

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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|------------------------------------|---|----------------------|
| In The Matter Of The Application   | : | Docket No. 03-035-29 |
| Of PacifiCorp For a Certificate of | : | Direct Testimony Of  |
| Convenience and Necessity          | : | Cheryl Murray        |
| Authorizing Construction of the    | : | For The Committee of |
| Currant Creek Project              | : | Consumer Services    |

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4 February 2004

Redacted

1 Introduction

2 **Q. Please state your name, business address and current position.**

3 A. My name is Cheryl Murray. My business address is 160 East 300 South  
4 Salt Lake City, Utah. I am a utility analyst for the Committee of Consumer  
5 Services (Committee).

6 **Q. Have you previously presented testimony ~~? testified~~ before this  
7 Commission?**

8 A. Yes, I have. I have testified regarding PacifiCorp's (Company) request for  
9 a certificate of convenience and necessity for the Gadsby ~~Peaker P~~lant  
10 Addition (Docket No. 02-035-34) and in PacifiCorp's request for a tariff  
11 rider for Demand Side Management (Docket No. 02-035-T12).

12 **Q. What ~~is~~ the purpose of your testimony?**

13 A. The primary purpose of my testimony is to present the Committee's  
14 position regarding PacifiCorp's request for a certificate of convenience and  
15 necessity to build the Currant Creek project (Currant Creek). I also  
16 address issues relating to PacifiCorp's projected resource-load imbalance,  
17 which is the key driver underlying the Company's proposal to certificate  
18 and build Currant Creek. Finally, ~~and to~~ I introduce the testimony of Mr.  
19 Randall J Falkenberg, a consultant retained by the Committee to examine  
20 the reasonableness of PacifiCorp's economic analysis of Currant Creek  
21 and resource alternatives, and the RFP and bid evaluation process. I will  
22 rely on Mr. Falkenberg to present his technical analyses and findings.  
23

24 **Q. ~~How h~~Has the Company demonstrated that it will have a Does the  
25 Committee agree that PacifiCorp capacity deficiency needs additional  
26 capacity?**

27 A. Yes. The Company's 2003 IRP Report~~In the IRP process, the Company~~  
28 ~~presented a load forecast and a summary of existing resources that it~~  
29 ~~plans to use to satisfy its load requirement, shows that projected loads will~~  
30 ~~exceed installed capacity in the and it shows that the load will exceeded~~

1 ~~by installed resources in the near future term~~ Yes, the Committee agrees  
 2 ~~that additional capacity is needed to meet the Company's system load.~~

3 **Q. What position ~~has~~ did the Committee taken ~~with regarding to~~ the**  
 4 **issue of PacifiCorp's resource deficiency need, particularly in the IRP**  
 5 **process?**

6 A. The Committee has supported the acquisition of cost-effective long-term  
 7 resources. In its 31 March 2003 comments regarding the Company's  
 8 Integrated Resource Plan (IRP) the Committee statedaid, "Most  
 9 significantly, it appears to represent a renewed commitment on the part of  
 10 PacifiCorp management to again acquire long-term resources to serve its  
 11 regulated customers"<sup>1</sup>

12 **Q. Keeping in mind that the Company proposes to have the Combustion**  
 13 **Turbine "stage" of the Carrant Creek Project operational by June**  
 14 **2005, hHow much additional capacity did the Company's 2003 IRP**  
 15 **indicate was needed to meet its load requirements in the 2005-2006**  
 16 **time frame?**

17 A. As the table below illustrates, ~~PacifiCorp will barely meet its peak load in~~  
 18 ~~the first year analyzed in the IRP. In fiscal year 2006<sup>5</sup> (which includes the~~  
 19 ~~summer months of calendar year 2005), the first year considered in the~~  
 20 ~~current docket,~~ the Company projects it will have a capacity surplus of  
 21 only be short long by 4452MW. 44MW represents the capacity cushion in  
 22 the summer of 2005 that the Company expects it will have to satisfy its  
 23 PacifiCorp System load requirement. With the addition of a 15% reserve  
 24 margin, however, the Company's capacity deficiency markedly increases  
 25 in 2006 to becomes capacity deficient by ~~that deficit becomes~~  
 26 1,394MW/283MW. Thus, 1,283 MW is the additional capacity that the  
 27 Company would requires if it were to maintain a 15% reserve margin.  
 28 PacifiCorp actually selected a 15% Reserve Margin as its target reserve

<sup>1</sup> Page 2, 31 March 2003, Recommendation of the Committee of Consumer Services to the Utah  
PSC, Regarding Acknowledgment of PacifiCorp's Integrated Resource Plan 2003; Docket No. 03-  
 2035-01.

