

BEFORE THE UTAH PUBLIC SERVICE COMMISSION

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IN THE MATTER OF THE APPLICATION OF	)	
ROCKY MOUNTAIN POWER TO INCREASE	)	DPU EXHIBIT 4.0 SR
RATES BY \$29.3 MILLION OR 1.7 PERCENT	)	DOCKET No. 12-035-67
THROUGH THE ENERGY BALANCING	)	
ACCOUNT	)	

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Pre-filed Surrebuttal Testimony

Of

Douglas D. Wheelwright

On Behalf of

Utah Division of Public Utilities

January 17, 2013

1 **Q: Please state your name, business address and title.**

2 A: My name is Douglas D. Wheelwright. I am a Utility Analyst in the Division of Public  
3 Utilities (Division). My business address is 160 East 300 South, Salt Lake City, Utah  
4 84114.

5 **Q: On whose behalf are you testifying?**

6 A: I am testifying on the Division's behalf.

7 **Q: Have you previously filed testimony for the Division on matters related to the**  
8 **Company's hedging program?**

9 A: Yes. I have provided testimony to the Commission in Dockets 09-035-15, 09-035-23 and  
10 10-035-124. I also participated in all of the meetings associated with the Collaborative  
11 Process to Discuss Changes to PacifiCorp's Hedging Program and coordinated the  
12 preparation of the final report to the Commission.

13 **Q: What is the purpose of your testimony in this matter?**

14 A: I will provide comments on the rebuttal testimony of Stefan A. Bird filed on behalf of  
15 PacifiCorp (Company) and on the rebuttal testimony filed by Dr. J. Robert Malko on behalf  
16 of the Utah Industrial Energy Consumers (UIEC).

17 **Q: Do you agree with Mr. Bird's assessment that the Division does not feel that cost**  
18 **minimization should be part of the hedging strategy?**

19 A: No. Mr. Bird mischaracterizes the Division's position. The reference that he uses to justify  
20 his statement is a small portion of a paragraph from the Collaborative Hedging Report that  
21 has been taken out of context. The referenced section of the report is a discussion of the  
22 Company's use of the TEVaR metric and has nothing to do with the Division's position on  
23 cost minimization. The same paragraph also includes a recommendation to look at long-  
24 term gas contracts to potentially minimize future prices. The referenced section from that  
25 report has been included below and the specific quote used by Mr. Bird has been  
26 highlighted.

27 **d) Risk tolerance bands based on TEVaR or VaR limits or otherwise.**

28 'One of the most important outcomes of the collaborative process has been a  
29 better understanding of TEVaR and how it is used by the Company. "The  
30 TEVaR distribution is a statistically-generated distribution of outcomes that is  
31 wider or narrower based upon the aggregate volatility of the combined power and  
32 natural gas portfolio."<sup>1</sup> The TEVaR calculation is a tool to measure the possible  
33 impact of commodity price changes to the Company's net power cost, favorable  
34 and unfavorable. This statistical measurement tool is forward looking and while it  
35 measures both future risk of loss and future potential gain, it does not look at the  
36 historical benefit or regret that results from a hedging program. The calculation is  
37 a measurement of the price risk associated with the open (unhedged) position for  
38 both natural gas and electricity and provides a statistical estimate of the potential  
39 impact that volatile prices could have on net power cost. Understanding the  
40 outcome of the TEVaR calculation is important to understand how the calculation  
41 should be used for planning purposes.

