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BEFORE THE STATE OF WASHINGTON  
ENERGY FACILITY SITE EVALUATION COUNCIL

IN RE APPLICATION NO. 99-1

EXHIBIT \_\_\_\_\_ (JL-RT)

SUMAS ENERGY 2 GENERATION  
FACILITY

**APPLICANT'S PREFILED REBUTTAL TESTIMONY**

**WITNESS : JAMES LITCHFIELD**

**Q. Please reintroduce yourself to the Council.**

A. My name is James Litchfield. I am a consultant specializing in energy policy and electric power issues, and am a former Director of Power Planning for the Northwest Power Planning Council.

**Q. To what testimony have you been asked to respond in this rebuttal testimony?**

A. I have been asked to respond to portions of the testimony filed by Richard Watson (CFE), Jim Lazar (CTED); Tony Usibelli (CTED); Dave Warren (CTED); Anthony White (BPA), and Nancy Hirsh (NVEC).

EXHIBIT \_\_\_\_ (JL-RT)  
JAMES LITCHFIELD  
PREFILED REBUTTAL TESTIMONY - 1

[31742-0001/Jim Litchfield Rebuttal.doc]

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**Need for the Power**

**Q. In her testimony, Ms. Hirsch questions the need for additional electrical generating facilities in Washington. How would you respond to her?**

A. In general, the “need for power” was a regulatory concept developed many years ago to prevent regulated monopolies from building surplus or unneeded generation to increase their regulated profits. In the context of regulated monopolies, rate-of-return regulation provides profits based on the utility’s capital investment, and this created an economic incentive for regulated utilities to over build generation, at the expense of the rate-paying public. To counter this economic incentive, regulators developed the concepts of “need,” “used,” “useful” and “prudent” to judge a regulated utility’s resource decisions. However, the electric power industry is now in the middle of fundamental structural changes. The result is the formation of a competitive wholesale power market where power generators do not have a guaranteed rate of return based on their capital investment and must instead compete in the market. Today, investors who assume the risk that their investment may not be economically competitive in the power market construct new generating resources. The competitive power market now establishes the wholesale price for power instead of regulated power rates determined by regulators. Competitive market prices will either provide the economic returns required by investors that decide to build a new power plant or the project will go bankrupt. In this way, the competitive market will prevent over building of generation in excess of loads. The concept of regulators determining the need for a new power plant to prevent investors from making an inappropriate economic decision to build a new power plant is no longer necessary because the market will provide

1 economic penalties and rewards. Indeed, as reflected in the NW Power Planning  
2 Council (NWPPC), Pacific Northwest Utilities Conference Committee (PNUCC) and  
3 BPA Reports, the concern has been that thus far the competitive market has not yet  
4 encouraged enough resource development to maintain historical levels of generation  
5 needed to maintain system reliability.  
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11 For these reasons, the idea that a project developer should demonstrate to regulators  
12 that there is a “need for power” no longer makes much sense. Ms. Hirsch’s more  
13 specific suggestion that a developer demonstrate a need for power specifically in  
14 Washington State makes even less sense. Electric power behaves according to  
15 physical laws that do not recognize political boundaries. The electric power system in  
16 the Western U.S. and Canada is one integrated electrical system. The institution that  
17 oversees the planning and operation of this system is the Western Systems  
18 Coordinating Council (WSCC). WSCC was formed because it was not possible to  
19 oversee the reliability of the western system by looking at individual utilities or even  
20 states. The interconnected nature of the electric power system means that the  
21 operation of all generators must be coordinated to meet all of the electric loads in the  
22 Western States and the two Western Provinces of Canada. This means that the  
23 reliability of the electric power system is dependent on the aggregate supply demand  
24 balance in WSCC and the ability of the transmission system to move available  
25 generation to the loads.  
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42 Washington’s loads have been growing, as have other loads in the Pacific Northwest  
43 region. This “region” defined in the Northwest Power Act includes the loads and  
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1 resources in the states of Idaho, Oregon, Washington and the portion of Montana west  
2 of the Continental Divide. This is the region that the Northwest Power Planning  
3 Council must plan for and is roughly congruent with BPA's service area. This is the  
4 smallest political context that questions of supply-demand balance make sense. The  
5 Council evaluates the need for generation in the region because there are a limited  
6 number of transmission interties connecting the region with other areas in WSCC and  
7 the BPA service area was the scope of electric power planning given to the Council by  
8 Congress in the Northwest Power Act.  
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19 In the Pacific Northwest region, there are many signs that electric power supplies are  
20 becoming tight. During the last week in June of this year BPA declared a power  
21 emergency because there was insufficient generation available to meet BPA's firm  
22 loads. This emergency required a variance from required hydro system operations  
23 designed to protect endangered salmon. In addition, the price of power in the  
24 wholesale competitive power market in the region has been abnormally high during the  
25 last several months. The spring months of April, May and June are historically low  
26 price periods due to the runoff of melting snow and the power that it generates as it  
27 moves through the federal hydropower system. BPA presented the latest market price  
28 data to the NWPPC at its meeting during the last week of June. In this presentation  
29 BPA presented monthly average on-peak prices at the Mid-Columbia trading hub in  
30 central Washington. This data showed that for the years of 1997 through 1999 the on-  
31 peak prices were generally in the \$0.02 per kilowatt-hour range with only a couple of  
32 months where the average was above \$0.04 per kilowatt-hour. In this same  
33 presentation BPA reported that average monthly prices in May and June of this year  
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and the unheard of need for emergency operations in June are clear indications that electric generation supplies are tight and that system reliability has degraded.

