

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO**

Docket No. 11A-325E

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF
COLORADO FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND
NECESSITY FOR THE PAWNEE EMISSIONS CONTROL PROJECT

STATEMENT OF POSITION

OF

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OCTOBER 28, 2011

I. INTRODUCTION AND SUMMARY

[Note: Ms. Glustrom is writing this Statement of Position while traveling with very limited computer time and while taking care of her elderly parents. She apologizes in advance for any rough edges.]

Leslie Glustrom, an intervenor in this docket, respectfully submits this Statement of Position in the above captioned docket at the Colorado Public Utilities Commission (“PUC” or “Commission”) related to the Application of Public Service Company of Colorado (“PSCo” or “Xcel” or the “Company”) for a Certificate of Public Convenience and Necessity (“CPCN”) for the Pawnee Emissions Control Project. “Pawnee” is a 505 MW coal plant located northeast of Denver in Brush, Colorado. It was built in 1981.

The primary purpose of this Statement of Position is to provide a public record of what is known about the capital and operating costs related to the decision to add emission controls¹ to the 505 MW “Pawnee” coal plant in Brush, Colorado including the addition of:

- A Selective Catalytic Reduction (“SCR”) for control of nitrogen oxides or “NOx” which is expected to reduce NOx emissions by about 70%.²
- A Lime Spray Dryer (“LSD”) or “scrubber” for control of sulfur dioxide or “SO2” which is expected to reduce SO2 emissions by about 83%;³ and

¹ Importantly, none of the emission controls discussed in this docket address the emission of carbon dioxide from the Pawnee plant. CO2 is the primary greenhouse gas and is widely understood to be the primary driver of the warming of the planet—the consequences of which are becoming increasingly apparent through the melting of the Arctic Ice Cap and the permafrost accompanied with the increased releases of previously bound carbon the loss of temperate forests to insect attacks and the increase of extreme weather events including droughts, floods, forest fires and tropical storms.

² For the expected 70% reduction in NOx emissions, see the response to Discovery Request LWG 1-4, Docket 11A-325E found in Hearing Exhibit 28. Emissions of 4,099 tons of NOx from the Pawnee plant in 2010 were provided in response to Discovery Request LWG 4-11. See Hearing Exhibit 32.

³ For the expected 83% reduction in SO2 emissions, see the response to Discovery Response LWG 1-5, Docket 11A-325E found in Hearing Exhibit 29. Emissions of 13,144 tons of SO2 from the Pawnee plant in 2010 was provided in response to Discovery Response LWG 4-12, Docket 11A-325E. See Hearing Exhibit 33.

- A Sorbent Injection System (“SIS”) for mercury control which is expected to reduce mercury emissions by about 76%.⁴

In addition, I will discuss potential future costs that could increase if a final decision is made to move forward with the Pawnee Emission Control Project and finally I will discuss the “changing circumstances” that indicate that making a large investment in an aging coal plant in this century is not likely to be a wise investment for either Xcel or its ratepayers.

This Statement of Position will provide the Commission with the following recommendations:

- 1) Establish a price cap for the Pawnee Emissions Control Project. Other parties that have access to the confidential cost information will likely provide a suggested price cap that Ms. Glustrom encourages the Commission to adopt.
- 2) Establish a limit on the presumption of prudence for the operating costs for the pollution control equipment. If the costs of operating the SCR, LSD or SIS are higher than Xcel has projected, then establish that Xcel—and not ratepayers—will be responsible for the increased costs.
- 3) Remind Xcel that it should monitor changing circumstances that could signal that proceeding with the Pawnee Emissions Control project would not be prudent based on information that the Company either knows or should know regarding trends in a variety of costs. With increasing costs for coal and the chemicals and water needed to operate a coal plant and rapidly declining costs for renewable

⁴ For the expected 76% reduction in mercury emissions, see the response to Discovery Request LWG 1-14, Docket 11A-325E, found in Hearing Exhibit 30. Emissions of 220.9 pounds of mercury from the Pawnee coal plant in 2010 were provided in response to Discovery Request LWG 4-10, Docket 11A-325E. See Hearing Exhibit 31.

technologies and efficiency, storage and demand response technologies, it is likely that the prudence of making a large investment in a coal plant in the 21st century will be increasingly questioned in the coming years.

