

**AMERICAN ARBITRATION ASSOCIATION  
COMMERCIAL ARBITRATION TRIBUNAL**

**In the Matter of the Arbitration between**

**SAN DIEGO GAS & ELECTRIC COMPANY, a  
California Corporation**

**Claimant**

**V.**

**No. 71 Y 198 00420 1**

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR,  
a California Nonprofit Benefit Corporation.**

**Respondents**

**ADMINISTRATOR: Jeremy T. Jackson**

**AWARD OF ARBITRATOR**

**I, THE UNDERSIGNED ARBITRATOR having been designated in accordance with the procedures of the Commercial Arbitration Rules of the American Arbitration Association and having been duly sworn and having duly heard the proofs and allegations of the parties hereby, AWARD, as follows:**

**INTRODUCTION**

**Claimant, San Diego Gas & Electric Company initiated this arbitration proceeding on July 6, 2001. The Respondent, California Independent System Operator, responded to the arbitration claim on August 3, 2001. The Arbitrator was appointed on March 13, 2002. A procedural schedule was jointly proposed by the parties and approved by the Arbitrator on April 2, 2002. The parties thereafter submitted written direct testimony of their witnesses and a hearing was held in San Francisco, California on April 15 and 16, 2003 at which time the witnesses were cross examined on their written direct testimony.**

Post hearing briefs were filed. Claimant requested that the record be supplemented and the request was granted. A final argument was telephonically conducted on September 12, 2003. The record was formally closed on September 17, 2003 following receipt of the transcript of the final argument. Counsel for both parties have done an outstanding job of effectively and efficiently presenting the positions of their clients. The clients have been well served.

The issues in this proceeding arise from legislative changes in the California electric utility regulatory design. The design changed from a fully regulated monopolistic system to one where regulated competition is now permitted. The issues in this matter arise from those changes.

Under the former regulatory design, electric utilities were required to make the investments and contracts necessary to serve the customers in their service territory. In return, the electric utilities were permitted the opportunity to earn a regulated return on the investments made to serve those customers. Those investments and many contracts required the approval of the appropriate regulatory bodies. This design was commonly referred to as the "regulatory compact." The new design, as applicable here, permits competitive generation and non-discriminatory access to transmission.

With any new legislation, there are always a number of things that must be worked out in the implementation of the new law. Electric deregulation in California required many changes in the way California utilities operated. The new legislation acknowledged those changes would affect existing commitments and contracts, but required that existing contracts be recognized and accommodated.

CALISO was created to fulfill a specific responsibility. The ISO Tariff which governs CALISO's activities and the activities of those it serves is very comprehensive, but with any document of this magnitude, there are areas where disagreements arise over coverage and application. In this case, CALISO appears to have chosen an interpretation of the facts in and OF the ISO Tariff with which the Arbitrator cannot agree. The facts, language of the ISO Tariff and the policy of the legislation require an award to SDG&E.

Any suggestion that the claim in this case should be denied because it is somehow offset by other benefits of deregulation is without merit. This conclusion is supported by the policy of the law which requires that existing contractual rights be recognized and accommodated. There is no reason that the provisions of the preexisting contracts at issue in this matter should not be

accommodated by CALISO. The Arbitrator recognizes that it may take some effort to spread the cost of this award to the appropriate customers, but unless that is done, the shareholders of SDG&E may have to bear the costs of the change in the law and its affect on the contracts in question.

While there are many issues that arise from such legislative and regulatory changes, participants in the system should not be required to try and guess which is the proper way to have the system reflect the proper cost allocation. The costs in question in this matter have been the subject of litigation in various forums for several years. This award should resolve the issues in this case once and for all.

Both Claimant and Respondent have advised the Arbitrator that no matter what decision the Arbitrator makes, the party receiving the adverse decision will appeal this Award to the Federal Energy Regulatory Commission. Such an appeal is permitted by law. The Commission will base its decision upon the record established in this arbitration proceeding which made it very important that this record be complete to avoid the need for FERC to return the matter to the Arbitrator for additional testimony.

