

BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of
Application No. 2009-01

of

WHISTLING RIDGE ENERGY PROJECT LLC

for

WHISTLING RIDGE ENERGY PROJECT

**SAVE OUR SCENIC AREA'S
PRINCIPAL BRIEF ON ADJUDICATION**

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1 **I. INTRODUCTION.**

2 In this brief, SOSA presents facts and argument that demonstrate that the application of
3 Whistling Ridge Energy (WRE) for its Whistling Ridge (WR) project should be denied. The
4 record shows that the small WR project is not needed in the context of Pacific Northwest power
5 needs and that the adverse impacts on the public interest and the environment are significant. As
6 such the application of the balancing test required by the Energy Facilities Site Locations Act
7 (EFSLA), chapter 80.50 RCW and the State Environmental Policy Act (SEPA) is heavily
8 weighed against this project.

9 Following the direction from the first prehearing order in this matter, the brief of Friends
10 of the Columbia Gorge is incorporated herein. This prevents duplication of effort and avoids
11 repetition of content, for benefit of Council members in their review of a lengthy record.

12 In the first part of this brief, SOSA continues to describe the adverse environmental
13 impacts from the WR proposal, as begun by Friends of the Columbia Gorge in their brief. See
14 Section II, Steep Slopes, Section III, Transportation and Section IV, Noise Impacts. On each of
15 these subjects, the applicant's studies are incomplete, inadequate and fail to comply with this
16 Council's regulations and show why the WR should not be approved.

17 At Section V of this brief, SOSA reviews the statutory and regulatory authority of the
18 Council under both EFSLA and SEPA that require a balancing between the adverse
19 consequences and impacts of the proposal and the claimed benefits. This section also describes
20 how this Council has applied these standards in its decisions on other applications.

21 Following these sections, SOSA then discusses the value of the project claimed by the
22 applicant and some intervenors. Section VI of the brief deals with benefits alleged by the
23 Skamania County Public Utility District, but it will be shown that those claimed benefits are
24 completely undocumented and unrelated to the WR project. In Section VII, SOSA shows the
25 economic benefits claimed from the project do not apply standard econometric standards and are
fraught with unjustified exaggeration of wage levels.

Section VIII discusses extensively the merit and value of the proposal as a source of

1 electric power production. This section begins with a review of the variable energy produced by
2 the WR and next shows that there is already a glut of wind power in the Pacific Northwest.
3 Next, there is a discussion as to how operating and approved, under-construction wind
4 generation are meeting the electric needs of the Pacific Northwest, as well as the renewable
5 energy requirements of I-937. This section concludes with a showing of the minor contribution
6 of this project to energy resources and how it is likely that the output of the project will not be
7 used to meet Washington renewable energy standards, but will be sold to California.

8 This brief concludes with a review of the evidence and legal authority establishing that
9 the WR project fails the balancing test and should not be approved by the Council.

10 **II. THE PROPOSAL LIES ADJACENT TO STEEP SLOPE AREAS; EVALUATION**
11 **OF SUCH SLOPES IS INCOMPLETE, INDICATING THE NEED TO**
12 **ELIMINATE PORTIONS OF THE PROPOSAL.**

13 EFSEC regulations require careful consideration of geologic issues. Thus under WAC
14 463-60-302 regarding "Natural environment — Earth" the application must provide the follow
15 information:

16 (1) The applicant shall provide detailed descriptions of the existing environment,
17 project impacts, and mitigation measures for the following:

18 (a) Geology. The application shall include the results of a comprehensive
19 geologic survey showing conditions at the site, the nature of foundation
20 materials, and potential seismic activities.

21 (Emphasis supplied.) The applicant's "Preliminary Geologic Report" is insufficient to meet this
22 standard, particularly in light of serious landslide hazard areas immediately adjacent to several
23 parts of the project, especially at the "A" Array.

24 One of the distinguishing features of the current application is the steep slopes adjacent to
25 some of the proposed turbine locations. As shown on the last page of the Preliminary
Geotechnical Report ("Geotech Report") at Exhibit B to the ASC, many of the proposed turbine
sites are adjacent to very steep slopes, which are designated as "Landslide Hazard Areas"

1 ("LHA"). See Figure D1, "Landslide Hazard Classifications" for the WR project.

2 Landslide Hazard Areas are one of the "Geologic Hazard Areas" identified by the
3 Skamania County Critical Areas Ordinance, Title 21A of the Skamania County Code; such areas
4 are defined as follows:

5 "Geologic hazardous areas" means areas that because of their susceptibility to
6 erosion, sliding, earthquake or other geological events, are not suited to the siting
7 of commercial, residential, or industrial development consistent with public health
or safety concerns.

8 Skamania County Code (SMC) 21A.02.010, Definitions (emphasis supplied). Included with that
9 definition are "landslide hazard areas". See ASC at 3.1-19.

10 The report itself notes the area for siting of the "A" array of turbines is a matter of
11 concern:

12
13 The evaluation has identified several areas where the proposed wind turbine
14 generators are located adjacent to slopes that meet Skamania County's criteria for
15 Class II and Class III Landslide Hazard Areas. The primary hazard to the
16 proposed towers appears to be the potential for exposure to headward erosion of
17 steep drainages on the slopes below some of the tower locations. Exposure of the
18 towers to headward erosion of the steep slope drainages can be minimized by
providing maximum possible setbacks from the tops of the steep slopes and / or
by siting the turbines along portions of the ridgelines that are above intervening
spur ridges. The most critical area of exposure to Class II LHAs is the narrow
ridge at the southern portion of the 'A' Line.

19 Last written page of geotechnical report, Exhibit B to ASC. Mr. Meier, the geologist working on
20 the project for the applicant, confirms that slopes adjacent to the "A" array of turbines are in the
21 range of 30 to 50 percent slopes, up to 70 percent in certain places. TR. 515.

22 The applicant has conducted only "preliminary" analysis of these geotechnical issues
23 despite the presence of these landslide hazard areas. The investigations consisted of twelve test
24 pits and walking over the site, done over the course of just two days in September, 2007; Mr.
25 Meier was only on the site once. Tr. 509. As explained at page 1-2 of the Geotech Report:

The tower designer as not been identified for the project site, and the exact

1 **locations of the towers have not been identified. Therefore, URS has not**
2 **performed any deep subsurface explorations at the site.** We have performed
twelve test pits.

3 (Emphasis in original). Only two of the test pits were located near the "A" line. See Figure 2 to
4 Preliminary Geotechnical Report. This is despite the fact that foundations for the wind turbines
5 will be 30 feet deep with a number of rock anchors to stabilize these huge machines. Indeed
6 very little is known about the steep slopes and the impacts of the wind turbines on them for the
7 following reasons.

8
9 1. Mr. Meier has not been provided information about the height, weight or size of the
10 turbines and foundations to be placed adjacent to the landslide hazard areas. Tr. 1098. He does
11 not know what the size of the foundations will be. Tr. 1108.

12 2. Though the application contemplates foundations for the wind turbines that may be 30
13 feet deep, the test pits dug on the site went to a maximum of 15 feet. Tr. 1099.

14 3. Mr. Meier did not know whether blasting would be required for the excavations for
15 the foundations, but stated that it might be. Tr. 1101-02.

16 4. Mr. Meier admitted that additional investigations would be required to determine if
17 blasting would have impacts on the steep slopes adjacent to the turbine foundations:
18

19 Q. But blasting would be an option depending on the contract?

20 A. Blasting is an option, sure.

21 Q. Would blasting raise concerns about stability of the adjacent landslide hazard areas?

22 A. No.

23 Q. It would not?

24 A. Not unless -- it would not happen until after the final investigation was done which
would include deeper investigations, soil boring or rock boring. At that point we would
be able to determine whether there was a potential hazard due to blasting or boring, any
kind of shaking caused by blasting.

25 Tr. 1102 (emphasis supplied).

5. Though the A-1 to A-7 turbines are located adjacent to a narrow top of a ridge, Mr.
Meier does not know the width of this available space, due in part to the fact that the available

1 mapping is not a sufficient scale. Tr. 1108. He has not calculated or stated the "maximum
2 possible setbacks from the tops of the steep slopes. . . ." that are of concern in his report and says
3 he cannot until further investigations are complete. Tr. 1111-12.

4 As may be seen, the applicant has prepared only a very preliminary report which provides
5 little evaluation of subsurface geologic conditions. Mr. Meier admits that much more work is
6 required before a conclusion can be reached about the geologic feasibility of the project. Given
7 the size, scale and weight of these massive machines, their adjacency to very steep slopes and
8 landslide hazard areas, the Council should conclude that the geologic investigations are
9 insufficient to meet the requirement for a "comprehensive geologic survey." Unless further
10 information is provided, at least the "A" line of turbines should be eliminated.
11

12 **III. TRANSPORTATION: THE PROJECT WOULD CAUSE UNACCEPTABLE,
13 SIGNIFICANT ADVERSE TRAFFIC IMPACTS.**

14 The Whistling Ridge Project would cause unacceptable, significant adverse traffic
15 impacts. The project would substantially increase traffic volumes – potentially by as much as
16 2,700% – in areas predominately used for agriculture, rural residential, agritourism, recreational,
17 and forest uses. These increased vehicle trips, many of which would involve massive oversized
18 vehicles incompatible with local uses, would block traffic and cause significant delays of up to
19 twenty minutes at a time along both lanes of Cook-Underwood Road, the only major arterial in
20 the community of Underwood. As will be explained below, the Application fails to adequately
21 disclose – let alone avoid, minimize, and mitigate – these impacts.
22

23 The Applicant must identify traffic and transportation impacts. WAC 463-60-372(1), (2).
24 In addition, the Applicant must propose and analyze alternative routes for the project. WAC 463-
25 60-296. Using this and other information, the Council must decide whether and how to avoid and
mitigate the traffic impacts of the project. See WAC 463-28-070, 463-64-020.

1 The Applicant proposes a "haul route" through the community of Underwood. The
2 Applicant would make thousands of vehicular trips along this route, including the hauling of
3 heavy construction materials and equipment exceeding the Washington State Department of
4 Transportation's legal load limit of 52.75 tons. Amended Application at 4.3-17; see also RCW
5 46.44.041. Many of the trips would involve specialized, oversized trucks designed specifically
6 for the industrial purpose of hauling the enormous turbine components. These specialized trucks
7 are up to 150 feet long, 17.5 feet high, and 14.5 feet wide. Amended Application at 2.19-4, 4.3-
8 10. Since October 11, 2007, trucks longer than 125 feet in length have been prohibited on
9 Washington SR-14 (along the haul route). Amended Application at 4.3-11. In addition to the
10 specialized trucks, other large and oversized trucks would be needed to haul construction
11 equipment, plus three pilot vehicles for each truck wider than 10 feet. *Id.*

13 Because the oversized and specialized trucks are so large, they would literally completely
14 block traffic along Cook-Underwood Road at certain places. Keep in mind that Cook-
15 Underwood Road is a relatively narrow, curvy, and steep road. See Tr. 492:15-16 (testimony of
16 applicant's witness Nathan Larson). The Application makes a vague statement that traffic flow
17 would be restricted for up to 20 minutes at a time during the construction phase. Amended
18 Application at 1.4-10. According to Mr. Larson, this means in part that the project would block
19 traffic in both directions along Cook-Underwood Road. Tr. 492:17-25. But no further
20 information has been given. Along how many stretches of Cook-Underwood Road would this
21 traffic blockage occur? Where are these stretches located, and how long is each stretch? How
22 many times per day would the traffic blockages occur? Are there any plans for getting
23 emergency vehicles past the blocked stretches of Cook-Underwood Road? None of these
24 questions have been addressed by the Applicant, but all of them need to be.

25 Another issue is the sheer volume of traffic increase caused by the Project. Although the

1 Applicant has not yet proposed a total number for all vehicular trips along the haul route, there
2 would be thousands of trips, much of it consisting of large trucks. See Public Comment #394
3 (Dale and Ina Glasgow). The Applicant concedes that southbound traffic on Cook-Underwood
4 Road could increase by approximately 2,700%, from a current "average of 10 vehicles per hour
5 without the Project to as many as 285 vehicles with the Project." Ex. 11.00 (Larson Prefiled
6 Testimony) at 15. Because Cook-Underwood Road is Underwood's only major arterial route,
7 traffic impacts along this road would affect the entire community. The proposed massive
8 intrusion of industrial construction traffic through the heart of Underwood would cause harm to
9 rural residential, agricultural, and recreational areas. See, e.g., Tr. 536-37 (testimony of Sally
10 Newell); Public Comments #254 (Randall Nelson); #340 (Brad Sifers); #355 (Mary Repar); #394
11 (Dale and Ina Glasgow); #395 (Skamania County Agri-Tourism Association) at App. 5,
12 Attachment "Agritourism: Cultivating Tourists on the Farm," at 15; #397 (Rebecca Stonestreet).

