Exh. No. ISO-1

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Turlock Irrigation District and	)	
Modesto Irrigation District	)	
	)	Docket No. EL99-93-000
California Independent System	)	
Operator Corporation	)	

ANSWERING TESTIMONY OF
DEBORAH A. LE VINE
ON BEHALF OF THE
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION

Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is Deborah A. Le Vine. I am the Director of Contracts for the California Independent System Operator Corporation ("ISO"). My business address is 151 Blue Ravine Road, Folsom, California 95630.

Q. PLEASE DESCRIBE YOUR PRESENT RESPONSIBILITIES AT THE ISO.

A. As the Director of Contracts, I am responsible for negotiation and administration of all *pro forma* agreements executed by Market Participants and reliability agreements executed by certain Generators and/or Loads.

Q. DO YOU HAVE ANY OTHER RESPONSIBILITIES AT THE ISO?

A. Yes. Since October 1998, I have been the project leader for the ISO's development of a new transmission Access Charge that California Assembly Bill 1890 required be developed.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I received a Bachelor of Science degree in Electrical Engineering from San Diego State University in San Diego, California in May 1981. In May 1987, I received a Master in Business Administration from

Pepperdine University in Malibu, California. Additionally, I am a registered Professional Electrical Engineer in the State of California.

Q. HAVE YOU PROVIDED TESTIMONY IN OTHER REGULATORY PROCEEDINGS?

A. Yes. I have submitted testimony in Docket Nos. ER98-1057-000, *et al.* concerning the ISO's Responsible Participating Transmission Owner Agreements; Docket Nos. ER98-992-000, *et al.* pertaining to the ISO's Participating Generator Agreements ("PGA"); Docket Nos. ER98-1499-000, *et al.* involving the ISO Meter Service Agreements for Scheduling Coordinators and ISO Metered Entities; Docket Nos. ER98-997-000, *et al*. ("QF PGA proceeding"), regarding the application of the ISO's Participating Generator Agreement to qualifying facilities ("QFs"); Docket Nos. ER01-66-000, *et al*. regarding Pacific Gas and Electric Company's Transmission Owner Tariff; Docket Nos. ER00-2019-000, *et al.* involving the ISO's transmission Access Charge filing as required by California State Legislation; Docket Nos. ER00-2360-000, *et al.* regarding the Pacific Gas and Electric Company Reliability Service Tariff; Docket Nos. ER01-66-000, *et al.,* regarding Pacific Gas and Electric Company Transmission Owner Tariff; Docket Nos. ER01-839-000, *et al*. regarding PG&E's transmission Access Charge implementation; Docket Nos. ER01-831-000, *et al*. regarding San Diego Gas & Electric Company's transmission Access Charge implementation; Docket Nos. ER01-832-000, *et al*. regarding

Southern California Edison Company's transmission Access Charge implementation, and Docket Nos. ER01-313-000, *et al*. regarding the ISO's position with regard to certain billing determinants for the ISO's Grid Management Charge ("GMC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to respond to the Direct Testimony of Paul G. Scheuerman (Exh. No. TID-1) regarding the requirements that the ISO Tariff imposes as a precondition to the sales of Ancillary Services and Supplemental Energy in the ISO's markets. Mr. Deane Lyon will also respond to portions of Mr. Scheuerman's testimony from an operational perspective.

Q. AS YOU TESTIFY, WILL YOU BE USING ANY SPECIALIZED TERMS?

A. Yes. I will be using terms defined in the Master Definitions Supplement, Appendix A of the ISO Tariff.

Q. SUMMARIZE YOUR UNDERSTANDING OF THE TESTIMONY OF MR. SCHEUERMAN.

A. Mr. Scheuerman objects to the requirement that the owner of a Generating Unit located in the ISO's Control Area enter into a PGA with the ISO as a precondition to selling Ancillary Services and Supplemental Energy in the ISO's markets. He asserts that if TID signs a PGA, such an agreement would impose excessive and unnecessary burdens on TID. Further, he contends that the requirement is discriminatory because generating units in other Control Areas, which he claims are similarly situated, are not required to sign PGAs.

