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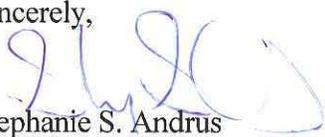
September 14, 2011

Attention: Filing Center  
Public Utility Commission of Oregon  
550 Capitol Street NE, #215  
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Re: *In the Matter of PORTLAND GENERAL ELECTRIC COMPANY 2012 Annual Power  
Cost Update Tariff*  
PUC Docket No.: UE 228  
DOJ File No.: 860115-GB0313-11

Enclosed are an original and five copies of Staff's Opening Brief in the above-captioned matter for filing with the PUC for today.

Sincerely,

  
Stephanie S. Andrus  
Senior Assistant Attorney General  
Business Activities Section

SSA:mme/#3004635  
c: UE 228 Service List

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UE 228**

In the Matter of  
Portland General Electric Company  
2012 Annual Power Cost update Tariff  
(Schedule 125)

OPENING BRIEF OF THE STAFF OF THE  
PUBLIC UTILITY COMMISSION OF OREGON

**I. Introduction.**

The Commission opened this docket to establish Portland General Electric Company's (PGE) Net Variable Power Costs (NVPC) for purposes of PGE's Annual Update Tariff (AUT). The active parties in this docket, the Citizens' Utility Board of Oregon (CUB), the Industrial Customers of Northwest Utilities (ICNU), PGE, and Staff of the Public Utility Commission of Oregon (Staff) have stipulated to a resolution of most of the issues identified by the parties in this docket.<sup>1</sup> The one issue not resolved by stipulation is whether the Commission should disallow costs for certain contracts that PGE executed between 2007 and 2011 to hedge risk of volatility in its NVPC.<sup>2</sup> CUB and ICNU recommend that the Commission disallow these costs.

Staff recommends that the Commission not adopt the recommended disallowances.

**II. Testimony of the parties.**

**a. PGE's mid-term strategy for hedging.**

Many of the contracts put at issue by CUB and ICNU were executed as part of PGE's "mid-term strategy" (MTS). PGE's testimony establishes that PGE developed its MTS in 2006

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<sup>1</sup> The stipulation has not yet been filed with the Commission.

<sup>2</sup> PGE maintains that the amount of the proposed disallowance is confidential. The amount of the proposed disallowance is found at ICNU/100, Schoenbeck/4. Staff's brief refers to "confidential" testimony submitted by ICNU. ICNU noted at the hearing that it designated this information as confidential because it is based on information obtained from PGE that PGE had designated as confidential. (8.30.2011Tr 43.) Staff counsel has conferred with PGE counsel and confirmed that the material included to in this brief is not confidential.

and began implementation in 2007. PGE reports that it developed the MTS after identifying a gap in its portfolio management between its “short-term strategy,” which accounts for transactions with a term of 24 months and less, and its long-term strategy, which is addressed in the Integrated Resource Plan (IRP) planning process. PGE states that the purpose of its MTS is to improve rate predictability for its retail customers by reducing exposure to the volatility of the power and gas markets for the period between the short-term strategy and when the IRP action plan takes effect (after 5 years).<sup>3</sup>

PGE states that the goal of the MTS is to strategically reduce its “net open position” (NOP) over the three-to-five year period of the MTS window and thereby reduce ratepayers’ exposure to volatility in power costs.<sup>4</sup> The NOP is a measure of the difference between the amount of power needed to serve forecasted loads and the amount of power the Company either generates itself using low cost baseload generation, including hydro generation and long-term contracts. PGE explains that the size of its NOP and the volatility of the prices of gas and power are the primary drivers of volatility in PGE’s power costs.<sup>5</sup>

For purposes of the MTS, PGE simultaneously manages the cumulative NOP of two commodities: power and gas. PGE calculates its power NOP as forecasted load, less its forecasted generation (Dispatched Generation Assets + Contracts). PGE calculates its gas NOP as the forecasted fuel requirements of Port Westward and Coyote Springs, less the fuel already under contract at the time of the calculation. In other words, PGE’s natural gas NOP is the gas

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<sup>3</sup> PGE/400, Lobdell-Outama/6-7.

<sup>4</sup> PGE/400, Lobdell-Outama/7-8.

