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	))))	R.13-12-010

OPENING COMMENTS OF THE IMPERIAL IRRIGATION DISTRICT ON THE ALJ EMAIL RULING DATED DECEMBER 19, 2013

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I. INTRODUCTION

These Comments of Imperial Irrigation District ("IID") are submitted in accordance with the e-mail ruling of Administrative Law Judge Gamson, dated December 19, 2013 ("December 19 Ruling"). IID appreciates the opportunity to provide these Opening Comments to the California Public Utilities Commission ("CPUC") on the Planning Assumptions and Scenarios for use in the CPUC 2014 Long-Term Procurement Plan Proceeding ("LTTP") and California Independent System Operator ("CAISO") 2014-15 Transmission Planning Process ("TPP"). These planning assumptions and scenarios are important to enable the State of California to provide reliable electric service, and to achieve its Renewables Portfolio Standard ("RPS") and Greenhouse Gas ("GHG") goals.

IID is an irrigation district formed pursuant to the California Water Code that provides irrigation and electric service in Southern California. IID provides electric service to more than 145,000 customers in Imperial County and parts of Riverside County with a peak load of approximately 1000 MW. IID is a registered Balancing Authority ("BA") and owns and operates generation, transmission, and distribution facilities.

As a public agency providing power and irrigation services to the Imperial Valley, IID has a strong interest in promoting the development of renewable energy in the region. Imperial County is one of the most impoverished regions of the nation. The most recent unemployment statistics showed an unemployment rate of 23.8 percent in Imperial County.[1] Nearly one in four residents of Imperial County live at or below the federal poverty level. The development of the renewable energy industry in Imperial County will provide economic development and jobs to a region of California that is in desperate need.

II. COMMENTS

A. IID Requests Development of Scenario 6(b) That Explores Additional Options to Meet Medium and Longer Term GHG Emission Reduction Targets.

The purpose of these scenarios is to "inform policy-makers by providing information on a range of plausible futures."[2] In order to achieve this purpose, IID urges the creation of a Scenario 6(b), to reflect additional options to work toward longer-term GHG goals. This scenario would examine use of the 2500 MW of geothermal potential in the Imperial CREZ to meet extended GHG targets, while at the same time meeting reliability requirements in Southern California. As explained below, by a combination of non-intermittent renewable resources and cost-effective DC transmission, IID believes it is possible to rely on imports of renewable energy from the Imperial Valley into the Los Angeles and San Diego Basins as a means of: (1) replacing generation from the retirement of San Onofre Nuclear Generation Station ("SONGS") and Once Through Cooling ("OTC") units; (2) providing additional voltage support and addressing local capacity requirements in the Southern California Basins; and (3) working toward GHG emission reduction targets. If these options are not studied now, the goals set forth by state policy makers

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1 http://www.calmis.ca.gov/file/lfmonth/ecen$pds.pdf

2 *Planning Assumptions, Scenarios, and RPS Portfolios for CPUC 2014 LTPP and CAISO 2014-15 TPP,* December 18, 2013 Workshop Materials (Updated December 26, 2013) at 7.

will not be able to be considered and achieved given the long lead time required to develop needed generation and transmission infrastructure.

The Imperial Valley has long been at the forefront of renewable energy production. For nearly 20 years, more than 500 MW of geothermal capacity and associated energy has been produced and delivered to California Load Serving Entities ("LSE"). There are a significant amount of additional geothermal resources in the Imperial Valley.[3] Ironically, at a time when California has taken the lead on renewable energy development, the most recent development of new geothermal resources has been to support contracts to export this non-intermittent, GHG-free resource to LSEs outside of California.[4] These renewable resources produce zero emissions, utilize proven technologies and are produced in-state.

Further, in August 2013, the Bureau of Land Management adopted a Record of Decision that approved an amendment to the California Desert Conversation Area ("CDCA") Plan to create the West Chocolate Mountain Renewable Energy Evaluation Area ("West Chocolate Mountain REEA"). The West Chocolate Mountain REEA is located on Federal lands in the Imperial Valley between the Salton Sea and the West Chocolate Mountains. After preparing a Final Environmental Impact Statement, BLM has approved this amendment to the CDCA Plan that identifies BLM managed lands in the West Chocolate Mountains REEA as suitable for geothermal leasing and development as well as moderate solar development. IID's STEP

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[3] It has been estimated that the Known Geothermal Resource Areas located in Imperial County have up to 2500 MW of geothermal resource capacity. *See California Geothermal Resources* at 8 (California Energy Commission Staff Paper in Support of the 2005 Integrated Energy Policy Report).

[4] http://www.electricenergyonline.com/detail_news.php?ID=450992; http://waysandmeans.house.gov/uploadedfiles/energysource_llc_1.pdf

proposal would provide the necessary transmission to access renewable energy from the West Chocolate Mountains REEA and export it to Southern California load centers.[5]

The purpose of the scenario development process is to examine options to meet a wide array of often competing policy objectives. While recognizing the reliability challenges presented by the closure of SONGS and OTC units, this challenge also presents "a unique opportunity to reduce reliance on conventional resources in favor of 'preferred resources' such as energy-efficiency and demand response, renewable resources, combined heat and power, and energy storage, in a manner that recognizes their clean, low carbon attributes to meet reliability needs."[6]

It has been clear for quite some time that California's carbon reduction goals will require fundamental shifts in the electric sector away from carbon emitting resources if there is any hope of achieving longer-term emission reductions. Studies of medium and long-term emission reductions share many common conclusions, including heavy reliance on electrification of various economic sectors. As such, a "near-zero carbon electricity supply is essential, particularly as the electricity grid supplies energy for transportation and traditional residential, commercial, and industrial activities."[7] Included in the recommendations are to "*develop a near zero emission strategy to reduce greenhouse gas emissions in the energy sector, reduce energy costs, and maintain reliability of the electrical grid.*"[8]

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[5] The Record of Decision can be found at http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/elcentro/nepa/wcm.Par.60116.File.dat/wcm_reea_rod.pdf

[6] Preliminary Reliability Plan for LA Basin and San Diego. Prepared by the Staff of the California Public Utilities Commission, California Energy Commission, and California Independent System Operator (Draft August 30, 2013) at 2.

