BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

)

)))

IN THE MATTER OF THE APPLICATION OF
PUBLIC SERVICE COMPANY OF COLORADO
FOR A CERTIFICATE OF PUBLIC
CONVENIENCE AND NECESSITY TO
CONSTRUCT TWO COMBUSTION TURBINES
AT THE FORT ST. VRAIN GENERATING
STATION, FOR AN AMENDMENT TO ITS
CONTINGENCY PLAN, AND FOR EXPEDITED
TREATMENT.

DOCKET NO. 07A-469E

POST HEARING STATEMENT OF LESLIE GLUSTROM

Leslie Glustrom, a citizen intervener representing herself, submits this Post Hearing Statement in the above captioned docket related to the Application by the Public Service Company of Colorado ("PSCo" or "Xcel") to the Colorado Public Utilities Commission ("PUC" or "Commission") for a Certificate of Public Convenience and Necessity ("CPCN") for two combustion turbines at the Fort St. Vrain ("FSV") Station.

In summary, the Application for a CPCN for the two combustion turbines at Fort St.

Vrain should be denied for the following reasons:

FAILURE TO FOLLOW THE LAW

1) Failure to Follow C.R.S. § 40-2-123 (1): The Applicant, Xcel, failed to give the fullest possible consideration to cost-effective clean energy and energy efficiency technologies with respect to the acquisition of new generation resources. The Commission is mandated to do this under Colorado Revised Statutes C.R.S. § 40-2-123 (1). As explained below, Xcel failed to give full consideration to the potential of third-party Demand Response

firms to address the 2009 shortfall in meeting peak demand and the reserve margin and therefore their Application for a CPCN for the combustion turbines should be denied.

2) Failure to Give the Fullest Possible Consideration to the Potential of Demand

Response Firms: While the Company has submitted extensive comments on its own Demand Side Management ("DSM") and Interruptible Service Option Credit ("ISOC") programs, by its own admission it did not pursue the services of a third party Demand Response firm in order to address the summer 2009 situation. (See e.g. Exhibit 1, Karen Hyde Direct Testimony, p. 5, lines10-15; Exhibit 9, Frederic Stoffel Rebuttal Testimony, p. 14, lines 3-20; and Transcript Feb 12, 2008, p. 24, lines 5-8 and p. 30, lines 5-6). While PSCo has an ISOC program, this program does not use the advanced tools used by a third party Demand Response provider such as EnerNOC (See Exhibit 36) and Xcel witnesses tended to blur the distinction between the internally run ISOC program and externally managed Demand Response programs. (See e.g. Transcript, February 12, 2008 pages 23 and 32-33 and Exhibit 9, Frederic Stoffel Rebuttal Testimony, pages 3, line 5 to page 4, line 19).

Without contacting Demand Response firms and, at the very least, exploring the option of using a third-party aggregator and the full array of modern tools available for managing Demand Response, Xcel has failed to comply with the mandate of C.R.S. § 40-2-123 (1) to give the "fullest possible consideration" to cost-effective clean energy and energy efficient technologies. While Xcel is beginning to make progress with its DSM and ISOC programs, it continues to use less than fully modern tools to manage demand side resources. It is a bit like a construction worker who is using only hand tools and ladders saying a building couldn't be finished on time, but failing to recognize that many varieties of modern construction tools and equipment are now available that can greatly increase productivity.

Demand Response firms can bring 21st century technology and computer programming to bear on the challenge of managing peak demand. (See Exhibit 36) Xcel should have contacted these firms and given this option the fullest possible consideration in accordance with the mandate of Colorado law C.R.S. § 40-2-123 (1). Yet, by the admission of Xcel witness Karen Hyde, with respect to the summer 2009 situation in Colorado, the company did not contact any Demand Response firms (Transcript, February 12, 2008, p. 24, lines 5-8, and p. 30, lines 5-6). Neither did the Company contact the Peak Load Management Association (Transcript, February 12, 2008, p. 24, lines 24-25) or any third party demand response aggregators (Transcript February 12, 2008, page 33, lines 14-24.)

