to ten miles of new overhead transmission lines
- New access roads
- Operations building
- Water tank

Exhibit 5.4.

41. The National Academy of Sciences prepared a report, Environmental Impacts of Wind-Energy Projects, which "provides analyses to help to understand and evaluate the positive and negative environmental effects of wind-energy facilities." *Exhibit 4.4, Executive Summary, page 1.* The study addresses both the ecological and the human impacts of wind energy. *Exhibit 4.4, Chapters 3 and 4.* The study also includes recommendations for improving wind-energy planning and regulation. *Exhibit 4.4, Chapter 5, page 181.* With respect to planning, the recommendations of the National Academy of Sciences include the following:

- Standardized studies should be conducted before siting and construction and after construction of wind-energy facilities to evaluate the potential and realized ecological impacts of wind development. Pre-siting studies should evaluate the potential for impacts to occur and the possible cumulative impacts in the context of other sites being developed or proposed. *Exhibit 4.4, Executive Summary, page 9.*

- Regulatory reviews of individual wind-energy projects should be preceded by coordinated, anticipatory planning whenever possible.... This planning could be

implemented at scales ranging from state and regional levels to local levels. *Exhibit 4.4, Executive Summary, pages 12-13.*

Visual impacts

42. Skamania County contains unique and exceptional scenic resources, including the National Scenic Area in the southern portion of the County, Mt. St. Helens National Monument in the northwest corner of the County, and the base of Mt. Adams near the northeast corner of the County. Photographs depicting some of Skamania County's scenic resources are provided in Exhibit B.5 and Exhibit B.1 (see page 1-6). *2007 Comprehensive Plan, pages 13 and 35; Exhibits H.3, B.5 and B.1.*

43. The Swift Subarea is one of the areas that, under the Planning Commission Recommended Draft, could be developed with large-scale wind energy facilities. The Swift Subarea Plan describes the area as "mountainous with sweeping vistas", and as being one of the gateways into the Mt. St. Helens National Volcanic Monument, "which is a popular recreation and sightseeing location bringing thousands of tourists through the Swift Subarea every year." *Swift Subarea Plan, pages 7 and 9.*

44. Based on U.S. Department of Energy National Renewable Energy Laboratory mapping, Skamania County's best wind resources are found on ridgelines that lie transect to the Columbia River Gorge. The ridges may be visible from key viewpoints. Some are near the National Scenic Area boundary. *Exhibits D.1 and D.2; Exhibit B.5; Testimony of Mr. Apostol.*

45. Wind turbines of the maximum height permitted under the Planning Commission Recommended Draft (500 feet) have the potential to dramatically alter the landscape. To put the massive scale in perspective, the tallest building in Portland is 546 feet tall. Even a turbine that is only 300 feet tall could have a blade sweep diameter comparable to the length of a Boeing 747 Jumbo Jet. *Exhibit B.5; Testimony of Mr. Apostol.*

46. The visual impact associated with wind turbines is based not only on the scale of the structures, but on the amount of land that must be cleared to accommodate them. In a forested area, the clearing required for a string of turbines can be substantial (in the example provided in Exhibit B.5, four acres per turbine). With respect to aesthetic impacts, complex, ecologically fragile, and scenic landscapes are the poorest locations for large wind turbines, and open, level, simple landscapes (such as might be found in established agricultural areas) are the best locations for large wind turbines. *Exhibit B.5; Exhibit B.4; Testimony of Mr. Apostol.*

47. Landscape aesthetics have measurable, objective standards. It is possible to map aesthetically sensitive areas and use such information when making zoning decisions. Mr. Dean Apostol, the Appellants' landscape architect, recommended mapping as one means for the County to minimize aesthetic impacts. He also recommended that the County adopt aesthetic standards. *Testimony of Mr. Apostol; Exhibit B.5.*

48. The National Forest Service (NFS) has developed a Scenery Management System for the inventory and analysis of the aesthetic values of national forests. The Scenery Management System is described in an NFS publication entitled "Landscape Aesthetics – A Handbook for Scenery Management" (Exhibit B.1). The Handbook provides a multi-step process for mapping scenic resources. The concepts and processes contained in the Handbook are not limited to national forests; some jurisdictions use the Handbook to evaluate scenic impacts. *Exhibit B.1; Testimony of Mr. Apostol.*

49. The American Wind Energy Association (AWEA) has prepared a Wind Energy Siting Handbook that provides information regarding the regulatory and environmental issues associated with the development of wind energy facilities. In its handbook, the AWEA notes that government agencies with approval authority over wind farms often require a formal assessment of the visual compatibility of a wind farm, such as the extent to which the wind farm adversely affects the aesthetics of vistas known to be important to the community. According to the AWEA, a visual impact assessment should include a characterization of baseline conditions, photo simulations, and specific investigation of the potential visual impacts based on identified changes from the baseline condition. *Exhibit D.9, pages 5-28 to 5-31; see also Exhibit B.4.*

50. The use of aesthetic criteria to control land uses is not new to Skamania County; the Columbia Gorge National Scenic Area Ordinance (Title 22 of the Skamania County Code) contains aesthetic criteria. All development applications for the National Scenic Area must include "a list of all key viewing areas from which the proposal would be visible." *SCC 22.06.060(A)(1)(e).* The key viewing areas, which are defined by ordinance, include Cook-Underwood Road, I-84, the Columbia River, the Pacific Crest Trail, and numerous other locations. *SCC 22.04.010(91).* Those developments visible from key viewing areas must comply with certain standards, including that the development must be "visually subordinate"[27] to its setting as seen from the viewing areas. *SCC 22.18.030; see also Exhibit B.4.*

51. With respect to large-scale wind energy facilities, the Planning Commission Recommended Draft does not contain standards or criteria relating to aesthetic impacts, nor does it require a visibility analysis as an application requirement. *AR- 205 to 212.*

52. Based on Geographic Information System (GIS) mapping prepared by a consultant with significant prior experience with the National Scenic Area (see Exhibit B.2), 415-foot-tall wind turbines in the southeast portion of Skamania County, but outside of the National Scenic Area, would be visible to a six-foot-tall observer from Cook-Underwood Road within the National Scenic Area and from Interstate 84 (I-84) on the Oregon side of the Gorge.[28] With respect to the western portion of the study area, the visibility would be

[27] "Visually subordinate means a description of the relative visibility of a structure or use where that structure or use does not noticeably contrast with the surrounding landscape, as viewed from a specified vantage point, generally a key viewing area. As opposed to structures that are fully screened, structures that are visually subordinate may be partially visible. They are not visually dominant in relation to their surroundings...." *SCC 22.04.010(181).*

[28] Within the study area, I-84 passes through the Hood River Urban Area. *Exhibit B.3.*

greatest significant from Cook-Underwood Road (i.e., only in the northernmost portion of the study area would turbines not be visible), but not as significant from I-84 (i.e., only in the southernmost portion of the study area, adjacent to the NSA boundary, would turbines be visible). With respect to the eastern portion of the study area, which generally corresponds to the panhandle lying south of Klickitat County, turbines would be visible from I-84 at nearly all locations, and would be visible from Cook-Underwood Road at locations near the NSA boundary. *Exhibit B.3.*

53. A viewshed analysis was prepared specifically for the Saddleback project, which, if developed, would be located in the southeast portion of Skamania County. According to the submitted site plan, 44 wind turbines would be located along some north-south ridgelines located immediately north of the Scenic Area boundary.[29] The turbines would be visible for several miles, and would be particularly visible from areas to the west and north of the project and from the south side of the Columbia River Gorge (I-84 and environs). Views from Cook-Underwood Road would also be affected. *Exhibits 2.2a, 2.2b, and 2.2c.*

Wildlife Impacts

54. Wind turbines typically kill at least some birds and bats. Bird fatalities are generally caused by collision with the turbines or associated infrastructure. Bat fatalities can be caused by collision or by "barotrauma" from air pressure changes near the turbines.[30] The extent of the impact depends on factors such as the type of species present and how they use the landscape, the type of habitat that is provided (forested areas are more sensitive), and design features such as the height of the turbines. *Testimony of Mr. Smallwood; Exhibit C.14; see generally, Exhibit 4.4, Chapter 3.*

55. Klickitat County had an Avian Study Report (WEST, 2003) prepared as part of its FEIS. The purpose of this study was to "provide data on avian use of potential wind power development areas in Klickitat County." *AR-71, Appendix B, page 1.* In addition to data on avian use, the study included predictions of the number of collisions per turbine by avian group for each of six study regions. *AR-71, Appendix B, page 3.* Two of the avian sampling points were in southeast Skamania County, in the general vicinity of the panhandle that extends south of the Klickitat County line. *AR-71, Appendix B, Figure 1.* However, the study did not include collision predictions with respect to the Skamania County sites. *AR-71, Appendix B, page 3 and Figure 1.*

56. Overall, the WEST study predicted relatively low avian fatality rates throughout Klickitat County, with the highest rate of raptor fatalities west of U.S. 97 and within 1.5 miles of the Columbia River (0.058 per year per turbine), the lowest rate of raptor fatalities east of

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[29] It should be noted that because no formal application has been submitted to the County, the site plan submitted by the Appellants might not represent the layout ultimately reviewed.

[30] Pulmonary barotrauma is lung damage due to the expansion of air in the lungs that is not accommodated by exhalation. In a study of bat fatalities from a wind energy facility in Alberta, Canada, more than 90 percent of the bats exhibited internal hemorrhaging and pulmonary lesions consistent with barotrauma, and approximately half showed no sign of external injury such as would be caused by direct collision. *Exhibit C.14.*

Rock Creek and greater than 1.5 miles from the Columbia River. The prediction for passerines was the same for all study areas, at 1.6 fatalities per year per turbine. The prediction for all birds combined was similar for the study areas, with annual fatalities per turbine ranging from 1.624 east of Rock Creek and more than 1.5 miles from the Columbia River and 1.725 east of Rock Creek and less than 1.5 miles from the Columbia River. *AR-71, Appendix B, Table 32.*

57. The Appellant's wildlife expert, Dr. Kenneth Smallwood, is uniquely qualified to testify on the issue of the effects of wind turbines and other types of infrastructure on wildlife. He has a Ph.D in ecology, and has served as a consultant to the California Energy Commission, conducting research on bird behavior in the Altamont Pass Wind Resources Area. He has published 56 peer-reviewed articles, including three specifically relating to Altamont Pass. *Exhibit G.4.* Mr. Smallwood submitted that the Klickitat County FEIS underestimates the potential impact of wind turbines on birds. Mr. Smallwood reviewed the avian and bat fatality rates of the Big Horn Wind Energy Project, a 133-turbine facility that was recently constructed in Klickitat County. During the environmental review process, the developer of the Big Horn facility predicted low fatality rates for birds and bats, based in part on the results of the Klickitat County FEIS.[31] The project was then constructed and avian and bat mortality was monitored for a year. Mr. Smallwood evaluated the monitoring results, and developed estimates of actual bird and bat mortality. With respect to raptors, he found that the number of deaths was 12 to 16 times higher than the number predicted in the preliminary studies. With respect to bats, he found that the number of deaths was more than two times higher than originally predicted. *Exhibits C.19 and C.22.*

58. Although the WEST study underestimated the avian mortality associated wind power facilities, it provided some general conclusions that are relevant to the appeals:

- Avian mortality would be reduced by siting turbines where lowest avian use occurs
- Avian mortality would be reduced by siting turbines away from riparian areas
- Avian mortality would be reduced by siting turbines in agricultural areas rather than in native landscapes
- Impacts to raptors would be reduced by avoiding siting turbines at the crests and edges of hilltops, where raptors use the uplift created by the cliff face. "A requirement to consider avoiding wind turbine placement within 50 meters of hilltop rim edges is recommended to be included in the Energy Overlay Comprehensive Plan."

AR-71, page 3-64.

[31] The estimates associated with the Big Horn facility correlate fairly closely with the estimates contained in the Klickitat County FEIS. In the Avian Study Report, WEST estimated that the number of raptor deaths per turbine per year would range from 0.022 to 0.058 depending on geographic location. The preliminary Big Horn studies estimated that the number of raptors killed per year by the entire project would be three to four, or 0.022 to 0.03 raptors per turbine. *AR-71, Appendix B, Table 32; Exhibit C-19.*

59. Skamania County is predominately forested. Forested areas support more special-status species that would be vulnerable to turbine collision. *Exhibit C.21, page 15; Testimony of Mr. Smallwood.*

60. Skamania County's planning documents acknowledge that at least portions of the County provide habitat for protected species. For example, according to the Swift Subarea Plan, the Swift area may contain or provide habitat for the following bird and bat species that are federally listed as Endangered, Threatened, or Species of Concern: Bald Eagle, Northern Spotted Owl, Pacific Townsend's Big-Eared Bat, and Peregrine Falcon. *Swift Subarea Plan, page 8.* No evidence was presented that the County considered the presence of protected species when determining which zones should allow large-scale wind energy development.

61. Turbine collision is not the only impact to wildlife associated with large-scale wind energy facilities. The infrastructure associated with wind turbine development (roads, transmission lines) has potential to adversely affect wildlife by fragmenting habitat. *Exhibit 4.4, Chapter 3, pages 105-108.* The Planning Commission Recommended Draft and proposed zoning map do not restrict energy uses to areas where infrastructure is available or could be developed with minimal environmental impact. Although energy uses such as large-scale wind energy facilities would be conditionally allowed in substantial portions of the County, the existing road and electricity infrastructure is extremely limited or nonexistent in some areas. *Exhibit H.4; County Exhibit 2.*

62. Pine Creek, located within the Swift Subarea, provides spawning grounds for bull trout, a federally listed species. The U.S. Fish and Wildlife Service considers the Pine Creek bull trout population to be "especially important in achieving recovery for this species." *Exhibit C.17; Swift Subarea Plan, page 8.* Pine Creek is "especially vulnerable to land management activities on account of its steep slopes and highly erosive volcanic soils." *Exhibit C.17, page 2; see also Exhibit C.16.*

63. There are map-based tools that can be used on a countywide level to determine where energy facilities and other development would minimize impacts to wildlife. For example, Mr. Smallwood has developed an indicators approach for assessing the impacts of wind power development on bird species at any location in California. *Exhibit C-21, pages 4-5.*

64. The Planning Commission Recommended Draft contains measures to protect wildlife from impacts associated with large-scale wind energy development. These include the following (paraphrased):

- Take "reasonable efforts" to preserve existing trees, vegetation, and water resources
- Flag construction limits
- Design wind energy structures to discourage bird nesting, by using tubular rather than lattice supports, avoiding use of external ladders and platforms, avoiding use of guy wires, and using bird deterrent devices on guy wires

- Control weeds to avoid creating raptor habitat
- Use anti-perching devices on transmission lines
- Set back turbines at least 2,500 feet from known nesting sites of state and/or federally threatened or endangered raptor species and at least 1,500 feet from wetlands identified on the National Wetlands Inventory maps
- Monitor raptor nest activity prior to commencing construction
- Survey avian use of the site prior to finalizing site design
- Remove animal carcasses to avoid attracting foragers
- Should consult with WDFW before making final siting decisions
- Restore temporarily disturbed areas

AR-209 to 210. The measures do not include minimum setbacks from ridgelines.[32]

65. Although all development within the County would be subject to the critical areas code, the County did not present any evidence that it evaluated the presence of critical areas prior to establishing zoning districts or allowed uses within the zones. *Testimony of Ms. Witherspoon.*

66. The 2007 Comprehensive Plan contains policies that support protecting wildlife on a planning level rather than on a project-specific basis. These include the following:

> Policy E.4.2: Develop strategies for preserving, protecting or restoring important habitats and corridors, particularly if they are at risk of significant degradation. Some strategies may include … promoting land use plans and development that avoid impacts on habitat….
>
> Policy E.4.4: Coordinate with other jurisdictions and agencies to protect environmentally critical habitats, particularly ecosystems and watersheds that span jurisdictional boundaries.

2007 Comprehensive Plan, page 46.

Air quality

67. According to the Klickitat County FEIS, biomass involves combustion of an organic fuel (such as wood), and consequently the emissions from such facilities include nitrogen oxides, carbon monoxide, particulate matter, sulfur dioxide, greenhouse gases, and toxic air pollutants (i.e., toluene, formaldehyde, etc.). *AR-71, page 3-9.* The FEIS notes that both biomass and natural gas-fired plants could affect visibility within the National Scenic Area, even though the Scenic Area is not within the overlay, and recommends the use of state-of-the-art air pollution technologies to mitigate impacts. *AR-71, page 1-7.*

[32] The County Critical Areas Ordinance would also not require a minimum setback from the edge of a bluff or mountain ridge. Development on slopes steep enough to be classified as a Landslide Hazard Area requires preparation of a geotechnical report. No minimum setback is specified. *SCC 21A.06.020.*

68. The United States Forest Service (USFS) monitors air quality within the Scenic Area, as well as within national forests in the Pacific Northwest region, through chemical analysis of lichen tissue. Based on study conducted between 1993 and 2001, the USFS found that mean concentrations of sulfur, nitrogen, lead, cadmium, copper, and zinc within the Scenic Area were significantly higher than means within the national forests, and were comparable to levels found within urban areas. *Exhibit A.3.* Cultural resources such as rock art might be adversely affected by the air pollution. *Exhibits A.1 and A.5.* Other ecological effects associated with nitrogen deposition are described in Exhibit A.4. *Exhibit A.4.*

69. The visibility within the Columbia Gorge National Scenic Area is poor compared to the conditions within many national parks and scenic areas in the western U.S., and is comparable to conditions within locations in California and in northwest Washington. *Exhibit A.1, pages 3 and 4.*

70. The Planning Commission Recommended Draft includes the following air quality/pollution control standard relating to bio-energy facilities: "All applicable air emission permits shall be obtained and all conditions complied with." *AR-214.*

Noise/Health

71. The Planning Commission Recommended Draft contains the following standards with respect to the noise generated by large-scale wind energy facilities:

    i. The owner/operator shall operate the project in compliance with applicable Washington State Environmental Noise Levels, Chapter 173-60 WAC.
    ii. Applicants shall provide documentation of expected noise generation levels.

    AR-207. The Washington noise standards are based on the land use classification of both the noise source and the noise receiver. When the receiver is a residential property, the daytime noise limit ranges from 55 to 60 dBA[33] depending on the classification of the noise source. At night, the maximum ranges from 45 to 50 dBA. *WAC 173-60-040.*

72. Mr. Richard James, an acoustical engineer, provided credible testimony that wind turbines generate a type of noise that is not adequately measured by the dBA scale used in the Washington noise standards. The dBA scale is designed to detect noises audible to humans. Wind turbines generate low-frequency noise (20 Hz or lower) that might cause the body to resonate even if it is not audible. Such effects are measurable on the C-weighted scale (dBC). *Testimony of Mr. James.*

73. Wind turbines have unique sound characteristics due to the interaction of the blades with the air around the towers. As described in one of the articles submitted by the Appellants:

[33] "dBA" means the sound pressure level in decibels measured using the "A" weighting network on a sound level meter." *WAC 173-60-020.*

"The interaction of the blades with air turbulences around the towers create low frequency and infrasound components, which modulate the broadband noise[34] and create fluctuations of sound level. The low frequency fluctuations of the noise is described as 'swishing' or 'whooshing' sound, creating an additional disturbance due to the periodic and rhythmic characteristic." *Exhibit 1.12, page 11.* Mountainous conditions can exacerbate the noise effects of wind turbines. *Testimony of Mr. James.*

74. Mr. James recommended a minimum distance of 1.2 miles between turbines and residences, based on health effects research conducted by Dr. Nina Pierpont. *Testimony of Mr. James.*

75. Dr. Pierpont, a pediatrician, interviewed by telephone 23 members of ten families, and through those interviews obtained information on a total of 37 people (she obtained information on young children from their parents). The ten families were not from the same town or situated around the same wind farm; some families lived in Canada and others lived in various Western European countries. Only one family lived in the United States. The families lived distances ranging from 0.19 mile to 0.93 mile from minimum 328-foot-tall, modern (i.e., constructed 2004 or later) wind turbines. Six of the ten families lived less than one-half mile from the turbines. Based on the interviews, Dr. Pierpont found that most study members experienced sleep disturbance, and at least half experienced a variety of other systems such as headaches, dizziness, and memory problems, which symptoms improved when the member was away from the turbines.[35] Dr. Pierpont calls the constellation of symptoms "Wind Turbine Syndrome." Her theory is that the low-frequency noise or vibration associated with wind turbines stimulates receptors for the balance system in a discordant fashion. Dr. Pierpont recommends that wind turbines be set back a distance of at least 1.2 miles from residences.[36] *Exhibit 8.3 (see in particular, pages 8, 12, 20, 22, 23, 26, 60, and 61).*

76. Dr. Pierpont's research has several limitations. The study was based on an extremely small number of families, and the only families that were included in the study were those in which a member reported severe effects and the family considered the problem to be serious enough to take action to reduce turbine exposure (such as moving to a new location). Dr. Pierpont did not physically examine any of the participants; the information obtained was based on medical histories taken by telephone. *Exhibit 8.3, page 18; Testimony of Dr. Pierpont.* The study was not epidemiological in nature; it does not show how prevalent any of the symptoms were within the larger community. Individuals outside of the selected families who lived near turbines but did not experience symptoms were not interviewed. *Testimony of Dr. Pierpont; Exhibit 8.3, page 51.* Wind Turbine

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[34] "Broadband noise is characterized by a continuous distribution of sound pressure with frequencies greater than 100 Hz." *Exhibit 1.12, page 4.*

[35] Mr. Banks objected to the hearsay nature of Dr. Pierpont's testimony on this issue.

[36] All of Dr. Pierpont's subjects lived less than a mile from wind turbines. The recommendation of 1.2 miles is based on surveys conducted by Robyn Phipps of New Zealand. *Exhibit 8.3, page 8.* Robyn Phipps is not a medical doctor. *Exhibit 8.1, page 2.*

Syndrome (or the same group of symptoms) is not described in any medical journal or other professional literature.[37] *Exhibit 8.3, page 15; Testimony of Dr. Pierpont.*

77. The National Academy of Sciences does not consider noise produced by wind turbines to be a "major concern" for people living more than a half-mile from the turbines. *Exhibit 4.4, Chapter 4, page 159.* However, it notes that "industry standards … for assessing and documenting noise levels emitted may not be adequate for nighttime conditions and projects in mountainous terrain. This work on understanding the effect of atmospheric stability conditions and on site-specific terrain conditions and their effects on noise needs to be accounted for in noise standards. In addition, studies on human sensitivity to very low frequencies are recommended." *Exhibit 4.4, Chapter 4, page 176.*

Shadow Flicker

78. Shadow flicker is the phenomenon in which the blades of a wind turbine, as they rotate in sunny conditions, "cast moving shadows on the ground resulting in alternating changes in light intensity." *Exhibit 4.4, Chapter 4, page 160.*

79. According to one article, for individuals with photosensitive epilepsy (one in 4,000 people), "flicker from turbines that interrupt or reflect sunlight at frequencies greater than 3 Hz poses a substantial risk of inducing photosensitive seizures." *Exhibit 2.1, page 4.* However, modern large wind turbines do not generate shadow flicker at frequencies greater than 3 Hz. *Exhibit 4.4, Chapter 4, page 161 ("Flicker frequency due to a turbine is on the order of the rotor frequency (i.e., 0.6 – 1.0 Hz)"); see also Exhibit 2.1, page 4.*

80. Although shadow flicker might still be considered annoying even if not an actual health hazard, shadow flicker only occurs during a limited portion of the day, and only during certain conditions. As described in the National Academy of Sciences publication on wind-energy projects, "Even in the worst situations, shadow flicker only lasts for a short time each day – rarely more than half an hour. Moreover, flicker is observed only for a few weeks in the winter season." *Exhibit 4.4, Chapter 4, page 161.*

81. Shadow Flicker can be easily modeled on a project-specific basis, and shadow flicker modeling was performed for the Wild Horse Wind Power Project in Kittitas County. *Exhibit 4.4, Chapter 4, page 161.* As described in the FEIS for the project, the shadow flicker frequency for each turbine would be less than one-fifth the frequency reported to trigger seizures, and the project would not have a shadow flicker impact on residences due to distance and intervening terrain. *Exhibit 5.2, page 3.15-1.* With respect to an off-site alternative location with potential shadow flicker impacts (potential exposure ranging from six minutes to two hours), micro-siting of some of the turbines was identified as a potential mitigation measure. *Exhibit 5.2, page 3.15-2.*

[37] "Other than articles on the internet, there is currently no published research on wind turbine associated symptoms." *Exhibit 8.3, page 15.*

CONCLUSIONS

Jurisdiction:
The Hearing Examiner is granted authority to conduct hearings and make decisions on appeals of State Environmental Policy Act (SEPA) threshold determinations pursuant to Skamania County Code (SCC) 2.80.060(A)(13).

Standards for Review of a SEPA Threshold Determination:
SEPA requires an Environmental Impact Statement (EIS) to be prepared "on proposals for legislation and other major actions having a probable significant, adverse environmental impact." RCW 43.21C.031.

- "Significant" as used in SEPA means a reasonable likelihood of more than a moderate adverse impact on environmental policy. Significance involves context and intensity and does not lend itself to a formula or a quantifiable test. *WAC 197-11-794.* Several marginal impacts when considered together may result in a significant adverse impact. *WAC 197-11-330(3)(c).*

- "Probable" as used in SEPA means likely or reasonably likely to occur. Probable is used to distinguish likely impacts from those that merely have a possibility of occurring, but are remote or speculative. *WAC 197-111-782.*

In *King County v. Boundary Review Board,* 122 Wn.2d 648 (1993), the Washington Supreme Court clarified that the term "probable" does not mean that an impact must be "inevitable" before an EIS may be required. In that case, the City of Black Diamond had issued a DNS for a proposed annexation of unincorporated King County land. The land was "largely uninhabited" (*Id.* at 656), and while some of the owners identified preferred future land uses, none presented a formal development proposal to the City. In response to argument that any future development of the property is too speculative to warrant full environmental review, the Court held, "a proposed action is not insulated from full environmental review simply because there are no existing specific proposals to develop the land in question or because there are no immediate land use changes which will flow from the proposed action. Instead, an EIS should be prepared where the responsible agency determines that significant adverse environmental impacts are probable following the government action." *Id.* at 664. The Court explained its reasoning as follows:

> One of SEPA's purposes is to provide consideration of environmental factors at the earliest possible stage to allow decisions to be based on complete disclosure of environmental consequences. Decision-making based on complete disclosure would be thwarted if full environmental review could be evaded simply because no land-use changes would occur as a direct result of a proposed government action. Even a boundary change, like the one in this case, may begin a process of government action which can "snowball" and acquire virtually unstoppable administrative inertia.

Id.

In determining an impact's significance, the responsible official must take into account that:

(a). The same proposal may have a significant adverse impact in one location but not in another location;

(b). The absolute quantitative effects of a proposal are also important, and may result in a significant adverse impact regardless of the nature of the existing environment;

(c). Several marginal impacts when considered together may result in a significant adverse impact; For some proposals, it may be impossible to forecast the environmental impacts with precision, often because some variables cannot be predicted or values cannot be quantified.

(d). A proposal may to a significant degree:

i. Adversely affect environmentally sensitive or special areas, such as loss or destruction of historic, scientific, and cultural resources, parks, prime farmlands, wetlands, wild and scenic rivers, or wilderness;

ii. Adversely affect endangered or threatened species or their habitat;

iii. Conflict with local, state, or federal laws or requirements for the protection of the environment; and

iv. Establish a precedent for future actions with significant effects, involves unique and unknown risks to the environment, or may affect public health or safety.

WAC 197-11-330(3).

A threshold determination "shall not balance whether the beneficial aspects of a proposal outweigh its adverse impacts, but rather, shall consider whether a proposal has any probable significant adverse environmental impacts." *WAC 197-11-330(5).* Thus, in *King County v. Boundary Review Board*, the Court rejected the argument that an EIS need not be prepared for the annexation proposal because development could also take place under county jurisdiction, stating, "The specter of adverse environmental effects in the absence of government action ... is itself not a justification for evading full environmental review." *King County v. Boundary Review Board*, 122 Wn.2d at 666. Even proposals designed to improve the environment might have significant adverse environmental impacts. *WAC 197-11-330(5).*

The lead agency must make its threshold determination "based upon information reasonably sufficient to evaluate the environmental impact of a proposal." *WAC 197-11-335.*

If a DNS is issued, the agency has the burden of demonstrating "that environmental factors were considered in a manner sufficient to be a prima facie compliance with the procedural dictates of SEPA." *Lassila v. City of Wenatchee,* 89 Wn.2d 804, 814 (1978). To uphold the DNS, the reviewing body "must be presented with a record sufficient to demonstrate that ACTUAL consideration was given to the environmental impact of the proposed action or recommendation." *Id. (emphasis in original).*

Clear error is the standard of review applicable to substantive decisions under SEPA.

