BEFORE THE UTAH PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE VOLUNTARY REQUEST OF ROCKY MOUNTAIN POWER FOR APPROVAL OF RESOURCE DECISION TO ACQUIRE NATURAL GAS RESOURCES OF UP TO A TOTAL OF [redacted] MMBTU/DAY	))))))	DPU EXHIBIT 1.0 DR DOCKET NO. 12-035-102

Pre-filed Direct Testimony

Of

Douglas D. Wheelwright

On Behalf of

Utah Division of Public Utilities

March 5, 2013

(P U B L I C)

Q. Please state your name, business address and title.

A. My name is Douglas D. Wheelwright. I am a Technical Consultant with the Division of Public Utilities (Division). My business address is 160 East 300 South, Salt Lake City, Utah 84114.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Division of Public Utilities.

Q. Please describe your position and duties with the Division.

A: I research, analyze, document, and establish regulatory positions on a variety of regulatory matters. I review operational reports and evaluate compliance with the current laws and regulations. I provide testimony in hearings before the Utah Public Service Commission (Commission); and assist in the analysis of testimony and case preparation.

Q. What is the Division's Recommendation regarding the proposed acquisition of long-term natural gas resources?

A. The Division supports PacifiCorp's (Company)[1] effort to evaluate and possibly secure long-term natural gas resources. As part of the Collaborative process to review PacifiCorp's hedging practices in Docket No. 10-035-124, the Division and other parties encouraged the Company to solicit and evaluate proposals for

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[1] PacifiCorp's division, PacifiCorp Energy, actually conducted the RFP. PacifiCorp filed in Utah under the name of its retail division in Utah, Rocky Mountain Power.

long-term natural gas supplies, transportation, storage and price hedging that may extend beyond the [redacted] time horizon resulting from that process.[2]

With that said, the Division does not believe the Company's decision to acquire [redacted] represents the best choice. Instead, the Division believes that a reasonable argument can be made to support acquiring a [redacted] that was included in the Company's short list of qualifying bids. I will present this argument here in testimony and in an Appendix attached hereto.

Q. Do you agree that the final shortlist of bids represents the best selection from the bids that were submitted to the Company?

A. It is difficult to determine if the final shortlist represents the best selection from the bids that were presented for consideration. The Company initially received [redacted] in response to the RFP. After excluding the bids that were non-conforming, [redacted] were included in the initial evaluation process. The first step in the evaluation process was a comparison of the bids with the Company's forward price and volatility curve to establish a market ratio.[3] This initial screening process eliminated [redacted] of the bids and reduced the number from [redacted] The initial shortlist was further evaluated using a cost of credit evaluation process and a new market ratio after credit was calculated. Bids with a market

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[2] See the Division's Report on the Collaborative Process to Discuss Appropriate Changes to PacifiCorp's Hedging Practices, Docket No. 10-035-124, March 30, 2012, p. 15.
[3] Direct Testimony of Stacey J. Kusters – Errata, p. 5.

ratio greater than 100% were eliminated which reduced the number of successful bids from [redacted]. In addition to the [redacted] successful bids, the Company added a [redacted] to the final shortlist do not meet the criteria established by the Company but were included in the final short list [redacted] Therefore, from the initial [redacted] qualifying bids, only [redacted]

I believe that there [redacted]

Q. Are there other reasons why you believe there should have been additional bids included in the selection process [redacted]?

A. In previous Commission orders, the Company was directed to "perform sensitivity analysis to determine a hedging strategy which minimizes cost and risk to customers."[4]

With the limited number of transactions available for review, it is difficult to compare alternative hedging transactions that would cover the same time periods. I would have preferred to see the Company review the [redacted] and group them by term or hedging period as the first sort process. This would have allowed for price and product comparison for the same hedging period and would help compare a fixed price financial or physical product with a variable price collar for each time period. Let me provide a specific example to help clarify this point.

[redacted] has been selected on the final short list as [redacted] This particular bid from [redacted] The initial short list of [redacted] includes other [redacted] bids from [redacted]. These [redacted] from the same company have the same term but different ratio calculations based on the forward price assumptions that were used.

[4] Public Service Commission, Acknowledgement of PacifiCorp's Integrated Resource Plan, Report and Order, Docket No. 09-2035-01, April 1, 2009, p. 30.

