

1 7. PacifiCorp overstates generation from the Fort James cogeneration
2 facility compared to recent actual levels. Correcting this error reduces
3 net power costs.

4 **Thermal Dispatch Adjustment**

5 8. The GRID model produces an unrealistic and highly questionable
6 dispatch of coal units. As a result, GRID understates the generation that
7 can be expected from the Company's coal plants. Correcting this
8 problem by increasing the market size limit reduces power costs by
9 allowing more spot sales to take place.

10 **Outage Adjustments**

11 9. A major cause of the increase in power costs occurring since Docket No.
12 UE-991832 has been the increase in outage rates of PacifiCorp's thermal
13 generators. Outages occurring over the past four years are reflected in
14 GRID via unit thermal deration inputs. The Commission should not
15 allow a decline in performance to result in a financial reward for the
16 Company. I recommend ten outage rate adjustments to address this
17 problem and to provide more representative power cost estimates.

18 10. The Commission should pro-forma out the impact of the Hunter Unit 1
19 outage from November 2000 to May 2001. The Company has excluded
20 the impact of this outage in power cost studies it filed in its most recent
21 cases in Oregon and Utah, and has not demonstrated in this proceeding
22 that this outage was not the result of imprudence.

23 11. GRID uses overstated outage rates for its new Combustion Turbines
24 ("CTs"). The Company included numerous outages that occurred during
25 initial operation and testing of these units that should not be expected to
26 recur.

27 12. The Company included inappropriate outages for several other plants in
28 its historical data. For example, PacifiCorp included an outage at
29 Bridger Unit 4 that the Company has already admitted was imprudent.
30 It also included other outages and derations related to other imprudent
31 or unusual problems that have now been corrected at Hunter and
32 Blundell. The impact of these outages should be reversed as well.

33 13. I further recommend the Commission pro-forma out several abnormal or
34 "catastrophic" outages to provide a better representation of normalized
35 power costs. The Company has previously proposed to pro-forma out
36 these outages in prior cases in Oregon and Wyoming.

1 evaluation. I recommend the Commission impute this option value against the
2 cost of West Valley, as it is impossible to reflect this benefit in GRID. The
3 impact of this West Valley adjustment is shown in Table 1. In addition, there are
4 a variety of other issues associated with West Valley that I do not discuss here,
5 which include the fact that West Valley is a lease from its affiliate Pacific Power
6 Marketing.

7 **P4 Production Company Contract**

8 **Q. ARE YOU CONCERNED ABOUT PACIFICORP'S MODELING OF ANY**
9 **OTHER CONTRACTS?**

10 **A.** Yes. The Company also has a contract with P4 Production Company (an Idaho
11 operation) for interruptible power.

12 The P4 contract has three components: System Integrity, Operating
13 Reserve and Economic Curtailment. The System Integrity clause allows the
14 Company to interrupt 162 MW for twelve hours per year. GRID models the first
15 two elements of the contract, although it may not fully reflect the associated
16 benefits. PacifiCorp valued System Integrity clause at the Federal Energy
17 Regulatory Commission's ("FERC") current price cap value of \$250/MWh. This
18 results in a cost of \$40,500 per month, or \$486,000 per year. The Company does
19 not model this benefit in GRID, because it assumes that under normalized
20 conditions a qualifying event would never occur.^{14/} In GRID, the contract is
21 modeled as a "no-energy archetype."^{15/} Again, this is a situation where using a
22 point estimate for hourly market prices (and failure to model outages in a

^{14/} Exhibit No.__(RJF-7) (PacifiCorp's response to ICNU DR No. 1.5).

^{15/} Which is just a fancy way of saying it does nothing.

1 **Q. ARE THERMAL DERATION FACTORS AN IMPORTANT DRIVER IN**
2 **OVERALL NET POWER COSTS?**

3 **A.** Yes. PacifiCorp's thermal outage rates have increased substantially from the
4 levels assumed in its last general rate case (UE-991832).^{20/} Exhibit No.__(RJF-
5 11) shows that PacifiCorp's outage rates have increased by more than 20%
6 compared to those used in the UE-991832 test year for the same plants. Because
7 outage rates for larger units have increased by more than smaller ones, this has
8 resulted in an increase of 23% in capacity on outage (i.e., the average amount of
9 capacity out of service due to forced outages) assumed in the power cost study.

10 **Q. HAS THE INCREASE IN OUTAGE RATES INCREASED POWER**
11 **COSTS?**

12 **A.** Yes. To estimate this cost I used GRID to compute the change in power cost
13 resulting from a 10 MW change in coal capacity. I then applied this result to
14 develop an annual average cost of the increased amount of capacity on outage.
15 The result, also shown in Exhibit No.__(RJF-11), is \$20.9 million on a total
16 Company basis. In UE-991832 the Company requested \$487 million in total
17 power costs compared to \$553 million for this case. My analysis demonstrates
18 that close to one-third of the increase in power cost is due to a increase in outages
19 rates of thermal plants.

20 A further problem is that the increase in outage rates has also lead to need
21 for additional thermal capacity, further increasing system costs. The increase in
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^{20/} These were also based on a four-year rolling average.

1 capacity on outage (149 MW) is more capacity than the entire Gadsby plant.

2 **Q. HOW DO YOU RECOMMEND THE COMMISSION ADDRESS THIS**
3 **PROBLEM?**

4 **A.** The Commission should take a very careful look at the causes of these increased
5 outage rates and make adjustments to remove outages that are imprudent, non-
6 representative, or abnormal. Considering that the Company is being allowed early
7 relief from the requirements of the five-year rate plan, the Commission should not
8 reward a decline in performance with higher rates. Consequently, a very high
9 standard of proof should be required in the case of outage rate modeling.

10 **Q. HAVE YOU IDENTIFIED ANY OUTAGES THAT SHOULD BE**
11 **EXCLUDED FROM THE FOUR-YEAR ROLLING AVERAGE?**

12 **A.** Yes. I have identified 9 major outage adjustments and a series of minor outages
13 that should be removed from the four-year rolling average. These are shown on
14 Exhibit No.__(RJF-12). The most significant of these is the Hunter Unit 1 outage
15 from November 2000 to May 2001.

16 **Q. WHAT IS THE BASIS FOR REMOVING THE HUNTER UNIT 1**
17 **OUTAGE?**

18 **A.** This was clearly a catastrophic, one-time event. Hopefully it will never be
19 repeated in the lifetime of Hunter Unit 1 or any other plant. As the Commission
20 must certainly be aware, this outage occurred during the power crisis and had a
21 devastating effect on PacifiCorp's power costs. Under PacifiCorp's modeling it is
22 assumed that the Hunter Unit 1 outage would recur once every four-years. A