13
14 Given the adverse impacts, the Applicant must study alternative routes that would
15 preclude or minimize the use of Cook-Underwood Road as it runs through the National Scenic
16 Area. The Applicant initially identified three routes, all of which would have relied heavily on
17 the use of Cook-Underwood Road. One of these routes (Route 1) was rejected at the outset
18 without any formal evaluation, partly because it would have required construction within the
19 National Scenic Area for industrial purposes. Original Application at 2.19-3. Another route
20 (Route 2) was initially proposed but subsequently "eliminated" from consideration as an
21 alternative, also because of construction issues within the Scenic Area. Amended Application at
22 2.19-3. As a result, the Application effectively proposes only one option for the haul route, while
23 failing to consider alternative routes to reduce traffic impacts on the Underwood community. See
24 *id.*; DEIS at 1-16 (Both Routes 1 and 2 have been "eliminated as . . . construction roadway
25 access alternative[s]").

1 For example, the Applicant failed to consider an alternative or supplemental route
2 utilizing Little Buck Creek Road and/or Lacock Kelchner Road. See Public Comment #394.
3 Such a route would allow the Applicant to divert traffic off of Cook-Underwood Road much
4 sooner than the proposed route and thereby reduce the impacts on the community. While a route
5 along Little Buck Creek Road would entail construction of new private roads on SDS land
6 located outside the National Scenic Area, so does the proposed route.

7
8 The Application also proposes to potentially use an older bridge across the Little White
9 Salmon River as part of the haul route. Amended Application at 2.19-4. Applicant witness
10 Nathan Larson has since testified this is no longer the case; the Applicant no longer proposes to
11 use this bridge for oversized or specialized trucks. Ex. 11.00 at 5:15-22; Tr. 493:4-9.
12 Accordingly, any site certification permit should expressly prohibit the use of this bridge for
13 oversized and overweight trucks.

14 **IV. THE ANALYSIS OF NOISE IMPACTS ARISING FROM THE PROJECT IS**
15 **WOEFULLY INADEQUATE.**

16 The impact of noise emissions resulting from the construction and operation of the
17 Project must be identified and quantified in the application. WAC 463-60-352(1). Consistent
18 with that requirement here, the Applicant undertook noise modeling to determine the level of
19 ambient noise in the area and the increase over that level that would be caused by the Project.
20 However, the analysis and modeling are deficient in numerous respects, and, as a result, the
21 Council should direct that the studies be redone or the project denied.

22
23 The methodology used by the Applicant's consultants is inconsistent with applicable
24 regulations. As will be discussed in more detail below, the location of the noise monitoring
25 equipment must be within the boundaries of the receiving property. WAC 173-60-090. Here, the
monitoring devices were not within the property boundaries of the designated receiving

1 properties. Further, if machines are to be used for more than two hours at a time, the sound level
2 meters must be calibrated at intervals not exceeding two hours. WAC 173-58-050(2). This was
3 apparently not done.

4 Furthermore, the modeling was based on 1.8MW turbines. After the adjudication, the
5 Applicant changed the project such that the minimum size turbines would be 2.0MW, not the 1.5
6 MW turbines disclosed in the application.¹ Tr. 73. Since the size of the turbine affects the noise
7 emanating from the turbine, the modeling is largely useless.

8 For the reasons set forth above, the Applicant's description and quantification of the
9 background noise environment and noise emissions resulting from the construction and operation
10 of the energy facility are not valid and, therefore, are inconsistent with WAC 463-60-352(1). The
11 Application should be rejected.

12 **4.1. Statutory and Regulatory Mandates.**

13 As noted above, the Council must determine "whether [the proposed] energy facility at
14 [this] particular site will produce a net benefit after balancing the legislative directive to provide
15 abundant energy at reasonable cost with the impact to the environment and the broad interests of
16 the public." Order No. 843 at 23. As will be discussed in more detail at Section V of this brief
17 below, the Council must engage in a balancing of adverse consequences versus benefits.

18 **4.2. The Determination of the Ambient Noise Level Was Defective.**

19 The Application must "describe and quantify the background noise environment that
20 would be affected by the energy facility". WAC 463-60-352. The Applicant appropriately chose
21 two residences and a planned building site closest to the proposed turbines as the points at which
22 to measure both the ambient sound and the sound resulting from the Project. ASC p. 4.1-4. See
23
24
25

¹ The Applicant has refused to specify the intended number of turbines or their size.

1 also Figure 4.1-1, ASC, p. 4.1-5. These are known as R1, R2 and R3. ASC 4.1-4. The Applicant
2 then installed short-term measuring devices (ST1 and ST2) in two locations and a long-term
3 measuring device (LT1) in one location to measure the "background noise environment".
4 However, without any explanation, the monitoring devices are located far from the receiving
5 properties and in more densely populated areas. The locations were specifically chosen in such a
6 way as to maximize the decibel levels of the ambient environment so the increase from operation
7 of the Project would not seem as great. The Applicant's attempt to skew the analysis should be
8 rejected.
9

10 A. The Location of the Monitoring Devices.

11 The Noise Control Act of 1974 and the regulations adopted thereunder prescribe
12 standardized procedures for the measurement of sound-levels. RCW 70.107; WAC 173-58;
13 WAC 173-60. The testing protocol utilized here is not consistent with either WAC 173-58 or
14 173-60.
15

16 As discussed above, the ASC designated three Receivers representing the two closest
17 residences and a planned residence. The purpose of the monitoring was to determine both the
18 ambient noise level at those residences as well as the noise level that would result from the
19 operation of the Project. Obviously, a necessary component is an accurate measure of the pre-
20 project ambient noise level.

21 To accurately measure the noise at the receiver, WAC 173-60-090 requires the "point of
22 measurement" to be "at any point within the receiving property," but none of the measurement
23 devices were on the property of any of the receivers. Although aware that the Noise Control Act
24 requires noise to be measured within the property (Tr. 391), the Applicant's noise expert, Mr.

25 Storm acknowledges that the measurements were not taken "within the receiving property". Tr.
393. In fact, Mr. Storm admitted that the distance between R2 and the monitoring device, ST2, is

1 "over a mile". Tr. 417. This is corroborated by Figure 4.1-1 in the ASC, page 4.1-5. Although
2 the distance between ST1, LT1 and R1 and R3 is not as dramatic, ST1 and LT1 were also not
3 located "within the receiving property" as required by WAC 173-60-090. See ASC Figure 4.1-1.

4 Furthermore, the Applicant did not follow the requirements in WAC 173-58. For any
5 measurement period exceeding two hours, the meters "shall be field calibrated...at intervals not
6 exceeding two hours when the instrument is used for more than a two hour period. WAC 173-58-
7 050(2). Here, the LT1 device operated for 24 hours. See Tr. 1433. Thus, it is subject to WAC
8 173-58-03(2).
9

10 There is no evidence that the LT1 machine was calibrated every two hours. In fact, Mr.
11 Storm acknowledged that he was not even familiar with the provisions of WAC 173-58 and did
12 not know whether those standards were followed. Tr. 1454. There is no indication on the form,
13 nor could Mr. Storm acknowledge, that the calibration was done every two hours as required by
14 the WAC. Tr. 1455. Thus, the testing was done in violation of applicable standards and should be
15 rejected.
16

17 B. The Measurement Devices Were Placed in Inappropriate Locations.

18 An understanding of Figure 4.1-1 at page 4.1-5 of the ASC is critical to understanding
19 how the Applicant manipulated the analysis. That figure shows the location of the turbines and
20 the short-term and long-term measurement devices as well as the three "Receivers" at which site
21 the noise is to be measured. The Applicant acknowledges that the purpose of the measurement
22 devices is to "characterize the existing noise environment in the areas occupied by the
23 Receivers". ASC, p. 4.1-4, and its witness Mr. Storm confirmed that the purpose is to "represent
24 what would be the ambient level at" each Receiver. Tr. 416. For this reason, it is intuitively
25 obvious that the measurement location should be near the designated receiver. This is the basis
for WAC 173-60-090, which requires the point of measurement to be on the receiving property.

1 1. ST2.

2 However, even a casual glance at Figure 4.1-1 belies that concept. The location of ST2 is
3 more than one and a half miles from R2 even though the location was chosen to "represent what
4 would be the ambient level of R2". Tr. 416. However, a measurement device recording sounds at
5 a location more than one and a half miles from a second location cannot be used to determine the
6 ambient sound level at the latter location.

7 The selection of the site for ST2 is even more egregious if you look at the level of
8 development surrounding it. The site selected is adjacent to a school, tennis courts,² and in the
9 immediate vicinity, "more than a few dozen" residences. Tr. 418. In contrast, there appear to be
10 only two residences within a mile of R2. Despite the requirement of WAC 173-60-090, the
11 Application contains no explanation for the distance between ST2 and R2, nor a cogent reason
12 for not following the WAC requirement. Apparently, no effort was even attempted to secure
13 permission from the R2 property owner to place the device on "the receiving property". Tr. 424.

14 Ex. 7.09 and 7.10 show the location of ST2 with a structure in the background. Mr. Storm
15 acknowledged that the structure was "associated with Mill A Elementary School." Tr. 1445-
16 1446. Although Mr. Storm acknowledged that "a school with children" would "have an impact
17 on the ambient noise that was recorded by the monitor," (Tr. 1447), he has no idea whether any
18 efforts were made to filter out the noise from the school in determining the ambient sound. Tr.
19 1448. A brief glance at figure 4.1-1 makes it clear that there is no similar level of development
20 near R2.

21 The effect of this intentional choice of location for ST2 is that the ambient sound level at
22 the receivers will appear higher than it really is, in turn making noise increases from the
23
24
25

² January 21, 2009, the date of the testing, was a school day.

1 R1 and R3, yet the selected location was more than half a mile away, was adjacent to an
2 intersection of two roads (which significantly increases ambient noise), was placed near hard
3 surfaces which reflect and therefore increase ambient noise and was placed next to other
4 structures which might have been emitting noise, increasing the ambient noise level at the
5 measurement location, but not the receiver location. Taken together these results cannot be
6 trusted and the Applicant should start over.

7
8 3. Equipment used at LT1 could not record any sound lower than 38
9 dB.

10 Sound measuring instruments have a "noise floor," the lowest intensity sound that can be
11 picked up by an instrument. See Tr. 1432-33. A machine with a noise floor higher than the
12 intensity of the sound will record that sound at the higher noise floor rather than the actual noise
13 level. This necessarily skews measurements of ambient noise.

14 Ex. 7.02 is the data from the LT1 measuring device. The column heading "LMIN"
15 "evidences the lowest minimal decibel recorded within each five minute period". Tr. 1435. For
16 every five-minute time period, the minimum sound level recorded was approximately 38 dBA.

17 The same information was provided for ST1, which is in the same location. See Ex. 7.04.
18 The minimum decibel level in Ex. 7.04 for the time period of 23:50 on January 21st, is 22.36
19 dBA. As noted above, the minimum level for the same time from the long-term measurement
20 device is 38 dBA. When asked about the discrepancy of 15 dBA between the two machines, Mr.
21 Storm acknowledged that, for the long-term measurements, levels below 38 were not reported.
22 Tr. 1438. He also acknowledged that if lower levels had been recorded, it would have lowered
23 the total ambient noise level at that site. *Id.* Thus, as with other aspects of their measurement, the
24 numbers produced are not reliable and the analysis should be rejected.
25

1 results are ignored for R1 and R3,³ the ambient noise level would be significantly less. With
2 both noise levels averaged for R1 and R3, the L_{eq} level was 34 decibels.⁴ If you eliminate the
3 long-term measurements and only use the short-term measurement, as was done for R2, the
4 decibel level would be 30 for R1 and 31 for R3, 4 decibels less than the level indicated by the
5 Applicant. This 4-decibel level increase is significant. As the application notes, "a three to five
6 dB change is readily perceived". ASC p.4.1-1. This constitutes more than a doubling of the
7 sound intensity. "If a sound's intensity is doubled, the sound level increases by three dB,
8 regardless of the initial sound level". *Id.* Thus, an increase of four dB is more than a doubling of
9 the sound level. Therefore, an ambient noise of 30 as compared to 34 constitutes less than half of
10 the noise level.
11

12 This data shows even more manipulation of the monitoring, demonstrating its
13 unreliability.

14 **4.3. The Modeling of the Expected Noise from Operation of the Project is** 15 **Defective.**

16 Once the ambient sound noise levels are obtained, modeling is done to determine the
17 noise level from the operation of the Project and, therefore, the increase over the ambient sound.
18 Here, the Applicant used a computer program called CADNA\A.⁵ The model is designed to
19 estimate the noise levels "at the property lines and noise sensitive receivers". ASC 4.1-11.⁶
20

21 The modeling is not reliable for several reasons. First, it is not based on the type of
22 turbines that will actually be used in the Project. Second, the placement of the monitoring
23

24 ³ Since LT1 could not register any sound lower than 38 dB, it is appropriate to ignore the results.

25 ⁴ The ASC describes L_{eq} as more or less an average of the sound level over time. p. 4.1-2.