There is good reason to believe that Xcel's peak demand in Colorado is amenable to precisely the kinds of tools used by third-party Demand Response firms (See Exhibits 37 (Load Response Curves) and Exhibit 38 (Brocket testimony on 2200-2700 MW of potential interruptible capacity on the PSCo system.) Yet, the realistic potential for Demand Response on the Xcel system in Colorado cannot be determined until Xcel personnel contact the Demand Response firms and discuss the summer 2009 situation with them. By their own admission, Xcel failed to do this with respect to the summer 2009 situation in Colorado, and the CPCN for the two gas turbines should not be approved until this alternative has been fully considered.

I also note that by continuing to rely on large "lumpy" supply side resources, Xcel tends to be in what might be called a "Yo-Yo" situation. First they are trying to shed load in 2009 (as they were in the summer of 2007 in the 07A-107E/07A-196E Dockets), and just a few months later they are trying to add load in 2009 (as they are doing in this 07A-469E Docket.) (See also the Loads and Resources Tables in Exhibit 26 that cover the period

between June 2007 and January 2008.) While such a situation is fine for utility lawyers and interveners with deep pockets, the very considerable costs of each PUC Docket are borne by ratepayers and taxpayers and this is a very wasteful use of scarce resources. Employing the resources of a Demand Response firm has the ability to smooth out the "lumpiness" that even Xcel witnesses have recognized goes with large supply-side resources. (See Transcript,

February 15, 2008, p. 115, lines 3-7.)

3) Failure to Comply with C.R.S. § 40-3-101: A fundamental principle of utility

regulation is stated in C.R.S. § 40-3-101 (1) as follows:

C.R.S.§ 40-3-101(1) All charges made, demanded, or received by any public utility for any rate, fare, product, or commodity furnished or to be furnished or any service rendered or to be rendered **shall be just and reasonable**. Every unjust or unreasonable charge made, demanded, or received for such rate, fare, product or commodity, or service is prohibited and declared unlawful. (Emphasis added.)

In addition, C.R.S. 40-3-101 (2) provides the following:

C.R.S. § 40-3-101 (2) Every public utility shall furnish, provide, and maintain such service, instrumentalities, equipment, and facilities as shall promote the safety, health, comfort, and convenience of its patrons, employees, and the public, and as shall in all respects be adequate, efficient, just, and reasonable. (Emphasis added.)

As described below, the service provided by and the charges that would accompany the Fort

St. Vrain combustion turbines are not "just and reasonable," and it is incumbent on the

Commission to protect ratepayers from these unreasonable charges and the risk that the

turbines will become obsolete long before their life span is completed.

XCEL'S COST ANALYSIS IS SERIOUSLY FLAWED

4) Comparison of Squirrel Creek and Fort St. Vrain Options is Based on a Highly

Questionable "PPA + 10"Assumption: In Xcel's cost comparison, they focused on the cost

of the Fort St. Vrain turbine project and the now-abandoned Squirrel Creek project. The key

conclusion from this analysis is found in KTH-4 attached to Exhibit 1, Karen Hyde's Direct Testimony. In KTH-4, Ms. Hyde assumed that the 25 year Squirrel Creek Power Purchase Agreement ("PPA") would be extended for another 10 years in the year 2035 and then compared this "PPA + 10" Squirrel Creek option to a 35 year Fort St. Vrain self-build option. Using this "PPA + 10" assumption, Ms. Hyde then claims that the Fort St. Vrain option will save ratepayers approximately \$14.5 million (present value) dollars over the 35 year period she chose to analyze. This analysis is faulty for a number of reasons:

1) First, a 14.5 million savings is a small amount compared to the full cost of the project. Including both capital costs and fuel charges the project will cost many hundreds of millions of dollars over its lifetime (See KTH-4 and add on fuel costs).¹ In addition, it is a very small amount on ratepayers' bills. If it was all accrued in one year, the projected savings of \$14.5 million would be less than a 1 % change in customer bills.² Spread out over 35 years, \$14.5 million in savings is an extremely small number.

2) The projected construction cost for the Fort St. Vrain turbines is \$192 million +/- 10 % (See Exhibit 6, Rebuttal Testimony of Gregory Ford, p. 3).Calculating +/- 10% of \$192 million gives \$19.2 million—or greater than the projected savings in KTH-4. While the conclusion of KTH-4 will be changed a bit by using the updated \$192 million contained in Xcel's Rebuttal Testimony, the projected savings will still a) be a very small number relative

¹ If the facility is operated for 5% of the year and produces about 114,318 MWh in a year and fuel costs about \$80/MWh (at \$8 / MMBTU for natural gas—see footnote 3) then the fuel cost for the facility at \$8 gas would be 114,318 MWh x \$80/MWh = \$9.14 million per year.

