

**BEFORE THE WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Washington Utilities and Transportation
Commission,

Complainant,

v.

Puget Sound Energy, Inc.

Respondent

Dockets UE-111048 and
UG-111049 (consolidated)

INITIAL BRIEF OF SIERRA CLUB

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I. INTRODUCTION

1. Puget Sound Energy's ("PSE") heavy reliance on a single coal plant exposes its customers to an extraordinary amount of risk. This is because PSE's customers will increasingly bear the capital and operational costs that result from heightened environmental regulation. Coal is a fuel source. Thus, coal plants will bear a disproportionate impact of future environmental requirements. Washington and other states have implemented measures to partially account for the risk of greenhouse gas regulation by including estimated carbon prices in its evaluation of energy resources. However, the current suite of environmental regulations that will impact Colstrip and other coal plants curtail other harmful pollutants such as mercury, acid gases, particulates, nitrous oxides (NO_x) and sulfur dioxide (SO₂). Regulating these pollutants is not within the jurisdiction of this Commission, but PSE and other utilities that rely on coal must face the substantial economic consequences that will result from regulatory compliance by other state and federal agencies.
2. The issue of when and how, or even whether, coal plants should install pollution control technologies to clean up air and water pollution is not before this Commission. Nevertheless, that discussion is happening across the country. This Commission has a role to play by carefully analyzing whether the economic costs of installing expensive pollution control measures, which will be required to continue operating these dirty plants, will result in a safe and productive resource for ratepayers. Or, the company may simply find more cost effective resources.

II. BACKGROUND

A. Puget Sound Energy's Coal-Based Power Supply

3. Currently, PSE derives approximately 20% of its overall energy from the Colstrip coal-fired plant. Colstrip is a four-unit, mine mouth, coal-fired electricity-generating facility operated by PPL Montana, LLC ("PPL") in Colstrip, Montana, about 120 miles southeast of Billings. Colstrip is capable of producing up to 2,094 megawatts ("MW") of

electricity. Colstrip includes four generating units: Units 1 and 2, which are each rated at 307 MW of net generating capacity, and Units 3 and 4, which are each rated at 740 MW of net generating capacity. Units 1 and 2 began commercial operation in 1975 and 1976, respectively, and Units 3 and 4 began commercial operation in 1984 and 1986, respectively. (Exhibit No. MLJ-1CT, page 2 of 12.)

4. PSE owns 50% of Units 1 and 2 and 25% of Units 3 and 4. PSE's share of capacity for Colstrip is therefore 307 MW for Units 1 and 2, and 370 MW for Units 3 and 4, which is a combined total of 677 MW of coal-fired generation in PSE's fleetwide resources. (Exhibit No. MLJ-1CT, page 3 of 12.)

5. In its 2009 Integrated Resource Plan ("IRP") (Exhibit No. RG-3, page 87 of 1396.), PSE assumed the following retirement dates for Colstrip:

Unit 1: Dec 2019
Unit 2: Dec 2019
Unit 3: Dec 2024
Unit 4: Dec 2027

6. In the following 2011 IRP proceeding, PSE changed these assumption and, without explanation, extended the assumed retirement date of Colstrip to a date that is "not within the [20] year study period." (PSE 2011 IRP, page 5-15.) In other words, PSE now assumes that all four of the Colstrip units will at least through 2031 and possibly much later.

7. Colstrip receives 100% of its coal fuel from the nearby Rosebud mine. (Exhibit No. EDH-1T, page 19.) Coal from Rosebud has experienced an increasing trend of higher overburden, which in turn raises Colstrip production costs. (Exhibit No. DEM-1CT, page 67.) PSE expects this trend of increased coal costs from Rosebud to continue. (Exhibit No. EDH-1T, page 18.) During PSE's 2007 rate case, Docket No. UE-0702300, parties discussed the decision to extend the depreciation life of Colstrip from 40 years to 60 years. Staff's witness in that proceeding, Mr. William Weinman, noted that the earlier retirement of Colstrip was based in part on testimony estimating when the present supply of coal for Colstrip would be exhausted. (Docket No. UE-072300, Exhibit No. __T (WHW-1T), page 9:16-19: see, also, Exhibit No. AS-8 CX.) The increasing overburden

cited by Mr. Jones similarly suggests that the coal supply at Rosebud is, at best, getting more expensive. Mr. Weinman speculated that alternative solutions to the exhaustion of the coal supply could involve transporting alternative sources of coal long distances, and that replacement coal might require building railroad tracks to Colstrip. (*Id.* at page 10:3-6.) Such a change in coal supply may also entail additional expenditures at the plant to deal with a different coal composition. Though not at issue in this proceeding, the potential that the Rosebud mine could be played out near the originally assumed retirement dates of Colstrip – originally planned in increments from 2019-2027 – raises the concern that PSE will be required to expend capital on building new rail infrastructure for long distance coal transport and modifying the plant to accommodate a new type of coal.

