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Travis Kavulla, Chairman
District 1

June 19, 2012

Carl Daly
Director, Air Program
Environmental Protection Agency Region 8
Mailcode 8P-AR
1595 Wynkoop Street
Denver, CO 80202-1129

Comments by Travis Kavulla, Montana Public Service Commissioner, in Docket No. EPA-R09-OAR-2011-0851

Dear Mr. Daly:

Thank you for visiting Montana last month to take public comment on the Environmental Protection Agency's proposed Regional Haze Federal Implementation Plan for the State of Montana.

I'm writing today to follow up on public comments I gave at the May 1 public hearing in Helena, because I have concerns that the EPA's economic impacts study does not consider the wider market consequences of a possible shutdown of generating capacity that could result from the implementation of the rule, and which should be imputed as associated per-unit costs of SO_2 and NO_x in considering how to control for those emissions.

None of the Montana-based plants owned by the state's largest regulated utility, NorthWestern Energy, are subject to remediation pursuant to the proposed rule.[1] However, a large part of NorthWestern's portfolio is supplied by PPL Montana, Montana's largest power merchant. Unlike a regulated utility, which would likely seek an advanced pre-approval for recovery of costs associated with environmental upgrades, PPL will make a decision whether to upgrade its facilities based on the total unit cost of production at its plants and the margin that cost provides when measured against the price that PPL can command through market contracts with counterparties like NorthWestern, which are reliant on third-party providers for supply.

[1] Certain commenters recommend the installation of SCR at Colstrip Units 3 & 4. I will not address that recommendation in these comments, except to say that I oppose it as being not cost-effective for the gains in visibility contemplated.

If the cost of production resulting from this rule (as well as the prospect of price increases driven by the potential promulgation of other rules in the near future) exceeds the market value of power, PPL may make a decision to shutter the plant. Withholding capacity in this way would have implications on market prices. It would reduce the stack of generation available in the northwestern United States and cause units that were higher-cost than the Colstrip facility to dispatch more frequently, effecting an upward trend of power available in the merchant market. The proposed rule does not consider the probability of this outcome's occurring, and does not attempt to analyze, in the eventuality that it did occur, the market impacts resulting from generation withheld because of uneconomical environmental upgrade costs.

Based on an analysis of production cost data, there is at least some chance that Colstrip Units 1 & 2 would become uneconomical as a result of mandated upgrades. I have attached a worksheet that demonstrates a calculation which takes the known output and per-unit cost of production from one of the co-owners of Colstrip Units 1 & 2, and calculates the total increase in the cost of production for the plant based on projections of the cost of the environmental upgrades.[2] That all-in cost of production is $25.591 per megawatt-hour, or a 19.6% increase over the current cost of production reported in Federal Energy Regulatory Commission filings at $21.40 per megawatt-hour. This cost impact can then be compared against current market prices, which I have plotted over the past year using data from *Clearing Up*, a regional trade publication that reports on market prices at the Mid-Columbia trading hub. The calculation assumes that the plants will generate an amount of electricity similar to what was generated in 2010, and also assumes that EPA's estimated capital expenditure and incremental operating costs are accurate.

As can be seen, were the Colstrip Units 1 & 2 exposed to current market prices, they would frequently not be economical to run.[3] Although the plants' output is secured at higher prices through longer-term contracts, recurring low market prices will ultimately force the prices of those contracts down over the scope of time as they are renegotiated, and PPL may decide to withhold generating capacity to spare itself the cost of the upgrade and cause generating resources to become scarcer. This may make PPL's remaining resources potentially more costly to counterparties; or PPL could choose to wait to make upgrades until market prices increase, effecting the same result, albeit over a different term. Again, the impacts of a potential constriction of supply either on a short- or long-term basis are not analyzed, as they should be, in the proposed rule.

I write in my individual capacity as a commissioner. The Montana Public Service Commission is not submitting comments in this proceeding, although it held a widely attended roundtable on December 6, 2011, on EPA's proposed rules affecting coal-fired generation, including the Regional Haze Rule, in which EPA was represented by your region's director. I thank you for your attendance at that roundtable, and also for the opportunity to make comments in this proceeding.

