| Application No: | R.12-03-014 |
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| Exhibit No.: | |
| Witnesses: | Robert Anderson |
| | John Jontry |

PREPARED TRACK I TESTIMONY OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E)



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

June 25, 2012

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PREPARED TRACK I TESTIMONY OF SAN DIEGO GAS & ELECTRIC COMPANY

I. BACKGROUND AND PURPOSE OF TESTIMONY

In its *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge* issued May 17, 2012 in R.12-03-014 (the "Ruling"), the Commission established the scope and procedural schedule for the long-term procurement plan ("LTPP") proceeding. It established three separate tracks for consideration of the issues in the proceeding: (1) Track 1 - Local Reliability; (2) Track 2 - System Needs; and (3) Track 3 - Procurement Rules and Bundled Procurement. With regard to Track 1 of the proceeding, the Commission explained that "[i]n the Local Reliability track of this proceeding, we will consider authorizing procurement of new infrastructure for local reliability purposes," and expressly identified eleven issues that are within the scope of Track 1.^{2/} The purpose of this testimony is to address the Track 1 issues identified in the Ruling.

II. WHETHER ADDITIONAL CAPACITY IS REQUIRED TO MEET LOCAL RELIABILITY NEEDS IN THE LOS ANGELES BASIN AND BIG CREEK/VENTURA AREA BETWEEN 2014 AND 2021, AND, IF SO, HOW MUCH? (Witness: John Jontry)

As the Ruling notes, the issue of SDG&E's local capacity requirement ("LCR") need is being considered in Application ("A.") 11-05-023 and is not within the scope of this proceeding. Nevertheless, it is important that the Commission remain mindful of the fact that the LCR needs of the Western LA Basin sub-area, and particularly the Ellis sub-area, can impact or be impacted by the LCR in the San Diego and Greater Imperial Valley-San Diego areas. The ability to import energy into these two LCR areas via Path 44 (a Western Electricity

 $[\]frac{1}{2}$ Ruling, p. 2.

 $[\]frac{2}{}$ *Id.* at pp. 3, 5-6.

d. Id. at p. 4, note 4.

| 1 | Coordinating Council ["WECC"] recognized path with a post-contingency rating of 2500 MW) |
|----|--|
| 2 | is affected by the amount and location of dependable generation in the Los Angeles basin. |
| 3 | Therefore, the San Diego and Greater Imperial Valley-San Diego LCRs could be affected by the |
| 4 | LCR determinations for the Western LA Basin sub-area and the Ellis sub-area. With respect to |
| 5 | local capacity requirements, the LTPP process should honor existing path ratings, including Path |
| 6 | 44, and should seek to minimize the combined LCRs for the San Diego and Los Angeles basin |
| 7 | areas. This approach will help to minimize costs incurred by consumers in both the San Diego |
| 8 | and Los Angeles areas to ensure that there is sufficient dependable generation available to |
| 9 | mitigate reliability standard violations that may arise under the California Independent System |
| 10 | Operator's ("CAISO's") LCR study methodology. |
| 11 | SDG&E notes further that the CAISO's once-through cooling ("OTC") studies completed |

SDG&E notes further that the CAISO's once-through cooling ("OTC") studies completed to date have all assumed that the San Onofre Nuclear Generation Station ("SONGS") units are in service. SDG&E suggests that a SONGS-out sensitivity could be performed to inform the Commission as to the robustness of the LCR need findings over time.

III. WHETHER FLEXIBLE CAPACITY ATTRIBUTES SHOULD BE INCORPORATED INTO A DECISION REGARDING ADDITIONAL CAPACITY REQUIRED TO MEET LOCAL RELIABILITY NEEDS BETWEEN 2014 AND 2021 AND, IF SO, HOW? (Witness: Robert Anderson)

As the Ruling correctly notes, SDG&E and other stakeholders, including the CAISO, are currently engaged in defining flexible contracting quantities and metrics in the context of the Commission's resource adequacy ("RA") proceeding, Rulemaking ("R.") 11-10-023. Parties to that proceeding have offered proposals that include specific methods for including flexible capacity attributes; a decision on these proposals is expected in June 2012. Accordingly,

 $[\]frac{4}{2}$ Ruling, p. 3.