<sup>5</sup> PGE/400, Lobdell-Outama/7.

requirement for producing the electrical output from Port Westward and Coyote Springs.<sup>6</sup> Even if PGE's natural gas NOP is zero, its NOP for power will not be.<sup>7</sup>

PGE states that gas is more efficient at hedging exposure to variability in NVPC than power, given PGE's high efficiency gas-fired resources.<sup>8</sup> PGE provides the following example:

[A]ssuming Port Westward's fully-loaded HR is 7 MMBtu per MWh, if the price of power is \$50 per MWh and the price of natural gas is \$5 per MMBtu, then the alternatives to meet one MW of load are either to buy power at \$50 or to generate power for \$35 (\$5 per MMBtu X 7MMBtu pre MWh). PGE can, therefore, buy down the same amount of risk (in MW terms) with \$35 per MWh of gas or \$50 MWh of power.<sup>9</sup>

PGE determines its MTS targets annually and in three steps: (1) Analysis, (2) Market Assessment, and (3) Risk Management Committee presentation and approval.<sup>10</sup>

*Step 1 – Analysis:* PGE's Risk Management Team compiles and models the 5-year NVPC. The team starts by modeling a 5-year MONET power cost forecast that is populated with PGE's generation assets. PGE dispatches this portfolio against power and gas prices that have been subjected to volatility, using a stochastic approach to price simulations.<sup>11</sup> To measure market volatility, PGE's Risk Management Department uses published volatilities from the IntercontinentalExchange (ICE) for power and gas options, and verifies the volatilities using Black-Scholes option pricing theory-based models.<sup>12</sup> PGE also calculates the historical correlation between power and gas at the locations that the company is most exposed to: the Mid-C power market and the Sumas and AECO gas markets.

PGE inputs the volatility and correlation data into a financial model that stochastically simulates power and gas prices. The 5-year NVPC is subjected to 1,000 iterations of various

<sup>6</sup> PGE/400, Lobdell-Outama/10-11.

<sup>7</sup> PGE/400, Lobdell-Outama/11.

<sup>8</sup> PGE/400, Lobdell-Outama/13.

<sup>9</sup> PGE/400, Lobdell-Outama/13.

<sup>10</sup> PGE/400, Lobdell-Outama/10.

<sup>11</sup> PGE/400, Lobdell-Outama/10.

<sup>12</sup> PGE/400, Lobdell-Outama/14-15.

power and gas prices. Within each iteration, a NOP is calculated with the economic dispatch of Port Westward and Coyote, given the simulated gas and power prices. The NOP is then “closed” or “flattened” by either buying or selling at the simulated commodity prices. The ultimate result is 1,000 NVPCs for each year, representing the potential outcomes for customers given the portfolio NOP, and the correlation and volatility of power and gas.<sup>13</sup>

Once PGE runs the model with its portfolio of resources and existing contracts for the 1,000 iterations, 10 more scenarios with varying degrees of purchases are generated. Each scenario represents incremental purchases of 10 percent of the NOP. With 1,000 iterations for each of these 10 scenarios, PGE observes the “tightening” of the distribution of possible NVPC. The higher the percentage of assumed purchases (smaller NOP), the “tighter” the distribution of NVPC is around the mean expected value. A tighter distribution of NVPC signifies lower expected volatility.<sup>14</sup>

PGE uses the percentage of the variation from the mean NVPC at two standard deviations, or a 95 percent confidence level, to measure the portfolio volatility.<sup>15</sup>

*Step 2—Market Assessment:* To assess the market, PGE analyzes market liquidity, the availability of credit facilities, and whether structural market changes warrant slowing down or accelerating purchases. The 60-month window of the MTS is subject to change as market conditions change.<sup>16</sup>

PGE witnesses state that PGE measures market liquidity by evaluating data from ICE, intelligence PGE gathers on a daily basis in conversations with counter parties,

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<sup>13</sup> PGE/400, Lobdell-Outama/15.

<sup>14</sup> PGE/400, Lobdell-Outama/15.

<sup>15</sup> PGE/400, Lobdell-Outama/15.

<sup>16</sup> PGE/400, Lobdell-Outama/16.

intelligence PGE gathers on a daily basis from its brokers, and data regarding prices from NYMEX.<sup>17</sup>

*Step 3—Risk Management Committee Presentation and Approval:* Following its analysis and market assessment, the Risk Management Committee makes recommendations to PGE’s Board of Directors on risk limits and provides oversight of the adequacy and effectiveness of the corporate policies, guidelines, and procedures for market and credit risk management relating to PGE’s energy portfolio management activities.<sup>18</sup> If Risk Management concludes that the market assessment allows for implementation of a five-year strategy, Risk Management, in conjunction with the Power Operations group, addresses the following to “help guide the recommended target purchase level”:

- Level of purchases to best achieve the desired reduction in NVPC volatility;
- Assessment of results as either linear or presenting an optimal point of inflection for a given level of purchases; and
- Presence of opportunities to “lock in” a year-over-year decrease in the 5-year string of NVPC.<sup>19</sup>

**b. ICNU’s proposed disallowance.**

ICNU recommends that the Commission disallow costs of certain contracts PGE executed to hedge its gas NOP for 2012.<sup>20</sup> The challenged contracts are generally contracts with a tenor of 48 months or more and contracts for “yearly strips” that PGE

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<sup>17</sup> 8.30.2011 Tr 35.

