BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.

Rulemaking 13-12-010 (Filed December 30, 2013)

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Rulemaking 12-03-014 (Filed March 22, 2012)

RESPONSE OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E) TO QUESTIONS REGARDING WORKSHOP HELD DECEMBER 18, 2013

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I. INTRODUCTION

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") and the December 19, 2013 ruling of Administrative Law Judge ("ALJ") David M. Gamson ("Ruling"), San Diego Gas & Electric Company ("SDG&E") provides these comments regarding materials presented at the December 18, 2013, workshop held in Commission Rulemaking 12-03-014, as well as a document prepared by Commission staff, in collaboration with staff of the California Energy Commission ("CEC") and the California Independent System Operator ("CAISO"), titled "Planning Assumptions and Scenarios for use in the CPUC 2014 Long-Term Procurement Plan Proceeding and CAISO 2014-15 Transmission Planning Process" (the "Staff Proposal").

The purpose of the December 18 workshop was to introduce proposed planning assumptions, scenarios, and renewable portfolios that were developed jointly by the Commission, the CEC and the CAISO to be used in the Commission's 2014 long-term

procurement plan ("LTPP") proceeding, as well as in the CAISO's 2014-15 transmission planning process ("TPP") cycle. The Ruling solicits comment regarding the workshop materials, and sets forth specific questions concerning the Staff Proposal. SDG&E addresses below the proposed planning assumptions and scenarios presented by the Commission.

II. DISCUSSION

A. General Comments Regarding Planning Assumptions

SDG&E commends the Commission for moving forward expeditiously with the 2014 LTPP planning cycle, and appreciates the effort undertaken by Commission staff, as well staff of the CEC and the CAISO, to begin crafting the planning assumptions and scenarios to be used for the 2014 LTPP cycle. There is clear benefit to beginning this work early in the cycle; it is important to ensure, however, that the process accounts for changes in assumptions in order to produce results that are as accurate as possible. While, as SDG&E has pointed out, it is not feasible to continuously update resource planning assumptions – particularly *after* the relevant studies have been performed — the Commission should take into account resource changes that become known as the study process progresses.

It will also be important as the planning cycle continues to ensure that all of the assumptions required for the relevant studies are identified and included. It is not yet clear what studies will be included in this planning cycle; it is clear, however, that the Staff Proposal does not include all the assumptions required for all of the studies that might be undertaken. Thus, as the scope of the 2014 LTPP becomes further defined, it will be necessary to refine the

See, e.g., Reply Brief of San Diego Gas & Electric Company in Track 4 of the Long-Term Procurement Plan Proceeding, filed December 16, 2013 in R.12-03-014, pp. 5-6.

assumptions. The Commission should permit resource planners to apply their expert judgment in order to make necessary determination and then document the basis for such determinations in the study results.

Finally, it is critical that the Staff Proposal and all subsequent studies draw a clear distinction between those assumptions that are based on resources that <u>currently</u> exist versus those that represent <u>potential</u> resource options for meeting identified need. The intermixing of these types of assumptions (existent versus non-existent) that is evident in the proposed assumptions has historically created a distortion as to the need calculation. All need determinations should be based on the difference between what resources are in existence today and what will be required to reliably service customers in the future.

As SDG&E explained during Track 4 of R.12-03-014, a resource can be included in the base case (*i.e.*, counted at the "front end" in order to calculate the need) or not assumed in the base case, but analyzed as a potential solution to the need determination that results from the model calculation (*i.e.*, counted at the "back end" as a solution to meeting need, *after* the need has been calculated). Only those resources that are currently in existence should be included in the base case. Resources that are not currently in existence, but may become available during the study period, should be analyzed as potential solutions to meeting the need that is identified based upon the model calculation. This will enable a more reliable need calculation since it will more precisely define the need by identifying separately the need that exists based upon resources currently in existence (the need based on the base case calculation that assumes only

See, e.g., R.12-03-014 (Track 4) SDG&E/Anderson, Exh. SDG&E-1, pp. 6-7, 10; SDG&E/Anderson, Tr. Vol. 12, 1867:4-10.

existing resources) and the need that exists once expected resources are taken into account (the need that results when expected resources are analyzed as solutions to meeting the need that results from the base case calculation).