^{5/} Id

| SDG&E recommends that specific flexible capacity procurement requirements be incorporate |
|--|
| into this LTPP proceeding only after the effort undertaken in R.11-10-023 has been completed |

However, this does not mean that flexibility should be ignored in this proceeding. The CAISO's study work to date has indicated that the shut-down of OTC generation coupled with forecast load growth and the anticipated increase in intermittent renewable resources, will result in the need for new flexible resources to maintain system operability and reliability. The Commission should support the general proposition that units that are added to meet an identified local capacity need should have flexible attributes. However, the Commission should not adopt specific flexibility requirements until the technical basis and associated procurement requirements for flexible capacity attributes have been finalized in R.11-10-023. The Commission should discourage parties from seeking to re-litigate in the context of this proceeding issues that are resolved in the context of R.11-10-023.

IV. HOW ANY RELEVANT DECISIONS IN THE COMMISSION'S RA DOCKET R.11-10-023 REGARDING FLEXIBLE CAPACITY SHOULD BE INCORPORATED INTO A DECISION ON PROCUREMENT OF ADDITIONAL LOCAL CAPACITY? (Witness: Robert Anderson)

As discussed above, flexible capacity quantities and or metrics should be incorporated into a decision regarding LCR need <u>after</u> the technical basis and associated procurement requirements for flexible capacity attributes have been finalized in R.11-10-023.

V. WHAT ASSUMPTIONS CONCERNING RETIREMENTS OF OTC PLANTS SHOULD BE MADE FOR THE PURPOSE OF DETEMINING FUTURE LOCAL RELIABILITY NEEDS? (Witness: Robert Anderson)

As SDG&E has previously pointed out, the assumptions used for resource planning must reflect circumstances that are reasonably expected to occur. This will ensure prudent planning

⁶ For example, see p. 8 of the August 18, 2011 memorandum from Keith Casey to the CAISO Board of Governors. (http://www.caiso.com/Documents/110825BriefingonRenewableIntegration-Memo.pdf)

and will help to protect system reliability. Accordingly, the assumptions regarding OTC used for purposes of determining future local reliability needs must be consistent with State policy and the Commission's direction in D.12-04-046 regarding investor-owned utility ("IOU") contracting with OTC units.

In May, 2010, the State Water Resources Control Board (the "SWRCB") adopted its statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, which applies to power plants located along the California coast that rely on once-through cooling technology (the "OTC Policy"). Under the OTC Policy adopted by the SWRCB, plants using OTC technology must cease operation or implement new (non-OTC) technology by the applicable compliance deadline established by the SWRCB. In D.12-04-046, the Commission adopted interim rules related to IOU contracting with generating facilities subject to the OTC Policy. These rules permit the IOUs to sign power purchase agreements ("PPAs") with OTC plants, but prohibit OTC purchases beyond the applicable SWRCB compliance deadline, with certain limited exceptions.⁸/ IOUs must submit a Tier 3 advice letter for approval of PPAs with OTC resources with a term of greater than two years, as well as for PPAs that terminate one year or less prior to the SWRCB compliance deadline. PPAs with a term of five years or more must be submitted for approval via an application. In adopting these interim rules, the Commission voiced its support for "the SWRCB policy of moving away from OTC," and expressed its intent to avoid creating any incentive to prolong generating facilities' use of non-compliant OTC. 9/

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See Resolution No. 2010-0020. The Policy was approved by the Office of Administrative Law on September 27, 2010, and became fully effective on October 1, 2010.

⁸/ D.12-04-046, *mimeo*, pp. 25-27.

 $[\]frac{9}{}$ *Id.* at pp. 25, 26.

To support these policy objectives, the Commission's resource planning assumptions must reflect the intended transition away from OTC technology. Accordingly, SDG&E proposes that a retirement case be used that retires all units two years prior to the relevant SWRCB compliance deadline when addressing local reliability needs. A second case could assume that all units retire on the relevant compliance dates. It is important to note, however, that if it is assumed that each OTC unit will remain fully available until its compliance deadline or even after, load serving entities ("LSEs") may be required to rely on such OTC units until replacement units are developed and built. Failure to approve new capacity sited in constrained areas in a timely manner would likely result in OTC facilities being retained beyond the dates in the OTC Policy due to reliability concerns.