Cougar Mt. Assocs. v. King County, 111 Wn.2d 742, 747, 765 P.2d 264 (1988). The determination by the governmental agency is clearly erroneous only if the reviewing tribunal is left with "the definite and firm conviction that a mistake has been committed." *Id.* at 747 (quoting *Polygon Corp. v. Seattle*, 90 Wn.2d 59, 69, 578 P.2d 1309 (1978)). In deciding this appeal, the Hearing Examiner must accord the County's SEPA determination "substantial weight." *RCW 43.21C.090.* The burden of proof is on the Appellants to show that the threshold determination was clearly erroneous.

Conclusions Based on Findings:

1. The County has not demonstrated that it has considered environmental factors to the extent required by SEPA. Most significantly, the County did not consider County-specific environmental studies prior to developing the zoning text and map amendments and did not consider the types of development that might result from the amendments. The County was not able to articulate a strong rationale for some the proposed alternative energy development standards, even though such standards have the potential to create environmental impacts. *Findings 12, 27, 28, 29, and 65.*

2. The Appellants have demonstrated, consistent with *King County v. Boundary Review Board,* that development with significant adverse environmental impacts is probable after adoption of the proposed zoning amendments.

   A. The zoning amendments would facilitate the development of large-scale wind energy and other alternative energy facilities on or near lands known for their unique scenic resources and habitat value. Some of the alternative energy uses are not identified in the Comprehensive Plan or the existing zoning code. *Findings 3, 11, 12, 13, 14, 16, 18, 42, and 43.*

   B. The potential significant, adverse environmental impacts of large-scale wind energy facilities are many and well documented. The Hearing Examiner finds most compelling the evidence regarding aesthetic and wildlife impacts. These impacts can and should be evaluated on a planning level rather than when individual projects are proposed. With full environmental analysis, the County might decide to refine the zoning map or development regulations to avoid environmental impacts. *Findings 40 – 66.*

   C. Although based on the evidence submitted the Hearing Examiner is not convinced that an adverse impact to public health is probable if wind turbines are allowed to be sited less than 1.2 miles from residences, wind turbines do generate noise and the impact should be evaluated prior to adopting a setback standard. *Findings 71-77.*

   D. The significant, adverse environmental impacts associated with wind energy facilities are not ameliorated by the conditional use permit requirement. Under the proposed zoning amendments, a conditional use cannot be denied. *Finding 17.*

E. The significant, adverse environmental impacts associated with wind energy facilities would not be fully addressed by project-specific environmental impact statements. Because project proposals are tied to specific parcels of land, the ability to consider alternative locations that might reduce environmental impacts is limited.

F. Development of wind energy facilities is probable after the zoning action due to the County's unique wind resources, the County Commissioners' expressed interest in and support of alternative energy development, and the fact that a developer has already approached the County with a potential wind power project. *Findings 31-38.*

3. The significance of the County action is not diminished by the fact that only a small fraction of the County located outside of the scenic area and the incorporated areas is privately owned. Even five percent of the County's total acreage (an amount less than the actual private ownership) is a significant amount of land.[38] Further, no evidence or legal authority was presented to suggest that the County's regulations would not apply to the 60,000 acres of land owned by the State of Washington. Klickitat County, for example, is processing permit applications for wind energy facilities located on Washington DNR land. *Finding 40.* Finally, even if the County does not have jurisdiction to regulate public lands within its boundaries[39], the County's regulations might be influential to state and federal decision makers when evaluating requests for alternative energy facilities. For example, 36 CFR 251.56 states that special use approvals on National Forest land "may be conditioned to require State, county, or other Federal agency licenses, permits, certificates, or other approval documents, such as a Federal Communication Commission license, a Federal Energy Regulatory Commission license, a State water right, or a county building permit." *36 CFR 251.56(a)(2).*

4. Contrary to the County's assertion, the proposed wind energy regulations would not be preempted by the Washington Energy Facilities Site Locations Act (EFSLA) (Chapter 80.50 RCW) automatically. The EFSLA establishes a certification process that is mandatory for development of certain types of energy facilities (e.g., natural gas transmission pipelines in excess of 14 inches in diameter and 15 miles in length; stationary thermal power plants with generating capacity of 350,000 KW or more; facilities capable of processing more than 25,000 barrels per day of petroleum into refined products) but that is voluntary for the development of energy facilities that exclusively use alternative energy resources, such as wind, solar, geothermal, and biomass energy. *RCW 80.50.060; RCW 80.50.020(7), (11), (15), and (18).* When certification under the EFSLA is sought, the Energy Facility Site Evaluation Council holds a public hearing "to determine whether or not the proposed site is consistent and in compliance with city, county, or regional land use plans or zoning ordinances." *RCW*

[38] In *Ullock v. Bremerton*, 17 Wn. App. 573 (1977) the court reviewed an EIS prepared for a rezone of five acres.
[39] In *South Dakota Mining Assoc. v. Lawrence Co.*, 155 F.3d 1005 (1998), the court determined that federal laws allowing mining on National Forest land preempted a county ordinance prohibiting mining.

80.50.090. If the site is not consistent with the local ordinances, then the Council must determine whether to recommend to the governor that the state preempt the local ordinances. *WAC 463-28-060.* Even if the Council recommends preemption, it must include conditions in the draft certification agreement that considers local interests and the purposes of the ordinances that are preempted. *WAC 463-28-070.* The governor ultimately decides whether to approve the certification agreement. *RCW 80.50.100.* Because state preemption must be applied for, is discretionary, and is granted only after consideration of local ordinances, RCW 80.50 does not provide a rationale for avoiding full environmental review of the County's alternative energy regulations.

5. The Appellants have met their burden of proving that the County's issuance of a DNS was in error.

DECISION

Based upon the preceding Findings and Conclusions, the appeals of the October 8, 2008 Determination of Nonsignificance issued for the County's proposed zoning text and map amendments are granted. The Determination of Nonsignificance is reversed, and remanded to the County for preparation of an Environmental Impact Statement for the zoning text and map amendments.

Dated February 19, 2009.

Toweill Rice Taylor
Hearing Examiners for Skamania County
By:

LeAnna C. Toweill

Appendix A
Exhibit List

County Exhibits
Note: Citations to County Exhibit 1 items are to the "Administrative Record" (AR) page number only.

1. Record for Skamania County SEPA on Planning Commission Recommended Draft Zoning Text and Map Revisions and Minor Comprehensive Plan Map Amendments, File No. SEP-08-35 (April, 2008 to November 3, 2008), which includes the following:

Date	Description	Pages
11/3/08	Pre-Hearing Order from LeAnna Toweill, Hearing Examiner	1-2
10/22/08	Notice Administrative Appeal for SEP-08-35 from Reeves, Kahn, & Hennesy, Attorneys for Friends of the Gorge	3-23
10/22/08	Certificate of Mailing from Nathan J. Baker, Staff Attorney for Friends of the Gorge	24-28
10/22/08	Notice of Administrative Appeal and Certificate of Mailing for SEP-08-35 from Save Our Scenic Area, Richard Aramburu, Attorney	29-42
10/20/08	Email from Bonnie Anderson, Skamania County Planning Department - Administrative Assistant, to Nathan Baker	43-44
10/14/08	Affidavit of Publication for the Determination of Non-Significance SEP-08-35, Skamania County Pioneer	45
10/8/08	Determination of Non-Significance with no Checklist	46-46A
10/8/08	Determination of Non-Significance with Checklist	47
10/7/08	Certificate of Mailing for SEP-08-35 by Bonnie Anderson	64-68
10/2/08	Publication notice for SEP-08-35 to Skamania County Pioneer	69-70
	Compact Disc - Klickitat County Energy Overlay Zone Draft EIS and Final EIS; Klickitat County Energy Overlay Zone - FEIS Documents Incorporated by Reference 1 of 2; Klickitat County Energy Overlay Zone - FEIS Documents Incorporated by Reference 2 of 2	71
9/2/08	Skamania County Code Title 21 - Zoning - Planning Commissions Recommended Draft and Minor Comprehensive Plan Map Amendments	72-232
8/2008	Research for SEPA Determination and Zoning Ordinance (WA EFSEC Order on Remand, No. 831)	233-237
5/2008	Research for SEPA Determination Zoning Ordinance (SEPA checklists from other jurisdictions)	238-333
4/2008	Research for SEPA Determination Zoning Ordinance (checklists, WA noise standards, WDFW Windpower Guidelines)	334-359

2. Full-size color map entitled "PC Recommended Draft Skamania County Zoning Map

Appellant Save our Scenic Area Exhibits
Note: Citations to SOSA Exhibits are to the numbers as listed. Exhibits 8.1, 8.2 and 8.3 were admitted into the record but not assigned exhibit numbers at the hearing. Numbers are assigned for the first time here.

1.1 NINA PIERPONT, M.D., Ph.D., FAAP
Curriculum Vitae

Author: Nina Pierpont, M.D., Ph.D., FAAP
Dated July 5, 2006

1.2 PIERPONT LETTER TO SCHWARTZ, GENOUILLE, FRANCE
Author: Nina Pierpont, M.D., Ph.D., FAAP
Dated February 23, 2008

1.3 NOISY WIND AND HOT AIR
Author: Nina Pierpont, M.D., Ph.D., FAAP
Dated May 7, 2005
Malone Telegram (New York)

1.4 HEALTH EFFECTS OF WIND TURBINE NOISE
Author: Nina Pierpont, M.D., Ph.D., FAAP
Dated March 2, 2006
www.ninapierpont.com

1.5 WIND TURBINE SYNDROME
Testimony before the New York State Legislature Energy Committee explaining Wind Turbine Syndrome and wind turbine siting.
Author: Nina Pierpont, M.D., Ph.D., FAAP
Dated March 7, 2006

1.6 LOCATION, LOCATION, LOCATION
Author: The Noise Association, UK Noise Association, 2nd Floor, Broken Wharf House, 2 Broken Wharf, London EC4V 3DT, U.K.
Dated July 2006
www.ukna.org.uk

1.7 NOISE RADIATION FROM WIND TURBINES INSTALLED NEAR HOMES: EFFECTS ON HEALTH
Authors: Barbara J. Frey, BA, MA, and Peter J. Hadden, BSc, FRICS
Dated February 2007
www.windturbinenoisehealthhumanrights.com

1.8 EFFECTS OF THE WIND PROFILE AT NIGHT ON WIND TURBINE SOUND
Author: G.P. van den Berg
Dated 2003 (Submitted to Elsevier Ltd Jan 2003, accepted Sept 2003)
www.elsevier.com/locate/jsvi (Journal of Sound and Vibration); www.sciencedirect.com,
g.p.van.den.berg@phys.rug.nl

1.9 INDUSTRIAL WIND TURBINES, INFRASOUND AND VIBRO-ACOUSTIC DISEASE (VAD)
Authors: Professor Mariana Alves-Pereira, School of Health Sciences, Lusofona University, Portugal and Dept. of Environmental Sciences and Engineering, New University of Lisbon, Portugal; Nuno Castelo Branco, MD, Surgical Pathologist and President, Scientific Board, Center for Human Performance.
Dated May 31, 2007
vibroacoustic.disease@gmail.com

1.10 INFRASOUND AND LOW FREQUENCY NOISE DOSE RESPONSES: CONTRIBUTIONS
Authors: Professor Mariana Alves-Pereira, School of Health Sciences, Lusofona University, Portugal and Dept. of Environmental Sciences and Engineering, New University of Lisbon, Portugal; Nuno Castelo Branco, MD, Surgical Pathologist and President, Scientific Board, Center for Human Performance.
Dated 28-31 August 2007
INTER-NOISE 2007, Istanbul, Turkey (International conference)

1.11 WHO HAS HEARD THE WIND

Author: Jules Smith
Dated 2006 (Copyright LightningStrike Studios)
www.lightningstrikestudios.com

1.12 WIND FARM NOISE AND REGULATIONS IN THE EASTERN UNITED STATES from the Second International Meeting on Wind Turbine Noise, Lyon, France, 2007
Author(s): Hilkat Soysal and Oguz Soysal, Department of Physics and Engineering, Frostburg State University, Frostburg MD
Dated September 20-21, 2007
renewable@frostburg.edu

1.13 WIND TURBINES, NOISE AND HEALTH
Author(s): Dr. Amanda Harry, M.B., Ch.B, P.G.Dip.E.N.T.
Dated February 2007

2.1 WIND TURBINES, FLICKER, AND PHOTOSENSITIVE EPILEPSY: CHARACTERIZING THE FLASHING THAT MAY PRECIPITATE SEIZURES AND OPTIMIZING GUIDELINES TO PREVENT THEM
Author(s): Graham Harding, Neurosciences Institute Aston University, Birmingham, U.K.; Pamela Harding, Neurosciences Institute Aston University; and Arnold Wilkins, Department of Psychology, University of Essex, Colchester, U.K.
Dated February 2008
Blackwell Publishing, Inc. International League Against Epilepsy.

2.2 Scenic Analysis

a. Diagram showing wind turbine placement.

b. Color diagram showing wind turbine placement and visibility from the National Scenic Area.

c. Visual simulation based on the turbine location map provided by SDS Lumber and the actual turbine height specification, demonstrating the visual impacts and providing help in understanding the visibility of project.

2.3 Topographical Map of Skamania County area

3.1 FRANCE'S NATIONAL ACADEMY OF MEDICINE CALLS FOR 1.5 KM SETBACK FOR ALL INDUSTRIAL WIND TURBINES FROM RESIDENCES
Translation of publication notice for "Repercussions of wind turbine operations on human health"
Author: Dr. Chantal Gueniot
Dated March 29, 2006

3.2 HEALTH, HAZARD AND QUALITY OF LIFE NEAR WIND POWER INSTALLATIONS; HOW CLOSE IS TOO CLOSE?
Author: Nina Pierpont, MD, PhD
Dated March 2, 2005
Malone Telegram, New York

4.1 WIND TURBINE SYNDROME: NOISE, SHADOW, FLICKER AND HEALTH
Author: Nina Pierpont, M.D., Ph.D., FAAP
Dated August 1, 2006
4.2 SUMMARY REPORT: LITERATURE SEARCH ON THE POTENTIAL HEALTH IMPACTS ASSOCIATED WITH WIND-TO-ENERGY TURBINE OPERATIONS
Author: Robert C. Frey, Ph.D, Chief, Health Assessment Section; John R. Kollman, R.S., Toxicologist, Health Assessment Section, Ohio Health Department.

Dated March, 2008
Health Assessment Section, Bureau of Environmental Health, Ohio Department of Health

4.3 IMPACT OF WIND FARMS ON PUBLIC HEALTH
Author: Kansas Legislative Research Department
Dated July 18, 2007 (Revised)
kslegres@klrd.state.ks.us, http://www.kslegislature.org/klrd

4.4 ENVIRONMENTAL IMPACTS OF WIND-ENERGY PROJECTS
Author: The National Academy of Sciences Committee on Environmental Impacts of Wind-Energy Projects (Board on Environmental Studies and Toxicology).
Dated 2007
National Academies Press, 500 Fifth Street, NW, Washington, D.C. 20001; www.nap.edu, http://books.nap.edu/catalog.php?record_id=11935

4.5 PROVISIONS OF THE PROPOSED STATE ENERGY PLAN ON INDUSTRIAL WIND-ENERGY DEVELOPMENT
Letter from Congressman Alan B. Mollohan, 1st Dist., WV, to the director of the West Virginia Division of Energy.
Author: Congressman Alan B. Mollohan, First District, West Virginia
Dated October 31, 2007
Alan B. Molloham, Congress of the United States, House of Representatives, 2302 Rayburn HOB, Washington DC 20515-4801

5.1 KITTITAS VALLEY WIND POWER PROJECT – FEIS Table of Contents[1] at
http://www.efsec.wa.gov/kittitaswind/FEIS/kvfeis.shtml

5.2 WILD HORSE WIND POWER PROJECT - EIS at
http://www.efsec.wa.gov/wildhorse/feis/whfeis.shtml

5.3 DESERT CLAIM WIND POWER PROJECT - FEIS Table of Contents at
http://www.efsec.wa.gov/Desert%20Claim/FEIS/FEIS.shtml[2]

5.4 STATELINE WIND ENERGY PROJECT – Federal Register: June 5, 2000 (Volume 65, Number 108)

5.5 KLICKITAT COUNTY ENERGY OVERLAY ZONE - FEIS available at
http://www.klickitatcounty.org/planning/ContentROne.asp?fContentIdSelected=2119658607&fCategoryIdSelected=948111261

6.1 WINDY POINT II WIND PROJECT - DS within scoping notice of 7/9/08 at
http://www.klickitatcounty.org/planning/FilesHtml/WPSN.pdf.

6.2 GOODNOE II WIND PROJECT - DS within scoping notice at
http://www.klickitatcounty.org/planning/FilesHtml/Goodnoe%20II%20Wind%20Project%20Scoping%20Notice.pdf

6.3 HARVEST WIND - DS within scoping notice of 4/24/08 at
http://www.klickitatcounty.org/Planning/ContentROne.asp?fContentIdSelected=549483787&fCategoryIdSelected=948111261

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[1] Appellant SOSA offered the entire EIS but only provided the Table of Contents at the hearing. The Hearing Examiner did not visit the website and did not consider the remainder of the document.
[2] See Footnote 1.

6.4 JUNIPER CANYON - DS within scoping notice at
http://www.klickitatcounty.org/planning/FilesHtml/Juniper%20Canyon%20Scoping%20Notice.pdf

7.1 Resume of Rick James, E-Coustics Solutions

8.1 Evidence of Dr. Robyn Phipps, In the Matter of the Moturimu Wind Farm, March 2007
http://www.wind-watch.org/documents/writ of prohibition-content/uploads/phipps-moturimutestimony.pdf

8.2 Visual and Noise Effects Reported by Residents Living Close to Manawatu Wind Farms: Preliminary Survey Results, by Dr. Robyn Phipps at al.

8.3 Wind Turbine Syndrom, A Report on a Natural Experiment, by Nina Pierpont, MD, PhD (10-17-08 draft)

Appellants Friends of the Columbia Gorge et al. Exhibits

Note: Citations to these exhibits are to the letter/number combinations as listed. The "F" series documents are admitted for standing purposes only.

Ex.	Document Description	Date
A.1	Air Quality Issues in the Columbia River Gorge National Scenic Area, USDA Forest Service, Pacific Northwest Region, Air Resource Management Program, available at http://www.fs.fed.us/r6/aq/gorgis.pdf	Apr. 1999
A.2	Excerpts from the Management Plan for the Columbia River Gorge National Scenic Area pertaining to the protection and enhancement of air quality, available at http://www.gorgecommission.org/managementplan.cfm	Adopted May 2000
A.3	Air Quality Biomonitoring in the Columbia River Gorge National Scenic Area by the US Forest Service, 1993-2001, Geiser, L. H. and B. Bachman, USDA Forest Service, Pacific Northwest Region, Air Resource Management Program, available at http://ocid.nacse.org/airlichenPDF/AQ_CRGNSA.pdf	Sep. 27, 2001
A.4	Ecological effects of nitrogen deposition in the western United States, Fenn, M.E., Baron, J.S., Allen, E.B., et al. *BioScience*, vol. 53, no. 4, pp. 404-20, available at http://www.cdphe.state,co.us/ap/rmnp/exhibith.pdf	Apr. 2003
A.5	Winter Deposition of Nitrogen and Sulfur in the Eastern Columbia River Gorge National Scenic Area, Mark E. Fenn and Timothy J. Blubaugh, USDA Forest Service, Pacific Southwest Research Station, available at http://www.fs.fed.us/psw/programs/atdep/col_river/crgnsa_final_report.pdf	Feb. 3, 2005
B.1	Landscape Aesthetics: A Handbook for Scenery Management, Forest Service, USDA (appendices omitted from exhibit), available at http:www.urbanforestrysouth.org/resources/library/landscape-aesthetics-ah-701-complete-document/at_download/file_name	Dec. 1995
B.2	Declaration of Margo Blosser	Sep. 2, 2008
B.3	Maps of wind turbine locations in southeast Skamania County visible from I-84 and Cook Underwood Road, Gorge GIS	Sep. 2, 2008
B.4	Declaration of Dean Apostol	Jan. 14, 2009
B.5	"Skamania County Alternative Energy Code Project" PowerPoint Presentation, Dean Apostol	Jan. 14, 2009
C.1	Development of a practical modeling framework for estimating the impact of wind technology on bird populations, Morrison, M.L. and K.H. Pollock, National Renewable Energy Laboratory, Golden, Colorado, available at http://www.nrel.gov/wind/pdfs/23088.pdf	Nov. 1997
C.2	Avian risk and fatality protocol, Morrison, M.L. and K.H. Pollock, National Renewable Energy Laboratory, Golden, Colorado, available at	1998

	http://www.nrel.gov/docs/fy99osti/24997.pdf	
C.3	Sample map of designated critical wildlife habitat circles surrounding Northern spotted owl site centers in a portion of Skamania County (Township 3N, Range 9E), Washington Department of Natural Resources	May, 2000
C.4	Excerpts from Chapter 22-16 of the Washington Administrative Code relevant to the protection of Northern spotted owls (*Strix occidentalis caurina*) in Skamania County	July 2001
C.5	The Butterflies of Cascadia: A Field Guide to All the Species of Washington, Oregon and Surrounding Territories, Robert Michael Pyle	2002
C.6	Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines, U.S. Fish and Wildlife Service, available at http://www.fws.gov/habitatconservation/wind.pdf	May 13, 2003
C.7	Wind Turbine Interactions with Birds and Bats: A Summary of Research Results and Remaining Questions, National Wind Coordinating Committee, available at http://www.nationalwind.org/publications/wildlife/wildlife_factsheet.pdf	Nov. 2004
C.8	Relationships between Bats and Wind Turbines in Pennsylvania and West Virginia, An Assessment of Fatality Search Protocols, Patterns of Fatality, and B ehavioral Interactions with Wind Turbines: A Summary of Findings from the Bats and Wind Energy Cooperative's 2004 Field Season, Bats and Wind Energy Coooperative, available at http://www.batcon.org/wind/BWEC2004Reportsummary.pdf	2005
C.9	Memo to Wind Energy Production and Wildlife Conservation Planners, Tuttle, M.D., available at http://www.protectpendleton.com/nbw_batmemo.htm	Jan. 2005
C.10	Wind Power: Impacts on Wildlife and Government Responsibilities for Regulating Development and Protecting Wildlife, US Government Accountability Office, available at http://www.gao.gov/new.items/d05906.pdf	Sep. 2005
C.11	Assessing Impacts of Wind-Energy Development on Nocturnally Active Birds and Bats: A Guidance Document, Kunz, T.H, Arnett, E.A., Cooper, B.M., et al. *Journal of Wildlife Managment*, 71(8):2449-2486, available at http://www.nationalwind.org/pdf/Nocturnal_MM_Final-JWM.pdf	Nov. 2007
C.12	Letter from Ted Labbe and Michael Ritter, Washington Department of Fish and Wildlife, to Karen Witherspoon, Skamania County Planning Department, regarding comments on 2008 draft Skamania County zoning update	June 5, 2008
C.13	American Society of Mammalogists unanimous resolution: Effects of wind-energy facilities on bats and other wildlife, available at http://www.wind-watch.org/documents/wp-content/uploads/asm-windenergyresolution.pdf	June 21-25, 2008
C.14	Barotrauma is a Significant Cause of Bat Fatalities at Wind Turbines, Baerwald, E.F., D'Amours, G.H., Klug, B.J, Barclay, R.M.R., Current Biology, Vol 18, R695-R696.	Aug. 26, 2008
C.15	Declaration of K. Shawn Smallwood	Sep. 2, 2008
C.16	Review of Habitat Assessment Report for Forest Road 25 and Loowit Lane, Steve Manlow, Washington Department of Fish and Wildlife	May 5, 2005
C.17	Potential development north of Swift Reservoir in Skamania County, known as the North County Area, Ken S. Berg, U.S. Fish and Wildlife Service	Dec. 8, 2005
C.18	Oregon Columbia Plateau Ecoregion Wind Energy Siting and Permitting Guidelines	Sept. 29, 2008
C.19	Avian and Bat Mortality at the Big Horn Wind Enery Project, Klickitat County, Washington, K. Shawn Smallwood	Oct. 18, 2008
C.20	How *too much* wind power may hurt salmon, Dan Tilkin, KATU 2 Portland, available at http://www.katu.com/outdoors/featured/33967994.html	Nov. 21, 2008
C.21	Second Declaration of K. Shawn Smallwood	Dec. 8, 2008
D.1	Washington wind power and speed maps, Northwest Sustainable Energy for Economic Development, available at http://www.windpowermaps.org/windmaps/states.asp#washington	June 2002
D.2	Washington - Wind Power Resource Estimates map, National Renewable Energy Laboratory,	June 7,

	U.S. Department of Energy, available at http://wdfw.wa.gov/hab/engineer/major_projects/graphics/wind_power_resource_estimates_map.jpg	2002
D.3	Permitting of Wind Energy Facilities: A Handbook, National Wind Coordinating Committee, available at http://www.nationalwind.org/publications/siting/permitting2002.pdf	Aug. 2002
D.4	Current and Proposed Wind Project Interconnections to BPA Transmission Facilities, Bonneville Power Administration, available at http://www.transmission.bpa.gov/PlanProj/Wind/documents/Windmap_external_03242008_8-5x11.pdf	Mar. 27, 2008
D.5	Excerpts from Klickitat County's Energy Overlay Zone Final EIS	Sep. 2004
D.6	Agenda and materials, Columbia Gorge Bi-State Renewable Energy Zone Leadership Meeting, Mid-Columbia Economic Development District	Oct. 19, 2007
D.7	*Rose v. Chaikin*, 187 N.J. Super. 210, 453 A.2d 1378 (1982).	Nov. 10, 1982
D.8	*Burch v. Nedpower Mt. Storm, LLC*, 220 W. Va. 443, 647 S.E.2d 879 (2007)	June 8, 2007
D.9	*Wind Energy Siting Handbook*, American Wind Energy Association, available at http://www.awea.org/sitinghandbook/	Feb. 2008
E.1	Memorandum regarding Cascade Wind Project Update for March 2008, Adam Bless, Oregon Department of Energy	March 13, 2008
E.2	Map of approved and proposed wind projects in Klickitat county	Apr. 30, 2008
E.3	Windy Point II Wind Farm Project EOZ Application	May 23, 2008
E.4	Notice of Community Meeting, Windy Point II Windpower Project, Klickitat County	May 27, 2008
E.5	Determination of Significance and Request for Comments on Scope of EIS, Goodnoe II project, EOZ2008-05 and SEP2008-31, Klickitat County	July 14, 2008
F.1	Declaration of Chris Lloyd	Aug. 31, 2008
F.2	Declaration of Renee Tkach	Sep. 2, 2008
F.3	Declaration of Kevin Gorman	Sep. 2, 2008
F.4	Second Declaration of Chris Lloyd	Dec. 8, 2008
F.5	Second Declaration of Kevin Gorman	Dec. 8, 2008
F.6	Second Declaration of Renee Tkach	Dec. 8, 2008
F.7	Declaration of Mary Repar	Dec. 8, 2008
F.8	Declaration of Brett VandenHeuvel	Dec. 9, 2008
F.9	Declaration of Emily Platt	Dec. 9, 2008
G.1	Resume/CV of Dean Apostol	Aug. 2008
G.2	Resume/CV of Margo Blosser	Sep. 2008
G.3	Resume/CV of Carl Dugger	Sep. 2008
G.4	Resume/CV of K. Shawn Smallwood	Sep.