Q. WHAT IS A PGA?

A. The PGA is an agreement between the ISO and a Participating Generator that establishes the terms and conditions for the Generator's participation in the ISO's markets, largely by establishing the applicability of the relevant provisions of the ISO Tariff, and specifically binds the Participating Generator to the terms and conditions of the ISO Tariff. The PGA addresses both a Generating Unit's participation in the ISO's markets and its role in the ISO's operation of the ISO Control Area in a safe and reliable manner in accordance with Good Utility Practice and applicable standards for Control Area operation. The ISO's pro forma PGA is on file with and has been accepted by the Commission.

Q. WHAT IS THE PURPOSE OF A PGA?

A. The PGA was established to facilitate the relationship between the ISO and Generating Units in the ISO Control Area that are interconnected directly or indirectly to the ISO Controlled Grid and that schedule Energy or Ancillary Services. The PGA is part of the series of agreements that, together with the ISO Tariff, were deemed necessary to implement the restructured electric industry in California and the associated competitive market structure for Energy and Ancillary Services. The PGA is applicable to Generators (with the exception of certain types of facilities that have existing power purchase agreements with Utility Distribution Companies or Existing Contracts with Participating TOs) who wish to schedule Energy or participate in the ISO's Supplemental Energy, Congestion Management, or Ancillary Services markets, as applicable, by submitting Schedules and bids through a Scheduling Coordinator to the ISO. The PGA sets out the procedures that the parties agree will govern the manner in which the Participating Generator's facilities will interface with the ISO and the ISO Controlled Grid.

Q. WHAT IS INCLUDED IN THE *PRO FORMA* PGA?

A. First and foremost, the *pro forma* PGA includes an acknowledgement that the reliability of the ISO Controlled Grid depends on the Participating Generator's compliance with the ISO Tariff. The PGA also addresses matters such as Generating Unit technical characteristics, certification requirements, and data requirements relating to major incidents including emergencies that affect the reliability of the ISO Controlled Grid, for which the ISO has responsibility under California law.

Q. WHY IS THE PGA NECESSARY?

A. The PGA is the mechanism through which the ISO establishes the terms and conditions upon which Generating Units in its Control Area participate in its markets and obtains the necessary rights to direct the operation of Generating Units for it to meet its responsibilities as a Control Area operator. Mr. Lyon will describe the ISO's responsibilities as a Control Area operator.

Q. MR. SCHEUERMAN STATES THAT A PGA REQUIRES THE RELINQUISHMENT OF CONTROL TO THE ISO. DO YOU AGREE?

A. Quite the opposite is true. The organizing principle of the ISO's markets is to give greater flexibility to Market Participants, while preserving the ISO's ability to ensure that reliability is maintained. Indeed, the owner of a Generating Unit retains the flexibility to determine whether, and on what economic terms, to participate in the ISO's markets. The execution of a PGA does not require a municipal utility (or any other Market Participant) to bid the resource into any of the ISO's markets. The Scheduling Coordinator representing that particular Generating Unit is responsible (subject presumably, to the direction of the Generator) for submitting Schedules and bids to the ISO, reflecting the quantities and prices it desires to supply, into the ISO's Ancillary Services, Congestion Management, and Supplemental Energy markets. A Scheduling Coordinator has the flexibility to specify a different set of capability options for its unit from hour to hour because the ISO's markets are conducted on an hourly basis. If the Participating Generator does not want to bid into the ISO markets, then it is not required to do so. If the Participating Generator desires to use its Generating Unit for its own purposes, then it need only tell the ISO that it is self-providing.

Q. UNDER WHAT CIRCUMSTANCES CAN THE ISO EXERCISE CONTROL OVER A GENERATING UNIT OWNED BY A PARTICIPATING GENERATOR?

A. The ISO is only authorized under the ISO Tariff to exercise control over the operation of Generating Units owned by Participating Generators when a System Emergency has occurred or is imminent. That limitation is explicit in the ISO Tariff language quoted by Mr. Scheuerman. All other references in the ISO Tariff to the ISO's ability to dispatch or curtail a Participating Generator apply only when the Generating Unit has been bid into the ISO's markets or has contracted with the ISO.

Under Western Systems Coordinating Council ("WSCC") criteria, the ISO, as the Control Area operator, needs the ability to exercise control in emergency situations. California law and the ISO Tariff require the ISO, in its role as Control Area operator, to maintain the reliability of the ISO Controlled Grid in accordance with WSCC criteria.

