

Exhibit 11

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)
Operator Corporation) Docket No. ER02-____-000
)
)

DIRECT TESTIMONY OF
SPENCE GERBER
ON BEHALF OF THE
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Spence Erikson Gerber and my business address is 151 Blue
3 Ravine Road, Folsom, CA 95630.

4

5 **Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

6 A. I am employed by the California Independent System Operator ("ISO") as the
7 Director of Settlements.

8

9 **Q. HAVE YOU TESTIFIED BEFORE FERC PREVIOUSLY?**

10 A. Yes, I have testified as an expert witness before the Federal Energy
11 Regulatory Commission ("FERC") in the Aturas proceeding, Docket No.
12 ER99-28

13

14 **Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES?**

15 A. In my current position, I oversee the operation of the ISO's financial
16 settlement systems to ensure that sellers, buyers, and other parties
17 interacting with the ISO markets are paid and charged appropriately
18 according to the settlement provisions of the ISO Tariff.

19

20 **Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE PRIOR TO THE WORK
21 YOU ARE DOING TODAY.**

22 A. Prior to joining the California ISO, I was employed for sixteen years at
23 Portland General Electric. I spent over ten of those years in the wholesale

1 power division, where I became the Manager of Power Coordination, a
2 position I held during the company's functional separation under Order 888.
3 For the last four years I have been at the California ISO. In total, during the
4 course of my employment at the Portland General Electric Company and
5 during my tenure at the ISO, I have over fourteen years of experience in the
6 wholesale electric business in both merchant and reliability functions
7

8 Prior to my current position, my duties at the ISO have included oversight of
9 the Interchange Scheduling department. This department has the
10 responsibility to ensure that all relevant sections of the North American
11 Electric Reliability Council ("NERC") reliability criteria and Western Systems
12 Coordinating Council ("WSCC") Minimum Operating Reliability Criteria
13 ("MORC") are met as they pertain to interchange scheduling. In addition, the
14 Interchange Scheduling department ensures that the provisions of the ISO
15 Tariff, as they relate to open and non-discriminatory access to the ISO
16 Controlled Grid, are met.
17

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

19 A. The purpose of my testimony is to provide explanation as to why the
20 California ISO has modified its third service category in the Grid Management
21 Charge "GMC" from "Market Operations" to "Ancillary Services and Real-Time
22 Energy Operations".
23

1

2 **Q. WHY ARE YOU TESTIFYING ON THIS MATTER?**

3 A. As the Director of Settlements for the California ISO, I have responsibility for
4 the mechanisms by which the ISO ensures that both market and Control Area
5 functions are accounted for in a manner that assigns costs to participants
6 consistent with their use of those services. I also have been intimately
7 involved with the development of the ISO's unbundled GMC service
8 categories, including developing recommendations for management on how
9 to define these service categories.

10

11 **Q. HOW WILL YOUR TESTIMONY BE ORGANIZED?**

12 A. First, I will provide an explanation as to why we are changing the third service
13 category from Market Operations to Ancillary Services and Real-Time Energy
14 Operations. Second, I will provide justification for making this change.

15

16 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR
17 DIRECT TESTIMONY?**

18 A. No, there are no exhibits associated with my testimony.

19

20 **Q. PLEASE EXPLAIN THE WHY THE ISO IS PROPOSING A CHANGE TO
21 THE MARKET OPERATIONS CATEGORY.**

22 A. In 2001, there was a noticeable increase in the self-provision of Ancillary
23 Services by Scheduling Coordinators ("SCs"). As Mr. Leiber discusses in the
24 testimony he is filing contemporaneously with mine in this docket (Exh. No.

1 ISO-1), Ancillary Services purchases through the ISO markets decreased
2 from 14.4 percent of gross load to 4 percent of gross load in 2001. Self-
3 provided Ancillary Services increased from 3 percent to 6.3 percent over the
4 same period. Nonetheless, since the infrastructure and O&M required to
5 administer Ancillary Service markets does not vary significantly with the
6 fluctuations in the percentages of self-provided and market-procured Ancillary
7 Services, the ISO has determined that costs are no longer properly being
8 allocated, given the change in circumstances. Consistent with the goal of
9 charging the GMC on the basis of cost causation, the ISO has determined
10 that there should be a recognition of the degree to which self-provision does
11 and does not impact specific ISO costs. After a detailed review of the effects
12 of these factors (undertaken during the course of preparation for this filing and
13 in the course of preparation for the hearings on the ISO's 2001 GMC filing in
14 FERC Docket Nos. ER01-313-000, *et al.*), it was determined that changes to
15 the current GMC service categories are necessary in order to provide
16 recovery of administrative costs in a manner that does not impose an
17 unreasonable burden on the users of that cost category. In addition, the
18 change should aid the ISO's market participants in better understanding the
19 direct causes of the costs comprising the unbundled GMC.

20

21

22

23

1 **Q. PLEASE EXPLAIN THE TWO FORMS OF PROVISION OF ANCILLARY**
2 **SERVICES.**

3 A. Ancillary Services can be either procured through the ISO markets or self-
4 provided. Procured, or "bid", Ancillary Services require operation of a market
5 to provide SCs with their Ancillary Service requirements (which are, in turn,
6 dictated by reliability criteria). Self-provision of Ancillary Services comes
7 about when certain SCs have access to resources (that meet ISO certification
8 requirements) and the SC schedules those resources to hold the required
9 reserve margins, or the SC 'trades' its Ancillary Service obligation to an SC
10 that has resources capable of providing reserves in excess of its own
11 requirements.