<sup>18</sup> PGE/400, Lobdell-Outama/17-18.

<sup>19</sup> PGE/400, Lobdell-Outama/16.

<sup>20</sup> As noted above, PGE maintains that the amount of the disallowance is confidential. The amount can be found at ICNU/100, Schoenbeck/4.

executed from 2008 through 2011 even though PGE knew, or reasonably should have known, that it did not need additional gas in the second quarter of 2012.

In his rebuttal testimony, ICNU's expert witness, Don Schoenbeck, asserts that PGE hedged too much of its NOP in the initial years of the five-year MTS period, observing that PGE "procured virtually all of the gas by the third quarter of 2008[.]"<sup>21</sup> Mr. Schoenbeck also asserts that PGE executed too many transactions for yearly strips, even after PGE knew of its Q2 gas surplus, leaving PGE with a long position for gas in the second quarter of 2012.<sup>22</sup> Mr. Schoenbeck states that PGE should have executed seasonal, quarterly, or monthly transactions to more closely follow PGE's load and that these products were available in the market in 2007 and 2008.<sup>23</sup>

Additionally, Mr. Schoenbeck asserts that PGE's "practice of executing hedges more than 48 months from the prompt month is simply not prudent in this industry."<sup>24</sup> Mr. Schoenbeck explains this opinion by observing that fluctuations in gas generation levels brought on by load forecast error, economic conditions, or changes in generation from lower cost resources can have a dramatic affect on the amount of gas fuel needed in any one month, which in turn can have a dramatic impact on the quantity of gas that should be hedged. Mr. Schoenbeck explains that "one of the few ways" to limit this risk exposure is to limit transactions for gas hedges several years before the prompt month when the gas is needed.<sup>25</sup>

Finally, Mr. Schoenbeck believes that PGE's hedging strategy should be more "programmatic" and PGE's risk policy should include specific volumetric targets and

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<sup>21</sup> ICNU/100, Schoenbeck/8-9.

<sup>22</sup> ICNU/100, Schoenbeck/7.

<sup>23</sup> ICNU/100, Schoenbeck/7.

<sup>24</sup> ICNU/100, Schoenbeck/8.

<sup>25</sup> ICNU/100, Schoenbeck/8.

tenor limits for acquiring natural gas hedges and should maintain some open position going into the prompt month.<sup>26</sup>

**c. CUB's recommendation.**

CUB recommends that the Commission disallow a portion of PGE's hedging costs and impute costs equal to the gas market prices from the final MONET update in November of this year. In support of this recommendation, CUB observed that "[i]t is unusual for a utility to hedge the majority of its need for a commodity so early," as CUB purports that PGE did, and that "there are real questions about the liquidity of the market in a timeframe greater than 36 months."<sup>27</sup>

CUB also asserts that PGE's hedging strategy left it "long" on gas supply for certain months in 2012, and notes that Staff challenged the prudence of Avista Corp.'s hedging strategy when Avista hedged 91% of its natural gas load in Oregon.<sup>28</sup> CUB asserts that even if it is assumed that PGE appropriately executed hedges with five-year tenors, a strategy of hedging 100% of gas requirements in the first two years is too risky.<sup>29</sup> CUB asserts that it would be "prudent" to purchase hedges on an inclining block portfolio (for example, 10% year 5, 15% year 4, 20% year 3, 25% year 2, and 30% year 1).<sup>30</sup>

CUB relies on observations regarding NW Natural Gas Company (NWN) to support its assertion that PGE's hedging strategy is "unusual." CUB asserts that prior to the time that NWN entered into a recent 30-year contract, NWN asked a consultant to analyze a running series of three-year hedges "because this was seen as the prudent default strategy."<sup>31</sup>

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<sup>26</sup> ICNU/100, Schoenbeck/9.

<sup>27</sup> CUB/100, Jenks-Feighner/2.

<sup>28</sup> CUB/100, Jenks-Feighner/3.

<sup>29</sup> CUB/100, Jenks-Feighner/2.

<sup>30</sup> CUB./100, Jenks-Feighner/4.

<sup>31</sup> CUB/100, Jenks-Feighner/2-3.