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[2] PPL's cost data is not publicly available, so the prices of its co-owner, Puget Sound Energy, are used as a proxy.
[3] Out of 32 data points of average high-load and light-load costs plotted, market prices only exceed the cost of production, including the environmental upgrade, on 10 occasions.

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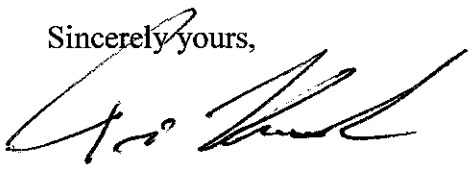
Sincerely yours,



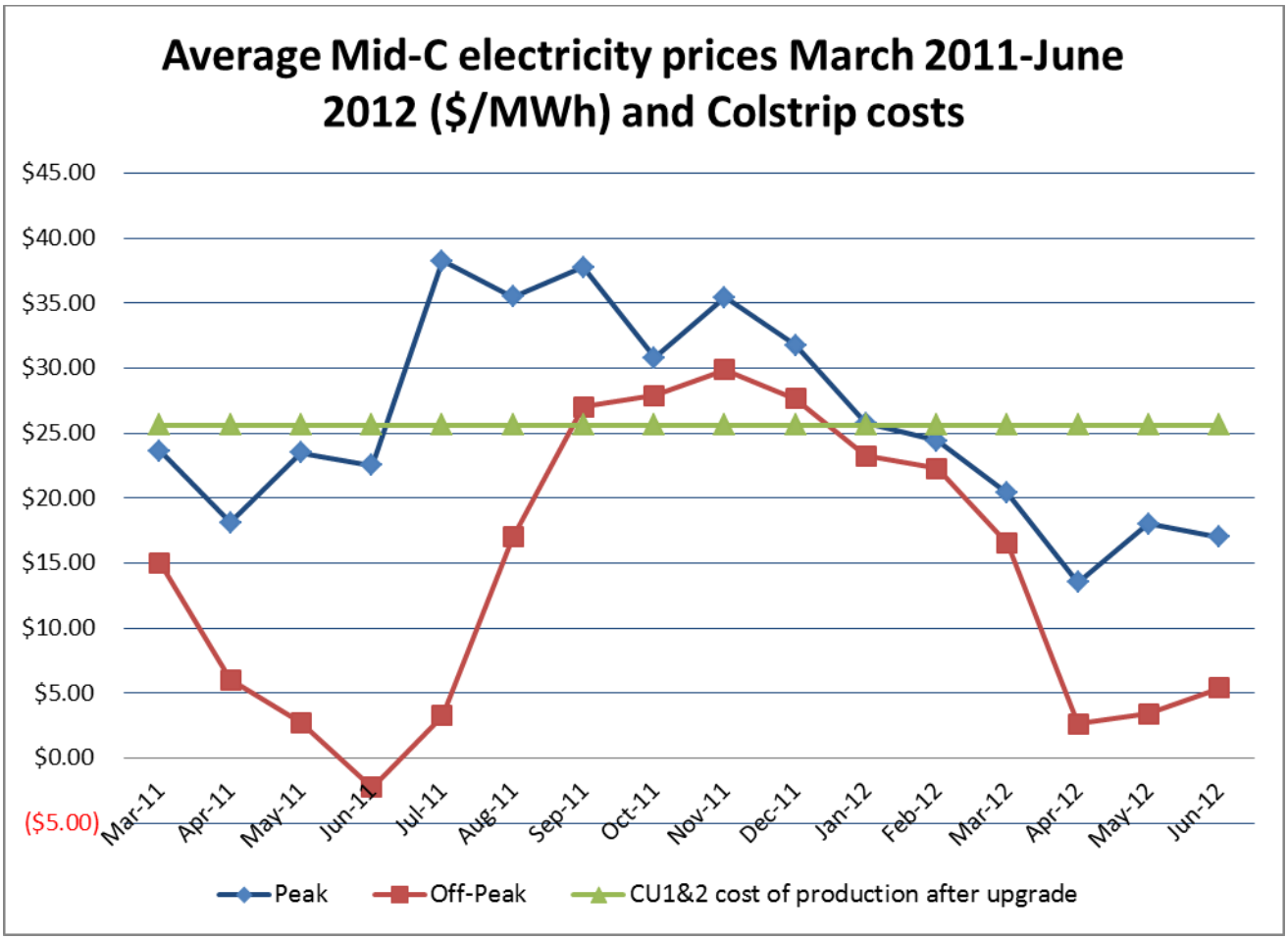
Travis Kavulla

Attachments:

1. Worksheet, "Cost Impacts Resulting from EPA's Regional Haze Rule—Montana"
2. Average Mid-C electricity prices March 2011 – June 2012 ($/MWh) and Colstrip costs.
3. Puget Sound Energy, 2010, FERC Financial Form No. 1: Annual Report of Major Electric Utilities, Licenses and Others and Supplemental Form 3-Q: Quarterly Financial Report

Cost Impacts Resulting from EPA's Regional Haze Rule-Montana

- Est. Annual Energy Production Colstrip 1&2 = ~4,500,000 megawatt-hours [Source: 2,293,375 MWhs for 50% co-owner, Puget Sound, per end of 2010 FERC report, representing a 69% net capacity factor]
- Cost of production (net expenses) per MWh = $21.40 [Source: *ibid*.]
- Total cost of investment = $82,761,346 (including cost of debt/capital) [per EPA estimate in EPA, 40 CFR Part 52, EPA-R08-OAR-2011-0851, Approval & Promulgation of Implementation Plans; State of Montana; State Implementation Plan and Regional Haze Federal Implementation Plan]
- Total annual operating cost increase = $14,721,491
- $377,191,166 investment & operating cost based on a 20-year lifespan (per EPA assumption)
  - Divided by 4,500,000*20 years (total anticipated energy output during plant lifetime) = $4.191/MWh increased cost of production, or a 19.6% increase in cost of production at Colstrip 1 & 2.
  - All-in cost of production, including upgrade = $25.591 per megawatt-hour.
- Caveats:
  - PPL's rates are market-based: They charge what the market can bear. However, if depressed market prices continue, Colstrip 1&2 cost of production increases beyond market prices, and plant will close rather than retrofit.
  - PPL asserts that price of retrofit is higher than the $377 million estimated by EPA.


Average Mid-C electricity prices March 2011-June 2012 ($/MWh) and Colstrip costs
$45.00
$40.00
$35.00
$30.00
$25.00
$20.00
$15.00
$10.00
$5.00
$0.00
($5.00)
Mar-11
Apr-11
May-11
Jun-11
Jul-11
Aug-11
Sep-11
Oct-11
Nov-11
Dec-11
Jan-12
Feb-12
Mar-12
Apr-12
May-12
Jun-12
Peak
Off-Peak
CU1&2 cost of production after upgrade

THIS FILING IS	
Item 1: [X] An Initial (Original) Submission	OR [ ] Resubmission No. ____

Form 1 Approved
OMB No. 1902-0021
(Expires 12/31/2011)
Form 1-F Approved
OMB No. 1902-0029
(Expires 12/31/2011)
Form 3-Q Approved
OMB No. 1902-0205
(Expires 1/31/2012)

FERC FINANCIAL REPORT
FERC FORM No. 1: Annual Report of Major Electric Utilities, Licensees and Others and Supplemental Form 3-Q: Quarterly Financial Report

These reports are mandatory under the Federal Power Act, Sections 3, 4(a), 304 and 309, and 18 CFR 141.1 and 141.400. Failure to report may result in criminal fines, civil penalties and other sanctions as provided by law. The Federal Energy Regulatory Commission does not consider these reports to be of confidential nature

Exact Legal Name of Respondent (Company)	Year/Period of Report
Puget Sound Energy, Inc. UBI#179010055	End of 2010/Q4

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
Puget Sound Energy, Inc.	(1) [X] An Original (2) [ ] A Resubmission	04/15/2011	End of 2010/Q4

STEAM-ELECTRIC GENERATING PLANT STATISTICS (Large Plants)