Given what Xcel knows now (or should know), it should resist the temptation to make a large investment in the Pawnee coal plant just because it increases the worth of the net plant and thereby increases Xcel's profits; making imprudent investments in order to drive short term profits is not good for Xcel's ratepayers, Xcel or the State.

II. DIRECT COSTS OF THE PAWNEE EMISSION CONTROL PROJECT

Hearing Exhibit 10 provides information on capital costs and the expected increase in \$/MWh operating expense of the Pawnee coal plant as a result of the depreciation expenses associated with the addition of emission controls. The key information from Exhibit 10 about the capital costs of the SCR and the LSD is reproduced below:⁵

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⁵ Presently the value of the Pawnee coal plant is approximately \$230 million according to Discovery Response LWG 6-1, Docket 10M-245E included with Hearing Exhibit 121, Docket 10M-245E.

The magnitude of the profit that Xcel would earn on this project will become apparent if Xcel proceeds with the project and then attempts to seek cost recovery for the project. In general, the capital investment is multiplied by the Weighted Average Cost of Capital which has been about 8.6% before taxes.

Thus, if Xcel moves forward with the Pawnee Emission Control Project it will expect to receive significant “return on” (i.e. profit) on the project in addition to receiving the “return of” the investment through depreciation. Both the “return of” and “return on” the direct cost of the investments will increase ratepayers bills if Xcel moves forward with the Pawnee Emissions Control Project.

As it is presently, Xcel (and its shareholders) stand to earn a substantial profit on these investments. In exchange, to the extent that Xcel has underestimated the costs of operating the pollution control equipment on the Pawnee coal plant, any increases in O&M costs should be borne by Xcel’s shareholders who stand to benefit from the investment—and not by ratepayers.

The Commission should include a provision in its order that caps the capital expenditures on the Pawnee Emission Control Project and, as discussed further below, establishes that increases in operating and maintenance expenses or other costs will be borne by Xcel’s shareholders, not by ratepayers.

III. OTHER COSTS OF THE PAWNEE EMISSION CONTROL PROJECT

In addition to the capital costs and return on that investment at Xcel’s Weighted Average Cost of Capital, there are a number of operating and other costs related to the Pawnee Emission Control Project including the following projections provided by Xcel:

- \$44 million (2010 \$) until 2041 for the chemicals used in the LSD.⁶
- \$167 million (2010 \$) until 2041 for the chemicals needed for the SCR.⁷
- \$32 million (2010 \$) until 2041 for the brominated carbon sorbent for mercury control.⁸
- Fixed operating costs including
 - \$570,000/year for the SCR;⁹ and
 - \$4,000,000 per year for the LSD.¹⁰
- Increased costs of coal ash handling because it will no longer be used in cement making.¹¹

All of these costs will likely be passed through to rate payers and are likely to escalate significantly over the next three decades.

The Commission should establish a cost cap on the operating and maintenance costs for the Pawnee Emission Controls and establish that increases in these costs above those projected by Xcel will be borne by Xcel's shareholders and not by the ratepayers. Again, shareholders are expecting to reap significant profits from the expenditure on pollution controls for the Pawnee coal plant; in exchange,

⁶ Cost of chemicals for the LSD provided in response to Discovery Request LWG 3-14, Docket 11A-325E. See Hearing Exhibit 18.

⁷ Cost of chemicals for the SCR provided in response to Discovery Request LWG 3-15, docket 11A-325E. See Hearing Exhibit 19.

⁸ Cost of chemicals for the mercury sorbent system provided in response to Discovery Request LWG 3-13, Docket 11A-325E. See Hearing Exhibit 17.

⁹ The \$570,000 for the annual fixed operating costs of the SCR were provided in response to Discovery Request RUC 1-7, Docket 11A-325E. See Hearing Exhibit 16.