In a data response subsequent to his testimony, which I have attached as Exhibit No. ISO-2, Mr. Scheuerman suggests that, under Section 2.3.1.1.3 of the ISO Tariff, the ISO's ability to control the output of Generating Units that are bid into the ISO's markets is not limited to the amount of Generation bid. This is a novel interpretation of the Tariff provision, and one not advanced by any party – including TID – during the Commission proceedings in which this provision was approved. The ISO has never asserted such authority. This is simply not a reasonable interpretation, and provides no basis for concluding that the ISO can exercise excessive control over the Generating Units of Participating Generators.

Q. WHAT ABOUT THE ISO'S ABILITY TO CONTROL THE SCHEDULING OF OUTAGES?

Recently the Commission extended ISO control over Outages of Generating Units. The Commission recognized that the current circumstances in California require greater coordination of Outages. Without this coordination, too many Generating Units out of service simultaneously could jeopardize the reliability of the ISO Control Area.

Nonetheless, the ISO still does not schedule Outages. Under the ISO Tariff, the Participating Generator schedules the Outage in the first instance and seeks ISO approval. Only if the scheduled Outage would interfere with System Reliability may the ISO deny the request. However, even if the ISO denies the initial request, the ISO Outage Coordination Office works with the Participating Generator to determine a mutually agreeable time for the Outage.

Thus, the ISO's ability to exercise control over a Generating Unit is minimal. It is restricted to the control necessary to ensure System Reliability, as recognized by the WSCC, the Commission, and California law.

Q. MR SCHEUERMAN ALSO OBJECTS TO THE ISO'S REQUIREMENTS FOR METERING AND DATA COLLECTION. WHAT IS THE PURPOSE OF THOSE REQUIREMENTS?

A. The ISO needs the metering and data information for appropriate monitoring and settlement of Ancillary Services and Imbalance Energy that are bid into the ISO markets. The ISO requires telemetry data (i.e., real time meter data communicated to the ISO) from each Generating Unit of a Participating Generator so that during the operating hour the ISO's operators can know what the status of the unit is, and if needed compare that to the Generating Unit's Schedule. Mr. Lyon further describes the ISO's need for telemetry data.

The ISO requires revenue-quality meter data in order to ensure that Energy outputs and Ancillary Services are measured as accurately as possible for purposes of crediting and compensating Participating Generators for their power and to ensure that the costs of the services that the ISO provides in the ISO Control Area are appropriately allocated to the responsible Scheduling Coordinator. The ISO allocates costs for ISO charges such as Ancillary Services based on metered Demand in the ISO Control Area. Without meter data, the ISO cannot properly assess costs and substantial cost shifting is likely to occur.

Indeed, the use by all Market Participants, including Participating Generators, of metering equipment that meets common standards is necessary for the ISO to use its automated data collection, settlements, and billing systems, without which it could not operate its extensive and complex markets. It is particularly important that Generating Units have the most accurate metering possible due to the importance of measuring accurately the services they provide in order to ensure that they are compensated properly for those services. In fact, the ISO Tariff requires that meter data from Generating Units of Participating Generators be polled directly by the ISO in order to minimize any possibility that compensation could be made inaccurately. The only exception to the ISO's metering requirements for Generating Units in the ISO Control Area is that Generating Units that continue to operate solely under the terms of pre-existing contracts are not required to adhere to the ISO Tariff metering requirements until those contracts terminate.

As for generating units providing service to the ISO as System Resources in another Control Area, the ISO measures deliveries from those System Resources through its intertie metering with the neighboring Control Area, and it is the neighboring Control Area operator that is responsible for and ultimately delivers Energy to the ISO through its arrangements with those generating units. That neighboring Control Area operator must impose its own metering requirements on the generating units comprising the System Resource in order to obtain assurance that it actually received the Energy from the generating units that it delivered to the ISO. Additionally, it is up to the neighboring Control Area operator to establish necessary terms and conditions with the System Resource to effectuate the delivery to the ISO because that Control Area operator is taking the responsibility for that transaction regardless of whether the generating unit actually performs.

Q. DO YOU AGREE WITH MR. SCHEUERMAN'S ESTIMATES OF THE COST OF COMPLIANCE WITH THE ISO's METERING AND DATA COLLECTION REQUIREMENTS?