### FINDINGS OF FACT

#### Parties

1. San Diego Gas & Electric Company (hereinafter "SDG&E") is a California corporation with its principal place of business at 8330 Century Park Court, San Diego, California. SDG&E is the Claimant in this proceeding 92123.

2. The California Independent System Operator Corporation (hereinafter "CALISO") is a nonprofit public benefit corporation organized under California law with its principal place of business at 151 Blue Ravine Road, Folsom, California 95630.

#### Ownership and Operation of the Southwest Power Link (SWPL)

3. The Southwest Power Link (hereinafter "SWPL") is a 292 mile, 500 kV transmission line from, until last year, Palo Verde Nuclear Generating Station switchyard in Arizona to the Miguel Substation of SDG&E in San Diego County, California. SWPL currently runs from Hassayampa Substation which is adjacent to the Palo Verde switchyard.

4. SWPL interconnects to the Arizona Public Service Company (hereinafter "APS") control area at the North Gila Substation near Yuma, Arizona and to the Imperial Irrigation District (hereinafter "IID") control area at the Imperial Valley Substation in California. The current transfer rating of SWPL, as recognized by the Western Electricity Coordinating Council (hereinafter "WECC") is 1,273 MW from Palo Verde to North Gila and 1,331 MW from North Gila to Miguel.

5. Under the terms of contracts entered into in 1981 and 1983 (hereinafter "Participation Agreements"), SDG&E transferred undivided interests in portions of SWPL to APS and IID. A June 24, 1981 agreement referred to as the "Arizona Participation Agreement", transferred to APS an undivided interest in the segment of SWPL from Palo Verde to North Gila. Two agreements entered into on May 1, 1983, known as the "California Participation Agreement" and the Arizona Transmission System Assignment of Interests" transferred to IID undivided interests in the North Gila Imperial Valley and Palo Verde North Gila sections of SWPL.

6. With the transfers of ownership under the Participation Agreements, SWPL is owned jointly by SDG&E, APS, and IID. The ownership shares vary on the three segments of the line as follows: the Palo Verde-North Gila segment is owned by SDG&E, APS and IID in shares of 76.22%, 11% and 12.78% respectively; the North Gila-Imperial Valley segment is owned by SDG&E and IID in shares of 85.64% and 14.36% respectively. The Imperial Valley-Miguel segment is 100% owned by SDG&E.

7. APS and IID control the use of their respective portions of SWPL. APS and IID do not serve load in the ISO Controlled Grid or in the ISO Control Area, nor do they rely on the energy markets of CALISO to serve that load. APS uses its portion of SWPL to deliver energy it acquires to load at its North Gila Substation. IID uses its portion of SWPL to deliver energy it acquires to load in the Imperial Valley at the Imperial Valley Substation. These loads served by APS and IID by means of SWPL lie in their own respective control areas and not in the control area of CALISO. Under the Participation Agreements, SDG&E is assigned to coordinate schedules on SWPL to meet the North American Electric Reliability Council and WECC reliability requirements. The Participation Agreements define this coordination role as "Scheduling Agent" and requires SDG&E, subject to prudent operating practices to implement the energy schedules provided to it by APS and IID for their respective portions of the line.

8. The Participation Agreements provide that SDG&E and APS share responsibility for the physical operations of SWPL. The Arizona Participation Agreement provides that APS is the operator of SWPL in Arizona between North

Gila and the Palo Verde Switchyard. Although SDG&E is responsible for coordinating energy schedules on the entire line, APS is responsible under the Arizona Participation Agreement for actual physical operation, (switching and maintenance) of the SWPL transmission facilities in Arizona. The California Participation Agreement provides that SDG&E is to serve as the operator of the SWPL facilities in California.

9. The Participation Agreements also provide that if an owner of SWPL capacity does not use that capacity, the co-owners may use the unused capacity on a non-firm basis.