8. In the current rate case, PSE did not include any specific capital additions to rate base for Colstrip. However, PSE requested a nearly \$10 million increase over the test year for production O&M at Colstrip. (Exhibit No. DEM-13.) Colstrip also experienced more expensive power costs due to a higher forced outage rate at Colstrip that resulted in a net reduction in available rate year generation of approximately 114,000 MWh compared to PSE’s 2009 GRC.¹ (Exhibit No. MLJ-1CT, page 4 of 12.) Finally, as discussed above, coal costs at Colstrip are increasing due to increasing strip ratios resulting from higher overburden. (Exhibit No. MLJ-1CT), page 8 of 12.) Sierra Club did not challenge these issues in this rate proceeding; however, all of these factors combine to raise the total cost to ratepayers for power produced by Colstrip. (See Exhibit No. EDH-1T, page 20.)

B. Environmental Regulation of Coal Plants

9. PSE’s ownership interest in Colstrip exposes its customers to a substantial amount of risk because state and federal regulations require polluting coal-fired plants to meet increasingly stringent environmental controls. Washington’s Legislature is among those governing bodies that has clearly expressed disfavor for coal. For example, Senate Bill

¹ The forced outage rate for Units 1 and 2 was slightly improved (21,000 MWh increase) while the forced outage rate for Units 3 and 4 dropped significantly (135,000 MWh reduction). Combining the changes yields a net reduction of 114,000 MWh. (Exhibit No. MLJ-1CT, page 4 of 12.)

5769 addressed the TransAlta coal-fired electric generation facility near Centralia, Washington. The bill is not directly applicable to Colstrip, which is located out-of-state in Montana, but the impetus of the bill applies equally to all coal-fired units, particularly with respect to global pollutants such as greenhouse gas emissions:

The legislature finds that generating electricity from the combustion of coal produces pollutants that are harmful to human health and safety and the environment. While the emission of many of these pollutants continues to be addressed through application of federal and state air quality laws, the emission of greenhouse gases resulting from the combustion of coal has not been addressed. 2011 c 180, § 101(1).

...

Therefore, it is the purpose of this act to provide for the reduction of greenhouse gas emissions from large coal-fired baseload electric power generation facilities, to effect an orderly transition to cleaner fuels in a manner that ensures reliability of the state's electrical grid, to ensure appropriate cleanup and site restoration upon decommissioning of any of these facilities in the state, and to provide assistance to host communities planning for new economic development and mitigating the economic impacts of the closure of these facilities. 2011 c 180, § 101(5).

10. In addition to the above greenhouse gas concerns, PSE customers also face economic risk from continued reliance on coal-fired generation, because Colstrip must comply with new federal regulations. Dr. Hausman's testimony identified several areas of regulation where current or pending EPA rules will result in a significant increase in expenditures on pollution control technology. (Exhibit No. EDH-1T, pages 7-8.)
11. PSE's witness Michael Jones similarly confirmed that EPA rules will likely result in substantial additional expenditures at Colstrip. (Jones, TR. 913:12.) A January 2012 meeting of Colstrip owners specifically identified several different control technologies that may be required to meet the Utility Mercury Air Toxics rule ("UMAT" or "MATS"), which sets limits on several hazardous air pollutants, and the Regional Haze Rule, which requires the installation of Best Available Retrofit Technology ("BART"). (Exhibit No. MLJ-7C CX.)
12. EPA finalized the MATS rule on December 16, 2011, and the rule was published in the Federal Register on February 16, 2012. (77 Fed. Reg. 9304.) The estimated costs provided to PSE and the other joint owners of Colstrip for potential control technologies

to meet the MATS rule are confidential. (Jones, TR. 914:4-6.) As a signatory to the confidentiality agreement in this proceeding, Sierra Club was able to review these costs and submit them as a cross examination exhibit in this proceeding. (See Exhibit No. MLJ-7C CX), page 5.) However, the terms of the confidentiality agreement prevent Sierra Club from disclosing those costs to any non-signatory, and they prevent Sierra Club from referring to those costs in any future proceeding before the Commission or anywhere else outside of this specific docket. Sierra Club can therefore only state that MATS compliance costs are significant and that those costs will be borne by PSE ratepayers.

13. PSE has until December, 2014, with a possible one year extension, to retrofit Colstrip to comply with the rule. (Jones, TR. 912:21-913:1.) It is therefore likely that PSE management will make decisions in the very near term on whether and how to install pollution controls at Colstrip. If PSE decides to continue operations of Colstrip, it will begin incurring expense in the next few years for which ratepayers will ultimately be responsible. The public, however, has a very limited ability to engage PSE's decision makers and influence their choices on this matter because PSE has chosen to keep all of the estimated costs to comply as strictly confidential. Furthermore, neither the 2009 IRP nor the 2011 IRP identified, with any specificity, the potential costs of compliance for the MATS rule or any other upcoming environmental compliance obligation.
14. The cost estimates for BART under the Regional Haze Rule are not confidential. Colstrip Units 1 and 2 are BART eligible (Jones, TR. 904:21-22), and as a 50% owner of those units PSE will be responsible for 50% of the cost of compliance. EPA has not yet finalized its BART determination for Montana; however, the Colstrip owners analyzed several control technologies that may be required under the Regional Haze Rule to control for NO_x and SO₂. (Exhibit No. MLJ-7C CX, page 13; see, also, Jones, TR. 908:8-12.) If EPA ultimately determines that BART for Colstrip is separated overfire air ("SOFA") and selective catalytic reduction ("SCR"), the Colstrip owners estimated the costs to be up to \$331 million. PSE's 50% share of this cost would be \$165.5 million.
15. PSE did not include the costs of retrofitting Colstrip in this current rate case proceeding. Sierra Club therefore did not specifically identify any costs as imprudent or

unreasonable in this proceeding. As explained in greater detail in the testimony of Dr. Hausman, Sierra Club recommended that the Commission order PSE to conduct a thorough, forward-going cost and risk study of the Colstrip plant compared to a full range of supply and demand side alternatives. (Exhibit No. EDH-1T, page 5.) Such a study must provide much greater detail on specific costs and allow for more public participation than a standard IRP process.

16. The potential future costs at Colstrip will be substantial, and PSE customers have a right to know about these costs and provide input to influence the decisions made by PSE's management. Given the risk, and indeed the likelihood of these future costs at Colstrip, any study of Colstrip, whether in the IRP or in an independent docket, must fully identify all of the potential costs in order to accurately compare PSE's existing coal resource to other potential generation sources. It is not appropriate to simply rely on past estimates or generic coal production costs because, as Sierra Club's testimony in this proceeding showed, Colstrip's costs will greatly increase in the near future.

III. ARGUMENT

A. IRP Requirement to Study Colstrip is a Good Start

17. On December 28, 2011, the Commission issued an acknowledgement letter in response to PSE's 2011 IRP filing in Docket Nos. UE-100961/UG-100960. (Exhibit No. JHS-35 CX, page 6.) The Commission included the following directions to PSE for its next IRP:

- PSE should model a scenario without Colstrip that includes results showing how PSE would choose to meet its load obligations without Colstrip in its portfolio and estimates of the impact on Net Present Value (cost) of its portfolio and rates.
- PSE should conduct a broad examination of the cost of continuing the operation of Colstrip over the 20-year planning horizon, including a range of anticipated costs associated with federal EPA regulations on coal-fired generation. (Exhibit No. JHS-35 CX, page 6.)