12
13 **Q. DOES THE CURRENT GMC STRUCTURE ADEQUATELY RECOVER THE**
14 **COSTS ASSOCIATED WITH THE SELF-PROVISION OF ANCILLARY**
15 **SERVICES?**

16 A. No. Currently, the costs that self-providers of Ancillary Services impose on
17 the ISO are not fully recovered from those parties through the GMC.
18 However, the ISO's GMC structure was designed with the principal of cost
19 causation as a significant objective. Therefore, the GMC structure should be
20 revised to reflect the effort required to administer such self-provided Ancillary
21 Services in whatever quantity they are used to meet reliability requirements in
22 the ISO Control Area. That revision should more accurately track the cost
23 centers affected by the required administrative effort. Much of this effort is

1 performed outside of what would normally be considered Control Area
2 operations responsibility, the costs of which are largely recovered through the
3 Control Area Services service category.

4
5 **Q. DOES THE INCREASE IN SELF-PROVIDED ANCILLARY SERVICES**
6 **REDUCE THE AMOUNT OF WORK THAT THE ISO MUST DO?**

7 A. No. A change in the quantity of self-provided Ancillary Services does not
8 result in less work effort for the ISO. The ISO must still calculate and track
9 each Ancillary Service obligation of each SC regardless of whether it is self-
10 provided or procured through the ISO markets.

11
12 **Q. PLEASE EXPLAIN WHY SELF-PROVISION OF ANCILLARY SERVICES**
13 **CONTINUES TO REQUIRE WORK EFFORT BY THE ISO.**

14 A. Self-provision of Ancillary Services requires work to be performed in the
15 following areas at the ISO: (1) Market Operations, (2) Billing and Settlements,
16 and (3) ISO Operational Systems.

17
18 **Q. PLEASE EXPLAIN THE TYPE OF WORK THE MARKET OPERATIONS**
19 **AREA MUST DO THAT IS RELATED TO SELF-PROVIDED ANCILLARY**
20 **SERVICES.**

21 A. The process used to identify, validate, or certify Ancillary Services for bidding
22 or self-providing utilizes the Scheduling Infrastructure ("SI") and the
23 Scheduling Application ("SA") systems is done in the same manner for both

1 bid and self-provided Ancillary Services. The SI system is the primary
2 interface between the SCs and the ISO where the SC submits balanced
3 schedules indicating its forecasted demand and resources that will be used to
4 serve that demand. SCs also indicate through the SI system if Ancillary
5 Service Requirements will be met by self-provision or by the ISO Ancillary
6 Service auction. The SA system processes the submitted schedules to
7 determine the Ancillary Service requirement for each SC, the amount of self-
8 provided Ancillary Services, and the amount of necessary Ancillary Service
9 procurement to meet the Control Area requirement. The SA system also
10 validates the capability of a resource that is scheduled to provide Ancillary
11 Services against that same resource's Energy schedules and Energy trades
12 to ensure the real-time availability of the Ancillary Services. The Ancillary
13 Service auction accounts for the self-provided Ancillary Services and
14 procures the remaining Ancillary Services necessary to meet the Control Area
15 requirement in the most economic manner. Regardless of whether SCs bid
16 or self-provide Ancillary Services, the Market Operations group still needs to
17 do the following:

- 18 • Provide, maintain and manage an infrastructure (SI) to accommodate
19 self-provision of Ancillary Services.
- 20 • Perform validation on the resource availability for the self-provided
21 Ancillary Service. This involves assessing the current capability and
22 operational status of each of the units designated as self-providing in
23 the proposed schedule and/or taking into account any transmission

1 constraints which may affect the self-provision – particularly if an inter-
2 SC trade of Ancillary Services obligations is involved.

- 3 • Ensure that Ancillary Service resources are registered. Any resource
4 that is providing Ancillary Services must be registered in the Master
5 File database. This is done by moving the validated capability data
6 into the single file that maintains the overview of the Control Area's
7 reserve capacity, in accordance with the indicated level of self-
8 provision.
- 9 • Maintain an Outage database. Resources that provide Ancillary
10 Services are maintained in the ISO Outage system to reflect limitations
11 or Outages of the resource. Maintaining the Outage database involves
12 checking the capable units identified for the proposed self-provision
13 against the ISO's Outage coordination data to ensure that there is no
14 conflict in either unit capacity or line capacity with either anticipated or
15 noticed Outages.
- 16 • Calculate, via the SA system, the amount of Ancillary Service
17 procurement relative to the amount of self-provision and perform the
18 Ancillary Service auction for only the remaining Ancillary Services
19 needed to meet the Control Area requirement.
- 20 • Calculate, via the SA system, the amount of any over-self-provision
21 relative to the SC's ancillary service requirement for settlement
22 purposes.

- 1 • Ensure consistent results between congestion and Ancillary Services
2 procurements utilizing the SA system.

3
4 Self-provision of Ancillary Services by an investor owned utility, municipal
5 utility, or any other SC, therefore, requires essentially the same processing
6 through SI/SA infrastructure as is required by Ancillary Services bid through
7 the ISO's markets.

8
9 **Q. PLEASE EXPLAIN HOW THE BILLING AND SETTLEMENTS FUNCTION**
10 **IS IMPACTED BY SELF-PROVIDED ANCILLARY SERVICES.**

11 A When a SC supplies Ancillary Services either through bidding or self-
12 provision, the ISO performs a comparable amount of work. Self-provision
13 schedules do not go through a bid evaluation. Instead, they are validated and
14 stored. There is a significant amount of processing related to self-provision in
15 both the scheduling and settlement systems. Effective, Scheduled, and
16 Unqualified self-provision are calculated in the Billing and Settlement System.

- 17
18 • