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DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

Testimony on the 2010 Long-Term Procurement Planning Track I System Plans and Track III Procurement Rules of San Diego Gas and Electric Company (SDG&E)

(PUBLIC VERSION)

R.10-05-006

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MEMORANDUM

This testimony was prepared by the Division of Ratepayer Advocates (DRA) of the California Public Utilities Commission (Commission) in Rulemaking (R.)10-05-006. In this docket, among other things, the California Independent System Operator (CAISO) completes and files an evaluation of potential operational and resource capacity needs driven by California's 33% Renewable Portfolio Standard (RPS) by 2020 (33% RPS). Also, the three Investor Owned Utilities (IOUs) of Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas and Electric Company (SDG&E) complete and file Track I long-term system resource plans based on the standardized planning assumptions for the period of 2011-2021. In addition, the IOUs complete and file Track III testimony on various procurement rules. In this testimony DRA presents its analysis of SDG&E's Track I long-term system resource plans and the Track III procurement rules served on July 1, 2011 in accordance with the January 13, 2011, Assigned Commissioner's and Administrative Law Judges Ruling and Scoping Memo (Scoping Memo/ACR).

I. EXECUTIVE SUMMARY

This Executive Summary contains the Division of Ratepayer Advocates' (DRA) recommendations for both the Track I System Resource Plans and the Track III Procurement Rules and Policy Issues of the Long-Term Procurement Planning proceeding, Rulemaking (R.) 10-05-006. For Track I, DRA provides its recommendations on San Diego Gas & Electric Company's (SDG&E) system resource needs. For Track III, DRA provides its recommendations on the Commission's Staff Proposals on procurement rules and policy issues set forth in the Scoping Memo from December 12, 2010 and the Ruling from June 13, 2011.

DRA reviewed the Investor Owned Utilities' (IOUs') long-term procurement plans for reliability, diversity of resources with environmentally sound choices, and to ensure reasonable costs for California ratepayers. DRA has a statutory mandate to promote reliable and safe electricity service for all public utility customers at the most cost effective rates (Public Utilities Code Section 309.5(a)).

A. Track I Issues

1. SDG&E's Local Capacity Requirements

The IOUs provide analysis regarding Once-Through Cooling (OTC) retirements and their impacts on local capacity requirements (LCR). Under the CPUC standardized planning assumptions, SDG&E shows a surplus of 393 megawatts (MWs) in 2020. SDG&E shows a need of 41 MW beginning in 2017, increasing to 180 MW in 2020. While SDG&E's need, based on the IOU Joint Analysis, is 180 MW, SDG&E seeks authorization of 415 MW of new generation.

DRA opposes authorization for any new resources in the SDG&E service area. With a projected surplus of 393 MW in 2020 under the Commission's standardized planning assumptions, SDG&E has not presented a compelling position for new resources. Even if one accepts the alternative assumptions used by SDG&E, only a very small need of 41 MW is needed beginning in the year 2017. There is no need for new resource authorization at this time.

B. Track III Issues

1. Procurement Rules Related to Once-Through Cooling (OTC)

The Commission requested that parties provide specific policy recommendations on OTC issues. DRA provides the following recommendations to the Commission regarding OTC:

- DRA recommends the Commission modify the Staff Proposal on OTC unit contracting to comply with the modifications suggested by the IOUs. Specifically, DRA supports SDG&E's suggestion that Staff's proposed restrictions to contracting with OTC units be limited to the final two-year period before the plant is scheduled to comply or retire. This will allow the IOUs and ratepayers to extract the most from these units while giving the IOUs time to find replacement capacity within the State Water Resources Control Board's (SWRCB) OTC compliance time frame.
- DRA also supports PG&E's recommendation that Request for Offers (RFOs) explicitly consider environmental attributes of offers, which would negatively impact an OTC unit's environmental score and consequently the overall score for OTC facility bids. As PG&E points out, this would allow for both consideration of the environmental impacts of contracting with OTC facilities while recognizing the system need for the ancillary services provided by these units.
- The Commission should continue to work collaboratively with other government agencies on the OTC issue and utilize the findings of CAISO's forthcoming report and other OTC analyses in the Commission's long-term procurement planning proceeding.

- The Commission should also support and encourage flexible procurement options for the IOUs to meet the SWRCB's compliance deadlines. This includes accounting for local renewables, transmission expansion, distributed generation, demand response, energy efficiency, self generating incentive programs (SGIP), lower projected load growth as well as the Governor's call for 12,000 megawatts (MWs) of distributed generation to provide replacement capacity or reduce demand.
- Finally, the Commission should support and encourage the retrofitting and/or repowering of existing OTC units as this may provide a more cost-effective solution for ratepayers.

2. Bid Evaluation (Utility-Owned Generation versus Power Purchase Agreements)

DRA shares the concern of other parties that the Commission's policy for consideration of UOG projects is unclear and the comparison of UOG and PPA bids is not transparent. DRA would like to see the policy framework for UOG, both fossil and renewable, be clearly articulated in this proceeding and consistently carried out in future procurement proceedings.

DRA recommends the following:

- The Commission should require that all UOG opportunities (fossil or preferred resources) be tested by a competitive solicitation in order to determine if the UOG opportunity is the best deal ratepayers can get.
- DRA also recommends that for assessment purposes, amortize the UOG project costs over the same period that reflect the term of the PPA contracts against which the UOG is being compared.
- DRA recommends that the Commission provide specific guidance to the IOUs on what input assumptions or forward cost curves are

reasonable to use for UOG valuations. This guidance will help to level the playing field for comparing UOG and PPA bids.

DRA offers the following additional recommendations to the Commission regarding its current protocol for fair and equal treatment of UOG and PPA projects bids to ensure a level playing field in the California hybrid market:

- Shareholders, not ratepayers, should shoulder the costs for IOUs to develop a bid or recover costs on failed UOG bids.
- The Commission should establish clear pay for performance mechanisms in UOG projects similar to PPAs. Specifically, PPAs are only paid on a delivery basis (e.g., $/MWh), UOG projects should be rewarded on this basis as well.
- The Commission should establish cost caps for capital costs and O&M for UOG projects so that the IOUs will not underbid these costs and then attempt to recover higher costs after the UOG project has been approved.

3. Greenhouse Gas Procurement Plans

The California Investor-Owned Utilities (IOUs) will be compliance entities under the California Air Resources Board's (ARB) Cap-and-Trade Regulation starting in 2013, and as such will require Commission authority to procure greenhouse gas (GHG) compliance products with the necessary management framework and upfront standards. Each IOU has proposed a different GHG procurement strategy, and at this time, DRA does not see a reason for the Commission to require that the IOUs have the same GHG procurement authority. Generally, DRA supports Pacific Gas and Electric Company's (PG&E's) and SDG&E's proposed GHG Procurement Plans, and makes the following recommendations:

- DRA is concerned that Southern California Edison Company's (SCE's) proposed GHG Procurement Plan seeks forward procurement authority that does not strike an appropriate balance between long-term risks and flexible authority. To address this concern, DRA proposes revisions to SCE's plan regarding its forward procurement authority.

- DRA also recommends that no GHG procurement is authorized prior to the adoption of the final ARB Cap-and-Trade Regulation.
- DRA also proposes that the Commission adopt reporting requirements as part of the GHG Procurement Plans as well as specify a process for Commission review after one year of GHG procurement activity
- DRA proposes that a few additional issues that are lacking from the IOU's GHG Procurement Plans be addressed in supplemental testimony by the IOUs. These issues include (1) allocation of GHG risks and responsibilities in electricity contracts, and (2) bid evaluation for electricity procurement contracts, including out-of-state renewable contracts with replacement power that could require a compliance obligation under the ARB's Cap-and-Trade Regulation.
- Additionally, DRA requests that SCE be directed to prepare supplemental testimony regarding specific issues identified in relation to SCE's GHG Procurement Plan and risk assessment proposal.

4. Procurement Oversight Rules (Independent Evaluator Reporting Requirements)

DRA has two specific recommendations regarding Independent Evaluators (IEs).

- First, Energy Division should contract with IEs directly rather than the IOUs. Under the current IE process, the IOUs contract with the IEs, which can cause a potential conflict of interest for the IE and interferes with the independence of the IE, who is compensated by the IOU. DRA proposes that Energy Division contract with the IEs directly.

- DRA's second recommendation is for Energy Division, or alternatively, the IOU's Procurement Review Group (PRG) to determine IE assignments rather than the IOUs. Under the current IE process, the IOU chooses which IE from their IE pool will be assigned to a specific task or procurement solicitation, causing similar conflict of interest issues.

II. INTRODUCTION

A. Background

The passage of Assembly Bill (AB) 57 in 2002 permitted the State's three major IOUs of PG&E, SCE, and SDG&E) to return to the business of procuring electricity to serve the needs of their customers. The Commission, as the State's regulatory body for the IOUs, began implementing AB 57 though a series of key decisions starting in the fall of 2002 which directed the IOUs to resume procurement beginning in 2003. In April 2004, the Commission opened Rulemaking 04-04-003 to continue the implementation of AB 57 which would serve as the umbrella proceeding to address electricity procurement policies in a coordinated and integrated manner. The Commission determined in R.04-04-003 that a long-term procurement planning process should be conducted on a biennial basis to review California's procurement and resource needs on a ten-year forward looking basis.

In the most recent Long Term Procurement Plan (LTPP) decision issued, D.07-12-052, the Commission focused its review on assessing whether the IOUs were procuring resources per the State's Loading Order (in order of preference: energy efficiency, demand response, renewables, distributed generation, and lastly clean fossil fuel) set forth in the Energy Action Plan (EAP). While the decision approved the IOUs' plans with modifications, the Commission found that their plans were deficient in meeting their net short position with preferred resources, accounting for greenhouse gas emissions reductions and did not reflect the State's preferred resource goals.

In February of 2008 the Commission opened Rulemaking 08-02-007 to integrate and refine the procurement policies underlying the long-term procurement plans filed by the three IOUs. The focus on this rulemaking proceeding was to lay the groundwork to evaluate—side-by-side—the cost effectiveness of different resource portfolios. R.08-02-007 effectively developed the foundational starting point for the 2010 LTPP cycle.

B. 2010 LONG-TERM PROCUREMENT PLANNING CYCLE

On May 6, 2010 the Commission opened rulemaking R.10-05-006, *Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans*. This rulemaking commenced the 2010 long-term procurement plan (LTPP) cycle, effectively bifurcating the issues in the proceeding into three tracks to be addressed concurrently. The three tracks include:

- Track I: Focuses on system planning and local reliability needs. This includes a review of renewable integration needs for operating flexibility.
- Track II: Considers the three IOUs Assembly Bill (AB) 57 "bundled" procurement plans and determines need for their bundled customers.
- Track III: Focuses on rules and policy issues related to procurement and includes the impacts of Once-Through Cooling policies, the State's Green-house Gas (GHG) emissions reduction goals on procurement, among other issues.

The Scoping memo that followed on December 3, 2010, set forth four required scenarios in Track I for the IOUs to model their system planning needs on, assuming a 33% Renewables Portfolio Standard (RPS) future in 2020. In modeling a 33% future with these four scenarios (trajectory, cost constrained, time constrained, and environmental constrained) the IOUs were directed to use a set of standardized planning assumptions (load and resource tables on supply and demand-side resources), evaluation criteria (cost, risk, and greenhouse gas emissions) and sensitivities (natural gas prices, carbon dioxide prices, need levels, and technology costs). The Scoping Memo also clarified the issues to be addressed in Track III of the LTPP under a two-phase process. Phase 1, which has been resolved, addressed procurement rules to comply with Senate Bill (SB) 695 and the California Independent System Operator's (CAISO) market-related procurement implementation issues also known as convergence bidding. Phase 2 of Track III set forth the procurement issues to be addressed at a later time; those issues are described below.