² As a reference point, if the Renewable Energy Standard Adjustment was set at 1% it would collect about \$20 million per year. So by inference, \$20 million is about a 1% change in ratepayers' bills. Presently, the RESA is set at 0.6% and it collects approximately \$12 million per year. This can all be confirmed by examining any of Xcel's monthly reports submitted in the Renewable Energy Standard program and found on the PUC's webpages under the 06S-016E Docket. The December 2007 Report is available at

to the overall costs of the project, b) probably be less than the +/- 10% margin in construction costs and c) represent a very small percentage of customers' bills.

3) Most importantly, the "PPA + 10" assumption adds approximately \$345 million to the cost of the Squirrel Creek project—money that ratepayers would not have been responsible for under the Squirrel Creek PPA. (See KTH-4 for the years 2035-2045 and Transcript Feb 11, 2008, pages 100-107). Ms. Hyde's claim is that she made the assumption because she assumed that in 2034 "we will have to replace the capacity of the expiring PPAs with then-market prices." (See Exhibit 2, Karen Hyde Rebuttal Testimony, page 16, lines 18-19) Yet, as recognized by Ms. Hyde under cross-examination, many things could change during the 25 years between 2009 and 2034, including demand on Xcel's system, the structure of the electric industry and the technology for producing electricity. It is also possible that a "disruptive technology" such as Concentrating Solar Power could make gas turbines (especially those in the northern part of the state) obsolete (as computers have made typewriters obsolete), long before the projected life of the combustion turbines is over. (See Transcript February 11, 2008, pages 108-110 and Transcript February 12, 2008, pages 61-63.)

Also, if photovoltaic technology drops in price and achieves significant market penetration in Colorado, then Xcel may not even be in the market for replacement capacity in 2034 since many ratepayers will be generating their own electricity—and potentially storing it in Plug In Hybrid Vehicles (PHEVs). The point is, it is inappropriate to assume that the Squirrel Creek PPA would be extended for 10 years since so many variables will change between now and then (including essentially all of today's decision makers...) and then use that faulty "PPA +10" assumption to claim that the self-build Fort St.Vrain project is cheaper for ratepayers. Given the cost of electricity from the Fort St. Vrain turbines, it is also

inappropriate to assume that the Fort St. Vrain turbines will be used for the 35 year life assumed by Ms. Hyde, as explained further below.

XCEL FAILED TO PURSUE AND ANALYZE OTHER POTENTIALLY LOWER COST OPTIONS

5) Xcel Failed to Compare the Fort St. Vrain Project to Demand Side Measures Including Demand Response As Well as Independent Power Producer Options: Xcel failed to conduct any economic analysis comparing the Fort St. Vrain turbines to demand side measures or to options available from independent power producers. As counsel for the Colorado Independent Energy Association ("CIEA") Mr. Pomeroy explained, there was potential for alternative supplies in August 2007 when the problem first surfaced, but by the time Xcel filed the Fort St. Vrain application, the CIEA members had tied up all their capacity for the summer of 2009. (Transcript February 11, 2008, p. 15, lines 11-24). Xcel should have quickly pursued these CIEA options back in August and September 2007 and then done cost comparisons on these options. Also, Xcel should have pursued Demand Response options and then conducted comparative cost analyses on these options. None of this was done. In addition, Xcel should have considered the possibility of renting turbines in the event they are needed in the summer of 2009. Xcel did not analyze this option either.

XCEL'S DECISION TO PURSUE THE TRI-STATE CAPACITY SWAP WAS OF HIGHLY QUESTIONABLE PRUDENCE

6) Xcel's Decision to Pursure the Tri-State Capacity Swap After Being Notified of the Squirrel Creek Situation Was of Very Questionable Prudence: As can be seen from page 3 of KTH-7, the timeline attached to Exhibit 2, Karen Hyde's Rebuttal Testimony, Xcel proceeded with what is referred to as the "Tri-State Capacity Swap," on September 21, 2007, at a time when it was clear that there were significant issues with the Squirrel Creek Power Purchase Agreement. The Tri-State Capacity Swap was discussed at length by the Commission in the summer of 2007 in the 07A-107E/107A-196E Combined Docket and involves the "swap" of 63 MW of capacity from the Tri-State Limon turbine and 128 MW from the Tri State Brighton turbine. (Note that in the Colorado Resource Plan submitted in Docket 07A-447E, Xcel has now indicated that the capacity associated with Tri-State Brighton is 132 MW. The reason for this is unclear, but I will use this number from here on out.)