As a practical matter, there is no benefit to including a non-existent resource in the base case calculation of need; including in the model a resource that does not exist does not confer any greater certainty regarding its future availability than identifying the resource as a solution that will fill the existing need *after* need has been calculated by the model. There is, however, great detriment to including a non-existent resource in the base case calculation of need. Doing so skews the need determination and results in a less reliable analysis. Accordingly, the need determination developed in the instant proceeding should distinguish between resources that <u>currently</u> exist versus those that represent <u>potential</u> resource options for meeting identified need.

B. Responses to Questions in Ruling

1. Is the current range of scenarios sufficient to cover current policy issues facing the CPUC?

RESPONSE: As a threshold matter, SDG&E notes that the key focus at this point must be on developing the base case (*i.e.*, the Trajectory Case). This undertaking is the most important, as it forms the foundation of the resource planning analysis and is typically the most time-consuming. Once the Trajectory Case is established, the results can be used to develop possible resources mixes to meet the identified need.

With regard to the scenarios identified, the current range is not sufficient. As the Staff Proposal acknowledges, many of the cases defined as "scenarios" are really just sensitivities to the Trajectory case.^{3/} When a single variable such as load (and its subsequent need for resources) or a resource (*e.g.*, Diablo Canyon) is changed, the result is not a new scenario, it is a

Staff Proposal, p. 20 (noting that the scenarios other than the Trajectory scenario "generally reflect sensitivities to the Trajectory scenario, by varying one particular policy or factor.").

sensitivity. In some cases these sensitivity analyses may provide valuable information, but they should not be considered a new scenario. The Commission should remain open to considering additional scenarios that may be developed during the process.

SDG&E does not support use of the High DG case (which can reasonably be considered a scenario rather than a sensitivity) as the only scenario other than the Trajectory Case to be studied in this process. It has not been demonstrated that this scenario presents a realistic and cost-effective way to meet the State's need, consistent with the Guiding Principles outlined in the Staff Proposal. SDG&E submits that substantial additional work is required to support the conclusion that these higher levels of DG are practical and cost-effective, and the only alternative to the Trajectory Case.

- 2. Are there any technical errors in the proposed scenarios, scenario tool, or RPS Calculator? For any identified errors, please be very specific in your comments including the location of the error and the correct value, including the source for the revised value. If appropriate, please provide a revised spreadsheet showing any corrected values. Some example questions to consider in identifying factual errors are:
 - a. Are any resources counted twice or inappropriately left out of the analysis?

RESPONSE: The data must be updated to reflect the current repowering of the Wellhead Escondido project (referred to on the NQC sheet as MMC Escondido). The generating unit that currently shows on the 2014 NQC sheet MMC Escondido at 35 MW was retired last year and is no longer in service. At that same location, a new repowered unit is currently under construction with an expected NQC of 45 MW which is expected to be online in January of 2014. This repower did not require CEC approval thus will not show up on the CEC table. The Commission approved SDG&E's contract with this unit in D.13-03-029.

 $^{^{4/}}$ SDG&E perceives Scenarios 1c, 1d, 4 and 6 to be sensitivities to the High DG case.

 $[\]stackrel{5}{\sim}$ See Staff Proposal, pp. 6-7.

In addition, the Pio Pico facility should be included as a resources addition. The contract to approve this resource is currently before the Commission in A.13-06-015 and a proposed decision approving contract was issued on January 3, 2014.

b. Are any numbers cited in the proposed scenarios or spreadsheets inaccurate relative to the intended sources?

RESPONSE: SDG&E has not identified any inaccuracies to date, but reserves the right to do so should it encounter any in the future.

c. Are there any errors in the renewable generation project data in the 33% RPS Calculator?