In April 2011, the three IOUs each filed testimony on Track II, detailing their bundled resource procurement plans. Parties to the proceeding, including DRA, filed testimony in response. No hearings were held on the Track II issues and a proposed decision is due out in fall of 2011.

On June 13, 2011, the Commission issued a ruling, the *Administrative Law Judge's Ruling Denying Motion for Reconsideration and Motion Regarding Track I Schedule and Addressing Rules Track III Issues*, which identified the four procurement issues per the December 2010 Scoping Memo's directive to be addressed in Phase 2 of Track III:

1) Procurement rules relating to Once-Through Cooling Issues;

2) Refinements to the bid evaluation process (utility-owned generation versus power purchase agreements);

3) Refinements to the existing timeline associated with the IOUs' request for offer for resource adequacy products;

4) Utility procurement of greenhouse gas related products.

The Commission's June 13, 2011 Ruling also contained a number of Staff Proposals on procurement rules and issues related to: Once-Through Cooling policies, the *AB 57 Procurement Plan Implementation Manual* aka the "Rulebook", Independent Evaluator rules and oversight, the Procurement Review Group (PRG), Quarterly Compliance Reports (QCR), the Cost Allocation Mechanism (CAM), and Standards of Conduct for the IOUs and parties to address.

On July 1, 2011 the IOUs filed testimony on the Track I and III issues as well as a joint IOU System Resource Plan which included a modeling analysis and results for three alternative (IOU) scenarios for a 33% RPS in 2020. On the same day the California Independent System Operator (CAISO) also filed testimony on the results of its renewable integration study.

C. ORGANIZATION OF DRA'S TESTIMONY

DRA submits its testimony in three volumes; Volume 1 the public version, Volume 2 the *Modeling Renewable Resource Integration in California* report by Synapse Energy Economics for DRA, and Volume 3 the SCE confidential version. The structure of DRA's Testimony covers the following issues:

A. Track I Issues:

  1) SDG&E's Local Capacity Requirements

B. Track III Issues:

  1) Procurement Rules Related to Once-Through Cooling (OTC)
  2) Bid Evaluation (Utility-Owned Generation vs. Power Purchase Agreements)
  3) Greenhouse Gas Procurement Plans
  4) Procurement Oversight Rules (Independent Evaluator Reporting Requirements)

DRA has not submitted a position on every issue in each of the IOUs' and CAISO's Testimony.

III. TRACK I ISSUES

A. SDG&E's Local Capacity Requirements

The Assigned Commissioner and Administrative Law Judge's Joint Scoping Memo (Scoping Memo) requested that the IOUs conduct a needs analysis for locally constrained areas. In this section, DRA addresses once-through cooling (OTC) retirements and their impacts on local capacity requirements (LCR). These issues are discussed in the IOU Joint Supporting Testimony and in the IOU individual testimony. SDG&E's testimony projects a potential need of 180 MW to meet local needs in the year 2020.

A "local area" is generally defined as a transmission constrained area where generation may be needed within the local load pocket to meet reliability needs. In D.06-06-064, the Commission created local area resource adequacy capacity obligations, requiring specific amounts of generation capacity to be located within these constrained areas. OTC units are significant providers of generation capacity in some of the locally constrained areas. Many of these units are subject to a compliance schedule for retirements and/or retrofits pursuant to a policy adopted by the State Water Resource Control Board. The retirements are scheduled to be phased in over the next several years. Many of the retirements are scheduled for late in the LTPP timeframe, with retirements completed by December 31, 2020.

Determination of the LCR for constrained areas is based on an annual study performed by the California Independent System Operator (CAISO) called the Local Capacity Technical Study. The technical study is a stakeholder process which provides a one year ahead forecast that creates LCR capacity obligations for Load Serving Entities (LSEs) reviewed and enforced through the Commission's RA program.

B. OTC Retirement and LCR in SDG&E's Service Area

There are two significant gas fired steam generation plants that have served SDG&E customers for many years. These two OTC plants are Encina (5 units) at 960 MW and the recently retired South Bay Plant at 311 MW. The Encina units must retire or comply with the SWRCB OTC requirements by the end of 2017. In addition to these two plants, there are several old combustion turbines at very high heat rates with a total capacity of 188 MW that will also be retired by the end of 2013. So the total retirements due to OTC Policies and high heat rates could be as high as 1,459 MW.

New resources added since the 2006 LTPP include two combined cycles: Palomar 565 MW and Otay Mesa 562 (which tests show an increased MW rating to 603.6 MW). New combustion turbines include Miramar II 47.9 MW, Orange Grove 100 MW, Wellhead El Cajon 48 MW, Larkspur 92 MW. The total capacity of these new resources is 1,456.5 MW. This means that new resources in the San Diego service area will have a capacity approximating the capacity that could retire.

Facility Name	New	Retired	Date of Action
Encina		960MW	end of 2017
South Bay		311MW	2011
Combustion Turbines		188MW	end of 2013
Palomar	565MW		since 2006
Otay Mesa	603.3MW		since 2006
Miramar II	47.9 MW		new
Orange Grove	100 MW		new
Wellhead El Cajon	48 MW		new
Larkspur	92 MW		new
TOTAL	1456 MW	1459MW	

In addition, new capacities from new RPS in the service area, additional supply of CHP, uncommitted EE and Demand Response will become available. Furthermore, the Sunrise Transmission line should be able to reduce the LCR by 1,000 MW by 2013 based on the CAISO's G-1/N-1 reliability criteria.

In the SDG&E Track I Testimony, two tables are presented. Table 1 shows the CPUC trajectory case and indicates a surplus of 393 MW in 2020. From the IOU Common Scenarios, SDGE shows in Table 2 a need of 41 MW beginning in 2017 and increasing to 180 MW in 2020. The need for new resources first appears in 2017, when the Encina units (960 MW) are retired at the end of 2016. While SDG&E's need, according to their analysis, is 180 MW, it calls for adding 300 MW to "add a slight cushion." Later in its testimony, SDG&E seeks authorization of 415 MW of new generation stating it "believes it prudent to plan for a bit more of a cushion above the minimum requirements." This "cushion" on a "cushion" more than doubles the 180 MW LCR need SDG&E has calculated. There is an 800 MW range in the calculations of LCR need: a surplus of 393 MW in the trajectory case, a 180 MW deficit in SDG&E calculations, a 300 MW request, and a 415 MW request. Authorization for procurement in the LTPP process should be based on projected need without added cushions creating unnecessary ratepayer costs. The LTPP planning process already accounts for a prudent margin with its 17% planning reserve.

SDG&E notes that its local needs will be more than adequately met if the Commission adopts it Application 11-05-023 authorizing 450 MW of local capacity. Approval of the Application would result in a net gain of 415 MW due to the retirement of a 35 MW facility as part of repowering an existing facility. Any consideration of procurement authority granted in this LTPP procedure should be contingent on the outcome of that application.

SDG&E opines that the 1.1% load growth assumptions used in the CPUC Required Scenarios is overly conservative. SDG&E references historical ten year time periods between 2000 and 2010 to support using a larger load growth assumption. The current financial period is unprecedented in recent history and demands more than the consideration of recent historical time periods to properly assess future load growth. SDG&E has not presented an adequately thorough analysis to refute the 1.1% load growth assumption in this LTPP.

A unique situation exists in the SDG&E service area when the entire area is treated as a single load pocket for LCR analysis by the CAISO. LCRs for RA purposes are calculated using a 1 in 10 assumption which considers the hottest summer day that is expected once every ten years. System resource forecasts are based on a 1 in 2 assumption which is approximately 10% less than 1 in 10 assumptions. SDG&E's total service area incorporates the higher 1 in 10 assumption for the LTPP rather than the 1 in 2 utilized for the system-wide analysis of SCE and PG&E service areas. A thorough analysis of LCR need has not been performed for long-term forecasts. It is not clear if SDG&E's use of 1 in 10 forecasting in the LTPP is appropriate. Therefore, DRA recommends a stakeholder process including the CAISO and CPUC be initiated to determine an appropriate methodology for calculation of long-term LCR needs.

DRA opposes authorization for new resources in the SDG&E service area. With a projected surplus of 393 MW in the trajectory case, and considering the factors noted above, a compelling position for new resources has not been presented. Even if one accepts the alternative assumptions from the Joint IOU Analysis, only a very small need of 41 MW is needed beginning in the year 2017. There is no need for new resource authorization at this time.

C. SDG&E's Reliance Upon Joint IOU Common Scenarios

In general, the IOU alternative assumptions make significant changes to the core Standardized Planning Assumptions in a direction leading to greater need for additional resources. Since SDG&E has relied upon the Joint IOU assumptions for Demand Response to justify its request for procurement authority, DRA's concerns over this issue are discussed here.

1. Assumptions regarding Demand Response

IOU-1 discusses the Joint Utilities' assumptions regarding forecasted megawatts of demand response.[1] Table 2 below shows the IOUs' forecast of Demand Response resources available in 2020 under 1-in-2 weather conditions.[2] Both PG&E and SDG&E state that these forecasts were developed using the 2011 Load Impact reports, which were filed in R.07-01-041 on April 1, 2001.[3]

Table 1: Demand Response Forecast in System Plan (in 2020)

Total DR (MW)	IOU Common Scenarios	CPUC-required	Increase (Decrease) in DR Program Results
SCE Service Area	2,842	2,842	0
PG&E Service Area	1,429	2,001	(572)
SDG&E Service Area	219	302	(83)

Notes: The table above is nearly identical to Table 5-2 in IOU-1. Also, Total Demand Response in the table above is grossed-up for losses.

The use of 2011 Load Impact reports is contrary to the Commission's directive in the December 10, 2010 Assigned Commissioner and Administrative Law Judge's Joint Scoping Memo and Ruling, at page 20, which states, "the estimated ex-ante load impact forecast filed in this proceeding shall be based on the April 1, 2010 Load Impact Report Compliance Filing pursuant to Ordering Paragraph (OP) 4, D.08-04-050. The utilities should report DR portfolio load impact forecast (2011-2020) for the 2010 LTPP using the August Monthly System Peak Load Day under a 1-in-2 Weather Condition."

As Table 2 indicates, the use of the demand response forecast in the 2011 Load Impact report results in substantially lower Demand Response resources compared to the demand response forecast in the CPUC-required scenarios which uses the 2010 Load Impact report.

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[1] Ex. IOU-1 (Joint IOU Supporting Testimony), 5-6 – 5-8.

[2] Ex. IOU-1 (Joint IOU Supporting Testimony), p. 5-7, Table 5-2.

[3] *Id.*, p.5-8.

Because SDG&E's demand response forecast in its Bundled Plan is based on the 2010 Load Impact report, and the demand response forecast in its System Plan is based the 2011 Load Impact report, the Commission has been presented with two very different demand response forecasts for the same year. The difference is shown in Table 3 below.

Table 3: IOUs' Demand Response Forecasts in Bundled and System Plan (in 2020)

Total DR (MW)	IOU proposed Bundled Plan	IOU proposed System Plan	Difference
SCE	2,077	2,842	765
PG&E	2,001	1,429	(572)
SDG&E	302	219	(83)

Since SDG&E's Bundled Plan is based on their 2010 Load Impact reports, DRA recommends the Commission require SDG&E to use the demand response forecast for its LTPP System Plans based on its 2010 Load Impact report. This will provide consistency between the demand response forecasts in the two plans, avoid forecasts being too heavily influenced by the current economic conditions which could turn out to be temporary, and also preserve the integrity of all of the interdependent assumptions in the Commission's December 10, 2010, Joint Scoping Memo and Ruling.