The years of the capacity swap are unclear. In Decision C07-0758 in the combined 07A-107E /07A-196E Docket, the Commission characterized the swap as involving Xcel giving the capacity to Tri-State for three years from 2010-2012 and then gaining the capacity back in the years 2013-2015. (See Decision C07-0758, paragraph 9, page 4.) According to the Resource Tables in Exhibit 26 in this Docket, Xcel gave up the 63 MW of Tri-State Limon capacity for four years-- 2009, 2010, 2011 and 2012 and the 132 MW of Brighton capacity for the years 2010, 2011, 2012. Combined, the 63 MW Limon and 132 MW Brighton swap is for 195 MW.

Looking at Exhibit ELC-01 in this 07A-469E Docket (which assumes the Fort St. Vrain turbines are <u>not</u> built, and is included in Exhibit 26) it is clear that the 195 MW involved in the Tri-State swap would have eliminated (except for 2 MW in 2011) the shortfall in capacity for the years 2010, 2011 and 2012 if the Fort St. Vrain turbines are not built. Then in 2013, there are many gas contracts that expire that can be renewed to address the 2013 Resource Need—or Xcel could choose to invest in Concentrating Solar Power or other

technologies which will be fully available in 2013. In short, if Xcel had not proceeded with the Tri-State swap, the 195 MW capacity of the Limon and Brighton turbines could have addressed the shortfall in the 2010-2012 time frame without adding the Fort St. Vrain turbines. While there would still have been a 2009 shortfall for meeting the full 16% reserve margin, the 63 MW of capacity in the Limon turbine, would have helped close the gap.

The reason given by Xcel in Discovery Response OCC 2-1 (attached to OCC Witness Dr. Schechter's Answer Testimony, Exhibit 14) for proceeding with the Tri-State capacity swap was that customers would have foregone \$49 million in savings from the transaction. The \$49 million in savings referred to by Ms. Hyde was a modeled savings and subject to a variety of assumptions (See Decision C07-0758, p. 11, paragraph 39) and may never have been realized by ratepayers. Nonetheless, even if the \$49 million was a true savings, Xcel chose to proceed with the Tri-State swap claiming it would save ratepayers \$49 million, while proceeding with the Fort St. Vrain turbine project which according to KTH-4 (Attached to Exhibit 1, Karen Hyde's Response Testimony) will cost ratepayers \$699 million (nominal) and \$266 million (present value) in capital costs alone and commit ratepayers to 35 years of expensive gas turbines as explained below. This hardly qualifies as a prudent decision and it is a fundamental obligation of the Commission to protect ratepayers from such imprudent decision making and unjust costs in accordance with C.R.S. § 40-3-101.

PROCEEDING WITH THE FORT ST. VRAIN TURBINES COULD HAVE THE EFFECT OF LEAVING THE RECENTLY INSTALLED SPINDLE HILL TURBINES MOSTLY IDLE IN 2009 AND UNNECESSARILY INCREASE RATEPAYERS' EXPENSES

7) Proceeding with the Fort St. Vrain Turbines Could Leave the Recently Installed Spindle Hill Turbines Mostly Idle in 2009: It is also very important to note that if Xcel proceeds with the Fort St. Vrain turbines, the operation of these turbines will probably lead to significant idling of other gas turbines on the Xcel system. From Exhibit 51, it can be seen for example, that in the summer of 2009, if the Fort St. Vrain turbines come on line, the existing 275 MW Spindle Hill resource (which according to the footnote in Exhibit 23 came on line on May 14, 2007....) will be mostly sitting idle (and the Blue Spruce and Manchief turbines will produce significantly fewer MWh than they did in 2007 according to Exhibit 23).