**Ms. Hirsh testified that EFSEC has certified power plants capable of generating more than 2000 MW that have not been built. Similarly, at page 4 of his that exceed 30,000 megawatts of capacity. In your opinion, do those facts mean that EFSEC should not certify the SE2 project?**

No. We are now in a competitive wholesale power market. This market is, as all market by a new producer is a complex decision making process that is driven by a variety of factors. Many of these factors are unique to each developer such as ability staff to construct the resource, ability to procure key generation components such as turbines, etc. It is quite likely that there will be many more power plants due to increasingly short generation supplies some new plants will be built and prices will subside removing the incentive for others to move forward until loads continue to easily be more competitive than previously permitted projects due to its efficiency and the preparation and planning of the developer. For example, gas-fired combustion plants were built, competition would drive prices down to the point where the less

1 efficient and more expensive plants are economically displaced. This will be good for  
2 power consumers because of lower power prices as well as for the environment due to  
3 lower emissions from more efficient power plants operating to meet loads.  
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9 **Q. In his testimony, Mr. Watson discussed the Northwest Regional Forecast by the**  
10 **Pacific Northwest Utilities Conference Committee (PNUCC), the White Book by**  
11 **Bonneville Power Administration (BPA), and the Northwest Power Planning**  
12 **Council's Report. Do you agree with Mr. Watson's interpretation of those**  
13 **reports?**  
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18 A. I agree with Mr. Watson's general description of the differences between the Council's  
19 most recent reliability study and the NRF and the White Book produced by PNUCC  
20 and BPA respectively. However, it is important to note that even though these studies  
21 have been conducted based on different hydro assumptions; they are all reporting  
22 conditions indicative of a degraded power system where there is an increasing chance  
23 of reliability problems. In fact, all three studies indicate about 3000 to 4000 MW of  
24 new generation is needed to return to historical levels of reliability. The Council's  
25 study provides two different forecasts of future system conditions. One is based on an  
26 hourly Monte Carlo simulation that predicts the likelihood of system interruptions to  
27 be 24 percent by 2003. This finding was a surprise to many of the region's system  
28 planners because while it was known that loads have been growing and that many  
29 existing resources have been shutdown or degraded it was not understood how far  
30 system reliability has dropped. The Council also estimated the probable development  
31 of new combined-cycle combustion turbines in the Pacific Northwest. This estimate is  
32 based on the response of independent power producers, such as NESCO, to increasing  
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1 market prices. On page 32 of the Council's Adequacy/Reliability Study there is a  
2 presentation of the Council's forecast of construction of new power generation. The  
3 Council says, "[m]ost of the forecast resource additions shown in Figure 18 occur in  
4 the Western Washington and Oregon load resource area (Figure 19)." Figure 18  
5 shows that from about 2004 to 2009 the Council is forecasting that the region will add  
6 500 MW per year of combined cycle combustion turbines similar to the Sumas II  
7 proposed power plant. The Council's studies identified short-term reliability problems  
8 that can be addressed through a variety of new resources and they also identify the  
9 addition of large amounts of base load combined-cycle combustion turbines that will  
10 provide both energy and capacity if constructed. If the forecasted merchant plants are  
11 developed as the Council has predicted, the short-term reliability problems the Council  
12 has identified will be greatly reduced if not resolved.  
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27 **Q. In his testimony, Mr. Watson concludes that to address the need for additional**  
28 **capacity, more single-cycle gas turbines should be built instead of combined**  
29 **cycle facilities. Do you agree?**  
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32 **A.** As noted above, the Council's studies identify both short-term capacity problems and  
33 the need for base loaded combined cycle combustion turbines probably developed as  
34 merchant plants. While it may require less capital investment to develop single-cycle  
35 combustion turbines to meet only the short-term interruptions that the Council  
36 predicts, the Council's analysis in this report also shows that it is economic for base  
37 loaded combined-cycle combustion turbines to be constructed. These machines are  
38 similar to the Sumas II power plant and can serve to solve both the short-term  
39 reliability problems modeled by the Council while successfully competing with other  
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1 generation in the competitive marketplace to provide energy. In this way, the  
2 Council's studies demonstrate that a power plant like that proposed at Sumas is likely  
3 to be economically viable and will help to reduce the 24 percent chance that the region  
4 will not have sufficient generation to meet power demands in 2003. It is also  
5 important to note that combined-cycle plants are more efficient at conversion of  