2. Other OTC/LCR Considerations

The State Water Resources Control Board (SWRCB) continues to consider amendments to its Resolution No. 2010-0020 which sets forth the OTC regulations for retiring or retrofitting facilities to come into compliance with standards regarding the state's coastal power plant cooling system and discharges into coastal water. An amendment currently under consideration at the SWRCB attempts to prevent disruption in the State's electrical power supply when the policy is implemented by convening a Statewide Advisory Committee to review implementation plans and schedules. The amendment's goal is to ensure that the implementation schedule takes into account local area and grid reliability, including permitting constraints. The State Water Board recognizes the compliance dates may require an amendment based on, among other factors, the need to maintain reliability of the electric system as determined by the energy agencies. The amendment would also remove the LA Basin retirement dates from the 2010 LTP and move those to the 2012 LTPP due to the challenging issues in that area.[4]

The long-term LCR needs are also evolving as the CAISO continues to perform a more detailed analysis of LCR deficiency. It should also be noted that California Governor Brown has proposed 12,000 MW of distributed generation by 2020.[5] This additional generation could have a significant impact in reducing LCR needs.

In sum, the LCR needs are assessed using different methodologies by each IOU in this LTPP. LCRs are typically analyzed for year ahead planning; thus DRA questions the appropriateness and accuracy of applying this methodology to a 10-year look ahead used in the LTPP. While the CAISO looks ahead a few years in its analysis, there is not standardized method for examining LCRs ten years into the future as the IOUs are doing to support their position. DRA recommends a uniform policy be created for analyzing long-term LCR needs. This policy should be created in a public stakeholder process involving the CAISO, the CPUC, and all interested parties.

D. Recommendations and Conclusions

DRA recommends that no authorization for new resources be granted for SDG&E in the 2010 LTPP based on OTC retirements and LCR needs. SDG&E states a need for 180 MW yet requests 415 MW. For the reasons noted above,

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[4] State Water Resources Control Board, Proposed Amendment to the Statewide Water Quality Control Policy on the use of Coastal and Estuarine Waters for Power Plant Cooling, p. 3

[5] California's Path to 12,000 Megawatts of Local Renewables, Governor's Local Renewable Power Working Conference Segmenting the Governor's Localized Energy Goal Panel, Discussion Paper # 1

DRA recommends that no authorization for new resources be granted for SDG&E in the 2010 LTPP. DRA also recommends the Commission develop a uniform policy for analyzing long-term LCR needs. This policy should be created through a public stakeholder process involving the CAISO, the CPUC, and all interested parties.

With both OTC and LCR issues continuing to evolve, DRA recommends that the 2012 revisit the OTC-LCR issues when the policies and needs are better defined.

IV. TRACK III ISSUES

A. Procurement Rules Related to Once-Through Cooling

1. Introduction

The *Administrative Law Judge's Ruling Addressing Motion for Reconsideration, Motion Regarding Track I Schedule and Rules Track III Issues (Ruling),* issued on June 13, 2011, details five issues to be addressed by the Commission in Track III of this LTPP cycle, concurrently with the Track I schedule. One of the five issues is procurement rules relating to Once-Through Cooling units.

The Commission requested that parties provide specific policy recommendations on these issues including a timeframe for implementation and whether the issue should be addressed now or in future Commission processes. This portion of DRA's testimony responds to these directives. DRA provides its recommendations to the Commission on the Once-Through Cooling procurement rules and includes a discussion of Energy Division's (ED) Staff Proposal on the IOUs' Once-Through Cooling contracts.

a) Staff Proposal on Once-Through Cooling

Appendix A to the Ruling contains a Staff Proposal on Once-Through Cooling (OTC) unit contracts. The Staff Proposal states that "Utilities may not enter into a contract for longer than one year with any facility identified in the State Water Resources Control Board's Statewide Water Control Policy on the Use of Coastal and Estuarine Waters Used for Power Plan Cooling (Once-Through Cooling or OTC facilities)..."[6] There are three exceptions to this one-year contracting limit:

1. The utility is found to be in full compliance with Section 316(b) of the Clean Water Act.
2. The Commission authorizes the procurement of new capacity in the LTPP proceeding.
3. The OTC facility elects to reduce water intake by 93% to comply with the State Water Resources Control Board's OTC policy.[7]

b) The IOU's Positions on the Staff Proposal

In their testimonies, all three IOUs express their concerns with the Staff Proposal. PG&E states that considering procurement policies related to OTC in this phase of the LTPP is appropriate and timely but does not support the Staff Proposal limiting IOU contracts with OTC units to one year or less.[8] In PG&E's opinion this could lead to "uneconomic and duplicative procurement."[9] SCE argues that the proposed one-year limit, if adopted, could result in more uncertainty and higher risk for IOU procurement and customers.[10] SCE also argues that the proposed limit could hinder the integration of renewable generation

[6] *Administrative Law Judge's Ruling Addressing Motion for Reconsideration, Motion Regarding Track I Schedule and Rules Track III Issues*, issued on June 13, 2011, Appendix A.

[7] *Ibid.*

[8] Ex. PG&E-__ (Pacific Gas and Electric Company - Procurement Rules Testimony), p.1-2 and 1-3.

[9] *Ibid,* 1-3.

[10] Ex. SCE-3 (Testimony of Southern California Edison Company on Track III Issues – Rules Track III Procurement Policy), p.9.

and grid reliability.[11] SDG&E states that this policy does not advance the State's OTC policy and will only increase transaction costs for customers.[12]

c) DRA's Position

2. The Commission Should Address OTC Issues as Part of this LTPP Cycle

DRA believes it is appropriate for the Commission to address the issue of OTC unit retirement and contracting in this LTPP cycle to give the IOUs adequate time to locate replacement capacity and plan ahead. Establishing upfront standards now on the OTC issue should also help avoid "just in time" procurement that the Commission discouraged in D.07-12-052.[13] The Commission's rules should however; (1) complement the State Water Resources Control Board's (SWRCB) phased approach to OTC retirement and (2) be guided by the results of the CAISO's OTC study, which should be completed within a few months.[14]

3. The Commission Should Modify the Staff Proposal that Limits OTC Contracts to One-Year in Duration

The Staff Proposal to limit the IOUs' OTC contracts to one-year in duration does not advance the OTC compliance targets and is not consistent with the objectives of the SWRCB OTC Policy Statement which provides an exception for units to meet their compliance deadline if grid reliability is an issue. The Staff

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[11] *Ibid*, p.10.

[12] Ex. SCE-2 (Testimony of Southern California Edison Company on Track III Issues – GHG Procurement Plan), p. 18.

[13] Decision 07-12-052 (D.07-12-052): *The Opinion Adopting Pacific Gas and Electric Company's, Southern California Edison Company's, and San Diego Gas and Electric Company's Long-term Procurement Plans,* p. 21.

[14] *CAISO 2011/2012 Transmission Planning Process, Unified Planning Assumptions and Study Plan, Final, May 20, 2011(CAISO TPP)*, Section 4.6 Once Through Cooling and Section 4.7 AB 1318. The CAISO intends to complete an analysis of local area needs driven by the OTC schedule for resource retirements or repowerings. See http://www.caiso.com/2b84/2b84c4a0ec90.pdf

Proposal also conflicts with the Commission's discouragement of "just in time" capacity procurement. Further, DRA agrees with the IOUs that the Staff Proposal has failed to identify how the IOUs and ratepayers will benefit from this restriction.

From DRA's perspective, the Staff Proposal to limit OTC contracts to one year imposes restrictions on the IOUs without advancing the OTC compliance targets. As a result, the Staff Proposal unnecessarily restricts the IOUs' options for procuring capacity and adds additional risk to their short-to- mid-term procurement efforts. Furthermore, since the proposed one-year contracting limitation would only apply to the investor-owned utilities, this policy would not be applied equally to all Load Serving Entities (LSEs) in California. This puts the IOUs at a competitive disadvantage. LSEs not affected by this policy could sign lower priced, longer-term contracts with OTC units and this in turn would give the OTC facility the upper hand in pricing future contracts with the IOUs. Each of the IOUs raised these concerns in their testimonies and DRA finds these concerns to be well founded.[15] If adopted, the Staff Proposal could result in higher priced, short-term contracts for IOU customers that would need to be renegotiated each year.

In their Track I testimony, both SDG&E and SCE identified a potential local capacity requirement (LCR) need in their respective areas that they state is entirely the result of OTC unit retirements (based on the current retirement schedule for the OTC units). Implementing the Staff Proposal could lead to a potential increase in LCR need for these IOUs in the years leading up to 2020 and trigger the need for "just in time" capacity procurement, which the Commission stated "threatens reliability, drives up the costs of delivering power, and typically

[15] Ex. PG&E Track III Procurement Rules Testimony (PG&E Track III), p. 1-3; SCE-3, pp. 9-12; SDG&E-2, pp. 18-19.

does not result in additional preferred/renewable resources."[16] This potential outcome also contradicts many of the goals and intentions of the SWRCB's OTC policy:

> H. "…The energy agencies' approach seeks to address the replacement, repowering, or retirement of power plants currently using OTC that (1) maintains reliability of the electric system; (2) meets California's environmental policy goals; and (3) achieves these goals through effective long-term planning for transmission, generation and demand resources."[17]

The IOUs have shown that they are on their way to meeting the SWRCB's compliance requirements for OTC units. Humboldt Bay, Potrero, and South Bay OTC power plants all closed in 2011.[18] Three of PG&E's other OTC units; Contra Costa, Pittsburg, and Moss Landing, are all scheduled to retire in 2017. SCE has also identified the OTC plants in its service area that will be retiring prior to 2020. Since the IOUs have made efforts to comply with the SWRCB's OTC policy, Commission staff should put forth proposals that make this transition for the IOUs more manageable. DRA provides some recommendations to the Commission below. The one-year restriction in the Staff Proposal does not seem necessary or helpful.

DRA recommends the Commission modify the Staff Proposal on OTC unit contracting to comply with the modifications suggested by SDG&E and PG&E. Specifically, DRA supports SDG&E's suggestion that Staff's proposed restrictions to contracting with OTC units be limited to the final two-year period before the

[16] Decision 07-12-052: *The Opinion Adopting Pacific Gas and Electric Company's, Southern California Edison Company's, and San Diego Gas and Electric Company's Long-term Procurement Plans*, p.21.

[17] Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy Statement), October 1, 2010, p. 2. See http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/policy100110.pdf

[18] Exhibit PG&E-1, p.11; SDG&E-1, pp. 5-8.

plant is scheduled to comply or retire.[19] This will allow the IOUs and ratepayers to extract the most from these units while giving the IOUs time to find replacement capacity within the SWRCB's OTC compliance time frame.

DRA also supports PG&E's recommendation that Request for Offers (RFOs) explicitly consider environmental attributes of offers, which would negatively impact an OTC unit's environmental score and consequently the overall score for OTC facility bids.[20] As PG&E points out, this would allow for both consideration of the environmental impacts of contracting with OTC facilities while recognizing the system need for the ancillary services provided by these units.

