BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the of San Diego Gas and Electric Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of the for the Otay Mesa Power Purchase Agreement Transmission Project

Application 04-03-008

OPENING BRIEF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

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In accordance with Rule 75 of the Commission's Rules of Practice and Procedure, the California Independent System Operator Corporation ("CAISO") respectfully submits this opening brief in the above-referenced proceeding regarding San Diego Gas & Electric Company's ("SDG&E") application for a Certificate of Public Convenience and Necessity ("CPCN") to construct the Otay Mesa Power Purchase Agreement Transmission Project ("Transmission Project").

INTRODUCTION

In Decision ("D.") 04-06-011, the Commission approved, among other things, SDG&E's request to enter into a ten-year power purchase agreement for the output of the Otay Mesa Power Plant ("Otay Mesa") presently under development by Calpine Corporation. However, the Commission correctly recognized that "the output of Otay Mesa is not fully deliverable, and cannot fully satisfy SDG&E's local reliability needs, without some transmission system upgrade." (D.04-06-011 at p. 65.) The Commission expressly looked to the CAISO to provide information in this proceeding as to "[w]hether that upgrade should be the two 230 kV lines proposed in [this application], or some alternative." (*Id.* at pp. 65-66.) Consistent with the

Commission's directive, the CAISO submitted detailed testimony addressing the ability of the Transmission Project, as well as other potential alternative proposals, to render Otay Mesa generation deliverable and to realize other potential system benefits. (Exhibit ISO-1 at 2:7-14.) The CAISO's testimony reached the following conclusions:

- The Transmission Project provides for the full output of Otay Mesa under nearly all system conditions;
- The Transmission Project will provide for the firm transmission delivery of Otay
 Mesa generation to SDG&E load centers;
- The Transmission Project will prevent Otay Mesa from increasing transmission congestion north of the Miguel Substation;
- The Transmission Project with Otay Mesa generation can serve to reduce current Reliability Must Run ("RMR") costs by allowing displacement of a portion of existing RMR generation in SDG&E's service area;
- The Transmission Project will provide higher operational flexibility during scheduled outages;
- The Transmission Project will reduce the need to trip additional generation and load for a Miguel corridor outage; and
- The Transmission Project was superior to other alternatives in meeting these objectives. (ISO-1 at 8:2-14.)

No party contests these conclusions. Indeed, Scott Logan, witness for the Office of Ratepayer Advocates ("ORA"), acknowledged that "[i]f D.04-06-011 was intended to ensure full deliverability of Otay Mesa power commencing in 2008, then the CPCN should be approved." (ORA-1 at 7:4-6 and 2:20-22.) As discussed further below, the CAISO believes the Commission did approve the Otay Mesa power purchase agreement ("PPA") with the expectation that it would contribute to SDG&E's local reliability needs such that the Transmission project is necessary.

I. SCOPE OF THE PROCEEDING

A. What D. 04-06-011 Decided? D.04-06-11 Determined that Transmission Upgrades Beyond Those to Interconnect Otay Mesa Were "Necessary" to Realize the Objectives of the Otay Mesa Power Purchase Agreement.

D.04-06-011 arose from SDG&E's motion for approval of proposals, including, among others, the Otay Mesa PPA, to meet its short-term and long-term grid reliability needs. As part of its proposal for Otay Mesa, SDG&E requested that the Commission also expedite review and approval of the transmission upgrades that are the subject of this proceeding. (D.04-06-011 at 12.) D.04-06-011 "determined that SDG&E does ... need Otay Mesa" and accordingly approved the PPA. However, the decision explicitly deferred deliberation on transmission upgrades to this proceeding. (*Id.* at 70-71.)

As noted, ORA correctly recognizes that the outcome of this proceeding turns on the interpretation of the Commission's intent in D.04-06-011. This intent can be discerned from the central fact that the Transmission Project upgrades constitute an express contractual condition precedent to the effectiveness of the approved PPA itself. (D.04-06-011 at p. 56; CPN-1 at 3:9-12.) The condition was included by SDG&E in the PPA as "necessary to ensure the full deliverability of the output of Otay Mesa" (D.04-06-011 at 56) needed to realize the RMR dispatch and other substantial economic and reliability benefits sought by SDG&E (SD-8 at 4:16-19). Consistent with full deliverability, the Commission found the Otay Mesa PPA was "needed" given the critical reliance on aging resources to meet SDG&E's local reliability requirements and the goal of the State's Energy Action Plan to encourage "new, cleaner, efficient power sources to meet anticipated demand growth, replace aging, less efficient and dirty power plants both permanently and as part of RMR contract obligations so as to reduce

SDG&E's RMR costs." (Id. at 60 and 69.) Accordingly, the CAISO believes that the Commission's stated justifications for approving the PPA lead to the conclusion that the Commission approved the Otay Mesa PPA to provide SDG&E with local capacity to meet SDG&E's anticipated grid reliability needs.

