BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.	Rulemaking 10-05-006 (Filed May 6, 2010)

Reply Brief of L. Jan Reid

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Summary of Recommendations

I recommend that:

1. The Commission institute a proceeding to review the Investor Owned Utilities (IOUs) hedging activities for the period 2003-2011. (pp. 1-1)
2. The Commission should not adopt DRA's recommendation to increase the Consumer Risk Tolerance (CRT) because such action will decrease the number of planning meetings and reduce the effectiveness of the Procurement Review Groups (PRGs). (pp. 6-7)
3. The Commission should not hire outside consultants to review the IOUs' Time to Expiration Value at Risk (TeVar) models. (pp. 7-8)
4. The Commission should not conduct a stakeholder process to define the circumstances under which exceptions to limits outside of the approved IOU hedging plans will be authorized, and how these requests will be reviewed. (pp. 8-9)
5. The Commission should adopt Reid's proposed changes to PG&E's hedging plan as described in Exhibit 1301-C. (pp. 10-10)

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Pursuant to the January 13, 2011 scoping memo of Commissioner Michael Peevey and Administrative Law Judge (ALJ) Peter Allen, I submit my reply brief on Track II Long Term Procurement Plan (LTPP) issues.

Reply Briefs are due on June 30, 2011. I will send this pleading to the Docket Office on Thursday, June 30, 2011 using the Commission's electronic filing system, intending that the pleading will be timely filed. My reply brief relies extensively on the direct testimony of Reid in Exhibits 1300 and 1301-C.

I. The DRA's Hedging Proposals

The IOUs have been actively hedging electricity and natural gas price risk since they took over the procurement function from the Department of Water Resources on January 1, 2003.[1] The Division of Ratepayer Advocates (DRA) points out that "A comprehensive review of electric portfolio hedging has not been performed which looks at costs and benefits and examines the role of financial hedging in the greater context of all forms of price and reliability protections." (DRA Opening Brief, p. 12)

Therefore, I recommend that the Commission institute a proceeding to review the IOUs hedging activities since 2003. In this proceeding, the Commission should allow both the IOUs and intervening parties (such as the DRA) to provide an analysis of the results of the IOUs hedging activities for the period 2003-2011.

[1] See Decision (D.) 02-10-062, Ordering Paragraph 1, slip op. at 76.

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A. Overview

The Division of Ratepayer Advocates (DRA) makes three recommendations related to the investor owned utilities (IOUs) hedging activities. DRA recommends that:

1. The Commission should increase the Consumer Risk Tolerance from 1 cent/kilowatt hour (kWh) to 1.5 cents/kWh (DRA Opening Brief, pp. 10-11)
2. The Commission should order an independent third party review of Time to Expiration Value at Risk (TeVaR) models and practices. (DRA Opening Brief, p. 14)
3. The Commission, under the guidance of Energy Division, should conduct a stakeholder process to define the circumstances under which exceptions to limits outside of the approved IOU hedging plans will be authorized, and how these requests will be reviewed.

The DRA bases its recommendations on its analysis of the hedging reports submitted to the Energy Division by the IOUs. As discussed below, the Commission should not adopt any of the DRA's three recommendations.

B. DRA's Analysis

The Division of Ratepayer Advocates (DRA) argues that "electric portfolio hedging by the three IOUs in 2010 resulted in ratepayer electricity bill increases of 1.7 billion dollars above what the cost for electricity would have been without hedging." (DRA Opening Brief, p. 9)

There are at least three major problems with DRA's analysis of hedging costs. These problems include:

1. DRA assumes that there is no interaction between spot and forward or futures markets.
2. DRA assumes that the maximum possible annual rate increase is only 6.5%.
3. DRA defines the "cost" of hedging" as the settled value of financial hedges.

I discuss each of these analytical problems below.

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1. Spot and Forward or Futures Markets

We observe a dynamic relationship between spot market prices and forward or futures market prices. All other things being equal, an increase in the price of a commodity (due to increased demand) in a forward or futures market will cause the price of the commodity in the spot market to decline. I use a simple example to explain this dynamic economic relationship.