⁵ The CADNA/A program is used for a variety of industrial-type projects. Although there were programs to model noise specifically from wind projects, such as WindPro and NoisePro, the Applicant chose not to utilize them.

⁶ As noted in Section 4.2 *supra*, the measurements were not taken anywhere near the property lines or the "noise sensitive receivers".

1 devices will result in lower sound levels than would be recorded at the receivers. Third, the
2 modeling has not been field-tested. Finally, the Applicant ignored the increased noise when
3 blades ice up.

4 A. The Modeling Was Not Based On Turbines To Be Used In The Project.

5 The modeling was undertaken using data pertaining to a 1.8 MW Turbine. Tr. 382. As
6 noted above, Jason Spadaro, on behalf of the Applicant, testified at the adjudication that the
7 minimum sized turbines would be 2.0MW and could be larger. Tr. 73. The noise from a 2.0MW
8 turbine was not modeled. Tr. 383. With the larger turbine comes a bigger blade. Bigger blades
9 create more noise under the same wind conditions. Tr. 387. Thus, similar to much of the other
10 environmental analysis undertaken in reliance on a different number and size of turbines, the
11 noise modeling here must be rejected and redone.

12
13 B. The Placement Of The Measuring Devices Further From The Turbines
14 Than The Receivers Results In Wholly Inaccurate Information.

15 By placing ST2 near the dense development in Mill A, the Applicant accomplishes two
16 purposes. First it increases the preexisting ambient noise level.⁷ And, due to its location further
17 from the turbines than R2, the noise from the operation of the Project is significantly less than
18 the level at R2. Mr. Storm acknowledges that the closer the receiver is to the Project, the louder
19 the noise will be. Tr. 422. Yet ST2 is about a mile and a half from the closest turbine, whereas
20 R2 is approximately .8 miles from the nearest turbine. *Id.* Thus, ST2 is almost twice as far from
21 the nearest turbine than R2.

22
23 This distance results in a significant attenuation of the noise. According Mr. Storm, a rule
24 of thumb is that "as you double the distance the noise level drops at a rate of six decibels". *Id.*,
25 423. Since ST2 is almost double the distance from the nearest turbine as R2, in relying on Mr.

1 Storm's testimony, the noise at ST2 would be approximately six decibels less than the noise at
2 R2. This is a significant difference.

3 The same is true with R1 and R3. Although ST1 and LT1 are not as far from R1 and R3
4 as ST2 is from R2, R1 and R3 are still significantly closer to the Project than ST1/LT1 and as
5 such, the noise at R1 and R3 will be more than depicted by the Applicant based on the location
6 of ST1 and LT1. This blatant attempt to manipulate the data should not be accepted by the
7 Council.

8 The results of the modeling are suspect for additional reasons. To determine the noise
9 level at a specific location requires knowing the noise level emanating from the turbine. Mr.
10 Storm indicated that he relied on the data from the manufacturer. Tr. 382. However, he has never
11 field tested that information. Tr. 402. Furthermore, Mr. Storm has no experience with wind
12 projects in forested landscapes Tr. 411, and therefore has never field tested the results of any
13 predictions he's made in such topography. Tr. 450.

14 Winter weather has an impact on noise emanating from wind projects. Yet, these
15 potential impacts were not analyzed. Mr. Storm acknowledged that when blades ice-up, there is
16 the potential for more noise. Tr. 458-459. Although the Application at p. 2.1-6 states that "winter
17 winds occasionally collide with the moist Pacific air masses leading to severe ice storms", the
18 Applicant absolutely failed to factor ice and the increased noise into the analysis. Tr. 459.

19 The applicant's noise study is fraught with errors and omissions, displaying either a
20 negligent or intentional avoidance of this Council's regulations and standard methods for the
21 study of noise impacts. As such the proposal should be denied or the turbines in the vicinity of
22 residences (the "A" line) should be deleted from the proposal.
23
24
25

⁷ See Section 4.2, *supra*.

1 V. UNDER THE EFSLA AND SEPA THE COUNCIL MUST ENGAGE IN
2 BALANCING BETWEEN THE BROAD INTERESTS OF THE PUBLIC AND
3 THE VALUE OF THE PROJECT.

4 Previous portions of SOSA and Friends briefing have focused on the environmental
5 impacts and losses that will occur if the WR proposal is constructed as proposed. These impacts
6 are substantial and impact a truly unique national resource, the Columbia River Gorge.

7 This section of the SOSA brief focuses on the essential responsibility of the Council to
8 engage in a balancing between these significant adverse impacts and the merits of the project.

9 This raises the essential question: Does the merit and value of this project offset the adverse
10 impacts apparent in its construction and operation?

11 There are two fundamental statutory obligations that EFSEC must meet.

12 **5.1 Balancing Required by the EFSLA, RCW ch. 80.50.**

13 EFSEC has the responsibility to review applications for wind turbine facilities and make
14 recommendations to the Governor, who makes the final decision on such facilities. EFSEC is a
15 state agency with the power to preempt local rules and regulations. See RCW 80.50.110(2).
16

17 The EFSEC statute contains explicit criteria which it must consider in making
18 recommendations to the Governor. RCW 80.50.010 describes the balancing factors that EFSEC
19 must consider:

20 It is the policy of the state of Washington to recognize the pressing need for
21 increased energy facilities, and to ensure through available and reasonable
22 methods, that the location and operation of such facilities will produce minimal
23 adverse effects on the environment, ecology of the land and its wildlife, and the
24 ecology of state waters and their aquatic life.

25 It is the intent to seek courses of action that will balance the increasing
demands for energy facility location and operation in conjunction with the broad
interests of the public. Such action will be based on these premises:

(1) To assure Washington state citizens that, where applicable, operational
safeguards are at least as stringent as the criteria established by the federal
government and are technically sufficient for their welfare and protection.

(2) To preserve and protect the quality of the environment; to enhance the
public's opportunity to enjoy the esthetic and recreational benefits of the air, water

1 and land resources; to promote air cleanliness; and to pursue beneficial changes in
the environment.

2 (3) To provide abundant energy at reasonable cost.

3

4 (Emphasis supplied). As may be seen, the principal responsibility of the Council is to "balance"
5 needs for energy with "broad interests of the public." The Council has the responsibility to
6 "preserve and protect the quality of the environment" specifically requiring that it "enhance" i.e.
7 improve, the public's "opportunity to enjoy the esthetic qualities and recreational benefits of the
8 land." The council is also tasked to consider whether projects will provide "abundant energy at
9 reasonable cost." *Id.*

10 EFSEC's own implementing regulations interpret RCW 80.50.010 to provide authority
11 and standards for balancing. In particular, WAC 463-14-020 states:

12
13 In acting upon any application for certification, the council action will be based
14 on the policies and premises set forth in RCW 80.50.010 including, but not
limited to:

15 (1) Ensuring through available and reasonable methods that the location and
16 operation of such facilities will produce minimal adverse effects on the
17 environment, ecology of the land and its wildlife, and the ecology of state waters
and their aquatic life;

18 (2) Enhancing the public's opportunity to enjoy the esthetic and recreational
19 benefits of the air, water and land resources; and

20 (3) Providing abundant power at reasonable cost.

21 WAC 463-14-020 (emphasis supplied).

22 **5.2 Balancing Required by SEPA and EFSEC's SEPA Regulations.**

23 As a state agency, EFSEC must also comply with the procedural and substantive
24 provisions of SEPA, RCW 43.21C. There is considerable, and ongoing discussion of the
25 procedural aspects of SEPA in the proceedings and the Council has committed to prepare a Final
Environmental Impact Statement (FEIS).

1 But EFSEC also has substantive responsibilities in decision making under SEPA that
2 must be considered at this stage of decision making. SEPA provides authority to condition or
3 deny projects based on environmental impacts, requiring that the agency adopt formal policies
4 for the exercise of such authority:

5 The policies and goals set forth in this chapter are supplementary to those set forth
6 in existing authorizations of all branches of government of this state, including
7 state agencies, municipal and public corporations, and counties. Any
8 governmental action may be conditioned or denied pursuant to this chapter:
9 PROVIDED, That such conditions or denials shall be based upon policies
10 identified by the appropriate governmental authority and incorporated into
11 regulations, plans, or codes which are formally designated by the agency (or
12 appropriate legislative body, in the case of local government) as possible bases for
13 the exercise of authority pursuant to this chapter. Such designation shall occur at
14 the time specified by RCW 43.21C.120.

15 RCW 43.21C.060 (emphasis supplied).

16 Washington court decisions have expressly authorized agencies to deny development
17 proposals, even those otherwise permissible under existing laws, through the application of
18 substantive SEPA authority. See e.g. *Polygon v. City of Seattle*, 90 Wn.2d 59, 65, 578 P.2d 1309
19 (1978) and *Dept. of Natural Resources v. Thurston County*, 92 Wn.2d 656, 63-67, 601 P.2d 494
20 (1979) (proposed plat denial on basis of adverse impacts on eagle habitat upheld).

21 As described above, the application of substantive SEPA authority in RCW 43.21C.060
22 specifies that an agency adopt policies for exercise of such authority. This authority is also
23 included in the SEPA Rules at WAC 197-11-660 requiring that mitigation or denial of proposals
24 under SEPA shall be “based on policies, plans, rules or regulations formally designated by the
25 agency” as a basis for such action.

EFSEC has adopted policies for exercise of its SEPA substantive authority in WAC 463-
47-110. These policies make very clear that: “The overriding policy of the council is to avoid or
mitigate adverse environmental impacts which may result from the council's decisions.”

1 (Emphasis supplied.) Another policy clearly relevant to these proceedings is the policy that the
2 Council will: “Assure for all people of Washington safe, healthful, productive, and aesthetically
3 and culturally pleasing surroundings; . .” (Emphasis supplied). Subsection 1(b)(iv) emphasizes
4 the need for a “balance” i.e. that the Council will “Achieve a balance between population and
5 resource use which will permit high standards of living and a wide sharing of life's amenities; . .
6 .” (Emphasis supplied.) Further, the Council has very carefully determined in its policies that
7 environmental values have an equal place with economic and technical considerations:
8

9 (d) The council shall ensure that presently unquantified environmental amenities
10 and values will be given appropriate consideration in decision making along with
11 economic and technical considerations.

12 As is clear from both EFSEC’s organic legislation and SEPA, this Council's decision
13 requires a balance between the merit and value of the WR proposal and its adverse impacts.

14 **5.3 Council Decisions Affirm Balancing of Energy Need v. Public interest and 15 Environmental Protection.**

16 RCW 80.50.010 calls in part for “balanc[ing] the increasing demands for energy facility
17 location and operation in conjunction with the broad interests of the public,” and provides a list
18 of factors for ensuring such a balance. The Council has consistently and repeatedly interpreted
19 RCW 80.50.010 as requiring the agency to review each proposed project and determine, among
20 other things, whether the potential impacts (*e.g.*, environmental harm) outweigh the potential
21 benefits (*e.g.*, providing energy at reasonable cost). *See* Council Orders 754 at 12 (Feb. 16,
22 2001), 757 at 8 (Apr. 20, 2001), and 843 at 2 (Nov. 16, 2009). EFSEC's decisions require the
23 Council to balance a complex array of benefits and costs that include economic, environmental,
24 social, and other factors.

25 Indeed, in its last two adjudications regarding wind turbine projects, this Council has
affirmed its balancing test. Thus in the Kittitas Valley Wind Turbine project, EFSEC Order No.

1 826 (2007), at page 6, the Council stated:

2 The Council has a comprehensive mandate to balance the need for abundant
3 energy at a reasonable cost with the broad interests of the public. EFSEC serves
4 as the state's "one-stop" permitting authority for energy facilities, allowing for the
5 streamlining of the siting process. The Council is also charged to protect the
6 health of citizens and recommend site approval for power plants where minimal
7 adverse effects on the environment can be achieved. RCW 80.50.010; see also
8 Washington Administrative Code (WAC) 463-47-110.

9 (Emphasis supplied). As described above, WAC 463-47-110 is this Council's substantive SEPA
10 authority.

11 Similarly in the Desert Claim decision, EFSEC Order No. 843, at page 8 (2009) the
12 Council affirmed its balancing authority:

13 The Council has a comprehensive mandate to balance the State's need for
14 abundant energy at a reasonable cost with the broad interests of the public. The
15 Council is also charged with protecting the health of citizens and recommending
16 site approval for power facilities where minimal adverse effects on the
17 environment can be achieved.¹⁰

18 In footnote 10, the Council stated that support for this statement was as follows: "RCW
19 80.50.010; WAC 463-47-110," again citing to both its organic legislation and SEPA. Indeed, in
20 its conclusion, the Council confirmed its balancing responsibilities:

21 The Council has carefully considered its statutory duties, applicable
22 administrative rules, and all of the evidence in the record in exercising its duty to
23 balance the state's need for energy at a reasonable cost with the need to protect
24 the environment and the health and safety of the residents of the local area.

25 Order No. 843 at page 24.

In engaging in this review, the applicant has identified several "benefits" arising from the
project. These can be summarized as follows:

1. There is a claim that the proposal will provide benefits to the Skamania County
Public Utility District because of greater power reliability.

2. The Applicant claims that there will be economic benefits to economically depressed

1 Skamania County.

2 3. The applicant claims the project will provide electrical energy: "The Whistling Ridge
3 Energy Project is designed to provide low-cost renewable electric energy to meet the growing
4 needs of the Pacific Northwest." ASC at I-1.

5 4. The Applicant claims that the project will help meet the renewable energy
6 requirements for Washington: "SDS also seeks to provide an additional renewable energy
7 resource for electric utilities in Washington." DEIS at 1-7. Indeed the Applicant claims that:

8
9 The site's potential ability to produce clean electricity so close to urban load, with
10 ready access to transmission and minimal impacts to the natural environment,
11 make it one of the premier as-yet undeveloped wind power sites in the Pacific
12 Northwest.

11 ASC at I-2.

12
13 In the preceding sections of this brief and in Friends brief, the Intervenors have addressed
14 the adverse environmental consequences of the project. However, as will be seen in the next
15 section of this brief, the proposed project presents little overall value when taking into account
16 the need and value of this project in the contemporaneous power demand and supply situation in
17 the Northwest and the State of Washington.

18 **VI. CLAIMS OF SUBSTANTIAL BENEFITS TO THE SKAMANIA COUNTY**
19 **PUBLIC UTILITY DISTRICT ARE WITHOUT SUBSTANCE.**

20 The Skamania County Public Utility District (SCPUD) has intervened in this matter and
21 claimed benefits to its electric and water systems from the WR proposal, offering testimony of its
22 manager, Robert Wittenberg. However, most of the issues raised by SCPUD are unrelated to the
23 WR proposal and seem to have been generated by the applicant.

24 **6.1 Electric Systems.**

25 SCPUD claims that the WR project will enhance reliability of its electric system.

However, as shown by Exhibits 43.03c and 43.04c, SCPUD is a "preference" customer of BPA

1 and draws all of its power from the BPA with delivery of such power over BPA transmission
2 lines. Tr. 1163-64. SCPUD has no separate generation facilities itself and does not intend to
3 purchase any power from the WR project. Tr. 1173. SCPUD did not call any BPA witness to
4 verify its concerns. As discussed below at Section 8.7 of the brief, it is in fact unlikely that any
5 power from the WR project will even be used in the State of Washington, much less Skamania
6 County, because of the higher prices paid by California utilities.

7
8 The SCPUD manager, Robert Wittenberg, expressed concern about the reliability of
9 certain lines that feed into the SCPUD system because of power outages. However, these lines
10 are owned and operated by BPA and BPA does not have any plans to upgrade those lines. Tr. .
11 1164. On cross-examination, Mr. Wittenberg was asked how many outages have occurred since
12 he became manager in 2001. He had no documentation of any kind, and could only remember
13 three or four outages that lasted more than a couple of hours. Tr. 1165. The only outage that
14 lasted longer was in 2004 or 2005 (the witness could not give details) and that outage lasted less
15 than 12 hours. Tr. 1166. The cause of that outage was a tree falling over the BPA 115 kv
16 transmission line. *Id.*

17
18 Mr. Wittenberg expressed concerned that land movements or slides might impact the
19 BPA line into the county from Bonneville dam. However, he testified there had been no outages
20 due to land movement during his 10 years at the PUD. Tr. 1166.

21
22 Mr. Wittenberg also identified concerns relating to the removal of Condit Dam, to the
23 east in Klickitat County. However, the PUD has never contracted with Condit's owner,
24 Pacificorp, to buy power from that facility. Tr. 1170. Moreover, the PUD never opposed the
25 removal of the dam and never asked for special considerations when the Condit removal was
before the Federal Energy Regulatory Commission (FERC). *Id.* SCPUD did not offer any
reports or testimony from anyone concerning Condit.

1 Professor Michaels also addresses Mr. Wittenberg's claims in his rebuttal testimony at
2 Ex. 30.19r at pages 14-16. He notes that SCPUD's concern about Condit Dam appears to be
3 recent, as no evidence exists that Mr. Wittenberg, or the PUD, was concerned about the issues
4 raised now when removal of the dam came before FERC. Nor did either Skamania County or
5 Klickitat County raise electric reliability in their filings with FERC on Condit. See Ex. 30.20r.
6 In fact, Mr. Wittenberg was not able to even say if power to the PUD came from Condit at all,
7 because all its power is supply by BPA. Tr. 1167.
8

9 In a curious twist, Mr. Wittenberg's testimony states that:

10 Pacific Corp has plans for new generation on the Elwah River to supplant the loss
11 of the power formerly generated at Condit Dam. Generation on the Elwah is not
12 connected to the system on which SCPUD relies for back-up power from Condit
Dam.

13 Ex. 43.00 at pages 3-4 (Wittenberg testimony). In fact, this part of the testimony was not written
14 by Mr. Wittenberg at all, but by Erin Anderson, a lawyer from the applicant's law firm, Stoel
15 Rives. Tr. 1158. Mr. Wittenberg knew nothing about what Ms. Anderson was saying; he
16 testified that: "I'm not sure what she's talking about there." Tr. 1173. Indeed, the Council can
17 take judicial notice that the two dams on the Elwah (Glines Canyon and Elwah) are being
18 removed, that no new dams are proposed at that location and that the dams are not, nor ever
19 were, owned by Pacificcorp.
20

21 In fact, the concerns about electrical reliability have nothing to do with the WR wind
22 turbine project at all.

23 6.2 Water Systems.

24 SCPUD also operates water systems in Skamania County. Mr. Wittenberg posits that
25 interruptions in power will affect these water supplies. There is little substance to such claims.

To begin with, there is no identified history of frequent or severe power outages in

1 Skamania County, though its distribution lines are in a forested terrain. See the discussion in
2 Section 6.1 above. Wittenberg expresses concern about landslides and soil movement but
3 presents no geologic or engineering studies, nor evidence of any such incidents. Tr. 1175-76. He
4 has brought those concerns to the attention of BPA, who actually owns the lines, but they seem
5 to consider the lines adequate. *Id.* SCPUD failed to call any BPA witnesses to support his
6 position.

7
8 As to water supply, Mr. Wittenberg expresses concern that electric water pumps might be
9 affected by a loss of electric service. But because the PUD has large tanks, water service could
10 be provided for two full days if the power to the pumps went out. Tr. 1178. In addition, Mr.
11 Wittenberg admits that gas or diesel generators could provide temporary service if the BPA lines
12 went out. Tr. 1179-80. Despite his concerns at the hearing, there is little movement by the
13 SCPUD to address the supposed "problem." Wittenberg estimates the cost at \$43,000 per
14 generator for a 300-gallon-per-minute model to provide emergency pumping. Tr. 1180. In fact,
15 as Mr. Wittenberg stated, many generators could be purchased for the cost of a transformer and
16 tap to the proposed WR substation:
17

18 Q. The question was can't you buy a very large number of generators for the cost
19 that it would take to put in a new transformer and then tap into the 115 kV line at
20 the proposed facility substation?

21 A. Certainly you could buy a lot of generators for the same amount of money, yes.

22 Tr. 1181. While Mr. Wittenberg makes claims that interruptions to water service are of
23 significant public concern, no generators have been purchased and the purchase of generators is
24 not even out of the planning stage.

25 6.3. Summary.

Concerns about impacts to the SCPUD's electric and water systems are not substantiated.

There is no record of outages presented and Mr. Wittenberg can only remember three or four

1 outages over his ten years at the PUD. In any event, all the transmission lines at issue are owned
2 by the BPA and they are apparently satisfied with the reliability of service provided by their
3 lines. The SCPUD's large water tanks can ensure provision of water for a longer time than any
4 reported outage. In any event, if these were serious concerns, the PUD could install generators at
5 much less cost than tapping into the BPA line.

6 **VII. ECONOMIC BENEFITS FROM THE PROJECT WILL BE MINOR.**

7 The applicant claims that there are significant economic benefits from the construction
8 and operation of the WR proposal which apparently justify its approval. However, even a
9 passing review of the applicant's claims show them as unsupported and exaggerated.

10 For analysis purposes SOSA's response is in two parts. First, the analytic basis for the
11 claims of the applicant regarding economic benefit are discussed. In this section, it is concluded
12 that economic benefits are significantly inflated and that in the final outcome, the long term
13 benefits of the project are very small, particularly in comparison with other clean energy
14 alternatives. Second, the claims that Skamania County is in desperate financial circumstances
15 appear to lack support. While the current recession has affected many communities, objective
16 data shows that Skamania County is not in the dire circumstances claimed.

17 **7.1 Claims of Significant Economic Benefit from the WR Project are** 18 **Significantly Overstated.**

19 The "analytic" basis for the economic benefits comes from the "Hovee" study prepared
20 for the Skamania County Economic Development Council found at Ex. 41.02. Other testifying
21 witnesses provide no actual data or economic studies, but rather rely on opinions and anecdotal
22 observations.
23 observations.

24 Professor Michaels addresses the Hovee study at pages 3-11 of his rebuttal testimony
25

1 (Ex. 30.19r).⁸ He points out that the economic model that Hovee uses has a predetermined
2 result, which automatically shows a gain from any project. See pages 5-6. As Professor
3 Michaels notes at page 6, Hovee assumes that every dollar spent by a WR construction worker in
4 Skamania County should count as local benefit. However, Professor Michaels notes that the
5 correct measure of gain is valued added, which is calculated after subtracting the cost of goods
6 and services provided. As Professor Michaels notes, this exaggeration results in 1000 percent
7 higher benefit than is justified.

8
9 Even without these model and analytic errors, Hovee makes three fundamental errors in
10 his quest to exaggerate the benefits of the WR project.

11 First, Mr. Hovee says that fully 10 percent of the total construction payroll will be spent
12 in Skamania County. However, Mr. Hovee appears to have not accounted for the fact that 65 to
13 75% of the construction workers will commute daily to the site from Portland and Vancouver,
14 where most of their income will be spent. Nor does he account for the fact that many workers
15 may come from Hood River County, just across the river. See Professor Michaels testimony, Ex.
16 30.19r at page 8. For that matter, much income earned in Skamania County is spent in the Hood
17 River community, an attractive location for spending since there is no state sales tax.

18
19 Second, Mr. Hovee greatly exaggerates the wages paid to construction workers. He
20 estimates that there will be an average of 143 full and part time jobs during the one year
21 construction period and estimates the annual wage will be \$125,900 per worker, or weekly
22 earnings of \$2517 for a full time worker. See Ex. 30.19r at 9. However, as Professor Michaels
23 points out, according to the monthly statistical publication of the U.S. Department of Labor
24 national average construction wage in September, 2010 was \$905.58/week. Ex. 30.19r at 9-10.
25

⁸ Professor Michaels' resume is found at Ex. 30.01.

1 There is no accounting for Mr. Hovee's use of construction wages that are 177 percent above the
2 national average. In addition, the Skamania County Economic Development Council (SCEDC)
3 has provided estimates for wages for construction workers in Skamania County for 2005. See
4 Ex. 42.02c. The SCEDC indicates that the average yearly wage for such workers is only
5 \$21,987, less than 20 percent of the figure Hovee used. *Id.*

6 In summary, Mr. Hovee's figures for construction wages are wildly exaggerated and not
7 consistent with either federal or local wage rates.

8
9 Third, Mr. Hovee assumes that all the money spent by construction workers will result in
10 induced increases in local employment, as Professor Michaels explains in his rebuttal testimony
11 at page 10 (Ex. 30.19r). Hovee estimates that this will result in 27 newly hired people who will
12 earn \$3.4 million of additional household income. This means each worker in Skamania County
13 would earn an average of \$125,900 per year. Once again, these figures are exaggerated. U.S.
14 Labor statistics show that if these workers are in retail, e.g. an employee at a store or gas station,
15 their average wage is only \$41,742 per year, which is only 33 percent of the number Hovee uses.
16 Ex. 30.19r at 10-11. Again, local statistics kept by the Skamania County Economic
17 Development Counsel show that in 2005, workers in wholesale and retail trades made only
18 \$18,786 per year and those in accommodations and food service made even less at \$17,958. Ex.
19 42.02c. These figures are only about 15 percent of what Mr. Hovee projects.

20
21 In all areas, Mr. Hovee's figures are gross overstatements.

22 In addition, there are various claims, mostly that Skamania County needs the WR project
23 because of the operational employment that is generated. However, at 8-10 new employees, the
24 actual number of permanent jobs is very small.

25
If Skamania County is serious about permanent employment, the County would be far
better off encouraging green employment in jobs that are "Increasing Energy Efficiency," which

1 are more numerous than jobs “Producing Renewable Energy.” See Ex. 34.04. According to Mr.
2 Schwartz, the Commerce witness, the jobs in “Increasing Energy Efficiency” are more
3 permanent than the construction jobs of short duration in producing renewable projects. Tr.
4 1293-94. These would be the people that would facilitate conservation efforts to allow
5 conservation of energy to achieve 85 percent of the new load predicted for the next 20 years by
6 the NWPCC in its 6th Plan, to be discussed below. See Tr. 1294-95. As Professor Michaels
7 points out, the funds devoted to producing renewables are capital, non-labor-intensive and
8 available funds are better spent in producing substantial amounts of new, permanent
9 employment, not temporary construction jobs. See Ex. 30.19r at page 13.