¹⁰ The \$4,000,000 for the fixed operating costs of the LSD were provided in response to Discovery Request RUC 1-7, Docket 11A-325E. See Hearing Exhibit 16.

¹¹ The creation of 37,000 tons of fly ash for on-site disposal is discussed in the response to Discovery Request LWG 1-9, Docket 11A-325E. See Hearing Exhibit 21. Other coal ash handling information was provided in Discovery Request LWG 2-4, Docket 11A-325E. See Hearing Exhibit 23.

shareholders—and not ratepayers—should hold the responsibility for increased costs of operating the emissions controls on the coal plant.

IV. POSSIBLE FUTURE COSTS RELATED TO THE PAWNEE EMISSION CONTROL PROJECT

There are a number of uncertainties regarding future costs related to proceeding with the Pawnee Emission Control Project. These include:

- Possible increases in chemical costs for the SCR and LSD that exceed the assumed 2.5% that Xcel is using as an escalator.¹²
- Possible increases in the cost of water over the next 3 decades.¹³
- New coal ash handling regulations that require the coal ash produced by this project to be handled in a more stringent manner.¹⁴
- Corrosion in the Lime Spray Dryers or Selective Catalytic Reduction equipment which could require expensive repairs.¹⁵
- Reduced power from the coal plant due to the power requirements of the emission control devices.¹⁶

¹² Increased cost of chemicals for operating coal plants was one of the drivers in the 08S-520E and 09AL-299E Xcel rate cases as outlined in the Hearing Exhibits for those dockets.

¹³ Water sources for the Pawnee coal plant are listed in Discovery Response LWG 5-1. See Hearing Exhibit 34. The fact that the Pawnee coal plant used 4829 acre feet of water (an acre foot equates to 325,851 gallons) was provided in response to Discovery Response LWG 5-2, Docket 11A-325E. See Hearing Exhibit 35.

¹⁴ The U.S. Environmental Protection Agency is in the process of considering more stringent regulations for the handling of coal ash. If enacted, these regulations are expected to significantly increase the cost of handling coal ash which contains a number of heavy metals and other toxins.

¹⁵ The possibility for corrosion in Lime Spray Dryers was discussed in response to Discovery Request LWG 3-4, Docket 11A-325E. See Hearing Exhibits 23 and 24. The possibility for corrosion in the Selective Catalytic Reduction equipment is acknowledged in the description of the Air Preheater Modifications for the SCR in Hearing Exhibit 15.

¹⁶ For the fact that the SCR, LSD and SIS are expected to require about 8 MW of housepower to operate see the cross examination of Mr. Vader by Ms. Glustrom on Monday October 17, 2011.

- Reduced output from the plant due to the plant’s capacity factor being less than the assumed 84%.¹⁷
- Need to comply with non-mercury metal hazardous air pollutant regulations as well as other new air pollution regulations.¹⁸
- Increased litigation related to environmental pollution including CO2 and climate change and mercury exposures.¹⁹
- Increased wind curtailment costs when coal plants can’t be ramped down and rate payers have to pay the wind curtailment costs incurred by Xcel (as discussed further below.)²⁰
- Possible stranded costs if Xcel decides to retire the Pawnee plant early due to increasing fuel and operating costs and declining costs of renewable energy and demand side measures.²¹

The Commission should establish a policy on these potential future costs that ensures that increases in these costs are borne by Xcel’s shareholders—not by Xcel’s ratepayers.

¹⁷ The assumed 84% capacity factor for the Pawnee plant was provided in response to Discovery Request LWG 4-6, Docket 11A-325E. See Hearing Exhibit 26. Historical capacity factors for the Pawnee plant were provided in response to Discovery Request LWG 4-7, Docket 11A-325E. See Hearing Exhibit 27.

¹⁸ While no one can predict the future, it is reasonable to expect that air pollution and other environmental regulations will become more stringent over the next 30 years.

¹⁹ Xcel has already been sued several times for its CO2 emissions. These lawsuits are summarized in Xcel’s Annual “10-K” Reports submitted to the Securities and Exchange Commission.