A. Mr. Scheuerman's estimate of $500,000 as the cost of installation of ISO metering at TID's Generating Units and interconnection points seems excessive. While Mr. Scheuerman's testimony provides no basis for his estimate, TID has subsequently responded to a data request and provided the ISO additional information. On the basis of this information, it is the

ISO's understanding that TID has access to fifteen Generating Units and three interconnection points, directly or indirectly, to the ISO Controlled Grid. If we were to assume that the flexibility in the ISO Tariff regarding metering requirements was not applicable, the metering requirements would be as follows. Two of the Generating Units are less than 1 MW and in accordance with Section 5.1.4.1 of the ISO Tariff the ISO's metering requirements would not apply. It is the ISO's understanding that ISO-certified meters are available for a cost of approximately $3,000 per meter (on the high side) and up to a total of $10,000 for installation with all costs included if the installation of each meter is contracted to an outside party. Based on these estimates, the total for meter installation would be approximately $208,000.

However, to date the ISO has worked with Market Participants, including TID, and developed individual metering plans when they make sense. In TID's case, the metering plan would require only a total of nine meters at TID's Generating Units and three meters at the interconnection points. The cost of this configuration would be approximately $156,000. In addition, the accuracy of the existing current transformers ("CTs") may be questionable if they are not within the metering tolerance and therefore may need to be replaced. The ISO was not able during the visit to verify this CT accuracy. In the July 2001 estimate referenced below TID has included additional CTs costs. Meter accuracy, down to 0.3%, and good metering practice is required by the ISO. Thus, using TID's estimates for this additional equipment, the estimated cost for installation of metering in accordance with the ISO's would rise to $172,900.

While the ISO acknowledges that engineering costs associated with the installation of new meters may vary considerably depending on the configuration of the affected electrical systems, the ISO would be surprised if those engineering costs were to add up to as much as Mr. Scheuerman's testimony would suggest. If TID were to use internal engineering staff, as I would expect, the costs should be well below this level.

Also, the additional ongoing costs associated with processing the meter data and communicating it to the ISO that Mr. Scheuerman refers to in his testimony are minimal. Because the ISO requires that the meter data from Generating Units and intertie points be polled directly and processed by the ISO's systems, TID's costs in that regard could be as little as $280.00 per month for the communications circuit to the ISO – which may actually result in a savings to TID to the extent that cost is significantly less than TID currently incurs for the reading and processing of the data from its existing metering systems.

The data provided to the ISO in TID's data response consists of two meter studies (Exhibit Nos. ISO-3 and ISO-4), one study that was done in July 2001 and the other that was done in January 2002. The studies can be summarized as follows:

	July 2001	January 2002	Total
Number of Meters	12	6	18
Number of Spare Meters	2	2	4
Total Cost of Meters	$49,000	$28,000	$77,000
Total Other Costs			
Outside Engineering	$23,200	$6,900	$30,100
Communication Costs	$56,000		$56,000
Additional Equipment	$16,900	$128,860	$145,760
Meter Certification	$18,000	$9,000	$27,000
Installation Labor	$34,450	$61,845	$96,295
Engineering Labor	$6,150	$1,700	$7,850
Contingency	$20,370	$23,631	$44,001
Total	$224,070	$259,936	$484,006
Total Cost/Meter[1]	$18,089	$43,321	$26,500

[1] Because TID need not install the spare meters, the cost of the spare meters is not included in the Total Cost/Meter.

Several items in the foregoing summary stand out as leading to excessive estimates of TID's projected metering costs. First is the assumption of 20% redundancy for meters. Having two meters as backup is probably responsible, but four meters is rather excessive. Since ISO inception, the ISO has seen only a 1% failure rate in the ISO certified meters. TID has also added an estimated $145,760 in costs for additional equipment that, without additional information, might not be required to meet ISO metering requirements. Other Market Participants who contract for this installation have reported to the ISO that the cost is $13,000 per meter maximum, without economies of scale or internal expertise. In addition to an already inflated number, 10% or $44,001 has been added for contingency. Finally, as admitted in TID's January 2002 study, "... it was agreed during these meetings with the ISO that existing metering points which record the total plant delivery would be acceptable." Thus the entire January 2002 study identifying an additional estimated cost of $259,936 calculates a cost that is not needed to meet the ISO's metering requirements.