11 In summary, not only are the Hovee methods of analysis biased toward demonstrating
12 positive benefits, he uses wildly inflated incomes, not supported by national or Skamania County
13 income data.

14 **7.2 Objective Data Indicates Skamania County is Not in the Dire Circumstances**
15 **Claimed.**

16 There is also substantial question as to whether economic conditions in Skamania County
17 are as dire as stated. WAC 463-60-535 requires a determination of the socioeconomic impact of
18 the project. This regulation requires that: “The analysis shall use the most recent data as
19 published by the U.S. Census or state of Washington sources.” The information must include
20 data about population and growth rates for the study area, average and per capita household
21 incomes and average wages paid to construction and operational workers. *Id.*

23 Ex. 42.03c is the official U.S. Census figures for Skamania County comparing economic
24 and population conditions in 2000 with 2009. In most areas, this data shows substantial growth
25 in Skamania County. For example, population between 2000 and 2009 grew by 10.4 percent.

Home ownership in Skamania County in 2009 was 73.8 percent, well above the statewide

1 average of 64.6 percent. Median household income was \$51,331. Private non-farm employment
2 in Skamania County increased 35.6 percent from 2000 to 2009, well above the statewide average
3 of 10.3 percent. Retail sales per capita were well below the statewide average, due no doubt to
4 the easy access across the Columbia River to Oregon, with no sales tax, a disparity WR will not
5 solve. Though Klickitat County is touted as being saved by its wind turbine industry, in all areas
6 mentioned above Klickitat County fares worse than Skamania County, especially in median
7 household income which is only \$40,953 (compared to \$51,331 in Skamania County).
8

9 These unbiased statistics demonstrate that Skamania County is not in the dire economic
10 position claimed by project proponents.

11 **7.3 Conclusions.**

12 The attempt to make a case for significant economic benefits for Skamania County from
13 the WR project fails, as Professor Michaels explains in his rebuttal testimony at Ex. 30.19r, page
14 25. The failures are in three areas:

15 First, though there are some construction jobs created by installing the turbines (mostly
16 from out-of-county workers), the long term employment from the project is minimal.
17 Employment in energy efficiency and conservation creates far more long term, permanent
18 employment than putting up wind turbines.
19

20 Second, the techniques for evaluation of economic benefit are deliberately skewed to
21 show positive benefit. Further, the Hovee study greatly exaggerates wages in all areas, leading
22 to overstated benefits.
23

24 Third, Skamania County is painted as an area of extreme economic decline. However,
25 objective figures from the U.S. Census Bureau do not support such claims.

These modest economic benefits do not support approval of the WR project.

1 **VIII. THE WR PROJECT IS OF LOW VALUE IN THE CONTEXT OF CURRENT**
2 **PACIFIC NORTHWEST POWER NEEDS.**

3 **8.1. Introduction.**

4 In this section of its brief, SOSA will demonstrate that the WR project is a low value
5 project, not necessary to meet the basic needs of Pacific Northwest electric power users nor the
6 standards of I-937. Testimony in this regard is provided by Professor Robert Michaels, a
7 recognized national expert on the electrical industry. Professor Michaels has provided his
8 resume at Ex. 30.01, describing in detail his distinguished career in academia, both in teaching
9 and in writing more than 200 articles for peer-review economic journals. See further detail at
10 Ex. 30.00, pages 1-3. He has also advised private businesses as well as consulting with
11 governmental, technical, and regulatory bodies on electric power systems.
12

13 In the balancing equation, the fundamental aspect of this project is its power output. The
14 Applicant claims that WR is "one of the premier as-yet undeveloped wind power sites in the
15 Pacific Northwest." Application at I-1. In investigating this claim, the Intervenor and Council
16 have run into an immediate review roadblock: the applicant refuses to disclose any information
17 about the projected power output of the site. In fact, WRE has refused to disclose any factual
18 information about the site as a location for wind generation. It will not provide any
19 meteorological data, wind speed information or information regarding potential energy from the
20 site. Though happy to tout the generalized merits of the site, the applicant refuses to provide any
21 detail about those merits, refusing to "put its money where its mouth is." It is not as though the
22 data does not exist; WRE does not deny they have years of meteorological data and estimates of
23 how much energy will be produced. However, WRE claims this data is confidential; so
24 confidential that even a protective order from this Council to assure nondisclosure is
25 unacceptable. If this site is so "hot" from a power production standpoint, Intervenor are

1 mystified as to why WRE is not anxious to spread the news. Surely WRE would want
2 prospective power purchasers and utilities to know that WR is the best source available is so they
3 would not waste their time acquiring, or even thinking about acquiring projects, or power in
4 other (second rate) locations, before WR can be permitted.

5 It appears the real reason for the applicant's reluctance in this regard has to do with the
6 fact that WR is not a "premier" site. Despite the hype, available data indicates that the WRE is
7 not the "haute" spot claimed by WRE, but an area with marginal wind resources. High resolution
8 wind speed data available from the National Renewable Energy Laboratory show that estimated
9 wind speed classes in the project area are class 2 (marginal), 3 (fair), and 4 (good). Exs. 24.01,
10 24.09; Tr. 1131-38; see also Public Comment Ex. 345 (additional wind speed maps depicting
11 NREL wind speed estimates in the vicinity of the WRE). The Application made the bold
12 assertion that maps based on the exact same wind speed estimates show wind speeds "within the
13 project area" as class 4 (good), 5 (excellent), and 6 (outstanding). Amended Application at
14 2.1-6; see also Exs.1.08c, 1.09c, and 1.10c. The Application materially misrepresents the wind
15 speed classes within the project area. The class 5 and 6 wind speeds referenced in the application
16 are actually located near the summit of Underwood Mountain, which is not within the Project
17 boundary, but in the National Scenic Area. Exs. 24.01, 24.09; Tr. 1135, lines 14-25; see also
18 Public Comment Ex. 345. Underwood Mountain is about a mile east of the southern part of the
19 site. See ACS Revised Figure 2.1-1.

20 The applicant has posited a rhetorical question: "Why would we waste our time with a
21 marginal site?" That answer is simple: there are significant subsidies that change the economics
22 of wind projects. As Professor Michaels explains, there are investment tax credits, including
23 rebates that subsidize wind turbine projects. See Ex. 30.01, page 26-27. In addition, special IRS
24 rules allow wind projects a five-year accelerated depreciation schedule such that half a project's
25

1 costs may be deducted within two years, with full recovery in only five years. *Id.* Ex. 30.16
2 shows that wind power has subsidies of about \$24 per MHW, while other forms of energy get \$1
3 to \$2 subsidies. In addition, the mandates of RPS standards in Washington, Oregon and
4 California create a private, forced market for wind energy. Ex. 30.01, at page 26-27. Indeed,
5 Mr. Usibelli, the witness from the Washington State Department of Commerce, admits the
6 influence of subsidies on the economics of projects:

7
8 Q. Would you say that the economics of the project like the Whistling Ridge
Project is heavily influenced by the available investment tax credits?

9 A. I would say this project and many others are heavily influenced by the
10 availability of the investment or the generating tax credits from a variety of
different federal credits, yes.

11 Tr. 1271.

12 Though the merits of this project remain deliberately amorphous, in the succeeding
13 section of this brief, SOSA will demonstrate that this project, in this location, lacks the merit and
14 value to be approved in light of the demonstrable adverse environmental impacts.

15
16 **8.2. As a "Variable Energy Resource," the Output of the WR Project is of Little
Value to Meet Electric Loads.**

17 Professor Michaels provides an excellent summary of how electrical grids work at pages
18 7 to 9 of his testimony. Ex. 30.00.

19
20 As Professor Michaels explains, there are fundamental differences between electric
21 energy and other energy products, like natural gas: electric energy cannot be stored for its later
22 use by putting it into tanks or other depositories. See Ex. 30.00, pages 11-12. As even the
23 Commerce witness Howard Schwartz admitted, there is no commercially feasible method to
24 store electricity. Tr. 1033. He also explains that managers and operators have the obligation to
25 maintain system reliability, i.e. to assure that if one of the energy sources goes off line for any
reason, reserves are in place and available to make up the loss, literally on an instantaneous

1 basis.

2 However, the greatest limitation of wind energy from a project like WR is the
3 inconvenient truth that wind energy is produced only when the wind blows. Even in the windiest
4 areas, the best that a wind power facility will do is to produce power about 32% of the time,
5 though there are extended periods when the actual output is effectively zero, as will be shown
6 below. Professor Michaels testimony, Ex. 30.00 at page 10.

7 The other problem is that one can never predict when the wind will blow. The wind rises
8 and falls based on weather patterns, but no one can predict when. Perversely, the production of
9 wind energy is inversely related to when consumers most need electricity: wind production is
10 low during periods of high temperatures (when air conditioning demand peaks) or periods of low
11 temperatures (when heating demand peaks). This is admitted by the 6th Northwest Power and
12 Conservation Plan at Ex. 30.15 and Professor Michaels' testimony at Ex. 30.00 at page 23 ("there
13 is an inverse relationship between wind generation and extreme temperatures, both in winter and
14 summer."). This is a particular problem because the 6th Northwest Power Plan anticipates a
15 "summer capacity problem before a winter-capacity problem." Ex. 30.15 at page 14-8. The
16 term "capacity" as used herein, is defined in the 6th Plan: "Capacity refers to the ability to
17 produce energy during peak demand hours." Ex. 30.04 at page 1-11.

18 Another ornery problem is that when the wind stops blowing, and no wind energy is
19 produced, that condition can last for many days. Thus the 6th Northwest Power Plan shows that
20 during a recent winter cold spell wind energy production went to essentially zero for almost two
21 weeks when the load was the highest. Ex. 30.15.

22 Adding another perverse twist is that the wind might blow when energy is not needed at
23 all. For example, in June, 2010, there was a combination of high runoff (producing a great
24 amount of hydro power) and minimal load demand. See Ex. 30.12. But at the time the wind was
25

1 blowing like mad. See Ex. 30.12 at page 6. As described at Section 8.6 of the brief, there was
2 nothing to do with wind energy produced during such periods except give it away.

3 Just as there is no ability to determine how much wind will blow next week, there is also
4 no way to guess how much the wind will blow next year. As Ex. 30.14 (prepared by BPA)
5 indicates, average wind generation dropped between the winter of 2008-09, with 403 average
6 megawatt wind generation, and 2009-10 with 286 average megawatt wind generation. Over the
7 same period, however, installed wind generation capacity went from 1695 MW to 2692 MW.¹
8 BPA summarizes the data succinctly: "Winter 09/10 saw considerably less wind generation than
9 winter 08/09, despite substantially more capacity." *Id.* The message is clear: you can't trust
10 Mother Nature when it comes to providing electricity from wind turbines.
11

12 Thus wind is referenced as a "variable energy resource" or "VER". As such, no utilities
13 count on wind energy to any significant degree to meet consumer needs. In the Northwest, the
14 Resource Capacity Forum "has adopted a provisional peak contribution for wind of 5 percent of
15 installed capacity." Ex. 30.04 at 1-11. Texas, which has the highest installed capacity of wind
16 energy in the U.S., has an organization called Electricity Reliability Council of Texas (ERCOT),
17 which, as of 2005, "had tentatively assigned wind power a capacity factor of 2 percent, although
18 wind's average capacity factor in its territory was 16.8 percent." Professor Michaels testimony,
19 Ex. 30.00 at 11. As Professor Michaels summarizes:
20

21 A nominal megawatt of wind capacity (i.e. the "nameplate" rating of a plant) is
22 thus the equivalent for planning purposes of 2 percent of a readily and constantly
23 available megawatt of conventional capacity. The implication is clear: a system
24 dependent on wind must also invest in dispatchable generation equal to a
significant fraction of that capacity.

25 ¹These figures also demonstrate another anomaly with wind generation. Though claims are made that capacity factors for wind generation in the Northwest are in the vicinity of 32%, for the period shown in this diagram the winter of 08/09 only had a 25% capacity factor and the winter of 09/10 had only an 11% capacity factor for these three critical months.

1 *Id.* (emphasis supplied).

2 Of course, it is impossible to critically analyze the merit of the WR project because the
3 applicant has refused to provide any documentation of the value of the site, relying instead on
4 undocumented puffery about how valuable the site is.
5

6 In summary, wind power, because of its daily, monthly and yearly variation, is a low
7 value resource to meet electric loads.

