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1 BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF
2 COLORADO

3 DOCKET NO. 08S-520E

4 RE: THE INVESTIGATION AND SUSPENSION OF TARIFF SHEETS FILED BY
5 PUBLIC SERVICE COMPANY OF COLORADO WITH ADVICE LETTER NO. 1522.

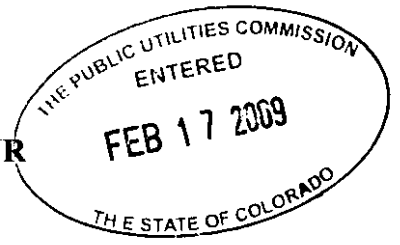
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8 **ANSWER TESTIMONY OF LESLIE GLUSTROM**
9 **FEBRUARY 13, 2009**

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12
13 **Q: PLEASE STATE YOUR NAME AND CONTACT INFORMATION.**

14
15 A: My name is Leslie Glustrom. I am a citizen intervenor in this Docket representing
16 myself. My address is 4492 Burr Place, Boulder , Colorado 80303. My phone number is
17 303-245-8637 and my e-mail is lglustrom@gmail.com.

18
19 **Q: PLEASE SUMMARIZE THE BASIS AND INTENTION OF YOUR**
20 **TESTIMONY.**

21 A: My testimony is submitted in accordance with PUC Rule 3613 (d) (4 Code of Colorado
22 Regulations (“CCR”) 723-3, Rule 3613 (d). The primary purpose of my testimony is to alert
23 the Colorado Public Utilities Commission to two issues related to the Unit 3 coal plant
24 (referred to as “Comanche 3” by Xcel) as well as to raise a number of issues related to
25 Xcel’s requested rate increase in this Docket. As always, before beginning I want to
26 acknowledge the extremely hard work of many Xcel employees as the utility works to lead
27 the way into the 21st century. The fossil fuel investments at issue in this rate case, the Unit 3
28 coal plant, the gas turbines at Fort St. Vrain and increased O&M costs for its fossil fuel



1 fleet are the result of Xcel's "old" ways of thinking and operating and in particular, the
2 imprudent leadership of Xcel's former CEO, Wayne Brunetti who pushed the Unit 3 coal
3 plant so strongly after Xcel's stock crashed in 2002. Unfortunately, Xcel's present
4 employees are put in the difficult position of defending this ill-advised investment. Nothing
5 in my testimony is meant to reflect negatively on the many fine employees that are working
6 so hard to lead Xcel into the post-fossil fuel world. Their hard work and dedication is much
7 appreciated! Unfortunately, though, we must deal with the "elephant in the room" which is,
8 of course, the Unit 3 coal plant in Pueblo. It is the intention of my testimony to open a
9 constructive dialogue about how to move forward at this point in time, protecting Xcel's
10 financial health, not unduly burdening ratepayers and liberating Xcel to truly lead the way
11 into this new and exciting time for all those that can see the bright future that awaits us as
12 we move into the post-fossil fuel world.

13 **Q: PLEASE DESCRIBE THE FIRST ISSUE RELATED TO THE UNIT 3 COAL**
14 **PLANT THAT YOU WISH TO BRING TO THE ATTENTION OF THE**
15 **COMMISSION.**

16 **A. While it is an almost incomprehensible mistake, it is now clear that Xcel proceeded to**
17 **build a new coal plant with an expected life span of 50 to 60 years and yet, the Company**
18 **failed to consider the need to secure a long term coal supply and they are highly unlikely to**
19 **be able to demonstrate much more than a 20 year supply of coal. The reasons for this**
20 **monumental mistake are detailed in Attachment 1, a report entitled, "Coal" Cheap and**
21 **Abundant—Or Is It? Why Americans Should Stop Assuming They Have a 200 year Supply**
22 **of Coal." Importantly, all the mines in the Powder River Basin have less than a 20 year life**
23 **span and future expansions are highly uncertain as these expansions will face very serious**