Q. MR SCHEUERMAN ASSERTS THAT IF TID SIGNED A PGA, IT WOULD HAVE TO SCHEDULE ITS ENTIRE LOAD INTO THE ISO's SA/SI SYSTEM, IS THIS CORRECT?

A. No. The PGA involves the obligations of Generators, not Loads. If TID executed the PGA, it could participate in the ISO's markets by bidding Ancillary Services (with an associated Energy bid) or Supplemental Energy. Each of these products is bid separately into the ISO's markets, although the Energy bids associated with Ancillary Services and the Supplemental Energy bids go into the same bid stack (the "BEEP stack") that the ISO uses to dispatch Imbalance Energy. There is no requirement that a Scheduling Coordinator representing TID's Generation submit a Load Schedule in order to make bids.

If, however, TID were to participate in the ISO's markets as a seller of Imbalance Energy without scheduling its internal Load and the Generation serving that Load, the ISO would not be able accurately to determine how much of TID's metered Generation was Imbalance Energy and how much was being used to serve TID's internal Load. Thus, the ISO would hope and expect that, under such circumstances, TID would schedule its internal Load through a Scheduling Coordinator.

Q. MR SCHEUERMAN ASSERTS THAT, AS A RESULT OF EXECUTING A PGA, TID WOULD BE BILLED THE ISO's GRID MANAGEMENT CHARGE, UNACCOUNTED FOR ENERGY CHARGES, NEUTRALITY ADJUSTMENT CHARGES, REPLACEMENT RESERVE CHARGES, AND POSSIBLY WHEELING ACCESS CHARGES, IN CONNECTION WITH LOAD SERVED BY INTERNAL GENERATION. IS THIS ASSERTION CORRECT?

A. No. These charges have nothing to do with the execution of a PGA. They have to do with scheduling and bidding into the ISO's markets. If by executing the PGA, TID then bids into the ISO's Supplemental Energy or Ancillary Services markets, then that sale incurs the Ancillary Services and Real-Time Energy Operations ("ASREO") component of the Grid Management Charge. Other than that all charges referenced by Mr. Scheuerman are assessed on Load, not Generation. Therefore TID would not incur these charges simply because it executes a PGA.

As I have described previously, however, the ISO would expect that – even absent a requirement to do so – TID would schedule and meter its internal Load. In that case, TID's internal Load will be assessed additional charges. An important component of TID's responsibility for various charges in connection with its internal Load would be section 2.2.4.3(b) of the ISO Metering Protocol, which prohibits the netting of Load and Generating Unit output. I would point out, however, that TID did not even protest the applicability of this provision to all Participating Generators when it was proposed, although it participated in the proceeding involving the PGA, which was resolved by settlement. Similarly the applicability of the GMC to the internal Load of municipalities is at issue in Docket No. ER01-313, which is pending an initial decision by Judge McCartney. TID did not even submit testimony in that proceeding but participated in the settlement and litigation processes.

The fact that TID's Load might be subject to additional charges, however, is not a valid basis for concluding that the ISO is treating TID unfairly. The charges that would ensue if TID scheduled and metered its internal Load would be both appropriate and less than that described by Mr. Scheuerman.

Q. DESPITE THE TENUOUS CONNECTION BETWEEN THE PGA AND THE CHARGES MR. SCHEUERMAN DESCRIBES, COULD YOU

PLEASE DESCRIBE THE GRID MANAGEMENT CHARGES TO WHICH TID'S INTERNAL LOAD WOULD BE SUBJECT?

A. As proposed for 2002, the ISO's current GMC consists of three components: the ASREO Charge, the Congestion Management Charge, and the Control Area Services Charge. The ASREO Charge is allocated according to sales and purchases in the ISO's markets, not according to metered Generation or Demand. Accordingly, TID would be charged according to its market activity, regardless of whether it signs a PGA. Because TID's schedules for its internal Load served by internal Generation would not require transmission across an ISO Inter-Zonal Interface, TID's internally served Load would not pay the Congestion Management Charge – regardless of whether TID executes a PGA. The ISO has proposed to charge the Control Area Services Charge according to Control Area Gross Load, i.e., to all Load in the ISO Control Area, because all such Load benefits from the ISO's services including ensuring Control Area reliability. The propriety of the ISO's proposal is one subject of Docket ER01-313. Regardless of the outcome, however, TID's responsibility will not be affected by whether it signs a PGA. In cases in which the ISO has no gross metering data on Load, the ISO's proposal allocates the charges based on an estimate of the Load.