TABLE 1

[redacted]

This is one type of sensitivity analysis that is missing from the Company's presentation. The Company is recommending the variable price costless collar for this hedging period [redacted] but the other bids were excluded from the final short list. Chart 1 below is a graphic presentation of the [redacted] compared with the forward price curve provided by the Company and a forward price curve available from SNL Financial. The price curves are from different periods but provide a similar forecast for the expected price of natural gas. If we look at the [redacted] hedging period, the Company has not explained why selecting the [redacted] Based on the Company's Official Forward Price Curve, the price of the [redacted] would be lower than the forecast market price for [redacted] In contrast, the price of the [redacted] would follow the movement of the market price and would provide protection from price risk only if the market price exceeds [redacted]. The current analysis does not allow for a comparison of the different products that are available to hedge specific time periods. As mentioned, [redacted] were not included in the final shortlist.

[redacted]

[redacted]

Q. Do you agree with the grouping of the bids the Company has used as part of the evaluation process?

A. No. The Company has created [redacted] primary groups and is recommending the execution of [redacted]. Each group is comprised of [redacted] transaction. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Q. Do you agree with the Company's analysis and recommendation of the order that these contracts should be executed?

A. No. When the Company presents only [redacted] offers, it is difficult to rank and compare alternatives. However, [redacted] the priorities represented by the Company do not appear to be in the correct order and are not well supported.

Q. Please describe the Company's stated priorities and any issues you that concern you.

A. PacifiCorp's first priority is the selection of a [redacted]. The Company has not purchased [redacted]

The Company's second priority is [redacted] transactions appear to be in line with the forward price curve and would appear to be worthwhile for the Company to pursue.

The Company's third priority is the purchase of [redacted] As part of this application, Steven R. McDougal testified that these transactions would save approximately [redacted] Table 1 of his testimony indicates that the greatest savings from these contracts [redacted]

[redacted]

Q. Have you compared the prices of the proposed transactions with other forecast price measures?

A. Yes. Charts 1 through 4 above include the PacifiCorp official price curve provided with this filing along with the SNL price forecast as of January 2013. The American Gas Association recently projected the price of natural gas to be between $4 and $6 through the year 2022 due to the abundant supply currently available.[5] The AGA forecast is in agreement with the Company's official price curve and the forecast available from SNL.

Q. Have you compared the price of the proposed contracts with the historical prices paid by PacifiCorp for natural gas purchases?

A. Yes. The Company has provided information in previous dockets that identified the quantity and price of natural gas consumed including the mark-to-market cost associated with swap contracts.[6] Information for previous years is for the full 12 months, however information for 2012 covers only the first nine months of the year from January through September. The proposed [redacted]

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[5] SNL Exclusive, American Gas Association Presentation, January 30, 2013
[6] Docket No. 09-035-15 DPU DR 8.3; Docket No. 11-035-200 DPU DR 25.5 and Docket No. 12-035-67 DPU DR 8.3

[redacted] Chart 5 below provides a review of the natural gas cost by year and includes swap costs. [redacted]

[redacted]

[redacted]

Q. Do you have any concerns with the updated bid process presented by the Company?

A. While the methodology appears to be justified, it is the Division's understanding that the Company will obtain refreshed bids from [redacted] This appears to be in conflict with the guidelines identified in the original RFP which calls for updated bids from [redacted]

Q. Have you found other items that do not agree with the RFP?

A . Yes. The RFP went out in May 2012 and final bids were due June 28, 2012. The evaluation process was to take roughly 45 days with an anticipated application to the Commission in August 2012. The RFP identifies the following schedule:

> PacifiCorp will be pursuing a voluntary pre approval process in Utah which will identify the contract term and pricing which will be filed on August 16, 2012. The voluntary pre approval process may take up to 180 days. PacifiCorp anticipates receiving approval from the Utah Public Service Commission February 11, 2013. If a transaction is executed it will be only done so within the parameters of the approval from the Utah Public Service Commission. Bidders on the initial shortlist will be asked to update pricing and terms with their best and final bids on February 12, 2013. The deadline for final and best bid submission is February 15, 2013. PacifiCorp plans to obtain management approvals and execute contracts on February 15, 2013 consistent with the approval parameters received from the Utah Public Service Commission.[7]

The Company filed this application on November 15, 2012, which was 90 days later than anticipated. The Company indicated that the delay was primarily due to the greater than anticipated response to the RFP.

Q. Do you have concerns about the Company's grouping of its proposed transactions into [redacted]?

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[7] 2012 Natural Gas Request For Proposal, p. 4.

A. Yes. It is unclear to the Division exactly why the Company chose to present its recommended transactions in the manner it did. While different time frames and transaction types are presented, as discussed above the groupings were not comprehensive and left little ability to make meaningful comparisons.