According to Xcel's model as presented in Exhibit 51, the Spindle Hill turbines which are capable of producing 2,409,000 MWh in a year (275 MW x 8760 hours/year = 2,409,000 MWh) will only be producing 15,333 MWh—or 0.64% of their capacity (15,333/ 2,409,000 x 100% = 0.64%). It hardly makes sense for ratepayers to pay for two new Xcel-built Fort St. Vrain turbines to be used in the summer of 2009 while independent power producer Invenergy's turbines that came on line in 2007 sit idle for 99% of the year. Once again, it is imperative under C.R.S. § 40-3-101, that the Commission protect ratepayers from such unjust and unreasonable outcomes.

ELECTRICITY FROM THE COMBUSTION TURBINES WILL BE VERY EXPENSIVE AND RATEPAYERS SHOULD NOT BE RESPONSIBLE FOR PAYING THESE UNREASONABLE RATES

8) Electricity from the Combustion Turbines Will Cost in Excess of 30 Cents/Kwh in the Early Years; This is Not a "Just and Reasonable" Rate: Under crossexamination from Chairman Binz, Ms. Hyde acknowledged that the cost of electricity from the combustion turbines would be in excess of 30 cents/kwh in the early years. (See Transcript February 12, 2008, pages 114, and 124-125.)³ Moreover, the turbines will probably always be constrained to operate less than 8.4% of the time due to the air permitting issues discussed in Mr. Magno's testimony (Exhibit 11, Gary Magno Direct Testimony, pages 3-7), so they will probably always be constrained in the number of hours they operate to less than 736 hours (8760 hours/year x 0.084 = 735.8 hours) a year and thereby produce less than 200,000 MWh (or 200GWh). (261MW x 8760 hours/year x 0.084 = 192,054 MWh/year using the summer capacity of 261 MW). This means that electricity from the turbines will always be quite expensive because the capital cost can only be spread over less than 8.4% of the hours in the year. Moreover, as natural gas costs increase, this will further add to the cost of the electricity from the gas turbines. (See e.g. the natural gas cost estimates on page 1-56 of the Colorado Resource Plan in Docket 07A-447E).

Electricity in excess of 30 cents/kwh is very expensive when the average cost is about 9 cents /kwh (See Exhibit BJC-1 from Xcel witness Beth Chacon in Docket 06A-478E). Forcing ratepayers to pay for this electricity and committing them to high priced electricity from these combustion turbines for the next 35 years would be in violation of the requirements of C.R.S. § 40-3-101 calling for just and reasonable rates.

³ For example, the revenue requirement of the Fort St. Vrain turbines in 2010 would be \$33,743, 930 according to KTH-4. According to Ms. Hyde, the turbines were projected to run about 5% of the time in the early years and would produce about 8760 hours/year x 261 MW x 0.05 = 114,318 MWh assuming the summer capacity. \$33,743,930 divided by 114,318 MWh = \$295/MWh. The number in the hearing transcript is \$296/MWh which is close enough given rounding differences. Ms. Hyde then testified that at \$8/MMBTU and a heat rate of 10,000 BTU/kwh the cost of fuel would add about \$80 per MWh to the cost. This can be seen with the following calculation:

 $^{(\$8/1,000,000 \}text{ Btu}) \times (10,000 \text{ Btu/kwh}) \times (1000 \text{ kwh/Mwh}) = \$8 \times 10^7 / 10^6 = \$80 / \text{MWh}.$

Adding \$296/MWh and \$80/MWh gives \$376/MWh or \$0.376/kwh or 37.6 cents/kwh. (See Transcript February 12, 2008, pages 114 and 124 and 125.)