Q. PLEASE DESCRIBE THE UNACCOUNTED FOR ENERGY CHARGES FOR WHICH TID WOULD BE RESPONSIBLE.

A. Unaccounted for Energy ("UFE") is the difference between the amount of Energy delivered into the Service Area of a Utility Distribution Company ("UDC") and the actual metered Demand within the Service Area. It is billed according to Demand within a UDC Service Area in proportion to the Service Area's contribution to overall UFE. Therefore it is essential for the sake of an accurate UFE calculation and resultant charges that the ISO have the ability to calculate the TID Service Area Load, one component of which is the required quality and quantity of Generating Unit metering. To the extent TID continues to operate under the terms of its Interconnection Agreement with PG&E, it is the terms of that agreement that will govern the assessment of UFE charges that are allocated to TID's Load. Moreover, if TID were also to become a UDC in addition to executing a PGA, it would not be subject to allocation of a pro rata share of PG&E's UFE charges by the ISO but would instead be responsible only for its own UFE.

Q. COULD YOU PLEASE DESCRIBE THE NEUTRALITY CHARGES FOR WHICH TID WOULD BE RESPONSIBLE?

A. The neutrality charge is an allocation in order to assure that the ISO remains cash neutral. Elements include charges and credits for rounding, penalties, amounts required to reach an accounting balance of zero, amounts required for payment adjustment for regulating Energy, and awards payable to or by the ISO pursuant to good faith negotiations or

ADR. Neutrality is charged to Scheduling Coordinators based on the metered Demands they represent, not Generation output.

Q. PLEASE EXPLAIN THE REPLACEMENT RESERVES FOR WHICH TID WOULD BE RESPONSIBLE.

A. Under WSCC criteria, the ISO's "load responsibility" constitutes all firm Load Demand in the Control Area – including that of TID. The ISO must ensure that there are sufficient Operating Reserves at all times for the Load. Because the ISO must replenish those reserves if it calls upon them to provide Imbalance Energy, the ISO must have Replacement Reserves available. Because TID's internal Load benefits from the reliability of the Control Area, it is appropriate for it to bear responsibility for a portion of the Replacement Reserves, regardless of whether TID signs a PGA.

That does not mean, however, that TID must pay the ISO for Replacement Reserves. As with Operating Reserves, TID can self-provide the Replacement Reserves and avoid any charges – or it can obtain those Replacement Reserves from PG&E if the terms of its Interconnection Agreement, or any other arrangement it can negotiate with PG&E, obligate PG&E to provide those Replacement Reserves to the ISO.

Q. MR. SCHEUERMAN ALSO ASSERTS THAT TID WOULD BE BILLED THE WHEELING ACCESS CHARGE IN CONNECTION WITH LOAD THAT IS SERVED BY INTERNAL GENERATION. IS THIS CORRECT?

A. No. The Wheeling Access Charge is assessed on a net basis. TID's internal Load that is served by internal Generation would therefore not bear any Wheeling Access Charges.

Q. WHAT DO YOU CONCLUDE ABOUT MR. SCHEUERMAN'S ASSERTIONS REGARDING THE COSTS IMPOSED UPON TID AS A RESULT OF EXECUTING A PGA?

A. As I have discussed, Mr. Scheuerman's estimates appear quite excessive. Even if they were correct, however, I do not see how these costs would discourage TID from executing a PGA. Mr. Scheuerman estimates annual costs of $3.3 million, and a one time cost of $500,000 for metering – a total of $3.8 million in the first year and $3.3 million per year thereafter. He also estimates that TID has lost $4.6 million in annual revenues. Thus, according to Mr. Scheuerman's estimates, if TID were to sign a PGA, it would net $800,000 in the first year and $1.3 million per year thereafter. I do not see how these costs would discourage TID from signing a PGA.

Q. MR. SCHEUERMAN CLAIMS THAT THE ISO'S POLICY IS DISCRIMINATORY. DO YOU AGREE?

A. No. The ISO requires all Generators with Generating Units within the ISO Control Area, including municipal utilities with Generating Units that are located within their service territories, to sign a PGA in order to participate in the ISO's markets. TID's Generating Units are similarly situated to such Generating Units, so to exempt TID would itself be discriminatory. Additionally, without the execution of the PGA, the ISO has no contractual mechanism to require Generators in its Control Area, such as TID, to perform based on their bids and to settle for any bids accepted by the ISO.