The Commission further recognized that this objective, as reflected by the contractual condition precedent, could not be reasonably achieved without transmission upgrades that permit the full deliverability of Otay Mesa power to the San Diego local reliability area. (D.04-06-011 at 70.) The Commission never questioned whether or not an upgrade was needed. Instead, the Commission opined "whether that upgrade should be the two 230 kV lines proposed in A.03-03-008, or some alternative, will be determined during the course of the Commission's review of A.04-03-008, which determination will be informed by the CAISO's own transmission planning process." (*Id.* at 70-71.) The conclusion to be drawn from this language is that the Commission selected Otay Mesa to provide SDG&E with local capacity to meet SDG&E's anticipated grid reliability needs resulting from future load growth and that without some transmission upgrades, Otay Mesa cannot be utilized to serve load in the San Diego local reliability area because of congestion. Accordingly, the CAISO believes the issue of "need" for the Transmission Project, or some functional equivalent, to provide for deliverability of Otay Mesa generation has been decided by D.04-06-011.

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The CAISO is aware that the Commission stated that "nothing we order in this proceeding prejudges SDG&E's application in A.04-03-008." (D.04-06-011 at 70.) However, put in context, that comment was indicating that approval of the interconnection upgrades at \$16 million would not "prejudice our consideration of any other new transmission projects or upgrades to existing ones," including the Transmission Project, so as not to "thwart the deliverability of power within the region and significantly restrict the ability of power to be transmitted into California from out-of-state or Mexico." (*Id.*) This responded to intervenor concerns that Otay Mesa would

B. What Is Left for Determination in this Proceeding? The Selection of the Appropriate Electrical and Environmental Alternative, Evaluation of Capital Structure, and Ratepayer Impact Issues Remain to be Determined

Based on the foregoing, the CAISO does not view the role of this proceeding as determining "need" or "if" a transmission project associated with the Otay Mesa PPA should be constructed. Instead, based on D.04-06-011, this proceeding must assume a prior Commission finding of "need" for both the Otay Mesa PPA and transmission upgrades, and therefore the CAISO believes this proceeding must focus on whether the proposed Transmission Project constitutes the appropriate alternative to satisfy the stated objectives of SDG&E in proposing the Otay Mesa PPA and the Commission in approving that resource. This review of alternatives evaluates not only the most appropriate "electrical" solution, as testified to by the CAISO, but also performs the environmental review obligations under the California Environmental Quality Act. In addition, D.04-06-011 would not appear to reach other issues traditionally viewed by the Commission as subsumed within Public Utilities Code § 1001, including evaluation of utility capital structure and cost impacts and ratepayer impacts, as well as the criteria listed in Public Utilities Code § 1002.

C. Procedural History

The CAISO believes SDG&E is in the best position to provide the most accurate procedural history of this proceeding.

II. NEED FOR THE PROJECT

A. Economic Benefits

As noted, the CAISO did not view its role in this proceeding as determining "need" or "if" a transmission project associated with the Otay Mesa PPA should be constructed. Instead,

based on D.04-06-011, the CAISO assumed a prior Commission finding of "need" for both the Otay Mesa PPA and transmission, and therefore addressed whether the proposed Transmission Project constituted the appropriate electrical alternative for allowing Otay Mesa to constitute an "internal" to SDG&E's local reliability area to satisfy local reliability needs. Accordingly, the CAISO did not perform a cost-effectiveness analysis, such as its Transmission Economic Assessment Methodology, currently being reviewed in I.00-11-001 and applied to Southern California Edison's Palo Verde-Devers #2 project, to determine whether the Otay Mesa with the needed Transmission Project constitutes the most cost-effective and viable method for SDG&E to meet its resource adequacy requirements. (ISO-2 at 7:1-4.)

Nevertheless, the CAISO's analysis finding that the Transmission Project would render Otay Mesa fully deliverable confirms that the Transmission Project would permit displacement of existing RMR generation in the SDG&E service territory. The CAISO noted that "[t]he cost savings will come in the form of lower variable RMR costs because older, less efficient units will be dispatched less frequently. For example, in 2003, variable costs payments associated with South Bay totaled approximately \$75 million." (ISO-1 at 28:25-29:3.) This is consistent with SDG&E's estimated annual RMR savings due to Otay Mesa with the Transmission Project of approximately \$45-40 million. (SD-8 at 2:5-8.)

B. Reliability Benefits

The CAISO believes that an examination of reliability benefits is unnecessary given D.04-06-011's finding of project need. Nevertheless, as summarized in the introduction, the CAISO has found that the Transmission Project provides numerous reliability benefits to SDG&E and California ratepayers, including preventing Otay Mesa generation from increasing

addresses these concerns.

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transmission congestion north of Miguel substation, providing greater operational flexibility during scheduled outages, improving system voltage, and reducing the quantity of generation and load that must be tripped during a Miguel corridor outage. (See, e.g., ISO-1 at 16:4-17:4, 28:1-10, 30:6-32:10.)