6 natural gas to electricity. This means that combined cycle power plants have lower  
7 incremental power costs and produce fewer adverse environmental impacts per  
8 kilowatt-hour of energy produced. This will provide both economic benefits in the  
9 form of lower market prices and environmental benefits through lower emissions per  
10 kilowatt-hour produced. It would not make sense to build both combined-cycle and  
11 simple-cycle combustion turbines when the competitive market will economically  
12 justify the construction of the more efficient combined-cycle plants that can meet both  
13 short-term and long-term electrical reliability needs.  
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28 **Q. In his testimony, Mr. Warren contends that "the main point of the [NWPPC]  
29 report [is] that both demand and supply resources should be promoted to meet  
30 the growing needs of the region and for the benefit of the electric system." Do  
31 you agree with his interpretation of the report?**  
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36 **A.** I agree with this and the Council, the region's utilities and the Bonneville Power  
37 Administration are continuing to promote the development of new conservation and  
38 renewable resources. However, many conservation opportunities require the  
39 development and enforcement of more efficient building codes, appliance standards  
40 and consumer education. These changes are difficult to mandate but at least with  
41 building and appliance standards they are achieved through government and regulatory  
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conservation programs because they are typically designed and implemented by either Federal or State agencies or utilities that have an obligation to serve all the needs of a  
serve” that motivates Integrated Resource Planning (IRP) to secure the lowest cost resources (including conservation) to meet the collective needs of those customers.  
power supplies to facilitate the formation of competitive power markets. In this role an independent developer has little ability to direct or secure conservation designed to  
acquisition targets the efficiency of how individual homes and businesses in the region chose to consume electric energy. It is unreasonable to bundle the delivery of new  
such as new more efficient building codes, higher appliance efficiency standards or investments in end-use energy efficiency improvements that benefit consumers through  
customers through reduced resource acquisition in the future.

**Q. Targeted energy effective at addressing Washington’s shortfall concerns.” Do you agree?**

**A.**  
to play in meeting the region’s electric power shortfall. It is not possible to deem

1 these technologies “more effective” because the shortfall is large and they are all going  
2 to have to help to reduce the gap to maintain a reasonably reliable system. It is also an  
3 unworkable policy to mandate that all of one type of resource be developed before  
4 another is permitted to move forward. Various interests often debated this issue  
5 before the Northwest Power Planning Council based on the resource priorities in the  
6 NW Power Act and in every instance the Council has refused to adopt a strict priority  
7 order for resource acquisition. The practical policy for future resource development is  
8 to make sure that all appropriate resources are encouraged so that there will be a  
9 combination of demand-side and supply-side resources to maintain an adequate level  
10 of reliability at competitive power prices.  
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22 **Q. In his testimony, Mr. Warren talks about renewable energy sources. In your**  
23 **opinion, can renewable energy resources satisfy all of the increased demand for**  
24 **electric power in the Pacific Northwest?**  
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27 **A.** Depending on how the term is defined, the region is currently heavily dependent on  
28 renewable resources in the form of the hydropower system. However, some do not  
29 define the hydropower system as “renewable” because of its impacts on fish and  
30 wildlife in the region. With the exception of hydropower, there is very little ability for  
31 other renewable resources to provide substantial amounts of generation in the near  
32 term, and even less ability for renewable to provide short-term capacity to help address  
33 the reliability problems that the Council has identified. This is because most of the  
34 non-hydro renewables are intermittent and are not dispatchable to meet instantaneous  
35 load changes. The Council studies also shed some light on the future development of  
36 renewable resources. In RW-2 the Council reports a “moderate amount of  
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1 renewables.” Looking at Figure 18 in the Council’s study it appears as though about  
2 500 megawatts of wind power is added to the region’s power system in about 2009  
3 and 2010. The Councils studies also show that in addition to these renewable  
4 resources, “beginning in 2004, gas-fired combined-cycle units are forecast to be added  
5 at the rate of 500 to 1000 megawatts per year.” It is clear from the Council’s analysis  
6 that renewables alone will not be sufficient to restore regional power system reliability.  
7 However, this is not to say that renewable resources do not have an important role in  
8 the future and that there will be increasing demand by customers for “green” power  
9 resources offered at premium prices.  
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21 **Energy Policy – Marketing of Power**