VI. WHETHER THE ISO'S LOCAL CAPACITY REQUIREMENTS AND OTC STUDIES SHOULD BE ADOPTED BY THE COMMISSION AS THE BASIS FOR PROCUREMENT OF ADDITIONAL LOCAL CAPACITY, AND, IF NOT, WHAT SHOULD FORM THE BASIS OF A COMMISSION DECISION? (Witness: John Jontry)

The referenced CAISO studies provide valuable information and should be relied upon by the Commission for purposes of resource planning. The Commission should also consider stakeholder comments regarding the CAISO studies, such as those presented by SDG&E in Section II above.

VII. HOW RESOURCES ASIDE FROM CONVENTIONAL GENERATION, SUCH AS UNCOMMITTED ENERGY EFFICIENCY, DEMAND RESPONSE, ENERGY STORAGE AND DISTRIBUTED GENERATION RESOURCES SHOULD BE CONSIDERED IN DETERMINING FUTURE LOCAL RELIABILITY NEEDS? (Witness: Robert Anderson)

As a threshold matter, SDG&E believes that a conservative approach must be taken to addressing local reliability needs; it is particularly important for development of local resource need that only those resources that have a high degree of certainty be considered. Although this may result in a value being used in certain instances that is lower than what might be used for

overall system planning, a conservative approach to determining local reliability needs is prudent and in the public interest. The importance of considering only those local resources that have a high degree of certainty arises primarily from the fact that few fall-back options exist for meeting local need. Thus, the consequences of misjudging the need for new local resources can be severe. If aggressive assumptions are made concerning resources that do not exist, and those resources are ultimately not available, local reliability can be compromised.

Two points are worth noting in connection with this conservative approach to determination of local reliability needs. First, protecting local reliability though focusing on local resources with a high degree of certainty in no way de-positions or hinders development of other resources. Local need is a subset of overall system need. Developing an IOU's local need on the basis of highly certain resources does not eliminate less certain resources from the overall resource plan; the IOU will still have substantial open positions and can incorporate higher levels of resource(s) in the event they become available. Second, as SDG&E has previously pointed out, assuming lower levels of a preferred resource in a load pocket does not signify lack of support for the State's policy initiatives. As a practical matter, a party might support a policy that favors a particular resource type while simultaneously recognizing the uncertainty regarding future availability of that resource type for resource planning purposes. It is important to avoid conflating the resource planning process, which demands pragmatic adherence to realistic forecasts, with the process of establishing "stretch" goals to encourage particular public policy initiatives.

With regard to the question of which resources, aside from conventional generation, should be considered in determining future local reliability needs, SDG&E notes that inclusion of certain non-conventional resources may be appropriate, while inclusion of other non-

conventional resources is premature at this time. In the case of energy efficiency ("EE") and demand response ("DR"), EE and DR resources that are "cost effective, reliable and feasible" may be considered in determining local reliability needs. Thus, the question with EE and DR is less whether it is appropriate to include these resources in determining local resource needs and more how to ensure that only EE and DR savings that are "cost effective, reliable and feasible" are considered.

Here, the Commission must separate its policy support for a given technology from its obligation to base its resource planning determinations on sound, realistic planning assumptions. Assigning a "low" value to a resource such as EE or DR is not an indication of lack of support for that particular resource type, it merely recognizes the inherent uncertainty in the availability of such resource and the CAISO's willingness to count such resource for purposes of satisfying LCRs. In the case of EE, for example, there is a high degree of uncertainty regarding how much uncommitted EE is incremental to the EE that is implicitly included in the load forecast. Uncommitted EE savings are highly uncertain since the assumptions used to develop these estimates depend on untested new technologies, the final adoption of future codes and standards, and strategies that are not fully developed or funded. In short, SDG&E strongly believes that only EE and DR savings that are reasonably expected to occur can be considered for local resource planning purposes and that in order to be reasonably expected to occur, these savings must meet the statutory requirement of being "cost effective, reliable and feasible."

