

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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In the Matter of the Application of	)	Docket No. 04-035-_____
PACIFICORP for a Certificate of	)	
Convenience and Necessity Authorizing	)	DIRECT TESTIMONY OF
Acquisition of the Lake Side	)	MARK R. TALLMAN
Power Project	)	

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**May 2004**

1 **Q. Please state your name, business address and present position with**  
2 **PacifiCorp (the Company).**

3 A. My name is Mark R. Tallman, my business address is 825 N.E. Multnomah, Suite  
4 600, Portland, Oregon 97232, and my present position is Managing Director of  
5 Trading & Origination for the Commercial & Trading Department. My position is  
6 part of PacifiCorp's regulated merchant function.

7 **Q. How long have you been the Managing Director of Trading & Origination at**  
8 **PacifiCorp?**

9 A. I have been the Managing Director of Trading & Origination since September 12,  
10 2003. Prior to that date, I worked in the Origination Department, first as an  
11 Originator (beginning March 1995), then as the Manager of Origination  
12 (beginning January 1999), and finally as the Director of Origination (beginning  
13 September 2000).

14 **Q. What did you do before working in the wholesale side of PacifiCorp's**  
15 **business?**

16 A. I served in a variety of different roles in PacifiCorp's engineering organization  
17 and retail distribution organization, including five years as a District Manager. I  
18 have worked at PacifiCorp for more than 18 years.

19 **Q. Please describe your educational history.**

20 A. I have a Bachelor of Science degree in Electrical Engineering from Oregon State  
21 University and a Masters of Business Administration from City University. I am  
22 also a Registered Professional Engineer in the states of Oregon and Washington.

1 **Q. Have you previously appeared in any proceedings before the Utah Public**  
2 **Utility Commission?**

3 A. Yes. I testified in Docket No. 03-035-29 (the certificate proceeding for the  
4 Currant Creek project) and Docket No. 03-035-14 (the large QF generic avoided  
5 cost proceeding) and filed testimony in Docket No. 03-2035-02 (the recent general  
6 rate case).

7 **Summary of Testimony**

8 **Q. What is the purpose of your testimony?**

9 A. PacifiCorp issued a Request for Proposal (RFP 2003A) on June 6, 2003. RFP  
10 2003A solicited offers for 995 megawatts (MW) of supply-side resources in three  
11 bid categories (“SuperPeak”, “Peaker”, and “Baseload”). The purpose of my  
12 testimony is to describe how the two finalist bids received in the “Baseload” bid  
13 category compared against one another and the benchmark resource (expansion of  
14 the Currant Creek Project).

15 **Q. How is the “Baseload” bid category referred to in your testimony?**

16 A. I refer to the “Baseload” bid category as the “2007” category. This is because one  
17 of the criteria for submitting a bid(s) in this category was the requirement to have  
18 a resource available by the summer of 2007.

19 **Q. Would you please summarize your testimony in this proceeding?**

20 A. I provide an overview of the RFP 2003A process, the bids received for the 2007  
21 bid category, and the role of Navigant Consulting Inc. (Navigant). I describe the  
22 resource that was selected and compare it with the other finalist and the  
23 benchmark resource. I also describe an alternative resource that was not selected.

1 Finally, I describe the analysis performed by the Company in choosing the Lake  
2 Side Power Project to fulfill the solicited needs for the 2007 resource category.

3 **Need for RFP 2003A**

4 **Q. What determined the need to issue RFP 2003A?**

5 A. On January 24, 2003, PacifiCorp formally published its most recent version of its  
6 Integrated Resource Plan (IRP). As described in the testimony of Ms. Melissa  
7 Seymour, the IRP set forth an action plan consisting of twenty-eight  
8 recommended actions to implement the plan. Action item number 2 called for  
9 additional supply-side resources to be added to PacifiCorp's East portion of the  
10 system in fiscal year 2008 (April 2007 – March 2008).

11 **Q. What do you mean by the “East” portion of PacifiCorp’s system?”**

12 A. The East portion of PacifiCorp's system includes all of the Company's operations  
13 in Utah, Wyoming, and Idaho.

14 **Q. What did action item number 2 consist of?**

15 A. IRP action item number 2 consisted of “approximately 570 MW of base load  
16 resource in the East of the system by April 2007.” Based on action item number 2,  
17 the Company established the 2007 bid category in RFP 2003A.