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23 **Q. Mr. Usibelli and Mr. Warren have recommended that EFSEC condition**  
24 **certification of the SE2 project on SE2 entering into long-term contracts to sell**  
25 **at least 60% of the power produced by the project. Does this recommendation**  
26 **make sense?**  
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30 A. No. The requirement for a five-year contract will not demonstrate “need” in  
31 the sense argued by these witnesses. The only thing a five-year contract will  
32 demonstrate is that another party agrees with NESCO that Sumas II has economic  
33 value that will exceed its costs. This provides an indication of economic viability but  
34 such an indication is better provided by Sumas II obtaining financing because investors  
35 are willing to back the plant’s construction they believe the project is economically  
36 viable.  
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1 More importantly, this recommendation does not make sense in the context of the  
2 current competitive wholesale power market. The wholesale power market is a  
3 competitive commodity market where both buyers and sellers negotiate prices, terms  
4 and conditions to meet their respective economic and business interests. Contract  
5 terms have become increasingly short due to increased market volatility and future  
6 uncertainty that affects both buyers and sellers. While there may be a current incentive  
7 to buy power from BPA for as long as possible given that BPA's preference rate is  
8 about \$0.023 per kilowatt hour this is primarily motivated by the vast difference  
9 between BPA's rates and the substantially higher current market prices. Another  
10 reason for the desire to contract with BPA for longer time periods is concern about  
11 future changes in BPA's role in the region and BPA's pricing methodologies, which  
12 are current based on costs not competitive market prices.  
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26 Finally, a long-term power contract requirement would not "preserve" the benefits of  
27 the power for Washington consumers as Mr. Warren suggests. Any entity purchasing  
28 the power from Sumas II is likely to be a wholesale entity with the capability to resell  
29 the power in the competitive market. It makes no economic sense to require NESCO  
30 to sell to an entity based in Washington when the resale of Sumas II power or other  
31 power that Sumas II displaces cannot be constrained. This requirement will only serve  
32 to transfer some of the economic value of Sumas II to another party that is still able to  
33 remarket the power whenever it is in their economic interest to do so.  
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1 **Mr. Usibelli and Mr. Warren have testified about "Integrated Resource**  
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4 **make sense?**  
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7 A.

8 Planning during the 1980s. The concept was developed in response to the Northwest  
10 Power Act and implemented by the Council and the region's public utility commissions  
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13 Council. This planning was designed to broaden the range of "resources" that should  
14 be evaluated on a "level playing field" in developing a future electric power plan for  
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19 Council, the Administrator's contractual obligations. The IRP concept was  
20 specifically designed to place conservation resources in direct economic competition  
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25 public utility commissions to require regulated utilities to conduct integrated resource  
26 plans (IRP) so that the Commissions could better judge that the utility had looked at  
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31 also a way for the Commissions to participate in the resource decision making process  
32 prior to the utility's decision to construct, so that if the Commission believed that the  
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37 utility's plan. This would be a clear signal that the Commission did not believe that the  
38 utility's plans were in the best interests of consumers.  
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46 purchase its power to have an IRP process does not make public policy sense. IRPs  
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EXHIBIT \_\_\_\_ (JL-RT)