1 geologic, economic, legal and transportation constraints. All of this is detailed in the “Coal:
2 Cheap and Abundant Report” in Attachment 1. By not securing a supply of coal or being
3 able to demonstrate a reasonable likelihood of obtaining that supply, Xcel has failed to
4 comply with Decision C05-0049 granting the CPCN for a 750 MW “coal-fired” steam
5 generating plant. Xcel has failed to provide *prima facie* evidence (as required by Rule 3613
6 (d) (I)(A)) for a long term coal supply in their application and without a coal supply then
7 they have not built a coal plant—they have just spent a lot of money on what is extremely
8 likely to become a large concrete and steel stranded asset for lack of a coal supply. Without
9 a coal supply to match the life of the plant, the boiler and turbines and smokestack and all
10 the other facilities are precisely the kinds of imprudent investments that the Public Utilities
11 Commission is supposed to protect ratepayers from.

12
13 **Q: PLEASE DESCRIBE THE SECOND ISSUE RELATED TO THE UNIT 3 COAL**
14 **PLANT THAT YOU WISH TO BRING TO THE ATTENTION OF THE**
15 **COMMISSION.**

16 **A:** Rule 3613 (d) (I) (B) in the Commission’s rules governing electric utility cost recovery
17 proceedings states in relevant part:

18 Alternatively, an intervenor may present evidence that, due to changed
19 circumstances timely known to the utility or that should have been known to a
20 prudent person, the utility’s actions were not proper. (4 CCR 723-3 Rule 3613 (d)
21 (I) (B))
22

23 As the over 100 attachments accompanying my testimony clearly demonstrate, there was an
24 abundance (to put it mildly) of evidence that proceeding with a coal plant at this point in
25 time was not prudent—notwithstanding that Xcel had a CPCN for its construction. The
26 evidence has poured in in recent years in scientific, financial and media reports and in

1 seminal legal decisions. A large number of these scientific, financial and legal documents
2 are found in the attachments. Each one of these attachments is like a very large red warning
3 flag telling utilities to not go down the coal plant road at this point in time because there are
4 very serious legal and financial risks associated with doing so. Yet, Xcel just blindly
5 proceeded with a coal plant while they were literally awash in a flood of warnings that coal
6 plants were not a wise investment in this century. Xcel is likely to claim that it had a
7 CPCN—but it is like a driver at a crowded intersection. Even if the driver gets a green light,
8 he doesn't just charge ahead when there are people in the intersection, because of course the
9 driver could injure or even kill the people. While this appears obvious, Xcel, like a strong-
10 headed teenager that ignored all warnings about risky behavior, charged ahead with its ill-
11 advised coal plant, ignoring all of the warning signs. As the Attachments demonstrate, a
12 coal plant will kill many more people than a reckless driver ever can; it is just that the chain
13 of causation is slightly longer. A prudent utility would have recognized the following:

- 14 • There were a growing number of reports available detailing the constraints on coal
15 supplies. These were all publicly available and a utility that depends on coal plants
16 for over 60% of its electricity should have begun questioning the potential to
17 provide coal to a coal plant for 50-60 years into the future. It was the height of
18 imprudence not to examine the coal supply for the plant. (See Attachments 1-13)
- 19 • There were numerous signs and “fundamentals” that gave a clear sign that coal was
20 not going to be as cheap in this century as it was in the last century. If Xcel was
21 sincerely interested in keeping rates low, it would have paid attention to the
22 multitude of signs on coal prices (including the prices Xcel itself was paying) and
23 adjusted their plans accordingly—especially in light of the fundamental geologic

1 facts governing coal extraction (i.e. it is a solid and most of this country's coal is
2 buried too deeply to be extracted in any significant quantity or at any reasonable
3 price.) (See Attachments 1-20 and 37)