8 **8.3 There is a Glut of Wind Power.**

9 As noted above, wind turbine projects have become very popular. This is because of two
10 economic factors, unrelated to need: 1) the existence of tax breaks, federal rebates and IRS
11 accelerated depreciation and 2) a guaranteed market set by RPS standards.
12

13 As a result of these incentives, there has been a virtual explosion of wind energy in the
14 Northwest. Installed wind turbine capacity has risen from less than 500 MW in early 2005 to
15 3011 MW in late 2010. Ex. 30.18. Ex. 30.08, prepared under Professor Michaels' direction,
16 tracks Oregon and Washington wind development. It charts projects that are either Operating,
17 Under Construction or which have been Approved for construction. These three categories of
18 wind projects will be referenced herein as "OUA" Projects (Operating, Under Construction and
19 Approved). In Washington, the OUA projects total 4868.9 MW, with the like Oregon OUA
20 projects at 4201 MW: the result is a total of 9069 MW of wind capacity. Ex. 30.08. Added to this
21 number is another set of proposed wind projects of which there are 2727 MW in Washington
22 (602 in the permitting process²) and 5365 MW in Oregon (2517.5 in the permitting process). If
23 all of these projects were built there would be 17,161.9 MW of wind power in Washington and
24
25

²This number includes the WR project, the subject of this proceeding.

1 Oregon (not counting projects which have yet to be announced). By way of comparison, in
2 2011, the average firm load in the Pacific Northwest is 22,512 MW with 26,418 of electric
3 resources of all types to meet that load. See Professor Michaels testimony at Ex. 30.00 at page
4 17 and at Ex. 30.07.

5 It is significant that of the total of Washington OUA projects, only three were
6 controversial enough to come before EFSEC (Desert Claim, Kittitas Valley and Wild Horse, all
7 in Kittitas County). The implication is clear, most projects are not controversial and are
8 approved at the local level without the need to invoke EFSEC jurisdiction.
9

10 BPA, who runs the Federal Columbia River Transmission System (FCRTS) wheels or
11 transmits most of the wind energy. It has also recognized both the explosion of wind energy and
12 the now undisputed fact that wind generating capacity is being developed far in advance of
13 regional power demand:

14 In the past few years, there has been remarkable growth in wind power projects
15 interconnecting to BPA's transmission grid, driven by renewable portfolio
16 standards in Washington and Oregon and increasingly by California's 33 percent
17 renewable portfolio standard. As a result, generating capacity is being developed
in the Northwest far in advance of regional power demand.

18 BPA Columbia River High-Water Operation, Ex. 30.12 at page 1 (emphasis supplied). BPA has
19 also stated that: "The Pacific Northwest currently has a healthy reserve margin of energy,"
20 Post-Workshop Comments of the Bonneville Power Administration, May 12, 2010, Ex. 30.09,
21 page 9. Keep in mind that these references are based on only 2800 MW of wind already in full
22 operation on the federal system, not 9069 MW in OUA projects.

23 Commerce witness Schwartz essentially agreed with the fact that there is more generation
24 than need, and that such condition will likely continue for years:
25

Q. But my question to you is, aren't we at this present time finding that the growth
of wind energy in the Northwest is exceeding load growth in the Northwest?

A. Yes.

1 Q. Okay. And how long is that expected to continue?

2 A. Well, depends on when load growth resumes. And because of the recession
3 loads have decreased. They're expected to resume again. And it depends on, you
4 know, on how fast loads resume. But I would think -- it also depends on what the
5 pace of conservation is. But we expect that because of the addition of various
6 generation resources, including wind, that we'll have more power than need for
7 sometime.

8 Q. Sometime being ten years?

9 A. Probably.

10 Tr. 1043-44 (Emphasis supplied).

11 As is seen, the rapid development of wind generation, with development spurred by RPS
12 and federal rates, tax incentives and accelerated depreciation has far outstripped the need for
13 power.

14 **8.4 The Northwest is Meeting Its Long Terms Energy Needs, with Significant 15 Reliance on Conservation.**

16 As noted above, BPA and others have clearly identified that the development of wind
17 energy has far exceeded the load growth for the Northwest. This is also confirmed by the
18 Northwest Power and Conservation Council (NWPPC).

19 The NWPPC was formed by the Pacific Northwest Electric Power Planning and
20 Conservation Act of 1980 (the Act) for the four Northwest states, Washington, Oregon, Idaho
21 and Montana. See Ex. 30.04, page 1. The Act requires that the NWPPC produce a power plan
22 for the region each five years. Professor Michaels describes the actions and activities of the
23 NWPPC at pages 16-19 of his testimony (Ex. 30.00).

24 The NWPPC has recently (2010) produced its 6th Northwest Conservation and Electric
25 Power Plan ("the 6th Plan"). As Professor Michaels describes, the major element of the 6th Plan,
as well as previous plans, has been to achieve energy savings in the Northwest through
conservation and energy efficiency. To this end, the prior NWPPC plans have been successful:
regional demand per capita in the Pacific Northwest "stopped growing after 1980 while the

1 nation's continue to grow." Ex. 30.04 at page 1-9. Thus conservation is a major resource
2 meeting the Northwest's electric power needs. Ex. 30.04 at page 1-11.

3 The 6th Plan estimates that approximately 85% of new electrical demand will be met by
4 conservation and energy efficiency:

5 When new cost-effective conservation is subtracted, the need for additional generation
6 will be quite small compared to past experience.

7 6th Plan, Ex. 30.04 at page 3-2.

8 The exception noted to the foregoing is that "summer supply needs will continue to grow
9 as summer-peak demand continues to grow." *Id.* Thus the 6th Plan concludes that:

10 There is likely to be an increased need for resources that can provide reliable
11 capacity to meet high load conditions and that can operate flexibly to
12 accommodate variable but non-CO2 emitting, wind energy.

13 Thus the "hole," if there is one in the 6th Plan's predictions, is with summer peaking demand.

14 However, as is apparent, wind power cannot be counted on to meet summer peak because no one
15 know if the wind will blow (and in fact, as noted above, the wind is less likely to blow during
16 these hot spells).

17 Based on the foregoing, utilities are now searching out baseload renewable resources
18 instead of VERs like wind. Thus as shown in Ex. 30.03, Seattle City Light (SCL) is now seeking
19 baseload renewable energy, not variable renewable energy like wind turbines.

20
21 As is seen, the overwhelming evidence is that wind energy is being developed "far in
22 advance" of current load over the short term. Over the longer term, conservation is seen as the
23 solution by the 6th Plan as to further power needs with little reliance on new generation sources.

24 The shortfall in the 6th Plan's predictions comes for summer peaking in the later part of the
25 forecast period, a deficit that new wind power (such as from the WR project) will not help.

There is no present need shown for VER such as the WR project.

1 **8.5. The WR Project is Not Needed to Meet I-937 Requirements.**

2 As seen from the foregoing, there is currently a glut of wind energy in the Northwest.
3 Wind generation, spurred by subsidies and captive markets created by the RPS, is being
4 developed "far in advance" of Pacific Northwest needs. On the long term, about 85 percent of
5 new electric demand will be met by conservation, and any shortfall will not be helped by the 75
6 MW capacity of the WR project.

7 It will undoubtedly be argued that no matter all this, there is still the need to comply with
8 I-937. But here again, I-937 requirements will be fully met by the OUA projects discussed
9 above and set forth in Ex. 30.08.⁹

10 This was the subject of testimony at the hearing from Commerce Witness Tony Usibelli,
11 the Director of the Washington State Energy Office. He stated the amount of wind energy that
12 would be required to meet the State of Washington I-937 requirements:
13

14 The renewable resources required by I-937 are not small; on the order of 933
15 average Megawatts (MWa) within five years, and 1,686 MWa within ten years.
16 See again, Exhibit 34.02. If utilities were to meet only 70% of their targets with
17 wind, this would translate into approximately 650 MWa of wind energy and
18 approximately 1,180 MWa within five and ten years respectively. Because utility
19 scale wind resources generally operate between 28 and 32 percent of their fully
20 rated capacity, actual installed turbine capacity would be much greater.
Conservatively (assuming 32 percent capacity) wind capacity of approximately
2,000 MW five years out rising to approximately 3,600 MW in ten years would be
required to meet the standard.

21 Ex. 34.00, page 6 (emphasis supplied). These conclusions were confirmed in his testimony:

22 Q. So then the next sentence says that conservatively wind capacity of
23 approximately 3,600 megawatts in ten years would be required to meet the RPS
24 standards; is that correct?

24 A. That is correct.

25 Tr. 1285. This is again confirmed by later testimony:

⁹ As Professor Michaels explains at page 23-24 of his testimony, Ex. 30.00, Oregon also appears to be on its way to meet its RPS requirements.

1 Q. So if we've got 3,600 megawatts of installed wind capacity in the state of
2 Washington then most likely we're going to be good for 937. Correct?

3 A. That could very well be the case, that's correct, presuming that all those
4 resources are designed to serve the loads in the state of Washington.

5 *Id.* Further, RCW 19.285.020 (I-937) requires new renewable energy projects to be appropriately
6 sited;" as explained herein, the multiple adverse impacts of the WR proposal demonstrate it does
7 not meet this standard.

8 Thus renewable generation needs are in fact being met in the State of Washington. Some
9 utilities are not even using the renewable resources they own: PSE is selling its recently
10 constructed wind generation to California. Tr. 1281-82.

11 In fact, the record indicates that PSE is the largest Washington utility subject to I-937.
12 Tr. 1027. PSE was originally interested in this project. See Spadaro testimony at Tr. 92. PSE
13 even filed a "Transmission Service Request" ("TSR") with BPA to reserve transmission capacity
14 for this project (then called "Saddleback"). Ex. 1.07 (formerly Ex. 29.04) and Tr. 92. The
15 purpose of the TSR is to determine whether there is "sufficient available transfer capability to
16 grant the requested service." *Id.*

17 At that time, PSE was in negotiations with WR to acquire some interest in the project
18 (Tr. 92). However, PSE has since backed away from the project. As the President of WRE, Mr.
19 Spadaro, stated at the hearing:

20 Q. And so Puget Sound Energy has dropped out of any interest in this project; is
21 that correct?

22 A. Again, I would limit my response to stating what I stated earlier; that at the
23 present time Puget Sound Energy does not have any interest in this project.

24 Tr. 92 (emphasis supplied).

25 The explosion of wind energy development in Washington alone is sufficient to meet I-
937 requirements for 2020, such that the utility with the largest need for renewable energy, PSE,

1 is not even interested in the small WR project.

2 **8.6. The Glut of Wind Power is Creating Serious Problems Integrating Wind**
3 **Energy into the Grid, Ironically Leading to the Need to Balance New Wind**
4 **Generation with Fossil Fuel Plants.**

5 As noted above, SOSA has demonstrated that a facility like WR is not needed to meet
6 anticipated loads for the planning period and is not necessary to meet the standards of I-937.
7 These conclusions relate to two significant ironies. First, the major problems in the Pacific
8 Northwest electric industry in 2011 are not because of shortages, but because of too much
9 electric power, euphemistically called "excess energy events", caused by the glut of wind energy.
10 Second, the management of wind energy, a "green" energy product without greenhouse gas
11 emissions (GHG), is going to require fossil fuel burning generation facilities to balance loads,
12 which will also result in additional project costs and creation of greenhouse gases.

13 As a VER, wind generation only occurs when the wind is blowing, which is mostly
14 random, though there is an inverse correlation between wind production and high and low
15 temperatures. However, the electric grid, in this case the FCRTS (operated by BPA), must be
16 ready to take the wind generation when the wind blows, or conversely to find some other
17 generation source when the wind stops. The WR project proposes to connect to the FCRTS by
18 way of a substation to be constructed on the site. Currently, under the Open Tariff system, BPA
19 is obligated to take the power that a wind generator proposes to feed into the grid.
20

21 Depending on load, when wind generation peaks, it may be necessary to cut back other
22 resources, such as hydro or thermal projects. Conversely, when the wind drops, there must be
23 other electrical generation sources brought on line to make up for the drop in wind resources. As
24 Professor Michaels points out, there must be a balance between electric generation and load
25 every second of every day:

To ensure reliability the system operator must ensure that power going into the

1 grid exactly equal the amount that consumers want to use. Supply and demand
2 must match exactly at every instant, power travels at the speed of light, and a
mismatch for less than a second can trigger a regionwide blackout.

3 Ex. 30.00 at page 7. This is confirmed by BPA in Ex. 35.06 at page 5 (offered by Commerce's
4 witness Schwartz):

5 Electric power systems must perfectly balance generation and load in real time.
6 We must dispatch or curtail other generation in very short time frames when
7 actual wind generation varies from scheduled generation. This type of balancing
is necessary to maintain electric system reliability.

8 This is known as "balancing" the system. Hydro resources, essentially the Columbia/Snake
9 dams, are a good resource for balancing because of the ease with which turbines at those projects
10 can be turned on and off (with important exceptions mentioned below).