Q. Does the Division believe that the RFP and the Company's analyses are "fatally flawed"?

A. No. Clearly there was a robust response to the RFP and the Company made a reasonable attempt to analyze the numerous bids it received. As discussed in the Appendix, the "market ratio" is a reasonable method to rank and screen bids. However, the likely uncertainty surrounding the market ratios themselves suggests that considerations beyond this one variable should be employed before a final decision is made. That said, the Division believes that there is enough of a bid selection and analysis to move forward to the next step of having selected bidders refresh their bids and then trying to negotiate a contract.

Overall, since this is the first time that the Company has pursued a natural gas RFP, the Division believes that the issues discussed above fall into a "lessons learned" category, resulting in improvements in any future RFP.

SUMMARY AND RECOMMENDATIONS

Q. Please summarize your testimony.

A. In summary, the Company received a robust response to its natural gas RFP which included several [redacted] The Company primarily used its "market ratio" calculation to sort and rank the bids it received. Bids that had market [redacted] Short listed bids were further subjected to a [redacted] The Company then [redacted] While the market ratio analysis is a reasonable tool, relying solely on this one calculation may have overly reduced the number of short-listed bids. As discussed above and in the Appendix, the Company appears to have failed to take into account [redacted] characteristics [redacted]

Q. What do you recommend?

A. Despite the apparent problems with the RFP analyses performed by the Company in this docket, the Division recommends that the Company pursue long-term fixed physical or swap contracts. Based upon the history over the last 10 years of natural gas prices and the current forecasts of natural gas prices, the

Division favors the 10-year terms for a small portion, i.e. about 10 percent, of the Company's anticipated natural gas needs. Because the Division believes that it is more likely in the future to have rising gas prices—as the Company's own forward price curves suggest—than falling prices, the Division does not see significant advantage to [redacted] "deal."

Q. Does that conclude your prepared testimony?

A. Yes it does.

[APPENDIX FOLLOWS]

APPENDIX

Discussion of Market Ratio Methodology with Further Comments on the Application to this RFP

Q. The Company primarily used a market ratio to evaluate the different bids. What is your understanding of the Company's methodology?

A. The Company applied a standard method of "levelizing" its forward price curve over a comparable period of a particular bid and comparing this levelized price to the terms of the bid. Levelization is effected by calculating the present value of the future prices in the forward price curve and then determining the equivalent fixed price over the same time that would give the same present value as the forward price curve. [redacted] which gives a relative measure of the "goodness" of a bid. Generally [redacted]

Q. Could you give a generic example?

A. Yes. Table A below gives a hypothetical example using annual prices.[8] Bid prices for 5- and 10-years are compared to the levelized forward price curve by way of the market ratio. Based on the market ratio of 0.97, the 5-year bid is better than the 10-year bid that has a 0.99 market ratio. Based upon this criterion alone, one would accept or qualify the 5-year bid and reject the 10-year bid.

TABLE A

		Bid, $/mmBTU	Levelized Forward Price Curve at 5%	Market Ratio
Five Year Fixed		$2.55	$2.63	0.97
Ten Year Fixed		$2.80	$2.83	0.99
plus Five Year		$3.05	$3.07	0.99
Five Year plus Five Year		$2.77	$2.83	0.98
Discount Rate	5.00%			