18. These directions from the Commission are very helpful and will allow PSE's customers to gain a much better understanding of the costs associated with PSE's continued reliance on Colstrip.
19. Sierra Club remains concerned, however, that an IRP evaluation of Colstrip will not – by itself – provide a forum that is sufficiently detailed and rigorous in its investigation of the extent and nature of costs related to coal fired generation. For this reason, Sierra Club reiterates its recommendation that the Commission order PSE to initiate a thorough, forward going Colstrip study now. Sierra Club further recommends that the Commission open a new docket or require PSE to file an application to review the Colstrip study such that intervening parties will be provided with full discovery rights.
20. During the evidentiary hearings in this proceeding, Chairman Goltz discussed with PSE witness Michael Jones the issue of a forward going Colstrip study. (Jones, TR. 916:19-919:19.) Mr. Jones stated that in the upcoming IRP process, PSE “will try to get the information definitive, but yet stay outside of the bounds of the need for confidentiality so that it will be a -- to be publicly presented.” (Jones, TR. 919:13-16.)
21. Sierra Club appreciates the Commission's and PSE's efforts to carefully examine the potential upcoming costs related to environmental compliance at Colstrip. However, Chairman Goltz's exchange with Mr. Jones highlights the shortcomings of a traditional IRP process with respect to these potential cost scenarios. An IRP typically involves modeling runs for different resource portfolio options. In order to run these analyses into the future, PSE makes certain assumptions about the inputs that go into the model. For example, PSE may rely on forecasted natural gas prices to predict the cost of natural gas electricity generation. The relative cost of natural gas plants will therefore vary depending on the assumptions that go into the forecasting of those prices, and the actual cost of natural gas may ultimately be quite different than the assumptions relied on in the modeling. This ambiguity is an unavoidable component of modeling and forecasting, but the uncertainty can be accounted for in part by running sensitivities on specific inputs. For example, to better understand the impact that different natural gas price assumptions would have on the net present value of natural gas generating resources, PSE could run

various scenarios that look at the “high end” predictions as well as the “low end” predictions.

22. The future cost of regulations on coal plants is another example of a variable in IRP modeling that could significantly change the relative cost of Colstrip compared to other resources. For example, PSE’s witness Michael Jones stated during hearings that different control technologies may be required under the MATS rule and could result in “a large range” of associated cost estimates. (Jones, TR. 914:11.) Those estimates are confidential, and if PSE simply picks an estimated input the public would have no way of knowing whether the number was representative of the appropriate cost to consider when modeling the future regulatory cost for MATS compliance at Colstrip. In response to questions from the bench on issues of confidentiality, Mr. Jones testified that PSE “would also attempt to provide estimates as input to the various IRP analyses that we do that we can probably make generic enough that confidentiality would not be an issue. We will certainly try that.”

23. It is unclear from Mr. Jones’s testimony how PSE intends to address uncertain regulatory costs such as MATS compliance. If PSE provides intervenors or members of the public with an opportunity to review the cost inputs as well as the assumptions that underlie those inputs, then those parties would have an opportunity to verify or challenge the appropriateness of those cost assumptions, and ideally parties could offer different inputs to be modeled. Similarly, if PSE ran sensitivities on each of the major potential environmental regulations likely to impact Colstrip that considered both high end and low end assumptions, then the Commission and the public could ascertain the possible impacts that different regulations might have on the cost of Colstrip and make informed decisions based on that information. However, this type of detailed analysis and the modeling of specific sensitivities for environmental regulations is not typical in an IRP proceeding. Sierra Club therefore remains concerned that the IRP process will result in modeling runs that underestimate or simply ignore possible costs.

24. Sierra Club’s concerns on this issue are not without justification. During this proceeding, Sierra Club issued several data requests to PSE asking whether the Company had considered the potential costs of new emissions controls for various rules. (Exhibit

No. EDH-1T, page 11.) For most of its responses, PSE claimed that it “cannot estimate if any additional controls are required.” (Exhibit No. EDH-1T, page 11:24-25.) While it is true that many environmental control costs remain uncertain, ignoring those costs altogether necessarily underestimates the impact of those costs because it assumes the cost to be zero. In practice, there is a very real risk that various environmental regulations will result in high compliance costs. As discussed above, potential Regional Haze compliance costs alone may reach up to \$165.5 million for PSE. Potential coal ash regulations are even more uncertain, but PSE documents obtained during this proceeding indicate that annual costs of compliance with coal ash regulation could be as high at \$100 million per year. (Exhibit No. EDH-1T, page 13:5-8; Exhibit No. MLJ-8 CX.) There are additional cost risks that stem from potential greenhouse gas regulations and proposed changes to National Ambient Air Quality Standards for particulates, NO₂, SO₂, and ozone. (Exhibit No. EDH-1T, page 7:19-26.) The costs associated with these risks are uncertain, but they certainly are not zero.