11 The hydro dams have easily balanced this fickle wind generation when there were only
12 small amounts of wind fixed on the system. See Professor Michaels testimony at Ex. 30.01 at
13 pages 12-13. However, the explosion of wind projects has stretched the ability of BPA to do
14 this balancing; BPA has stated that:

15 BPA is already carrying close to 2000 MW of balancing capacity to manage variability
16 and uncertainty in our system, most of it for the up and down ramps and forecast errors
17 associate with 2800 MW of wind on it system. With another doubling of the wind on the
18 BPA system, BPA will exceed the ability of its existing hydro assets to manage the total
19 variability or uncertainty of the wind fleet. Moreover, the BPA balancing authority has a
20 minimum load of 4,000 MW in the spring and early summer, placing an absolute
operational limit on the amount of wind energy BPA can absorb within the hour.

21 Post-Workshop Comments of the Bonneville Power Administration to the California Public
22 Utilities Commission, May 12, 2010, page 5, Ex. 30.09. This position is confirmed by
23 Commerce witness Howard Schwartz at the hearing:

24 But it is true that at some point Bonneville will exhaust the capacity of the hydro system
25 to integrate wind and other resources to integrate wind will be needed.

Tr. 1032 (emphasis supplied).

Part of the problem is the speed at which the wind speed increases and thus the wind

1 generation rises. This is graphically shown in the graph at page 4 of Ex. 35.06, BPA's forecast of
2 renewable projects connected to the BPA grid. Indeed, BPA admits that there can be swings of
3 1000 MW in a single hour. *Id.* at 4-5.

4 This limitation is confirmed by technical journals that stress that the current need is for
5 diversification of renewable resources:

6 The results of the analyses in this study have confirmed the hypothesis that the
7 various characteristics of wind, wave, and solar generation will allow a greater
8 combined penetration rate than using only one predominate type of renewable
9 power source. By utilizing an equal mix of wind, solar, and wave power
10 generation, the overall reserve requirements are reduced compared to those for
11 wind alone. Unfortunately, the current portfolio of renewable resources in the
12 Pacific Northwest is almost exclusively composed of wind generation. In the near
13 future, the situation is only expected to grow more severe as more and more wind
14 generation is installed. By diversifying the portfolio, the increasing strain on BAA
15 reserves can be lessened.

16 Ex. 30.11, "Reserve Requirement Impacts of Large-Scale Integration of Wind, Solar, and Ocean
17 Wave Power Generation," under "Conclusion".

18 Sure enough, BPA's concerns became reality two weeks after the submission of material
19 to the California PUC. As Ex. 30.12 states, in June, 2010 a combination of high runoff as well as
20 high wind generation created significant problems for BPA. Problems were made worse by the
21 fact that loads were seasonally low. Thus during the high water period of June 1-15, "[b]ecause
22 federal hydropower was generating so far in excess of BPA loads, and wind power and other
23 resources also required transmission, the high water also stressed the transmission grid." Ex.
24 30.12 at page 10. BPA had to "g[i]ve power away even during heavy load hours." *Id.* at 11.
25 During this period the possible expedient of simply spilling water (not running it through the
turbines), was not available because such spill creates high levels of dissolved gas which is
harmful to endangered salmon and steelhead. *Id.* at 4.

Commerce Witness Schwartz confirmed at the hearing that because of the June, 2010

1 circumstances, BPA has announced that they may simply refuse to accept wind generation under
2 certain circumstances, including “environmental redispatch” explained by Mr. Schwartz as
3 follows:

4 A. That Bonneville has proposed that in the case where there is overgeneration in
5 the system and it threatens the fish operation towards the operations of the
6 Columbia River system for fish that Bonneville will redispatch power within its
balancing authority to mitigate the effect of fish operations.

7 Q. And as a practical matter does that mean that Bonneville may refuse to accept
wind generation?

8 A. What the proposal says is that in some cases it might, yes.

9 Q. Okay. And is that a direct response to the problems that BPA had last summer
when there was the overgeneration as a result of high stream flows?

10 A. Yes.

11 Tr. 1042. The overgeneration problem, technically called an “excess energy event” is the
12 continuing subject of review at all levels, including the NWPPC. See Public Comment Ex. 188 at

13 1. In a recent draft paper, the NWPPC stated that “The Northwest is experiencing an increasing
14 surplus of energy generating capability.” *Id.* (emphasis supplied; footnote omitted).

15 The foregoing serves as the backdrop for the second irony. As noted by BPA, there are
16 serious problems with integrating the wind loads onto the system because of the rapid ramps of
17 the wind fleet when the wind rises and falls. Indeed, BPA adopted Dispatcher Standing Order
18 216 in October, 2009, which has:

19 two essential features: when *unscheduled increases* in wind generation and load
20 exhaust the FCRPS’ decremental balancing reserve to ramp Federal generation
21 down, dispatchers send reliability directive via electronic signals to the wind fleet
22 requiring reductions in wind output (feathering) to preserve load and resource
balance with BPA’s balancing authority.

23 Ex. 30.10 at page 13. As everyone admits, the wind “fleet” is now so large that the ability of
24 BPA to turn off and on the federal dams to balance these ramps is fast diminishing. One of the
25 solutions promoted is to make the wind operators find some other resource than the federal dams
to provide the balancing.

1 Commerce witness Schwartz testified about this matter:

2 Q. Okay. And let me ask you a question about the wind energy outputs. Is it likely
3 in the future that wind energy outputs will need to be balanced by other more
4 dispatchable sources of energy such as gas turbines?

5 A. Well, if I can parse that a little bit. Gas turbines are not more dispatchable than
6 hydro necessarily. But it is true that at some point Bonneville will exhaust the
7 capacity of the hydro system to integrate wind and other resources to integrate
8 wind will be needed.

9 Q. And would those most likely be gas turbines or some other fossil fuel burning
10 plant?

11 A. As of now the primary candidate is natural gas. We're seeing the development
12 of a fair amount of biomass plants in Washington which might be able to integrate
13 wind as well.

14 Tr. 1032 (emphasis supplied). Thus the second irony is that "clean" wind turbine projects will
15 have to have their own back up energy, such as gas turbines, which burn fossil fuels and emit
16 greenhouse gases.

17 Perhaps a third irony is that projects like WR continue to be proposed, even in light of
18 very significant surpluses. This irony will be discussed in the next section of this brief.

19 **8.7. Most of the New Wind Generation Coming on Line is Being Sold to
20 California, Not Used in Or Useful to Washington Consumers.**

21 As described above, the Northwest is not only meeting its power supply needs, there is
22 now a generous surplus of energy, so much so that there is a concern about too much electric
23 energy ("excess energy events"). At the same time, goals for I-937 are being nicely met. In this
24 circumstance, why then is the WR project being proposed? The answer is quite simple: the WR
25 output is probably headed for California.

As noted above, the Washington RPS requirement is for each "qualifying" public or
investor-owned utility (a total of 84 percent of state load) to obtain at least 3 percent of their
2012 loads from renewables, 9 percent by 2016, and 15 percent by 2020, and the loads served in
California are much larger than Washington. See Testimony of Professor Michaels, Ex. 30.00 at
page 25-27. However the California RPS requirements are more than double that of the State of

1 Washington at 33% by 2020. *Id.* at 27. In addition, as Professor Michaels testified:

2 California's environmental and electric regulatory regimes have made it very difficult to
3 site new powerplants, even renewables locally, and there have been long delays in the
4 permitting and construction of transmission to wind-rich parts of the state.

5 *Id.* These factors make California utilities a ready market for new renewable energy such as that
6 from the WR project.

7 As a result of these factors, most new wind energy in Washington and Oregon is in fact
8 headed to California, a condition that will continue for many years; as BPA has stated in its
9 report to the California PUC in May, 2010:

10 By the end of the year, BPA estimates that 47 percent of the wind generation capacity
11 connected to our system will be under contract to California utilities. BPA is preparing
12 for the possibility of another doubling of installed wind generation to our balancing
13 authority by 2013 and anticipates that demand from California will be the single largest
14 driver of wind energy growth on our system in the coming years.

15 Ex. 30.09 at page 3 (emphasis supplied). Indeed, BPA has observed that "generating capacity is
16 being developed in the Northwest far in advance of regional power demand." Ex. 30.12 at 1.

17 This is confirmed by Commerce Witness Schwartz, who admitted "More than 50 percent of the
18 most recent build-out of wind is destined to California." Tr. 1044.

19 Of course, wind power sold to California utilities does not assist in meeting Northwest
20 electrical needs or Washington's I-937 requirements;

21 Q. If the output of this project is sold to a California utility will that help meet the State
22 RPS standard?

23 A. It will help meet the California RPS standards.

24 Q. That wasn't my question. My question was whether it's going to meet the state of
25 Washington RPS requirements?

A. No.

Tr. 1049 (Testimony of Howard Schwartz).

The boom in sales of wind power to California is based on a simple economic premise:
the California utilities pay more than Washington utilities for the same energy. The head of the

1 State Energy Office, Tony Usibelli, admitted:

2 They're (Puget Sound Energy) selling to California because California
3 utilities will pay more for their energy than Washington utilities?

4 A. I heard that's the case.

5 Q. I'm sorry. I didn't hear your answer.

6 A. I believe that is correct.

7 Tr. 1282. See also Professor Michaels' explanation of western power markets at pages 25-27 of
8 Ex. 30.00.

9 WRE started out by stating in its application that the power from its project would be
10 consumed in the state of Washington: "The Whistling Ridge Energy Project is designed to
11 provide low cost renewable electric energy to meet the growing needs of the Pacific Northwest."

12 See Application, page I-1 and Jason Spadaro testimony at Tr. 120. However, it is now clear that
13 there are no growing needs for wind energy, but a glut of such energy. During the hearing, Mr.
14 Spadaro backed away from any commitment to serve loads in the state of Washington or in the
15 Northwest. Tr. 120-21. What was clear was that WRE intended to sell the project, or its output,
16 to the highest bidder.

17 Q. So is it fair to say that this project would be sold to the highest bidder?

18 A. It's fair -- Your Honor, Members of the Council, again we have not entered into
19 contracts for the delivery of power. We have not got to the point of securing turbines and
20 even discussing some of those arrangements. There are a number of factors that go into
21 the economic viability of a project. The off-taking agreements and a price for power is a
22 compete consideration. We haven't determined where that best market is. We have yet to
23 do that so I cannot say where it will go.

24 To answer your question will it go to the highest available market, I think that certainly
25 would be one of the considerations. It would all depend. The highest market may also be
26 a greater distance away from the project so the net available price after transmission costs
27 also factors into it. So we will seek to make an economically viable project and I will end
28 it there.

29 Q. And to maximize your investment.

30 A. We wouldn't be doing this if we were not in it to maximize our investment.

31 Tr. 122 (Emphasis supplied). WRE's position was repeated in response to questions by Seattle
32 Aududon's Shawn Cantrell: "It would compromise the project viability to be committed to one

1 destination or another for the power, not only in economic terms but also in marketability terms.”

2 Tr. 160.

3 In summary, most of the new wind generation is being sold to California utilities, whose
4 RPS standards are double that of Washington. This derives from the fact that the Californians
5 will pay more than Washington utilities for this power. As WRE’s president admits, the WR
6 project, or its output, will be sold to the highest bidder, which is likely to be California utilities.

7
8 **8.8. The Contribution of WR to Energy Need is Minor and Many Other
Noncontroversial Sites Are Available If New Wind Energy is Needed.**

9 As described above, currently there is a substantial surplus of power in the Northwest, a
10 condition that is likely to last for many years. RPS standards are also being met by the explosion
11 of wind power. Indeed, in a reversal of conventional wisdom from the 1970s, the biggest
12 problem in the Northwest electrical business is overgeneration.

13
14 Even assuming that the WR power might be useful, despite the surplus of generation, the
15 WR project is an insignificant project in the power supply and demand picture in the Northwest.
16 Right now there are 4868.9 MW of wind projects that are operating, under construction or
17 approved (“OUA”) in the State of Washington. See Ex. 30.08. With another 4201 MW in the
18 same category in Oregon, there are a total of 9069.9 MW of wind projects in this category in the
19 Northwest. In comparison the WR’s 75 MW project³ is but 1.5% of the OUA projects in
20 Washington; in the same comparison with Washington-Oregon OUA projects, the WR project is
21 only .8%. The minor amount of power from the WR project will not, even if there was a
22 demonstrated need for it, solve any Northwest power problems.

23
24 In addition, there is a significant amount of wind generating capacity in the state of
25

³The applicant has refused to release any information about the actual output of the project, instead relying on self-serving characterizations, such as it is a “robust” site.