PREFILED REBUTTAL TESTIMONY 13

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1 were designed to balance the resource decisions of regulated monopoly utilities. The  
2 public policy rationale was to insure that the best, lowest cost resources were being  
3 secured by the utility to meet the needs of its regulated customers. Thus, the concept  
4 of IRP was to open the utility decision making process and to allow the public and  
5 Commissions to participate in the decisions as to the best combination of conservation  
6 and generation to meet future projections of load growth. A merchant plant lacks a  
7 direct connection to a utility's obligation to serve and has even less connection to the  
8 regulator's role to insure that the needs of all regulated customers are met at the  
9 lowest possible cost while insuring a reasonable rate of return for the utility's  
10 investors. The appropriate role of IRP remains with local utilities that are obligated to  
11 serve the needs of their customers and with the Northwest Power Planning Council.  
12 These entities continue to conduct IRPs and the acquisition of new power from power  
13 plants such as Sumas II will be considered in these plans along with all other  
14 alternatives.  
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31 **Q. Mr. Usibelli and Mr. Warren have also testified that EFSEC should condition**  
32 **the siting of the SE2 facility upon a demonstration that any purchaser of more**  
33 **than 40% of SE2's power will have an Integrated Resource Planning Process.**  
34 **Do you agree with such a requirement?**  
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38 A. Again, the Commission's require all of the investor owned utilities to conduct IRPs on  
39 a regular basis. However, there is no connection between the Sumas II power plant  
40 and the planning that investor owned utilities conduct other than the utility's analysis  
41 of future resource alternatives that may include Sumas II if it secures a site permit and  
42 financing. Restricting the sale of Sumas II power to utilities that conduct IRPs ignores  
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1 the complex roles and relationships of the many players in the competitive power  
3 market. There are currently hundreds of players in the market and it includes a variety  
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6 no retail customers that they must serve. They often buy and resell power on a daily  
7 or hourly basis. The idea of IRP makes no sense to a market player that serves no  
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12 Restricting a percentage of Sumas II's output to sale to only Investor Owned Utilities,  
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15 makes no sense and would unnecessarily limit sales to the many market players in the  
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18 region including most of public utilities in Washington.  
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24 NESCO and therefore increasing power prices for consumers. This will occur because  
25 when NESCO sells power from Sumas II it must also recover the costs of the  
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30 be expected to be higher in the competitive power market because there will be less  
31 supply available at any given demand level. Requiring sale of Sumas II energy to only  
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36 an unnecessary regulatory requirement in a competitive power market. Sumas II will  
37 be a merchant plant that will either survive or fail based on prevailing competitive  
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45 **Q. Mr.**  
46 **issued in the mid-1990s for the Satsop project and the Chehalis project included**

1           **a similar requirement that the developers have long-term power purchase**  
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3           **agreements prior to construction. Do you have any understanding of why those**  
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5           **conditions were included in the prior Site Certification Agreements?**

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7       A.     It is my understanding that in the past some project developers stipulated to a Site  
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9           Certification requirement for firm power purchase contracts because they were  
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11           designing their projects to meet the needs of BPA's Resource Contingency Program.  
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13           Under this concept, the BPA contingency plants were not going to move forward  
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15           unless BPA was willing to enter into a long-term power purchase contract to acquire a  
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17           substantial portion of the output of the plant. To acquire the output of these plants  
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19           under the Northwest Power Act, BPA needed to have the Council find that the  
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21           proposed acquisition of output from the plant was consistent with the Council's Power  
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23           Plan. The practical implication of these conditions is unique to the Northwest Power  
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25           Act and the BPA contingency program. This made these conditions for the Site  
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27           Certificate Agreements for Satsop and Chehalis inconsequential to future project  
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29           development. Thus, the Site Certification provisions where of no consequence to  
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31           those project developers at the time the projects were permitted, and it is my  
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33           understanding that those provisions were the product of stipulations among the  
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35           parties, rather than a determination by EFSEC that the conditions were needed. In  
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37           fact, I understand that in an adjudicatory proceeding in which the project developer  
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39           refused to stipulate to these conditions, EFSEC rejected CTED's recommendation and  
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41           declined to include the long-term contract and IRP conditions in the site certification  
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43           agreement.