25. If during the IRP process PSE simply omits all of the costs that it deems uncertain, or if PSE chooses an overly conservative estimate for those costs, then the modeling runs predicting the relative future cost of Colstrip will necessarily underestimate the cost of coal power. The IRP process does not provide parties such as the Sierra Club with sufficient recourse to analyze and possibly challenge PSE’s input assumptions.

B. The IRP Process Alone is Insufficient to Fully Address Colstrip

26. The IRP process is an important planning tool that allows the Commission and the public an opportunity to engage with PSE in the development of its long term resource strategy. Sierra Club participated in past IRP proceedings and intends to participate in the upcoming 2013 IRP process.
27. As discussed above, the Commission’s direction to PSE to conduct a broad examination of the cost of continuing the operation of Colstrip over the 20-year planning horizon, including a range of anticipated costs associated with EPA regulations on coal-fired generation, is a very promising development that will go a long way to meeting

many of the concerns expressed by Sierra Club in this proceeding. It is important, however, to ensure that any examination of Colstrip includes all of the relevant information and costs that Colstrip will face in the coming years.

28. A typical IRP process does not allow the public to engage in discovery or have access to confidential information. In particular, the modeling runs and the assumptions that support the inputs for those modeling runs have a significant impact on the relative cost of various generation sources. Access to the data inputs for modeling runs and the assumptions underlying those inputs is a vital part of any study on the economics of Colstrip, but this type of data may not be provided in a typical IRP proceeding.

29. The current proceeding demonstrated the importance of access to confidential information in evaluating the potential cost of environmental regulations. Through discovery, PSE produced a confidential document, Exhibit No. MLJ-7C CX, that addressed a range of potential costs related to the MATS Rule and the Regional Haze Rule. PSE likely would not have disclosed that document during an IRP, and the public therefore would not have been able to fully evaluate the fact that upcoming requirements from EPA regulations may result in hundreds of millions of dollars in capital expenditures in order to continue to operate Colstrip. Moreover, Sierra Club cannot even discuss some of the contents of this document in the upcoming IPR process because the terms of the confidentiality agreement prevent it. While those costs are not specifically at issue in this proceeding because the plant retrofits are not yet in service, the likelihood that PSE will incur those costs is sufficiently certain to warrant careful scrutiny by PSE's management about whether to incur those costs or plan for the retirement of Colstrip.

30. The Commission previously looked at the role of the IRP compared to the rate case in 1998 in the context of deregulation. With respect to the IRP, the Commission stated:

In this context, the least-cost planning [“integrated resource planning”²] process **provides an opportunity for the utility's monopoly customers, along with the public and Commission Staff, to influence utility**

² The Commission amended the least cost planning process WAC 480-100-238 in 2001 to reflect the change of focus from “least-cost” to “integrated resource”. See Final Order, Docket No. UE-030311.

decisions. As the monopoly service provider, the utility acts as an exclusive agent for its customers. The [integrated resource planning] process provides a means for the customers and the public to provide input on decisions made by the utility on their behalf. The rule also creates a ‘level playing field’ for evaluating investments in energy efficiency and investments in supply-side resources, and a context for the utility to evaluate the relative environmental characteristics of competing resource choices. (Docket No. UE-940932, *Re Regulation of Electric Utilities in the Face of Change in the Electric Industry*, 184 P.U.R.4th 409, 1998 WL 223219.)

31. The Commission’s acknowledgement of the IRP process as a means for the public to play a role in utility decision making is clear. However, the Commission similarly recognized that the level of scrutiny applied in a typical IRP case does not raise to the level of scrutiny available in a rate case:

The Commission continues to believe that prudence evaluation remains an important tool to ensure that utilities are not indifferent to cost or to the consequences of poor decision-making. General rate increase proceedings were established as the forum in which to evaluate prudence, because issues pertaining to the need and price of a resource acquisition can only be determined in a forum where each decision can be viewed in conjunction with all other of the company's resource decisions. **The Commission believes there is no other currently available forum, sufficient in both rigor and scope, within which to make this determination.** (Docket No. UE-940932, *Re Regulation of Electric Utilities in the Face of Change in the Electric Industry*, 184 P.U.R.4th 409, 1998 WL 223219.)

32. The Commission’s order in UE-940932 highlights the difficulty faced by Sierra Club and other intervenors in circumstances where future substantial capital expenditures are likely but not yet certain. The Commission recognized the benefit of providing PSE’s customers with an opportunity to influence the utility’s decision making in the IRP. At the same time however, the Commission acknowledged that only the rate case provides sufficient scrutiny of utility costs to determine the prudence of utility decision making.