- 4 • There have been numerous reports from respected consulting firms and other
5 institutions documenting the risks faced by utilities constructing coal plants in the
6 21st century. A prudent utility would have reexamined its plans in light of these
7 reports. (See Attachments 21-28)
- 8 • Utilities and political figures in states much less environmentally sensitive than
9 Colorado have indicated that they are opposed to building new coal plants. (See
10 Attachments 29-35 and 38-39)
- 11 • Coal plants are the largest source of carbon dioxide in Colorado and Governor Ritter
12 has set a climate goal of reducing greenhouse gas emissions 20% by 2020.
13 Emissions from Unit 3 would increase Xcel's CO2 emissions by more than 10%.
14 (See Attachments 38-39)
- 15 • The United States Supreme Court has noted that the "harms associated with climate
16 change are serious and well recognized..." (See Attachment 35, page 18),
17 increasing the likelihood that emissions of carbon dioxide will be regulated in the
18 not too distant future.
- 19 • Climate change is extremely serious and it threatens the planet as we know it.
20 Carbon dioxide stays in the atmosphere warming the planet for thousands of years.
21 The science is "unequivocal" and extremely dire. It is beyond imprudent to
22 irreversibly transform the climate of the only planet that we know of that supports
23 life. (See Attachments 42-72)

1 • Coal has numerous “externalities” (i.e. costs born by individuals and society that are
2 not covered in the cost of coal or coal-based electricity). In the last century, only a
3 few of those externalities were internalized to the cost of coal-based electricity, but
4 the cost of pollution from coal plants is increasingly becoming internalized and, as
5 attested to in Mr. Wilensky’s testimony, these costs are beginning to mount. By
6 monitoring the science and law related to the effects of pollution generated by coal
7 plants, it is possible to anticipate the rising costs that will accompany coal burning.
8 Xcel gives no indication of having monitored the developments documented in the
9 Attachments to this testimony and adjusted its future plans accordingly. It is
10 imprudent to just “put your head down and charge ahead,” ignoring the voluminous
11 warning signs that you’re headed in a dangerous direction. Unfortunately, this
12 seems to be precisely what Xcel has done. Externalities such as mercury and coal
13 ash and particulate pollution and all of the other pollution associated with a coal
14 plant are not only very serious environmental issues, they are also financial risks
15 just waiting to be internalized. Once again, Xcel has charged ahead without giving
16 sober thought to the extremely serious financial risks posed by the changed
17 circumstances in the worlds of science, finance, law and politics related to coal plant
18 externalities as detailed in the attachments to this Answer Testimony. In addition to
19 being morally appalling to think about spreading pollutants such as mercury at the
20 rate of over 2 pounds a week into the environment (as Unit 3 is permitted to do),
21 addressing these environmental issues is becoming increasingly expensive and is
22 very likely to become even more so in the coming 5-6 decades. If these issues are
23 not discussed very soberly now, they will just continue to intensify and carry the

1 risk of leading to more ratepayers being unable to pay their bills and receiving
2 disconnect notices. Disconnecting customers is not a desirable or sustainable
3 business model, and continuing down this risky and expensive road is ultimately
4 also a very serious threat to the financial well being of Xcel itself. (See Attachments
5 73-92.)

- 6 • Heavy reliance on large uses of water to cool steam turbines is a risky proposition in
7 a warming world where the southwestern United States is expected to experience
8 increased drought conditions driven at the very least by increased evaporation,
9 despite what happens with respect to precipitation. As Dr. Hoerling has testified at
10 the Colorado Public Utilities Commission, increased drought conditions can create
11 water stress that can threaten the function of steam-based power plants. (See
12 Attachments 72)

- 13 • There are many wonderful alternatives for producing or managing electricity
14 ranging from Demand Side Management programs that cost Xcel less than 1 cent
15 per kilowatt hour (Attachment 94) to demand response aggregation to Concentrating
16 Solar Power technologies built at the gigawatt (e.g. 1000 MW) scale (See
17 Attachment 102) with thermal storage. Colorado has many firms ready to build
18 carbon- and pollution-free electric generating resources that will also serve to keep
19 our energy dollars in the state in line with the goals of C.R.S. § 40-2-123 (1). There
20 are many new options and large amounts of new information that were not
21 considered in the 2004 Dockets leading to the issuance of a CPCN for the Unit 3
22 coal plant. A prudent utility would have recognized the very large risks associated