4. DRA's General OTC Policy Recommendations

Based on the compliance deadlines set forth in the SWRCB's OTC Policy Statement, DRA finds that it is important to continue the inter-agency collaborative process under way, to ensure the smoothest transition towards an OTC-free future for California. DRA therefore offers the following recommendations to the Commission:

- **The Commission should continue to work collaboratively with other government agencies on the OTC issue and utilize the findings of CAISO's forthcoming report and other OTC analyses in the LTPP proceeding.**

The SWRCB's OTC Policy Statement sets forth compliance deadlines for each of the State's 19 OTC units and outlines the collaborative processes underway between the State's government agencies and the CAISO (jointly known as the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS)) to ensure continued local area and grid reliability during the OTC transition period. DRA supports this collaborative effort.

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[19] Ex. SDG&E-2, p.19.

[20] Ex. PG&E-_, p. 1-3.

There are several working groups and studies underway to assess the impact of OTC unit retirements on grid reliability and local area needs:

- On April 1 2011, all OTC facility owners submitted their OTC Implementation Plans to the SWRCB.[21]
- CAISO is analyzing local area needs driven by the OTC Compliance Schedule for resource retirements or repowerings.[22]
- Assembly Bill (AB) 1318 requires the California Air Resources Board (ARB) in consultation with the California Energy Commission (CEC), CPUC, CAISO, and SWRCB to prepare a report for the Governor and Legislature that evaluates the electrical system reliability needs of the South Coast Air Basin (SCAB). This report will provide recommendations on the most effective and efficient means of meeting those reliability needs while ensuring compliance with State OTC laws and federal law.[23]
- Starting March 3, 2012, the SACCWIS will annually report to the SWRCB on the status and recommendations regarding the implementation of the OTC Policy Statement.

DRA recommends that the Commission consider the results of these analyses and, to the extent it deems appropriate, integrate the findings and results from these reports and working groups into the assumptions and inputs used in the next LTPP cycle. This level of coordination will minimize duplication of effort, facilitate orderly implementation of the State's OTC goals, and help minimize the cost to ratepayers.

- **The Commission should support and encourage flexible procurement options for the IOUs to meet the SWRCB's compliance deadlines.**

In their Track I testimony, the IOUs describe their plans for meeting the SWRCB's compliance targets for OTC units in their service territories. PG&E

[21] SWRCB OTC Facilities and OTC Facility Implementation Plans; See http://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/powerplants/

[22] CAISO TPP, Section 4.6.

[23] See http://www.arb.ca.gov/energy/esr-sc/Presentation_AB_1318-11-10-10-public-meeting.pdf ; Also CAISO TPP, Section 4.7.

describes how both the Humboldt Bay and Potrero power plants were shut down in 2011 but these areas were not negatively impacted due to repowering of the Humboldt Bay unit and the use of replacement power from south and east San Francisco for Potrero.[24] PG&E states that local area capacity in future years will not be affected by the Contra Costa and Pittsburg OTC unit shutdowns due to long-term procurement planning that will bring four projects online over the next five years to provide replacement capacity.[25] SCE and SDG&E however, describe a future need (or potential need) for local area capacity that is due in part to OTC unit shutdowns and that is dependent upon whether these units will be repowered or retired.

Although all three IOUs are on track to comply with the SWRCB's OTC Policy Statement, the Commission should propose and support flexible procurement options to facilitate IOU compliance with the State's OTC policy and to minimize the cost impact to ratepayers. The Commission should ensure that while environmental protections are achieved through the OTC unit repowering or retirements, ratepayer protections are not compromised. The SWRCB's OTC Policy Statement recognizes the importance of flexibility to meet these compliance targets by allowing CAISO to temporarily suspend compliance targets if grid reliability is threatened.[26] DRA believes that the Commission's role in this

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[24] Ex. PG&E-1, p.11.

[25] Ex. PG&E-1, p.12. The four projects are Russell City (online date 2013), Marsh Landing (online date 2013), Mariposa (online date 2012), and Oakley (online date 2016).

[26] Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, May 4, 2010, P.6:

B.(2) Based on the need for continued operation of an existing power plant to maintain the reliability of the electric system, a final compliance date may be suspended under the following circumstances:

(a) If CAISO determines that continued operation of an existing power plant is necessary to maintain the reliability of the electric system in the short-term CAISO shall provide written notification to the State Water Board, the Regional Water Board with jurisdiction over the existing power plant and the SACCWIS to suspend the final compliance date for less than 90 days.

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process is to consider how previously authorized procurement will contribute to flexibility and to authorize procurement of resources needed as a result of OTC retirements in the most cost-effective manner possible.

Proper planning and analysis of the entire spectrum of potential solutions is essential so that ratepayers are not overburdened in pursuit of the State's OTC goals. To support the SWRCB's Policy Statement, the Commission should call upon all tools that can be used to alleviate the OTC retirement issue. These tools include local renewables, transmission expansion, distributed generation, demand response, energy efficiency, the Self Generation Incentive Program (SGIP), lower projected load growth as well as the Governor's call for 12,000 megawatts (MWs) of distributed generation. All of these factors can help reduce the need for new capacity in local areas. In addition, according to the report, *Electric Grid Reliability Impacts from Regulation of Once-Through Cooling in California* by ICF Jones & Stokes, transmission system upgrades have been identified "as the least-cost alternative for replacing OTC retirements" and OTC retirements could be addressed with "as little as $135 million in in-state transmission upgrades.."[27] DRA supports consideration of all of these options to meet the State's OTC compliance deadlines while ensuring minimal impact to ratepayers.

- **The Commission should support and encourage the retrofitting and/or repowering of existing OTC units.**

Consistent with the previous recommendation to support flexible procurement options for the IOUs related to OTC shutdowns, the Commission should encourage those OTC plants in local reliability areas to pursue retrofitting

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(b) If CAISO determines that continued operation of an existing power plant is necessary to maintain the reliability of the electric system, CAISO shall provide written notification to the State Water Board, the Regional Water Board with jurisdiction over the existing power plant and the SACCWIS to suspend the final compliance date for 90 days and can be extended if necessary

[27] ICF Jones & Stokes, Global Energy Decisions, *Electric Grid Reliability Impacts from Regulation of Once-Through Cooling in California,* April 2008 (Jones & Stokes Report), pp. 3, 5. See: http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/reliability_study.pdf

or repowering. The ICF Jones & Stokes report on grid reliability and OTC units points out the benefits of repowering present OTC sites:

- Advantages for OTC units in securing contracts for the output of their repowered plants;
- Ready availability of natural gas supply and transmission interconnection;
- AB 1576 gives repowered OTC plants preferential treatment over other plants. It allows utilities to contract directly with repowered units at existing OTC sites and automatically recover the costs of these contracts in their rates.[28]

The benefits of using existing brown field sites also weighs in favor of repowering. In Decision (D.) 04-01-050, the *Interim Opinion on the Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development,* the Commission strongly supported retrofitting:

> "To the extent that new generation resources are required, the utilities should first consider the overall advantages of repowering at existing plants or of development of brown field sites located close to load rather than development of new green field sites remote from load and requiring substantial transmission and other upgrades to the system."[29]

In many instances it may be more cost effective and timely from a ratepayer perspective to retrofit an existing OTC plant rather than site, permit, and build a new power plant.

5. Conclusion

To summarize, DRA provides the following recommendations to the Commission regarding OTC:

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[28] ICF Jones & Stokes, Global Energy Decisions, *Electric Grid Reliability Impacts from Regulation of Once-Through Cooling in California,* April 2008 (Jones & Stokes Report), pp. 13, 27.

[29] D.04-01-050, *Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development,* p. 54.

1. The Commission should modify the staff proposal that limits IOU OTC contracts to one-year in duration as it puts the IOUs at a competitive disadvantage against other LSEs and provides no benefits to ratepayers. DRA supports SDG&E's suggestion that any contracting restrictions with OTC units be limited to the final two-year period before the plant is scheduled to comply or retire. DRA also supports PG&E's recommendation that Request for Offers (RFOs) explicitly consider the environmental attributes of offers, which would negatively impact an OTC unit's environmental score and consequently the overall score for OTC facility bids.

2. To the extent possible, the Commission should continue to work collaboratively with other government agencies on the OTC issue and utilize the findings of CAISO's forthcoming report and other OTC analyses in the Commission's LTPP proceeding. This level of coordination will minimize duplication of effort, facilitate orderly implementation of the State's OTC goals, and help minimize the cost to ratepayers.

3. The Commission should support and encourage flexible procurement options for the IOUs to meet the SWRCB's compliance deadlines. This includes accounting for local renewables, transmission expansion, distributed generation, demand response, energy efficiency, Self Generation Incentive Program (SGIP), as well as the Governor's call for 12,000 MWs of distributed generation to provide replacement capacity or reduce demand.

4. The Commission should support and encourage the retrofitting and/or repowering of existing OTC units as this may provide a more cost-effective solution for ratepayers.

B. Bid Evaluation (Utility-Owned Generation vs. Power Purchase Agreements)

1. Introduction

In the Assigned Commissioner and ALJ's Joint Scoping Memo and Ruling from December 3, 2010, the Commission identified refinements to bid evaluations in competitive solicitations with both utility-owned generation (UOG) and power purchase agreements (PPA) from independent power producers (IPPs) as an issue to be addressed in Track III of this LTPP proceeding. The Commission listed several outstanding concerns from the last LTPP decision, D.07-012-052, seeking party input as to how to make the IOUs' bid evaluation process "fair, just and reasonable" and improve bid evaluations that include both UOG and PPA offers.[30] These concerns include:

- How IOU bid development costs would be addressed ("at-risk" or ratepayer-guaranteed);
- The extent to which penalty and reward components are or should be added to UOG bids to make them consistent with IPP bids;
- What measures should be taken to prevent sharing of sensitive information between utility staff involved in developing utility bids and staff who create bid evaluation criteria and that select the winning bids;
- How failed contracts should be handled within the IOU RFO/procurement process; and
- Whether parties might agree on a common set of risk factors better managed by IOUs as compared to IPPs, to simplify the standard terms and conditions in the IOUs' pro forma contracts and subsequent counterparty contract negotiations.[31]

[30] Assigned Commissioner and Administrative Law Judge's Joint Scoping Memo and Ruling, R.10-05-006, December 3, 2010, p.44.

[31] Ibid, p.44.

DRA provides its recommendations to the Commission on this issue below.

2. Party Positions

As relayed through their Track III testimonies, the IOUs are clearly divided in their support for the Commission's policy on UOG vs. PPA and on the concerns brought forth. In its Track III testimony PG&E argues that its current RFO evaluation structure, process and methodology is effective and robust in comparing UOG and PPA offers.[32] Contrary to PG&E, SCE states that UOG and PPAs are fundamentally different products and that the process of trying to compare the two in competitive solicitations is "conceptually unworkable."[33] SDG&E does not see a need to alter the existing approach for evaluating UOG vs. PPA bids because it argues that the Commission has demonstrated that it is fully capable of weighing the record (of UOG vs. PPA offers) to determine what is in the ratepayers' best interest. SDG&E goes on to state that the IOUs have developed an evaluation process to differentiate between UOG and PPA that includes checks to ensure fairness among all participants. Therefore it is unnecessary in SDG&E's opinion, for the Commission to refine this process.

3. DRA's Position and Recommendations

DRA believes that it would be timely to address, in this LTPP, refinements to bid evaluations in competitive solicitations with both UOG and PPAs. The Commission is frequently confronted with the issue of comparing UOG opportunities to competitive bids.[34] DRA shares the concern of other parties that the Commission's policy for consideration of UOG projects is unclear and the

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[32] Ex. PG&E-_, p. 2-1.

[33] Ex. SCE-3, p.13.