18 **Q. Why is it important that the 2007 bid category resource not be delayed  
19 beyond the summer of 2007?**

20 A. As Ms. Seymour testifies, the Company has a material need for additional  
21 resources in fiscal year 2008. Since the East portion of PacifiCorp's system  
22 typically reaches peak load during the summer, it is critical that the new resource  
23 be available by that time (summer of 2007).

1 **Q. In her testimony, Ms Seymour defers to you the discussion of several new**  
2 **purchased power transactions. Would you please briefly address those**  
3 **transactions?**

4 A. The Company has entered into the following power purchase agreements (PPA)  
5 for delivery in or to the East portion of PacifiCorp's system. These purchases  
6 have the effect of reducing the resource need listed in the IRP Update and consist  
7 of: a 50 MW purchase for the summers of 2005/2006/2007, a 92 MW purchase  
8 for the summers of 2004/2005, a 50 MW purchase for the summers of 2005/2006,  
9 a 100 MW purchase for the summers of 2006/2007, and a 100 MW long-term  
10 power purchase agreement with Deseret Generation & Transmission Cooperative  
11 (begins summer of 2005).

12 **Q. Is there the possibility that the Company may enter into additional long-term**  
13 **resource agreements with PURPA qualifying facilities (QF) located in Utah?**

14 A. Yes. The Company entered into an all party stipulation associated with a recent  
15 QF avoided cost docket in Utah (Docket No. 03-035-14). QF developers and  
16 consultants represented that there is the possibility that 275 MW of QF resources  
17 may be available no later than June 1, 2007.

18 **Overview of the RFP 2003A process**

19 **Q. Please provide a general description of the RFP 2003A process.**

20 A. RFP 2003A was issued on June 6, 2003 and bidders were expected to provide  
21 responses by no later than July 22, 2003. The Company received ninety-three  
22 specific offers with fifty-three of these offers applicable for the 2007 resource  
23 category. RFP 2003A employed a blind bid evaluation process wherein bid

1 responses were submitted to Navigant who, in turn, assured that the responses  
2 were adequately blinded such that the bidding entity was not known to PacifiCorp.  
3 Navigant then supplied the blinded bid responses to the Company for evaluation.  
4 Please refer to Exhibit UP&L\_\_(MRT-1) for a representation of Navigant's role  
5 with respect to information flow.

6 **Q. What was the outcome of the other two RFP 2003A bid categories?**

7 A. The "SuperPeak" bid category did not result in any acceptable bids being  
8 received. The "Peaker" bid category resulted in the Currant Creek project (Docket  
9 No. 03-035-29).

10 **Q. What was Navigant's overall role in the RFP process?**

11 A. Navigant's overall role was: (1) to make certain that the Company evaluated its  
12 own build option in a manner that was reasonable, fair, unbiased, and comparable  
13 to the extent practicable ("Fair Manner"), against other bids, and (2) to submit  
14 detailed reports on whether the process followed by the Company adequately met  
15 these objectives. The role of Navigant, as an independent consultant, was agreed  
16 to in a stipulation between the Company and various parties to Docket No. 03-  
17 035-03.

18 **Q. What is the "benchmark" resource you referred to above and what role does  
19 it play with respect to the 2007 bid category?**

20 A. The benchmark resource is the alternative that bids in the 2007 category were  
21 compared against. The benchmark resource is referred to in my testimony as the  
22 Next Best Alternative (NBA). The 2007 category NBA is a project that could be  
23 constructed by expanding the Currant Creek project.

1 **Q. When were the projected costs for the NBA established?**

2 A. As Mr. Friedman mentions in his testimony, PacifiCorp's Resource Development  
3 department established the projected costs for the NBA and those costs were  
4 validated by Navigant prior to the time that third party bids were made available  
5 to, and evaluated by, PacifiCorp's Structuring/Pricing department.

6 **Results of RFP 2003A for the 2007 Category**

7 **Q. Please describe the range in offers received for the 2007 bid category.**

8 A. PacifiCorp received fifty-three specific offers applicable for the 2007 bid category  
9 that could be analyzed. These offers ranged in size from a few megawatts (MW)  
10 to over 1,000 MW in size. The term of these offers ranged from five years to up to  
11 the useful life of an asset.