1 with proceeding with a coal plant and would instead have considered the many
2 cleaner and ultimately cheaper alternatives. (See Attachments 103-108)

- 3 • As Xcel adds increasing amounts of wind to their system, they are already having to
4 think about “cycling coal plants” and this is before the new Unit 3 coal plant comes
5 on line. This is yet another “changed circumstance” that Xcel clearly knew about
6 and that a prudent utility could have anticipated at an earlier time given the widely
7 understood limitations on cycling coal plants. (See Attachments 108 and 109)
- 8 • A prudent utility would have analyzed changes in demand and in their load duration
9 curve during the years between 2005 and 2009 to determine whether the coal plant
10 was truly needed and whether demand was best met with a coal plant or with a
11 Concentrating Solar Power technology that would produce well on the summer peak
12 or with a more flexible generating resource such as a gas turbine.

13
14 Just as a driver should not cover his or her eyes and charge through a crowded
15 intersection just because there is a green light, so a prudent utility would not “cover its
16 eyes” and proceed blindly with a huge investment without reassessing changed
17 circumstances—circumstances that questioned the need, the wisdom, the risk, the cost
18 and the alternatives before moving ahead. (See Attachments 110-117.)
19

20 **Q: YOU HAVE SUBMITTED OVER 100 ATTACHMENTS AND A LENGTHY**
21 **REPORT ALL FOR THIS DOCKET. ARE YOU CRAZY??**

22 **A:** Well, at first blush it might seem like I am the crazy one, but upon consideration, I think
23 it becomes clear that actually I am not really crazy at all-but rather attempting to help our

1 state and utility find a more rational way forward. Emitting large amounts of pollution
2 which will remain in the environment essentially forever and which will alter the climate
3 of the only planet we know that supports life while spending approximately a billion dollars
4 a decade supporting last century's technology is not, as it turns out, a prudent thing to have
5 done. Going with a crowd that is headed in the wrong direction is, as we have all either
6 learned or been told, not necessarily a wise thing to do.

7 As it turns out, Xcel doesn't really have a crowd with it. There are few, if any
8 people in Colorado who support moving forward with a coal plant. While the Staff of the
9 Commission and the Office of Consumer Counsel and even employees of Xcel as well as
10 all of the individuals who were involved with the Settlement Agreement (including two of
11 Colorado's present PUC Commissioners) may not feel free to question the wisdom of
12 building a coal plant at the beginning of the 21st century, it is my belief that in their heart of
13 hearts, very few people, including Xcel employees, truly believe it is a wise thing to be
14 doing. My suggestion is that we take a step back, reevaluate and try to find a more rational
15 way to move forward. The alternative is to leave this "train wreck" for our children. I, for
16 one, am already deeply saddened by the seemingly endless troubles we are leaving to future
17 generations. It is my hope that we, as the adults in this situation, can step up and find a
18 more constructive way to move forward.

19 **Q: UNIT 3 IS ALREADY MOSTLY CONSTRUCTED. WHAT ARE YOU**
20 **SUGGESTING WE DO AT THIS POINT?**

21 **A:** First, it is important to recognize that operating costs for the Unit 3 coal plant are likely
22 to be very large—exceeding \$50 million per year—without carbon charges. (See Discovery
23 Responses 08S-520E LWG 5-3 in Attachment ZZ). Over a decade's time, it is likely to cost

1 in the neighborhood of a billion dollars to operate the Unit 3 plant and a large percentage of
2 those dollars will be leaving Colorado to pay for coal or carbon dioxide emissions. It is time
3 to consider whether both Xcel and Xcel's ratepayers won't be better off just paying off the
4 construction debt and using the money that would be spent on fuel and O&M to invest in
5 Colorado-based low- and no-carbon resources ranging from efficiency to demand response
6 to grid improvements to wind, photovoltaic and Concentrating Solar Power. Our
7 understanding of all of these resources has changed dramatically since 2005, and it is past
8 time to figure out if Xcel's ratepayers and Xcel, as well as Colorado's economy, won't all
9 be better off if we use the fuel and O&M costs to build an energy infrastructure for this
10 century rather than sending our fuel dollars to Wyoming and our carbon charges to
11 Washington, DC. To fail to reassess at this point, is to continue to throw "good money after
12 bad." It is never wise to waste money, but it would be especially imprudent now, given the
13 state of both the national and the Colorado economy.