[34] *See, e.g.* A07-08-006 SDG&E El Dorado, A08-03-015 SCE Solar PV Program, A08-07-017 SDG&E Solar Energy Program, A08-07-018 PG&E Tesla, A09-02-013 PG&E Fuel Cell Project, A09-02-019 PG&E PV Program, A.09-04-018 SCE Fuel Cell Program, A09-09-021 PG&E Oakley, A09-12-002 PG&E Manzana, A11-01-004 SDG&E Calpeak.

comparison of UOG and PPA bids is not transparent.[35] The Commission has recognized this, especially as it relates to renewable UOG.[36] DRA would like to see the policy framework for UOG, both fossil and renewable, be clearly articulated in this proceeding and consistently carried out in future procurement proceedings. The existing problems surrounding UOG and PPA bids need to be resolved if there is any hope of sustaining a fair and competitive hybrid market.

a) Most UOG Applications Are Introduced Outside of an RFO

The Commission has approved most UOG applications recently brought forth by the IOUs.[37] And nearly all of these applications were introduced outside of the competitive solicitation process.[38] DRA finds this pattern runs contradictory to many of the Commission's guidelines on UOG vs. PPA as set forth in D.07-12-052. Specifically,

> We want to make it clear that we continue to believe in a "competitive market first" approach. As such we believe that all long-term procurement should occur via competitive procurements, rather than through preemptive actions by the IOU, <u>except in truly extraordinary circumstances</u>.
>
> (D.07-12-052, p. 208)

In addition, Ordering Paragraph 31 of D.07-12-052 states that:

[35] R10-05-006 Motion of the Independent Energy Producers Association for Reconsideration of the Schedule for this Proceeding, January 26, 2011, p. 7.

[36] See, D09-06-049 on SCE Solar PV Program, June 22, 2009, p. 15, "Therefore, we find that the applicability of the policy framework for UOG articulated in D.07-12-052 to renewable resources is unclear."

[37] *See, e.g.* A07-08-006 SDG&E El Dorado, A08-03-015 SCE Solar PV Program, A08-07-017 SDG&E Solar Energy Program, A09-02-013 PG&E Fuel Cell Project, A09-02-019 PG&E PV Program, A.09-04-018 SCE Fuel Cell Program, A09-09-021 PG&E Oakley, A09-12-002.

[38] Only A07-08-006 SDG&E El Dorado and PG&E Oakley, A09-12-002 were tested through an RFO.

> UOG applications by the IOUs outside of an RFO must fit into a unique circumstance, which are limited to market power mitigation, reliability, preferred resources, expansion of existing facilities, or be a unique opportunity, as described in the decision, and each application will be considered on a case- by-case basis. The IOU is required to make a showing that holding a competitive RFO is infeasible.[39]

As stated, the Commission recognizes the need, in "unique circumstances", for UOG procured outside of the competitive solicitation process.[40] Nevertheless, the Commission still requires that "in all cases, if an IOU proposes a UOG outside of a competitive RFO, the IOU <u>must make a showing that holding a competitive RFO is infeasible.</u>"[41] (Emphasis added.) In general, the IOUs disregard these UOG requirements and procure UOG opportunities outside of an RFO. DRA recommends that the Commission provide a clearer message in this LTPP regarding requirements surrounding UOG opportunities and hold the IOUs accountable to the rules going forward.

DRA recommends that the Commission simply require that all UOG opportunities (fossil or preferred resources) be tested by a competitive solicitation. This is the only way that the Commission can truly determine if the UOG opportunity is the best deal ratepayers can get. Putting the UOG opportunity in a competitive solicitation would test the attractiveness of its price against all other bidders. This can be done and this is exactly how SDG&E proved their El Dorado Power Plant was the best deal for ratepayers. Decision 07-11-046 found that SDG&E sufficiently demonstrated that the El Dorado Power Plant was the least

[39] D.07-12-052, Ordering Paragraph 31, p. 306.

[40] D.07-12-052, p. 209.

[41] *Ibid.*.

cost, best fit alternative as it was tested by a competitive solicitation.[42] As in the case of SDG&E and the El Dorado Power Plant, the Commission should require that all UOG opportunities (fossil or preferred resources) be tested by a competitive solicitation.

b) The Process of Comparing UOG and PPA Bids Requires Refinements

In the previous LTPP, the Commission found that collectively we have insufficient experience on how to evaluate the different qualitative and quantitative attributes associated with UOG opportunities and IPP bids.[43] But that is no longer the case. As mentioned earlier, the Commission has considered many UOG opportunities. One of the most difficult determinations has been in making an apples-to-apples comparison of UOG opportunities to IPP bids. This is partially due to the fact that the Commission has not provided much guidance in this regard. One issue that the Commission is commonly confronted with is comparing the uncertain life time of a UOG facility as compared to a 10-20 year PPA.[44] As D.11-03-036 Denying PG&E's Manzana Purchase and Sale Agreement (PSA) found, increasing the length of time over which the costs of a UOG project are amortized can have the immediate effect of making a UOG project appear substantially more cost competitive than a PPA.[45] DRA recommends that the Commission take the approach suggested in D.11-03-036 when comparing a UOG bid to a PPA. Specifically, for assessment purposes, amortize the UOG project costs over the same period that reflect the term of the PPA contracts against which the UOG is being compared.

[42] D. 07-11-046, p. 17.

[43] D.07-12-052, p. 206.

[44] D.10-07-045, p. 37; D.11-03-036, pp. 28-32.

[45] D.11-03-036, pp. 27.

Another issue that confronts the Commission when comparing UOGs against PPAs is that valuating a UOG project over a long time horizon (20-30 years) creates more uncertainty because the uncertainties about input assumptions grow over time. Two examples are the value of capacity and estimates of land lease costs. Both of these examples were contentious issues in recent UOG Decisions.[46] DRA recommends that the Commission provide specific guidance to the IOUs on what input assumptions or forward cost curves are reasonable to use for UOG valuations. This guidance should be developed and vetted through a public stakeholder process held at the Commission. This guidance will help to level the playing field for comparing UOG and PPA bids.

c) SCE's UOG Proposal

As mentioned earlier, SCE states that UOG and PPAs are fundamentally different products and that the process of trying to compare the two in competitive solicitations is "conceptually unworkable."[47] Given that unworkable nature, and purportedly consistent with California's hybrid market structure, SCE proposes that UOG projects should be proposed only when competitive processes cannot deliver the products that the utility needs to serve its customers in a cost-effective manner. SCE's position appears similar to the position they took in the previous LTPP where D. 07-12-052 states:

> SCE, on the other hand, does not believe that IOU and IPP bids can be compared in a meaningful, quantitative manner. SCE instead takes the position that generally it will offer bids in instances in which the market does not provide the product it seeks. If circumstances arise in which SCE does perceive the need to propose a utility product for which it has received market bids, SCE will provide a separate treatment of the UOG version and articulate, qualitatively, its rationale for

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[46] D.10-07-045; D.11-03-036.

[47] Ex. SCE-3, p.13.

> recommending its project over the market-derived product. (D.07-12-052, pp. 201-202)

DRA points out that since SCE took that position in the previous LTPP, they have brought forward a Solar PV UOG program and a Fuel Cell UOG program. Clearly, in both cases (Solar PV and Fuel Cells) there is a healthy market serving those products, so SCE's stated position rings hollow. As such, DRA recommends the Commission reject SCE's proposal as it is subject to the IOUs determination or rationalization on whether or not there is a market to support their UOG proposal.

In terms of SCE's claim that the process of trying to compare the UOG and PPA bids in competitive solicitations is "conceptually unworkable", to DRA this determination seems to suggest there should be a moratorium on UOG bids. Specifically, if SCE is correct and there is no way to economically compare UOG and PPA bids, then the Commission cannot make a determination on whether the UOG bid is in the ratepayers best interest as compared to other market alternatives. Alternatively, if the Commission is going to consider UOG opportunities (and it seems that this is a likely outcome), then it is imperative that there be a transparent and fair economic comparison of both the UOG opportunity and other market bids. So again, DRA recommends the Commission reject SCE's claim that the process of trying to compare the UOG and PPA bids in competitive solicitations is "conceptually unworkable."

d) Fair and Equal Treatment of UOG and PPA Projects

DRA offers the following additional recommendations to the Commission regarding its current protocol for fair and equal treatment of UOG and PPA bids to ensure a level playing field in the California hybrid market:

1. <u>Shareholders, not ratepayers, should shoulder the costs for IOUs to develop a bid or recover costs on failed UOG bids.</u> PG&E Requests that the Commission allow IOUs to recoup from ratepayers

reasonable and prudent bid development costs for losing and winning UOG offers. Ratepayers do not cover IPP costs in this regard so likewise ratepayers should not cover these costs for UOG bids.

2. The Commission should establish clear pay for performance mechanisms in UOG projects similar to PPAs. Specifically, PPAs are only paid on a delivery basis (e.g., $/MWh), UOG projects should be rewarded on this basis as well.
3. The Commission should establish cost caps for capital costs and O&M for UOG projects so that the IOUs will not underbid these costs and subsequently attempt to recover higher costs after the UOG project has been approved.

C. Greenhouse Gas Procurement Plans

1. Summary

The California Investor-Owned Utilities (IOUs) will be compliance entities under the California Air Resources Board's (ARB) Cap-and-Trade Regulation starting in 2013, and as such will require Commission authority to procure greenhouse gas (GHG) compliance products with the necessary management framework and upfront standards. Each IOU has proposed a different GHG procurement strategy, and at this time, DRA does not see a reason for the Commission to require that the IOUs have the same GHG procurement authority. Generally, DRA supports PG&E's and SDG&E's proposed GHG Procurement Plans. DRA is concerned that SCE's proposed GHG Procurement Plan seeks forward procurement authority that does not strike an appropriate balance between long-term risks and flexible authority. To address this concern, DRA proposes revisions to SCE's plan regarding its forward procurement authority. DRA also recommends that no GHG procurement is authorized prior to the adoption of the final ARB Cap-and-Trade Regulation. DRA also proposes that the Commission adopt reporting requirements as part of the GHG Procurement Plans as well as specify a process for Commission review after one year of GHG procurement activity

There are a few issues that are lacking from the IOU's GHG Procurement Plans that DRA proposes are addressed in supplemental testimony by the IOUs. These issues include (1) allocation of GHG risks and responsibilities in electricity contracts, and (2) bid evaluation for electricity procurement contracts, including out-of-state renewable contracts with replacement power that could require a compliance obligation under the ARB's Cap-and-Trade Regulation. Additionally, DRA requests that SCE be directed to prepare supplemental testimony regarding specific issues identified in relation to SCE's GHG Procurement Plan and risk assessment proposal.

2. Background

The California Air Resources Board (ARB) plans to implement a cap-and-trade program in 2013[48] as part of the statewide efforts to reduce greenhouse gas (GHG) emissions under the Global Warming Solutions Act of 2006, or AB 32.[49] The cap-and-trade program is a market-based mechanism intended to achieve the remaining emission reductions necessary to bring California to 1990 levels of GHG emissions by 2020, after accounting for emissions reductions from specified measures such as the Renewables Portfolio Standard, Energy Efficiency, and Combined Heat and Power. The ARB determined that the cap-and-trade program will afford covered entities flexibility to seek out and implement the most cost-effective options to reduce emissions, while establishing the price signal needed to drive long-term investment in cleaner and more efficient types of energy sources.[50]

The electricity sector is covered by the cap-and-trade program beginning in 2013, and each Investor-Owned Utility (IOU) is a compliance entity that must

[48] The updated ARB Cap-and-Trade Discussion Draft released on July 8, 2011 indicates that enforcement of the cap-and-trade regulation will be delayed until 2013.

[49] Codified at Cal. Health & Safety Code Sec. 38500 et seq.