		2008
H.1	BPA Transmission Lines by kV, Bonneville Power Administration, available at http://www.bpa.gov/corporate/pubs/EX_A_BPA_Service_Area.pdf	Apr. 17, 1998
H.2	Determination of Significance and Request for Comments on Scope of EIS, Klickitat Count (regarding the possible amendment of the County's comprehensive plan and development regulations to provide for the development of energy resources)	June 6, 2002
H.3	Gifford Pinchot National Forest Vicinity Map, Gifford Pinchot National Forest, USDA Forest Service, available at http://www.fs.fed.us/gpnf/04maps/documents/gpnf-forest-vicinity-map-20080730_11x17_000.pdf	July 30, 2008
H.4	Skamania County Ordinance 2008-01, available at http://www.skamaniacounty.org/Ordinances_2008/Ord%202008-01%20Moratorium%20Extension%20Unzoned%20Land.htm	Jan. 8, 2008
H.5	Comments on Skamania County Proposed Zoning Amendments, Nathan Baker, Friends of the Columbia Gorge	Oct. 22, 2008
H.6	Comments on Skamania County Proposed Title 21 Zoning Amendments, Richard F. Till, Friends of the Columbia Gorge	Oct. 22, 2008
H.7	MCEDD Rural Cluster Project: Renewable Energy Cluster, Mid-Columbia Economic Development District, available at http://www.oregonclusters.org/Docs/MCEDD%20Ren%20Energy%20cluster.doc	N/A
H.8	Minutes for the December 18, 2007 Meeting, Board of Skamania County Commissioners, available at http://www.skamaniacounty.org/Minutes_Files_2007/Minutes%2012-18-07.htm	Dec. 18, 2007
H.9	Skamania County Resolution 2007-59, available at http://www.skamaniacounty.org/Resolutions_2007/Res%20200759%20Renewable%20Energy.htm	Dec. 18, 2007
H.10	Annual Performance Report, July 1, 2007 to June 30, 2008, Mid-Columbia Economic Development District, available at http://www.mcedd.org/documents/FY2008MCEDDAnnualoReport.pdf	June 30, 2008
H.11	Minutes for the September 30, 2008 Meeting, Board of Skamania County Commissioners, available at http://www.skamaniacounty.org/Minutes_Files_2008/Minutes%2009-30-08.htm	Sep. 30, 2008
H.12	Skamania County Resolution 2008-51	Sep. 30, 2008
H.13	Skamania County Commission home page, available at http://www.skamaniacounty.org/commissioners1.htm	Jan. 5, 2009
H.14	Minutes for the week of December 23, 2008, Board of Skamania County Commissioners, available at http://www.skamaniacounty.org/Minutes_Files_2008/Minutes%2012-23-08.htm	Dec. 23, 2008

BEFORE THE HEARING EXAMINER
FOR SKAMANIA COUNTY

In the Matter of the Appeal of	) County File No. SEP-08-35
Friends of the Columbia Gorge, Inc.; Save Our Scenic Area; Gifford Pinchot Task Force; and Columbia Riverkeeper	) PRE-HEARING BRIEF OF APPELLANTS FRIENDS OF THE COLUMBIA GORGE, INC.; GIFFORD PINCHOT TASK FORCE; AND COLUMBIA RIVERKEEPER
of a SEPA Determination of Nonsignificance.	)

This Pre-Hearing Brief is filed on behalf of Appellants Friends of the Columbia Gorge, Inc. ("Friends"); Gifford Pinchot Task Force ("GP Task Force"); and Columbia Riverkeeper ("CRK"). Appellants hereby incorporate and preserve all issues and arguments asserted in their October 22, 2008 Notice of Administrative Appeal and Comment Letter, as well as all submissions regarding the appeal of SEP-08-14,[1] and disclaim any intent to waive any issues or arguments.

Friends is a non-profit organization with over 5,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge, including members residing in Skamania County.

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[1] Friends previously appealed the County's prior DNS for this legislative proposal (County File No. SEP-08-14). After Friends submitted its pre-hearing brief, the County withdrew its Determination of Non-Significance ("DNS") and Friends' appeal was involuntarily dismissed without a refund of the $500 appeal fee. The current DNS poses nearly identical violations of SEPA as the prior DNS, and presents nearly identical factual and legal questions. Friends reiterates its request for a refund of the $500 appeal fee for the involuntarily dismissed appeal.

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GP Task Force is a non-profit environmental organization with over 3,000 members, including members and supporters who reside in Skamania County. GP Task Force works to preserve and restore the ecosystems and communities of the Cascades by promoting conservation and restoration of forest ecosystems and sustainable restoration-based employment. GP Task Force's main focus has been and will continue to be the active restoration of the Gifford Pinchot National Forest. The members who make up GP Task Force use the Gifford Pinchot National Forest, the Columbia River Gorge, and other areas in Skamania County subject to the proposed zoning amendments for various activities, including fishing and recreation.

CRK is a non-profit organization with over 1,000 members, including members in Skamania County, whose mission is to protect and restore the Columbia River and all life connected to it. CRK members use and enjoy the areas of Skamania County subject to the appeal for recreational, economic, and scientific purposes.

I. INTRODUCTION

This appeal involves Skamania County's October 8, 2008 issuance of a DNS under SEPA for the adoption of proposed zoning text amendments and maps. The proposed amendments would allow a range of major new uses throughout the vast majority of County lands. Opening the door to many of these newly authorized uses will likely have a significant impact on the environment. Moreover, several types of major developments would be allowed "outright," that is, without a land use decision.

The County's DNS is based on an Environmental Checklist that does not identify or evaluate the likely environmental impacts of the proposed zoning amendments and the future development they would encourage. The proposed zoning amendments would rezone hundreds of

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thousands of acres of land—approximately 86% of non-Scenic Area land in the County—as Commercial Resource lands, which would open up previously unzoned areas for industrial development. Most of this land is currently subject to a development moratorium prohibiting new industrial development. Ex. H.4.[2] The proposed zoning amendments would create multiple new uses never before allowed within the County and would allow them on Commercial Resource lands and in other zones. The newly created uses include large-scale wind energy facilities, geothermal energy facilities, bio-energy facilities, and large-scale solar energy facilities.

The County would also allow a wide range of uses outright—that is, without any formal review for compliance with zoning standards, without any review for compatibility with the surrounding area, and without any opportunity for meaningful public participation. The uses that would be allowed outright include natural gas systems and other public, semi-public, and private facilities and utility systems; small-scale and rooftop wind energy facilities; small-scale solar energy systems; log sorting and storage areas, scaling stations, forest industry storage and maintenance facilities, sawmills, shake and shingle mills, and chipper facilities; storage of explosives, fuels, and chemicals; extraction of gravel and rock for road and trail construction and maintenance purposes; operation of portable rock crushers; overnight lodging and convention facilities; manufacturing and/or processing facilities; manufacturing uses; light industrial; warehousing; wholesale distribution facilities; and on-site hazardous waste treatment and storage facilities.

As Appellants will demonstrate with exhibits and witness testimony during the appeal hearing, the adverse environmental impacts likely to result from the zoning changes and resulting

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[2] References to exhibits ("Ex.") are to Appellants' Exhibit List filed herewith.

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development are significant, and an environmental impact statement ("EIS") must be prepared. The impacts include: direct, indirect, and cumulative impacts[3] to scenic resources (*see* Exs. B.2, B.3), water and air quality (*see* Exs. A.1–A.5), critical habitat and fish and wildlife resources (*see* Exs. C.1–C.21, D.5), and recreational resources (*see* Exs. F.4–F.9); impacts to the Columbia River Gorge National Scenic Area and other sensitive and protected areas; and noncompliance with applicable land use requirements (*see* Ex. H.6). The County's failure to analyze the potential impacts of allowing major developments throughout hundreds of thousands of acres of land plainly violates SEPA. In addition, the proposal to allow many uses outright, without any substantive review, further underscores the need for an EIS at this time.

The challenged action is also inconsistent with SEPA's policies requiring the County, to the fullest extent possible, to "[e]ncourage public involvement in decisions that significantly affect environmental quality." WAC 197-11-030(2)(f). The proposed zoning amendments are contrary to SEPA because they would largely eliminate public involvement in the review of future proposals for many major developments by allowing them outright.

As discussed further below and at hearing, the County's DNS should be reversed and remanded, with directions to prepare an EIS.

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[3] *See, e.g.*, Exs. D.4, D.6, and E.1–E.5 for examples of pending and approved wind energy projects in adjacent counties in the Columbia River Gorge.

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II. ARGUMENT

A. Overview: "Threshold Determinations" Under SEPA

> [B]efore a court may uphold a determination of "no significant impact," it must be presented with a record sufficient to demonstrate that ACTUAL consideration was given to the environmental impact of the proposed action or recommendation.

Lassila v. City of Wenatchee, 89 Wn.2d 804, 814, 576 P.2d 54 (1978) (emphasis in original). SEPA's procedural requirements "should be invoked whenever more than a moderate effect on the quality of the environment is a reasonable probability." *Norway Hill Preservation & Protection Ass'n v. King County Council*, 87 Wn.2d 267, 278, 552 P.2d 674 (1976) (finding "clearly erroneous" a city council's determination that an EIS was not required). In order to prevent and eliminate environmental damage, SEPA requires governmental agencies to consider environmental costs before pursuing specified actions. *Id.*, 87 Wn.2d at 277–78; *Stempel v. Dept. of Water Res. v. City of Kirkland*, 82 Wn.2d. 109, 117–18, 508 P.2d 166 (1973). SEPA thus requires agencies to integrate the SEPA process with agency activities "at the earliest possible time." WAC 197-11-055(1).

The SEPA process generally begins with a properly defined proposal (WAC 197-11-060(3), leading to a "threshold determination" (WAC 197-11-310) based on supporting documentation including an "environmental checklist" (WAC 197-11-315). The purpose of the threshold determination is to decide whether the proposed action "has a probable significant adverse impact and thus requires an EIS." WAC 197-11-300(2), 197-11-330(4); *see also* WAC 197-11-797 ("threshold determination"), 197-11-738 ("EIS").

A SEPA threshold determination must be "based upon information reasonably sufficient to evaluate the environmental impact of a proposal." WAC 197-11-335. For the purpose of deciding

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whether an EIS is required, the required content of environmental review is specified in the environmental checklist (*see* WAC 197-11-960); in WAC 197-11-330 ("Threshold determination process"), and in WAC 197-11-444 ("Elements of the environment"). WAC 197-11-060(2)(b).

SEPA's objective of ensuring the full disclosure of environmental information so that environmental matters can be given proper consideration during decision making "is thwarted whenever an incorrect 'threshold determination' is made." *Norway Hill*, 87 Wn.2d at 273. For that reason, if a governmental body "makes a threshold determination of 'no significant impact' under SEPA, it must then demonstrate that environmental factors were considered in a manner sufficient to be a prima facie compliance with the procedural dictates of SEPA." *Lassila v. City of Wenatchee*, 89 Wn.2d 804, 814, 576 P.2d 54 (1978) (citations omitted). As the Court further explained,

> before a court may uphold a determination of "no significant impact," it must be presented with a record sufficient to demonstrate that ACTUAL consideration was given to the environmental impact of the proposed action or recommendation.

Id. (emphasis in original).

B. The County has not Adequately Identified or Evaluated the Likely Impacts of the Proposed Action.

In this case, the County issued a DNS for the proposed zoning code amendments despite the complete absence of any actual consideration of the potential impacts of the amendments and the future development they are specifically intended to facilitate. The County's failure to provide information "reasonably sufficient to evaluate the impacts of the proposal" (WAC 197-11-100(2)) before issuing its threshold determination constitutes "lack of material disclosure" warranting withdrawal and/or invalidation of the DNS. WAC 197-11-340(3)(a).

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First, the Environmental Checklist is inadequate because it focuses on only a portion of the proposed changes to the zoning ordinance. The Environmental Checklist states that "[t]his review focuses on the September 2, 2008 Planning Commission recommended draft." Environmental Checklist at 1. However, that recommended draft does not make evident all of the amendments that are proposed for the ordinance. Instead, the only changes identified in that recommended draft are the differences between new language recommended by the Planning Commission and new language recommended by the Board of County Commissioners ("BOCC"). The September 2, 2008 version does not identify any of the numerous changes recommended by both the Planning Commission and BOCC. Instead, it misleadingly depicts those recommended changes in plain font, making it appear as if they are already in the ordinance and therefore part of the status quo.[4]

Compounding these errors, the first page of the DNS erroneously states that the proposed zoning changes will apply within only one of the designated urban areas in the Columbia River Gorge National Scenic Area (Carson), when in fact the County Commission and Planning Commission have proposed changes to the zoning maps and lists of allowed uses that would apply within at least three of Skamania County's four urban areas within the Scenic Area (Carson, Home Valley, and Stevenson).[5] This error appears to be based in part on the County's answer to question 12 on page 3 of the Environmental Checklist, in which the County erroneously states that "[t]he proposed amendments apply to all unincorporated lands within Skamania County located outside the National Scenic Area" (emphasis added), when in fact all four aforementioned

[4] Other changes are depicted in red, underlined font.

[5] It is unclear whether the fourth urban area, North Bonneville, would be affected.

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urban areas are located wholly inside the National Scenic Area. 16 U.S.C. § 544(s) (defining "urban areas" in pertinent part as "those areas within the scenic area") (emphasis added).

Because the County is expressly relying only on a document that fails to depict all the proposed changes to existing law, and because the County has failed to accurately describe the location of the affected lands, it is impossible for the County, the public, Appellants, and the Hearing Examiner to ascertain the extent of the proposed action—let alone the environmental impacts that are likely to result from it. The Hearing Examiner should remand and require the Planning Department to prepare and review documents that clearly depict all proposed changes to the ordinance.

In addition, the Environmental Checklist fails to accurately describe and evaluate the potential impacts of the action. As noted above, the SEPA rules specify the content required in environmental review by providing the content of the environmental checklist (WAC 197-11-960) and listing the elements of the environment in WAC 197-11-444. Yet rather than acknowledging and considering potential impacts to the environment, the County's Environmental Checklist repeatedly uses the same basic formulation: that because the proposal involves a "non-project action," no impacts would result. Whether the checklist question involves, for example, potential erosion, air emissions, impacts to surface waters, removal of vegetation, impacts to housing, aesthetics, or recreational resources, the essence of the "answer" stated in the checklist is always the same: this non-project action will produce no impacts. In its fifteen pages, the Environmental Checklist gives the "no impact" response more than sixty times.

This same basic formulation is used to respond to the Supplemental Sheet for Non-Project Actions. Despite the fact that the questions in the Supplemental Sheet expressly presume that no

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project-specific action is proposed, the County repeatedly circles back to repeat that no specific project is proposed and therefore no impacts will occur if the amendments are approved. This formulation directly contradicts SEPA's requirement for environmental analysis to occur at the earliest stage in the planning process.

The answers to the Checklist questions include numerous factual and legal errors. For example, the County claims that "the proposed land uses and zone classifications have minimal difference to the current land use zoning regulations in place within the County." Environmental Checklist at 14. This assertion ignores the fact that there is currently a moratorium on development throughout most of the County that was enacted because there are no zoning regulations in place. Ex. H.4. Thus, the proposed amendments would allow substantially more development than would be allowed under the current moratorium.

Incredibly, the County asserts that "[t]his non-project action will have no additional impact on plants, animals, fish, or marine life." Environmental Checklist at 14. This assertion ignores the overwhelming evidence in the record showing that the newly authorized uses are likely to have significant impacts to fish and wildlife. The newly authorized use of large-scale wind energy facilities alone is likely to result in thousands of dead birds and bats (Ex. C.1–C.4, C.6–C.14, C.18–C.19, C.21), and may indirectly result in adverse impacts to protected salmon in the Columbia River because of the resulting surges in regional energy production that may require excess water spills at dams, which in turn increase nitrogen levels and harm salmon (Ex. C.20).

The County eventually explains that the proposed changes may lead to "more intense development" that "could affect the habitat of streams and wetlands." Environmental Checklist at 14. However, the County claims that critical areas and shorelines regulations will mitigate any

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impacts and that "specific project impacts would be evaluated before any project application could be approved." Environmental Checklist at 14. However, SEPA requires an evaluation of the possible impacts of the "more intense development" now, not in the future.

The Supplemental Sheet also asks whether the proposal would "use or affect environmentally sensitive areas or areas designated for government protection." Environmental Checklist at 14. In answer to this question, the County wrongly states the exact opposite of what the proposal will do, claiming that the proposal "will not use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection." *Id.* With that answer, the County is plainly ignoring the fact that the proposed zoning will at a minimum use, let alone affect, such areas, because the County is proposing to zone designated critical areas, protected shorelines, and National Forest lands for large-scale energy production. The County also fails to acknowledge that the proposed zoning amendments will allow major new developments immediately adjacent to the Columbia River Gorge National Scenic Area and several federally designated Wilderness Areas. The fact that the newly allowed uses would not occur within these protected areas does not vitiate the high likelihood that they would affect these areas. For example, new large-scale wind energy facilities adjacent to the National Scenic Area would likely cause significant adverse scenic impacts to Scenic Area viewsheds.

Finally, the Supplemental Sheet asks if the proposal will "conflict" with any other laws or requirements for the protection of the environment. Environmental Checklist at 15. In response, the County states that the zoning proposal will "comply" with all applicable laws. Importantly, there is a difference between formal compliance and an informal conflict. For example, the County proposes to zone tens of thousands of acres of National Forest land for large-scale energy

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production, but without investigating whether such uses are compatible with existing federal management standards for these lands. In addition, by expressly zoning lands for industrial uses such as geothermal power plants even though these land are also designated as protected critical areas, the County's proposal may "conflict" with the critical areas program and requirements. The County also fails to acknowledge conflicts between the proposed ordinance amendments and the County's own Comprehensive Plan. *See* Ex. H.6. By responding to an unacceptably narrow interpretation of the question presented, the County has failed to base its decision on actual consideration of impacts.

Ultimately, the County's DNS appears to be premised on a fundamental legal error. Apparently, the County erroneously believes that consideration of potential environmental impacts is required only when specific projects are proposed. To the contrary, review of environmental impacts is not limited to project proposals, but is mandatory for all non-exempt agency actions. The SEPA rules governing the review of proposals apply equally to the review of "[n]onproject actions," which expressly include legislation, zone changes, and comprehensive plan amendments. WAC 197-11-704(2)(b); *see also* WAC 197-11-774 (definition of "nonproject"). Moreover, the SEPA rules expressly state that "[a]n EIS is required for proposals for legislation and other major actions significantly affecting the quality of the environment." WAC 197-11-330.

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The Washington State Supreme Court has held that legislative land use changes of the scale proposed by Skamania County warrant preparation of an EIS:

> [T]he fact that a proposed action will not cause an immediate land use change or that there is no specific proposal for development does not vitiate the need for an EIS. Instead, an EIS is required if, based on the totality of the circumstances,

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> future development is probable following the action and if that development will have a significant adverse effect upon the environment.

King County v. Boundary Review Bd., 122 Wn.2d 648, 663, 860 P.2d 1024 (1993). As the Supreme Court further explained, SEPA "mandates that an EIS should be prepared when significant adverse impacts on the environment are 'probable,' not when they are 'inevitable.' The absence of specific development plans should not be conclusive of whether an adverse environmental impact is likely." *Id.*, 122 Wn.2d at 663 (quoting RCW 43.21C.031) (emphasis added).

In *King County*, the Supreme Court reversed a DNS issued by the City of Black Diamond, and remanded for further proceedings including the issuance of an EIS. 122 Wn.2d at 666. The City argued it had properly omitted any environmental review of the impacts of possible future development from its threshold review of a proposed annexation, because no official development proposals had been submitted. *Id.* at 662. The Court rejected this theory:

> We therefore hold that a proposed land-use related action is not insulated from full environmental review simply because there are no existing specific proposals to develop the land in question or because there are no immediate land-use changes which will flow from the proposed action.

Id. at 664. The Supreme Court explained the policy behind its holding:

> The categorical approach [of "focusing only on whether a proposed action will directly effect a change in land use" (*id.* at 662)] can lead to results contrary to the purposes of SEPA. One of SEPA's purposes is to provide consideration of environmental factors at the earliest possible stage to allow decisions to be based on complete disclosure of environmental consequences. Decision-making based on complete disclosure would be thwarted if full environmental review could be evaded simply because no land-use changes would occur as a direct result of a proposed government action. Even a boundary change, like the one in this case, may begin a process of government action which can "snowball" and acquire virtually unstoppable administrative inertia.

Id. at 664 (citations omitted) (emphasis added).

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More recently, Division One emphasized "the fact that an action will not cause an immediate land use change or the fact that there is no specific proposal 'on the table' does not automatically mean that no EIS is required." *Alpine Lakes Protection Society v. Dept. of Natural Resources*, 102 Wn. App. 1, 15, 979 P.2d 929 (1999). Thus, it is clear that environmental review under SEPA must include the impacts of future development made probable by the proposed action. *See also* WAC 197-11-330(3)(e)(iv) (in determining the significance of an impact, the responsible official "shall take into account" the fact that a proposal may "[e]stablish a precedent for future actions with significant effects[.]")

Here, the Checklist does not include any consideration of probable future development. The Checklist asserts instead that the proposal is a non-project action, and that environmental review of any future development will occur later. By all outward appearances, the County relies on the same logic rejected by the Supreme Court in *King County*: that there will be no environmental impacts because the code amendment does not permit a specific development project. Skamania County's failure to even consider future impacts renders the Checklist inadequate under SEPA. The County must undertake actual review of the potential impacts of the proposed code amendments.

Indeed, the County must evaluate the environmental impacts of the proposal in terms of the "maximum potential development of the property under the various zoning classifications allowed." *See Ullock v. City of Bremerton*, 17 Wn. App. 573, 581, 565 P.2d 1179 (1977). The County's SEPA analysis is invalid because, among other reasons, it fails to analyze the effects of the full build-out potential of the amendments.

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Overall, the law is clear that (1) review of non-project actions requires a full disclosure and analysis of environmental effects, and (2) zoning code changes that induce expectations of growth and development are significant and require an EIS. Both of these doctrines apply here and require reversal of the County's DNS.

C. Other Arguments Incorporated By Reference

Because the County's DNS and SEPA Checklist did not adequately identify or evaluate any environmental impacts likely to result from probable future development, Appellants can offer numerous examples of material deficiencies in the County's threshold determination. Indeed, Appellants have done so in their Notice of Appeal. *See* Notice of "Administrative Appeal and Comment Letter" at 6–21.

Rather than repeating those arguments and examples here, Appellants hereby incorporate those arguments and examples by reference. For the convenience of the Hearing Examiner and the parties, Appellants briefly list several of those material inadequacies here:

- Improper references to Klickitat County's Energy Overlay Zone Final EIS[6];
- Inadequate analysis of cumulative impacts;
- Failure to consider the precedent set by the proposal;
- Failure to consult with other agencies and tribal governments;
- Failure to acknowledge, analyze, and consider impacts to special and sensitive areas, including the Columbia River Gorge National Scenic Area, Wilderness Areas, and Wild and Scenic Rivers;

[6] The sections of the Klickitat EIS pertaining to Klickitat County's conscious choice to avoid zoning forested areas for wind power, cited by Appellants on page 7 of the Notice of Administrative Appeal, are excerpted in Exhibit D.5. In direct contrast with Klickitat County's analysis and approach, Skamania County has actually targeted forested areas and applied zoning in these areas that will facilitate wind power—even while failing to explore the serious and significant environmental impacts that will result from this choice.

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- Failure to ensure consistency with the Comprehensive Plan and the Critical Areas ordinance (*see* Ex. H.6);
- Failure to ensure compliance with federal and state wildlife laws, including the Washington State Bald Eagle Protection Act, the federal Bald and Golden Eagle Protection Act, the federal Endangered Species Act of 1973, and the federal Migratory Bird Treaty Act;
- Failure to adequately consider potential impacts to sensitive wildlife, rare plants, and native plant communities;
- Failure to adequately consider potential impacts to water resources;
- Inadequate analysis of the proposed Northwestern Lake Recreational zones;
- Failure to review the environmental impacts of increased residential development;
- Failure to adequately protect cultural resources;
- Failure to adequately consider potential impacts to recreation and tourism;
- Inadequate noise analysis and failure to protect against noise impacts;
- Failure to analyze and address potential fire risks;
- Failure to adequately disclose and review potential transportation impacts; and
- Failure to adequately consider the environmental impacts of new transmission lines that would be required for energy development.

D. The County's DNS Is Not Consistent with SEPA's Policies

The County's proposed approach of insulating future industrial, commercial, and residential development from permitting requirements (and from adequate review in the form of an EIS) is contrary to SEPA's policies. The SEPA rules require that the County shall, to the fullest extent possible, "[e]ncourage public involvement in decisions that significantly affect environmental quality." WAC 197-11-030(2)(f). However, the proposed zoning amendments would largely eliminate public involvement in the review of future proposals to develop numerous

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types of uses (*see* representative list, *supra* at 3). The elimination of the public's role will likely result in greater environmental impacts, because potential environmental problems that might be brought to light during a public process will be overlooked.

When reviewing an agency DNS under the "clearly erroneous" standard, Washington courts "do more than merely determine whether substantial evidence supports the decision; [they] are also required to consider the public policy and environmental values of SEPA." *Lassila*, 89 Wn.2d at 718 (citing *Sisley v. San Juan County*, 89 Wn.2d 78, 84, 569 P.2d 712 (1977)).

The County's failure to provide an EIS for this proposal, even while exempting multiple uses from future public involvement, is manifestly contrary to SEPA's declared policies and values. *See* RCW 43.21C.020.

E. The Proposed Non-Project Action May Lead to Significant, Adverse Environmental Impacts.

Prior to and at the Hearing, Appellants will offer exhibits and witness testimony to demonstrate that significant, adverse environmental impacts are likely to result from the development that would be allowed by the proposed zoning code amendments. Evidence of the impacts likely to result from future development is relevant because, just like the annexation held to require an EIS by the Supreme Court in *King County*, Skamania County's proposed zoning code amendments will alter development potential and development expectations throughout the County. Where future development is probable following a proposed action, and where that development will have a significant adverse effect upon the environment, an EIS is required. *King County*, 122 Wn.2d at 663. As a leading commentator has stated,

> Comprehensive plan amendments and area-wide zoning actions are held significant even though they cannot affect the environment without subsequent implementation if they would induce expectations of significant development which

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future decision-makers may be reluctant to disappoint. *See Lassila v. City of Wenatchee*, 89 Wn. 2d 804, 818, 576 P.2d 54, 62 (1978); *Byers v. Board of Clallam County Commissioners*, 84 Wn. 2d 796, 592 P.2d 823 (1974).

Richard L Settle, *The Washington State Environmental Policy Act: A Legal and Policy Analysis*, § 13.01[1].

Here, the proposed amendment certainly induces expectations of significant development. The proposed code changes would allow industrial and other development throughout the vast majority of the County. Some of this development would in turn likely cause significant impacts to scenic views, fish and wildlife, recreational uses, and other resources.

For example, the development of large-scale wind facilities immediately adjacent to the National Scenic Area (which would be authorized by the County's proposed zoning amendments) would frustrate the purpose of the Scenic Area Act and irreparably harm Scenic Area viewsheds. Importantly, the process of evaluating scenic impacts is not merely a judgment in the eye of the beholder. The evaluation of aesthetic impacts must be based on objective methodologies for managing scenic landscapes. The most relevant methodology is the Forest Services' Visual Management System ("VMS"). Ex. B.1. The VMS creates a thorough, analytical process for evaluating scenic impacts based on a variety of factors. Importantly, the VMS can take into account the notion that a wind turbine can be an attractive structure to some viewers, but nonetheless cause adverse impacts to a scenic landscape if sited improperly or in the wrong context. The VMS acknowledges that architecture or art that is considered beautiful in an urban setting may be wholly inappropriate in undeveloped natural settings. For example, everyone can agree that the Mona Lisa is a masterpiece, but we can also agree that a 400-foot-tall version set

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on the rim of the Grand Canyon would significantly impact scenic views of the natural landscape in a negative way.

Even though the SEPA rules allow the County to include mitigation measures in the proposed zoning amendments to reduce the level of impacts to a non-significant level,[7] the County has failed to propose a single standard, criteria, or mitigation measure that would regulate the scenic impacts of large-scale wind power. *See* Ex. H.5 at 5 (examples of scenic mitigation measures that the County could adopt). Instead, the County has simply stated that the proposal "will not require any reduction or control of aesthetic impacts." Environmental Checklist at 11. As a result of the County's decision to include absolutely no regulatory standards for scenic impacts, the consequences on existing scenic views in the Columbia River Gorge and the rest of Skamania County could be huge. The County has failed to meet its requirement to recognize and evaluate the potential impact in the form of an EIS.