14 **Q: WHAT IS YOUR RECOMMENDATION WITH RESPECT TO PAYING OFF**
15 **THE CONSTRUCTION COSTS FOR THE UNIT 3 PLANT?**

16 **A:** At this point it is premature to determine how the construction costs should be paid off
17 for the Unit 3 coal plant. There are a number of analyses that should be conducted first. To
18 begin with, the Commission should direct Xcel to present information on its long term coal
19 supplies (at the very least for Unit 3, but preferably for all of its coal fleet) as part of the
20 next rate filing that Xcel has said they intend to file in April 2009. Once the Commission
21 has examined the question of long term coal supplies, then it can begin to assess how to
22 partition the construction costs for the Unit 3 coal plant. As an assurance to Xcel, it is my
23 goal to find a way to pay off the Unit 3 construction costs that maintains Xcel's financial

1 health—without unduly burdening ratepayers. It is time to take a sober look at our options
2 and create the most rational plan we can for moving forward. It is clear that if we don't
3 reassess now, the Unit 3 coal plant will become an increasingly large burden for both Xcel
4 and Xcel's ratepayers and the ultimate outcome is not likely to be good for anyone,
5 including Xcel. Even a monopoly needs its customers to pay its bills and just increasing the
6 number of utility disconnect notices won't help Xcel or its investors. Continuing on the
7 present path is quite obviously going to be a lose-lose-lose situation for everyone, so let's
8 slow down a bit and see what creative solutions can be found that allow us to go forward in
9 a more thoughtful and constructive fashion.

10 **Q: DO YOU HAVE OTHER OBJECTIONS TO XCEL'S FILINGS?**

11 **A:** At this time I am concerned about a number of items. This has been a very rushed period
12 of time to prepare testimony (approximately 5 weeks since the Pre Hearing Conference in
13 this Docket on January 8, 2009) and I would like to review the testimony of the other
14 parties as well as outstanding Discovery Responses before making a final list. Presently my
15 concerns are as follows:

- 16 • Need to share some of the increased O&M costs for Units 1 and 2 in Pueblo with
17 the "Unit 3 partners" since upgrades to Units 1 and 2 were critical to the air
18 permitting of Unit 3.
- 19 • Excessive legal expenses. When Xcel wants to make a large capital expenditure to
20 benefit investors, it just hires more attorneys and it is unfair for ratepayers to pay all
21 of these costs when ratepayers are likely be better served by cleaner, cheaper
22 options.

- 1 • Spending over \$200,000 on mailing for this rate case when the notices could have
2 been included with the monthly bill—and saved a significant amount of money just
3 by either filing the Advice letter earlier or delaying the effective date.
- 4 • Smart Grid expenses-I am a strong proponent of “smarter grid” investments but I
5 am concerned that Xcel is making large investments in the “Boulder Smart Grid”
6 without having done a formal application to the Commission so that everyone
7 involved can understand all of the parts of the program and what the options are
8 with respect to equipment and functionality as well as what cost recovery
9 mechanisms will be used. The presentations made to the Commission so far do not
10 provide many details and there are many unanswered questions.
- 11 • Unnecessary consulting, on-line information services, personal communication
12 devices and all expenses that “would be nice” but aren’t necessary should be
13 carefully examined. Almost every individual and business in our economy is
14 reevaluating expenses to determine what is truly essential. Xcel should be
15 exercising the same discipline.

16 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

17 **A:** Yes. Thank you.

CERTIFICATE OF SERVICE

I hereby certify that on this 13th day of February 2009 the original and 7 copies of the foregoing ANSWER TESTIMONY OF LESLIE GLUSTROM was hand-delivered to:

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