[50] ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.I-4.

submit the number of GHG compliance instruments (GHG Allowances and GHG Offsets[51]) to the ARB that equals their verified emissions over each compliance period.[52] Each IOU has compliance requirements for its utility-owned generation, selected tolling agreements, and electricity imports. Although the IOUs are freely allocated GHG allowances (allowances) under the program,[53] those allowances cannot be used directly to satisfy compliance obligations. Instead, the IOUs are required to consign and sell those allowances in the quarterly ARB auctions and to use that revenue exclusively for the benefit of retail ratepayers, consistent with the goals of AB 32. The Commission in Rulemaking (R.) 11-03-012 is considering "the possible use of revenues that electric utilities may generate from the auctioning of allowances allocated to them by the ARB…"[54] Since each IOU must procure enough allowances to meet its compliance obligations (i.e. annual and compliance period) in accordance with the schedule set forth by the ARB's cap-and-trade regulation,[55] each IOU must update its authorized procurement plan to include provisions and upfront standards for obtaining GHG compliance products.

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[51] ARB rules allow for 8% of a compliance entity's compliance obligation to be met with approved offsets, per ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.II-24.

[52] The compliance periods are 2013-2014, 2015-2017, and 2018-2020, per ARB July 2011 Cap-and-Trade Discussion Draft, p.A-73. Additionally, compliance entities have an annual compliance requirement of 30% of that current year's verified emissions, per ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.II-23.

[53] The exact recommended allocation to each utility is provided in Appendix A: Staff Proposal for Allocating Allowances to Electricity Distribution Utilities, p. 8.

[54] Rulemaking (R.) 11-03-012 Order Instituting Rulemaking to Address Utility Cost and Revenue Issues Associated with Greenhouse Gas Emissions, March 24, 2011, p.2.

[55] If a compliance entity does not comply with the ARB's cap-and-trade program on schedule, it is subject to a penalty of four GHG compliance instruments for each one GHG compliance instrument it is short, per ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.1X-50.

3. General Policy Recommendations

In this section, DRA offers policy recommendations for Commission determinations on GHG procurement issues, not only for purposes of this LTPP cycle, but on an ongoing basis. Given the uncertain nature of many aspects of the developing carbon market, these recommendations may change as actual market information becomes available and more regulatory certainty develops. The Commission should recognize these uncertainties, and allow for changes and updates to the GHG Procurement Plans over time.

a) Timing of Commission Authorization of IOU GHG Procurement Plans

On June 29, 2011, the Chairman of the ARB, Mary Nichols, testified before the Senate Select Committee on Environment, Economy & Climate Change that the ARB is proposing to initiate the cap-and-trade program in 2012, but make compliance requirements effective the following year (in 2013 rather than 2012).[56] This proposed change to the regulation was discussed at a July 15, 2011 ARB Public Meeting. There will be no 2012 GHG Allowances in the cap-and-trade program, and the first auction for 2013 GHG Allowances will be held on August 15, 2012.[57] This will result in a one-year delay in enforcement of the compliance requirements under the cap-and-trade program, and a six-month delay in implementation of the program (i.e. the first ARB auction for allowances).

Based on this proposed change, the perceived urgency to have Commission-approved GHG Procurement Plans in place for the IOUs appears less critical.[58] While it would be prudent for the Commission to consider the proposed GHG Procurement Plans expeditiously, and establish a framework to guide the

[56] Testimony of Mary D. Nichols, Chairman of the California Air Resources Board, to the Senate Select Committee on Environment, Economy & Climate Change, June 29, 2011.

[57] ARB July 2011 Cap-and-Trade Discussion Draft, p.A-128.

[58] The IOUs served their testimony prior to the release of complete information regarding the delay in ARB's Cap-and-Trade Program. As a result, each GHG Procurement Plan will require updates to reflect this new information.

IOUs GHG procurement, the Commission essentially has an additional six months to decide these issues. Therefore, DRA does not believe it is necessary to approve the GHG Procurement Plans by the end of this calendar year. Furthermore, DRA recommends that the Commission not authorize the IOUs to procure GHG products until the final Cap-and-Trade Regulation is adopted by ARB. The ARB Cap-and-Trade Regulation must be finalized by October 28, 2011.

Parties have had less than five weeks, in an already time- and resource-constrained LTPP Proceeding, to read, understand, and perform discovery on each IOU's GHG Procurement Plan. There are some procurement practices associated with the IOU's management of GHG cost exposure, specifically in regards to contractual allocation of risks and responsibilities associated with GHG compliance in the IOUs' electricity contracts and the related bid evaluations, that should be addressed in the procurement plans. Additionally, DRA has some concerns with SCE's GHG compliance risk assessment proposal, and requests further clarification from SCE. DRA recommends that the Assigned ALJ direct each IOU to prepare and serve supplemental testimony on its GHG Procurement Plan in regards to the GHG arrangements and bid evaluation for electricity contracts. SCE should be directed to address also in its supplemental testimony the specific issues identified in the section of DRA's testimony that addresses SCE's plan. [DRA is submitting this portion of its testimony under seal].

b) Forward Procurement of GHG Compliance Products

The ability to procure allowances for future years, or to bank current allowances for future years or compliance periods, is an important cost containment mechanism that DRA recommended during the ARB process to develop the cap-and-trade program. Sources of GHG emissions in California, including the IOUs, are subject to year to year variations in GHG emissions (i.e. during a low hydro year there will be more natural gas generation and higher emissions), and are therefore potentially exposed to changes in GHG allowance prices impacted by short term demand. The ARB designed the program to have three-year compliance periods in order to smooth out the annual variations in emissions, and to provide sources with greater flexibility to reduce emissions.[59] It is important that the IOUs be able to mitigate the risk of having to procure a large portion of their compliance requirement towards the end of each compliance period. This risk management ability can be made available to the IOUs by authorizing a specified level of forward procurement, which will allow an IOU to spread its GHG position over time.

Additionally, the cap-and-trade program allows for banking of allowances across compliance periods. A GHG allowance from any given year can be used for compliance in a future year.[60] Therefore, if an IOU has a long GHG position at the end of a compliance period (i.e. has more allowances than needed for its compliance requirement), it can bank those allowances for future compliance. Allowing the IOUs to procure in excess of their expected compliance requirements in a given compliance period may provide cost-saving benefits if the price of allowances increases from one compliance period to the next (e.g., due to a reduced supply of allowances or an increased demand for those allowances). An increased demand for allowances could occur towards the second compliance period, as fuel distributors (e.g. gasoline and natural gas) are phased into the cap-and-trade program starting in 2015. It would be prudent to allow the IOUs some level of flexibility to procure allowances in excess of current compliance period requirements and utilize the banking provisions of the program. The ARB will also hold auctions for future compliance period allowances,[61] and the Commission should authorize the IOUs to participate in these auctions to a limited extent.

[59] ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.II-4.

[60] ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.IX-111.

[61] For instance, ARB will hold an Advanced Auction for 2015 GHG Allowances in 2012, per

(continued on next page)

The amount of forward procurement must be balanced with the risks and uncertainties associated with the program, and with the risk of allowances dropping in value due to a variety of factors. The uncertainties surrounding the cap-and-trade market that could impact future GHG prices include:

- *Development of a regional cap-and-trade market.* ARB staff are active in policy discussions to develop a regional cap-and-trade market, called the Western Climate Initiative (WCI),[62] which would include California. British Columbia and Quebec are expected to implement cap-and-trade programs as part of the WCI in 2013.[63] It is possible that if more WCI member states implement cap-and-trade markets that link with California's market, the price of GHG Allowances will go down. Prices could fall because GHG emissions reductions could be less costly in other states where the marginal cost of reducing emissions is less than in California.
- *Preemption of California's cap-and-trade program at the federal level.* If a cap-and-trade program is adopted at the federal level, it is possible that it will pre-empt California's cap-and-trade program. While the ARB has indicated that it will work with federal regulators to gain credit for California entities complying with the California cap-and-trade program, the exact implications of federal preemption is uncertain. One possibility, as SDG&E points out, is that California GHG Allowances could be worthless.[64]
- *Uncertainty about whether ARB's Cap-and-Trade regulations will survive legal challenges and political opposition.* A legal challenge to the ARB Cap-and-Trade Regulation[65] is pending in the California Court of Appeals. Although the Court has

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(continued from previous page)
ARB July 2011 Cap-and-Trade Discussion Draft, p.A-128 and A-129.

[62] The Western Climate Initiative Provincial and State Partners are Arizona, British Columbia, California, Manitoba, Montana, New Mexico, Ontario, Oregon, Quebec, Utah and Washington. *Information available at* http://www.westernclimateinitiative.org/wci-partners

[63] WCI Status Update *available at* http://www.westernclimateinitiative.org/news-and-updates/129-wci-status-update

[64] Ex. SDG&E-2 (Prepared Track III Testimony of San Diego Gas & Electric Company (U 902 E) **Confidential Version**), p.16.

[65] Association of Irritated Residents vs. California Air Resources Board, CPF-09-509562.

> permitted ARB to continue to develop and implement the cap-and-trade program pending resolution of the case, the outcome of this legal challenge is unknown. Additionally, there is strong political opposition to cap-and-trade, which could impact the future of the regulation.

Given the uncertainties, it is prudent for the IOUs to develop GHG procurement strategies that balance the potential for minimizing the cost of compliance by forward procurement against the risk of uncertainties associated with California's cap-and-trade program. DRA therefore recommends that the Commission authorize a specified window for future GHG procurement. This window should be no further out in time than the subsequent compliance period (i.e. the compliance period following the current compliance period), and should entail lower volume limits for years farther out in time. DRA discusses this recommendation in more detail in confidential Appendices A, B and C, in relation to each IOU's GHG Procurement Plan.

c) Forward Price Curve for GHG Prices

A forward price curve for GHG prices in California is uncertain at this time. There are expert market analyses of a forward GHG price for California, based on the marginal cost of reducing emissions in California, after accounting for emissions reductions from other mandated regulations and programs, and the ability of offsets to meet compliance obligations. The Commission currently uses a forecast developed by Synapse to develop a GHG adder for the Market Price Referent.[66] As contracts for GHG products are developed and traded, and the prices at which market participants are willing to buy and sell GHG products

[66] The IOUs were directed to utilize the Synapse Mid-Case price forecast developed for the 2009 MPR for GHG in their AB 57 Bundled Procurement Plans, per Rulemaking (R.) 10-05-006, Assigned Commissioner's And Administrative Law Judge's Scoping Memo for Track II Bundled Procurement Plans, January 13, 2011, pp.3-4.

become known and transparent, a forward price curve for GHG prices in California will be based on actual market information.[67]

Each IOU's GHG procurement decisions will depend on the forward price curve it uses. Clearly there are benefits to procuring more GHG products when prices are low (i.e. below expected GHG prices), and fewer when prices are high (i.e. above expected GHG prices). The Commission must decide whether it should require the IOUs to provide price structures, or price definitions (i.e. price ranges), of "low" and "high" prices for GHG procurement. Since the IOUs are proposing that all GHG products are procured with ratepayer money, recoverable in ERRA accounts, ratepayers need some protection to ensure that the IOUs are not overpaying for GHG products. DRA recommends that the IOUs be required to provide the Commission with the forward price curves they are using in each ARB auction. This will enable the Commission to review and compare the forward price curves among IOUs, to ensure that no one IOU is significantly overbidding. DRA also recommends that the Commission consider and reevaluate the forward price curve for GHG prices on an ongoing basis, as the carbon market develops and more market experience is gained.