**c. PGE's response to CUB's recommendations.**

PGE notes that comparisons between NWN's hedging strategy and its own are not apt because the liquidity of the market of various hedging transactions may be different for individual utilities.<sup>32</sup>

PGE asserts that its review of the report for NWN referenced by CUB in its opening testimony revealed that the consultant analyzed a running series of 5-year hedges as well as a running-series of 3-year hedges, and that "there is no indication in this KPMG report provided by CUB that the 3-year strategy is preferable in any way to the 5-year strategy." PGE found no instance of KPMG referring to a 3-year strategy as the "prudent default strategy."<sup>33</sup>

**d. PGE's response to ICNU recommendations.**

PGE contradicts Mr. Schoenbeck's assertion that PGE closed its NOP for 2012 by the third quarter of 2008. PGE notes that the NOP for purposes of its MTS includes requirements for power and gas and that it purchases gas to hedge power as well as to hedge gas. PGE demonstrates that its 2007 and 2008 gas and power purchases for 2012 delivery (including conversions of gas to power) accounted for only 42 percent of its projected NOP after PGE revised its load forecast for 2012 (which it did in 2009), and accounted for only 32 percent of PGE's NOP prior to the 2009 load forecast revision.<sup>34</sup>

PGE also disagrees with Mr. Schoenbeck's conclusion that it is imprudent to execute hedges more than 48 months from the prompt month because of the "fluctuations in gas generation projection levels."<sup>35</sup> PGE observes that the market distinguishes between baseload and peaking gas generation. Fluctuations in gas need due to changes

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<sup>32</sup> PGE/400, Lobdell-Outama/46.

<sup>33</sup> PGE/400, Lobdell-Outama-47. *See also* PGE Exhibit 411; KPMG Report.

<sup>34</sup> PGE/400, Lobdell-Outama/37-38.

<sup>35</sup> PGE/400, Lobdell-Outama/43.

in the forward market implied heat rate (the ratio of power prices over gas prices) are more significant for peaking gas generation than for baseload gas. PGE asserts that baseload generation is deeply in the money for 10 months out of the year while peaking units are forecasted to be dispatched only for on-peak generation through the summer months. Accordingly, PGE distinguishes between Port Westward and Coyote Springs (baseload gas generation) and Beaver (peaking generation), and only includes projected gas need for Port Westward and Coyote Springs in its MTS.<sup>36</sup>

PGE also disagrees with Mr. Schoenbeck's assertion that fluctuations in gas generation projection levels brought on by load forecast error can have a dramatic affect on the amount of gas fuel needed in any one month.<sup>37</sup> PGE asserts that when determining the need for gas, a generation owner analyzes market prices, not whether energy is needed to serve load. Depending on market prices, the generator will generate or buy electricity from the market to serve load.<sup>38</sup> PGE states that even if the electricity is not needed for load, gas should still be purchased to generate electricity that can be sold into the market, with the margin reducing customers' rates.<sup>39</sup>

**e. ICNU's surrebuttal.**

Mr. Schoenbeck responds to PGE's criticisms of his recommendation in surrebuttal testimony. Mr. Schoenbeck testifies that a liquid market for seasonal, quarterly, and monthly products with a long tenor existed in 2007 and 2008. Mr. Schoenbeck bases his assertion on (1) information regarding a Southern California Edison (SCE) call option auction in which SCE sought Q3 products for three different

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<sup>36</sup> PGE/400, Lobdell-Outama/43.

<sup>37</sup> PGE/400, Lobdell-Outama/44.

<sup>38</sup> PGE/400, Lobdell-Outama/44.

<sup>39</sup> PGE/400, Lobdell-Outama/44.

time periods with associated tenors of 20, 32, and 45 months, and (2) his knowledge of specific entities that entered into such transactions during this time period.<sup>40</sup> Mr.

Schoenbeck does not provide any documentation or other information to support his observations regarding transactions of different entities, but asserts that the Commission can independently verify his observations.<sup>41</sup>

With respect to PGE's testimony regarding the need to consider PGE's cumulative NOP for power and gas when evaluating PGE's hedging strategy, Mr. Schoenbeck states that "it has not been [his] experience in observing hedging activity in the western markets that" electric utilities hedge in just the gas market.<sup>42</sup> Mr.

Schoenbeck states that contrary to the implication in PGE's hedging practice, the electricity market was sufficiently liquid 48 months from the prompt month to allow electricity hedging transactions and that PGE should have been executing both electricity and gas hedges.<sup>43</sup>

Mr. Schoenbeck summarizes his testimony as follows:

PGE's implementation of its mid-term strategy in 2007 and 2008 was based on an erroneous perception of the types of products available in the market place. \* \* \* This resulted in PGE mechanically executing annual strips for only gas financial hedges with no forethought given to acquiring too much gas in select months or the availability of electricity hedges. \* \* \* [M]any of PGE's gas transactions in this proceeding go well beyond 48 months. It is my experience that other utilities in California, Oregon and Washington do not typically execute transactions with this long a tenor.<sup>44</sup>

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<sup>40</sup> ICNU/108/ Schoenbeck/6.