12 **Q. What range in proposed transaction structures did the Company receive?**

13 A. The Company received a wide range of transaction structures as well. Some  
14 bidders chose to propose power plant leases, build transfer arrangements on a  
15 bidder supplied site, build transfer arrangements on a Company supplied site, or a  
16 variety of power purchase arrangements consisting of pricing that was fixed,  
17 variable, or a combination thereof. Ultimately, after the screening process, the  
18 offer validation process and economic analyses, the structure proposed by the  
19 bidders on the final short list consisted of a develop, build, and transfer  
20 arrangement (Turnkey) on a bidder supplied site and a tolling services agreement  
21 (TSA) wherein PacifiCorp would supply the gas to be converted into electricity. A  
22 TSA should be distinguished, in at least one way, from the traditional notion of a  
23 power purchase agreement (PPA) in that a PPA typically consists of the seller

1 bearing the fuel procurement risk.

2 **Q. What other characteristics were associated with the bids received?**

3 A. For the proposals that were heat rate dependent, the heat rates received ranged  
4 from a claimed heat rate as low as 6,300 Btu/kWh to a high of nearly 12,000  
5 Btu/kWh. While fuel type was not a prerequisite of the solicitation process, the  
6 majority of bidders relied on natural gas as the underlying fuel source. Likewise,  
7 dispatch flexibility was not a core requirement for the 2007 bid category. Despite  
8 this fact, several bidders proposed arrangements that would afford the Company  
9 the ability to dispatch the resource based on certain criteria.

10 **Q. How many offers were initially short-listed and how many entities did those**  
11 **offers comprise?**

12 A. Twenty individual offers were short-listed for consideration. These offers were  
13 from nine individual counterparties.

14 **Q. What happened once the bids from these nine entities were compared against**  
15 **the NBA that consisted of expanding the Currant Creek project?**

16 A. The nine entities were reduced to three. The Company received multiple offers  
17 from each of these three entities.

18 **Q. Please generally describe the bids from these three entities.**

19 A. The three entities proposed structures that consisted of the following:

- 20 1. Bidder for bid number 213 and bid number 460 – Bid number 213 was for an  
21 approximate 817 MW resource of which 145 MW would be supplied via duct  
22 firing capability. This resource would be located on a bidder-supplied site and  
23 the parties would enter into a TSA agreement. Bid number 460 was for an

1 approximate 887 MW resource of which 218 MW would be supplied via duct  
2 firing capability. This resource would also be located on a bidder-supplied site  
3 and the parties would also enter into a TSA agreement. The resource design  
4 for both bids consisted of three combustion turbines, three heat recovery steam  
5 generators and a steam turbine. This type of design is commonly referred to as  
6 a “3X1” combined cycle combustion turbine (CCCT) configuration. This  
7 bidder also ultimately indicated their intent to accept, but not to fully  
8 collateralize, the risk of future expenses associated with carbon dioxide (CO<sub>2</sub>)  
9 liability during the first 20-years of the proposed transaction.

10 2. Bidder for bid number 922 – The bidder for bid number 922 proposed a  
11 number of variations upon the same underlying proposal. The underlying  
12 proposal consisted of a generation project company, in conjunction with a  
13 transmission project company, constructing up to 1,040 MW of generation in  
14 Wyoming and transmitting it to Utah via a to be constructed 400+ mile  
15 transmission line. PacifiCorp would enter into a TSA, or alternatively a PPA,  
16 with the generation project company and then a separate agreement with the  
17 transmission project company to effectuate the delivery. In its initial bid, this  
18 bidder indicated their intent to accept the risk of all future expenses associated  
19 with carbon dioxide (CO<sub>2</sub>) liability. However, the bidder subsequently  
20 clarified that it would only accept a capped amount of CO<sub>2</sub> liability.

21 3. Bidder for bid number 493 – Bid number 493 was for an approximate 534  
22 MW resource of which 64 MW would be supplied via a combination of duct  
23 firing capability and steam augmentation. This resource would be located on a

1 bidder-supplied site. The bidder offered three different payment options: a  
2 Turnkey with a payment schedule; a Turnkey with a lump sum payment; and a  
3 leveraged lease. All offers included an embedded buyout option after twenty  
4 years. The resource design from this bidder consisted of two combustion  
5 turbines, two heat recovery steam generators and a steam turbine. This type of  
6 design is commonly referred to as a “2X1” CCCT configuration.