Let's suppose that a utility purchases 100 MW of electricity in the spot market. If the utility purchases 90 MW of electricity in the spot market and 10 MW of electricity in the forward or futures market, demand will decline in the spot market and demand will increase in the forward market or futures market. Thus, the price of the commodity will increase in the forward or futures market and decrease in the spot market. We observe the same dynamics even if the hedge is financial, rather than physical.

Thus, the DRA does not know what the spot market price would have been if the utilities had not hedged part of their load in the forward or futures market. We can only be sure that the spot market price would have been higher without hedging than with hedging.

2. Maximum Rate Increase

In footnote 40, DRA incorrectly refers to page 24 of its Reply Testimony (Exhibit 401). (DRA Opening Brief, p. 11) Exhibit 401 is a 5 page document. The correct citation is to page 24 of DRA's Opening Testimony (Exhibit 400).

DRA has incorrectly claimed that "The protection provided by hedging appears to be overly expensive for the perceived risk (the risk being hedged is a temporary 6.5 percent increase in a ratepayer's electric bill)." (Exhibit 400, p. 24) DRA has explained that "6.5 percent is the risk calculated by dividing the one

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cent CRT by the average system rate of 15.3 cents kWh of the IOUs." (Exhibit 400, p. 24, footnote 40)

The risk being hedged is not limited to a temporary 6.5% rate increase. The IOUs are required to provide electricity and natural gas services to their bundled customers, regardless of the cost of energy. As the Commission and ratepayers found out during the energy crisis, the risk being hedged is virtually infinite.

How high could rates go if there were no hedging? As of late 2010, litigation concerning the energy crisis of 2000-2001 had still not been resolved. In 2010, the CPUC's Legal Division pointed out that California short-term claims are approximately $9 billion.[2] There are also significant long-term costs. In 2010, the CPUC's Legal Division stated that "The CPUC and the Department of Water Resources (DWR) assert that ratepayers are entitled to recover the difference between the price of the contracts for power between long-term sellers and DWR and the much lower fair market price."[3]

I have included this public document as Attachment A to my pleading. The document is publicly available at:
http://www.cpuc.ca.gov/NR/rdonlyres/18A1EFED-1A79-4BFB-AE88-76D6C7315BE2/0/CPUC01437931v1PowerPoint_for_111910_Meeting.pdf

3. Cost of Hedging

As mentioned previously, DRA defines the cost of hedging as the settled value of financial hedges. Pacific Gas and Electric Company has pointed out that: (Exhibit 103, p. B-1)

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2 "Efforts to Settle Western Energy Crisis Litigation", p. 5, CPUC Legal Division, November 15, 2010.

3 *Ibid.*

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> The complete picture of historical electric portfolio cost includes both the settled value of financial hedges and the settled value of the underlying physical portfolio. Viewing either part of the portfolio in isolation provides a distorted view of portfolio cost.

I define hedging as investing in an asset in order to reduce the overall risk of a portfolio. Under this definition, the IOUs purchase many types of hedging instruments, not just financial hedges.

Hedges which may purchased by the IOUs include capacity contracts, tolling contracts, financially and physically settled options, financially and physically settled swaps, purchases in the California Independent System Operator's (CAISO's) convergence bidding market, long-term natural gas supply contracts, renewables contracts, demand response products, and many other instruments. Some of these instruments (such as tolling contracts) have two purposes. They are used to meet the energy demands of bundled customers and they reduce the overall risk of the portfolio. Others, such as renewables contracts, are used both to comply with state policy goals and to reduce overall portfolio risk.

It is my understanding that the DRA's analysis was limited to a subset of hedges, financially settled futures contracts. Thus, the DRA provides an incomplete picture of the overall costs and benefits of the IOU's hedging programs.