Also, large-scale wind energy development has the potential to cause significant impacts to wildlife species. *See* Exs. C.1–C.21, D.5. Avian species can collide with wind turbines, and bats can die from internal hemorrhaging caused by the massive changes in air pressure near the spinning blades of a wind turbine, a process known as "barotrauma." Also, components of the industrial development, including collector lines, transfer stations, and access roads, can displace wildlife and fragment habitat. Skamania County contains habitat for numerous sensitive species that would be impacted by new industrial development. This includes Oregon white oak forests,

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[7] WAC 197-11-330(1)(c) ("In making a threshold determination, the responsible official shall . . . "[c]onsider mitigation measures which an agency or the applicant will implement as part of the proposal, including any mitigation measures required by the development regulations, comprehensive plans, or other existing environmental rules or laws.").

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which is habitat for western gray squirrels, and old-growth Douglas fir forests, which are habitat for Northern spotted owls. The County must analyze the likely impacts to these and other resources.

Notably, evaluating the scale of the likely impacts of allowing wind energy development throughout most of the County is not an onerous burden. Wind regime maps are readily available, and they can be interpreted through common Global Information System ("GIS") computer programs. Through these maps the County can locate areas with rich wind regimes and determine where wind energy development would likely occur. Likely development locations can be overlayed with maps of sensitive viewsheds and sensitive wildlife habitats. *See, e.g.*, Exs. B.2–B.3. Based on such mapping, the County can analyze the likely impacts of industrial energy development throughout the County and ensure that its zoning code and maps are prepared with full knowledge of those impacts and can consider its alternatives for appropriate locations to zone (and not zone) for wind power. Ultimately, under SEPA, the County must review the likely environmental impacts of the proposed development at the "earliest possible time"—*i.e.*, now. WAC 197-11-055(1).

III. CONCLUSION

Given the serious and adverse environmental impacts that would likely result from the proposal and the future development that the proposal will facilitate, the County must prepare an EIS that provides the public and decision makers with adequate information about the proposed action, its reasonably foreseeable impacts, and the reasonably available alternatives. Appellants respectfully ask the Hearing Examiner to reverse the County's SEPA Determination of Non-

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Significance, and to remand for further proceedings including the preparation of an Environmental Impact Statement.

RESPECTFULLY SUBMITTED this 9th day of December, 2008.

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BEFORE THE HEARING EXAMINER
FOR SKAMANIA COUNTY

In the Matter of the Appeal of	)	County File No. SEP-08-35
	)	
Friends of the Columbia Gorge, Inc.; Save Our Scenic Area; Gifford Pinchot Task Force; and Columbia Riverkeeper	)	REPLY BRIEF OF APPELLANTS FRIENDS OF THE COLUMBIA GORGE, INC.; GIFFORD PINCHOT TASK FORCE; AND COLUMBIA RIVERKEEPER
of a SEPA Determination of Nonsignificance.	)	

This Reply Brief is filed on behalf of Appellants Friends of the Columbia Gorge, Inc. ("Friends"); Gifford Pinchot Task Force ("GP Task Force"); and Columbia Riverkeeper ("CRK"). In its Response Brief, the County completely ignores most of Appellants' arguments and authorities. The County does make several arguments pertaining to alternative energy development, and wind energy facilities in particular.

As will be shown below, the County's arguments are without merit. The County's Determination of Non-Significance ("DNS") should be reversed and remanded with directions to prepare an environmental impact statement ("EIS"), as required by SEPA and its implementing rules.

I. ARGUMENT

1. An EIS is required if development that is likely to result in significant environmental impacts is made probable by the non-project proposal under review.

Under the controlling precedent of the Washington Supreme Court, an EIS is required if development that is likely to result in significant environmental impacts is made probable by the non-project proposal under review. *King County v. Boundary Review Board,* 122 Wn. 2d 648,

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663–64, 860 P.2d 1024 (1993). The County's attempts to distinguish this binding precedent are both mistaken and disingenuous.

First, the County inappropriately seizes on a single phrase in the Court's ruling[1] and asserts that because the County—as the responsible agency—did not determine that significant adverse environmental impacts are probable following the proposed action, *King County* has no further application here. Apparently, in the County's view the language italicized in footnote 1 below means the County has *carte blanche* authority to determine whether significant adverse impacts are probable, and as long as the County concludes that such impacts are not probable, that is the end of the matter. Considering that in *King County*, the City of Black Diamond also determined that significant adverse environmental impacts were not probable before being reversed by the Superior Court and the Supreme Court,[2] the County's "I'm the decider" approach is absurd. As *King County* demonstrates, courts readily overturn local governments' determinations of nonsignificance when they are not consistent with SEPA's requirements.

The County's attempt to distinguish *King County* on factual grounds is disingenuous at best, because the County's arguments rely on many of the same fact-based arguments rejected by the Supreme Court in *King County*. For example, both the environmental checklists reviewed in *King County* and the checklist at issue here indicate there is no existing proposal to develop property relating to the non-project action under review, and both Skamania County and the City

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[1] "[A]n EIS should be prepared where the *responsible agency determines that significant adverse environmental impacts are probable following the government action*." *King County*, 122 Wn.2d at 663–64 (quoted in County Brief at 5) (emphasis added by County).

[2] *See King County*, 122 Wn.2d at 658 (reversal by Superior Court), 665–66 (reversing DNS and remanding for preparation of EIS.)

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of Black Diamond offered that fact as a basis to affirm their DNSs.[3] The Supreme Court rejected the argument, holding that "[t]he absence of specific development plans should not be conclusive of whether an adverse environmental impact is likely." *King County*, 122 Wn. 2d at 663.

As another example, rather than evaluating the environmental impacts of probable future development as required by SEPA, both Black Diamond and Skamania County attempt to downplay the significance of those impacts by arguing that things would be worse if the non-project action did not occur.[4] The Court rejected this argument as well, stating "[t]he specter of adverse environmental effects in the absence of government action . . . is itself not a justification for evading full environmental review." *King County*, 122 Wn.2d at 666 n.11.

SEPA states that "[a]n environmental impact statement . . . shall be prepared on proposals for legislation and other major actions having a probable significant, adverse environmental impact." RCW 43.21C.031 (cited in *King County*, 122 Wn. 2d at 659). Applying this statutory provision, *King County* holds that "an EIS is required if, based on the totality of the circumstances, future development is probable following the action and if that development will have a significant adverse effect upon the environment." 122 Wn. 2d at 663. Subsequent cases distinguish "probable" development—the impacts of which must be considered—from "hypothetical and speculative" development, the impacts of which need not be considered in an

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[3] *See King County*, 122 Wn.2d at 656, 662; Administrative Record ("AR") at 50, County Brief at 5–6.

[4] *See King County*, 122 Wn.2d at 666 n.11; County Brief at 5–6.

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EIS. *See, e.g., Gebbers v. Okanogan County Pub. Util. Dist. No. 1*, 144 Wn. App. 371, __, 183 P.3d 324 (Div. III, May 1, 2008) (slip op. at 15).[5]

In the instant case, to determine whether an EIS is required, it is necessary to look at the whole record and evaluate the hundreds of changes that would be made by this proposal (including the long list of new uses that would be authorized by the proposed ordinance);[6] the development likely to stem from these changes; and the direct, indirect, and cumulative impacts of that development.

The County asserts that the "*only possible* development" implicated by the zoning amendment is a single wind energy project. *See* County Brief at 7 (emphasis in original). If this is the County's position, either the County is in denial or it completely misunderstands the nature of Appellants' claims. The wind energy provisions are one particularly egregious part of the proposal, but are by no means the only proposed change that must be reviewed under SEPA. Among other changes, the proposed ordinance amendments would for the first time authorize large-scale geothermal projects; large-scale solar facilities; biomass energy facilities; natural gas systems; increased residential development at Northwestern Lake, the Swift Reservoir area, and other areas; and a number of other uses.

The proposal would also make numerous changes and additions to the current lists of authorized uses, making development of these uses more likely. To provide just one example, the

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[5] Under SEPA, the term "probable" is defined as "likely or reasonably likely to occur . . . . Probable is used to distinguish likely impacts from those that merely have a possibility of occurring, but are remote or speculative." WAC 197-11-782.

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County proposes to authorize on-site hazardous waste treatment and storage facilities in certain zones outright—*i.e.*, without any land use review. *See, e.g.,* Draft SCC § 21.48.020(V) (Community Commercial zone).

These are only a few of the numerous changes that would be made by the proposal. Many of these changes, taken alone (*e.g.*, allowing biomass energy facilities), plainly involve development that is likely to cause significant adverse environmental impacts. *All* of these changes, taken together, are certain to result in cumulative significant impact. Thus, an EIS is required. *See generally, Barrie v. Kitsap County*, 93 Wn. 2d 843, 853, 613 P.2d 1148 (1980) (the rezoning of a single property that facilitated construction of a shopping center was a "major action[] significantly affecting the quality of the environment" under RCW 43.21C.030(2)(c)); *Leonard v. City of Bothell*, 87 Wn. 2d 847, 854, 557 P.2d 1306 (1976) (the rezoning of a single property from agricultural to community business to facilitate a regional shopping center required an EIS setting forth the environmental consequences of the decision); *Byers v. Board of Clallam County Comm'rs*, 84 Wn. 2d 796, 801–02, 529 P.2d 823 (1974) (EIS was required for interim zoning ordinance covering a portion of the county).

Skamania County has done nothing to accurately estimate—let alone review the effects of—the development that could result under the proposed changes to the ordinance, despite its responsibility to do so. *See Ullock v. City of Bremerton*, 17 Wn. App. 573, 581, 565 P.2d 1179 (1977). The County has failed to meet its responsibilities to review the impact under SEPA.

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[6] Unfortunately, the County has failed to prepare and review a single document revealing all of the proposed changes to the existing ordinance. Instead, the County has reviewed only the differences between the County Commission's proposed changes and the Planning Commission's later recommendation. *See* Appellants' Brief at 7. The County's Brief does not address this point.

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2. The proposal would authorize and induce the development of large-scale alternative energy facilities and other uses throughout most of the County, which must be reviewed under SEPA.

The County states that "[c]urrently, no one has applied for any permits to develop an alternative energy resource in the county, at any location." County Brief at 7. As discussed above, this factor is not conclusive, and it does not insulate the proposed amendments from the need for full environmental review. *See King County*, 122 Wn. 2d at 663–64.

In addition, the current absence of applications is neither surprising nor significant under the circumstances. For at least the last year and a half, of course, a Skamania County moratorium has prohibited many types of development. *See* Ex. H.4. The County's speculation that the moratorium may be allowed to lapse is not supported by any evidence in the record. In addition, SCC § 21.64.020, which applies in the County's "unmapped" areas, expressly prohibits uses that are declared nuisances by courts of jurisdiction. This means a proposed large-scale energy facility on unzoned lands could be prohibited as an unreasonable interference with public or private rights. This is a very real possibility, because courts in other jurisdictions have ruled that energy facilities—including wind energy facilities—can be nuisances, considering their noise; unsightliness; and effects on human health, safety, and property values. *See, e.g.*, *Burch v. Nedpower Mt. Storm, LLC*, 220 W. Va. 443, 647 S.E.2d 879, 893 (2007) (landowners' allegations regarding approved wind energy facility were legally sufficient to state claims that the facility constituted a private nuisance and should be prospectively enjoined); *Rose v. Chaikin*, 187 N.J. Super. 210, 453 A.2d 1378 (1982) (60-foot-tall wind turbine constructed in residential

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neighborhood constituted a nuisance).[7] Finally, allowing large-scale energy facilities on unzoned lands would be inconsistent with the County's Comprehensive Plan, which designates these lands as "Conservancy" and lists the categories of uses that are allowed on these lands, none of which include large-scale energy facilities. *See* Comprehensive Plan at 25.

Thus, the County is mistaken where it states that there are currently "no use restrictions" on unzoned land in Skamania County, that "any type of use is allowed," and that if the proposed ordinance amendments are not enacted, "there truly will be no control of development within the County." County Brief at 2, 5.[8] In reality, large-scale energy facilities are not currently allowed on unzoned lands in Skamania County.

The proposed action would redraw the maps and rewrite the County Code to authorize, for the first time, the development of large-scale energy facilities throughout the majority of County lands. Contrary to the County's argument that the proposal would "reduce" development (County Brief at 5), it would have the exact opposite effect: it would authorize and *induce* development.

In fact, the portions of the proposed ordinance amendments that would authorize alternative energy development are the direct result of a deliberate push by Skamania County to bring alternative energy development to the County. The County has made this effort a high priority and has taken numerous actions to encourage alternative energy development, including the creation of a "self-declared" Columbia Gorge Bi-State Renewable Energy Zone ("CGBREZ") located within five Gorge-area counties, including Skamania. Ex. H.10 at 10.

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[7] Appellants have designated copies of these cases as Appellants' Exhibits D.7 and D.8.

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The official proposal for the CGBREZ, developed and endorsed by Skamania and other counties, paints a glowing picture of the lucrative prospects for attracting alternative energy projects to the region because of the "explosion of capital investment" in alternative energy development and an "abundance of [energy] assets" in the region. Ex. D.6 at 3–4.[9]

On December 18, 2007, Skamania County adopted a resolution endorsing the creation of the CGBREZ. The resolution declares that the region possesses "world class renewable energy assets including wind, sun, biomass, water and geothermal," that the County has "extensive experience in managing a natural-resource based economy," and that the County "desire[s] to develop renewable energy projects." Ex. H.9.

On September 30, 2008, Skamania County adopted another resolution that reiterates the County's support for the CGBREZ, and among other things, "endorses and supports . . . [s]treamlining governmental permitting processes" for "develop[ing] renewable energy business." Ex. H.12.

Skamania County Commissioner Paul Pearce is assigned to a multicounty committee called "Renewable Energy Leaders" (Ex. H.13 at 1) that holds monthly "leadership meetings" regarding the CGBREZ (Ex. H.10 at 10). On October 19, 2007, which was apparently one of the first such "leadership meetings," Commissioner Pearce provided the opening remarks and shared his thoughts on making the CGBREZ a federal designation. Ex. D.6 at 1.

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[8] The County does not clarify where it believes that "any type of use is allowed." County Brief at 5. Similarly, the County does not clarify where it believes "there truly will be no control of development within the County." *Id.* at 6. Presumably, the County is referring in both cases to the unzoned lands.

[9] Appellants' Exhibits D.5 and D.6, which were previously designated on December 9, 2008, should have been placed in the "Miscellaneous" category rather than the "Wind Energy and Its Impacts Generally" category. Appellants ask that the parties and Hearing Examiner continue to cite these

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Through these collective efforts, Skamania County has actively promoted, marketed, lobbied, and planned for substantial energy development. The County has not only worked on this issue within its own borders, but has reached across political boundaries to coordinate with other counties and to lobby state and federal decision makers. The County has declared itself rich in renewable energy resources, has expressly recognized the need for additional transmission lines within the County to handle the additional energy development that will result from its efforts, and has publicly announced its intentions to create streamlined permitting processes for obtaining development permits (which resulted in the ordinance amendments involved in the instant case). Exs. H.9, H.12.

Yet when it comes time to meet its mandatory duty to review and disclose the environmental impacts of these efforts, the County suddenly asserts that the proposal is designed to "reduce" development, failing to acknowledge that the very impetus behind the alternative energy provisions of the ordinance is to facilitate and *increase* such development.

In adjacent Klickitat County, a similar "Energy Overlay Zone" ("EOZ") was adopted in 2004. The Klickitat EOZ has been described as an effort to "speed the process for energy companies to receive permits." Ex. H.7. Klickitat County complied with its duty to prepare an EIS, estimated that the EOZ would over a twenty-year period result in four wind energy facilities with a total capacity of 1,000 MW (Klickitat EOZ FEIS at 1-2, 3-12), and reviewed the environmental impacts of such development.

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documents as exhibits D.5 and D.6, with the understanding that they belong in the "Miscellaneous" category.

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As it has played out, the actual development of wind facilities under the Klickitat EOZ ordinance has far exceeded Klickitat County's greatest expectations. Over the course of only four years (as of April 30, 2008), twelve different wind facilities were proposed in Klickitat County, for a combined capacity of 1,568 MW. Ex. E.2. This means that wind energy facilities alone have been developed at a rate almost eight times as fast as projected. Many of these facilities are already constructed or under construction. *Id.* Since April 30, 2008, several additional wind facilities have been proposed in Klickitat County. *See, e.g.*, Exs. E-3–E-5.

The Klickitat County example illustrates what can happen when counties actively promote alternative energy development, as Skamania County is doing here. Skamania County offers no basis for concluding that its experience will be any different than Klickitat County's. In fact, Skamania County relies on Klickitat County's EOZ-related materials and expressly states that they are relevant to the instant case. AR at 50. Along with Skamania County's active promotional efforts, these facts confirm that "future development plans are not entirely speculative"[10] and raise the probability of development here far above the "remote and speculative"[11] level that requires no EIS.

Plainly, Skamania County is abdicating its responsibilities under SEPA. The County must identify the locations where new alternative energy development are likely to cause adverse impacts, and then prepare an alternatives analysis that informs the public and the County about how to best strike the balance between energy resources and their impacts. *See* RCW 43.21C.030(2).

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[10] *King County*, 122 Wn.2d at 666.
[11] *City of Mountlake Terrace*, 87 Wn.2d at 344.

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Instead, the County has figuratively stuck its head in the sand by green-lighting numerous types of alternative energy development in a "one size fits all" zone that covers the vast majority of the County, with *no analysis* of the development and impacts that will result. The County's unlawful approach must be rejected.

This conclusion is underscored by the County's admission that any large-scale alternative energy facility proposed under the ordinance amendments would cause impacts significant enough to require an EIS. County Brief at 6 ("Any project . . . would have to complete an EIS . . ."). In other words, the County concedes that even *one* such facility would likely cause significant impacts. Yet the County fails to acknowledge that authorizing the development of numerous such projects throughout hundreds of thousands of acres of land would also cause significant impacts.

The County attempts to evade its responsibility to review these impacts by arguing that the energy facilities, and not the ordinance itself, will directly cause the impacts. But this argument is thwarted by the plain language of the SEPA rules and has been expressly rejected by the Washington appellate courts. There need not be a specific development proposal on the table for there to be reviewable impacts. Rather, if proposed legislation would authorize and facilitate future development, the likely impacts of that development must be analyzed. *See* Appellants' Brief at 11–14 (citing WAC 197-11-330, 197-11-330(3)(e)(iv), 197-11-704(2)(b), 197-11-774; *King County*, 122 Wn. 2d at 662–66; *Alpine Lakes Prot. Soc'y v. Dept. of Natural Resources*, 102 Wn. App. 1, 15, 979 P.2d 929 (1999); *Ullock*, 17 Wn. App. at 581).

The County re-pitches the same argument in a new way by arguing that at this early point, no development is "probable" because nobody has yet filed an application for development or otherwise announced any plans to develop an alternative energy facility, and therefore there is

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nothing to "review" at this time. County Brief at 5–7. That very argument was made by the appellants in the *King County* case, who argued that considering the environmental effects of future development would be "premature and speculative." *See King County*, 122 Wn. 2d at 659. The Washington Supreme Court rejected the argument and explained, "The point of an EIS is not to evaluate agency decisions after they are made, but rather to provide environmental information to assist with making those decisions." *Id.* at 666 (citations omitted.)

The County must estimate the extent of development it expects to result under its proposal and review the impacts of that development—just as Klickitat County did with its Energy Overlay Zone. By refusing to do so, Skamania County effectively admits that it has not met its responsibilities to prudently plan for development. The County is not allowed to blindly authorize large-scale industrial facilities on hundreds of thousands of acres of land, and then just "wait and see" where such development ends up and what the impacts of that development might be. The County's unlawful approach must be rejected.

3. Despite the County's claims to the contrary, the proposed ordinance would apply within the Columbia River Gorge National Scenic Area.

In its SEPA documentation and decision, the County failed to acknowledge that its proposed zoning changes would apply within several of the Urban Areas within the Columbia River Gorge National Scenic Area. *See* Appellants' Pre-Hearing Brief at 7–8. In its Brief, the County perpetuates these errors by implying that these Urban Areas are regulated under National Scenic Area rules, rather than County zoning rules. *See* County Brief at 1 (naming Stevenson, North Bonneville, and Carson and stating "those lands" were "remov[ed] from County zoning codes" and made subject to National Scenic Area rules).

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The County is wrong. The Urban Areas within the National Scenic Area are not regulated by the Scenic Area rules. Instead, the unincorporated portions of these Urban Areas are subject to countywide zoning rules and would be directly affected by the proposed ordinance amendments.

In 1986, Congress passed and President Reagan signed into law the Columbia River Gorge National Scenic Area Act, 16 USC §§ 544–544p. The Scenic Area act designated four Urban Areas within Skamania County (North Bonneville, Stevenson, Carson, and Home Valley), and specified that land use and development activities within these Urban Areas would not be regulated under the Scenic Area Management Plan. *Id.* § 544(s) (defining "urban areas"), 544b(e) (designating 13 urban areas, including four within Skamania County), 544d(c)(5)(B) (exempting the Urban Areas from coverage under the National Scenic Area Management Plan). The County's zoning code expressly applies to all unincorporated portions of the County, which include the unincorporated portions of the National Scenic Area's Urban Areas. *See* SCC § 21.12.010.

By repeatedly describing the proposed ordinance amendments as applying only outside the National Scenic Area (*see, e.g.*, AR 50, 51), the County has failed to acknowledge the full geographic scope of the proposed action and has, as a result, failed to review and disclose the full environmental impacts of the action. The Hearing Examiner should remand the matter and direct the Planning Department to review the environmental impacts from all changes proposed within the National Scenic Area.

4. The County misrepresents the amount of land that would be affected by the proposal.

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The County maintains that its proposal would affect only 13 percent of the land within Skamania County. County Brief at 1. This is simply not accurate. In truth, the proposal would affect virtually the entire County.

In terms of zoning changes (*i.e.*, changes to the maps), the County has not made available exact numbers for the acreages that would be modified. *See* AR at 56–57 (providing acreages for *proposed* zoning classifications, but not for *current* zoning classifications). Nevertheless, one thing is clear: the County proposes to create a completely new zone called Commercial Resource Lands (CRL40), in which a variety of large-scale uses, including large-scale energy facilities, would be newly authorized. According to the County's own numbers, the new Commercial Resource zone would cover a total of 850,360 acres (including land within the West End and Swift Subareas). AR at 56–57. In addition, the County proposes to authorize large-scale energy facilities in all Industrial and Forest zones,[12] which cover another 28,599 acres. AR at 56–57. Thus, the County is proposing to authorize large-scale energy facilities on 878,959 acres of land, which is approximately 81.9% of the County's total land base,[13] and approximately 88.5% of the County's non-Scenic Area lands.[14]

The figures in the preceding paragraph do not even reflect all of the zoning changes proposed by the County—they only involve the lands where large-scale energy facilities would

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[12] Draft SCC §§ 21.52.040, 21.56.040.

[13] This percentage assumes that the figure of 1,073,370 acres for the total County acreage, provided on page 1 of the County's Brief, is accurate.

[14] For purposes of this Brief, "non-Scenic Area lands" refers to all lands where land use and development activities are not regulated directly under the Scenic Area rules. This includes all lands outside the National Scenic Area, plus all lands within the designated urban areas of the National Scenic Area. Also for purposes of this Brief, "Scenic Area lands" refers to lands regulated directly under the Scenic Area rules. Skamania County contains approximately 993,570 acres of non-Scenic Area lands and approximately 79,800 acres of Scenic Area lands.

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be authorized. All told, the County proposes to either rezone or modify authorized uses within almost 95% of the County's land base.

In addition, by stating that much of the proposed Commercial Resource zoning would be on public lands owned by federal and state agencies, the County attempts to minimize the apparent significance of the proposed ordinance amendments, and thereby de-emphasize its responsibility to review the effects thereof.[15] For several reasons, this argument should be rejected.

First, the County's Brief is contradicted by the County's own SEPA documents. The Brief argues that only private land would be affected and states that "[t]he total acreage affected by the ordinance [amendments] would be 141,336 acres." County Brief at 1. This allegation is flatly contradicted by the County's Environmental Checklist, which states that the proposal would "cover[] the entire county outside the National Scenic Area" and that "[t]he proposed amendments apply to all unincorporated land within Skamania County located outside of the National Scenic Area." AR 2, 3.[16] The County's failure to provide consistent and accurate information about what land would be affected casts serious doubts on whether the County has adequately reviewed the impacts on that land.

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[15] Even if the County *were* proposing to rezone only *private* lands, the impacts would still be significant. By the County's own admission, 141,336 acres of private land would be affected. County Brief at 1. The effects of authorizing geothermal power plants, large-scale wind facilities with dozens of turbines, hog boilers and other biomass energy production facilities, natural gas systems, and other industrial uses on tens of thousands of acres would be significant. Much of the private land on which these new industrial uses would be authorized is adjacent to the National Scenic Area, designated as critical areas, and/or near residential land. The County has failed to review the effects of its proposal on these areas.

[16] Of course, the statements in the Environmental Checklist are not accurate either, because they fail to acknowledge impacts within the National Scenic Area. *See supra* Part I.3.

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Second, any or all of the lands currently in public ownership could be sold or otherwise transferred to private parties tomorrow, which would indeed be made more likely to happen if the proposed zoning changes are enacted. By that point, it would likely be too late to challenge the zoning changes and the failure to review the environmental effects of the rezone decision.

Third, even if these lands remain in public ownership, the County's proposed zoning changes may induce similar changes in the federal and state agencies' plans and rules covering the land. For example, the Washington Department of Natural Resources ("DNR") may be more likely to propose alternative energy facilities on state lands in Skamania County as a result of the County's zoning change. In fact, following the adoption of the Energy Overlay Zone in neighboring Klickitat County, the DNR proposed long-term leases of several tracts of public land in that county for the construction of wind energy facilities. In the instant case, Skamania County has failed to document any consultation with state and federal agencies regarding the Skamania County proposal and how it might affect public lands or the use thereof.

Fourth, the County fails to acknowledge that land use changes on private lands can affect nearby public lands.[17] For example, large-scale wind energy facilities on private lands, with their enormous height, flashing lights, and moving turbine blades, can diminish the quality of existing recreational opportunities on nearby public lands, where views of scenic landscapes without man-made obstructions can currently be enjoyed by the public. "Scenic resources" are an element of the environment that must be considered under SEPA. *See* WAC 197-11-444.

[17] The County's failure to acknowledge the impacts on public lands is ironic, given the County's apparent acknowledgment that its proposal will affect private lands in the Scenic Area, even without directly regulating them. *See* County Brief at 1 (County includes private Scenic Area lands in the 141,336 acres of private land that would be affected by the proposal).

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To provide another obvious example, biomass power plants, which would be authorized by the proposed ordinance and which could include "hog boilers" (*i.e.*, facilities that produce energy by burning wood products) can produce air pollution that affects all nearby lands, regardless of whether those lands are in public or private ownership.

Because the County affirmatively refuses to acknowledge that its proposal would apply to and affect the vast majority of the County's land base, the County is failing to meet its SEPA responsibilities. The DNS should be reversed, and the matter should be remanded for an adequate analysis under SEPA. *See* WAC 197-11-100(2), 197-11-340(3)(a).

5. Contrary to the County's assertions, the permitting of alternative energy development has not been preempted by the State of Washington.

The County argues that under *Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council*, ___ Wn. 2d ___, ___ P.3d ___ (Nov. 20, 2008), the entire field of alternative energy permitting "has been preempted by the State of Washington" and that "[t]he County no longer controls [alternative energy] issues, the State does." County Brief at 6–7.

The County misreads *Kittitas Turbines* and the applicable statutes and rules. The Energy Facilities Site Location Act (EFSLA), Chapter 80.50 RCW, does authorize preemption by the State. However, such preemption cannot be triggered unless an applicant "chooses to receive certification" from the State. RCW 80.50.060(2), (3)(a)(ii), (3)(a)(iii). And even when an applicant does seek certification from the State, the State Energy Facility Siting Evaluation Council must nevertheless "conduct a public hearing to determine whether or not the proposed site is consistent and in compliance with city, county, or regional land use plans or zoning ordinances." RCW 80.50.090(2); *see also Kittitas Turbines*, ___ Wn. at ___ n.13 (slip op. at 41 n.13).

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Nothing in EFSLA or its implementing rules, and nothing in *Kittitas Turbines*, prevents Skamania County from enacting its own rules pertaining to alternative energy development. If such rules are adopted, they will be applied directly by the County if and when applicants seek County permits, and considered by the State if and when applicants seek State permits. Under either scenario, the severe deficiencies of the County's proposed standards are of serious concern.[18] But at any rate, the issues pertaining to alternative energy development involved in this appeal are neither moot nor insubstantial.

If the County truly believes that its authority to regulate and issue permits for alternative energy development is preempted by the State, then the County should strike the alternative energy provisions from the proposed ordinance amendments and replace it with language stating that permits for alternative energy facilities must be sought from the State. The County failed to consider this option during its SEPA review.

II. CONCLUSION

Appellants respectfully ask the Hearing Examiner to reverse the County's SEPA Determination of Non-Significance, and to remand for further proceedings including the preparation of an Environmental Impact Statement.

[18] For example, the County has failed to propose any scenic protection standards for large-scale wind energy facilities. In addition, the County has failed to propose *any* standards for geothermal power facilities other than standards set forth in state law, even though the County proposes to allow applicants to request County permits for such facilities.

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RESPECTFULLY SUBMITTED this 15th day of January, 2009.

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Michelle, Kayce (UTC)

From: Nathan Baker [[redacted]@gorgefriends.org]
Sent: Friday, August 27, 2010 5:08 PM
To: Andrew M. Montaño; Posner, Stephen (UTC)
Cc: EFSEC (UTC)
Subject: Friends' Exhibits Part 9
Attachments: JJ (Letter from Rick Till, Friends of the Columbia Gorge, to EFSEC on Land Use Consistency).pdf; KK (Nov. 6, 2009 Applicant Letter to Gorge Commission).pdf; LL (Excerpts from the Klickitat County EOZ EIS).pdf; MM (May 28, 2010 Emails Between EFSEC & URS).pdf; NN (April 9, 2010 Email from Applicant Regarding Use of DNR Land).pdf; GG (Testimony of Gary K. Kahn, Friends of the Columbia Gorge).pdf; HH (Columbia River Gorge Commission Memorandum on Legality of Road Use).pdf; II (Friends v. Forest Service, 546 F.Supp.2d 1088 (D.Or. 2008)).pdf

Attached.

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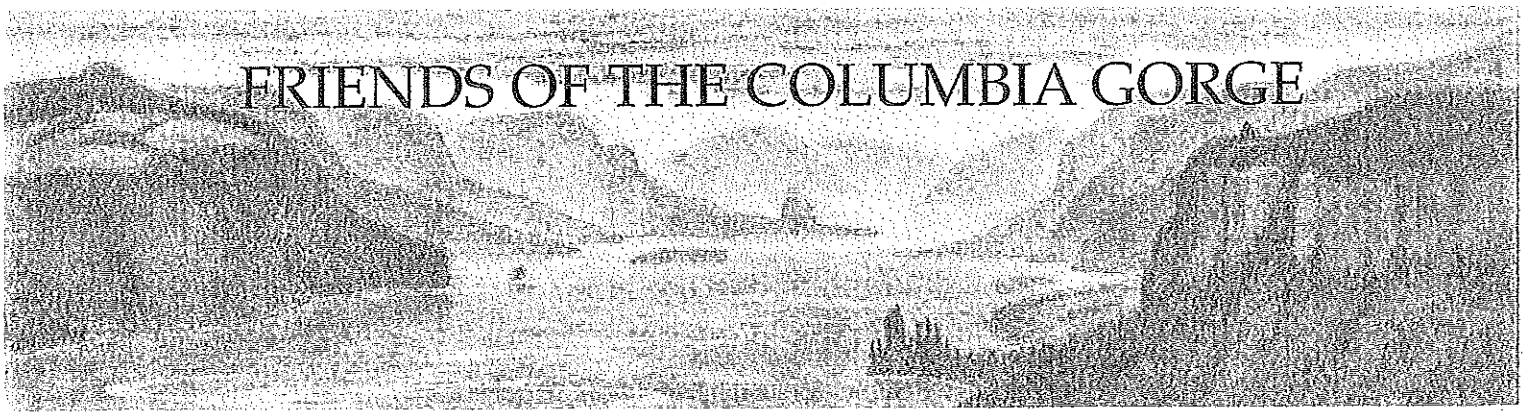

May 7, 2009

Allen J. Fiksdal, EFSEC Manager
Energy Facility Site Evaluation Council
P.O. Box 43172
905 Plum St. SE
Olympia, WA 98504-3172

Re: Energy Facility Site Evaluation Council's Land Use Consistency Review for the Whistling Ridge Energy Project – Application No. 2009-01

Dear Mr. Fiksdal:

Friends of the Columbia Gorge has reviewed the above-referenced proposal and would like to comment on its consistency with local land use rules. Friends is a non-profit organization with approximately 5,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge. Our membership includes hundreds of citizens who reside in the six counties within the Columbia River Gorge National Scenic Area.

Friends support renewable energy development so long as projects are responsibly sited and comply with all applicable laws. Unfortunately, the Whistling Ridge Energy Project would not be consistent with the Skamania County Comprehensive Plan.

As a preliminary matter, Friends requests that the Energy Facility Site Evaluation Council (EFSEC) extend the comment period for the land use consistency review process. Skamania County issued its land use consistency certification on May 5, 2009, two days before EFSEC's land use consistency hearing. The public has not been afforded an adequate opportunity to review the Board of County Commissioner's findings and provide meaningful comments. These circumstances warrant an extension of the comment period.

1. The Whistling Ridge Energy Project would not be consistent with Skamania County's Comprehensive Plan.

A. The project would be inconsistent with the general principles of the Comprehensive Plan.

The Comprehensive Plan is guided by a vision statement that establishes the values and ideals that will guide the County's development. The vision statement then informs the specific

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goals and policies that provide the specific guidance for reviewing specific development proposals. Skamania County's vision statement states that

> Skamania County is strongly committed to protecting our rural character and natural resource based industries while allowing for planned future development that is balanced with the protection of critical resources and ecologically sensitive areas, while preserving the community's high quality of life.

Comprehensive Plan ("Comp. Plan") at 13.

Even in the general terms of the Comprehensive Plan vision statement, it is apparent that that the Whistling Ridge Energy Project would not further the spirit of the Comprehensive Plan. The large-scale industrial wind energy facility would be located in forest land and adjacent to rural and agricultural areas. The proposed facility would adversely affect the rural character of the County, its resource-based industries, its critical resources and ecologically sensitive areas, and the community's high quality of life.

B. The project would be inconsistent with the goals and policies of the Comprehensive Plan.

The Comprehensive Plan includes four planning elements: a Land Use Element, an Environmental Element, a Transportation Element, and an Archeology and Historic Preservation Planning Element. Within each element, the Comprehensive Plan creates goals and policies that are intended to guide County decision making through review of specific land use proposals. As the Comprehensive Plan states, "To be consistent with the Comprehensive Plan, a project must also meet the intent of the Comprehensive Plan's policies, not just the land use designation and zoning classification." Comp. Plan at 14.

The Plan's goals are the "cornerstone" of the planning process and establish the desired future conditions that the Comprehensive Plan aims to achieve. Comp. Plan at 14. The Plan's policies are more specific and prescribe actions for fulfilling the goals of the Plan. This must occur through review of specific projects for consistency with the Comprehensive Plan. Comp. Plan at 14. The Whistling Ridge Energy Project would be inconsistent with the Comprehensive Plan's goals and policies.

***i.* Land Use Element**

a. The proposed amendments are inconsistent with the land use designations created by the Comprehensive Plan.

Before enunciating the specific goals and policies for the Land Use Element, the Comprehensive Plan creates three general land use designations that serve as guideposts for developing specific zoning designations. The three categories, Rural I, Rural II, and Conservancy, establish the intensity of development allowed in specific areas and the types of development that are appropriate in those areas.

Of the three Comprehensive Plan designations, the Rural I designation is intended to accommodate the most development. Comp. Plan at 23. The Rural I designation is intended to accommodate higher density and more intrusive land uses. Comp. Plan at 24.

The Rural II designation is intended to be "the middle development range level" in the plan. Comp. Plan at 24. Rural II lands will accommodate rural living without allowing significant development on agricultural and timber lands. Comp. Plan at 24. Notably, high density uses or major development actions would not be appropriate within this designation.

The Conservancy designation is intended to conserve natural resources, wildlife resources, and wildlife habitats. Comp. Plan at 25. As with the Rural II designation, high-density or industrial-scale uses are not appropriate in the Conservancy designation.

The proposed facility would be located in the Conservancy designation and it appears that a small portion of the project may be located in the Rural II designation. The zoning map attached to the County's Consistency determination shows the southwest portion of the project would be located within Township 3N, Range 9E, Section 13, which is currently zoned FA20. Section 13, along with the surrounding areas that are zoned R-2, R-5, and R-10, appear to coincide with the Rural II designation. Importantly, the precise location of the Comprehensive Plan boundary cannot be located with the Comprehensive Plan Maps. The maps include a disclaimer that the maps are not suitable for legal purposes. This creates uncertainty as to the Comprehensive Plan designation for portions of the proposed facility. For ease of clarification, it appears that the line between Rural II and Conservancy designations coincides with the line between Range 9E and Range 10E. If this is the case then portions of the proposed facility would be sited in the Rural II designation. In any event, EFSEC must identify the precise location of boundary between the two designations before it can make findings regarding consistency with the Comprehensive Plan.

The Comprehensive Plan designations determine the types of land uses that are appropriate in various parts of the County. The proposed project is a large-scale industrial use and is not consistent with the Rural II or Conservancy designations. In fact, the list of appropriate uses in the Rural II and Conservancy designations do not include any uses that are similar to large-scale private energy production facilities. Comp. Plan at 25–26. The Skamania County Hearing Examiner recently confirmed this finding in the Findings, Conclusions, and Decision for the appeal of the County's SEPA Determination of Non-Significance for recently proposed zoning amendments (SEPA file number SEP-08-35, attached).

Thus, the proposed development does not satisfy the first criteria for a finding that the project would be consistent with local land use rules. More detailed review of the County's goals and policies only reinforces this finding.

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b. The proposed zoning amendments are inconsistent with the specific goals and policies of the Land Use Element.

- *Goal LU.1: To integrate long-range considerations (comprehensive planning) into the determinations of short-term action (individual development applications).*

The proposed project would thwart this goal by permitting one project without a viable County zoning ordinance in place to guide future development. The County's recent attempt to push through a hastily prepared ordinance was remanded by the Hearing Examiner and the County was required to prepare an Environmental Impact Statement for the proposed zoning ordinance. Permitting the proposed project in the absence of a revised ordinance that takes into account long-range considerations would undermine the County's planning process. This would eliminate opportunities to integrate long-range considerations into the current individual development action.

- *Policy LU.1.2: The plan is created on the premise that the land use areas designated are each best suited for the uses proposed therein. However, it is not the intention of this plan to foreclose on future opportunities that may be made possible by technical innovations, new ideas and changing attitudes. Therefore, other uses that are similar to the uses listed here should be allowable uses, review uses or conditional uses, only if the use is specifically listed in the official controls of Skamania County for that particular land use designation.*

The scale of the proposed industrial development is not similar to the uses listed as appropriate in the Conservancy designation in the Comprehensive Plan. The Skamania County Hearing Examiner recently confirmed this to be the case by deciding that private large-scale industrial energy development was not a use contemplated in the Comprehensive Plan.[1] As such EFSEC cannot find that the proposed development would be consistent with local land use rules.

Moreover, the proposed development is not an opportunity made possible by "technical innovations, new ideas and changing attitudes." The County was fully aware of the potential opportunities for industrial wind energy development when it adopted its Comprehensive Plan in 2007. Before the Comprehensive Plan was adopted the County had already held meeting with the proponents of the Whistling Ridge Energy Facility and was invited to join Klickitat County in the creation of Klickitat County's Energy Overlay Zone, which was finalized in 2004.[2] Therefore, EFSEC cannot find that the proposed project is a new opportunity that was not known by the County when it adopted its new Comprehensive Plan.

- *Policy LU.1.3: The comprehensive planning policies set out herein and all land use designations and land use regulations undertaken pursuant hereto should provide clear and objective standards to govern future development.*

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[1] Findings, Conclusions, and Decision; Hearing Examiner for Skamania County; SEP-08-35, Finding 18, at p 8.
[2] Skamania County Planning Director confirmed these facts in testimony under oath during the SEPA appeal of Skamania County's Determination of Non-Significance for the proposed Title 21 Zoning Ordinance Amendments.(SEP 08-35). In addition, the Klickitat County Energy Overlay Zone EIS included analysis of portions of eastern Klickitat County.

Without a current zoning code there are no clear and objective standards to govern the proposed development. In this void EFSEC cannot make a finding that the proposed facility would be consistent with local land use rules.

- ***Goal LU.2: To provide for orderly future physical development of Skamania County.***

- *Policy LU.2.1: All zoning regulations and other implementing regulations shall be consistent with and guided by the comprehensive plan or specific subarea plan maps and policies.*

Policy LU.2.1 implements the Planning Enabling Act (RCW 36.70) requirement that development regulations "shall not be inconsistent with the county's comprehensive plan." RCW 36.70.545. Development regulations include zoning ordinances, critical areas ordinances, shoreline master programs and all other controls for development and land use. RCW 36.70A.030. The County has not updated the County zoning ordinance or the Critical Areas Ordinance to be consistent with the Comprehensive Plan. In the absence of development regulations that are consistent with the Comprehensive Plan, EFSEC cannot make a finding that the project would be consistent with local land use rules.

- *Policy LU.2.7: County improvement projects (public works, roads, parks, etc.) will comply with the policies, regulations and designated land uses of the Comprehensive Plan.*

The development of a large-scale wind energy facility would require modifications to County roads for an industrial purpose. These modifications would violate the policies, regulations and designated land uses of the Comprehensive Plan. For example, industrial-scale road projects are not allowed in the Conservancy designation.

- ***Goal LU.3: To coordinate public and private interests in land development.***

- *Policy LU.3.1: Improvements, both public and private, should be made intelligently and efficiently, and have a wholesome effect upon the communities.*

The proposed large-scale wind energy facility would not have a wholesome effect on the community. The project would adversely impact views from the federally protected Columbia River Gorge National Scenic Area, the federally protected Lower White Salmon Wild and Scenic River Area, and dominate an otherwise natural and pastoral landscape with industrial development. Also, since the County has not implemented its Comprehensive Plan through a zoning ordinance, the project cannot be reviewed under intelligent and efficient land use rules.

- *Policy LU.3.3: Encourage industry that would have minimal adverse environmental or aesthetic effects.*

The proposed large-scale wind energy facility would cause significant adverse impacts to aesthetic resources. Measured by objective methodologies for evaluating aesthetic resources,

such as the USDA Forest Service's *Scenery Management System*, wind facilities have the potential to cause significant adverse effects to aesthetic resources. The Forest Service used similar methodologies for developing the scenic resource protection guidelines for the National Scenic Area. These guidelines can be used as a measuring stick to evaluate impacts to aesthetic impacts to the Scenic Area viewshed.

Amongst a range of aesthetic resource protection standards, the Scenic Area guidelines require development visible from designated key viewing areas to be visually subordinate to the natural landscape. The guidelines also include a prohibition on development protruding above ridgelines and measures that avoid impacts from nighttime lighting. The proposed development would blatantly conflict with these standards. Using objective regulatory standards as a proxy for aesthetic impact methodologies, the proposed project will likely cause more than minimal adverse effects on the environment and aesthetics.

- ***Goal LU.4: To promote interagency cooperation and effective planning and scheduling of improvements and activities so as to avoid conflicts, duplication and waste.***

The development noticed for review by EFSEC does not include portions of the Whistling Ridge Energy Project that would be located on Washington Department of Natural Resource Land in Klickitat County. The failure to review the entire project at one time creates potential conflicts, duplication, and waste.

- *Policy LU.4.3: Land use patterns, which minimize the cost of providing adequate levels of public services and infrastructure, should be encouraged.*

EFSEC must make findings that the proposed development will encourage land use patterns that minimize costs of providing public services and infrastructure. Developing large-scale industrial facilities in both remote areas and areas adjacent to rural residential and pastoral lands would likely increase the costs of providing adequate levels of public services such as road maintenance and fire protection.

- ***Goal LU.5: To promote improvements which make our communities more livable, healthy, safe and efficient.***

- *Policy LU.5.4: Surface water run-off (including stormwater run-off) from developments should be reduced by: encouraging the retention of natural vegetation or the provision of landscaped areas; encouraging the retention, creation and utilization of wetlands; requiring that natural drainage ways be maintained in all new developments and include appropriate setbacks; and, encouraging on site retention/detention of all stormwater.*

EFSEC must make findings that the proposed development would include adequate facilities to manage storm water run-off.

- *Policy LU.5.5: Promote compatibility of industry with the surrounding area or community by fostering good quality site planning, landscaping, architectural design, and a high level of environmental standards.*

The proposed large-scale wind energy facility would not be compatible with the surrounding area. The surrounding area includes forested habitat for several threatened and endangered species, rural residential areas, pastoral landscapes, traditional agricultural uses and newly developing agricultural industries such as wineries. The surrounding area also includes the federally designated Columbia River Gorge National Scenic Area and the Lower White Salmon Wild and Scenic River Area. Large-scale industrial development is not compatible with the surrounding area.

- *Policy LU.5.9: The Board of County Commissioners, as legislative authority, shall consult this Plan on any matters concerning physical development of the County, and in dealing with matters coming before it with regard to this Plan.*

The Board of County Commissioner's Resolution 2009-22 does not include sufficient consultation with the Comprehensive Plan. Unfortunately these findings were made available to the public on May 5, 2009, two days before EFSEC's land use consistency hearing. As such, the public has not been afforded an opportunity to review the Board of County Commissioner's findings in greater detail. Nonetheless, brief review of the adopted consistency findings shows that the County did not include analysis of all applicable Comprehensive Plan goals and policies and the goals and polices that were evaluated were erroneously interpreted.

- ***Goal LU.6: To provide opportunities for citizen participation in the government decision process and in planning activities regarding land development.***

The Board of County Commissioners did not afford the public an opportunity to submit comments on the Certification of Land Use Consistency Review for the Whistling Ridge Energy Project. The failure to provide an opportunity for public involvement is an egregious violation of the letter and spirit of the Comprehensive Plan.

Policy LU.6.1: Three types of uses should be established for each land use designation under this plan and for any zone established to implement this plan. ***If any use is not listed as one of the following types of developments, then the use is prohibited within that land use designation*** (Emphasis added)*:*

> *a. Allowable uses which are permitted without review by the Planning Department except for compliance with setbacks, buffer requirements, critical area regulations, the State Environmental Policy Act and the Shorelines Management Master Program;*
>
> *b. Review uses, which are allowed, with administrative review by the Planning Department for consistency with standards placed upon those uses, with appeal to the Hearing Examiner; and,*
>
> *c. Conditional uses, which are subject to review and approval or denial by the Hearing Examiner, with appeal to Superior Court. The Hearing Examiner may deny a conditional use permit if he or she finds the use is inappropriate for the area.*

Large-scale energy facilities are not listed anywhere in the County zoning code or Comprehensive Plan as an "allowable use," a "review use," or "conditional use." By the express language of the Comprehensive Plan the proposed facility is not allowed.

The standards for conditional use review illuminate a glaring inconsistency between the Comprehensive Plan and the existing zoning ordinance. Skamania County Code Section 21.16.070 provides that the Hearing Examiner has authority to review proposals for compatibility with the surrounding area whereby proposals "may be approved or approved with conditions." The Comprehensive Plan expressly grants authority to deny proposals based on compatibility review. The recent Hearing Examiner decision confirms this finding.[3] The County provides not explanation for this inconsistency in its land use certification.[4]

ii. Environmental Element

- ***Goal E.1: To ensure the proper management of the natural environment to protect critical areas and conserve land, air, water, and energy resources.***
- *Policy E.1.5: Prepare clearing and grading regulations to help prevent unnecessary stripping of vegetation and loss of soils.*
- *Policy E.1.6: Prepare stormwater management regulations to help prevent stream channel erosion and degraded stream habitat, and to promote healthy stream recharge that are substantially equivalent to those in the Washington Department of Ecology Stormwater Management Manual.*
- *Policy E.1.7: Maintain clear development review standards for the control of the quantity and quality of stormwater discharge from development projects.*
- *Policy E.1.8: Regulate development activities to avoid clearing of vegetation that maintains slope stability, reduces erosion, shades shorelines, buffers wetlands and stream corridors, and provides wildlife and aquatic habitat.*
- *Policy E.1.9: Encourage the use of northwest native plants in landscaping, particularly adjacent to critical areas.*
- *Policy E.1.10: Ensure prompt restoration of land after grading and vegetation removal through phased clearing and grading, replanting requirements, and other appropriate revegetation and engineering techniques.*

Importantly, Skamania County is in the process of amending its Critical Areas Ordinance pursuant to its obligations under the Growth Management Act. Pending the completion of the revisions, EFSEC must make specific findings regarding each of the above-referenced policies.

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[3] Findings, Conclusions, and Decision; Hearing Examiner for Skamania County; SEP-08-35, Finding 17, at p 8.
[4] *See* Skamania County Staff Report for Land Use Consistency Review, p 10.

- ***Goal E.2: To enhance water quality; protect environmentally sensitive areas including wetlands, streams, rivers, lakes, riparian areas, and aquifer recharge areas; and manage floodplains.***

- *Policy E.2.5: Promote low-impact design development that allows for infiltration and recharge of stormwater runoff, where appropriate, based on the applicant supplying documentation from a licensed Washington State Professional Engineer.*

Wetlands, streams, rivers, lakes, riparian areas, aquifer recharge areas, and floodplains are all critical areas pursuant to the Growth Management Act. EFSEC must make findings as to whether these critical areas will be protected. EFSEC should address the status of the County's Critical Areas Ordinance revision process while reviewing impacts to designated critical areas.

- ***Goal E.3: To minimize the loss of life and property from landslides, seismic, volcanic, or other naturally occurring events, and minimize or eliminate land use impacts on geologically hazardous areas.***

EFSEC must ensure that its land use consistency determination include findings as to whether the proposal will minimize or eliminate land use impacts on geologically hazardous areas.

- ***Goal E.4: To consider the requirements of the human population while protecting fish and wildlife habitats, including salmonid habitat, by preserving, restoring, and enhancing critical areas; and linking habitat for wildlife and native ecosystems.***

- *Policy E.4.1: Manage fish and wildlife habitat conservation areas to protect overall habitat functions and values (e.g., food, water, cover, space). Rely on State identified wildlife habitat areas and sites as designated on the Priority Habitat Maps. However, unmapped wildlife habitat areas and sites may be identified during the development review process.*

The proposed development would be located in identified priority habitats, including habitat for the Northern spotted owl. The above-referenced policy requires mechanisms for protecting wildlife resources discovered during the development review process. Thus, the Comprehensive Plan requires that mapped and areas discovered during the review process be protected.

- *Policy E.4.2: Develop strategies for preserving, protecting or restoring important habitats and corridors, particularly if they are at risk of significant degradation. Some strategies may include public acquisition of habitat; linking habitats using open space areas, riparian corridors, and other natural features; encouraging the use of conservation easements for long-term habitat protection; promoting land use plans and development that avoid impacts on habitat; and protecting native plant communities by encouraging management and control of non-native invasive plants, including aquatic plants.*

The proposed development would stretch along miles of ridgelines through Northern spotted owl habitat and habitat for other state and federal threatened and endangered species. The project would include underground and aboveground collector lines, facility roads, and a transfer station. These structures have the potential to destroy and fragment habitat, especially migratory pathways over ridgelines and between adjacent valleys. The operation of the facility would also kill avian and bat species and may displace other sensitive species, further reducing available habitat. As such, approval of the project would be inconsistent with the Comprehensive Plan.

- *Policy E.4.4: Coordinate with other jurisdictions and agencies to protect environmentally critical habitats, particularly ecosystems and watersheds that span jurisdictional boundaries.*

EFSEC must coordinate with WDFW, the U.S. Fish and Wildlife Service, and other agencies to ensure protection of environmentally critical habitats.

- *Policy E.4.5: In cooperation with Washington State Department of Fish and Wildlife (WDFW) establish appropriate avoidance, minimization, and mitigation measures for development projects that have a probable impact on listed species and their habitat.*

EFSEC must consult with WDFW to ensure that the proposed energy facility would not harm listed and candidate species.

- ***Goal E.5: Plan and coordinate land uses, public access, and natural resource protection along shorelines of the State in accordance with the State Shoreline Management Act and the Skamania County Vision.***

Goal E.5 implements the Planning Enabling Act (RCW 36.70) requirement that development regulations "shall not be inconsistent with the county's comprehensive plan." RCW 36.70.545. EFSEC must review the proposed facility for consistency with the Shorelines Master Program.

iii. Transportation Element

- ***Goal T.1: Transportation – Encourage an efficient multi-modal transportation network that is based on regional priorities and coordinated with county and city comprehensive plans.***

- *Policy T.1.3: Public Works should continue to take periodic traffic counts and make road improvements as necessary and feasible to maintain levels of service at "C" or above throughout the horizon of this plan. If the level of service falls below a level "C", then that road should be included in the six-year road plan during the next annual review cycle for road improvements.*

- *Policy T.1.4: Continue similar level of road maintenance to protect the current transportation investment.*

EFSEC must review the proposed energy facility for impacts to the transportation system. Large-scale wind energy development will require modifying existing roads and entails an increase in industrial traffic. These impacts may contribute to a decline in the level of service below "C," which would violate the Comprehensive Plan policy. Further, the increased industrial use may require an increased level of road maintenance to protect the current County investment.

- ***Goal T.2: Continue the priority of increasing safety of the Skamania County rural 2-lane road system. The majority of the Public Works Department's future efforts will be to reduce the accident rate with Skamania County.***

- ***Goal T.3: Public Facilities and Services – Ensure that those public facilities and services necessary to support development should be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.***

The rural and pastoral roads in the Underwood area are not adequate to serve the proposed energy facility. Directing industrial traffic onto these roads will likely decrease service levels below minimum standards.

Skamania County Code § 12.03.030 provides rules for road classifications. The code states: "All private roads within Skamania County shall be classified, based on their primary functions, as follows: Category III—Road serving four—ten homes; Category IV—Road serving eleven—twenty homes; Category V—Road serving over twenty-one homes; Category VI—Commercial development' Category VII—Recreational use with limited service." EFSEC must ensure that the proposed development would comply with all road classifications.

iv. Archaeology and Historic Preservation Element

- ***Goal AHP.1: Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.***

- *Policy AHP.1.2: The County should adopt a predictive model in order to identify when a cultural resource survey should be required of an applicant. This model should be based on landscape, known sites, proximity to water, the amount of proposed ground disturbance, etc.*

- ***Goal AHP.2: Increase recognition of historic, archaeological, and cultural resources.***

- ***Goal AHP.3: Protect historic, archaeological and cultural resources through a comprehensive planning approach.***

- *Policy AHP.3.1: Create the county's policies for consistency regarding preservation of cultural and historic resources.*

- *Policy AHP.3.2: The zoning amendments should be revised to include provisions to permit the review of individual development, redevelopment and demolition plans to*

ensure protection and minimize the impacts on cultural, historic and, particularly archaeological resources.

- *Policy AHP.3.3: Establish a process for the resolution of land use conflicts relating to the preservation of historic, archaeological and cultural resources.*

- *Policy AHP.3.4: Provide assistance to developers, landowners, and the construction trade regarding appropriate re-use and rehabilitation of identified historic sites and buildings.*

- *Policy AHP.3.5: Require notice to be recorded in the Skamania County Auditor's office deed records to inform future buyers that the property is within 500 feet of a known archaeological site.*

EFSEC must ensure that historical and cultural resources are protected. EFSEC must consult with tribal governments to ensure tribal interests in protecting cultural resources are considered during the land use consistency review process.

2. The Whistling Ridge Energy Facility apparently has not obtained required forest land conversion approval from the Washington Department of Natural Resources and has not had the conversion of forest land reviewed under the State Environmental Policy Act by Skamania County.

Since the proposed development would require the permanent conversion of forest lands to non-forestry uses the project applicant must apply to the Washington DNR Forest Practices Division for a forest land conversion and have the conversion reviewed by the County under the State Environmental Policy Act. Aerial photographs in the application show that substantial portions of the project area have been clear-cut. Friends contacted the Washington DNR and reviewed the Forest Practice Application database and could not find any applications for forest land conversions within the project area. Absent a demonstration that the applicant has complied with Forest Practices Act forest land conversion requirements, EFSEC cannot make a finding that the proposed facility would be consistent with land use laws.

In addition, the County currently has a moratorium on forest land conversions in unzoned areas of the County, which includes the majority of the project area. This moratorium has been in place since the current Comprehensive Plan was adopted. This point was succinctly described by the Skamania County Hearing Examiner in her recent SEPA Appeal ruling.[5] Until the County adopts zoning designations for the unzoned areas the applicant is prohibited from converting forest lands to non-forest uses. Consequently, the proposed facility cannot be bound consistent with the local land use rules.

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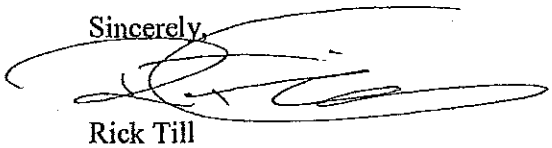
[5] Findings, Conclusions, and Decision; Hearing Examiner for Skamania County; SEP-08-35, Finding 10, at p 28.

3. Conclusion

The proposed development would not be consistent with the Skamania County Comprehensive Plan. The existing zoning ordinance is out of date and itself inconsistent with the Comprehensive Plan.

Sincerely,



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November 6, 2009

VIA EMAIL & U.S. FIRST-CLASS MAIL

Ms. Joyce Reinig, Chair
Columbia River Gorge Commission
PO Box 730
White Salmon, WA 98672

Re: *Friends of the Columbia Gorge v. Skamania County*
Skamania County Resolution No. 2009-22
CRGC No. COA-S-09-01

Dear Ms. Reinig:

This letter is submitted in response to the letter dated October 22, 2009 from Mr. Gary K. Kahn, legal counsel to Friends of the Gorge, addressed to the undersigned legal counsel to Whistling Ridge Energy LLC. This response is addressed to the Gorge Commission in furtherance of the Commission's Order Abating Appeal dated October 7, 2009. Based upon the information previously provided, and the responses to Mr. Kahn's letter below, we stand by our position that the above-referenced appeal is moot.

1. Junctions of SR-14 and Cook-Underwood Road

As described in the Amended Application, the proposed haul route would be via SR-14 to Cook-Underwood Road, using either the west or east junction depending on whether materials and equipment are hauled by truck from the Ports of Longview or Vancouver, or by barge or rail to SDS Lumber's dock in Bingen.

The italicized language referenced in Mr. Kahn's letter was inadvertently deleted without strikeout. See the enclosed page 4.3-13 of the March 10 Application, with strikeouts added to the original text. We regret this confusion. However, the strikeout version was intended to highlight changes. The text filed with the Amended Application and circulated to all parties to this appeal is correct. No roadway improvements have been identified as being needed at either the west or east intersection of SR-14 and Cook-Underwood Road. The turning radius and tip

Alaska California Colorado
Idaho Minnesota Oregon Utah Washington

swing allowance are described on page 4.3-14 of the Amended Application. No modification is required or proposed.

2. Ausplund Road Alternative (Alternative 1)

As the cover letter to the Amended Application states, site access is proposed from SR 14 to Cook-Underwood Road, to Willard Road, and then to West Pit Road. This information is repeated numerous times in the Amended Application (see pages I-6, 2.1-1, 2.3-5, and 4.3-9 as examples).

WAC 463-60-296 Proposal – Analysis of Alternatives requires that "*The Application shall include an analysis of alternatives for site, route, and other major elements of the proposal.*" As stated in Section 2.19.1 Introduction, the section summarizes the alternatives that were explored during development of the Whistling Ridge Energy Project. Section 2.19.5 Alternative Construction Access, summarizes the three routes that were considered. Route 3, the use of Cook-Underwood Road to Willard Road to West Pit Road, is noted as the *"preferred, and perhaps only practicable, access alternative."* (page 2.19-3). It is possible that the DEIS may also document the consideration of the route through the Scenic Area, in order to document consideration of this alternative, and its rejection due to factors described in the Amended Application.

There is no inconsistency. The proposed haul route is as stated in the cover letter and throughout the Amended Application, SR-14 to Cook-Underwood Road, to Willard Road, and then to West Pit Road. The Applicant has no interest in pursuing a Scenic Area route.

3. Kollack-Knapp Road to Scoggins Road to CG2930 Road (Alternative 2)

Site access for both construction and operation is proposed from SR 14 to Cook-Underwood Road, to Willard Road, and then to West Pit Road. West Pit Road will be improved to handle the proposed truck traffic. The alternative operation and maintenance facility location is proposed to better facilitate the use of this roadway for operational purposes.

While there is not a designated use of CG2930 specifically for the wind project, CG2930 is an existing road that accesses the southern portion of the project site. CG2930 will continue to be used as it is today for forestry and a variety of other purposes. Depending on the specific maintenance activity over the 30-year life of the wind energy project, it is possible that this road could be used actively and incidentally to access the southern portion of the site for activities that

include logging and a variety of other purposes. Any access will be in conformance with all applicable laws. We emphasize two things: (1) no improvements are proposed or required to CG2930, and (2) this road will continue to serve the forestry needs of the site—a site where the predominant or "primary" land use is and will continue to be commercial forestry.

4. Roadway Bridge Over the little White Salmon River

There are two routes coming from the west using Cook-Underwood Road as shown on Revised Figure 4.3-2b in the Amended Application (page 4.3-4). One route would cut off of Cook-Underwood Road onto the west junction with Willard Road. This route would require use of a bridge over the Little White Salmon River near the community of Willard. The second route coming from the west would remain on Cook-Underwood Road and cut off onto the east junction with Willard Road. This route would require use of a bridge over the Little White Salmon River on the Cook-Underwood Road. A third route, coming from the east using Cook-Underwood Road to the east junction with Cook-Underwood Road would not require crossing the Little White Salmon River. Larger and heavier components are likely to be delivered by barge to Bingen and are likely to use this route coming from the east.

As stated on page 4.3-10 of the Amended Application, *"crossing this bridge with specialized trucks transporting wind energy components would require special provisions agreed upon between S.D.S. Co., LLC and Skamania County."* The County has not yet determined whether any modifications or repair of either bridge would be required. Moreover, while an applicant through EFSEC solicits county review at an early stage, it is nevertheless common for counties to request or require minor road upgrades during the construction process, which are not identified prior to review of final engineering plans. The Applicant will continue to confer with Skamania County, and any potential (but at this time unknown) improvements to public roads would be in compliance with all applicable laws.

CONCLUSION

We note for the Commission that the appellants' appeal focused predominantly upon the novel contention that the modification or improvement of *private* roads within the Scenic Area required consideration of whether the use of land *outside of the Scenic Area* would be allowed if the same use were hypothetically proposed *within the Scenic Area*. This contention was advanced through the appellants' appeal of the County's Determination of Land Use Consistency. For all of the reasons set forth in the Response Brief of Whistling Ridge Energy LLC, these contentions are deeply flawed, both factually and legally, and are a deliberate attempt

to usurp EFSEC and Gubernatorial authority over siting energy facilities. However, rather than engage in litigation concerning these issues, the Applicant has taken extraordinary steps to redesign access and avoid the use or modification of private roads within the Scenic Area.

Now, Mr. Kahn's letter, in part, seems not to focus on the private road issue, but instead seems to focus on any potential modification of *public roads* within the Scenic Area. If the letter in fact signals this departure, it is no longer about an appeal of the County's Determination of Land Use Consistency, but it seems to be about other matters yet to be decided by EFSEC in due course. The use of County roads is not an issue related to land use consistency *per se*. Public roads within the Scenic Area are routinely used, upgraded and repaired every day to serve a host of uses, many of which are located and occur outside of the Scenic Area (and many of which would not be allowed if hypothetically located within the Scenic Area). If the Friends of the Gorge intend to halt activities such as Metro's municipal waste hauling through the Gorge (along with the road repairs that may result from the heavy vehicles using public roads), that intent should be clearly stated, and the many business and governmental entities potentially affected should be notified.

We assume, and hope, that the Gorge Commission and its staff will participate in the EFSEC proceedings, and will fully comment upon the DEIS and other matters as the Whistling Ridge Energy Project proceeds forward through what will be a very rigorous regulatory review.

We request that the appeal be dismissed. It is rendered moot by the access redesign.

Very truly yours,

Timothy L. McMahan
Enclosure
cc: Nathan Baker
Gary K. Kahn
J. Richard Aramburu
Peter S. Banks
Mark Womble
Jim Luce
Allen Fiksdal
Jeff Litwak

measures. Maple Street would require no improvements to accommodate the transport of wind energy components.

Cook-Underwood Road. Cook-Underwood Road has two 12-foot lanes and paved shoulders that are 1 foot or less in width. There are currently no over-size or over-weight load restrictions in force but permitting would be required by Skamania County. These loads would require pilot cars both in the front and the rear and could require additional traffic control measures. Cook-Underwood Road would require no improvements to accommodate the transport of wind energy components ~~outside the limits of the junction with SR 14 and the intersection with Kollock Knapp Road.~~

~~At the junction with SR 14, improvements would be required.~~ Specialized trucks (including a drivable rear axle) transporting wind energy blades (which are the longest single wind energy component) ~~westbound~~ on SR 14 onto Cook-Underwood Road would require a 135-foot inside turning radius, and a 20-foot allowance for "tip swing." Approximately 15 to 20 feet of the wind energy blade would extend beyond the centerline of the drivable rear axle. ~~To accommodate the required truck turning radii, temporary widening at this junction would be required. Widening would include removal of guardrail and an engineered fill section on the inside of the turn, and an engineered fill section and a possible embankment cut section just beyond Treiber Road on the outside of the turn. The photos in Figures 4.3 4 through 4.3 7 show the junction of SR 14 and Cook Underwood Road. The engineered fill and embankment cut sections would not require paving, but would require an all weather driving surface. Right of way ownership and easement determination would be required.~~

~~At the intersection of Cook-Underwood Road and Kollock-Knapp Road (Figure 4.3-8), improvements would be required for transport of wind energy blades to the proposed project site. To accommodate the required truck turning radii, temporary widening at this intersection would be required. Widening would include removal of trees and vegetation and embankment cut sections both on the inside and outside of the turn. The embankment cut sections would not require paving, but would require an all-weather driving surface. Right of way ownership and easement determination would be required.~~

~~**Kollock-Knapp Road.** Kollock-Knapp Road has two 12 foot lanes and paved shoulders that are 1 foot or less in width (Figures 4.3-9 through 4.3-12). In general, the side slope begins at the fog line. There are currently no over-size or over-weight load restrictions in force but permitting would be required by Skamania County. These loads also would require pilot cars both in the front and the rear and could require additional traffic control measures. Kollock Knapp Road would require no improvements to accommodate the transport of wind energy components outside the limits of the intersections with Cook Underwood Road and Scoggins Road.~~

Excerpts from the Klickitat County Energy Overlay Zone EIS (Sep. 2004)
Findings and Conclusions Regarding Forested Land

"According to Priority Habitat Land Use data, forested areas host higher concentrations of owl and other sensitive species habitats." EOZ EIS at 2-15.

"Based on this screening of the Alternatives, areas with high concentrations of forested habitats are recommended to be excluded from the geographic scope of the Overlay because forest habitats have:

- Higher potential for use by sensitive species and avian species likely to be impacted by wind turbines
- Greater geographic discontinuity (more dispersed) within the County and less similarity compared with agricultural, commercial, and range land." Id. at 2-15.

"Use of the study area by large falcons (prairie falcons) was significantly higher in forested habitats than agricultural or grassland habitats . . ." Id. at 3-53.

"Under the Geographic Alternative, the proposed Overlay would exclude some bird habitats associated with forested areas. It could also reduce impacts by mapping that excludes some of the County's higher bird use habitats including cliffs, caves, forested areas, wetlands, and riparian zones and requiring additional mitigation measures in these areas." Id. at 3-68.

"The DEIS considered the presence of large concentrations of forested habits as one of many factors in setting the boundary of the proposed energy overlay. The intent was to exclude large concentrations of areas of forest habitat because forest habitats tend to be more complex, have higher biodiversity, and lack ideal siting conditions for energy development." Id. at G-18.

"While all energy projects have environmental impacts, the northern portions of the County tend to contain more heavily forested habitat, while the southern portions tend to have better energy resources and infrastructure. Because of this, it is possible for the EOZ to be located to take advantage of both energy resources, but also avoid some of the more forested areas of the County. No location will be impact free, but the EOZ can be located with a sensitivity to environmental impacts. To further tailor the location of the EOZ, the Limited Geographic Alternative was developed in response to comments." Id. at G-43.

Michelle, Kayce (UTC)

From: Nathan Baker [redacted]@gorgefriends.org]
Sent: Friday, August 27, 2010 5:10 PM
To: Andrew M. Montaño; Posner, Stephen (UTC)
Cc: EFSEC (UTC)
Subject: Friends' Exhibits - Large Exhibits

There are three large exhibits (B, L, and T) that I did not email, but those will be included along with all the other exhibits on the CDs I will mail to you.

Thank you, and have a great weekend.

Nathan Baker, Staff Attorney
Friends of the Columbia Gorge
[redacted]@gorgefriends.org
[redacted] SW 5th Ave., Suite [redacted]
Portland, Oregon 97204-2100
(503) 241-[redacted]
Fax: (503) 241-[redacted]

Michelle, Kayce (UTC)

From: Steve Royal [redacted]@hotmail.com]
Sent: Friday, August 27, 2010 5:31 PM
To: EFSEC (UTC)
Subject: Whistling Ridge Negatively Impacts Columbia Gorge

I am writing to comment on the DEIS for the Whistling Ridge Energy Project, proposed in the Underwood, WA area, near the Skamania and Klickitat county lines.

The Columbia River Gorge National Scenic Area (CRGNSA) will be impacted again through the unnecessary slaughter of raptors being hit by the turbin blades. Raptors that are very important to the species food chain in the Gorge in that certain species will over produce with the demise of the raptors. The sight lines that are preserved in the Gorge with regulations will be invasive to the beautiful sights of the CRGNCA and the Lewis and Clark National Historic Trail from even the Columbia River itself.

The Washington Department of Natural Resources has clear cut forest on both sides of the Pacific National Scenic Trail within the CRGNSA. Why now would huge wind turbins be located upon a forested ridge line where industrial clear cutting would again most likely be utilized to place the huge turbine wind generators on that scenic destroying and forest destroying ridgeline?

I am concerned that the DEIS is fundamentally flawed because it fails to provide a credible alternatives analysis. EFSEC and BPA need to consider other alternatives, including other means of providing electricity (including increasing efficiency and reducing consumption), other sites for wind energy, other configurations, deleting turbines to reduce impacts, alternative routes for hauling turbines to avoid traffic impacts to the National Scenic Area, etc. Only two alternatives are meaningfully considered in the DEIS (the proposal and the no-action alternative). This is inadequate.

The DEIS has other flaws. The DEIS fails to adequately analyze the potential cumulative impacts of this project when considered with other existing and likely future wind energy projects and other development projects in the region. The photo simulations in the DEIS are inadequate and misleading. Some of them have cloudy backgrounds, thus not adequately representing the full extent of the impacts, and other simulations are out scale. Additional viewpoints need to be considered, including views from the Historic Columbia River Highway. The DEIS erroneously concludes that the scenic impacts would not be significant, even though most of the turbines would be visible from designated key viewing areas within the National Scenic Area. In addition, the BPA and EFSEC have not adequately consulted with the Yakama Nation to ensure the protection of cultural resources.

Lastly, EFSEC and BPA need to fix the flaws in the DEIS, issue a revised or supplemental DEIS, and make substantial revisions to the EIS to fully inform the public about the true environmental impacts of the project. If another DEIS is issued the 50-turbine layout should be rejected.

Thank you for extending the public comment period and allowing me to submit these comments into the record.

Steve Royal

[redacted] Tipton Dr
Austin, TX 78723

Michelle, Kayce (UTC)

From: Trina Frank [redacted]@msn.com]
Sent: Friday, August 27, 2010 8:34 PM
To: EFSEC (UTC)
Subject: Whistling Ridge Negatively Impacts Columbia Gorge

I am writing to comment on the DEIS for the Whistling Ridge Energy Project, proposed in the Underwood, WA area, near the Skamania and Klickitat county lines.

This proposal is likely to have different and greater wildlife impacts than any other wind energy facility proposed in the State of Washington, because it is proposed along a forested ridgeline in the foothills of the Cascade Mountains and on the boundary of the Columbia River Gorge National Scenic Area. The proposed project would cause significant negative impacts to sensitive wildlife and plant habitat, and would degrade the outstanding scenic beauty of the Lewis and Clark National Historic Trail and Columbia River Gorge National Scenic Area.

I am concerned that the DEIS is fundamentally flawed because it fails to provide a credible alternatives analysis. EFSEC and BPA need to consider other alternatives, including other means of providing electricity (including increasing efficiency and reducing consumption), other sites for wind energy, other configurations, deleting turbines to reduce impacts, alternative routes for hauling turbines to avoid traffic impacts to the National Scenic Area, etc. Only two alternatives are meaningfully considered in the DEIS (the proposal and the no-action alternative). This is inadequate.

The DEIS has other flaws. The DEIS fails to adequately analyze the potential cumulative impacts of this project when considered with other existing and likely future wind energy projects and other development projects in the region. The photo simulations in the DEIS are inadequate and misleading. Some of them have cloudy backgrounds, thus not adequately representing the full extent of the impacts, and other simulations are out scale. Additional viewpoints need to be considered, including views from the Historic Columbia River Highway. The DEIS erroneously concludes that the scenic impacts would not be significant, even though most of the turbines would be visible from designated key viewing areas within the National Scenic Area. In addition, the BPA and EFSEC have not adequately consulted with the Yakama Nation to ensure the protection of cultural resources.

Lastly, EFSEC and BPA need to fix the flaws in the DEIS, issue a revised or supplemental DEIS, and make substantial revisions to the EIS to fully inform the public about the true environmental impacts of the project. If another DEIS is issued the 50-turbine layout should be rejected.

Thank you for extending the public comment period and allowing me to submit these comments into the record.

Trina Frank
[redacted] SE Clinton St.
Portland, OR 97202

WR - DEIS
Public Comment #534

Michelle, Kayce (UTC)

From: [redacted]@davidson.com
Sent: Friday, August 27, 2010 10:42 PM
To: EFSEC (UTC)
Subject: I support Whistling Ridge

Hello Energy Facility Site Evaluation Council,

I would like to voice my strong support for the Whistling Ridge Energy Project. Washington State utilities must reach the goals set by Initiative 937. Wind is the most feasible and most cost-effective option for bringing 15% new renewable energy on the grid by 2020, which means we need to build more wind farms. Lewis County has the wind, Weyerhauser Lumber has the land: it is a match made in heaven. Many studies have shown that the environmental impact of the Whistling Ridge Energy Project would be minimal. For the last century, the site has been used in commercial forest operations. The land has already been cleared, roads built, transmission lines already installed, and wildlife habitats already fragmented. The impacts on a few other species that might be affected are rated low-risk. The environmental benefits are numerous. Wind is clean, renewable, and does not consume water or produce waste. Whistling Ridge will generate 75 megawatts of electricity; enough to power 20,000 homes a year, without contributing to global climate change. The choice is clear: support Whistling Ridge and Lewis County by approving this project.

Sincerely,
Rod Davidson
[redacted] Cole Rd
Pe Ell, Wa 98572

Late

WR - DEIS
Public Comment #535

Michelle, Kayce (UTC)

From: [redacted]@gmail.com
Sent: Saturday, August 28, 2010 9:44 AM
To: EFSEC (UTC)
Subject: I support Whistling Ridge

Hello Energy Facility Site Evaluation Council,

I would like to voice my strong support for the Whistling Ridge Energy Project. Washington State utilities must reach the goals set by Initiative 937. Wind is the most feasible and most cost-effective option for bringing 15% new renewable energy on the grid by 2020, which means we need to build more wind farms. Skamania County has the wind, SDS Lumber has the land: it is a match made in heaven. Many studies have shown that the environmental impact of the Whistling Ridge Energy Project would be minimal. For the last century, the site has been used in commercial forest operations. The land has already been cleared, roads built, transmission lines already installed, and wildlife habitats already fragmented. The impacts on a few other species that might be affected are rated low-risk. The environmental benefits are numerous. Wind is clean, renewable, and does not consume water or produce waste. Whistling Ridge will generate 75 megawatts of electricity; enough to power 20,000 homes a year, without contributing to global climate change. The choice is clear: support Whistling Ridge and Skamania County by approving this project.

Sincerely,
Elayne Novotny
PO Box [redacted]
Pe Ell, WA 98572

WR - DEIS
Public Comment #536

Late

Michelle, Kayce (UTC)

From: Maria Hall [redacted]@msn.com]
Sent: Saturday, August 28, 2010 10:29 AM
To: EFSEC (UTC)
Subject: Whistling Ridge Negatively Impacts Columbia Gorge

I am writing to comment on the DEIS for the Whistling Ridge Energy Project, proposed in the Underwood, WA area, near the Skamania and Klickitat county lines.

This proposal is likely to have different and greater wildlife impacts than any other wind energy facility proposed in the State of Washington, because it is proposed along a forested ridgeline in the foothills of the Cascade Mountains and on the boundary of the Columbia River Gorge National Scenic Area. The proposed project would cause significant negative impacts to sensitive wildlife and plant habitat, and would degrade the outstanding scenic beauty of the Lewis and Clark National Historic Trail and Columbia River Gorge National Scenic Area.

I am concerned that the DEIS is fundamentally flawed because it fails to provide a credible alternatives analysis. EFSEC and BPA need to consider other alternatives, including other means of providing electricity (including increasing efficiency and reducing consumption), other sites for wind energy, other configurations, deleting turbines to reduce impacts, alternative routes for hauling turbines to avoid traffic impacts to the National Scenic Area, etc. Only two alternatives are meaningfully considered in the DEIS (the proposal and the no-action alternative). This is inadequate.

The DEIS has other flaws. The DEIS fails to adequately analyze the potential cumulative impacts of this project when considered with other existing and likely future wind energy projects and other development projects in the region. The photo simulations in the DEIS are inadequate and misleading. Some of them have cloudy backgrounds, thus not adequately representing the full extent of the impacts, and other simulations are out scale. Additional viewpoints need to be considered, including views from the Historic Columbia River Highway. The DEIS erroneously concludes that the scenic impacts would not be significant, even though most of the turbines would be visible from designated key viewing areas within the National Scenic Area. In addition, the BPA and EFSEC have not adequately consulted with the Yakama Nation to ensure the protection of cultural resources.

Lastly, EFSEC and BPA need to fix the flaws in the DEIS, issue a revised or supplemental DEIS, and make substantial revisions to the EIS to fully inform the public about the true environmental impacts of the project. If another DEIS is issued the 50-turbine layout should be rejected.

Thank you for extending the public comment period and allowing me to submit these comments into the record.

Maria Hall
[redacted] SW Altadena Terrace
Portland, OR 97239

Michelle, Kayce (UTC) **Late**

From: Wendell Wood [redacted]@oregonwild.org]
Sent: Sunday, August 29, 2010 7:33 AM
To: EFSEC (UTC)
Subject: Whistling Ridge Negatively Impacts Columbia Gorge

I am writing to comment on the DEIS for the Whistling Ridge Energy Project, proposed in the Underwood, WA area, near the Skamania and Klickitat county lines.

This proposal is likely to have different and greater wildlife impacts than any other wind energy facility proposed in the State of Washington, because it is proposed along a forested ridgeline in the foothills of the Cascade Mountains and on the boundary of the Columbia River Gorge National Scenic Area. The proposed project would cause significant negative impacts to sensitive wildlife and plant habitat, and would degrade the outstanding scenic beauty of the Lewis and Clark National Historic Trail and Columbia River Gorge National Scenic Area.

I am concerned that the DEIS is fundamentally flawed because it fails to provide a credible alternatives analysis. EFSEC and BPA need to consider other alternatives, including other means of providing electricity (including increasing efficiency and reducing consumption), other sites for wind energy, other configurations, deleting turbines to reduce impacts, alternative routes for hauling turbines to avoid traffic impacts to the National Scenic Area, etc. Only two alternatives are meaningfully considered in the DEIS (the proposal and the no-action alternative). This is inadequate.

The DEIS has other flaws. The DEIS fails to adequately analyze the potential cumulative impacts of this project when considered with other existing and likely future wind energy projects and other development projects in the region. The photo simulations in the DEIS are inadequate and misleading. Some of them have cloudy backgrounds, thus not adequately representing the full extent of the impacts, and other simulations are out scale. Additional viewpoints need to be considered, including views from the Historic Columbia River Highway. The DEIS erroneously concludes that the scenic impacts would not be significant, even though most of the turbines would be visible from designated key viewing areas within the National Scenic Area. In addition, the BPA and EFSEC have not adequately consulted with the Yakama Nation to ensure the protection of cultural resources.

Lastly, EFSEC and BPA need to fix the flaws in the DEIS, issue a revised or supplemental DEIS, and make substantial revisions to the EIS to fully inform the public about the true environmental impacts of the project. If another DEIS is issued the 50-turbine layout should be rejected.

Thank you for extending the public comment period and allowing me to submit these comments into the record.

Wendell Wood
[redacted]
[redacted] mp Silver Lake Hwy.
Chiloquin, OR 97624

WR - DEIS
Public Comment #538

Michelle, Kayce (UTC) **Late**

From: repar [[redacted]@saw.net]
Sent: Sunday, August 29, 2010 12:06 PM
To: EFSEC (UTC)
Subject: Whistling Ridge DEIS-addendum from Repar
Attachments: Comments_DEIS_wind power difficult for grid_27Aug2010.doc

Importance: High

Dear EFSEC,
I forgot to include this article on wind farms creating challenges for the power grid, with my comments (submitted on 27 August 2010) in the document that I sent on Friday, entitled Comments_DEIS_BPA_Inadequate_27Aug2010. Thank you very much./Mary

Mary J. Repar
[redacted] E. Loop Rd. [redacted]
Stevenson, WA 98648
Tel: 509.427.[redacted]
E-mail: [redacted]@saw.net
"Life is not measured by the number of breaths we take but by the moments that take our breath away."

Mary J. Repar
[redacted]**E. Loop Rd.,** [redacted]
Stevenson, WA 98648
Tel: 509.427.[redacted]

27 August 2010

EFSEC
905 Plum Street SE
Olympia, WA 98504-3172
e-mail: efsec@commerce.wa.gov

BPA
Public Affairs Office – DKE -7
P.O. Box 14428
Portland, OR 97293-4428
Toll-free comment line: 800.622.4519
FAX: 503.230.3285
503. 230. 4145
www.bpa.gov/comment

Re: Comments on the Whistling Ridge DEIS and too much of a good thing: Growth in wind power makes life difficult for grid

Dear EFSEC and BPA,

I forgot to include this article on wind farms creating challenges for the power grid, with my comments (submitted on 27 August 2010) in the document that I sent on Friday, entitled Comments_DEIS_BPA_Inadequate_27Aug2010. I think this article makes it quite clear that too much wind power is not good for the power grid—which brings up the question of why are so many subsidized wind farms being built if the power they produce can't actually be used on the electric power grid? And, why are we concentrating all our energy eggs in the wind power basket?