1. Report data for plant in Service only. 2. Large plants are steam plants with installed capacity (name plate rating) of 25,000 Kw or more. Report in this page gas-turbine and internal combustion plants of 10,000 Kw or more, and nuclear plants. 3. Indicate by a footnote any plant leased or operated as a joint facility. 4. If net peak demand for 60 minutes is not available, give data which is available, specifying period. 5. If any employees attend more than one plant, report on line 11 the approximate average number of employees assignable to each plant. 6. If gas is used and purchased on a therm basis report the Btu content or the gas and the quantity of fuel burned converted to Mct. 7. Quantities of fuel burned (Line 38) and average cost per unit of fuel burned (Line 41) must be consistent with charges to expense accounts 501 and 547 (Line 42) as show on Line 20. 8. If more than one fuel is burned in a plant furnish only the composite heat rate for all fuels burned.

Line No.	Item (a)	Plant Name: *COLSTRIP 1 & 2* (b)			Plant Name: *COLSTRIP 3 & 4* (c)		
1	Kind of Plant (Internal Comb, Gas Turb, Nuclear	Steam			Steam		
2	Type of Constr (Conventional, Outdoor, Boiler, etc)	Semi-Outdoor			Semi-Outdoor		
3	Year Originally Constructed	1975			1984		
4	Year Last Unit was Installed	1976			1986		
5	Total Installed Cap (Max Gen Name Plate Ratings-MW)	377.00			433.50		
6	Net Peak Demand on Plant - MW (60 minutes)	307			370		
7	Plant Hours Connected to Load	16021			16706		
8	Net Continuous Plant Capability (Megawatts)	0			0		
9	When Not Limited by Condenser Water	307			370		
10	When Limited by Condenser Water	0			0		
11	Average Number of Employees	1			1		
12	Net Generation, Exclusive of Plant Use - KWh	2293375000			2904730000		
13	Cost of Plant: Land and Land Rights	979627			2790705		
14	Structures and Improvements	41226660			125859182		
15	Equipment Costs	220726299			367523420		
16	Asset Retirement Costs	540097			333978		
17	Total Cost	263472683			496507285		
18	Cost per KW of Installed Capacity (line 17/5) Including	698.8665			1145.3455		
19	Production Expenses: Oper, Supv, & Engr	61750			50554		
20	Fuel	34234662			33303607		
21	Coolants and Water (Nuclear Plants Only)	0			0		
22	Steam Expenses	4155364			2502216		
23	Steam From Other Sources	0			0		
24	Steam Transferred (Cr)	0			0		
25	Electric Expenses	97082			87816		
26	Misc Steam (or Nuclear) Power Expenses	1532495			3001235		
27	Rents	9047			32766		
28	Allowances	0			0		
29	Maintenance Supervision and Engineering	827101			589309		
30	Maintenance of Structures	1124651			847753		
31	Maintenance of Boiler (or reactor) Plant	5176409			4412221		
32	Maintenance of Electric Plant	578523			538076		
33	Maintenance of Misc Steam (or Nuclear) Plant	1264419			863749		
34	Total Production Expenses	49061503			46229302		
35	Expenses per Net KWh	0.0214			0.0159		
36	Fuel: Kind (Coal, Gas, Oil, or Nuclear)	Coal			Coal		
37	Unit (Coal-tons/Oil-barrel/Gas-mcf/Nuclear-indicate)	Tons			Tons		
38	Quantity (Units) of Fuel Burned	1469911	0	0	1785698	0	0
39	Avg Heat Cont - Fuel Burned (btu/indicate if nuclear)	8583	0	0	8430	0	0
40	Avg Cost of Fuel/unit, as Delvd f.o.b. during year	21.750	0.000	0.000	16.760	0.000	0.000
41	Average Cost of Fuel per Unit Burned	23.290	0.000	0.000	18.650	0.000	0.000
42	Average Cost of Fuel Burned per Million BTU	1.360	0.000	0.000	1.110	0.000	0.000
43	Average Cost of Fuel Burned per KWh Net Gen	0.015	0.000	0.000	0.011	0.000	0.000
44	Average BTU per KWh Net Generation	11002.000	0.000	0.000	10365.000	0.000	0.000