<sup>41</sup> ICNU/108, Lobdell-Outama/5.

<sup>42</sup> ICNU/108/Schoenbeck/11.

<sup>43</sup> ICNU/108, Schoenbeck/11.

<sup>44</sup> ICNU/108, Schoenbeck/12-13.

**f. PGE's sursurrebuttal.**

In its sursurrebuttal testimony, PGE disputes Mr. Schoenbeck's assertion that a liquid market for seasonal, calendar, or monthly products existed in 2007 and the first three quarters of 2008. PGE witnesses note that Mr. Schoenbeck's reliance on SCE's call auction for Q3 products does not support Mr. Schoenbeck's statement because the SCE auction occurred in a different time period, in a different market, and was for different products (call options), delivered to a different point of delivery.<sup>45</sup>

PGE witnesses state that they confirmed their 2007-2008 conclusions regarding liquidity for monthly, seasonal, quarterly, and annual products by examining historic ICE data:

[Mr. Outama]. So the data we have looked at historically provided data on the liquidity of products. We observed that for Rockies, for example, out of the 2007 and 2008 trading, which is about 510 trading days, only 14 of those resulted in a transaction executed on ICE for Rockies monthly or quarterly. There were none transacted in that period for 2012 for AECO delivery, and there was none transacted in Sumas for 2012 delivery in that time frame.<sup>46</sup>

PGE also takes issue with Mr. Schoenbeck's reliance on his observations regarding the hedging strategies of utilities in Oregon, Washington, and California.<sup>47</sup> PGE notes that comparisons to utilities in California is of little relevance because California is an organized market and is operated by an independent system operator and its liquidity is different than found in the Northwest market.<sup>48</sup> With respect to comparisons to utilities in Washington and Oregon, PGE notes that merely observing

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<sup>45</sup> 8.30.2011 Tr 62-63.

<sup>46</sup> 8.30.2011 Tr 36. *See also* 8.30.2011 Tr 30 (PGE witnesses stating that PGE's customers "are exposed to the point of delivery in the Northwest, mostly Sumas and AECO for gas delivery, as well as the Rockies[,] which is in the Colorado Basin.").

<sup>47</sup> 8.30.2011 Tr 39-41.

<sup>48</sup> 8.30.2011 Tr 40.

what hedges these utilities have executed, without looking at their risk profiles, is an incomplete analysis.<sup>49</sup>

PGE also notes that Mr. Schoenbeck's assertion that PGE failed to execute hedges for electricity because PGE believed the market for such products to be illiquid is based on an incorrect premise. PGE asserts that it chose to hedge its power NOP with gas because doing so is more efficient and cost effective than hedging with electricity.<sup>50</sup>

With respect to Mr. Schoenbeck's criticism that PGE procured too much gas for the second quarter of 2012, PGE asserts that the more pertinent measurement is whether PGE procured too much gas for the entire year and states that it did not. PGE explains that as the prompt year approaches, it is possible to shape its hedges by selling excess gas from the second quarter.<sup>51</sup>

PGE's expert witness, Mr. Stoddard, echoed this testimony, stating that "in managing risk, you don't need to get an exactly tailored product five years forward. It's perfectly normal hedging strategy to manage a large scale, long-term risk with large scale, long-term contracts and then to begin shaping the particularized risk in the near term as monthly and quarterly products become more liquidly traded and the bid offer price for it between the size of the market narrows as liquidity improves."<sup>52</sup> Mr. Stoddard also observed that PGE's purchase of yearly strips is comparable to the "stock and roll policy" discussed in one of the books on hedging that Mr. Schoenbeck stated that he has relied on.<sup>53</sup>

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<sup>49</sup> 8.30.2011 Tr 40.

<sup>50</sup> 8.30.2011 Tr 44-47.

<sup>51</sup> 8.30.2011 Tr 48-50.

<sup>52</sup> 8.30.2011 Tr 65.

<sup>53</sup> 8.30.2011 Tr 69 (referring to PGE Exhibit 503).

### **III. Staff recommendation**

#### **a. Prudence standard.**

To determine whether PGE's hedging strategy was prudent, the Commission must examine the objective reasonableness PGE's actions measured at the time the company acted. "Prudence is determined by the reasonableness of the actions, based on information that was available (or could reasonably have been available) at the time." In applying this standard, the Commission does not focus on the outcome of the utility's decision.<sup>54</sup>

Staff believes that PGE's testimony outlining its MTS and how it is implemented, explaining that PGE simultaneously manages its NOP for gas and power and uses gas first to hedge for power, and discussing the liquidity of the market for various hedging transactions, establishes that PGE's MTS and PGE's execution of the MTS were prudent. For the reasons that follow, Staff is not persuaded by CUB's and ICNU's arguments to the contrary.