33. Relying solely on a rate case to consider the prudence of emerging utility expenditures creates other problems. Under general ratemaking principles, “an uncompleted utility plant is neither employed for service nor capable of being put to use for service; therefore, such a plant is not ‘used and useful’ for service as required by

RCW 80.04.250.” *People's Org. for Washington Energy Res. v. Washington Utilities & Transp. Comm'n*, 104 Wash. 2d 798, 815 (1985). Under typical rate base practices, no prudence review of these substantial costs is allowed until the utility seeks to include the pollution controls in rate base, which in turn only occurs after the controls are built and operational (i.e. used and useful). The Commission would similarly be precluded from taking an *a priori* look at non-capital operating expenses because those expenses would not be sufficiently known and measurable until after they were incurred. “Expenses...are facts. They are not to be ascertained, not created, by the regulatory authorities.” *People's Org. for Washington Energy Res. v. Washington Utilities & Transp. Comm'n*, 104 Wash. 2d 798, 817 (1985) (quoting A. Priest, *Public Utilities Regulation* 49 (1969)).

34. Sierra Club is not requesting that the Commission should commence a proceeding to consider whether to pre-approve the installation of a series of pollution controls at Colstrip. Those costs, if incurred, should ultimately be subjected to a prudence review in a rate case. Waiting until a rate case, however, risks subjecting ratepayers to unnecessary risks that they will ultimately be required to pay for poor investments. The incremental nature of EPA’s upcoming regulations and other potential costs at Colstrip could result in a series of costs that – on their own – appear prudent, but when taken as a whole would render the Colstrip facility uneconomical. Sierra Club’s recommendation is that the Commission require PSE to engage in a more robust planning process with respect to Colstrip than what is typical of an IRP.

C. Colstrip Is an Economic Risk for Ratepayers

35. The electric generation industry is undergoing massive change right now with respect to coal fired generation, and the decisions that PSE makes will have substantial economic impacts on ratepayers in the future. In the past few years, utilities across the country have announced numerous coal plant retirements as a result of several factors including increased regulatory costs, lower natural gas prices, and greater availability of renewable generation.
36. Relying on traditional principles of risk allocation between ratepayers and shareholders in this context creates undue risk for ratepayers. In *People's Org. for*

Washington Energy Res. v. Washington Utilities & Transp. Comm'n, 104 Wash. 2d 798, 800 *et seq.* (1985), the Commission faced the unpleasant scenario of determining how to allocate \$53.5 million in wasted expenses that Puget Sound Power and Light (“Puget Power”) had incurred to develop a nuclear power facility that it later abandoned. Under standard ratemaking principles, the nuclear plant assets never became “used and useful” and therefore were never eligible to go into rate base. Intervenors argued that it was therefore the responsibility of the shareholders to absorb the losses for what ultimately proved to be a failed investment.

37. The Commission disagreed. At the time, Puget Power had a bond rating of bbb, and the Commission noted that full disallowance of the abandoned nuclear plant expenses would further weaken the utility’s economic condition. The Commission therefore allowed Puget Power to include \$47.5 million in operations expenses for the abandoned plant, even though the plant was never completed and never served ratepayers. In other words, ratepayers had to bear the majority of the cost of Puget Power’s poor management decision.

38. The current situation with respect to coal plants is remarkably similar to the situation with proposed nuclear plants of the late 1970’s. As the court in *POWER* noted, by 1982, 91 nuclear power plants had been cancelled, and another 19 nuclear plants were likely to be canceled. Today, the coal fired power industry faces a similarly challenging future. Coal plants across the country are retiring due to increased capital investments resulting from more stringent pollution control requirements, age, and lower priced alternative generation sources. The Washington Legislature recognized this trend and took action to plan for it when it passed Senate Bill 5769 (2011 c 180, §101(5)), which among other things sought to plan for and facilitate the transition away from coal generated electricity in Washington: “it is the purpose of this act to provide for the reduction of greenhouse gas emissions from large coal-fired baseload electric power generation facilities, to effect an orderly transition to cleaner fuels in a manner that ensures reliability of the state’s electrical grid...”

39. Sierra Club identified several areas of potential costs facing Colstrip and PSE in the near term. These large investments in capital should be made at shareholder risk.