RESPONSE: SDG&E is still conducting its review of the Renewable Portfolio Standard ("RPS") Calculator, which was only recently made available on December 31, 2013, and may have additional comments at a later point. It notes, however, that it has fundamental concerns with the proposed RPS portfolios. The fact that the investor-owned utilities ("IOUs") have contracted for most, if not all, of the resources they will need to meet a 33% RPS through 2020 is publically-available information. As is the fact that with the potential for banking, IOUs may not be required to add any substantial amounts of new RPS contracts until very late in the planning period. Notwithstanding this, the RPS planning assumptions appear to be based upon a net short of almost 33% of the total need. This seems contradictory to the actual portfolios and inconsistent with Guiding Principle A, which requires that Assumptions take a "realistic view of expected policy-driven resource achievements." Accordingly, the Commission should consider building the RPS portfolio based on approved RPS contracts rather than on the RPS calculator.

Staff Proposal, p. 6.

In addition, the values for Distributed Solar in SDG&E's service area in both the Trajectory and High DG cases are inaccurate and unreasonable. These values are entirely without support – indeed, they are completely contrary to SDG&E's recent experience. Within the past year, 57 MW of small Solar PV contracts located in SDG&E service area have cancelled. Other proposed distributed PV projects have aggregated to a single site outside the local area. Guiding Principles A and B require that resource assumptions take a realistic view of resource achievements and reflect real-world possibilities. Market experience shows that developers are finding it extremely costly and difficult to build distributed PV in the San Diego area. Thus, in accordance with Guiding Principles A and B, the values for Distributed Solar in SDG&E's service area must be revised to reflect this reality.

In addition, SDG&E's existing RPS commitments will not result in an incremental 143 MW of local solar, and SDG&E considers it unlikely that additional local solar would be built in SDG&E's service territory and bid to other IOUs. Hence, if the Commission continues to use the RPS Calculator results then this 143 MW should at a minimum be removed from any cases examining local capacity needs.

3. Should Diablo Canyon be assumed online or retired in the Trajectory case?
Response: Diablo canyon should be assumed on line in the Trajectory case.

4. Is the treatment of energy storage for capacity value reasonable?

RESPONSE: No. Very little is known today about how, where and when energy storage will be added pursuant to D.13-10-040. Nevertheless, the Staff Proposal includes assumptions on where and how to include energy storage that are speculative, at best. These assumptions should be revised. Contrary to the suggestion in the Staff Proposal, for example, the future locations of

transmission-connected energy storage resources cannot be "reasonably projected." Given the uncertainties surrounding energy storage, including its operating characteristics, and the fact that the resource is not in existence today, the most reasonable way to deal with this potential future resource is to exclude it from the base case model run – especially any run analyzing local capacity needs – and to consider it as a solution to meeting the need determination based upon the base case calculation. As discussed above, this will preserve the integrity of the need determination and, as an additional benefit, the model run will identify the needs and locations where additional resources are needed, which will provide useful information such as to preferred locations to inform future energy storage procurement. Including non-existent energy storage resources with unknown operating characteristics in the base case model serves no reasonable purposes and will distort the results of the analysis.

5. For existing resources that do not have announced retirement dates, Staff may assume a resource retires based on facility age. Facility age is calculated from Commercial Online Date, but the COD may not be available for some resources. If no COD is available, is it reasonable to assume the resource does not retire within the planning horizon? If not, please provide an alternate methodology and justification from a public data source as needed.

RESPONSE: Assuming that a facility will be retired based on facility age is a reasonable approach. If the commercial online date ("COD") is not available the Commission should develop an assumptions based upon the best available information. Assumptions should also be made based on the potential implication of that resource retiring. In other words, retirement of a resource located in a load pocket has greater implications for the planning process when determining future local needs than does retirement of a resource that provides system energy and capacity.

See id. at p. 13.