#### **b. PGE did not hedge too much too soon.**

First, CUB's and ICNU's criticisms that PGE hedged too much too soon are based on incorrect assumptions. CUB asserts "PGE "acquired the vast majority of its gas needs for 2012 in long-term hedges made during 2007 and 2008."<sup>55</sup> ICNU asserts that "for 2012 the Company procured virtually all the gas by the third quarter of 2008."<sup>56</sup> However, PGE uses gas to hedge its power NOP as well as its gas NOP because PGE believes that gas is a more efficient and cost effective hedge than electricity. PGE established that when its NOP for power and natural gas are taken into account, PGE

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<sup>54</sup> *In re PacifiCorp*, Order No. 02-469 at 4 (Docket Nos. UM 995/UE 121), quoting *In re PGE*, Order No. 99-033 at 36-37 (Docket No. UE 102).

<sup>55</sup> CUB/100, Jenks/Feighner/2.

<sup>56</sup> ICNU/100, Schoenbeck/9.

hedged less than one-third of its total NOP by the third quarter of 2008, based on PGE's 2012 load forecast that existed at that time.<sup>57</sup>

Neither ICNU nor CUB adequately address this disconnect between their characterizations of the volume of PGE's hedges (nearly all) and reality (less than one-third based on the 2007 load forecast for 2012 and approximately 42% based on revised 2009 forecasts). In response to PGE's assertions that ICNU failed to take into account PGE's power NOP when characterizing the extent of PGE's hedges, ICNU expert witness Mr. Schoenbeck, asserts that he had in fact done so, and criticizes PGE for failing to enter into hedges for electricity. With respect to PGE's testimony that PGE uses gas first to hedge its power NOP, Mr. Schoenbeck states that it has been his experience in observing hedging activity in the western markets that electric utilities execute hedges in both the electricity and gas markets.<sup>58</sup>

Neither CUB nor ICNU refute PGE's testimony that PGE's practice of using gas first to hedge for its power NOP is cost effective and efficient. Mr. Schoenbeck's testimony that it has been his experience that utilities hedge in both gas and power does not offer a rationale for why such a practice is superior to PGE's reliance on gas hedges, or more importantly, why PGE's practice is imprudent. On the other hand, PGE has offered a rationale explaining its practice of acquiring gas to hedge its power NOP. PGE's expert witness testified regarding PGE's practice and the underlying reasoning as follows:

[PGE counsel].            [Mr. Schoenbeck] criticizes PGE for hedging gas first, essentially. Was it contrary to good utility practice for PGE to be hedging gas first?

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<sup>57</sup> See PGE/400, Lobdell-Outama/37-38.

<sup>58</sup> ICNU/108, Schoenbeck/12.

[Mr. Stoddard].

No. In fact, the contrary. I think if they had been doing anything else, given their portfolio, that would have been negligent. As Mr. Outama discussed, because PGE has two very high quality low heat rate plants as part of their gas portfolio and those plants are essential on an annual basis to provide power for their customers, it is a more efficient hedge from a quantity perspective to buy gas first. Then you can hedge a unit of risk with about seven units of gas purchased; whereas to hedge that same quantum of risk on the power side would take about 10 contracts with the ten marketing grade.<sup>59</sup>

Accordingly, when PGE's entire NOP for power and gas is taken into account, ICNU and CUB's assertion that the Commission should disallow a large portion of PGE's hedging costs because PGE hedged *too much* gas too soon is factually incorrect and not persuasive.

**b. PGE's transactions were based on its assessment of market liquidity and were reasonably shaped.**

ICNU asserts that PGE's acquisition of calendar strips left PGE with excess gas in the second quarter of 2012 and that this was imprudent.<sup>60</sup> ICNU asserts that PGE should have executed transactions for monthly, quarterly, or seasonal products to avoid acquiring a long gas position in any month in 2012. ICNU also asserts that contrary to PGE's assertions, the market for these products was sufficiently liquid in 2007 and 2008 to allow such transactions.<sup>61</sup>

Whether PGE's execution of the hedging transactions described by ICNU would have been prudent is not at issue. The question is whether the hedging strategy that PGE

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<sup>59</sup> 8.30.2011 Tr 67-68; See also PGE/400, Lobdell-Outama/13 (discussing PGE's practice of hedging its power NOP and natural gas NOP with gas and the rationale underlying this practice).