THE FORT SAINT VRAIN TURBINES ARE VERY LIKELY TO BECOME OBSOLETE IN THE NOT TOO DISTANT FUTURE

9) Xcel Failed to Consider that Concentrating Solar Power is Likely to Make **Combustion Turbines in the Northern Part of Colorado Obsolete in the Near Future:** Xcel failed to consider the possibility that Concentrating Solar Power could make stand-alone combustion turbines obsolete in the not too distant future. (See Transcript February 14, 2008, Glustrom cross examination of Mr. Ford). The potential of Colorado for Concentrating Solar Power is clearly shown in the recent report of the Governor's Energy Office, "Connecting Colorado's Renewable Resources to the Markets," (available for download from www.colorado.gov/energy). Colorado's potential for CSP development is discussed on pages 12-15 and pages 63-64. Supply curves for CSP are shown on page 64, showing Colorado's potential to produce over 100,000 MW of CSP with 6 hours of thermal storage at under \$200/ MWh—using conservative assumptions. While it wouldn't be possible to bring CSP on line by the summer of 2009 at this point, utilities around the West are beginning to make plans to bring CSP plants on line in the 2010-2011 time frame at costs under 15 cents/kWh. For example, Pacific Gas and Electric is moving ahead with a Compact Linear Fresnel Reflector ("CLFR") plant with Ausra that is projected to come on line in 2010 and is predicted to bring in electricity at slightly above 10 cents/kwh (See www.ausra.com) and Arizona Public Service announced just this last week (February 21, 2008) that it will be working with Abengoa (A Spanish company with United States headquarters, ironically located, here in Lakewood, Colorado....) to bring on a 280 MW parabolic trough CSP plant by 2011 at a projected cost of 14 cents/kwh. (See http://www.azcentral.com/arizonarepublic/news/articles/0221bizsolar0221.html) By failing to consider the potential of Concentrating Solar Power to make combustion turbines producing electricity at more than 30 cents/kwh in the northern half of

Colorado obsolete (See Transcript February 14, 2008 Glustrom cross examination of Mr. Ford), Xcel runs the risk of making a large investment that will soon be obsolete and could leave the company and ratepayers with a stranded fossil fuel asset as we head into the Solar Era. Also, fossil fuel resources are likely to be soon subject to carbon charges that ratepayers will be responsible for while CSP resources will not carry this risk. Steam or combined cycle turbines in the solar resource areas of the southern half of Colorado would have the ability to be hybridized with CSP and would be less likely to become obsolete in the near future. The Commission needs to protect ratepayers from large investments in fossil fuel resources that will be expensive to operate and which could soon be obsolete.

NO RESOURCE PROVIDES 100% RELIABILITY; DEMAND RESPONSE AGGREGATON OF MULTIPLE SMALLER RESOURCES CAN INCREASE BOTH RELIABILITY AND FLEXIBILITY IN THE FACE OF RAPIDLY CHANGING CONDITIONS

10) No Resource is 100% Reliable: As Ms. Hyde repeatedly acknowledged under cross-examination, no resource is 100% reliable. In the case of gas turbines, either a loss of natural gas fuel supply or a loss of transmission to areas of demand, or of course the loss of function in the turbines themselves whether for a planned or unplanned outage, can mean that the capacity and energy represented by the turbines are not fully guaranteed. (Transcript February 11, 2008, p. 80, lines 18-25 and p. 81, lines 1-3 and Transcript February 12, 2008, pages 64-66). This means that installation of the turbines is not a "fail-safe" guarantee of their reliability. Indeed, as we move through the next 35 years, potential constraints in natural gas supply and rising prices could constrain the usefulness of the turbines. Xcel did nothing in their analysis to analyze the potential availability of fuel for the turbines. They have just assumed that if they build the turbines they will always be able to get the natural gas needed to run them. Over the projected 35 year of the turbines, this assumption is not one that can be

made blithely as supply constraints are possible for a number of reasons including declining natural gas supplies, increased prices and disruption of natural gas supply due to extreme weather events.

11) System Reliability Can Be Increased by Relying on a Number of Smaller **Resources, As Is Often Done by Demand Response Aggregators:** As acknowledged by Ms. Hyde under cross-examination, relying on multiple smaller sources can lead to smaller disruptions because the loss of any one source will leave a smaller "hole" in the system. The loss of one 260 MW source leaves a 260 MW deficit. The loss of one (or even several) 1 MW sources that are bundled to make a 260 MW resource will only leave a small (e.g. 1 or 2 MW) deficit in the system. (See Transcript February 12, 2008, pages 66-67.) The resources can be either supply side or demand side, the result is the same. Third party Demand Response aggregators typically bundle many small demand side resources to provide the contracted for load reduction. Loss of one or a few of these resources will have a much smaller effect on Xcel's system than the loss of one large supply side resource like the proposed turbines at Fort St. Vrain (or pertinently, the loss of the Squirrel Creek contract at issue in this Docket.) At a time when Xcel's demand projections are changing quickly and when new technologies such as declining cost Concentrating Solar Power and photovoltaic products are becoming available at a rapid rate, the flexibility provided through the aggregation of many small sources can avoid the "lumpiness" associated with the practice of introducing large, longlived supply side resources. (See the rapidly changing supply and demand projections in Exhibit 26 and the discussion of "lumpiness" in the Transcript for February 15, 2008, p. 115, lines 3-7.)