[7] *Climate Change Scoping Plan, First Update, Discussion Draft for Public Review and Comment*, California Air Resources Board (October 2013) at 74-76.

[8] *Id.* at 83 (emphasis added).

Thus, to realistically reflect the spectrum of choices over the next several years, the scenarios provided through the LTPP must evaluate multiple options to achieve stated policy goals. If greater reliance on geothermal energy is not studied, there will be no way to do a comparative analysis of this option as compared to other benchmarks.

B. IID's Interest in New Scenarios to Meeting Multiple Planning Objectives.

IID includes this discussion to inform the Commission of transmission proposals it has made to the CAISO to enable delivery of significant incremental geothermal resources to California load, including into constrained local reliability areas within the CAISO.

IID has proposed a new transmission initiative called the Strategic Transmission Expansion Plan ("STEP") designed to facilitate the export of Imperial Valley renewables to the Southern California load centers and other regions of the Southwest. IID submitted its STEP proposal into the CAISO 2013-14 TPP request window. Although configuration could be refined, the STEP proposal consists of three key elements: (1) an 1100 MW 500 kV DC transmission line from SONGS to a new Hoober Substation in the Imperial Valley; (2) a 2200 MW collector loop in the Imperial Valley connecting IID's existing Imperial Valley and Highline Substations, and the new Hoober Substation; and (3) a 500 kV transmission line from the Highline Substation to North Gila Substation. The STEP also allows for further expansion of the DC line capability by an additional 1100 MWs as well as further expansion of the capacity on the collector system in the Imperial Valley.

For these purposes, the key element in STEP would be the DC line from Hoober to SONGS. Upon completion of both phases of the STEP project, the DC line would provide the ability to deliver up to 2200 MW of Imperial Valley renewables to the Southern California load centers. However, the project can be phased in two parts to mitigate risk and cost exposure.

Unlike the AC system, the DC line connection from SONGS to Hoober is a direct electric connection from the resource center in Hoober to the load center at SONGS. The DC line flow provides MW to the local area as if the generator is physically located in the load center. The voltage/reactive and inertia support are provided at the SONGS substation locally through the use of the convertor station located at the existing 230 kV SONGS substation. The renewable and highly dependable geothermal generation from Imperial County can provide the needed local capacity, local reactive, and local inertia identical to local gas-fired plant but with no GHG emissions, and very possibly at a lower cost to all ratepayers.

The unique elements of delivering power into the load basins via a DC line allow achievement of local reliability benefits without the need to site the generation in the constrained air basin. Injection of this amount of generation would satisfy several reliability concerns in Southern California, including:

- address local capacity requirements in the LA and San Diego Basins;
- utilize the DC line as an effective and efficient means to deliver of renewable energy;
- address SDG&E import constraints on the Southwest Powerlink 500 kV line that contributed to the September 8, 2011 outage;[9]
- significantly increase voltage support in southern Orange County and northern San Diego County by providing +/- 750 MVAR reactive support and system inertia;
- provide a second path of energy into SDG&E independent of the Sunrise Powerlink and Southwest Power Link; and
- may defer or eliminate large, proposed reliability projects.

[9] The FERC/NERC Joint Inquiry Report noted that the September 8, 2011 event was initiated with the loss of the Hassyampa-North Gila 500 kV line, although it was not the sole cause of the widespread outage. Arizona-Southern California Outages on September 8, 2011, Causes and Recommendations at 1 (April 2012).

In addition to the above reliability justifications, IID also believes that the STEP project could satisfy economic objectives by relieving congestion and delivering a net reduction in the cost of energy to Southern California ratepayers and provide a cost-effective solution to the replacement of SONGS and OTC. Critical to the goals of the LTPP scenario planning effort, it will also address key policy objectives by displacing other GHG emitting generation with zero emission renewable energy. It will also open new markets in the Southwest for California renewable energy. All of these key objectives would be satisfied while promoting the economic development of one of the most impoverished regions of California.

Furthermore, this project could be completed with relatively limited environmental impacts. Approximately 50 percent of the proposed DC line would be within existing IID rights-of-way or on land owned by IID. Approximately 70 percent of the proposed Imperial Valley collector system has already been permitted by IID. This will greatly ease the burden of siting and permitting.

Although the STEP proposal is relatively new in relation to the ongoing scenario development process, IID believes it is essential to submit this information into the record. To the best of our knowledge, this proposal is the only one of its kind (zero emission) that does not rely heavily on in-basin fossil fuels, with the commensurate challenges associated with gas infrastructure, air credit issues, and the long-term achievement of GHG reductions.

III. CONCLUSION

IID appreciates the opportunity to provide comments to the CPUC on its Planning Assumptions and Scenarios for use in the CPUC 2014 Long-Term Procurement Plan Proceeding and CAISO 2014-15 Transmission Planning Process. For the reasons set forth above, IID respectfully requests that the CPUC develop a Scenario 6(b) to study a zero emissions scenario relying on established levels of potential geothermal generation to be forwarded as one of the planning assumptions and scenarios for study by the CAISO in its 2014-2015 Transmission Planning Process.

/s/

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