<sup>60</sup> ICNU/100, Schoenbeck/7-8. CUB also asserts that PGE "over-hedged" but does not, as ICNU does, specifically recommend disallowance of contracts that PGE entered into when it knew, or reasonable should have known, that its gas position for the second quarter of 2012 was long. See CUB/100, Jenks-Feighner/5. Costs of some of these contracts would be disallowed if the Commission were to adopt CUB's recommendation to disallow costs associated with contracts that were entered into more than 48 months ahead of the gas delivery. See CUB/100, Jenks-Feighner/5.

<sup>61</sup> ICNU/100, Schoenbeck/7-8; ICNU/108, Schoenbeck/5-6.

did implement was prudent. PGE has shown that purchasing calendar strips is a reasonable strategy even if it did leave PGE with a long gas position for a part of the 2012.

*Liquidity* -- First, ICNU did not provide persuasive evidence that a liquid market existed in 2007 and 2008 for monthly, seasonal, or quarterly hedges for 2012. Contrarily, PGE's testimony that there was no liquid market for such products is supported by testimony by both PGE witnesses and its expert witness regarding historical data.

PGE's testimony regarding historical data is discussed above. The expert testimony addresses a document submitted into evidence by ICNU and is a spreadsheet of hedging transactions from 2007-2011 based on ICE data. Mr. Stoddard testified that he prepared the document and regarding the conclusions he drew from it:

[Mr. Stoddard]. Based on my collective experience in the markets, I had strong prior about [*sic*] the liquidity based on monthly and quarterly and seasonal annual products. Specifically, you go the longer strip, [*sic*] the liquidity improves for long tenor products. I asked PGE if it would be possible for them to obtain from ICE some empirical data that could quantify and demonstrate for the Commission that my intuition about this matter was, in fact, correct, so the ICE data was the closest we could find.

As I acknowledged in my rebuttal testimony, [it is an] imperfect indicator. I believe what I said this morning is it was indicative but not dispositive as to liquidity, but the conclusions that I draw in my rebuttal testimony are that the monthly data – the monthly contract, although it's very liquid, there's a lot of transactions in this for about a 12 month period. We see that it trails off very quickly. The calendar month strips that were identified as C near the top of the panel, even though we don't always have, for instance, the 2012 data being traded in all quarters of 2007, we see that by the time we get out to Q4 2007, we have significant volume being traded.

So this gives an indication that even though we have ICE transactions missing in both calendar strips and monthly strips in certain periods, we can learn something about the underlying liquidity in the market bilateral/broker trades by understanding how quickly we begin to see transactions. The fact that we never have 2012 monthly strips being traded in any of this data, except in one month, tells me that there's less underlying liquidity in the whole market for monthly

products than there is for elongated calendar products which begin to be traded for 2012 in 2007 and for 2013 by Q2 of 2008.<sup>62</sup>

*Shape*--With respect to ICNU's criticism regarding its long gas position in Q2, PGE witnesses note that on an annual basis, it is not long on gas for 2012 and that its long position in Q2 is a hedge against NOP in Q1, Q3, and Q4. PGE explains that its strategy is to sell some of its Q2 gas supply closer in time to the prompt year when the market for such products becomes liquid.<sup>63</sup> PGE's expert witness, Mr. Stoddard, observed that this strategy is comparable to the "stock and roll" hedging strategy discussed in one of the volumes on hedging that ICNU's expert has stated that he relies on.<sup>64</sup>

Staff concludes that PGE established that it prudently executed transactions for calendar strips. Essentially, assuming it was prudent for PGE to execute mid-term hedges 2012, PGE's choices included purchasing calendar strips to hedge its NOP for 2012; acquiring products for which there was no liquid market, *i.e.*, at a premium; or waiting to hedge its NOP for 2012 until the market for seasonal, quarterly, or monthly products became liquid.

The second option is not a reasonable one and, the third option undercuts the rationale for the MTS. As discussed above, the MTS stems from PGE's identification of a gap in its hedging strategy with respect to hedges with a 24 to 60 month tenor. PGE implemented the MTS to make regular purchases of gas or power or both over the term of the MTS in order to reduce price volatility. If PGE were to wait to hedge its NOP until products that are typically available for the short-term are available in a liquid market, the MTS becomes a nullity.

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<sup>62</sup> ICNU 705; 8.30.2011 Tr 159-60.

<sup>63</sup> PGE/400, Lobdell-Outama/29-30.

<sup>64</sup> 8.30.2011 Tr 70-72 (citing testimony in Mr. Shoenbeck's deposition).

**c. PGE reasonably determined the parameters of its hedging strategy.**

Both CUB and ICNU use the term “programmatically” to describe what they believe are prudent hedging strategies. These strategies appear to largely consist of volumetric targets for hedging transactions established prior to implementation of the strategy.<sup>65</sup> CUB’s and ICNU’s descriptions of these alternate hedging strategies are not particularly probative of whether the strategy that PGE did implement was imprudent.