Indeed, there is really no basis for distinguishing TID from the Utility Distribution Companies, Southern California Edison Company, Pacific Gas and Electric Company , and San Diego Gas & Electric Company. Distribution companies may have Generating Units that are, for example, located on their Distribution Systems and serve Loads on the Distribution System. That portion of their Load therefore is served by "internal" Generation in the same manner as TID's. Because these companies rely on the ISO Controlled Grid for the reliability and associated services necessary to serve the Load, the ISO Tariff does not distinguish Load served by Generation connected at the Distribution System level differently from other Load. These companies also self-provide Ancillary Services, as TID asserts it does, but that circumstance does not relieve them from the obligation of executing PGAs for their Generating Units or from compliance with the ISO Tariff. There is no basis for treating TID differently than these companies. To do so would be discriminatory

Q. MR. SCHEUERMAN ALLEGES, HOWEVER, THAT TID IS SIMILARLY SITUATED TO SYSTEM RESOURCES, WHICH ARE NOT REQUIRED TO SIGN A PGA. IS HE CORRECT?

A. No. The situations that Mr. Scheuerman compares are fundamentally different. System Resources are resources located outside the ISO Control Area that can provide Energy or Ancillary Services to the ISO Control Area and where the Control Area operator is taking on the obligation to serve the trade if the generating unit has an outage between when the Control Area check-out is performed and the operating hour. Unlike TID's Generating Units, System Resources do not operate within the ISO Control Area. Utilities that own System Resources do not benefit from the ISO's operation of its Control Area in the same way that utilities within the Control Area do. Instead, owners of System Resources schedule transactions at the ISO's Control Area boundaries through which they send Energy or Ancillary Services to the ISO. As Control Area operator, the ISO's obligations with respect to such external resources are fundamentally different than with respect to internal resources, and it is entirely appropriate that its rights with respect to those resources be different. Mr. Lyon describes those differences in greater detail.

Q. ARE THERE OTHER REASONS WHY MR. SCHEUERMAN'S ASSERTIONS OF DISCRIMINATION FAIL?

A. Yes. Mr. Scheuerman fails to recognize that there are certain corresponding disadvantages to operating as a System Resource under the ISO Tariff. The Tariff places limitations on bidding by System Resources into the ISO markets. These are restrictions that are not placed on Participating Generators within the ISO Control Area, including special requirements for supplying Regulation and a limitation on the total amount of the ISO's requirements for Spinning and Non-Spinning Reserves that can be supplied from generators outside the ISO's Control Area. Additionally, System Resources are limited by the transfer capability between the two Control Areas.

Q. MR. SCHEUERMAN CITES THE RECENT DECISION OF ADMINSTRATIVE LAW JUDGE LEVENTHAL REGARDING THE APPLICABILITY OF THE ISO'S *PRO FORMA* PGA TO QFS, AND ASSERTS THAT, FROM A RELIABILITY STANDPOINT, TID'S SITUATION IS ANALOGOUS.

A. The ISO does agree that a municipal utility's internal Load served by municipally owned internal Generation within the ISO Control Area and on-site Load served by QF Generation within the ISO Control Area are similar from a reliability standpoint in that they are both part of the ISO's

WSCC Load responsibility. For this reason, the ISO believes that Judge Leventhal's decision was wrongly decided and has filed exceptions.

That being said, I will leave it to the lawyers to debate what relevance and weight Judge Leventhal's decision has to this proceeding. I would note, however, that Modesto Irrigation District filed testimony in the QF PGA proceeding regarding the parallels between QF service to on-site Load and municipally owned internal Generation serving municipal Load. SCE moved to strike the testimony, arguing that the municipal Generation and Load was not analogous to QF Generation and Load. A copy of SCE's motion is attached as Exh. ISO-2. Judge Leventhal granted the motion in part. He stated:

> Similarly, MID admits that MID-2, MID-3, and MID-4, are included because "[t]hese three exhibits demonstrate that the gross versus net billing issue has implications beyond this proceeding. . . ." MID's Answer at p. 5. Contrary to MID's intent, this statement lends further support to SCE's and ISO's position that the material is outside the scope of this proceeding. In essence, MID is attempting to include material in order to get a ruling to use in later litigation. It would be difficult to find a more fitting example of improper testimony and exhibits on the ground that it would confuse the record in the instant proceeding.