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46       **Q.     Does the requirement make sense for the SE2 project?**  
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A. For a merchant plant like Sumas II, without the BPA contingency program, this decision as to whether the plant is economically competitive. The term of the power purchase agreement has little meaning in today's power markets. The perception term agreement however, in this volatile power market it is in neither the buyer or the seller's interest to lock down specific pricing, terms and conditions for a long time \$0.02 per kilowatt-hour and buyers did not wish to lock down a long-term agreement because each new power deal seemed to be cheaper than the last. For the last couple runoff period for the region's hydropower system. Now, sellers don't want to commit to long term sales because every day seems to bring a higher price and it would be be offered \$1.00 per kilowatt-hour tomorrow. While long-term contracts can be in both the the long term need for power except that both buyer and seller believe that the project is economically viable. The seller's perspective is that he will be able to make a profit plant operations. The buyer's perspective is that he will be able to make a profit reselling the power in the competitive marketplace or to retail customers if the buyer is

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**Q. In his testimony, Mr. Warren also expresses a concern that the power generated at the SE2 facility will not be used to serve the need for power in Washington State or the region. Is his concern justified?**

A. No. While it is true that most resources in the region are from time to time sold into markets in California, the Southwest or in Canada this is a normal function of the integrated power system in the West. In an integrated power system like the WSCC, it is impossible to bottle up a generator and dedicate it to service of a particular political jurisdiction. Both the laws of physics and economics drive the movement of power in the Western Interconnection. It does not make sense to try to erect a regulatory fence around Washington in an attempt to keep some generation home because this fence will at the same time keep other generation out! Such a strategy will ultimately require the development of more generation at a higher cost. This will disadvantage Washington consumers with higher prices for electric power and lower levels of reliability. In any event, this proposal is not possible as long as Washington remains interconnected with all the other states and provinces in the WSCC.

**Q. In his testimony, Mr. Warren also expresses concern that power produced in Washington State may be exported to meet peak summer demand in California. Is this a legitimate concern?**

A. The seasonal sale of excess generation in the region during the summer to California to help them meet peak summer air conditioning loads is often returned in the winter when California has excess generation. In most winters, California sells us power to help the region meet our peak winter heating demands. These types of economic transactions provide benefits to both regions because there is less need for

development of peaking generation capacity that is only occasionally needed in one

only our peak demands in the winter, as modeled by the Council, is less efficient than building base loaded facilities such as proposed at Sumas II that are capable of

its clear that the highly integrated nature of the Western Interconnection was designed to facilitate transactions between regions to enhance reliability and to avoid the

competitive power markets regional interconnections enable the economic sale of power throughout the west. This facilitates an efficient power market that can transmit

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**Q. Mr. Warren recommends**  
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**a requirement that SE2 "deliver a portion of the output to local purchasers."**  
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**Although it is not clear in his testimony, it appears as if he is recommending that**  
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**of its power to Washington consumers. Do you agree with that**  
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**recommendation?**

As I have testified to earlier, the idea of requiring long-term contracts does nothing but increase the price of power to ultimate consumers because more entities must share in

parties adds unnecessary complexity and will require the inclusion of risk premiums in the transaction. Restricting some percentage of the power from Sumas II for sale to a

1 of “buyers” to an even smaller group thus reducing the price that they will be willing  
2 to pay for the power and at the same time they will not be prevented from selling the  
3 Sumas II energy to the highest bidder in the competitive power market. In fact the  
4 “local” purchaser of Sumas II energy would not be operating in their own best interest  
5 if they resold the power to someone at less than the competitive market price. The  
6 only possible exception would be for a regulated entity with an obligation to serve a  
7 particular group of customers at cost-based rate-of-return rates. However, all of the  
8 regulators have made it clear that with the development of a competitive wholesale  
9 power market utilities will not be permitted to recover generation costs that exceed  
10 competitive market prices through a “stranded cost” recovery mechanism. Therefore  
11 if a regulated utility decides to purchase energy from Sumas II, it is doing so without  
12 an assurance of regulatory recovery of the costs. This puts the utility at risk so it must  
13 strive to maximize the selling price of Sumas II that it offers to others in order to  
14 offset the risks that the purchase price maybe above prevailing market prices during  
15 some time periods.  
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33 **Q. In his testimony, Mr. Warren contends that competition with California and the**  
34 **western market has made electricity prices more expensive in Washington,**  
35 **resulting in temporary closures of industrial facilities and job losses. Will**  
36 **constructing another power plant in Washington make this problem worse?**  
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40 A. No. If an additional supply of generation were available today it would help to reduce  
41 the extremely high prices that seem to be driven by a real shortage of generation in the  
42 region. It is also not clear that California is responsible for increasing power prices in  
43 the region. There have been signs of increasingly tight supplies of generation in the  
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2 region for some time. This spring the hydropower system experienced a protracted  
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5 and have been revised significantly downward. The resulting reduction in supply lead  
6 to a power emergency for BPA during the last week in June when there was not  
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11 National Marine Fisheries Service waved the constraints so that BPA could maintain  
12 the integrity of the system. These conditions were primarily caused by a supply-

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17 California. The recent announcements of plant closures is not good news but the  
18 development of additional power plants in Washington can only help to stabilize and

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23 efficient power supplies is the only strategy that will bring down power prices and help  
24 the state and region to return to an economically stable and a reliable power system.