42 In the current market conditions, both natural gas price levels and price  
43 volatility are comparatively low suggesting relatively stable prices for the future.  
44 In this situation the TEVaR calculation would suggest that the Company has a  
45 low risk of volatile prices impacting net power cost and as a result the Company  
46 could hedge less and leave more open positions without impacting price stability.  
47 If the same circumstances are examined from a perspective of minimizing future  
48 prices however, it may be advantageous to hedge or negotiate long term  
49 contracts while natural gas prices are at relatively low levels. This perspective  
50 based on fundamental analysis, would suggest that the Company should lock in  
51 long term prices to take advantage of current relatively low prices. This disparity  
52 emphasizes the importance of coordinating fundamental analysis with the  
53 Company's hedging program, since ***the purpose of price hedging and its***  
54 ***associated metrics (including TEVaR) is to reduce price volatility rather***  
55 ***than to achieve cost minimization.***

56 Similarly, when market conditions are volatile and prices are high as they  
57 were in 2008, the TEVaR calculation would indicate that there is a greater risk of  
58 adverse price impacts on the Company's net power cost. Volatile price  
59 movement could impact the open (unhedged) portion of the portfolio and would  
60 prompt the Company to hedge more in order to close the open positions and  
61 increase price stability. Although the TEVaR was not a metric used by the  
62 Company in 2008, the increased risk factors that would cause TEVaR to be  
63 higher were well recognized by the Company in 2008. This may be one of the  
64 reasons why [REDACTED]

65 [REDACTED] The calculation of TEVaR has more day-to-day relevance to  
66 the Company than it does to outside parties and should be used in combination  
67 with fundamental analysis. The use of the TEVaR metric may continue and the  
68 results of the TEVaR calculations will be reported in the semi-annual report in  
69 order to look for trends and monitor the market volatility. It is understood that if a

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<sup>1</sup> PacifiCorp – 2011 Integrated Resource Plan, Appendix G - Hedging Strategy

70 situation arises where the percentage limit is in opposition to the TEVaR limit the  
71 hedging percentage should take precedence.<sup>12</sup>

72 Contrary to what Mr. Bird indicates in his testimony, when this quotation is presented in  
73 context, it is clear that the Division's position has been misrepresented.

74 **Q: Has the Company provided any information to the Division that would suggest that**  
75 **the costs associated with a hedging program should be considered?**

76 A: Yes. As pointed out in Dr. Malko's testimony, the executive summary of the PacifiCorp  
77 Semi-Annual Hedging Report includes the following statement: "The Company hedges  
78 and procures natural gas supply and hedges power in such a way as to balance risk  
79 management with low cost."<sup>3</sup> Apparently, the Company believes that cost should be  
80 considered as part of a hedging strategy.

81 **Q: In Mr. Bird's testimony, he stated that the Company's hedging program is not**  
82 **designed to minimize net power cost. How does this statement match with the**  
83 **statement above that indicates that there is a balance between risk and cost?**

84 A: During the many discussions that have taken place related to the Company's hedging  
85 program it has become very clear there are large disagreements over the meaning of  
86 specific terms and a general understanding of how the Company uses hedging. I agree  
87 that a hedging program will not produce the absolute lowest cost. A hedging program is  
88 designed to reduce the impact and risk of an unforeseen event much like when an  
89 individual purchases an insurance policy to cover unforeseen events and perils. With an  
90 insurance policy, there is a premium or price that is paid to a third party to assume the  
91 potential risk. Just as an individual should not pay for unnecessary insurance coverage,  
92 ratepayers should not be asked to pay for unnecessary costs associated with a hedging  
93 program. I believe that the difference between parties is an understanding of cost  
94 minimization and how large the premium or price should be in order to balance risk with  
95 the cost.

96 **Q: Do you still feel that cost minimization is important to a hedging program?**

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<sup>2</sup> Collaborative Process to Discuss Appropriate Changes to PacifiCorp's Hedging Practices, March 30, 2012, page. 7.

<sup>3</sup> PacifiCorp Semi-Annual Hedging Report, March 29, 2012, page 4.

97 A: Yes, however, not in the same way that it has been represented by Dr. Malko in this case.

98 **Q: Can you clarify how you believe cost minimization should be included?**

99 A: Yes. Cost minimization should be one of three factors to consider in any hedging strategy  
100 along with reliability and price stability. This is consistent with the previous testimony from  
101 the Division<sup>4</sup> and consistent with the previous decisions from the Commission concerning  
102 the hedging practices of Questar Gas Company (Questar Gas). In the Questar Gas case,  
103 the Commission provided clear direction as to how that company should address its  
104 hedging program. The Commission order for Questar Gas states the following:

105 “In previous pass-through dockets, the Commission has considered cost and  
106 reliability as relevant factors when determining the prudence of the Company’s  
107 gas acquisition decisions. In the Stipulation, the parties recommended that the  
108 Commission consider price stability as a third factor when reviewing the  
109 Company’s gas purchase strategies and implementation thereof.