7 **Q. Please describe why the bidder for bid number 922 was removed from**  
8 **further consideration.**

9 A. The two primary issues that removed this bidder from further consideration were  
10 the risk of the high voltage transmission line not being completed on time and the  
11 credit assurances being offered. In order to obtain an independent opinion with  
12 respect to the transmission concern, the Company retained an independent  
13 consultant (Black & Veatch) to review the issues surrounding the proposed  
14 construction schedule. Additionally, based on further clarification provided by the  
15 bidder, the credit instruments offered by the bidder were inadequate to cover the  
16 exposure that the Company would have in the case of non-performance. Based on  
17 the information received, and given the critical need to assure that a resource is in  
18 place by the summer of 2007, the Company removed this bidder from further  
19 consideration.

20 **Q. With respect to the two remaining bidders, what was the transaction**  
21 **structure that the parties focused on?**

22 A. Based on further clarification with the two remaining bidders and further analysis  
23 to determine the best offer from each bidder, the Company negotiated in parallel

1 with the bidder who proposed bid number 213 (a TSA) and the bidder who  
2 proposed bid number 493 (a Turnkey). In this instance, the TSA structure  
3 proposed by the bidder for bid number 213 consisted of the bidder providing a  
4 fuel conversion service where the Company would maintain title to the fuel and  
5 the “seller” would provide the service of converting the Company supplied fuel to  
6 electricity.

7 **Q. Please describe the proposal from the bidder for bid number 213 which**  
8 **represented their best offer.**

9 A. The best offer from the bidder consisted of a structure wherein the company could  
10 exercise an option to extend a 20-year TSA for an additional 15-years beyond the  
11 initial term. PacifiCorp would be obligated to exercise this extension option  
12 within 5-years of executing the TSA. Since the extension option currently appears  
13 to be economic, it was assumed analytically that the Company would exercise the  
14 option and end up with a 35-year TSA agreement for the originally proposed 817  
15 MW project. However, during the 15-year extension period, the bidder did not  
16 obligate itself to bear any risk associated with CO<sub>2</sub> liability. The bidder proposed  
17 an engineer/procure/construct (EPC) wrapped contract at PacifiCorp’s request,  
18 such as the one between Summit and Siemens Westinghouse Power Corporation  
19 (Siemens Power), wherein the bidder would rely on a single entity to construct the  
20 resource. This type of single contact point arrangement is necessary for  
21 PacifiCorp’s customers in the event the counterparty defaulted and the Company  
22 was required to step in during the construction phase.

23

1 **Q. Please describe the proposed site for bid number 213 and bid number 493.**

2 A. Both bidders submitted proposals that would utilize the same site for the location  
3 of the prospective resource. This site is located at Geneva Steel and is in  
4 proximity to end-use loads and PacifiCorp's 345 kV and 138 kV transmission  
5 system. Geneva Steel is currently bankrupt and is in the process of selling off its  
6 assets. Both bidders have proposed to obtain the necessary land, emission  
7 reduction credits (ERCs), and water rights from Geneva Steel in order to  
8 effectuate development of the proposed resource. It is PacifiCorp's understanding  
9 that the bankruptcy trustee for Geneva Steel retained the right to sell these  
10 necessary development components to either bidder, pending the Company's  
11 decision for the 2007 bid category.

12 **Q. Which bid has the Company chosen?**

13 A. The Company has chosen Summit Power, the bidder for bid number 493.

14 **Summit Power and the Lake Side Power Project**

15 **Q. Please describe who Summit Power is and the nature of the transaction that  
16 will take place between the Company and them.**

17 A. Summit Power, via Summit Vineyard, LLC (Summit), submitted the bid to  
18 develop, construct, and transfer, upon completion, ownership of a 534 MW  
19 (summer rated) power plant to PacifiCorp. The name of the project is the Lake  
20 Side Power Project. Summit will develop the Lake Side Power Project on the  
21 Geneva Steel site and enter into an EPC contract with Siemens Power to construct  
22 the resource. Summit and Siemens Power have worked extensively together on a  
23 variety of CCCT projects and have delivered these new resources on time and per

1 agreement. Siemens Power will guarantee their work under the EPC. In addition,  
2 subject to satisfactory terms, PacifiCorp intends to enter into a long-term service  
3 agreement for the Lake Side Power Project.