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29 a load curtailment plan to submit to the region's Governors this fall because it is now  
30 clear that there is insufficient generation available to meet a cold snap this coming  
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36 **Q. In his testimony, Mr. Warren also suggests that as an alternative to the**  
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41 **process, EFSEC should require SE2 (and any other developer of a fossil fuel**  
42 **fired power plant) to generate conservation or renewable resources equal to 1/3**  
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47 **operate a 660 MW natural gas facility only if it also constructed and operated a**

1                   **220 MW renewable facility or "generated" 220 MW from conservation. Do you**  
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3                   **agree with that recommendation?**

4 A.       No. This would be an unusual bundling proposal that would force an important public  
5 policy choice as to the appropriate resource mix onto resource developers. This  
6 recommendation is also not consistent with national public policies restructuring the  
7 electric power industry to create a competitive generation industry and it is  
8 inappropriate for EFSEC to require the development of resources that may not be  
9 economically viable in the competitive market as a condition for a site permit for a  
10 resource that is economically viable. While there is a debate in this country about the  
11 public policy alternatives to encourage an appropriate amount of conservation and  
12 renewables, this requirement will lead to higher energy prices because the bundled  
13 combination of economic and uneconomic resources will result in increased costs that  
14 must be recovered from the competitive marketplace. In reality, because other states  
15 would not likely adopt a similar requirement this provision will probably shift new  
16 resource development into areas that have no such bundling requirement.  
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33                   **Natural Gas Supply Constraints**

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35 **Q.       In his testimony, Mr. Lazar expressed concern that the use of natural gas by the**  
36 **SE2 facility might cause natural gas supply shortages in the state. Is his concern**  
37 **justified?**  
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40 A.       I don't believe they are. The natural gas infrastructure in the region is already  
41 substantial, and overtime it can and will be expanded to meet the needs of the state,  
42 whether or not the SE2 facility is built. Most recently a major natural gas transmission  
43 line was built from the Western Canadian Provinces to the Chicago area. This line  
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1 added substantial new demand from the mid-west to the demands of the northwest and  
2 California. While natural gas prices are increasing this is due to several market factors  
3 not just the new demand from the mid-west.  
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9 **Q. Mr. Lazar also expressed concern that SE2's use of natural gas would result in**  
10 **increased natural gas prices. Likewise, in her testimony, Ms. Hirsh expressed a**  
11 **concern about the project's impact on natural gas prices for residential users.**  
12 **Are their concerns justified?**  
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16 **A.** Again I don't believe so. There are substantial gas reserves in Canada and the recent  
17 price increase will lead to additional exploration and development. The other reality is  
18 that electric loads are growing in the west and that most likely these loads will be met  
19 by natural gas-fired generation, given the environmental objections to coal, nuclear and  
20 new hydropower dams. This means that if loads continue to grow there will be  
21 increased consumption of natural gas to meet this growth or the system will become  
22 unstable and unreliable. This could lead to upward pressure on gas prices but it would  
23 be impossible to attribute this to a particular power plant. It is more appropriate to  
24 attribute it to basic economic and electric load growth that is occurring in the region.  
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37 **Q. Mr. Lazar also expressed a concern about the cumulative effect on natural gas**  
38 **supply and price if all of the facilities that have been proposed, or even all of the**  
39 **facilities that EFSEC has approved were built. Do you think that is a reasonable**  
40 **concern?**  
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43  
44 **A.** No. All the proposed facilities will not be built except over a long time period. Even if  
45 all the plant were ultimately developed, they would be dispatched to meet loads and  
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1 only operate when the combination of market prices and load justified operation.  
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3 Again, at every instant, electric supply cannot exceed electric loads. This is a  
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5 fundamental electric power principle that requires that if more power plants are built  
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7 than there is electric load then some of them or other generation resources must not  
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9 operate to balance supply with demand. What happens in the competitive market is  
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11 that the generators bid the price down until just enough generation decides that they  
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13 cannot operate because the price is less than their variable operating costs. In any  
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15 event the amount of gas consumed cannot exceed the amount of residual electrical  
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17 loads to be served by natural gas-fired generation.  
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### 21 Transmission Constraints