110 Based on public input received during the public hearings, it is evident that QGC  
111 customers experienced significant rate shock from the sudden fly-up of natural  
112 gas prices. In past years, the cost of the purchased gas portion of the  
113 Company’s gas supply portfolio has been based on first-of-the-month price  
114 indices and spot-market prices. This has resulted in relatively inexpensive  
115 purchased natural gas supplies, but has exposed customers to risk of significant  
116 increases in gas costs which could have been mitigated through longer-term  
117 purchases, financial instruments, or other alternatives, some of which require  
118 some initial investment. Including price stability as a criterion should remove any  
119 disincentive to implement such measures.

120 Because of an increasingly volatile gas supply market, the Commission believes  
121 that ***the Company should consider price stability as a factor to be***  
122 ***considered in acquiring its gas purchase portfolio as well as cost and***  
123 ***reliability.*** The Commission will expect QGC to include price stability in its  
124 integrated resource planning filings, with input from the Division and the  
125 Committee.

126 Including price stability, as a factor in purchasing gas supplies, may result in the  
127 Company incurring certain costs, the recovery of which has not been addressed  
128 by the Commission in the past. The Commission agrees with the parties that  
129 when costs must be incurred to lock-in longer term gas supplies, in order to  
130 provide for gas price stability, such costs should be recovered in the 191  
131 account. The prudence of the amount and necessity of these costs will be  
132 reviewed by the Commission in an appropriate proceeding.”<sup>5</sup>

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<sup>4</sup> Docket 10-035-124, Wheelwright Surrebuttal Testimony, page 11, line 260.

<sup>5</sup> Report and Order Questar Gas Docket Nos. 00-057-08 and 00-057-10, page 4.

133 It should be noted that the Questar Gas decision was made when there was greater  
134 volatility in the price of natural gas than the current market conditions. Prior to the  
135 decision cited above, it appears that Questar Gas had been looking primarily at cost and  
136 reliability in hedging decisions. Since the future direction of price and the volatility of the  
137 natural gas commodity are uncertain, it is important to look at the three factors of price,  
138 reliability and stability when reviewing a broad hedging strategy.

139 **Q: Do you agree with the conclusions and recommendations identified in Dr. Malko's**  
140 **testimony?**

141 A: No. It is Dr. Malko's position that the Company should have acted more aggressively and  
142 executed contracts to sell natural gas or liquidate their existing positions as they saw the  
143 decline in the price of natural gas. This conclusion does not comply with the Company's  
144 risk management policy and encourages the Company to speculate on the future price of  
145 natural gas. It is easy to look at these transactions in hindsight and suggest that the  
146 Company should have taken a different position. What Dr. Malko has not factored in was  
147 the possibility that prices could have moved in the opposite direction, compounding the  
148 loss and further increasing net power costs.

149 **Q: Can you provide an example of how the strategy suggested by Dr. Malko could have**  
150 **compounded the loss and increased net power?**

151 A: Let me use a simplified example. Let's assume that the Company has a swap contract  
152 with a settlement price of \$6 per MMBtu and the current market price of that contract is \$4  
153 per MMBtu. If the Company were to sell a natural gas contract at the current market price  
154 of \$4, it would lock in the loss of \$2 on the first transaction. (Purchase at \$6 and sell at \$4  
155 for a \$2 loss) If the market price were to continue to move down as Dr. Malko has  
156 suggested, the Company could possibly purchase natural gas at some point in the future  
157 at the market price of \$3. The combination of the \$3 physical gas and the \$2 loss on the  
158 initial financial transaction makes the total price of the gas \$5 per MMBtu. If all these  
159 transactions were to occur at the correct time and at the correct price it would reduce the  
160 price of the burned gas from \$6 in the original transaction to \$5 (\$3 purchase price plus  
161 the \$2 loss).