#### Formation of CALISO

10. As part of the restructuring of the California electricity market, CALISO was formed to insure efficient, reliable, and non-discriminatory operation of the electric transmission grid throughout most of California. The legislation and orders directing the creation of CALISO also directed SDG&E, Southern California Edison Company (hereinafter "SCE") and Pacific Gas & Electric Company (hereinafter "PG&E") (jointly, "Participating TOs") to transfer control over, but not ownership of, their respective transmission systems to CALISO.

11. Transfer of control of the transmission systems to CALISO was accomplished through the execution of a Transmission Control Agreement (hereinafter "TCA") with the Participating TOs, including SDG&E. The Participating TOs also sought Federal Energy Regulatory Commission (hereinafter "FERC") authorization for the transfer under section 203 of the Federal Power Act. FERC authorized the transfer in *Pacific Gas & Electric Co., et al*, 81 FERC 61,122 (1997). Other than the TCA, as approved by FERC, no other legislative, regulatory or contractual provision appears to provide for the transfer of Operational Control of public utility facilities to CALISO.

12. In accordance with the TCA signed by SDG&E and the FERC authorization, CALISO assumed control of the facilities transferred by SDG&E as of March 31, 1998, the CALISO operations date.

13. APS and IID did not execute a TCA with CALISO. APS and IID did not apply to FERC to transfer control of their share of SWPL to CALISO.

14. The TCA provides CALISO with "Operational Control" over the transferred facilities. The TCA defines "Operational Control" as

The rights of the ISO under the Transmission Control Agreement and the ISO Tariff to direct Participating TOs how to operate their

transmission lines and facilities and other electric plant affecting the reliability of those lines and facilities for the purpose of affording comparable non-discriminatory transmission access and meeting Applicable Reliability Criteria.

15. The TCA describes the facilities that are to be placed under Operational Control of CALISO in Appendices. Appendix A lists the facilities and Entitlements of the transmission owner over which CALISO will assume Operational Control. Entitlement is defined in the CALISO Tariff as "the right of a Participating TO obtained through contract or other means to use another entity's transmission facilities for the transmission of Energy". Appendix B lists any Encumbrances to the transferred facilities. An Encumbrance is defined as

A legal restriction or covenant binding on the Participating TO that affects the operation of any transmission lines or associated facilities and which the ISO needs to take into account in exercising Operational Control over such transmission lines or associated facilities if the Participating TO is not to risk incurring significant liability.

16. In Appendix A to the TCA, SDG&E pictured SWPL with the Palo Verde-North Gila and North Gila-Imperial Valley segments, the segments that are less than 100% owned by SDG&E, as being "co-owned".

17. SDG&E also listed the Participation Agreements as "Encumbrances" in Appendix B on SDG&E's interest in SWPL, specifying each co-owner's share in the scheduling rights on the line. Because the Participation Agreements provided SDG&E with non-firm rights on the APS and IIS shares of SWPL, SDG&E listed the contracts as "Entitlements" in Appendix A, again listing each co-owner's scheduling rights. The Participation Agreements were listed because APS and IID, under their respective contracts, have first claims on any SWPL capacity owned, but not used, by SDG&E. SDG&E has corresponding rights on SWPL capacity owned, but not used, by its two co-owners.

18. The designation of SWPL as "co-owned" in Appendix A and the inclusion of the Participation Agreements in Appendices A and B made it clear that SDG&E was not transferring Operational Control over the APS and IID shares of SWPL.

19. On the day CALISO assumed Operational Control of the SDG&E facilities transferred by the TCA (March 31, 1998), SDG&E in a letter told CALISO that it was "transferring Operational Control only for that portion of the SWPL that it owns." A chart was attached to the letter specifying again the

respective ownership shares of the three owners in each segment of SWPL, as well as their secondary rights to unused capacity on each others' shares. CALISO responded on April 6, 1998, acknowledging the shared ownership of SWPL and indicated that it had passed the information on to operations and settlement personnel "so that transactions over the SWPL can be conducted and billed properly."