d) Physical GHG Products versus Financial GHG Products

In addition to the ARB auctions for GHG Allowances there will likely be secondary markets for GHG products, including physical GHG Allowances and Offsets, forward contracts for GHG Allowances, and financial GHG products such as options. DRA expects that GHG products will be offered on existing

[67] Market prices should be mostly contained within the regulatory parameters set by the GHG price collar, which is defined by the price floor and the Allowance Price Containment Reserve, per ARB Proposed Regulation to Implement the California Cap-and-Trade Program, October 28, 2010, p.II-5. The auction price floor is set at $10/ton in 2012 and increases by 5% a year, plus inflation. The Allowance Price Containment Reserve has three tiers of Allowances available at $40, $45, and $50 in 2012, increasing by 5% a year, plus inflation.

commodity exchanges as well as newly developed carbon exchanges,[68] which will provide transparent price information and protect counterparties from transaction credit risks. SDG&E states that exchanges are important because they increase SDG&E's options in the execution of its GHG procurement strategy.[69] DRA agrees that secondary markets, and the increased liquidity they may provide for GHG products, will be an important aspect of an IOU's GHG Procurement Plan. If an IOU is not able to procure its targeted amount of GHG Allowances at an ARB auction, or if secondary market prices are lower than auction clearing prices, an IOU should have the authority to transact on the secondary markets for GHG products. Secondary market transactions for GHG products can also provide opportunities for an IOU to hedge its exposure to GHG price risks, and as the market develops such hedging could protect ratepayers from potentially volatile GHG prices.

e) Management of GHG Compliance Costs Associated with Electricity Procurement

The proposed GHG Procurement Plans lack information that DRA expected regarding the evaluation of GHG risks associated with electricity procurement contracts. This was one of the issues in R.11.03-012 that was presumably deferred to the LTPP. This issue has to do with which of the contracting parties will assume the GHG compliance responsibility in electricity contracts, and what assumptions the IOUs will have to make regarding the price of future GHG allowances, in order to choose among competing procurement bids. The establishment of rules and guidelines to govern the IOUs' evaluations of competing options is necessary to ensure that ratepayers do not over-compensate

[68] The Green Exchange (GreenX) is currently offering California carbon allowance (CCA) futures contracts for 2013.

[69] Ex. SDG&E-2 (Prepared Track III Testimony of San Diego Gas & Electric Company (U 902 E) **Confidential Version**), p.11.

generators that take on the GHG compliance risk.[70] Given that the forward curve for California GHG prices is uncertain at this time, it is unclear what rules or guidelines govern the IOUs' evaluations of the prices offered for different GHG exposures among competing procurement bids. DRA recommends that each IOU be directed to prepare supplemental testimony to its GHG Procurement Plan in regards to the GHG arrangements and bid evaluation for electricity contracts. Specifically, the supplemental testimony should address the rules, guidelines, and GHG price assumptions that will govern the IOUs' evaluations of competing procurement bids.

Additionally, there is updated information in the ARB's July 2011 Discussion Draft regarding replacement electricity that substitutes for electricity from a variable renewable resource. This updated information needs to be incorporated into the evaluation of out-of-state renewable contracts that aren't physically delivering the variable renewable resource into California. Per Section 95852 of the ARB July 2011 Discussion Draft, "replacement electricity that substitutes for electricity from a variable renewable resource qualifies for the specific emission factor of the variable renewable resource… [if f]irst deliverers of replacement electricity have a contract, or ownership, with the supplier of the replacement electricity, in addition to a contract with the variable renewable electricity source…"[71] It is necessary to evaluate such contracts in the context of this requirement. Ratepayers need assurance that they are not overpaying for renewable contracts that place on the buyer a GHG compliance obligation for the associated replacement power.

In response to questions DRA posed on this issue, SDG&E states that it has two contracts for variable renewable resources that have replacement electricity,

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[70] Rulemaking (R.) 11-03-012 Order Instituting Rulemaking to Address Utility Cost and Revenue Issues Associated with Greenhouse Gas Emissions, March 24, 2011, p.20.

[71] ARB July 2011Cap-and-Trade Discussion Draft, p.A-81.

and that in both contracts, the replacement power does not meet the requirement set forth in the ARB July 2011 Discussion Draft requirements of being the same Balancing Authority. Accordingly, the variable renewable resources do not count as zero GHG resources.[72] These are examples of contracts in which ratepayers will pay for the renewable resource *and* for the GHG obligation of the replacement power. SCE indicates that it is currently evaluating ARB's July 2011 Discussion Draft and plans to seek clarification from ARB on what types of contracts qualify or may qualify for treatment as "replacement energy."[73] PG&E indicates that ARB's July 2011 Discussion Draft is unclear on how to treat unspecified replacement electricity sources, and that it is working with ARB to resolve the issue.[74] Given the uncertainty, ratepayers are not protected from IOUs overpaying for renewable contracts that also include a GHG compliance obligation for the associated replacement power.

DRA recommends that each IOU be directed to prepare supplemental testimony on its GHG Procurement Plan that discusses how it will incorporate this aspect of the ARB's Cap-and-Trade Regulation into its evaluation of out-of-state renewable contracts, so that ratepayers are not overpaying for renewable contracts that include a GHG compliance obligation for the associated replacement power.

4. Discussion of Specific IOU GHG Procurement Plan Proposals

DRA's discussion of each IOU's confidential GHG Procurement Plan, as proposed in its Track III testimony, is contained in confidential Appendices A, B and C to this testimony. Each IOU has proposed a different GHG procurement strategy. At this time, DRA does not see a reason for the Commission to require that the IOUs have the same GHG procurement authority. DRA's position

[72] LTPP Track III Data Response DRA-SDG&E-003, Q.4b.

[73] LTPP Track III Data Response DRA-SCE-001, Q.2.

[74] LTPP Track III Data Response DRA-PGE-008-02, Q.2.b. (**Confidential**)

regarding consistency in GHG procurement authority may change over time, as each procurement strategy is utilized and assessed. Generally, DRA supports PG&E's and SDG&E's proposed GHG Procurement Plans.[75] DRA is concerned that SCE's proposed GHG Procurement Plan seeks forward procurement authority that does not strike an appropriate balance between long-term risks and flexible authority. To address this concern, DRA proposes revisions to SCE's plan regarding its forward procurement authority.

5. Proposals for Future Commission Processes

a) Commission Evaluation of the Proposed GHG Procurement Plans

Each IOU's GHG Procurement Plan has potential merits, and should be the starting point for consideration by the Commission. Each IOU presumably has the most complete, real-time information about its electricity portfolio and resulting emissions, and hence are in the best position to manage GHG exposure and procure GHG products accordingly. DRA agrees with SCE that, "it is critical that SCE's procurement is not unnecessarily constrained in the event that GHG prices are much lower or much higher than expected."[76] However, there is a level of constraint necessary to protect ratepayers from certain risks, such as over-procurement or speculative market activity. Currently, SCE's GHG Procurement Plan does not reflect this level of constraint. DRA addresses this issue in confidential Appendix B in relation to SCE's GHG Procurement Plan.

Also as discussed above, the Commission should direct the IOUs to provide more information on some important issues associated with the GHG Procurement Plans. Specifically, the Commission should have more information on the following issues:

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[75] Although DRA supports both PG&E's and SDG&E's proposed GHG procurement plans, they should both be updated with the supplemental testimony requested by DRA herein.

[76] Ex. SCE-2 (Testimony of Southern California Edison Company on Track III Issues – GHG Procurement Plan), p.18.

- How electricity procurement contracts will allocate GHG risks and obligations and how the IOUs will evaluate bids that allocate these risks and obligations differently. Additionally, how will the IOUs evaluate bids for out-of-state renewable contracts with replacement power that could incur a compliance obligation under the ARB's Cap-and-Trade Regulation;

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Given the ARB's proposed delay in enforcement of the cap-and-trade regulation until 2013, and given that the first ARB auction for GHG Allowances is scheduled for August 2012, there is sufficient time to fill the gaps in the record on these important GHG procurement issues.

If the Commission decides it is necessary to approve the GHG Procurement Plans before the end of 2011, DRA recommends that:

- The Commission approve each IOU's GHG Procurement Plan with the modifications recommended herein,[77] and in Appendix C in relation to SCE's confidential GHG Procurement Plan.
- Each plan be updated to ensure that there will be no GHG procurement until ARB adopts the final Cap-and-Trade Regulation.
- The Commission adopt reporting requirements and specify a process for Commission review after one year of GHG procurement activity. DRA's recommendations concerning

[77] Note that DRA supports PG&E's and SDG&E's GHG Procurement Plan as presented, but still recommends the reporting and review requirements, no GHG procurement until ARB adopts the final Cap-and-Trade Regulation, and the supplemental testimony requested herein.

reporting and Commission review are presented in the next two sections.

b) Reporting Requirements

DRA recommends that the Commission require each IOU to report all GHG market activity, for at least the first year of GHG procurement. This would include any transaction (e.g. ARB auction, secondary markets) authorized under an IOU's GHG Procurement Plan. This reporting requirement would be in addition to the review processes in the Quarterly Compliance Report (QCR) Advice Letter Filings and the ERRA Compliance Review proceedings. The reporting requirement is imperative in the early years of the program so the Commission can review and assess the GHG procurement activity of each IOU. DRA is willing to work with the Energy Division, the IOUs, and any other party to develop a sufficient reporting template. DRA recommends that the Commission order a process to develop the template.

c) Commission Review After One Year of GHG Procurement

The Commission should establish a process in the LTPP final decision to review the IOU GHG Procurement Plans one year after the first ARB auction (i.e. August 2013). The review process would be based on the information gathered from the GHG reporting recommended above. This information will enable the Commission to compare GHG procurement costs among IOUs (i.e. average price per ton of GHG), and to assess whether an IOU is paying significantly more per ton of GHG than another. DRA recommends that based on this assessment, the Commission could require an IOU to adjust its GHG procurement strategies accordingly.

There are numerous reasons to review GHG procurement activity after the first year. The California carbon market is a developing market, and there is currently a lack of market information to develop robust GHG procurement strategies. Additionally, it will be important to revisit the regulatory certainty of cap-and-trade when developments warrant. There is currently a legal challenge to ARB's Cap-and-Trade Regulation,[78] and the potential that momentum could build for a regional or federal cap-and-trade program. There is also the possibility that the cap-and-trade regulation will be re-evaluated and modified by regulators depending on changing conditions. These situations pose certain risks for the IOUs' GHG Procurement Plans. The Commission should therefore plan to review, assess and update the GHG Procurement Plans.

6. Conclusion

DRA recommends that the Commission direct the IOUs to prepare supplemental testimony addressing the questions identified above about (1) allocation of GHG risks and responsibilities in electricity procurement contracts, and (2) bid evaluation for electricity procurement contracts, including out-of-state renewable contracts with replacement power that could require a compliance obligation under the ARB's Cap-and-Trade Regulation. DRA also requests that SCE be directed to prepare supplemental testimony regarding the specific GHG procurement issues identified in relation to SCE's GHG Procurement Plan and risk assessment proposal. Because ARB has proposed to delay the implementation of its GHG cap-and-trade program, there is sufficient time to fill these specific gaps in the record.

If the Commission decides it is necessary to approve GHG Procurement Plans before the end of 2011, DRA respectfully requests that the Commission require that the following adjustments be made to the proposed GHG plans:

- DRA's recommended adjustments to SCE's plan concerning forward procurement authority;
- no GHG procurement is authorized prior to the adoption of the final ARB Cap-and-Trade Regulation;
- incorporate the proposed GHG reporting requirements; and

[78] Association of Irritated Residents v. California Air Resources Board, CPF-09-509562.