1 Washington that is not yet utilized. A February 10, 2010 report of the National Renewable
2 Energy Laboratory (NREL) estimated windy land area and wind energy potential for the lower
3 48 states, with windy areas estimated by AWS Truewind. For the State of Washington, it is
4 estimated that 2.12% of the land area of the state meets that gross capacity standard of 30% or
5 greater at heights of 80 meters. For Washington, NREL estimates there is a capability of
6 installing wind energy that totals 18,478.5 MW. Public Comment Ex. 350. At the present time,
7 the OUA projects only utilize only 4868.9 MW or about 26% of the available capacity. See Ex.
8 30.08.
9

10 There is also the illusion that wind turbine projects are consistently controversial and
11 difficult to site. Admittedly, when sensitive environmental issues are apparent in the siting
12 process, a wind turbine project can become problematic; as described in this brief and that of
13 Friends, WR is certainly one of those sites. The Kittitas Valley site was also controversial and
14 lead to a decision by this Council.
15

16 However, of the 31 OUA wind projects shown on Ex. 30.08, only two other projects have
17 come before EFSEC, Desert Claim and Wild Horse. However, in Desert Claim there were no
18 landowner or citizen intervenors. Order 843 at page 9. EFSEC Order 843 approving the project
19 states: "Affected nonparticipating homeowners did not express specific concerns about the
20 effect of nearby turbines on view or aesthetics." *Id.* at page 18. Thus the vast majority of wind
21 projects have been approved at the local level, demonstrating that many projects, especially those
22 in dry land farming areas, have not had significant controversy.
23

24 Indeed there was testimony at the hearing about the largest single wind project in
25 Washington, the Lower Snake River project by PSE. The Director of the State Energy Office
and Commerce witness, Tony Usibelli, noted in his testimony that many wind projects were not
controversial:

1 Is it your observation that many of these wind energy projects have been
approved without substantial controversy?

2 A. There are certainly examples of that. I don't know the percentages, but, yes,
3 there are several significant projects that were approved without major
controversy.

4 Q. How about the Lower Snake River Project by PSE?

5 A. I am not familiar with that having any significant controversy, but I'm not
6 familiar with that project in detail. Certainly in my discussions with Puget Sound
Energy on their development I don't believe they have indicated any major issues
with that project.

7 Q. The Lower Snake River Project is a wind energy project being developed in
Columbia and Garfield counties?

8 A. That is my understanding.

9 TR 1277-78. The Lower Snake Complex of projects referenced by Mr. Usibelli has an installed
10 capacity of 1089 MW as shown on the listing of OUA projects in Ex. 30.08. The Lower Snake
11 Project has 14 times more generation capacity than the 75 MW WR project and will provide 30%
12 of the estimated wind energy required for the 2020 I-937 build out of 3600 MW.

13 In summary, there is considerable wind energy potential in the State of Washington, only
14 about 25% of which has been tapped to date. If indeed new wind generation is needed in the
15 face of increasing electric power surpluses and "excess energy events," the WR project is not a
16 significant addition. Many new wind projects are not controversial, even for projects with much
17 more capacity than WR.
18

19 **8.9 Conclusion.**

20 As demonstrated in this section, the WR project is a low value resource in the Northwest
21 where both electric power and renewable requirements are being met. This evidence may be
22 summarized as follows:
23

24 1. **Unknown Output.** The supposed outputs of the WR project are not confirmed as the
25 applicant has refused to provide any information to support its claims that its proposal is located
at a "premier" site for wind energy.

2. **Not Dependable Source of Power.** The WR project, as a wind turbine project, only

1 creates energy when the wind blows. Accordingly, the WR project cannot be depended upon to
2 meet loads when consumers need power.

3 **3. Wind Power Glut.** There is currently a glut of wind power in the Northwest, spurred
4 on by substantial incentives, from rebates of construction cost to accelerated depreciation. The
5 growth of wind energy far exceeds load growth.

6 **4. Minimal Need for New Generation.** The NWPPC's 6th Power Plan states that the
7 Pacific Northwest is meeting long term energy needs through conservation, with little need for
8 additional generation. Shortfalls are identified in summer peaking needs in the mid 2020s, but
9 cannot be met by a variable energy facility like WR.
10

11 **5. I-937 Met.** Washington's RPS standards for renewable energy identified in I-937 will
12 be met by wind generation already operating, under construction or approved.

13 **6. Problems of "Excess Energy Events."** The glut of wind power is leading to
14 potentially harmful "excess energy events." The problems of integrating wind power into the
15 electric grid are only likely to become worse. It is likely that new wind power will have to
16 provide its own balancing, likely through fossil fuel plants like natural gas turbines.
17

18 **7. Power to California.** Given current circumstances, and the disparate RPS
19 requirements, it is likely that the output of the WR project will be used to meet California RPS
20 requirements.

21 **8. Minor Resource.** Even if there is need for wind power in the Northwest, WR is a very
22 small project that will make no difference in meeting loads or RPS requirements. Many other
23 sites are available to develop wind power that do not create unacceptable resource impacts.
24

25 In sum, the WR project is of low value in the current electric power circumstances of the
Pacific Northwest.

1 **IX. CONCLUSION.**

2 In EFSEC proceedings, the applicant bears the burden of proving that its proposal meets
3 the standards of the EFSLA and SEPA. For the WR project, the applicant has utterly failed to
4 show that these criteria for public interest have been met.

5 As stated by this Council in its Order 843 (Desert Claim, 2009), it must "exercise its duty
6 to balance the state's need for energy at a reasonable cost with the need to protect the
7 environment and the health and safety of the residents of the local areas." Page 24. This "duty"
8 arises both from the EFSLA and SEPA.

9
10 In fulfilling this duty, the Council must first examine the claimed benefits of the WR
11 project. These are as follows.

12 A. Reliability for the Skamania County PUD. SKPUD claimed reliability benefits from
13 the WR project but never established or documented their reliability concerns. Few electric
14 outages are specified and the transmission lines claimed as threatened belong to BPA, which
15 offered no witnesses or reports that substantiate any problems. The lack of confirmed outages
16 likewise demonstrated that concerns about water supplies were overblown, likely moved along
17 by the applicant's influence. In any event, the PUD's large water tanks provide reserve capacity
18 and generators for backup generation can be purchased at a fraction of the cost of hooking into
19 the WR plant.

20
21 B. Economic benefits. The applicant and others claim that building and operating the
22 WR project will provide significant economic benefits to the local community. However, the
23 vast majority of these jobs are temporary construction jobs, projected to be held by workers from
24 outside the local community. The number of permanent operation jobs is minuscule, especially
25 compared to employment possibilities in energy conservation and efficiency. The "studies" that
claim such employment benefits suffer from predetermined outcomes designed to show only

1 benefits. Predicted wages from new employment are greatly exaggerated and are well beyond
2 wage levels from objective federal and local reports.

3 While the recession has affected many communities, objective data from the U.S. Census
4 bureau shows no untoward problems in Skamania County, which appears to be faring better than
5 many Washington communities.

6 C. Electric benefits. The applicant's principal claimed benefit from the site is the
7 production of new electric energy from wind turbines. The applicant makes undocumented
8 claims that the WR site is a "premier" spot for wind turbines, but refuses to disclose any data that
9 supports its contentions. Indeed, because of last minute project changes, there is not even a site
10 plan showing project features proposed to be built. Objective data, from recognized sources,
11 show the WR site is, at best, a middling location for wind development.
12

13 The applicant fails to admit that the WR electric energy would not be dependable,
14 operating only when the wind blows. As such, WR energy cannot be counted on to meet
15 consumer demands when they need it the most, during summer and winter peaks, at the time
16 winds are notoriously calm in the Pacific Northwest.
17

18 The applicant also fails to explain that there is a glut of wind energy in the Pacific
19 Northwest. The development of wind energy has exploded since 2005, inexorably driven by
20 substantial government subsidies, generous tax breaks and accelerated depreciation, as well as
21 guaranteed markets because of renewable energy requirements. As a result, as BPA confirms,
22 "generating capacity is being developed in the Northwest far in advance of regional power
23 demand." (Ex. 30.12 at page 1). Commerce witnesses confirm that this condition will likely
24 continue for at least 10 years.
25

In fact, the 6th Northwest Power Plan confirms that most of the new electric demand over
the next 20 years will be met by conservation efforts. The need for new generation is minimal.

1 To the extent there are disparities between power supply and consumer demand, they are in peak
2 power demand periods, which WR, due to its reliance on erratic winds, cannot guarantee to meet.

3 Similarly, renewable energy goals are being met in the Northwest and in Washington.

4 The Washington State Department of Commerce confirms that about 3600 MW of installed wind
5 capacity is required to meet the 15% I-937 goal for 2020. Data in the record shows Washington
6 already has 4869 MW of wind operating, under construction or approved, a healthy margin over
7 minimum standards, not even counting proposed projects that are in the permitting process which
8 could add another 2000 MW or more.

9
10 In a reversal of fortune from the 1970s, today's Northwest energy problems are not
11 shortages, but excess energy events when more power is produced from wind and hydro
12 resources than can be used, sold or even given away. Such events also create serious issues for
13 salmon and steelhead because of the possible need to spill water from Columbia dams. Problems
14 also occur in balancing wind with other resources, again due to the unpredictable up and down
15 ramps of wind energy. These conditions have created the irony that wind generation facilities
16 will likely require their own balancing energy, most likely from gas turbines, fossil fuel facilities,
17 which were to be avoided under I-937.

18
19 As markets for renewable energy have diminished in the Northwest, new wind producers
20 are now selling their projects or output to California where RPS requirements are 33%, not the
21 15% under I-937. The simple economic truth is that the Californians will pay more for Northwest
22 wind projects than Northwest utilities. Thus most new wind projects, and likely the WR project,
23 will be sold to California utilities. Wind projects intended for sale outside Washington provide
24 its residents with few economic or environmental benefits, and leave the community with the
25 documented adverse consequences apparent with the WR proposal. Finally, even if all the
foregoing were not true, the WR project is a minuscule project given the electric power situation

1 in the Northwest in 2011. Its (supposed) 75 MW of production is insignificant when compared to
2 the 4869 MW already operating, being constructed or approved. It cannot be seriously argued
3 that this power makes any measurable difference in meeting load, especially in the face of a
4 continuing power surplus. Washington is only using about 26% of its available wind generating
5 capacity and many Washington wind power projects are readily accepted and approved in local
6 communities where unique scenic and wildlife resources are not put in jeopardy. As may be seen
7 the benefits from the WR project are ephemeral and ambiguous, if they exist at all.
8

9 On the other hand the adverse consequences of this project violate this Council's duty to
10 project the environment and the health and safety of the residents of the local areas. In short, the
11 balance swings clearly to denial of the WR proposal.

12 There are demonstrated and serious impacts to aesthetic and scenic resources. The
13 Council has voluminous comments from numerous experts in scenic resource management,
14 including the National Park Service, the Forest Service, and expert landscape architects Dean
15 Apostol and Jurgen Hess. This testimony and comment uniformly criticized the scenic impacts
16 analysis in the Application and uniformly concluded that the Project would cause adverse scenic
17 impacts to the Columbia River Gorge, one of the most important landscapes to our national
18 heritage in the State of Washington and the United States. The Project would also harm the
19 aesthetic surroundings of local communities such as Underwood, with its high-quality of life
20 based on rural residential living, and traditional small-scale agricultural and forestry uses. The
21 massive wind turbines, with their huge rotating blades, would create an ominous presence over
22 the local community and dramatically alter views from federally designated key viewing areas
23 miles from the project site. The demonstrated impact to our national heritage and to the local
24 community is simply unacceptable.
25

For habitat and wildlife, the Applicant argues that we need more information to make

1 "informed decisions" about siting wind facilities in forested habitat. Yet in all, it undertook only
2 87 hours over 9 months to survey avian use at Whistling Ridge. It did not even survey peak
3 migration periods, including for several special status species. It did not request information
4 from several wildlife agencies, failing to provide the Council with the "best possible
5 information" as required by the WDFW Windpower Guidelines. This project in a forested setting
6 poses grave risks to a wide variety of bird and bat populations, some of which are federally
7 protected.
8

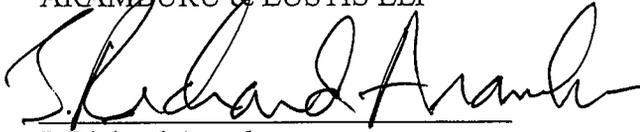
9 In other areas as well the project will result in significant impacts. Portions of the project
10 (especially the "A" line) are on narrow ridge lines with steep landslide hazard areas on either
11 side, posing risks for erosion and landslides from placement of huge turbines on massive bases.
12 Study by the applicant of these issues is admittedly preliminary and tentative, hardly meeting this
13 Council's mandate for a "comprehensive" geologic study. The applicant's casual approach to its
14 responsibilities is also evident in noise evaluations. Noise monitoring and modeling was not
15 consistent with mandated protocols and standard scientific methods, using test locations far from
16 affected properties. The evidence shows dramatic increases over ambient noise conditions,
17 demonstrating significant impacts. Transportation evaluations are equally inadequate, with no
18 detail concerning admitted, lengthy blockages of the only arterial transportation route serving the
19 local community.
20

21 In the end, the balance struck is plain: the tangible impacts to important resources are
22 simply not worth the supposed benefits from a minor and largely unneeded variable energy
23 resource. EFSEC must fulfill its statutory obligations under the EFSLA and SEPA and
24 recommend denial of the Project.
25

Dated this 18th day of March, 2011.

Respectfully submitted,

ARAMBURU & EUSTIS LLP



J. Richard Aramburu

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Attorney for SAVE OUR SCENIC AREA

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