4 **Q. Please describe the expected payment to Summit and the expected total**  
5 **project cost.**

6 A. PacifiCorp expects to make a total of \$274.6 million in staged payments to  
7 Summit with the total expected project cost being \$330 million. The majority of  
8 the difference between the two amounts takes into account sales tax, allowance  
9 for funds used during construction and a potential alternative gas source  
10 connection. Title will transfer to PacifiCorp as materials are brought to the project  
11 site in line with the negotiated milestones and progress payment schedule.

12 **Q. How will fuel be supplied to the project?**

13 A. It is planned that the primary natural gas connection will be to the Kern River gas  
14 pipeline (Kern Pipeline), an interstate pipeline that is capable of delivering up to  
15 2,000,000 MMBtu/day. The Lake Side Power Project is expected to use up to  
16 90,000 MMBtu/day of natural gas. PacifiCorp will procure the natural gas to fuel  
17 the Lake Side Power Project. An alternative connection possibility is to the  
18 Questar Gas Company local distribution system (Questar LDC). This alternative  
19 would require that gas compression be installed as well as an upgraded lateral  
20 from the Geneva Steel site. In evaluating the economics associated with the Lake  
21 Side Power Project, the Company included \$8.5 million associated with a

1 potential Questar LDC<sup>1</sup> interconnection. The prudence of this alternative  
2 connection will be reviewed in line with construction progress of the lateral to the  
3 Kern Pipeline and in light of the then current natural gas market. At present, it  
4 does not appear that a secondary connection to Questar LDC will provide  
5 commercial advantage. This means that there is \$8.5 million included in the \$330  
6 million expected project cost that may not be necessary. The cost of a lateral to  
7 the Kern Pipeline is also included in the Lake Side Power Project economics.

8 **Q. What type of generation equipment will the Lake Side Power Project have?**

9 A. Summit will utilize new Siemens Westinghouse 501F machines. These  
10 combustion turbines will be connected to two heat recovery steam generators and  
11 a steam turbine. Approximately 470 MW will be produced by the CCCT portion  
12 of the design, 45 MW from the ability to duct fire, and 19 MW via steam  
13 augmentation. The Lake Side Power Project is expected to produce 534 MW on a  
14 nominally rated basis during summer temperature conditions.

15 **Q. Why does the Company believe that Summit, with the Lake Side Power  
16 Project, will result in the resource being available by the Summer of 2007?**

17 A. Summit's relationship with Siemens Power is a proven one. The combination of  
18 their strong track record and the fact that Siemens Power, a large credit-worthy  
19 entity, has substantial strength and capabilities should give customers comfort that  
20 the Company is taking prudent actions in order to meet our load service  
21 obligation.

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<sup>1</sup> The Questar Gas Company provides regulated gas service and is an affiliate of Questar Pipeline.

1 **Q. When would construction on the Lake Side Power Project begin and when is**  
2 **it anticipated to be completed by?**

3 A. It is anticipated that construction would begin following completion of this  
4 certificate process and the projected resource availability date is by no later than  
5 the Summer of 2007.

6 **Role of Direct and/or Inferred Debt in the 2007 Category Decision**

7 **Q. Did direct and/or inferred debt impact the economic analysis involved in**  
8 **making the 2007 bid category decision?**

9 A. Yes.

10 **Q. What do you mean by inferred debt?**

11 A. I am informed that ratings agencies (such as Standard & Poors) infer debt  
12 associated with long-term power supply agreements, including both PPA and TSA  
13 agreements, and take this inferred debt information into consideration when  
14 issuing credit ratings.

15 **Q. What do you mean by direct debt?**

16 A. I am informed that PPA and TSA agreements may result in debt being directly  
17 applied to the Company's balance sheet, or to the consolidation of the selling  
18 entity, or an individual asset of the selling entity, onto the books of the purchasing  
19 entity.

20 **Q. How was the debt issue handled in the bid analysis?**

21 A. In its analysis, the Company applied a cost associated with inferred and/or direct  
22 debt based on: (a) the difference between after-tax return on equity (ROE) and  
23 after-tax weighted average cost of capital (WACC), multiplied by (b) the

1 incremental equity<sup>2</sup> that the alternative would require. The amount of incremental  
2 equity used in the analysis was the higher of the incremental equity required as a  
3 result of direct debt or the incremental equity required as a result of inferred debt.