20. Since CALISO began operations, APS and IID have continued as owners to determine the use of their respective shares of SWPL. APS and IID do not submit their schedules for approval under the ISO Tariff, and with respect to such schedules, they are not subject to the non-discrimination requirements or access charges of that tariff.

21. APS and IID determine whose energy, at what times, and in what amounts will be carried over their capacity on SWPL; CALISO does not make those determinations. CALISO does not determine how such capacity is used and does not include that capacity in determining how much capacity is available for use by third parties under the ISO Tariff. Under the definition of Operational Control in the ISO Tariff, CALISO cannot and does not direct SDG&E, any other Participating TO, or APS and IID how to operate the APS and IID shares of SWPL "for the purpose of affording comparable nondiscriminatory transmission access."

22. SWPL is not the only jointly owned line over which some, but not all, owners have conveyed Operational Control to CALISO. The same is true of the Mead-Phoenix line, where the Cities of Azusa and other California municipalities, by executing the TCA, have conveyed Operational Control over only their shares to CALISO. The same is also true of the Pacific High Voltage DC line, where SCE and PG&E have done the same. Both lines are outside the CALISO Control Area. Portions of certain jointly owned lines within CALISO's Control Area have not been turned over to CALISO's Operational Control. The California Oregon Transmission Project is an example.

23. The identification of the co-owned portions of SWPL in the Appendices to the TCA by SDG&E was similar to the City of Azusa's identification of the co-owned portions of the Mead-Phoenix line in the TCA. Like the City of Azusa, SDG&E did not evidence an intent to convey to CALISO Operational Control anything other than its own share of SWPL. The identification of the facilities SDG&E was conveying to CALISO was more thorough and detailed than the City of Azusa's identification of the Mead-Phoenix line.

24. CALISO's lack of Operational Control over those portions of SWPL owned by APS and IIS does not affect CALISO's ability to exercise Operational

Control of SDG&E's portion of SWPL. CALISO can exercise Operational Control over a portion of a jointly owned line as demonstrated by its Operational Control over only portions of the Mead-Phoenix and Pacific High Voltage DC lines. The lack of Operational Control over only a part of a jointly owned line does not prevent CALISO from carrying out its Control Area functions for such lines. In fact, certain responsibilities for reliable operation of portions of SWPL east of the Colorado River are assigned to APS rather than CALISO.

Transmission Losses

25. Transmission losses, or line losses, occur when electrical energy is transmitted from the generating source to the consumer. These losses result from the electrical resistance of the conductors transmitting the energy. The location of the generator in relation to the point where the energy is consumed affects the amount of the losses.

26. In the Participation Agreements, SDG&E, APS & IID agreed upon the methodology for computing and allocating transmission losses over SWPL. Under the contracts, losses are not estimated, but are determined according to measurements of actual power flows. APS and IID compensate SDG&E for transmission losses by return of energy to SDG&E in amounts equal to the losses calculated according to the power flow studies.

27. The ISO Tariff uses Generator Meter Multipliers (hereinafter GMMs) to determine the affect of system transmission losses due to incremental, or marginal, injection of generation into the grid by any particular generator or scheduled energy import. Conceptually, this method measures losses at each supplier node by injecting one MW of power at a node and allocating the one MW injection pro rata to all loads in the CALISO system, while taking into account incremental transmission losses. The calculation assumes that generation or energy scheduled on the transmission lines will serve the incremental load spread throughout California proportionally to existing load.

28. The load served by APS and IID over their respective portions of SWPL are located at the southeast extremity of the ISO Controlled Grid. Therefore, the methodology provided in Section 7.4 of the ISO Tariff for calculating transmission losses assigns substantially higher losses than under the methodology in the Participation Agreement, and accordingly higher losses than actually occur.