I have bulletized the article, below, for a quick summary of my concerns about wind generation and its effects on BPA's power grid:

- Fast-growing number of wind farms;
- Has created **new challenges** for those who manage the power grid;
- Almost two nuclear plants worth of extra **power was sizzling down the lines**;
- Storm caused the **largest hourly spike in wind power the Northwest** has ever experienced;
- At BPA, it was **too much of a good thing**;
- **More electricity than its customers needed**;
- More than the available power lines could export;
- **More than the grid could readily absorb**;
- The edict went out: Feather your turbine blades; **slash output;**
- It's **one likely to go out with increasing frequency**;

- The last three years have seen a **doubling of the generation capacity of wind farms** in the region;
- **By 2013, wind generation capacity expected to double again;**
- In the real world, wind development, coupled with **wild swings in its output**, are **overwhelming the region's electrical grid** and outstripping its ability to use the power or send it elsewhere;
- In theory, better coordination could help solve the problem, reducing costs, eliminating bottlenecks and solving scheduling conflicts;
- In practice, risk-averse engineers, utility managers or public utility customers **worried about rates increasing**;
- Renewables explosion forcing the **transmission issue** to center stage now;
- California, which already buys much of the Northwest's wind energy, **increasing its appetite for green power**;
- The solution to the problem is to **beef up or build new power lines**, a five to ten year proposition;
- Involves coordination on **what to build, where to put it and who pays**;
- **Only 15 percent of the electricity generated by wind farms in the Northwest goes to the public utilities that buy power directly from BPA;**
- **BPA manages three quarters of the region's high voltage transmission system**, including the sections serving most of the region's wind farms;
- BPA's job is to balance **wind farms' up-and-down power output**, blending it with other sources of power so total generation at any given time matches total demand -- **a requirement to maintain grid reliability**;
- As the region's wind fleet grows, **an ever bigger slice of the hydro pie** is being reserved to fill in when the wind doesn't blow as scheduled;
- That means **foregone sales of surplus** power, a source of revenue that reduces BPA's rates for public utility customers;
- **Dumping too much water** over the spillways, **to balance wind power** production, **harms fish**;
- Another option is to **cut generation at the wind farms**;
- Too many curtailments **undermines the economics of wind**;
- **"It's not fair to have a cost shift,"** said Elliott Mainzer, BPA's director of strategic planning;
- BPA proposed quadrupling its **"integration" rate**, Oregon's congressional delegation took up the wind developers' fight, accusing the agency of dragging its feet on renewables and focusing solely on **maintaining low rates for its public utility customers**. Sen. Ron Wyden was highly critical of the agency's attitude problem, and Rep. Earl Blumenauer even suggested it might be time for new leadership at the agency;
- **In extreme situations, however, the agency continues to dump wind;**
- At the current rate of wind development the region's system of dams and power lines will start running into consistent operational problems around 2013;
- In 2013, wind in BPA's territory will reach a total capacity of some 6,000 megawatts;
- The 6000 MW capacity ceiling will require major structural changes;

- The solution lies in **better coordination of power plants** across the west, **more efficient use of existing power lines** and **some expansion of the grid;**
- **New lines often require new rights of way through sensitive habitat and private property**, are **phenomenally expensive**, raising the show-stopping question of **who pays;**
- The piece that is not doing well is planning for moving wind out of the region;
- Changes won't come quickly, easily or cheaply.
- **"We can't pay for everything** at once, and **we don't want to pay for everything** on the table," said Jeff Bissonnette, a lobbyist for the Citizen's Utility Board of Oregon. "We have to figure out what makes sense to pay for first, second and third, and **what makes sense for consumers and the environment."**

In conclusion, it appears that wind may not be the end all answer to our concerns about carbon footprints and going green. More wind farms will mean more cries for more and bigger transmission lines. None of this was addressed in the Whistling Ridge DEIS in terms of cumulative impacts and effects on our region from the proposals to build more and more transmission lines. Why not? This is a real and vital deficiency of information, an information gap, in the DEIS, and these concerns about the effects of wind power on our power grid must be addressed. They have not been adequately addressed in the DEIS. This is a fatal flaw in the DEIS.

/e-signature/Mary J. Repar
27 August 2010

Reference Article:

Too much of a good thing: Growth in wind power makes life difficult for grid managers

Published: Saturday, July 17, 2010, 10:00 AM Updated: Saturday, July 17, 2010, 8:45 PM

Ted Sickinger, The Oregonian

Benjamin Brink/The Oregonian The fast-growing number of wind farms in the Northwest, such as the Biglow Canyon Wind Farm near Rufus, has created new challenges for those who manage the power grid.

On the afternoon of May 19, in a single chaotic hour, more than a thousand wind turbines in the Columbia River Gorge went from spinning lazily in the breeze to full throttle as a storm rolled east out of Hood River.

Suddenly, **almost two nuclear plants worth of extra power was sizzling down the lines** -- the largest hourly spike in wind power the Northwest has ever experienced.

At the Bonneville Power Administration's control room in Vancouver, **it was too much of a good thing**. More electricity than its customers needed. **More than the available power lines could export** from the region. And more than the grid could readily absorb by ramping down generation at the region's network of federal dams.

So the edict went out: **Feather your turbine blades; slash output**.

It was an unwelcome instruction for wind farm owners, whose economics depend on generating electricity whenever possible. **Yet it's one likely to go out with increasing frequency.**

During the **last three years**, the building boom spawned by green energy mandates in Oregon, Washington and California **doubled the generation capacity of wind farms** in the region. **By 2013, it's expected to double again**.

That seems like great news. Plenty of carbon-free energy with no fuel costs. Jobs. Property taxes.

In the real world, however, the pace and geographic concentration of **wind development**, coupled with **wild swings in its output**, are overwhelming the region's electrical grid and outstripping its ability to use the power or send it elsewhere.

In theory, better coordination of the balkanized grid operations around the west could help solve the problem, reducing costs, eliminating bottlenecks and solving scheduling conflicts that plague the system today.

In practice, however, those efforts have often stalled at the planning stage -- the victim of risk-averse engineers, utility managers or public utility customers worried about seeing their rates increase.

It's not a new problem. But the renewables explosion, and pressure to reduce carbon emissions, is forcing the transmission issue to center stage now.

"There's a sweet spot to talk about these issues, and everyone's attention is on this at the moment," said Rachel Shimshak, executive director of the Renewables Northwest Project. "Maybe the benefits didn't look so obvious before, but now we have a lot more people with skin in the game."

The most significant player in that crowd is **California, which already buys much of**

the Northwest's wind energy, but has trouble getting it delivered over clogged interstate power lines. The state has just increased its already aggressive renewable energy standards, **increasing its appetite for green power.**

Ultimately, the solution to the problem is to beef up or build new power lines, said Randy Hardy, a Seattle-based energy consultant. But that's a five to ten year proposition, involving even more coordination on **what to build, where to put it and who pays.**

"We have a next-year problem," Hardy said, "or maybe a this-year problem."

Only 15 percent of the electricity generated by wind farms in the Northwest goes to the public utilities that buy power directly from BPA, which sells power from federal dams in the Columbia Basin. But the federal power marketing agency manages three quarters of the region's high voltage transmission system, including the sections serving most of the region's wind farms.

That makes it **BPA's job to balance their up-and-down output**, blending it with other sources of power so total generation at any given time matches total demand -- a **requirement to maintain grid reliability.**

The dams are great for the job -- operators can adjust water flows through the turbines to help offset variable wind output.

But only within limits.

As the region's wind fleet grows, an ever bigger slice of the hydro pie is being reserved to fill in when the wind doesn't blow as scheduled. That means foregone sales of surplus power, a source of revenue that reduces BPA's rates for public utility customers.

When the wind blows harder than forecast, particularly during periods of high spring runoff at the dams, operators face the opposite problem. They can't bypass the dam turbines to lower hydro generation, because dumping too much water over the spillways harms fish.

So the other option is to cut generation at the wind farms.

Too many **curtailments**, however, **undermines the economics of wind**, not only because turbines generate less power to sell but because valuable tax and renewable energy credits are only generated when their blades are spinning.

"We are committed to trying to find ways to get as much wind into the system as possible, but we're going to be real sticklers about reliability, and we think its it's not fair to have a cost shift," said Elliott Mainzer, BPA's director of strategic planning

BPA does charge wind farms to offset the additional costs they bring to the system. But

those charges have been highly contentious.

Last year, when **the agency proposed quadrupling its "integration" rate**, Oregon's congressional delegation took up the wind developers' fight, accusing the agency of dragging its feet on renewables and focusing solely on maintaining low rates for its public utility customers. Sen. Ron Wyden was highly critical of the agency's attitude problem, and Rep. Earl Blumenauer even suggested it might be time for new leadership at the agency.

BPA ultimately backed away from the big rate increase. But it is coming up again this year as the agency kicks off a new rate-setting process.

Meanwhile, it has pushed ahead with a variety of efforts to accommodate more variable resources, from better wind forecasting to more flexible scheduling of transmission.

In extreme situations, however, the agency continues to dump wind.

At the current rate of wind development, says the BPA's Mainzer, the region's system of dams and power lines will start running into consistent operational problems around 2013, when wind in the agency's territory reaches total capacity of some 6,000 megawatts.

Above and beyond that, he said, **will require major structural changes**.

"If it's done right, he said, "it's a huge opportunity for the Northwest."

The solution, most experts believe, lies in **better coordination of power plants** across the west, **more efficient use of existing power lines** and **some expansion of the grid.**

"We believe there's more space on the lines if we get smarter about how we use them," said John Audley, deputy director at the Renewables Northwest Project. "But there isn't anyone out there who feels we have enough transmission in place to get what we need done."

Building new transmission, though, is an uphill battle. **New lines often require new rights of way through sensitive habitat and private property.** And they are phenomenally expensive, raising the show-stopping question of who pays.

BPA has had **some success** convincing wind developers and other transmission customers **to commit to helping fund new power lines and upgrades within the region.**

"The piece that is not doing well is planning for moving wind out of the region," said Brian Silverstein, senior vice president of transmission services for BPA. Ultimately, he said, "we can plan all we want. The challenge is getting people to commit to the investment."

There's a broad-based effort to get more out of the existing lines, too.

The **capacity of power lines linking Oregon and California**, for instance, is completely booked long term. But **on a day-to-day basis, utilization can be lower than 50 percent.**

Part of the problem is that utilities buy more capacity than they need, and hoard it for emergencies. **If that capacity can be freed up, BPA estimates the lines could transfer 10 to 15 percent more power.**

Another issue is that utilities are required to reserve line capacity an hour ahead of time. By allowing them to adjust their orders more frequently, utilities could accommodate unanticipated ebbs and flows in wind generation and maybe free up another 25 to 30 percent of capacity on the power lines.

But none of those changes come quickly, easily or cheaply. Utility managers, renewable developers, customer advocates and environmentalists met last week in Portland for a day-long seminar on expanding and modernizing the grid to accommodate renewables.

There was a definite sense of urgency in the air. But also determination.

"We can't pay for everything at once, and **we don't want to pay for everything** on the table," said Jeff Bissonnette, a lobbyist for the Citizen's Utility Board of Oregon. "We have to figure out what makes sense to pay for first, second and third, and **what makes sense for consumers and the environment."**

-- Ted Sickinger

Related topics: green power, renewables, wind farms, wind power

WR - DEIS
Public Comment #539

Michelle, Kayce (UTC) **Late**

From: amerinda alpern [[redacted]@hei.net]
Sent: Sunday, August 29, 2010 1:04 PM
To: EFSEC (UTC)
Subject: Whistling Ridge Negatively Impacts Columbia Gorge

I am writing to comment on the DEIS for the Whistling Ridge Energy Project, proposed in the Underwood, WA area, near the Skamania and Klickitat county lines.

This proposal is likely to have different and greater wildlife impacts than any other wind energy facility proposed in the State of Washington, because it is proposed along a forested ridgeline in the foothills of the Cascade Mountains and on the boundary of the Columbia River Gorge National Scenic Area. The proposed project would cause significant negative impacts to sensitive wildlife and plant habitat, and would degrade the outstanding scenic beauty of the Lewis and Clark National Historic Trail and Columbia River Gorge National Scenic Area.

I am concerned that the DEIS is fundamentally flawed because it fails to provide a credible alternatives analysis. EFSEC and BPA need to consider other alternatives, including other means of providing electricity (including increasing efficiency and reducing consumption), other sites for wind energy, other configurations, deleting turbines to reduce impacts, alternative routes for hauling turbines to avoid traffic impacts to the National Scenic Area, etc. Only two alternatives are meaningfully considered in the DEIS (the proposal and the no-action alternative). This is inadequate.

The DEIS has other flaws. The DEIS fails to adequately analyze the potential cumulative impacts of this project when considered with other existing and likely future wind energy projects and other development projects in the region. The photo simulations in the DEIS are inadequate and misleading. Some of them have cloudy backgrounds, thus not adequately representing the full extent of the impacts, and other simulations are out scale. Additional viewpoints need to be considered, including views from the Historic Columbia River Highway. The DEIS erroneously concludes that the scenic impacts would not be significant, even though most of the turbines would be visible from designated key viewing areas within the National Scenic Area. In addition, the BPA and EFSEC have not adequately consulted with the Yakama Nation to ensure the protection of cultural resources.

Lastly, EFSEC and BPA need to fix the flaws in the DEIS, issue a revised or supplemental DEIS, and make substantial revisions to the EIS to fully inform the public about the true environmental impacts of the project. If another DEIS is issued the 50-turbine layout should be rejected.

Thank you for extending the public comment period and allowing me to submit these comments into the record.

amerinda alpern
[redacted] sw 31st ave
portland, OR 97219

WR - DEIS
Public Comment #540

Michelle, Kayce (UTC) **Late**

From: David Grant [redacted]@charter.net]
Sent: Sunday, August 29, 2010 11:39 PM
To: EFSEC (UTC)
Subject: Whistling Ridge Negatively Impacts Columbia Gorge

I am writing to comment on the DEIS for the Whistling Ridge Energy Project, proposed in the Underwood, WA area, near the Skamania and Klickitat county lines.

This proposal is likely to have different and greater wildlife impacts than any other wind energy facility proposed in the State of Washington, because it is proposed along a forested ridgeline in the foothills of the Cascade Mountains and on the boundary of the Columbia River Gorge National Scenic Area. The proposed project would cause significant negative impacts to sensitive wildlife and plant habitat, and would degrade the outstanding scenic beauty of the Lewis and Clark National Historic Trail and Columbia River Gorge National Scenic Area.

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The DEIS has other flaws. The DEIS fails to adequately analyze the potential cumulative impacts of this project when considered with other existing and likely future wind energy projects and other development projects in the region. The photo simulations in the DEIS are inadequate and misleading. Some of them have cloudy backgrounds, thus not adequately representing the full extent of the impacts, and other simulations are out scale. Additional viewpoints need to be considered, including views from the Historic Columbia River Highway. The DEIS erroneously concludes that the scenic impacts would not be significant, even though most of the turbines would be visible from designated key viewing areas within the National Scenic Area. In addition, the BPA and EFSEC have not adequately consulted with the Yakama Nation to ensure the protection of cultural resources.

Lastly, EFSEC and BPA need to fix the flaws in the DEIS, issue a revised or supplemental DEIS, and make substantial revisions to the EIS to fully inform the public about the true environmental impacts of the project. If another DEIS is issued the 50-turbine layout should be rejected.

Thank you for extending the public comment period and allowing me to submit these comments into the record.

David Grant
[redacted] Stanford Ave
Medford, OR 97504

WR - DEIS
Late Public Comment #541

Michelle, Kayce (UTC)

From: Posner, Stephen (UTC)
Sent: Monday, August 30, 2010 7:32 AM
To: Michelle, Kayce (UTC)
Cc: Talburt, Tammy (UTC)
Subject: FW: WR DEIS Public Comment Extenstion
Attachments: MWR-11-10.doc

Please process as appropriate. Thanks.

Stephen Posner
Energy Facility Site Evaluation Council
P.O. Box 43172
Olympia, WA 98504-3172
(360) 956-2063
stephen.posner@utc.wa.gov

visit the EFSEC website at: www.efsec.wa.gov

From: Nelson, Travis W (DFW)
Sent: Friday, August 27, 2010 5:07 PM
To: Posner, Stephen (UTC)
Subject: FW: WR DEIS Public Comment Extenstion

From: Nelson, Travis W (DFW)
Sent: Fri 8/27/2010 5:03 PM
To: Posner, Stephen (COM)
Cc: Ritter, Michael W (DFW)
Subject: RE: WR DEIS Public Comment Extenstion

Stephan,

Please see attached comments for the Whistling Ridge Wind Proposal.

Travis Nelson
WDFW - Renewable Energy Policy
360.902[redacted]
[redacted]@dfw.wa.gov

State of Washington
Department of Fish and Wildlife
Habitat Program - Major Projects Division - Wind and Water Energy Section

Mailing Address: 2620 North Commercial Avenue (509) 543- 3319
Main Office Location: 2620 North Commercial Avenue – Pasco, WA 99301

MWR-11-10

August 27th, 2010

Stephan Posner
EFSEC
905 Plum Street SE
Olympia, Washington 98504-3172
efsec@commerce.wa.gov

SUBJECT: Whistling Ridge Energy Project Draft Environmental Impact Statement: EFSEC Application 2009-01

Dear Mr. Posner,

The Washington Department of Fish and Wildlife (WDFW) has reviewed the above-referenced documents and offers the following comments at this time. Other comments may be offered as the project progresses.

WDFW is continuing to carefully considered the potential impacts to natural resources on the site. A statement from the *Bat Acoustic Studies for the Whistling Ridge Wind Resource Area Skamania County, Washington June 4th – October 25th, 2009* (WEST, Inc., 2009) captures our approach to evaluating the entire project:

> "However, no data on bat mortality levels associated with wind energy developments in western coniferous forests are available to help predict risk to bats at the WRWRA. Bat fatality patterns may differ from those in open habitats as well as in eastern deciduous forests…"

We feel that this statement can be extended to address the potential impacts to avian species as well, since, and reiterating from our May 14, 2009 response to the project, …

> *"…other new wind projects in the Pacific Northwest are in shrub-steppe and agricultural habitats; not coniferous forest…"*

Additionally, the data illustrated in figures 7 and 8 on pages 57 and 58 in Appendix C, Final Wildlife Report are confusing in that the coniferous-forested Whistling Ridge site is compared to other U.S. wind energy facilities regardless of habitat types. This same type of comparison is also shown for All Birds in figure 9 on page 59. Again, regardless of habitat type.

Raptor migration routes along the east Cascades are documented at the Bonney Butte, Oregon, *Hawk Watch* raptor banding and counting stations. The *Final Report* compared the Whistling Ridge project to other wind energy project through such statements as:

> *"The annual rate was low relative to raptor use at 36 other wind-energy facilities that implemented similar protocols to the present study and had data for three or four different seasons."*
>
> *"A 90% prediction interval around this estimate is zero to 0.25 fatalities per megawatt per year."*

WDFW would like to emphasize that fluctuations in raptor populations, as well as other avian species, may result in greater mortality than what is predicted in the *Final Report.* As a result, operational controls may be necessary to address avian mortality that exceeds predicted mortality.

Specifically, WDFW recommends that operational controls be a condition of the site certification, if issued, so that individual turbines or strings of turbines can be shutdown as a result of individual species and cumulative avian and bat fatalities in excess of the predicted mortality.

In closing, WDFW would like to acknowledge that the applicant has submitted a preliminary mitigation plan that we are currently reviewing. The preliminary mitigation plan encompasses approximately 100 acres in Klickitat County 12 miles due east of the project site. The mitigation site is forested with Oregon White Oak with some Douglas fir and Ponderosa pine and shares a portion of its northern boundary with 40 acres of WDNR land and. This mitigation site provides habitat for several PHS entries including Western gray squirrels. Additionally, the site includes the fish-bearing Silva Creek, a tributary to the Klickitat River.

We look forward to working with all interested parties as this project moves forward.

Sincerely,

Michael Ritter

Michael Ritter

Wind Mitigation Biologist

WR - DEIS
Public Comment #542

Michelle, Kayce (UTC) **Late**

From: Posner, Stephen (UTC)
Sent: Monday, August 30, 2010 7:44 AM
To: Michelle, Kayce (UTC)
Cc: Talburt, Tammy (UTC)
Subject: FW: SOSA DEIS COMMENTS for WRE: LAND USE SECTION
Attachments: DEIS Comments Aug2010 - land use +5-6-09attached.pdf; MAXEY.EFSEC.LU Consistency letter-F.pdf

Another one. Please process. Thanks.

Stephen Posner
Energy Facility Site Evaluation Council
P.O. Box 43172
Olympia, WA 98504-3172
(360) 956-2063
stephen.posner@utc.wa.gov

visit the EFSEC website at: www.efsec.wa.gov

-----Original Message-----
From: Posner, Stephen (COM)
Sent: Thursday, August 26, 2010 4:15 PM
To: Posner, Stephen (UTC)
Subject: FW: SOSA DEIS COMMENTS for WRE: LAND USE SECTION

From: Carol[SMTP:CAROL@ARAMBURU-EUSTIS.COM]
Sent: Thursday, August 26, 2010 4:13:59 PM
To: Posner, Stephen (COM); AMMontano@bpa.gov
Cc: Rick Aramburu
Subject: SOSA DEIS COMMENTS for WRE: LAND USE SECTION Auto forwarded by a Rule

Gentlemen,

Attached in pdf:

Comment letter from Mr. Aramburu on behalf of SOSA on the Draft EIS for the Whistling Ridge Energy proposal, and Copy of previous comments submitted May 6, 2009.

Carol Cohoe
ARAMBURU & EUSTIS, LLP
720 Third Avenue
Pacific Building Suite 2112
Seattle, WA 98104-1860
Telephone (206) 625-9515
Facsimile (206) 682-1376
This message may be protected by the attorney-client and/or work product privilege. If you received this message in error please notify us and destroy the message. Thank you.
bccts,f

ARAMBURU & EUSTIS, LLP
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August 24, 2010

Stephen Posner
Energy Facility Site Manager
Washington EFSEC
905 Plum Street SE, 3rd Floor
PO Box 43712
Olympia WA 98504-3172

Andrew M. Montaño
Environmental Protection Specialist
Bonneville Power Administration
PO Box 3621 KEC-4
905 NE 11th Avenue
Portland OR 97208-3621

Re: Comments on Draft EIS for Whistling Ridge Energy Project DOE EIS - 0419: Recreation and Land Use Section

Dear Messrs. Montaño and Posner:

This office represents Save Our Scenic Area (SOSA), a Washington corporation representing persons interested in the scenic, recreational and natural values of the Columbia Gorge. SOSA's primary mission is to preserve the Columbia River Gorge National Scenic Area view-shed; to further maintain the existing rural and scenic character of Underwood, Washington, and surrounding communities in Washington and Oregon; and work to preserve the intent of the Columbia River Gorge National Scenic Area Act. WRE proposes to construct as many as 50 wind turbines on ridge lines on their property in Skamania County to produce a minimum of 70 MW. I write today to provide comments on the recently issued draft environmental impact statement (DEIS) for the WRE proposal.

In this letter, I provide comments on behalf of SOSA regarding the "Land Use and Recreation" chapter of the DEIS found at Section 3.8 at page 3-134 to 3-155. SOSA's comments will be divided between the recreation and land use sections.

1. RECREATION IMPACTS.

The DEIS provides only a listing of recreational resources in the area with minimal discussion of the impacts that the wind turbine facilities will have on such areas. This discussion is inadequate. The DEIS should not only disclose the affected areas, but also the impacts on such areas.

Of particular concern is the impact that the turbine operations will have on these areas, particularly visual impacts. This section should be expanded to include impacts on key viewing areas within the scenic area and other areas affected by visual and noise impacts from wind turbine operations. Discussion of mitigation measures should be included which describe alternatives of reduction or relocation of turbines as well as alternative site locations.

2. LAND USE REGULATION.

This section of the DEIS includes discussion of applicable land use regulations. The only land use regulations discussed are the Skamania County's comprehensive plan and land use regulations.

EFSEC has previously taken up the issue of land use consistency during proceedings held on May 6, 2009. Comments and briefs were filed by various parties during that time, including SOSA. Instead of making a decision on land use consistency at the time, EFSEC decided that this issue would be passed to the project adjudicative hearings. Accordingly, we find it inconsistent with the Council's responsibility to enter conclusions regarding land use consistency in the DEIS before it hears evidence in adjudicatory hearings. This is plainly prejudgment of a matter before the Council in violation of the appearance of fairness doctrine.

As to the sections of the DEIS dealing with land use regulation, a determination made that the proposal is "consistent" with the Skamania County comprehensive plan and development regulations is erroneous. SOSA has provided comments on that subject in its letter to the Council dated May 6, 2009 which is attached hereto and incorporated by reference herein. In that letter SOSA provided detailed legal authority and factual background that demonstrated that the construction and operation of wind turbines at the location proposed by the applicant is clearly contrary to the 2007 Skamania County Comprehensive Plan. Since the zoning code of the county preceded the 2007 comprehensive plan, it cannot be considered to implement any of its terms.

Fundamentally, Skamania County has never considered whether or not wind turbines are appropriate in any part of the County, much less within the conservancy designation in the comprehensive plan. As described in SOSA's May 6, 2009 letter, consideration of a draft ordinance that might have regulated the wind turbines was abruptly dropped, and never taken up again, by the Skamania County Commissioners after they learned they had to do an environmental impact statement before considering it. The apparent attempt of the DEIS to blame "local interest groups" for keeping the old zoning ordinance in effect is accordingly misplaced. The statement in the DEIS at page 3-145 that the "proposed updates are currently under appeal by local interest groups" is wrong. As noted in SOSA's May 6, 2009 letter attached hereto, Skamania County did not appeal the ruling against it by the Hearing Examiner and her decision is final.

In summary, the proposal is not consistent with local planning and zoning regulations and the findings and conclusions regarding this ISSUE should be revised for the final EIS.

3. FOREST LAND UNDER G.M.A.

In addition, this section of the DEIS fails to discuss or describe the impact of the Growth Management Act, RCW ch. 36.70A and its regulations on the subject proposal. Though Skamania County is not a county required to plan under GMA, it is required by GMA to designate natural resource land, including:

> (b) Forest lands that are not already characterized by urban growth and that have long-term significance for the commercial production of timber[.]

RCW 36.70A.170. The purpose of such designation is to assure that forest lands of long term commercial significance will be protected by appropriate land use regulation.

It is apparent from the discussion in the EIS that the project site meets the definition of forest lands of long term commercial significance. As the DEIS indicates:

> This site has been in commercial forestry use for the last century, during which the site has been logged over a series of approximately 50 year rotations.

DEIS at page 2-18. See also DEIS at page 1-9, "the site has a long history of commercial logging . . . "

The reason that forest lands are required to be identified is that such lands are intended to be protected and preserved from nonforestry uses. In the present case, industrial wind turbines are intended to cover significant portions of this commercial forest land, contrary to GMA's directives.

Further, this proposal is the first, or one of the first, to be sited in the timbered forest lands near the Columbia Gorge. Under these circumstances, the FEIS must consider whether this project will serve as a precedent for other or future projects impacting the scenic values of the Gorge and forested areas.

Finally, the DEIS at page 3-151 says that there will be no "changes to existing land uses, land use activities or development patterns." This conclusionary statement is unsupported by any objective evidence and is incorrect. It is well known that the placement of industrial wind turbines has a significant adverse impact on residential uses and tourism activities. This is true for most wind turbine locations, but is especially true in areas highly valued for scenic resources, including the Columbia Gorge, which

are prized for their aesthetic surroundings. Much more detailed analysis is required for adequate consideration of these issues.

4. SOLAR ENERGY FACILITY

The DEIS discusses only the development of the site for wind energy facilities. The consideration of alternatives should be expanded to consider other alternate energy sources usch as solar energy. Recently, a proposal for a 75 MW solar reserve has been made in Kittitas County (the Teamaway Solar Reserve, or "TSR"). The proposal will consist of approximately 145 acres for photovoltaic solar panels spread out over 900 acres. Such a proposal would reduce visual impacts and eliminate the noise impacts associated with wind turbine facilities, as well as eliminating the need for transportation of large towers and blades for wind turbines. This alternative should be fully considered in the DFEIS or FEIS.

Thank you for this opportunity to comment on the DEIS. SOSA trusts that the FEIS will provide facts and analysis discussed herein.

Sincerely yours,

ARAMBURU & EUSTIS, LLP

J. Richard Aramburu

JRA:cc
cc: Client

ARAMBURU & EUSTIS LLP
ATTORNEYS AT LAW
720 THIRD AVENUE, SUITE 2112
SEATTLE, WASHINGTON 98104
(206) 625-9515 • FAX (206) 682-1376

May 6, 2009

Allen Fiksdal, Manager
Energy Site Facility Site Evaluation Council
905 Plum Street SE, 3rd Floor
PO Box 43712
Olympia WA 98504-3172

Skamania County
Community Development Department
Post Office Box 790
Stevenson WA 98648

Re: Certificate of Land Use Consistency Review for Whistling Ridge Wind Energy Project

Dear EFSEC:

This office represents the Save Our Scenic Area (SOSA), a Washington non-profit corporation concerned with the preservation of scenic, recreational and residential values and assets in the Columbia Gorge.