With regard to energy storage, inclusion of this resource for resource planning purposes is premature. There exists no reasonable basis to assume that storage will develop in advance of determining local need in this LTPP cycle. Moreover, to the extent energy storage does

 $[\]frac{10}{2}$ Public Utilities Code 454.5(b)(9)(C).

presently exist, it is intended to deal with intermittency issues. It is not storage that is being specifically designed to contribute to meeting the peak load that local reliability planning must address. Similarly, inclusion of distributed generation ("DG") in the local resource planning analysis presents a challenge at this time. Although many new programs are being proposed for DG, none of the programs require that every DG installation obtain full deliverability. Thus, DG should be considered in determining local reliability needs only where there exists a very high degree of confidence that DG will be present and fully deliverable. In general, this would include only that DG that is currently under construction and will be fully deliverable. In the case of both energy storage and DG, SDG&E recommends that the local reliability need be determined without assuming energy storage/DG, but that energy storage/DG be permitted to compete to meet the need, to the extent it is available. [11]

VIII. WHETHER ANY ADDITIONAL LOCAL RELIABILITY PROCUREMENT OBLIGATIONS SHOULD BE MET SOLELY BY IOUS OR BY ALL LSES? (Witness: Robert Anderson)

At the current time, SDG&E believes that the only practical and feasible approach to local reliability procurement is for the IOUs to undertake the needed procurement and then allocate the benefits and costs to the entire load in the local reliability area. Having said that, SDG&E believes that there would be value in exploring with the Commission, the CAISO and market participants the potential for a capacity market that would address both near and long term capacity needs.

SDG&E notes that a significant amount of planned DG additions are concentrated in the eastern portion of the SDG&E distribution service area – an area currently served by 69 kV transmission with relatively low transfer capability.

IX. HOW THE COSTS OF ANY ADDITIONAL LOCAL RELIABILITY NEEDS SHOULD BE ALLOCATED AMONG LSEs IN LIGHT OF THE COMMISSION'S ADOPTED COST ALLOCATION MECHANISM (CAM) PER SENATE BILL (SB) 695, SB 790, D.11-05-005 AND ANY RELEVANT PREVIOUS DECISIONS? (Witness: Robert Anderson)

Under the existing cost allocation mechanism ("CAM"), each IOU is responsible for procuring new generation resources to serve its distribution service territory, with the cost and benefits of the capacity associated with these new resources being shared by all "benefitting parties" located in that IOU's service territory. The Commission made clear in D.11-05-005 when the CAM should apply, declaring that "[i]f the statutorily-specified conditions are met, then the CAM applies." It elaborated further, "[t]hose conditions require that the Commission make a determination that the generation resources in question 'are needed to meet system or local area reliability needs for the benefit of all customers in the electrical corporation's distribution service territory." SDG&E supports continued allocation of capacity costs to all benefitting customers via the existing CAM.

SDG&E submits, however, that the Commission should develop a methodology other than the auction method to determine the market value of the resource that was subject to the CAM. Senate Bill ("SB") 695 provides that the net capacity costs to be recovered from benefitting customers through the CAM shall be determined by subtracting the energy and ancillary services value of the resource from the total costs paid by the IOU pursuant to a third-party contract or, in the case of UOG, the annual revenue requirement for the UOG resource. The provision emphasizes that "[a]n energy auction *shall not be required as a condition for applying this allocation*, but may be allowed as a means to establish the energy and ancillary

^{12/} D.11-05-005, *mimeo*, p. 6.

^{13/} Id.

services value of the resource for purposes of determining the net costs of capacity to be recovered from customers pursuant to this paragraph . . . "14/ The Commission acknowledged in D.11-05-005 the shortcomings of energy auctions as a means of determining net capacity costs, noting that "the existing energy auction mechanism adopted in D.07-09-044 may need to be revised "15/

SDG&E has serious concerns regarding the administrative burden and delay inherent in energy auctions, and questions whether energy auctions minimize net capacity costs. It submits that an alternative and better methodology would be one that relies on public data to calculate how the relevant resource would have operated had it been made available to the CAISO markets at cost. This data could be used to estimate market revenues and thus profits that could be flowed back, thereby reducing the capacity costs for all parties. SDG&E encourages the Commission to convene workshops to explore this or other methods that could potentially be used to establish net capacity costs.

X. WHETHER THE CAM SHOULD BE MODIFIED AT THIS TIME? (Witness: Robert Anderson)

While the Commission addressed the basic framework and operation of the CAM in D.11-05-005, it left several important issues open, including:

- 1. The development of policies and processes for distinguishing between system and bundled resource needs, and related cost allocation;
- 2. Whether there should be a test of "who benefits" under SB 695, and if so, the construction of such a test;
- 3. The further refinement of the energy auction process;
- 4. The development of policies and processes to compare and evaluate PPA versus utility-owned generation bids in a competitive solicitation; and

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 $[\]frac{14/}{5}$ SB 695, Sec. 2, § 365.1(c)(2)(B) (emphasis added). $\frac{15/}{5}$ D.11-05-005, *mimeo*, p. 14.