Past experience shows, however, that poor decision making by utilities with respect to major capital investments creates substantial risks for ratepayers. Those risks are present today. Colstrip faces a series of costs that could each result in hundreds of millions in required expenditures. If PSE makes large, near term regulatory expenditures, only to determine later that future operations at Colstrip are uneconomical, then it will have wasted substantial amounts of ratepayer dollars. Or, in the alternative, if PSE analyzes each round of expenditures independent of future potential costs, then it will vastly underestimate the relative value of coal-fired generation as compared to other resources.

40. Just as expenditures of millions of dollars for proposed nuclear plants were wasted in the 1980's when those plants were abandoned, today utilities face the risk of wasting hundreds of millions of dollars in capital expenditures in coal plants that may face retirement before ratepayers realize the full benefits of those expenses. If the Commission ignores those costs and their attendant risks, then it places ratepayers in a similar situation as they were in 1982 when Puget Power's ratepayers were forced to pick up \$47.5 million in costs for an abandoned nuclear plant.

D. Sierra Club Strongly Supports PSE's Early Investment in Wind

41. Many parties to this proceeding devoted considerable time and paper to addressing the prudence of the Lower Snake River Wind Project, Phase I. Notably, Public Counsel submitted testimony criticizing several aspects of PSE's evaluation of the LSR project. Sierra Club's witness Dr. Hausman addressed many Public Counsel's comments in his cross-answering testimony. (Exhibit No. EDH-5CT.) Sierra Club does not repeat those arguments here; however, it is important to note that many of the cost risks to PSE consumers discussed above with respect to future environmental regulations are largely absent from investment in wind resources.
42. Wind energy resources create power at a stable and predictable cost with no emissions of greenhouse gases or criteria pollutants. They produce power without depleting or compromising water resources, and without requiring the production and transportation of fossil fuels from out of state or across international borders. Investment in and operation of wind resources creates jobs and produces a stream of local tax

revenues; production of surplus RECs can translate into an additional revenue stream for the utility. Utility ownership of wind resources reduces ratepayer exposure to volatile fuel prices, and to current or future costs for emissions of carbon dioxide and other pollutants. Early investment in wind accelerates all of these benefits—indeed this is the very purpose of the Federal treasury grant program; responding to this incentive served as part of the basis for PSE’s decision to move forward in this case, exactly as Congress intended. (Exhibit No. EDH-5CT, page 11-12.)

43. As Dr. Hausman testified, PSE’s current pace of wind investment may actually be too low. (Exhibit No. EDH-1T, page 24.) While the Company acknowledged some benefits of early investment, such as the tax incentives, there are several other benefits of renewable resources in the context of future environmental regulations such as those discussed above related to Colstrip. In the context of a stricter regulatory environment that will disproportionately impact coal and other fossil fuels, building even more renewables earlier will likely prove to be a more prudent investment strategy.

IV. CONCLUSION

44. For the foregoing reasons, Sierra Club asks the Commission to issue an order requiring PSE to conduct a thorough, forward-going cost and risk study of the Colstrip plant, compared to a full range of supply and demand side alternatives. The study should include a full analysis of the range of risks for future costs at Colstrip from environmental retrofits due to state and federal regulations, increasing coal prices, costs and risks associated with the rehabilitation, maintenance, expansion, and continued operation of storage ponds for combustion waste, and the risks associated with future carbon emissions costs.
45. Should the Commission rely solely on the IRP process to consider future costs at Colstrip, Sierra Club requests that the Commission direct PSE to allow parties to conduct discovery and access confidential information where appropriate. An IRP review of Colstrip should include detailed cost inputs for potential future regulations, including cost sensitivities for the following regulations that are major potential contributors to the cost of Colstrip: MACT Rule compliance; Regional Haze Rule compliance; coal combustion

residual regulations; greenhouse gas regulations; and updates to NAAQS standards. PSE should also include non-regulatory costs such as: increased costs of coal at the Rosebud mine; potential future costs associated with an alternative source of coal, including infrastructure costs; upcoming major capital improvements or repairs such as boiler overhauls or major component replacements.

46. Sierra Club further recommends that the Commission find, in its final order in this proceeding, that prior submission of such a thorough, forward going evaluation of Colstrip in either an IRP or an independent docket will be a key consideration in all future prudence reviews of the Company's rate requests, particularly as they relate to any upgrades, retrofits, of life-extension investments in the Colstrip units.

March 9, 2012

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