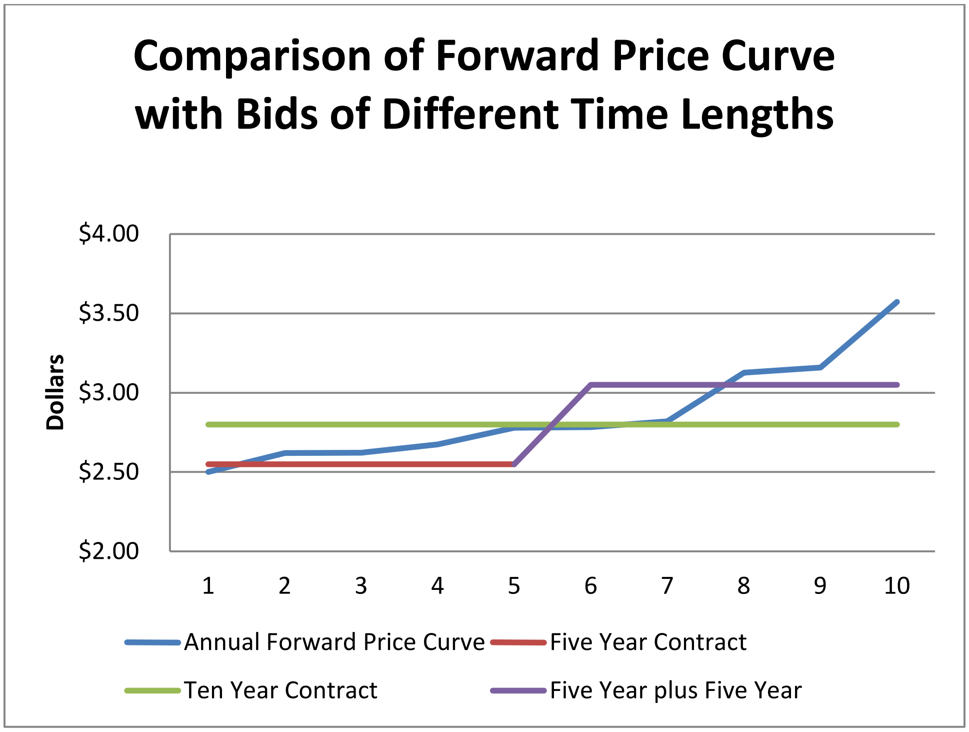
	Forward Price Curve	Five Year	Ten Year	Five Year plus Five Year
1	$2.50	2.55	$2.80	2.55
2	$2.62	2.55	$2.80	2.55
3	$2.62	2.55	$2.80	2.55
4	$2.67	2.55	$2.80	2.55
5	$2.78	2.55	$2.80	2.55
6	$2.78		$2.80	3.05
7	$2.82		$2.80	3.05
8	$3.13		$2.80	3.05
9	$3.16		$2.80	3.05
10	$3.57		$2.80	3.05

8 [redacted]

Q. The ratios between the 5-year and the 10-year bids are pretty close. Isn't it better to lock-in the longer-term and remove any uncertainty for the last 5 years of the period?

A. While that might be something you would want to do on first blush, there is a deeper consideration. While making this analysis today, the best forecast as to what happens after the first 5 years is presumably the forward price curve forecast of the "out" 5 years. Therefore the assumption made at the end of the first 5-year bid, is that a second 5-year contract is entered into at a levelized price that reflects the last 5 years of the forward price curve. This is the "Five Year plus Five Year" column on Table A. As can be seen by this example, the Five Year plus Five Year scenario still is slightly better than straight 10-year bid, so the 5-year bid should still be accepted. Chart A below graphically illustrates what is going on here.

CHART A



Q. So it doesn't matter in this example whether the one takes the 5 year or the 10-year fixed; in fact, the 5-year fixed bid is better even though the one could lock in a price for 10 years.

A. That is correct. Based on the assumption that the forward price curve is the best guess of the future. Of course, future prices will likely be different from the forward price curve, but if the forecast is unbiased, i.e., that it is equally likely that the actual future prices are higher or lower than the forecasted prices, so the best approach is to simply act today on its forecast as the best indicator of future outcomes. If one had information today that the longer-term future was likely to be different from the above forecast, then the above analysis could be invalidated by the additional information.

However, in this case there is another consideration. The market ratios themselves are subject to uncertainty and therefore have a probabilistic confidence interval around them. That is, these ratios are only an estimate of some "true" ratio. If two ratios are "close" to the same, then it is likely that they are not statistically different. In the example set forth on Table A above, the 0.97 and the 0.99 ratios may not be statistically different given the vagaries of the forecast forward price curve. For example, if the forward price curve of the last 5 years were higher than forecast, the 10-year bid would be more favorable. Therefore, other considerations, perhaps simply subjective policy decisions, will come into play. In this RFP, [redacted] but only points out that this is a consideration in this case. However, the Division believes that given the possibility, if not the likelihood, [redacted]

Q. Does this same analysis apply to the bids [redacted]?

A. No. [redacted] analyzed by the Company [redacted] The Company assumed that it [redacted] since the primary benefit to the Company and its customers [redacted]

The Company separately estimated the value of the [redacted] using the [redacted] The primary inputs into the [redacted] The Company properly views [redacted] as a cost, since it does not benefit the Company or its customers, [redacted] as a benefit. The Company calculated the ratio of the [redacted] to obtain what it called a [redacted] Favorable ratios are less than one.

Q. Does this give you confidence in the [redacted]?

A. No. In addition to being unable to replicate or validate [redacted] from the issues raised earlier. Particularly, in a rising price environment [redacted] This makes it more likely, in the Division's view, [redacted]