1 ~~margin for reliability purposes.~~ —~~These numbers demonstrate that the~~  
 2 ~~Company has a need for new capacity to meet its firm load obligations.~~

3

**PacifiCorp Capacity Adequacy Assessment**

| Year | Existing Installed Capacity (MW) | Peak Load (MW) | Peak Load + 15% reserve margin (MW) | Difference between Existing Capacity and peak load (MW) | Difference between Existing Capacity and peak load +15% reserve margin (MW) |
|------|----------------------------------|----------------|-------------------------------------|---|---|
| 2004 | 8,833                            | 8,774          | 10,090                              | 59  | -1,257  |
| 2005 | 8,894                            | 8,946          | 10,288                              | -52   | -1,394  |
| 2006 | 8,893                            | 8,849          | 10,176                              | 44  | -1,283  |
| 2007 | 8,800                            | 9,025          | 10,379                              | -225  | -1,579  |
| 2008 | 8,788                            | 9,331          | 10,731                              | -543  | -1,943  |
| 2009 | 8,335                            | 9,157          | 10,531                              | -822  | -2,196  |
| 2010 | 8,335                            | 9,253          | 10,641                              | -918  | -2,306  |
| 2011 | 8,299                            | 9,472          | 10,893                              | -1,173  | -2,594  |
| 2012 | 8,119                            | 10,184         | 11,712                              | -2,065  | -3,593  |
| 2013 | 7,820                            | 10,321         | 11,869                              | -2,501  | -4,049  |
| 2014 | 7,820                            | 10,379         | 11,936                              | -2,559  | -4,116  |

4 Note: Source of data was from the IRP report page 33

5

6 Q. What was the basis for the 15% reserve margin target?

7 A. PacifiCorp selected 15% during the IRP planning assumption  
 8 development process ~~based on a number of factors.~~ In the Executive  
 9 Summary of the Company's IRP report, the Company explained its  
 10 rationale ~~motivations~~ for selecting 15% as follows:

11 Use of this assumption does not presume 15% is the ideal  
 12 level for reliability purposes. More or less planning margin  
 13 could be warranted. Rather, the assumption is consistent  
 14 with the ranges discussed under the FERC Standard Market  
 15 Design (SMD) proposal, and reinforced by the public input  
 16 process.  
 17 (PacifiCorp's March 2003, IRP Report, page 3)

18

19 Q. Did the Committee have any reason to object to the 15% reserve  
 20 margin target?

1 A. The Committee found 15% to be consistent with what other utilities in the  
2 country have selected as a reserve margin target and therefore did not  
3 object to its use. However, on page 23 of its IRP comments submitted  
4 to the Commission, ~~that were submitted in March 2003 at page 23,~~ the  
5 Committee stated the following:

6 The criteria for market reliance and the planning reserve  
7 margin were arbitrarily chosen;  
8

9 In other words, while 15% appeared to be reasonable, it had not  
10 been selected based on any reliability analysis that had been  
11 conducted with respect to the PacifiCorp System. Other parties  
12 expressed similar concerns, and recommended that the Company  
13 re-evaluate the use of 15% as the most appropriate target for the  
14 PacifiCorp system in its next IRP.

15 Q. What is the Committee's conclusion concerning PacifiCorp's need  
16 for capacity?

17 A. Based on the load, resource and reserve margin information data  
18 presented in the Company's ~~initial~~ 2003 IRP ~~R~~report, the PacifiCorp  
19 system ~~appears to have~~ a significant capacity deficiency by summer  
20 2005. However, it still remains to be seen whether a 15% system reserve  
21 margin is the appropriate target for planning purposes, and that issue is ~~to~~  
22 being examined ~~determined~~ more thoroughly in PacifiCorp's 2004 ~~current~~  
23 IRP process.