5. The development of policies and processes for applying the CAM to utility-owned generation. $\frac{16}{}$

The Commission should expeditiously address these remaining issues in order to avoid the delay and administrative burden inherent in litigating them in each future individual case of application of the CAM. In particular, the Commission should focus in the near term on issues two and three. With regard to issue two, the Commission should find that benefitting parties are those parties that have load in the reliability area. The Commission should also expressly state that the resources that it authorizes for meeting Commission local reliability need requirements meet the statutory conditions of SB 695 and that the CAM applies to such procurement. SDG&E's proposal regarding issue three is discussed in Section IX above.

While SDG&E supports development of general policies and procedures related to application of the CAM to future needs, it notes that it will be necessary in the interim – until such time that the relevant general policies and procedures have been adopted – for the Commission to determine on a case-by-case basis the applicability of the CAM to resources for which approval is sought in separate Commission proceeding(s).

XI. WHETHER LSES SHOULD BE ABLE TO OPT-OUT OF THE CAM, AND, IF SO, WHAT THE REQUIREMENTS SHOULD BE TO ALLOW SUCH OPT-OUT? (Witness: Robert Anderson)

LSEs should not be permitted to opt out of the CAM. Under SB 695, the CAM applies when "the commission authorizes, in the situation of a contract with a third party, or orders, in the situation of utility-owned generation, an electrical corporation to obtain generation resources that the commission determines *are needed to meet system or local area reliability needs for*the benefit of all customers in the electrical corporation's distribution service territory."

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 $[\]frac{16}{}$ *Id.* at pp. 16-17.

¹⁷ SB 695, Sec. 2, § 365.1(c)(2)(A) (emphasis added).

Thus, by definition, the CAM is used *only* when the Commission has determined that that the benefits of a given resources extend beyond the IOU's bundled customers. Accordingly, since other LSEs are benefitting from the IOU's procurement, they should not be permitted to opt out of the CAM in favor of receiving a "free ride" at utility ratepayer expense.

XII. WHAT RULES SHOULD GOVERN PROCUREMENT OF ADDITIONAL LOCAL RELIABILITY NEEDS NOT ALREADY COVERED BY THE COMMISSION'S RA RULES? (Witness: Robert Anderson)

Generally speaking, the need, if any, for new rules regarding procurement of additional local reliability needs should be addressed in the Commission's RA proceeding rather than in the LTPP proceeding. Once final rules for procurement of additional local reliability needs are adopted in R.11-10-023, the new rules should be incorporated into the LTPP to guide procurement of necessary resources.

This concludes SDG&E's testimony.

XIII. WITNESS QUALIFICATIONS OF ROBERT ANDERSON

My name is Robert B. Anderson. My business address is 8330 Century Park Court, San Diego, California, 92123.

I am employed by San Diego Gas & Electric Company (SDG&E) as Director - Resource Planning. My responsibilities mainly include electric resource planning. I have been employed by SDG&E since 1980, and have held a variety of positions in resource planning, corporate planning, power plant management, and gas planning and operations.

I have a BS in Mechanical Engineering and an MBA - Finance. I am a registered professional engineer in Mechanical Engineering in California.

I have previously testified before this Commission.

XIV. WITNESS QUALIFICATIONS OF JOHN JONTRY

My name is John M. Jontry. My business address is 8330 Century Park Court, San Diego, California, 92123.

I am employed by San Diego Gas & Electric Company (SDG&E) as Transmission Planning Manager. I have been employed by SDG&E since 2005. For the past two and a half years, I have managed the Grid Planning group within the Transmission Planning department, with the primary responsibility of overseeing the annual grid reliability studies and the planning studies for major special projects such as the South Orange Country Reliability Enhancement project (SOCRE). Prior to working for SDG&E, I worked for electric utilities in Texas and Illinois and for the Midwest Independent System Operator (MISO) in Indiana in various engineering and operational roles for approximately fifteen years.

I hold a bachelor's degree in Electrical Engineering from the University of Illinois and a master's degree in Industrial Technology from Eastern Illinois University. I am a Registered Professional Engineer in the states of Illinois and Texas.

I have previously testified before this Commission.