29. Beginning on March 31, 1998, the operational date of CALISO, it applied the methodology of Section 7.4 of the ISO Tariff to energy scheduled by APS and IID over their respective portions of SWPL, and imposed the result charges on SDG&E.



30. The difference in the way transmission charges are calculated under the Participation Agreements and the ISO Tariff, produced charges to SDG&E by CALISO through December 31, 2002 of \$18,992,007.21 more in loss charges paid to CALISO for energy scheduled by APS and IID over their respective shares of SWPL than it received from APS and IIS as compensation for losses under the respective Participation Agreements. Interest on that figure through February 2003, calculated in accordance with FERC regulations at C.F.R. Section 35.19a(a)(2)(iii), totals \$2,261,129.29

31. The issue of CALISO charges for losses related to energy scheduled over the APS and IIS shares of SWPL have been the subject of disagreement between the parties since March 1998. Since the disagreement could not be resolved, this arbitration proceeding was initiated.

32. Since CALISO began operations, SDG&E has proposed various operational adjustments to eliminate the mismatch between the amounts it received for losses from APS and IID and the amounts for those losses claimed by CALISO. Such adjustments have been opposed by CALISO.

#### CONCLUSIONS OF LAW

1. This matter has been properly submitted for arbitration under Section 3.1.1 of the ISO Tariff.

2. The ISO Tariff limits the ISO Controlled Grid to those facilities that have been placed under the ISO's Operational Control.

3. SDG&E could not and did not transfer to CALISO Operational Control over those portions of SWPL owned by APS and IID. Therefore, the APS and IID portions of SWPL are not part of the ISO Controlled Grid.

4. Since the APS and IID owned portions of SWPL are not part of the ISO Controlled Grid, Section 7.4 of the ISO Tariff does not apply to energy schedules on their respective shares of the line.

5. Since the APS and IID portions of SWPL are not part of the ISO Controlled Grid, APS and IID are not Market Participants, and SDG&E is not a Scheduling Coordinator for energy scheduled on the portions of SWPL owned by APS and IID.

5. CALISO exceeded its authority to under the ISO Tariff by imposing its transmission loss methodology to transactions on facilities which are not part of the ISO Controlled Grid.

6. SDG&E is not a Scheduling Coordinator for energy scheduled on the APS and IID portions of SWPL and therefore Sections 11.7.2 and 11.7.3 of the ISO Tariff are not applicable to the claims of SDG&E. The record does not support any other time bar to these claims such as laches. The SDG&E claim has been the subject of discussion and disagreement since 1998.

### **AWARD**

It is hereby ORDERED that SDG&E be awarded the sum of \$18,992,007.21, the difference between what SDG&E paid to CALISO for transmission losses on the APS and IID transactions on SWPL and what SDG&E received from APS and IID for the period March 31, 1998 and December 31, 2002, and the sum of \$2,281,199.29 in interest through December 31, 2002 calculated in accordance with FERC regulations at 18 C.F.R. Section 35.19a(a), the total through December 31, 2002, being \$21,253,136.50.

It is FURTHER ORDERED that SDG&E be awarded the costs for the difference between what SDG&E paid to CALISO for transmission losses on the APS and IID transactions on SWPL and what SDG&E received from APS and IID since January 1, 2003, plus any charges under ISO Account Nos. 407 and 487 invoiced by CALISO and paid by SDG&E, together with interest calculated in accordance with FERC regulations at 18 C.F.R. Section 35.19a(a).

It is FURTHER ORDERED that the parties each bear their costs and attorney fees for this proceeding.

It is FURTHER ORDERED that counsel for the parties prepare a stipulated record for the appeal to FERC. Counsel have already agreed to provide this stipulated record.

**The Award is in full settlement of all claims submitted to this Arbitration.  
All claims not expressly granted herein are, hereby denied.**

SIGNED:  DATED: October 23, 2003  
JAMES W. DURHAM, ARBITRATOR