SOSA has closely followed the proposal of SDS Timber Company's Saddleback wind turbine proposal since its public announcement in late 2007. SDS changed the name of the proposal to the "Whistling Ridge Energy Project" (herein "WREP") when it applied to EFSEC. Most recently, SOSA was an appellant before the Skamania County Hearing Examiner in a successful challenge to the issuance of a determination of nonsignificance issued by Skamania County for its zoning code revisions. The Hearing Examiner has ruled that an environmental impact statement (EIS) will be required for the adoption of the new zoning code by the County.

SOSA writes today in response to the notice issued by EFSEC of a hearing on the question of whether the SDS proposal is consistent with local land use plans and zoning codes. The proposal is for multiple

wind turbines (50) on property located in eastern Skamania County. As will be demonstrated herein, the WREP proposal is not consistent with local zoning and there is no basis upon which EFSEC should attempt to preempt this local zoning.

1. STRUCTURE OF SKAMANIA COUNTY PLANNING AND ZONING.

Skamania County planning and zoning is governed by RCW 36.70, the County Planning Enabling Act. It is not one of the counties governed by the Growth Management Act RCW ch. 36.70A (GMA) and has not exercised the option to become a GMA county.

Skamania County first adopted a comprehensive plan in 1977, which was revised in 1991 with the creation of the Columbia River Gorge National Scenic Area (the "Scenic Area"). The 1977 Comprehensive Plan ("the 1977 Plan") is attached hereto as Attachment A. As will be described below, Skamania County recently (June, 2007) adopted a completely revised Comprehensive Plan, referenced herein as the "2007 Plan."

The County originally adopted a zoning code and map in 1985, which has been amended at various times over the years, the most recent of which was by Ordinance 2005-02 in 2005. The existing zoning code would presumably be consistent with the then adopted comprehensive plan from 1977.[1]

After review by the planning commission, Skamania County adopted a new comprehensive plan in June, 2007. In the fall of 2007, Skamania County proposed a new zoning ordinance to implement the new comprehensive plan.

The adoption of the new zoning code requires procedural and substantive compliance with the terms of the State Environmental Policy Act, RCW 43.21C (SEPA). Skamania County has also adopted a local SEPA ordinance that governs the County's procedures under

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[1] The Council is requested to take judicial notice of both the 2007 Plan and the current Skamania County zoning code.

SEPA. Skamania County is required by SEPA and its SEPA ordinance to make a "threshold determination" as to whether to prepare an EIS for its new zoning ordinance. This new zoning ordinance, for the first time in the history of planning and zoning in Skamania County, had specific provisions for large scale wind turbine facilities. [2]

Skamania County's responsible SEPA official, Planning Director Karen Witherspoon, issued a "mitigated determination of nonsignificance" or MDNS for the new zoning code proposal, which included large scale wind turbine regulations. Consistent with the terms of the Skamania County SEPA ordinance, the responsible official's MDNS was appealed to the Skamania County Hearing Examiner by both SOSA and the Friends of the Gorge. The Hearing Examiner held an open record hearing on January 21 and 22 at which the County vigorously defended its MDNS decision.

According to testimony from county officials at the hearing before the County's Hearing Examiner, representative of SDS had met several times with the Skamania County staff to discuss their proposed Saddleback project, but never submitted an application. BPA officials also were in attendance at such meetings according to Ms. Witherspoon's testimony.

On February 19, 2009, the Hearing Examiner entered her decision reversing the MDNS issued by the Responsible Official. See Attachment B hereto. As may be seen from the Findings and Decision, the testimony at the hearing focused on the adverse environmental impacts from wind turbines, centering on SDS's Saddleback proposal. That decision was not appealed by the County to Superior Court and is final. Under this ruling, before any decision is made by Skamania County on a zoning code map, an environmental impact statement must be prepared. Because the environmental impact statement must "accompany the proposal through the agency review process" (SEPA), the Skamania County Planning Commission must also reconsider any decisions it makes on the zoning ordinance based on the upcoming EIS.

---

[2] A copy of this proposed zoning ordinance is attached to the WREP application as Appendix F.

As of the date of this submission, no steps have been taken by Skamania County to prepare an environmental impact statement on its proposed zoning code and map.

2. THE WIND TURBINE PROPOSAL IS NOT CONSISTENT WITH THE EXISTING COMPREHENSIVE PLAN.

As noted above, Skamania County adopted a new comprehensive plan for the County in June, 2007. That ordinance replaced a now 30 year old comprehensive plan. See the 2007 Plan at 7.

The 2007 Plan adopted three land use designations, Rural I, Rural II and Conservancy. Rural I was intend to "foster the optimum utilization of land within growing areas of the county. . . ." See page 23. Rural I is the only one of the three designations that allows commercial activity and light or heavy industry. The Rural II designation "is intended to provide for rural living without significant encroachment for land used for agricultural and timber." Page 24. The Conservancy designation is "intended to provide for the conservation and management of existing natural resources" and "logging, timber management, agricultural and mineral extraction are the main use activities that take place in this area." 2007 Plan page 25. Importantly, there has been no effort to amend the comprehensive plan since its adoption in June 2007 by the applicant here or any other party. In this regard, it is important to note that the state Growth Management Act requires that all counties designate "natural resource land" pursuant to RCW 36.70A.170 which includes forest, agricultural and mineral lands of "long term commercial significance." The County recognizes its responsibilities under GMA in the comprehensive plan at page 9 of the 2007 Plan. However, the County has not made a formal designation of such lands. The 2007 Plan essentially provides that designation in the Conservancy designation, which meets the RCW 36.70A.170 criteria: "Conservancy areas are intended to conserve and manage existing natural resources in order to maintain a sustained yield and/or utilization." 2007 Plan at page 25. The WREP is located in the Conservancy and Rural II land use designations.

Significantly, there is no mention of allowance for wind turbines or wind energy in the Rural II or Conservancy designations. "Industry" is permitted in the Rural I category, but not in the other two designations. The Conservancy designation includes only the following relating to utilities:

> Public facilities and utilities, such as parks, public water access, libraries, schools, utility substations and telecommunication facilities.

2007 Plan, p. 25-26. The 2007 comprehensive plan does not allow "private" or "semi-public facilities and utilities." Once again, the failure to include these uses as "appropriate uses" within the 2007 Plan is significant. These uses were defined in the existing zoning ordinance in the "Definition-Interpretation" section at SCC 21.08.010:

> "Semi-public facilities" means facilities intended for public use which may be owned and operated by a private entity.

That this definition was not incorporated into the 2007 Plan is indicative of the intent of the legislative body not to allow such uses and that they were not included within the 2007 Plan indicates a deliberate exclusion. Further, note that the 2007 Plan does not mention electrical energy facilities at all, indicating such facilities are not allowed.

It cannot be that the failure to mention wind energy facilities or wind turbines was a matter of oversight. As the Skamania County Hearing Examiner found in her MDNS decision, there was interest expressed by the applicant here in developing a wind farm well before the Comprehensive Plan was adopted:

> However, SDS Lumber has approached Skamania County on multiple occasions over the past several years to discuss a possible large-scale wind energy project (Saddleback Project) on its property within the County. Ms. Witherspoon (the Skamania County Planning Director) met with representatives of SDS and entities such as the Bonneville Power Administration on two or three occasions

> for "pre-application meetings" to discuss the permitting requirements for the project. Multiple pre-application meetings have been held because of changes in the development team. The project, if developed, would consist of at least 40 wind turbines. Although the last formal pre-application meeting was approximately two years ago, individuals associated with the project have been involved in the County's code update process and the president of SDS was present at the subject appeal hearing.

Findings, Conclusions and Decision of the Hearing Examiner for Skamania County ("FCD"), Finding 37, page 13. In fact, as the Hearing Examiner found:

> The Bonneville Power Administration (BPA) has produced a map entitled "Current and Proposed Wind Energy Interconnections to BPA Transmission Facilities" (Exhibit D.4). This map depicts the SDS Saddleback project as a proposed wind generation facility of 70 megawatts (MW).

FCD, Finding 38, p. 14. Skamania County and its commissioners have long been aware of the Energy Overlay Zone adopted by the neighboring county to the east (Klickitat); indeed, testimony at the Hearing Examiner hearing on the MDNS revealed that Skamania County was asked by Klickitat County to participate in the EIS process for its overlay zone, but Skamania County declined.

As described herein, the 2007 Comprehensive Plan does not authorize or permit electrical energy or wind turbines within the County. Policy LU6.1 deals with uses authorized under the comprehensive plan:

> Three types of uses should be established for each land use designation under this plan and for any zone established to implement this plan. If any use is not listed as one of the following types of developments, then the use is prohibited within that land use designation.

The Plan goes on to describe uses that may be listed as allowable uses, review uses and conditional uses. Policy LU6.2 specifies that:

> In the development regulations, land uses which are neither allowed without review by the Planning Department, permitted subject to conditions, nor named as a conditional use under a land use designation made in this plan or in an ordinance implementing this plan should be prohibited without proof of a substantial change in circumstances.

As such, uses not described as appropriate under each land use designation are to be prohibited. As applied to the WREP proposal, wind turbines are not mentioned as an allowable, review or conditional use in either the Conservancy or Rural II designations and are thus not allowed.

Under the County Planning Enabling Act, RCW ch. 36.70, a county is required to prepare and adopt a comprehensive plan. RCW 36.70.320 provides that:

> Each planning agency shall prepare a comprehensive plan for the orderly physical development of the county, or any portion thereof, and may include any land outside its boundaries which, in the judgment of the planning agency, relates to planning for the county. The plan shall be referred to as the comprehensive plan, and, after hearings by the commission and approval by motion of the board, shall be certified as the comprehensive plan. Amendments or additions to the comprehensive plan shall be similarly processed and certified

The statute goes on to proscribe that the comprehensive plan will be the basic source of reference when the County reviews any proposed project under RCW 36.70.450:

> After a board has approved by motion and certified all or parts of a comprehensive plan for a county or for any part of a county, the planning agency shall use such plan as the

> basic source of reference and as a guide in reporting upon or recommending any proposed project, public or private, as to its purpose, location, form, alignment and timing. The report of the planning agency on any project shall indicate wherein the proposed project does or does not conform to the purpose of the comprehensive plan and may include proposals which, if effected, would make the project conform. If the planning agency finds that a proposed project reveals the justification or necessity for amending the comprehensive plan or any part of it, it may institute proceedings to accomplish such amendment, and in its report to the board on the project shall note that appropriate amendments to the comprehensive plan, or part thereof, are being initiated.

Unlike the GMA, zoning codes and maps are not required in counties operating under the county enabling act as RCW 36.70.550 provides:

> From time to time, the planning agency may, or if so requested by the board shall, cause to be prepared official controls which, when adopted by ordinance by the board, will further the objectives and goals of the comprehensive plan. The planning agency may also draft such regulations, programs and legislation as may, in its judgment, be required to preserve the integrity of the comprehensive plan and assure its systematic execution, and the planning agency may recommend such plans, regulations, programs and legislation to the board for adoption.

As may be seen above, the 2007 Plan does not permit or allow wind turbine facilities by its terms. The County and this Council must apply the 2007 Plan as the "basic source of reference" in reviewing the SDS proposal and conclude that the present proposal is inconsistent with that plan.

3. PROPOSAL INCONSISTENT WITH SKAMANIA COUNTY ZONING ORDINANCE.

As described above, the proposal is inconsistent with the recently

adopted (June 2007) Skamania County Comprehensive Plan. Notwithstanding this defect, the applicant urges that the proposal is consistent with the existing zoning code. However, the existing zoning ordinance was adopted before the adoption of the 2007 Comprehensive Plan. Neither the Skamania County Planning Commission nor County Commissioners have adopted the existing zoning code as consistent with the 2007 Plan. Accordingly, the policies of the 2007 Comprehensive Plan cannot be applied to that code. Moreover, it is clear that the existing zoning ordinance does not permit the subject proposal.

Under Washington state law, development regulations or the zoning code must be consistent with the adopted Comprehensive Plan:

> 36.70.545. Development regulations--Consistency with comprehensive plan. Beginning July 1, 1992, the development regulations of each county that does not plan under RCW 36.70A.040 shall not be inconsistent with the county's comprehensive plan. For the purposes of this section, "development regulations" has the same meaning as set forth in RCW 36.70A.030.

Accordingly, if the existing development regulations are not consistent with the adopted 2007 Comprehensive Plan, then the zoning regulations are ineffective.

The applicant makes two attempts to demonstrate that its wind turbine proposal is consistent with the existing code, neither of which is persuasive.

This analysis begins with the important fact that the existing zoning code does not make wind turbines, wind energy or wind farms an allowable, review or conditional use in any zone. It is significant that "geothermal energy facilities" are listed as a conditional use in the FOR/AG10 and 20, Rural Estate zones. See SCC 21.56.030, 21.44.030. Indeed, "geothermal energy" is a specific type of an "Alternative energy resource" under the EFSEC statute at RCW 80.50.020(18). This indicates that the county was aware of types of alternate energy facilities, but only chose to allow only "geothermal

energy" as a conditional use, whereas "wind," another specifically listed "alternate energy resource" under RCW 80.50.020(18), is not permitted anywhere. Once again, this is not an oversight as "wind turbines" are specifically mentioned in the current code as exempt from height limitations in SCC 21.70.050. However, wind turbines, wind farms or a use related thereto is not listed as a permitted review use or conditional use in the zoning code. The only conclusion to be reached is that wind turbines are not authorized or permitted under the existing code.

The applicant also argues that Table 2-1 in the 2007 Plan at page 23 declares that certain uses are permissible in certain zones. The applicant states at page 4.2-6 of its application that:

> There are three land use designations outside of the specific subarea plans: Rural I, Rural II, and Conservancy. The project area is designated as "Conservancy." Table 2-1 of the Comprehensive Plan identifies zones that are consistent with the Conservancy designation, including: Residential 10 (R-10), Rural Estates 20 (RES-20), Forest Land 20 (FL 20), Commercial Resource Land 40 (CRL 40), Natural (NAT) and Unmapped (UNM). The project site is located in the FL 20, R-10, and UNM zones, all of which are consistent with the Conservancy designation.

However, Table 2-1 refers not to the current code, but to code that might be adopted after the 2007 Plan was adopted. This is clear from the explanation of the table at page 22:

> Table 2-1 shows the comprehensive plan designations and consistency of each potential zoning classification. The Plan Designation to Zoning Classification table is provided to identify those zoning districts that are consistent with each plan designation. Those districts, which are not consistent with the plan designation, are not permitted within the plan designation. This information is necessary to determine when, where and under what circumstances these designations should be applied in the future.

(Emphasis supplied). Thus the table references "potential" and "future" zoning classifications, not ones under the existing code. This is further demonstrated by the fact that the zoning classifications in Table 2-1 do not refer to the existing code, but to future code classifications. Thus, the "Commercial Resource Land 40" zone is a potential new zone as referenced in the draft zoning ordinance at Appendix F to the application. Under the existing code, the like zone is the Resource Production Zone or (FOR/AG20) zone, which is not mentioned in Table 2.1.

Thus Table 2-1 does not establish consistency with the existing code, but serves as a guide to a new zoning code, which has not yet been adopted and cannot be until an environmental impact statement is prepared under the Hearing Examiner's ruling.

The applicant argues that wind turbines are allowed as a use under the terms of the "Unmapped" area of the code. However, the terms of the 2007 Comprehensive Plan specifically provide that if a use is not listed as a conditional or allowable use within the land use designation under the plan then it will be prohibited. See discussion above and 2007 Plan at pages 30-31. The 2007 Comprehensive Plan also specifically provides under Policy LU2.6 that: "Building permits, septic tank permits, or other development permits issued by the County for any project will be in conformance with this Comprehensive Plan." (Emphasis supplied.) Since the "Unmapped" areas do not have a specific zone designation they must be regulated by the designation given by the 2007 Plan.

In addition, to determine the meaning of language within the 2007 comprehensive plan, it is useful to review the 1977 comprehensive plan it replaced. A copy of that plan is Attachment A hereto. That plan had identical land use designations, Rural 1, Rural 2 and Conservancy. See pages 91-92. Importantly, the 1977 comprehensive plan "Conservancy" designation provided:

> The following inappropriate uses may be allowed on a conditional or temporary basis:
>
> a. Industrial
> b. Commercial

See page 92. The "NOTE" at the bottom of page 92 states:

> Land uses which are considered by this plan to be inappropriate, may be established in Rural 2 and Conservancy land use areas, subject to public review and approval by the Board of County Commissioners. Such uses might include light industrial facilities, small commercial businesses, airstrips, portable sawmills, and other wood processing equipment.

(Emphasis in original). When the 2007 comprehensive plan was adopted, it retained verbatim the sentence setting the purpose and objective:

> "Conservancy areas are intended to conserve and manage existing natural resources in order to maintain a sustained resource yield and/or utilization."

Compare page 25 of the 2007 comprehensive plan with page 92 of the 1977 comprehensive plan. However, the 2007 comprehensive plan removed any allowance for "Industrial" or "Commercial" uses either as permitted, review or conditional uses in the Conservancy designation.

The inclusion in the 1977 Plan of the "inappropriate" industrial and commercial uses also explains why the "Unmapped" zone (guided by the 1977 Plan) allowed uses which were "not nuisances," to take account of their characterization as "inappropriate." However, with the adoption of the 2007 comprehensive plan, and the elimination of any possibility of any "inappropriate uses," allowance of uses that were not nuisances became inconsistent with the comprehensive plan and thus illegal.

In addition, the applicant contends that its private wind turbine proposal should be considered "semi-public facilities and utilities" and thus an allowable conditional use in the existing FOR/AG10 and 20 zones. However, the Comprehensive Plan says that "Public Facilities and Utilities" (emphasis supplied) are allowed in the Conservancy and Rural II Land Use Designations, not "Semi-public Facilities and Utilities." Since both of these uses are defined terms in the existing

code, it is very clear that when the Commissioners chose to include only one in the comprehensive plan, it was a deliberate decision. In addition, the 1977 plan made specific provisions in the Rural 2 zone for "Semi-public" uses. See page 91. "Semi-public" uses were specifically eliminated from the 2007 comprehensive plan in all land use designations, including "Conservancy." See 2007 Plan, p. 24-26. Further, the provision in the comprehensive plan gives examples of the kinds of "public facilities and utilities" which are appropriate in the zone "such as parks, public water access, libraries, schools, utility substations and telecommunication facilities." It cannot be said up to 50, 425 foot tall wind turbines as the WREP would intend, with an extensive road network, can be equated to such modest and common place uses as parks, public accesses and schools. If these were intended to include wind turbines, wind farms and other alternative energy facilities, the comprehensive plan would have said so by simply adding a definition of such uses. Of course if there was a proposal to include large wind farms within the 2007 Plan, it would have likely ignited significant controversy.

In essence, inclusion of a large scale wind farm as a "facility and utility" permissible in the Conservancy designation is a de facto amendment of the comprehensive plan. It does so without adherence to the requirement that the planning commission first review the comprehensive plan or any amendments under RCW 36.70.320 and .410, that there be a public hearing and a final decision by the Commissioners. RCW 36.70.380 and .420. In addition, the inclusion of wind turbine or other facilities in the comprehensive plan would have required new SEPA compliance. Given that the inclusion in the zoning code of provisions for wind farms has resulted in the requirement for a environmental impact statement, the same would likely be true for the comprehensive plan adoption.

In addition to the foregoing, the issue of consistency between the existing zoning code and the comprehensive plan arose in the hearing before the Skamania County on the appeal of SOSA and Friends challenging the County MDNS for the new zoning code. SOSA in particular alleged that the 2007 Comprehensive Plan was inconsistent with the proposed zoning ordinance. In response, the County argued that the allowance of wind turbines in the proposed

zoning ordinance did not have a significant impact because wind turbines were already allowed. This issue was resolved in favor of SOSA when the Hearing Examiner found:

> The 2007 Comprehensive Plan does not contemplate the type of energy facilities described in the Planning Commission Recommended Draft.

FCD, Finding 18, page 8. As an issue regarding the comprehensive plan, which was actually litigated between the County, SOSA and Friends, the County is now prevented from contesting this conclusion under the doctrine of claim preclusion or *res judicata*. Washington law is clear that *res judicata* applies to administrative proceedings:

> *Res judicata*, modernly called claim preclusion, P. Trautman, Claim and Issue Preclusion in Civil Litigation in Washington, 60 Wash.L.Rev. 805 (1985), applies to quasi-judicial decisions by administrative tribunals as well as to judicial decisions by courts. *State v. Dupard*, 93 Wn. 2d 268, 274, 609 P.2d 961 (1980); *Miller v. St. Regis Paper Co.*, 60 Wn. 2d 484, 485, 374 P.2d 675 (1962); see *McCarthy v. Department of Social and Health Servs.*, 110 Wn. 2d 812, 823, 759 P.2d 351 (1988) (collateral estoppel); *Malland v. Department of Retirement Sys.*, 103 Wn. 2d 484, 490, 694 P.2d 16 (1985) (same). The Board's 1985 decision was quasi-judicial because it denied a proposed plat, and an administrative decision denying a proposed plat is quasi-judicial. *Miller v. Port Angeles*, 38 Wn. App. 904, 908, 691 P.2d 229 (1984), review denied, 103 Wn. 2d 1024 (1985); *Lechelt v. Seattle*, 32 Wn. 2d 831, 835, 650 P.2d 240 (1982), review denied, 99 Wn. 2d 1005 (1983); see RCW 58.17.100 (findings of fact required); RCW 58.17.180 (review is by writ of review). Therefore, the Board's 1985 decision was subject to *res judicata* at such time as it became final. *Columbia Rentals, Inc. v. State*, 89 Wn. 2d 819, 821, 576 P.2d 62 (1978) (final judgment is *res judicata*); *Pinkney v. Ayers*, 77 Wn. 2d 795, 796, 466 P.2d 853 (1970) (interlocutory order is not *res judicata).*

Lejeune v. Clallam County, 64 Wn. App. 257, 264-265, 823 P.2d 1144, (1992).

The finding by the Hearing Examiner that the 2007 comprehensive plan did not contemplate the wind energy facilities described in the zoning ordinance is binding on the County. Further, the existing zoning code, even if adopted by the County to implement the 2007 Plan (which it was not), does not permit large scale wind facilities.

5. THE RECOMMENDED DRAFT OF THE PLANNING DEPARTMENT CANNOT BE CONSIDERED BY EFSEC.

At Appendix F of its application, SDS argues that the EFSEC should consider a draft, unadopted zoning code and map. EFSEC will commit error if it considers the proposed code for two reasons.

First, zoning codes do not become effective until they are adopted by the legislative body with jurisdiction. Zoning codes and maps are considered "official controls" under RCW 36.70.02(11):

> (11) "Official controls" means legislatively defined and enacted policies, standards, precise detailed maps and other criteria, all of which control the physical development of a county or any part thereof or any detail thereof, and are the means of translating into regulations and ordinances all or any part of the general objectives of the comprehensive plan. Such official controls may include, but are not limited to, ordinances establishing zoning, subdivision control, platting, and adoption of detailed maps.

See also RCW 36.70.560. RCW 36.70.570 specifically requires that:

> Official controls shall be adopted by ordinance and shall further the purpose and objectives of a comprehensive plan and parts thereof.

(Emphasis supplied). Zoning ordinances and zoning maps may only be

adopted after a public hearing and recommendations by the Planning Commission under RCW 36.70.320 and .420. There is no provision in EFSEC legislation to consider unadopted codes, or ones under consideration.

Second, the Skamania County Hearing Examiner has ruled the MDNS issued by the responsible official in Skamania County was issued in error. The ruling of the Examiner is as follows:

> The Determination of Nonsignificance is reversed, and remanded to the County for preparation of an Environmental Impact Statement for the zoning code map and text amendments.

FCD, p. 29.

Under the terms of SEPA, the EIS when completed "shall accompany the proposal through the agency review processes; . . ." RCW 43.21.030(2)(d). In the present case, the Planning Enabling Act requires that before an agency adopts a zoning ordinance or maps, a public hearing must be held by the Planning Commission under RCW 36.70.580:

> Before recommending an official control or amendment to the board for adoption, the commission shall hold at least one public hearing.

Following the public hearing, the Planning Commission must make a recommendation to the County Commissioners under RCW 36.70.600.

> The recommendation to the board of any official control or amendments thereto by the planning agency shall be by the affirmative vote of not less than a majority of the total members of the commission. Such approval shall be by a recorded motion which shall incorporate the findings of fact of the commission and the reasons for its action and the motion shall refer expressly to the maps, descriptive and other matters intended by the commission to constitute the plan, or amendment, addition or extension thereto.

> The indication of approval by the commission shall be recorded on the map and descriptive matter by the signatures of the chairman and the secretary of the commission and of such others as the commission in its rules may designate.

For SEPA purposes, the "existing agency review process" involves, at a minimum, public hearings before the Planning Commission, a recommendation by the Planning Commission and action by the County Commissioners. Each of these processes will require that a final EIS be prepared and available for those bodies. Thus any action previously taken, or recommendations made, must be reconsidered in light of Hearing Examiner's requirement that an EIS be prepared. Since the County has not yet prepared an EIS on its zoning ordinance, any existing drafts of a proposed ordinance may not be considered by EFSEC.

6. THE ROAD ACCESS TO THE SITE IS NOT PERMITTED BY SCENIC AREA RULES.

The application filed herein describes the improvement and widening of a road that appears to be the primary access to the site. Approximately 2.1 acres of this road are located in the National Scenic Area and are controlled by Skamania County Scenic Area regulations. The Friends of the Columbia River Gorge has addressed this issue in correspondence and SOSA adopts by reference the position stated by Friends on this issue in their submission.

7. SKAMANIA COUNTY CERTIFICATE OF LAND USE CONSISTENCY.

SOSA has just received Skamania County Resolution 2009-22 which purports to adopt a Certificate of Land Use Consistency for the WREP proposal. This Resolution was adopted on May 5, 2007 by the Skamania County Commissioners. Copies of the Resolution and its accompanying 28 page staff analysis were not available prior to adoption. Because of its late adoption, and lack of notice, SOSA is not able to provide a detailed response to the Resolution at this time. Neither county staff nor the commissioners provided notice of the

content of what was intended to be adopted and there were no public hearings on the matter. The Planning Commission for Skamania County was neither contacted or consulted regarding this matter. Accordingly, SOSA requests a two week delay in the close of the record on the land use consistency hearing to provide comments on the county's resolution.

SOSA does have one preliminary comment. As noted above, the County's 2007 comprehensive plan contains no provisions for wind energy facilities in any land use designation. Notwithstanding this obvious deficiency, the County Commissioners proposed a zoning ordinance and map that would allow wind energy facilities in Conservancy designations. The County's decision not to prepare an environmental impact statement on the zoning code and map was appealed to Skamania County's own Hearing Examiner. She not only reversed the MDNS issued by the County (see Attachment B), but also ruled that the "2007 Comprehensive Plan does not contemplate the type of energy facilities [among them large scale wind energy facilities] described in the Planning Commission Recommended Draft." The County did not appeal the Hearing Examiner decision to the Superior Court.

Now, in the letter accompanying the submission of Resolution 2009-22 to this Council, everyone is told that:

> Since this decision (of the Hearing Examiner requiring the environmental impact statement) the map and updates for the Zoning Ordinance project have been permanently placed on hold. It has not been decided whether or not the County will continue with this project or start from scratch when the zoning update process resumes.

May 4, 2009 letter from Karen Witherspoon to EFSEC, page 2.

It is clear that the County, having been denied the approval of wind turbines in legally appropriate processes, has now decided to go through the "back door" to try to legalize large scale wind farms by simply deciding that they are consistent with existing codes. However, as demonstrated above, the adopted comprehensive plan and zoning ordinances do not allow such facilities. It is likely that the County's

actions, as interpretations of land use codes, will be challenged as illegal under the Washington Land Use Petition Act. In the meantime, EFSEC should refuse to consider the county's position on this matter or dismiss it and hold that the proposed project is not consistent with the comprehensive plan and zoning ordinances.

Based on the foregoing, SOSA submits that the WREP is inconsistent with the 2007 Skamania County Comprehensive Plan and current zoning code and EFSEC should so conclude.

Thank you in advance for your consideration of our views.

Sincerely yours,

ARAMBURU & EUSTIS LLP

J. Richard Aramburu

JRA/py
cc: SOSA