In any event, PGE’s hedging strategy is similar to those described by CUB and ICNU in that it layers hedges on top of each other over a period of time, pursuant to established criteria. Although PGE did not establish hard and fast volumetric targets for each year of the MTS, the purchasing strategy is bounded by specific parameters. A key difference between the strategies described by CUB and ICNU is that PGE employees have authority to exercise discretion within the parameters of the program to react to market conditions and market indicators and MTS hedging targets are reset annually based on a rigorous portfolio analysis and market assessment. Staff is not persuaded that a multi-year hedging strategy that that is primarily a schedule of how much gas (or electricity) employees should acquire during each year is superior to a hedging strategy in which targets for hedging transactions are set annually, based on changing market conditions and other factors such as price volatility and supply and demand considerations, and in which employees have discretion to not enter into hedging transactions if they do not appear prudent.

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<sup>65</sup> See ICNU/100, Schoenbeck/9 (“In my view, the Company’s risk policy should include specific volumetric targets for acquiring natural gas hedges.”); CUB/100, Jenks-Feighner/4 (recommending a “portfolio approach” to hedging that layers hedges on top of each other over a period of time and in increasing increments).

**d. PGE did not hedge too far in advance.**

ICNU's expert witness asserts that hedging transactions with a tenor of 48 months or more are imprudent in the industry because of the potential that the need for gas that actually materializes will be dramatically different than projected at transaction time. Mr. Schoenbeck states that this dramatic difference in gas need can have a dramatic effect on a utility's costs.

Staff agrees with PGE that given PGE's efficient baseload gas plants, whether PGE generates electricity turns on the market prices, as opposed to the amount of load. Accordingly, ICNU's assertion that it is imprudent to enter into transactions with a tenor of 48 months or more because of the risk of fluctuation in gas need is not persuasive.

In any event, assuming *arguendo* that it is imprudent to enter into hedging transactions too far in advance of the prompt year, ICNU provided no evidence to establish that the demarcation between prudent and imprudent contracts is 48 months. Here, PGE's decision to enter into contracts with a tenor of 48 months or more was based on PGE's analysis that a mid-term hedging strategy was appropriate and on modeling and analysis that PGE believed established that the contracts at issue would reduce the volatility in PGE's power costs related to the size of PGE's NOP. Staff is more persuaded by PGE's strategic and financial analysis regarding the appropriate tenor of hedging transactions than by ICNU's unsupported assertion that any transaction over 48 months is imprudent.

**IV. Testimony regarding effect of proposed disallowance.**

In its rebuttal testimony, PGE witnesses assert that the adjustment recommended by CUB and ICNU will be viewed by the investing public as one that is based on

hindsight because PGE's MTS was not challenged when presented to the Commission in 2006 or when executed.<sup>66</sup> PGE asserts that "regulatory decisions that rely on *ad hoc* hindsight reviews put prudently-incurred costs at risk[ and] elevate investors' perception of risk."<sup>67</sup> PGE asserts that adopting CUB's and ICNU's recommended disallowance would have negative direct and indirect impacts on PGE's financial condition and would therefore harm customers.<sup>68</sup>

Conversely, CUB asserts that "[g]iven the volatility of the long-term hedging market and the substantial losses suffered by PGE and its customers associated with the Company's activity in this market, CUB recommends that the Commission reject as imprudent PGE's gas hedging strategy."<sup>69</sup>

Staff believes that PGE's testimony regarding the financial impact of CUB's and ICNU's recommended disallowance is not relevant to any issue presented in this docket. As stated above, the question before the Commission is whether PGE's decision to implement its hedging strategy and the method of implementation was reasonable, based on information PGE knew, or reasonably should have known, at the time. Staff does not recommend that the Commission depart from its traditional prudence inquiry and base its decision on how the outcome of its decision affects PGE's customers.

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<sup>66</sup> PGE/300, Pope-Valach/8.

<sup>67</sup> PGE/300, Pope-Valach/13.

<sup>68</sup> PGE/300, Pope-Valach/8.

<sup>69</sup> CUB/100, Jenks-Feighner/5.

**V. Conclusion.**

For the reasons discussed above, the Commission should reject the proposed disallowance of CUB and ICNU.

DATED this 14<sup>th</sup> day of September 2011.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 14<sup>th</sup> day of September, 2011, I served the foregoing Staff's Opening Brief upon the persons named on the service list, by mailing a full, true and correct copy thereof and to such persons waiving such service by mail who were served at their e-mail address as listed on the service list.

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DATED: September 14, 2011

  
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