24 **Q. In October 2003, tThe Company ~~has~~ provided an update to its**  
25 **2003the IRP Report. Was that update considered in the Committee's**  
26 **determination of need?**

27 A. In October 2003, the Company submitted an update to its IRP Report that  
28 contained a ~~significantly~~ revised load forecast and deficiency calculation.  
29 This ~~updated~~ load forecast and deficiency calculation was ~~also~~ relied on  
30 by Mr. Cassity in his Currant Creek testimony that described PacifiCorp's  
31 need for resources. The Committee has given this ~~The~~ update ~~was given~~  
32 less consideration than the acknowledged 2003 IRP Report. While the

1 IRP went through a rigorous public input process and was acknowledged  
2 by the Commission in May 2003, the Company's updated load forecast  
3 and deficiency calculation has not been fully vetted in a public forum.  
4

5 In addition, the Committee submitted some data requests (CCS DR Set  
6 No. 8) to enable its experts which would have allowed the Committee to  
7 examine the deficiency calculation in more detail; however, yet, the  
8 Company has yet to fully respond to information requested in Data  
9 Requests 8.1 and 8.3. The Company alleges that providing such  
10 information is overly burdensome time consuming to do so. The  
11 Committee does not agree with the Company's estimate of time to prepare  
12 the data, and would still like PacifiCorp to provide the information. The  
13 Company has recently exhibited a willingness to work with us on this  
14 issue. Hopefully, we will be able to gain greater clarity on the updated  
15 deficiency calculation prior to hearings in this docket. For these reasons,  
16 the Committee is not in a position to be able to rely on PacifiCorp's  
17 updated load forecast and resource deficiency calculations to assess prove  
18 that the validity of the Company's projected resource-load  
19 imbalance Company has a capacity deficiency.

20 **Q. What concerns does the Committee have regarding the updated load**  
21 **forecast and deficiency calculation?**

22 A. It has been very difficult to understand the magnitude of the resource  
23 deficiency that PacifiCorp currently projectssays exists based on its  
24 updated methodology and assumptionsnew deficiency calculation. First,  
25 the new methodology focuses exclusively on the East side of the System.  
26 Instead of a deficiency of 1,283 MW for the entire PacifiCorp system-only.  
27 (as PacifiCorp's acknowledged IRP showed), the new methodology shows  
28 Instead of a deficiency of 1,283 MW for the entire PacifiCorp system, as  
29 PacifiCorp's acknowledged IRP showed, the new methodology  
30 demonstrates that there is a need for 1,094 MW on the East side of the  
31 System alone. AbsentWithout having obtained the additional information

1 that the Committee is seeking requested, in Data Requests 8.1 and 8.3,  
2 the Committee is unable to reconcile the huge difference between the  
3 1,283 MW system deficiency identified in the March 2003 IRP Report, and  
4 the 1,094 MW East Side deficiency indicated established in the Company's  
5 IRP update.

6  
7 –In addition, the updated methodology assumes that there is 550MW of  
8 resource outages that add to the capacity deficiency (See Mr. Cassity's  
9 Eexhibit JC-4). By comparison, Company witness Janet Morrison,  
10 presented testimony in the Gadsby CCN case in which she calculated a  
11 capacity deficiency on the East Side of the System that was based on the  
12 assumption of only 277 MW of resource outages. This is an example in  
13 which the Company's new assumptions are not-inconsistent with the last  
14 CCN that the Company had filed.

15 **Q. Are there steps PacifiCorp could take to satisfy its summer 2005**  
16 **needs without the 280MW from Currant Creek?**

17 ~~A.~~The Company's IRP Update asserts ~~that that~~ a 1049 MW deficiency exists for  
18 summer 2005. In response to the Committee's ~~D~~data ~~R~~request 7.7, the  
19 Company indicated that it can access 701 MW of firm transmission access  
20 rights, leaving a deficit of 348MW. If Currant Creek ~~generatesis-producing~~  
21 280 MW for summer 2005, the remaining deficiency is 68MW. However,  
22 whether Currant Creek is the most economicalonly resource that could  
23 satisfy the deficiency in 2005 has been very difficult to determineiscern  
24 from the Company.