4 **Q. Is this approach to calculating the cost associated with inferred or direct debt**  
5 **conservative?**

6 A. Yes. The Company believes it is most appropriate to use a pre-tax difference  
7 between ROE and WACC since the revenue requirement impact to customers is  
8 on a pre-tax basis. The pre-tax approach would result in a higher amount of cost  
9 associated with PPA/TSA direct and inferred debt.

10 **Comparison of the Lake Side Power Project with the NBA and TSA proposed by**  
11 **the bidder for bid number 213**

12 **Q. What economic comparison was done between the alternatives before the**  
13 **Company made its final choice?**

14 A. The Company performed a Present Value Revenue Requirements (PVRR)  
15 analysis wherein each alternative was analyzed in a consistent manner.

16 **Q. Which alternatives were analyzed?**

17 A. The Lake Side Power Project, the 3x1 combined cycle TSA proposed by the  
18 bidder for bid number 213 and the Currant Creek expansion.

19 **Q. What were the economics associated with the NBA?**

20 A. The expansion of Currant Creek had economics that evaluated to be \$2.86/kW-  
21 month.

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<sup>2</sup> Equity that would be incremental to the equity that the Company would need to infuse as a result of the comparison resource.

1 **Q. What were the economics associated with the Lake Side Power Project?**

2 A. The Lake Side Power Project had economics that evaluated to be \$2.90/kW-  
3 month if the second gas connection to Questar LDC is included and \$3.04/kW-  
4 month if the \$8.5 million Questar LDC interconnection amount is removed.

5 **Q. What CO<sub>2</sub> assumptions were included in the RFP process?**

6 A. The assumptions were that a CO<sub>2</sub> tax of \$8/ton would start in 2008.

7 **Q. What do the economics associated with the bid from bidder number 213 look  
8 like without including the CO<sub>2</sub> assumptions?**

9 A. The proposal from the bidder for bid number 213, with a term of 35-years and  
10 including the EPC wrap feature, but without including the CO<sub>2</sub> liability  
11 assumptions, had economics that evaluated to be \$0.77/kW-month.

12 **Q. What were the economics associated with the bid from bidder number 213  
13 with the CO<sub>2</sub> liability assumptions included?**

14 A. The proposal from the bidder for bid number 213, with a term of 35-years and  
15 including the EPC wrap feature, but including the CO<sub>2</sub> liability assumptions for  
16 the first 20-years of the transaction, had economics that evaluated to be \$3.07/kW-  
17 month.

18 **Q. What is the total dollar value associated with the CO<sub>2</sub> liability assumption by  
19 bidder number 213?**

20 A. \$603,815,166 in nominal terms, and \$225,062,561 in present value terms.

21 **Q. Please explain how the CO<sub>2</sub> costs affect bid number 213.**

22 A. Bid number 213 would not have been on the short-list without the CO<sub>2</sub> liability  
23 assumptions. As I mentioned earlier, the proposal from the bidder for bid number

1 213 had a value of \$0.77/kW-month as compared to the Lake Side Power  
2 Project's \$3.04/kW-month.

3 **Q. Did the bidder for bid number 213 originally propose to accept potential**  
4 **future CO<sub>2</sub> liability?**

5 A. Based on their original proposal, it appeared so but subsequent clarifying  
6 discussions with the bidder yielded that it only intended to absorb the CO<sub>2</sub>  
7 liability associated with currently known laws and regulations. When asked to  
8 definitively clarify this issue, the bidder represented that it consulted with its  
9 Senior Management and that it would indeed accept potential future CO<sub>2</sub> liability.  
10 However, the bidder refused to fully collateralize the liability.

11 **Q. Did the price proposed by the bidder for bid number 213 change during their**  
12 **clarification of the CO<sub>2</sub> liability issue?**

13 A. No.

14 **Q. Did the large economic impact of the CO<sub>2</sub> assumptions raise issues?**

15 A. Yes. The first issue is, as discussed in Mr. Richard Ito's testimony, whether the  
16 bidder will actually be able to absorb potential future CO<sub>2</sub> liabilities. A second  
17 issue is whether the assumptions regarding the timing of CO<sub>2</sub> liability are  
18 accurate. Those two issues result in material uncertainty with respect to the actual  
19 underlying economics associated with the bid.

20 **Q. Does this complete your testimony?**

21 A. Yes.