²⁰ Xcel’s wind curtailment costs have mounted quickly in recent years. Wind curtailment costs have been received in response to discovery responses in the 11A-418E docket.

²¹ It is likely that the Pawnee plant will be retired or mothballed earlier than 2041 due to the cost trends discussed herein and which are well known to Xcel. It does not make sense to make a large investment in a facility that will likely be retired early—unless you expect, as Xcel does, to make a significant profit on that investment—regardless of its prudence.

V. CHANGING CIRCUMSTANCES THAT WERE NOT AND COULD NOT BE ADDRESSED IN THE 10M-245E (“CLEAN AIR CLEAN JOBS”) DOCKET AFFECTING THE PRUDENCE OF THE PAWNEE EMISSION CONTROL PROJECT

There are many circumstances that have changed since the Colorado PUC issued its final decision (C10-1328) in the 10M-245E (“Clean Air Clean Jobs”) docket on December 15, 2011. Some of these changing circumstances are described below.

To ensure that Xcel makes a prudent investment for the Company and its ratepayers, it would be wise for the Commission to encourage the Company to reevaluate the wisdom of the Pawnee Emission Control Project in light of these changing circumstances which include:

- Declining costs of wind power²²
- Dramatic increases in Xcel’s wind curtailment costs,²³
- Continued and projected decline in the cost of solar installations²⁴
- The need for flexibility in accommodating increased levels of renewable energy²⁵
- Increased cost of coal and looming coal supply constraints²⁶
- The potential loss of franchise communities if Xcel continues to make unwise investments in coal infrastructure at a time when an increasing

²² For information on the declining costs of wind power, see for example Dockets 10A-377E, 11A-689E and 11A-833E. This is all information that Xcel knows or should know and which should be considered before making a large investment in the Pawnee coal plant.

²³ For information on the increases in Xcel’s wind curtailment costs, see Dockets 11A-418E and 11A-689E.

²⁴ For information on the declining costs of solar energy installed on Xcel’s system in Colorado, see Dockets

²⁵ For information on the declining costs of solar energy, see Dockets 11A-135E and 11A-418E.

²⁶ The costs of coal for the Pawnee plant can be determined through the “EIA 423” database. Coal supply constraints are easily predicted based on the geology of the Powder River Basin as described in USGS 2008-1202 and the Environmental Impact Statements for the proposed coal “lease” expansions in the Powder River Basin as overseen by the Casper Field Office of the Bureau of Land Management in Wyoming. For comparison, Xcel’s projected coal costs can be found in Hearing Exhibit 13.

number of rate payers are making it clear they want clean energy, not dirty coal plants.²⁷

Information on each of the above topics has surfaced **since** the final decisions were made in the 10M-25E “Clean Air Clean Jobs” docket. Since the information surfaced **after** the Clean Air Clean Jobs decisions, it could not possibly have been considered by the Commission in that docket.

Much of the information on changing circumstances outlined above originates with Xcel, so the Company either knows or should know this information and should consider the long term consequences of making large and very likely imprudent investments in coal plants in the 21st century when lower cost and cleaner alternatives are already available—or will soon be.

The Commission should direct Xcel to monitor the large number of changing circumstances that are likely to make an investment in pollution controls for the Pawnee coal plant not prudent. The Commission should warn Xcel that a CPCN for the pollution control project does not provide a guarantee of prudence and that Xcel should expect the prudence of its investment to be challenged based on information that the Company either knows or should know that indicates that making a large investment in the Pawnee coal plant in the 21st century is not prudent.

²⁷ Regardless of the outcome of the Boulder election on November 1, 2011, it is clear to anyone who is paying attention that Xcel’s customers increasingly favor clean energy—not dirty energy from coal plants. As we move through the next three decades it is very likely that Xcel’s ratepayers will find one or more ways to liberate themselves from paying for Xcel’s imprudent investments in dirty coal plants.

Respectfully submitted this 28th day of October 2011.

/s/Leslie Glustrom

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