From a lay person's perspective, it seems that TID is trying to do just what Judge Leventhal was trying to avoid.

Q. MR. SCHEUERMAN ASSERTS THAT THE ISO HAS ARBITRARILY IMPOSED PRECONDITIONS IN ORDER TO EXCLUDE TID FROM THE

ISO'S MARKETS AND FORCE TID TO JOIN THE ISO. IS THIS CORRECT?

A. The ISO certainly believes that the availability of reliable, nondiscriminatory transmission service would be enhanced if TID and other municipal utilities were to join the ISO. My internal confidential memorandum that Mr. Scheuerman attaches to his testimony reflects that fact. Neither the memorandum nor any ISO policy, however, proposes to create obstacles to participation in the ISO's markets in order to achieve that end. (I would note that the memorandum was inadvertently disclosed and all parties receiving the memorandum were immediately asked to destroy the memo without viewing it. TID has declined requests that the released copies be destroyed, despite the irrelevance to this proceeding.)

The ISO is not "excluding" TID from its markets by requiring TID to sign a PGA. If TID signed a PGA without joining the ISO, it could participate in the ISO's markets in the same manner as if it joined the ISO, i.e., turned its transmission facilities over to the Operational Control of the ISO. There would be no requirements imposed on TID by the PGA that would be more onerous than if TID joined the ISO; accordingly, the concept that the requirement that TID sign a PGA is intended to force the TID to join the ISO is baseless.

Q. WOULD SIGNING A PGA INTERFERE WITH TID'S OPERATION AS A VERTICALLY INTEGRATED UTILITY?

A. No. I have explained the PGA does not interfere with TID's day-to-day control or operation of its Generating Units. Further, as I noted above, TID could sign a PGA without giving the ISO Operational Control of its transmission facilities or its contractual entitlements to receive transmission service from existing Participating Transmission Owners. The point is that, contrary to the implications of Mr. Scheuerman's testimony, a utility that owns Generating Units can execute a PGA so that it can sell excess output from those Generating Units in the ISO's markets even if it does not wish also to execute the Transmission Control Agreement. Such a utility would be a Participating Generator, but not a Participating Transmission Owner.

Moreover, executing a PGA does not obligate a utility (municipal or otherwise) to buy Energy or Ancillary Services through the ISO's markets or to become a Utility Distribution Company – it can continue to supply its own needs from its own resources, including bilateral contracts it enters into, while selling excess Energy and capacity through the ISO, when and if it chooses.

Q. HAVE OTHER MUNICIPALITIES OPERATING AS INTEGRATED UTILITIES EXECUTED PGAs?

A. Yes. Other municipalities have executed the PGA and other requisite agreements and are participating in the ISO's markets. They have done so without compromising their ability to operate integrated utility systems within the ISO's Control Area.

Q. DOES TID HAVE OTHER OPTIONS?

A. Yes, TID could form its own Control Area. For example, the Sacramento Municipal Utility District has stated that it will operate as a Control Area by this summer. The City of Pasadena, on the other hand, operated as a separate Control Area for many years, until July 22, 1999, when it de-certified its separate Control Area and became part of the ISO Control Area. Now, Pasadena's Loads and resources are operated as an integral part of the ISO Control Area. Rather than bidding as a System Resource, as it had previously done as a separate Control Area, Pasadena executed a Participating Generator Agreement ("PGA") for its Generating Units and currently bids in the ISO's markets from those units. TID has exactly the same opportunity to bid in the ISO's markets if it signs a PGA. Moreover, the ISO has made arrangements with Pasadena to continue to accommodate the municipality's Existing Contracts even while Pasadena participates in the ISO's markets.

TID could also join the ISO. Under recent proposed revisions to the ISO Tariff, which are pending in Docket No. ER00-2019-000, TID could qualify as a Metered Subsystem, which would allow it the benefits of participation in the ISO while preserving considerable flexibility in the operation of its Generation. Indeed, joining the ISO could have significant financial benefits to TID, because its Transmission Revenue Requirement would be included in the calculation of the Access Charge, and spread to other ISO customers.

Q. THANK YOU, THERE ARE NO FURTHER QUESTIONS.