25 A. \_\_\_\_\_

26 ~~Are there steps PacifiCorp could take to satisfy its summer 2005 needs~~  
27 ~~without the 280MW from Currant Creek?~~

28  
29 The Company's response to Committee ~~D~~data ~~R~~request 7.8 identifiedsaid  
30 the following potential optionsactions could be undertaken to satisfy the  
31 deficiency:

- 1           • Increase procurement from the demand side management
- 2           request for proposal for firm supply;
- 3           • ~~\_\_\_\_\_~~ Modify or expand the load curtailment program;
- 4           • Bi-lateral negotiations with wholesale customers to terminate
- 5           or restate existing agreements;
- 6           • Bi-lateral negotiations with wholesale qualified entities that
- 7           have generation or transmission available north of the
- 8           Wasatch Front South boundary;
- 9           • Negotiate with Qualifying Facilities (QF) that could have
- 10          capacity in place by summer of 2005; and
- 11          • Assess which renewable projects could make deliveries
- 12          above the Wasatch Front South boundary.

### I

14 ~~T~~ There are currently petitions from Desert Power and US Magnesium  
15 before the Commission for determination of avoided costs for power  
16 produced from their QFs. The petitioners indicate that these facilities  
17 together could produce 150 MW by summer 2005. This is a 50\_MW  
18 increase over what the two facilities currently provide. Furthermore,  
19 additional capacity may be available for purchase over the bulk power  
20 transmission system, although the Committee has not been able to fully  
21 analyze the extent to which transmission rights as well as transmission  
22 capacity exist that can be relied on to allow delivery of power North of the  
23 Wasatch Front South boundary.

24 ~~Other parties may also be able to come forward to supply additional capacity to~~  
25 ~~the company to help satisfy its capacity deficiency.~~

26 ~~Is there adequate transmission capability to meet summer 2005~~  
27 ~~peaking needs?~~

28 ~~A. The limited time available to analyze the Currant Creek Project did not~~  
29 ~~permit us to validate the need for specific resources in Utah in 2005. The~~  
30 ~~required separation between the Company's generation and transmission~~  
31 ~~divisions makes it difficult to access transmission expertise and~~  
32 ~~information. The Committee relied on the Company's assertions that~~  
33 ~~there is not sufficient firm transmission available to import adequate~~  
34 ~~supply into the Wasatch Front and that relying on non-firm transmission~~  
35 ~~would likely leave customers vulnerable to energy shortages.~~  
36



1 Q. What is your conclusion regarding PacifiCorp's evidence supporting  
2 its need for capacity?

3 A. The Committee believes that the 2003 IRP Report acknowledged by that  
4 the Commission ~~acknowledged~~ ~~providese~~ sufficient evidence that there  
5 will be a capacity deficiency in 2005 on a ~~s~~System wide basis. The  
6 additional ~~studies~~ ~~evidence~~ that the Company has provided concerning its  
7 new load forecast and East Side deficiency calculation ~~have~~s not yet been  
8 fully vetted, and the Committee cannot say whether that information is  
9 useful in supporting PacifiCorp's need contention. Furthermore, the  
10 Committee has not been able to determine whether the Currant Creek  
11 resource is the only resource that could be relied on to supply PacifiCorp's  
12 need in 2005, nor is the Committee able to say whether it is the best  
13 resource out of all of the alternatives that were evaluated as part of the  
14 RFP process.

15 Q. Did the Committee find problems with the RFP – Bid Evaluation  
16 process and the Company's modeling of resource alternatives?

17 A. Based on his analyses, Mr. Falkenberg concluded that there were  
18 substantial problems with both the RFP-Bid Evaluation process and the  
19 modeling effort conducted by the Company to determine the least cost  
20 (low cost, low risk) resource among the bids and Currant Creek (Next Best  
21 Alternative or NBA). For example, the RFP specified a peaking resource  
22 (begin confidential)

23  
24  
25 (end confidential). Mr. Falkenberg's testimony describes  
26 these problems at length and details his concerns.