OFFICE OF CONSUMER COUNSEL AND PUBLIC UTILITIES COMMISSION STAFF FAILED TO CONDUCT INDEPENDENT ANALYSES OF MANY KEY ISSUES INCLUDING THE POTENTIAL OF DEMAND RESPONSE FIRMS AND THE COST OF THE FORT ST. VRAIN TURBINES

12) OCC and PUC Staff Testimony Failed to Conduct Independent Analyses of the Fort St. Vrain Project and Its Costs and Alternatives: As can be seen from the testimony of Office of Consumer Counsel witness Dr. P.B. Schechter (Exhibit 14) and PUC Staff witness Eugene Camp (Exhibit 17), neither the OCC nor the PUC staff conducted independent analyses of key issues such as the Demand Response alternative to the Fort St. Vrain turbines or of the cost of the turbine project relative to the average cost of electricity or of the impact on the Fort St. Vrain turbines on newly installed resources such as the Spindle Hill turbines. The lack of independent analysis by the OCC staff is seen in the Discovery Responses from Dr. Schechter in Exhibit 43 and the lack of independent analysis by Mr. Camp of the Commission Staff can be seen in the transcript of cross-examination of Mr. Camp by RUC attorney Gina Hardin on February 15, 2008. Without having conducted independent analyses of key issues, the testimony of the OCC and PUC staff is of limited use to the Commission with respect to the decision on whether to grant a CPCN for the Fort St. Vrain turbine.

In conclusion, for all of the reasons stated herein, it is most definitely not in the public interest to grant a Certificate of Public Convenience and Necessity for the combustion turbines at the Fort St. Vrain site as requested by the applicant, Xcel.

Respectfully submitted on Monday February 25, 2008.

Leslie Glustrom 4492 Burr Place, Boulder, CO 80303 <u>lglustrom@gmail.com</u> 303-245-8637

CERTIFICATE OF SERVICE

This is to certify that this **POST HEARING STATEMENT OF LESLIE GLUSTROM** will be served in hard copy on Monday February 25, 2008 to the:

Colorado Public Utilities Commission, 1560 Broadway, Suite 250 Denver, CO 80202

and by e-mail, to the following:

Brown. Steve Camp, Gene Connelly, Paula Davidson, Mark Dominguez, Inez Dudley, William Fanyo, Richard L. Glustrom. Leslie Gomez, Paul Hardin, Gina Hein. Jeff Hopfenbeck, Ann Hutchins, Dale Hyde, Karen Irby, Chris Kashiwa, Robyn King, Michelle LaPlaca, Nancy Larson, Ronal McGee-Stiles, Bridget Mitchell, Chere Muller, Nicholas Nelson, Thor O'Riley, Kathleen Oen, Virginia Penn, Patti Pomeroy, Robert M. Reasoner, John Rhett-Fair, Melvena Santisi, Michael Schechter, PB Southwick, Stephen W. Spiller, Dudley Valentine, Mark

stephen.brown@dora.state.co.us gene.camp@dora.state.co.us paula.connelly@xcelenergy.com mdavidson@duffordbrown.com inez.Dominguez@dora.state.co.us bill.dudley@xcelenergy.com rfanvo@duffordbrown.com lglustrom@gmail.com paul.gomez@state.co.us ginahardin@msn.com jeff.hein@dora.state.co.us ann.e.hopfenbeck@xcelenergy.com dale.hutchins@state.co.us karen.t.hyde@xcelenergy.com chris.irby@state.co.us rakashiwa@hollandhart.com mking@duffordbrown.com nancylaplaca@yahoo.com rongretlarson@comcast.net bridget.mcgee-stiles@dora.state.co.us chere.Mitchell@dora.state.co.us ngmuller@aol.com tnelson@hollandhart.com korilev@hollandhart.com vloen@hollandhart.com ppenn@hollandhart.com rpomeroy@hollandhart.com john.reasoner@dora.state.co.us melvena.rhetta-fair@state.co.us michael.santisi@state.co.us pb.schechter@dora.state.co.us stephen.southwick@state.co.us dspiller@rcalaw.com

mvalentine@rcalaw.com