162 If the Company is incorrect in timing the sale of the existing positions or if the market  
163 moves in the opposite direction, the losses can be exaggerated. Let's use the same

164 example from above where the Company has purchased gas at \$6 and sold at \$4 for a \$2  
165 loss. If the market price for physical gas has increased to \$5 the Company would have to  
166 purchase gas at the \$5 market price but has already incurred the \$2 loss on the original  
167 transaction. This scenario results in a total price of \$7 per MMBtu instead of the \$6  
168 contract price in the original transaction. (\$5 purchase price plus the \$2 loss) In this  
169 scenario, the actual price of the gas would be higher than the original contract amount and  
170 would increase net power cost. Dr. Malko assumes that the Company is able to sell its  
171 existing positions at the correct time and purchase new natural gas contracts at lower  
172 prices. This combination of events is not likely and would be considered speculative since  
173 the future price of natural gas is uncertain.

174 **Q: Dr Malko refers to the difference between forecasted losses on swaps and the**  
175 **actual losses on swaps as though the Company has incurred additional costs. Do**  
176 **you think that UIEC is looking at the swap contracts in the correct way?**

177 A: No. UIEC is looking at the increase in the swap losses as though the Company is  
178 incurring additional cost each time the market price of natural gas changes. Let me use a  
179 specific transaction from the EBA filing to illustrate.

180 [REDACTED]  
181 [REDACTED]<sup>6</sup> [REDACTED]  
182 [REDACTED] and the settlement date of December 2011 the actual market price of natural  
183 gas moved with the market conditions. On any given day, the difference between the  
184 current market price and the contract price is calculated as the mark-to-market price. The  
185 total price of this contract was included in the base net power cost calculation with a  
186 portion of the cost allocated as fuel cost (based on the market price for that date) and a  
187 portion allocated to swap losses. No matter what happened to the price of natural gas  
188 between the contract origination date, the date the rates were established and the  
189 settlement date, the Company was obligated to complete this contractual agreement and  
190 paid the equivalent of [REDACTED] per MMBtu for this specific quantity of natural gas in  
191 December 2011. The only thing that has changes with this swap contract was the amount  
192 allocated to fuel cost and the amount allocated to swap losses. What parties need to

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<sup>6</sup> Revised EBA Filing Requirement FR 1-1, Gas Swap, Deal #772524.

193 focus on is the actual contract price per MMBtu that the Company is paying for natural gas  
194 and not the mark-to-market price difference. The actual contract price should be  
195 compared to the forward price curve that corresponds with the date the contract was  
196 executed in order to avoid looking at swap transactions with the benefit of hindsight.

197 **Q: As part of the collaborative process didn't the Company agree to make changes to**  
198 **the hedging program and address many of the issues that have been raised?**

199 A: Yes. However, since the Company had previously entered into contracts that extended  
200 well into the future, there are existing natural gas contracts for a portion of the forecast  
201 requirement that are above the current market price. As mentioned in Mr. Bird's  
202 testimony, the collaborative process concluded with a report to the Commission March 30,  
203 2012 and the Company modified the Risk Management Policy to incorporate the changes  
204 as of May 22, 2012. While these new guidelines were not officially adopted until mid 2012,  
205 the Company has not been entering into long-term natural gas contracts for some time.  
206 The most recent Hedging Report indicates that the Company is currently in compliance  
207 with the new percentage guidelines established in the collaborative process.<sup>7</sup> The  
208 combination of the lower priced market purchases with the existing higher price contracts  
209 should reduce the average fuel price in future periods but does not impact the current EBA  
210 period.

211 **Q: Does that conclude your testimony?**

212 A: Yes it does.

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<sup>7</sup> PacifiCorp Semi-Annual Hedging Report, October 31, 2012, Executive Summary, page 2.