27 Q. What conclusion did the Committee reach based on Mr. Falkenberg's  
28 analyses?

29 A. Because of the concerns with PacifiCorp's modeling of Currant Creek and  
30 alternative resources, and problems in the RFP-bid evaluation process,  
31 the Committee has not been able to determine whether the Currant Creek

1 project is the most economical resource for meeting PacifiCorp's future  
2 load requirements. The Committee, therefore, cannot recommend to the  
3 Commission that the Currant Creek project, as proposed, is the best (low  
4 cost, low risk) resource alternative for Utah ratepayers.

5 **Q. Does the Committee have any preliminary recommendations to**  
6 **improve the RFP and Bid evaluation process going forward?**

7 **A. Yes. It should be apparent that this case has identified serious problems**  
8 **in the existing RFP and bid evaluation process. Absent a 3<sup>rd</sup> Round of**  
9 **bidding, it is impossible to recreate the outcome of a fair and reasonable**  
10 **bid process. Given the significant problems and missteps in this process,**  
11 **the Committee believes the only reasonable solution is to significantly**  
12 **modify the RFP and bid evaluation process and modeling of resource**  
13 **alternatives.**

14  
15 The Committee recommends that the Commission immediately open a  
16 new docket to correct flaws in the current procedure. Improvements in the  
17 drafting of the RFP should include:

18 1 The RFP should specify the book life over which the evaluator  
19 will analyze bids. This would presumably be the life of the type  
20 of plant sought. Bidders would have the option to submit bids  
21 over or under that term.

22 2 Bidders would be provided a copy of the Company's model(s)  
23 used in evaluating the alternatives, prior to submitting their bids.  
24 Bidders would be allowed the opportunity to self-score their first  
25 round bid. The model(s) should not be confidential and a set of  
26 test data, perhaps developed from publicly available sources,  
27 should be provided.

28 3 The RFP should clarify what is required of the bidders  
29 concerning variable O&M and startup costs. These issues  
30 caused a tremendous amount of confusion in this case. Bidders  
31 should be provided a minimum and maximum number of unit

1 startups that are expected per year. This information would be  
2 used by bidders that submit unit contingent sales offers. This  
3 gives the bidders the ability to develop a realistic startup cost  
4 and a realistic variable O&M cost that can be used to evaluate  
5 their bids.

6 4 The RFP should be transparent in all specifications for bids. If  
7 the RFP process is labeled for peaking capacity, then it should  
8 specify a capacity factor range for which the unit will operate on  
9 an annual basis. Or the bidder should be given a load profile for  
10 which the bid would reasonably be expected to serve. The type  
11 of NBA unit should be identified.

12 5 The final (second round) bid evaluation should be conducted  
13 with a production cost model that would fully evaluate the  
14 operation of the bid alternatives and the NBA within the context  
15 of PacifiCorp's system and monetize reliability impacts. Round  
16 1 evaluations can be done without such a model, but only after it  
17 has been tested to demonstrate reasonable equivalence with a  
18 reasonable production cost model.

19 6 The RFP should define exactly what the negotiation process will  
20 entail. It must clarify what should be provided in writing to the  
21 Company as part of a formal bid, and what could be decided as  
22 offer terms based on subsequent negotiations between bidders  
23 and the Company.

24 7 The RFP should clearly identify non-price requirements that  
25 bidders must meet to be considered a valid bid. An advantage  
26 should be conferred upon bidders that have permits in place,  
27 and on bids that contain firm cost figures as opposed to mere  
28 estimates.

29 **Q. Does the Committee have any recommendations with regard to the**  
30 **certification process?**

1 A. The Commission should require the Company to file any future request for  
2 a certificate of convenience and necessity at least four or five months prior  
3 to the proposed construction start date. Based on the Gadsby Peaking  
4 addition and this current docket, it is clear that parties need more time to  
5 adequately evaluate the Company's requests for certificates of  
6 convenience and necessity.

7 **Q. Does this conclude your testimony?**

8 A. Yes.

9

10 Cheryl this might be a good place to move to introduce Randy's testimony.

11

12