C. Reasonableness of Project Costs

The CAISO did not perform a comprehensive review of the cost of the Transmission Project and other proposed alternatives. Rather, the CAISO reviewed SDG&E's cost information included in its Facilities Study on the Transmission Project and alternatives and determined that such cost estimates appeared "reasonable." (ISO-1 at 18:18-23.) The CAISO further considered these cost estimates in selecting the Transmission Project as the preferred transmission plan. (ISO-2 at 7:4-6.)

III. ALTERNATIVES

The CAISO performed a thorough analysis of proposed alternatives in determining the most optimal electrical solution to achieve the benefits envisioned by D.04-06-011. The CAISO concluded that the Transmission Project was the superior alternative. (ISO-1 at 8:13-14.) No party has contested this outcome. ORA states that "[i]f D.04-06-011 determined that the Otay Mesa plant with the CEC-approved interconnection would not satisfy SDG&E's local reliability needs, then there really is no alternative but to approve the proposed \$162 million project." (ORA-1 at 2:20-22 [emphasis added].)

As discussed above, any finding that transmission upgrades beyond those minimally necessary to interconnect to the CAISO Controlled Grid directly conflicts with D.04-06-011's

approval of the Otay Mesa PPA. In addition, the CAISO testified that the CEC-approved interconnection, referenced as Scenario 1 in the CAISO's testimony, fails to provide fully integrated capacity from Otay Mesa. Otay Mesa cannot displace any RMR generation in this scenario and does not contribute to SDG&E resource adequacy requirements. In other words, Otay Mesa cannot be considered a resource "internal" to SDG&E's local reliability area and therefore cannot meet ORA's threshold of "satisfy[ing] SDG&E's local reliability needs." (ISO-1 at 19:5-16 and 8:22-9:18.)

Notwithstanding the absence of any dispute over the superior alternative, for the convenience of the ALJ, the CAISO incorporates from its testimony (ISO-1 at 33-34) the conclusions regarding the analyzed alternative scenarios:

Transmission Alternatives to the Transmission Project			
Alternative	Advantages	Disadvantages	
1. Miguel-Mission #3 230 kV line instead of Miguel-Old Town	Provides full deliverability. Does not contribute to north of Miguel congestion. Strong 230 kV power source. Reduces RMR cost by displacing RMR generation. Provides for future load growth. No generation tripping and minimal load tripping for Miguel corridor outage. These advantages are the same as for the preferred alternative	Likely higher costs due to longer underground section. Higher losses. Several disadvantages are the same as the Transmission Project: requires full dispatch of South Bay generation, Path 45 (CFE export) constraints may be required, and closing of the Miguel 230 kV tap breakers not possible due to high short circuit duty at Miguel and Tijuana.	
2. Miguel-Mission #3 230 kV line instead of the Miguel-Old Town, a new line to connect Tijuana to Miguel instead of to Otay Mesa	Less congestion north of Otay Mesa due to Tijuana-Miguel line. Other advantages are the same as in Alternative 1 and preferred alternative.	Potentially significantly higher cost due to the new Otay Mesa-Miguel line section. Congestion north of Miguel with high CFE export. Higher load tripping for Miguel corridor outage.	
3. Miguel-South Bay 230 kV line instead of the Miguel-Old Town, upgrade South Bay to 230 kV, additional lower voltage upgrades	Same as preferred alternative in the absence of South Bay generation if no additional upgrades are implemented	Likely higher cost due to 69 and 138 kV upgrades to eliminate overload with high South Bay generation. Requires new 230 kV switchyard and 230/138 kV banks at South Bay, which may become not needed with the Long-term Plan for South Bay. Not efficient long-term solution, 230 kV loop not completed. Prohibits simultaneous dispatch of Otay Mesa and South Bay without upgrades. Path 45 (CFE export) constraints may be	

Transmission Alternatives to the Transmission Project		
Alternative	Advantages	Disadvantages
		required, same as in the preferred alternative. Possible need to sectionalize the 69 kV system. Excessive generation trip with Miguel corridor outage. Higher losses. Additional overstressed breakers if South Bay does not retire.
4. Build only Miguel –Sycamore 230 kV line, no second line	Lower cost	Does not provide full deliverability. No 230 kV source in downtown. Provides congestion at South Bay and Miguel. Excessive generation trip with Miguel corridor outage. Higher losses.

IV. CONCLUSION

Based on the foregoing, the CAISO respectfully requests that the ALJ provide the Commission with a proposed decision finding that the Transmission Project is needed and constitutes the electrically optimal solution to achieving the Commission's objectives in approving the Otay Mesa PPA in D.04-06-011.

April 15, 2005

Respectfully Submitted:

Grant A. Rosenblum

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PROOF OF SERVICE

I hereby certify that on April 15, 2005 I served, by electronic and United States mail, the Opening Brief of the California Independent System Operator Corporation in Docket #A.04-03-008.

DATED at Folsom, California on April 15, 2005.

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