- specify a process for Commission review of GHG procurement activity after one year.

D. Procurement Oversight Rules (Independent Evaluator Reporting Requirements)

Attachment 1, Section 1 to the June 13, 2011, Administrative Law Judge's Ruling Denying Motion for Reconsideration and Motion Regarding Track I Schedule and Addressing Rules Track III Issues, includes a proposal by the Commission's Energy Division Staff on the Independent Evaluator (IE) oversight rules and requirements. This proposal contains a number of changes and clarifications regarding the IE's current reporting practices, qualifications, and communications with IOU and non-IOU staff.

DRA has two specific recommendations regarding IEs. First, Energy Division should contract with IEs directly rather than the IOUs. Second, Energy Division, or alternatively, the IOU's Procurement Review Group (PRG) should determine IE assignments rather than the IOUs. Under the current IE process, the IOUs contract with and directly compensate the IEs. This can cause a conflict of interest as the IE, may feel beholden to the IOU, and could be reluctant to produce an IE report that could call into question the IOUs procurement decision or handling of a solicitation. A solution to this potential conflict is for Energy Division to contract with the IEs directly. Under this arrangement the IE would have more independence than when tasked with critically analyzing the party that provides his/her paycheck. The IOUs were first directed to use IEs in D.04-12-048. That Decision provided for the alternative of Energy Division contracting with IEs directly, but stopped short of requiring this arrangement.[79] Since this arrangement was contemplated when the IE function was first initiated, it would be reasonable for the Commission to revisit this option, which in DRA's view, would increase the value of services that an IE provides.

[79] D.04-12-048, Ordering Paragraph (O.P.) # 28.

DRA's second recommendation is for Energy Division, or alternatively, the IOU's PRG, to determine IE assignments rather than the IOUs. This recommendation is related to the same conflict of interest issue stated above. Specifically, under the current IE process, the IOU chooses which IE from their IE pool will be assigned to a specific task or procurement solicitation. Again, this leads to a potential conflict of interest noted above, as the IE may be reluctant to provide a report that questions the IOUs' procurement decision, as this could lead to the IOU not selecting the IE for future assignments. Likewise, the IOU may tend to select an IE who will write a favorable report on the IOU's procurement decision. As SCE discusses in Testimony, the IE is paid on a "time and materials" basis,[80] so the more assignments the IE receives from an IOU, the more it earns.

Both of the changes DRA recommends would help to strengthen the independence of the IE and allow the IE to critique procurement proposals without conflicts of interest or potential repercussions that may result from issuing an unfavorable IE report.

[80] Ex. SCE-3 (Testimony of Southern California Edison Company on Track III Issues – Rules Track III Procurement Policy), p. 23.

APPENDIX D

QUALIFICATIONS OF WITNESSES

QUALIFICATIONS AND PREPARED TESTIMONY
OF
SUDHEER GOKHALE, P.E.

Q.1 Please state your name and address.

A.1 My name is Sudheer K. Gokhale. My business address is 505 Van Ness Avenue, San Francisco, California.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the California Public Utilities Commission as a Senior Utilities Engineer in the Division of Ratepayer Advocates (DRA) in the Electricity Pricing and Customer Program Branch.

Q.3 Briefly describe your educational background and work experience.

A.3 I have Bachelor of Science Degrees in Mechanical and Electrical Engineering from India and a Master of Science Degree in Mechanical Engineering from the University of California at Berkeley.

From November 1987 to June 2005, I was employed by Pacific Gas and Electric Company (PG&E) in various capacities. I have testified or offered testimony before the Commission as an expert witness for PG&E in several CPUC proceedings in the following areas: Nuclear and Fossil Plant Decommissioning, Public Purpose Programs, Depreciation Expense and Reserve, and Rate Base. I have been employed by the California Public Utilities Commission since July 2005. Since joining the CPUC, I have prepared protests and comments for DRA in numerous Demand Response proceedings before the Commission.

Q.4 Are you a registered professional engineer?

A.4 Yes, I am a registered Professional Engineer in Mechanical Engineering and Electrical Engineering in the State of California.

Q.5 What is your area of responsibility in this proceeding?

A.5 I am sponsoring the following sections of DRA's testimony: Section III. B (1), *Assumptions Regarding Demand Response.*

Q.6 Does that complete your prepared testimony?

A.6 Yes, it does.

QUALIFICATONS AND PREPARED TESTIMONY
OF
JORDAN PARRILLO

Q.1 Please state your name and business address.

A.1 My name is Jordan Parrillo. My business address is 505 Van Ness Avenue, San Francisco, CA 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the California Public Utilities Commission's (CPUC) Division of Ratepayer Advocates as a Public Utilities Regulatory Analyst.

Q.3 Please describe your education and professional experience.

A.3 I received a B.A. in Economics and a Minor in Natural Resource Management from The Colorado College in 2004. I worked as an Economist for the National Oceanic and Atmospheric Administration's National Marine Sanctuary Program, in Washington, DC, from January 2005 to December 2007. I worked as the Vice President of Policy and Market Research for a start up clean energy marketing company, Village Green Energy, in San Francisco, CA, from April 2008 to May 2009. I worked as a Carbon Analyst for Point Carbon, in Washington, DC, from June 2009 to April 2010. I became employed with the California Public Utilities Commission, Division of Ratepayer Advocates, in June 2010.

Q.4. What is the purpose of your testimony?

A.4 I am sponsoring the following sections of DRA's testimony: Section IV. C. *Greenhouse Gas Procurement Plans*.

Q.5 Does that conclude your statement of qualifications?

A.5 Yes.

QUALIFICATIONS AND PREPARED TESTIMONY OF DAVID PECK

Q.1 Please state your name and address.

A.1 My name is David Peck. My business address is 505 Van Ness Avenue, San Francisco, California.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the California Public Utilities Commission (CPUC) in its Division of Ratepayer Advocates (DRA) as a Public Utilities Regulatory Analyst V.

Q.3 Briefly describe your educational background and work experience.

A.3 I have Bachelor of Science Degree with a double major in Industrial Engineering and Computer Science from the University of Wisconsin, Madison. I have also earned a Master of Science Degree in Industrial Engineering and Management Sciences from Arizona State University as part of a Motorola-ASU Industrial Fellowship award. I also have a NABCEP Entry Level Solar PV Certificate.

From 1993 to 2007, I have been employed in the Semiconductor and Semiconductor Equipment industries where I have managed engineering development programs and performed systems design research and analysis. I have been employed by the California Public Utilities Commission since October 2007. I have testified as an expert witness in eight cases on topics including demand response, distributed solar PV, conventional generation, and LTPP. I also prepare protests, comments, discovery, analysis, and advocate for DRA in demand response, Renewable Portfolio Standard (RPS), distributed generation, conventional generation, and the LTPP proceedings before the Commission.

Q.4. What is the purpose of your testimony?

A.4 I am DRA's project coordinator for the 2010 LTPP proceeding. I am also sponsoring the following sections of DRA's Testimony: Section IV. B. *Bid Evaluation (Utility-owned Generation versus Power Purchase Agreements),* and Section IV. D. *Procurement Oversight Rules (Independent Evaluator Reporting Requirements).*

Q.5 Does that conclude your statement of qualifications?

A.5 Yes.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
NIKA ROGERS

Q.1 Please state your name and address.

A.1 My name is Nika Rogers. My business address is 505 Van Ness Avenue, San Francisco, California.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the California Public Utilities Commission (CPUC) in its Division of Ratepayer Advocates (DRA) as a Public Utilities Regulatory Analyst.

Q.3 Briefly describe your educational background and work experience.

A.3 I received a Master in Arts in International Relations from the University of Chicago in 2005 with an emphasis in security studies, environment and international law. I received a B.A. in International Relations from the University of California, Santa Barbara in 2002. From 2005 through 2006 I worked as an instructor at MTI College teaching US history, politics and government. From 2006 through 2007 I worked at Partners for Democratic Change in San Francisco on environmental issues and resource allocation in South East Asia and Central/South American countries. In this time I also served as a temporary employee at the Center for Resource Solutions assisting staff with the Green-e certificate program. From 2007 through 2008 I worked as a business consultant for Meltwater News for tech and renewable energy companies in Silicon Valley. I became employed with the California Public Utilities Commission, Division of Ratepayer Advocates in September 2008. I was the witness for the Operation of Ratemaking Accounts chapter of Southern California Edison's 2008 and 2009 ERRA compliance applications and the witness for the Miscellaneous

Accounts chapter of San Diego Gas & Electric's 2009 ERRA compliance application. I was also the witness for the following sections of DRA's Testimony on the 2010 Long-Term Procurement Planning Track II Bundled Plans: PG&E's Least Cost Dispatch and Nuclear Fuel Procurement Plan and SCE's Short-Term Renewable Energy, Renewable Integration Products, REC-Only Products, and QF Fixed for SRAC Floating Swap.

Q.4. What is the purpose of your testimony?

A.4 I am sponsoring the following sections of DRA's testimony: Section I. *Executive Summary*, Section II. *Introduction*, and Section IV. A. *Procurement Rules Related to Once-Through Cooling*.

Q.5 Does that conclude your statement of qualifications?

A.5 Yes.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
PETER SPENCER

Q.1 Please state your name and address.

A.1 My name is Peter Spencer. My business address is 505 Van Ness Avenue, San Francisco, California, 94102.

Q.2 By whom are you employed and in what capacity?

A.2 I am employed by the California Public Utilities Commission (CPUC) in its Division of Ratepayer Advocates (DRA) as a Public Utilities Regulatory Analyst.

Q.3 Briefly describe your educational background and work experience.

A.3 I received the following degrees: B.A. in Biology from California State University- Sacramento in 1973; Doctorate of Chiropractic from Cleveland Chiropractic College in 1982; B.A. in Environmental Studies with an emphasis on energy management from Sonoma State University in 2005.

My work experience prior to working at the Commission includes providing forensic medical reports and testimony, working as a disability examiner and qualified medical examiner for the State of California, and preparing reports and testifying before governmental bodies on the chiropractic profession. I worked as an energy analyst for the County of Sonoma, performed energy audits and energy modeling for RLW Analytics.

I joined the Commission as a Public Utilities Regulatory Analyst in May of 2007 working for the Consumer Protection and Safety Division on energy enforcement issues. This work included being the lead analyst on two OIIs involving Resource Adequacy and the issuance of numerous citations. I have provided written and oral testimony in support of my enforcement cases. In November of 2010, I began working for DRA where I am the lead analyst on Resource Adequacy, Congestion Revenue Rights and Energy Hedging and serve on the Long Term Planning Team.

Q.4. What is the purpose of your testimony?

A.4 I am sponsoring the following sections of DRA's Testimony: Section III. SDG&E's *Local Capacity Requirements*.

Q.5 Does that conclude your statement of qualifications?

A.5 Yes.

<u>**CERTIFICATE OF SERVICE**</u>

I hereby certify that I have this day served a copy of "**TESTIMONY ON THE 2010 LONG-TERM PROCUREMENT PLANNING TRACK I SYSTEM PLANS AND TRACK III PROCUREMENT RULES OF PACIFIC GAS AND ELECTRIC COMPANY (PG&E), SOUTHERN CALIFORNIA EDISON COMPANY (SCE), SAN DIEGO GAS AND ELECTRIC COMPANY (SDG&E) AND CALIFORNIA INDEPENDENT SYSTEM OPERATOR (CAISO) (PUBLIC VERSION)"** to the official service list in **R.10-05-006** by using the following service:

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Executed on **August 5, 2011** at San Francisco, California.

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Rebecca Rojo

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