C. DRA's Recommendations

DRA argues that "The electric portfolio hedging activities of the IOUs is costly and DRA has come to question whether the current level of hedging is worth the cost to ratepayers." (DRA Opening Brief, p. 9)

DRA could have recommended other ways to reduce overall hedging costs. For example, DRA could have recommended reducing the hedge

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percentage, placing a restriction on the amount of money spent, or changing the mix of swaps and options in the IOUs plans.

Instead, DRA asks the Commission to raise the CRT, order an independent third party review of TeVaR models and practices, and conduct a stakeholder process to define the circumstances under which exceptions to limits outside of the approved IOU hedging plans will be authorized. As discussed below, the DRA's recommendations will not have a significant effect on hedging costs.

1. The CRT

As mentioned previously, DRA recommends increasing the CRT from 1 cent/kWh to 1.5 cents/kWh. The DRA argues that: (DRA Opening Brief, p. 10)

> The current fixed value CRT does not account for changing electricity rates. As rates rise, the one cent per kWh becomes a lower percentage of electricity rates. This consequently leads to increased hedging in an attempt to keep tolerance levels at lower percentages.

DRA seems to believe that an increase in the CRT will lead to less hedging. I explain the relationship between the CRT and TeVaR in Section IV of Exhibit 1301-C.

The Commission established a consumer risk tolerance (CRT) of one cent per kilowatt hour in 2002, then in 2003 required that: (D.03-12-062, slip op. at 16)

> 1. If between quarterly PRG consultations, a utility's estimated portfolio risk (measured at the 99th percentile) exceeds 125% of the CRT, the utility will promptly meet and confer with its PRG to discuss the underlying risk drivers and factors affecting the change in portfolio risk and to decide whether specific hedging strategies and/or plan modifications are needed to reduce portfolio risk to within the CRT threshold.

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2. If the utility and the PRG decide that plan modifications are needed, the utility will file these modifications in the form of an expedited application, within 15 days of the PRG meeting.
3. Until the application is approved, the utility may operate under its existing plan.

Thus, the primary purpose of the CRT is to trigger a planning meeting between the utility and its Procurement Review Group (PRG) when electricity and natural gas prices increase significantly. The PRG meeting may result in the filing of plan modifications by the utility.

If the Commission wants to increase the number of planning meetings, it can decrease the CRT. If the Commission wants to decrease the number of planning meetings, it can increase the CRT.

In 2007, the Commission reviewed the usefulness of the PRGs and stated that "We continue to acknowledge the value of PRGs and direct that the utilities continue to use them as advisors for their procurement activities." (D.-07-12-052, Finding of Fact 53, slip op. at 277)

The Commission should not adopt DRA's recommendation to increase the CRT because such action will decrease the number of planning meetings and reduce the effectiveness of the PRG.

2. TeVaR Models

DRA argues that: (DRA Opening Brief, p. 13)

> DRA is concerned that there is little oversight concerning application of the TeVaR. For this reason and because large costs are involved, DRA recommends an independent review and determination of best practices models for TeVaR

In the past, I have reviewed the TeVaR models of PG&E and SCE. I found the application of these models to be consistent with generally accepted practice and Commission direction.

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The DRA (or any other PRG member) is capable of providing the oversight that it seeks within the PRG process. The DRA can simply request the information from the IOUs as part of the PRG process. If the DRA wishes to evaluate the TeVaR models in PG&E's PRG, I will be willing to assist them in this process. However, bundled ratepayers should not be burdened with the additional costs associated with the hiring of outside consultants.

3. Modification of Hedging Plans

The DRA argues that: (DRA Opening Brief, p. 14)

> Currently, the IOUs seek approval for varying processes with differently defined conditions. The plans call for procurement review group (PRG) oversight to varying degrees. PRG participants do not usually have the expertise or capabilities, such as computer modeling, to render a considered opinion in a short time frame.