The data related to four combined heat and power ("CHP") units located in SDG&E's service area must be refined. The 2014 Net Qualifying Capacity list a COD of 1/1/1989 for Division Naval Station Cogen., North Island QF, AEI MCRD Steam turbine, and NTC/MCRD Cogeneration. However, these facilities first installed by SDG&E went into service prior to 1980 (the exact year that they were installed is not known). SDG&E recommends that a COD date of 12/1/1979 be used. By using this date the facilities will continue to run through their current contract term and then be retired based on being over 40 years old (which they are).

6. How should the capacity value of energy storage, demand response, and demand side resources (PV, CHP) be allocated to small geographic regions and/or busbars and how should the capacity value be adjusted to account for locational and operational characteristics uncertainty?

RESPONSE: Not applicable for those located in SDG&E's service area. SDG&E has found that all resources in its service areas have an equal ability to meet local needs. Thus SDG&E does not see value in allocating resources down to smaller regions or the busbar within its service area.

7. Decision (D.13-10-040) established storage goals for each of three categories – transmission, distribution, and customer-side of the meter, but does not specify the function(s) to be provided. Should storage modeling be focused on deep multi-hour cycling to support operational flexibility or rapid cycling for ancillary services? How should the production profile of each category of storage identified in the CPUC Storage Target Decision be modeled – as a fixed profile or as a dispatchable resource?

RESPONSE: Please see response to Question 4.

8. Should incremental small PV and small CHP on the customer side of the meter be modeled as demand-side load reduction or supply side generation? How should the production profile of each resource type by modeled? Should the same modeling convention be used in all 2014 LTPP and 2014-15 TPP studies or may specific studies make this decision in a manner best suited to the topic being studied?

RESPONSE: As pointed out above, SDG&E questions whether the High DC cases that use these assumptions are the correct cases to model, however to the extent they are modeled, they should be modeled in whatever manner is required for that particular study. Thus, as a practical matter, one method would *not* fit all. For example, if the study is addressing questions on a probabilistic basis, then these resources must to be modeled in a way that allows for the variability in their output to be specifically modeled. Studies such as those looking at ramping needs are finding that it is important to model variability, thus incremental small PV would need to be modeled as resources along with the base amount of small PV. A simple modeling of expected annual production costs could likely just subtract them from load.

9. Is the forecast of incremental small PV (beyond what is embedded within the IEPR forecast) on the demand side reasonable? If not, please provide an alternate forecast and justification from a public data source as needed.

RESPONSE: SDG&E believes that substantial uncertainty exists regarding future amounts of incremental small PV. Thus one assumption is not as likely to be any more reasonable than another as to the total MW installed. The factor being proposed to convert installed MW to load reductions is of particular concern to SDG&E. SDG&E's peak, net of existing rooftop solar, is already occurring in the very late afternoon, between 4:00 – 5:00 PM. As an increasing amount of rooftop solar is added to the system, the peak, net of solar, will move out even later into the evening. To continue to assume that each installed MW will have the same impact on peak load is a faulty assumption. Based on expected production from PV systems, the incremental PV should only count 30% towards peak reduction, not the 47% proposed.^{9/}

10. Is the forecast of incremental CHP on the demand side and the supply side reasonable for the scenarios that include those forecasts? If not, please provide an alternate forecast and justification from a public data source as needed.

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⁹ See "Demand Individual Assumptions" Excel document.

As stated above, SDG&E does not agree that the High DG scenario should be analyzed, and submits that additional work is required in order to develop better scenarios that are more likely to show lower costs and greater greenhouse gas ("GHG") reductions. Although the planning assumptions do not show the location of these incremental resources, locational decisions will greatly impact the results of this scenario. The Commission should reconsider these scenarios and compare the assumptions to the actual results from the IOUs' solicitations in the CHP settlement in order to determine whether they are reasonable.

Dated this 8th day of January, 2014 in San Diego, California.

Respectfully submitted,

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