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23 **Q. A few witnesses have expressed concern about the transmission grid being able**  
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25 **to handle the additional power generated by the SE2 facility. Can you respond**  
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27 **to those concerns?**

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29 A. Transmission provides the highways for electric power commerce. However, like any  
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31 highway as traffic increases bottlenecks develop. These bottlenecks can be removed  
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33 but new facilities or congestion management strategies must be developed. FERC  
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35 regulates high voltage interstate transmission and has established regulatory rules that  
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37 require transmission owners to operate as common carriers for all buyers and sellers of  
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39 electric power. FERC also requires transmission owners to build new transmission if  
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41 requested by another user and FERC has established specific pricing rules for how the  
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43 new user will be charged for the costs of the new transmission upgrades. It is through  
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45 this process that FERC is establishing regional transmission systems that may be  
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47 constrained in the short-run but those constraints must be removed in the long-run if

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for necessary upgrades. There are currently transmission constraints in the region but these constraints are under study for removal or in cases like the Northern Interties

**Q. Ms. Hirsh interpreted BPA’s System Impa cannot handle SE2’s power. Do you think that is correct?**

**A.**  
may not be sufficient long term firm available transfer capability to accommodate SE2’s transmission request for 660MW from Custer Substation to John Day and Big the upgrades that are planned by BPA to meet the needs of other requesters including the Bonneville Power Business Line that must return substantial amounts of power to indicate certain upgrades of existing lines and equipment additions at existing substations are needed to increase the available transfer capability (ATC) for SE2’s transmission system can and will be upgraded as necessary to meet the needs of new power users as well as the existing users of the system. Furthermore, BPA’s day. It is likely that Sumas II will be sold to parties that already have reserved transmission capacity or, if not, they will be willing to secure necessary transmission

1 **Q. Ms. Hirsh also mentioned the Northern and Southern Interties. Will the SE2**  
2 **facility cause a problem with either of those interties?**  
3

4  
5 A. The Northern Interties are major transmission lines that interconnect northern Puget  
6 Sound with the lower British Columbia mainland. These lines have been experiencing  
7 deratings due to transmission problems on the underlying lower voltage system in  
8 Puget Sound. The problems have been studied and solutions have been identified.  
9  
10 The transmission owners in the area are currently making investments in upgrades that  
11 will rectify the problems in the near future. The Southern Interties are a series of  
12 transmission lines that allow power to be bought and sold from/to California and the  
13 southwest. These transmission facilities are also constrained during some time periods  
14 when there is a high volume of transactions with California parties. However, here  
15 again there are studies underway to better understand the nature of the constraints and  
16 develop alternatives to relieve the constraints. Transmission problems will not be  
17 created by Sumas II however it maybe necessary to purchase transmission capacity  
18 from others that are not fully utilizing the transmission they have contracted for or it  
19 may be necessary to pay for upgrades if firm transmission is required. In any event,  
20 there are economic solutions and existing regulatory processes that can be used to  
21 address current transmission constraints.  
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38 **Q. Is there anything that EFSEC should be doing regarding these transmission**  
39 **issues?**  
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42 A. Transmission is currently regulated by FERC and WSCC. This means that maintaining  
43 the reliability, stability and capability of the region's transmission system is being  
44 overseen by these agencies. Under FERC orders, the region's transmission owning  
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2 utilities are developing a proposal to form a Regional Transmission Organization  
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5 sole responsibility to insure transmission system operations, construction and  
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8 way FERC is striving to establish an independent transmission entity that will insure  
9 there is sufficient transmission capacity to be able to move available generation to the  
11 change in how the region's transmission system operates and is occurring outside of  
12 EFSEC's purview.  
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20 **Anthony White from BPA testified that he was concerned that SE2's project**  
21 **might impact BPA's ability to return the "Canadian Entitlement" --the so-called**  
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26 A. No. Mr. White's testimony does not provide any reason for believing that SE2's  
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30 Canada, and BPA's transmission study clearly reports, "SE2 causes no benefit or  
32 detriment to the DSB [Downstream Benefits] return transmission capability in the  
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38 **Q. Mr. White also expresses a concern about whether the SE2 project will interfere**  
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42 A. No. BPA has the ability and the obligation to reserve sufficient firm system  
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EXHIBIT \_\_\_\_ (JL-RT)  
JAMES LITCHFIELD

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done so and is protected from a new user like Sumas II interfering with the firm  
transmission that they have reserved.

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**END OF TESTIMONY**

the best of my knowledge.

DATED: July 7, 2000.



James Litchfield