The DRA should speak for itself concerning the expertise or capabilities of PRG members. At least three member of PG&E's PRG have significant expertise and computer modeling capabilities: Jan Reid, Fred Mobasheri, and Kevin Woodruff. Mobasheri is a consultant for the DWR and Woodruff is a consultant for The Utility Reform Network (TURN). It is my belief that Energy Division representatives on the PRG also have significant expertise and computer modeling capabilities.

The Commission has recognized the value of my modeling efforts in the PRG process. Most recently, the Commission stated that: (D.11-03-019, slip op. at 10)

> We note among other things, that Reid was the only PRG member to perform independent modeling of the cost effectiveness of electric utility contracts. Reid used the Black Model to evaluate gas options, non renewable capacity contracts, RPS contracts, bilateral contracts, and bids received in RFO solicitations.

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DRA proposes "that the Commission, under the guidance of Energy Division, conduct a stakeholder process to define the circumstances under which exceptions to limits outside of the approved IOU hedging plans will be authorized, and how these requests will be reviewed." (DRA Opening Brief, p. 14)

DRA has it backwards. It is the Commission which guides the Energy Division, not the reverse. The Commission should not cede regulatory authority to either the Energy Division or to stakeholders in this matter. It is the Commission which has the statutory obligation under Public Utilities Code §451 to ensure that rates are just and reasonable.

The Commission has a well-defined process for the litigation of changes to hedging plans. When an IOU seeks to modify its hedging plan, it must file an advice letter and seek Commission approval for its proposed modifications. The DRA and other parties then have the right to protest any advice letter filed by the IOUs or other parties.

If the DRA feels that it does not have adequate time to evaluate an advice letter, it can request additional time to respond. If the DRA believes that the proposed modifications are unreasonable, it can take the following actions:

1. When the utility discusses its proposed hedging plan modifications with the PRG, the DRA can voice its objections to the modifications.
2. Once the advice letter is filed, the DRA can protest the advice letter.
3. The DRA can file and serve comments on a resolution which addresses the hedging plan modifications.
4. If the DRA is unsuccessful with steps 1-3 above, it can conduct ex-parte meetings with Commissioners and/or Commission advisors.

Therefore, it is both unnecessary and poor public policy for the Commission, ***under the guidance of the Energy Division***, to establish a new stakeholder process.

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II. Reid's Hedging Recommendations

I included five proposed modifications to PG&E's hedging in my confidential testimony (Exhibit 1301-C). PG&E incorrectly states that "In short, Mr. Reid's recommendations are based on incorrect assumptions and misunderstandings regarding PG&E's Hedging Plan and his proposed modifications should be rejected." (PG&E Opening Brief, p. 24)

The differences between my hedging testimony in Exhibit 1301-C and PG&E's hedging plan should be properly described as a risk management policy disagreement between me and PG&E. This disagreement is not due to misunderstandings or incorrect assumptions. I have been an active participant in PG&E's PRG since 2002 and I am thoroughly familiar with PG&E's hedging plan and its procurement practices.

The Commission has noted that: (D.10-03-019, footnote 9, slip op. at 10)

> Reid is an active participant in regulatory proceedings at the Commission. Reid holds B.A. and M.S. degrees from the University of California, Santa Cruz in Applied Economics and Finance. He has testified before the Commission, and has conducted numerous workshops and seminars on cost of capital and risk management. In addition, he has completed courses in risk management, regulation negotiation and project management given by the National Regulatory Research Institute, the Commission, and Karrass Inc.

The Commission should judge my proposals on their merits as discussed in Exhibit 1301-C and should ignore PG&E's claims that I am do not understand their hedging plan. Furthermore, the Commission should adopt my proposed changes to PG&E's hedging plan as described in Exhibit 1301-C.

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III. Conclusion

The Commission should adopt my recommendations for the reasons given herein.

* * *

Dated June 30, 2011, at Santa Cruz, California.

/s/

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VERIFICATION

I, L. Jan Reid, make this verification on my behalf. The statements in the foregoing document are true to the best of my knowledge, except for those matters that are stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Dated June 30, 2011, at Santa Cruz, California.

/s/

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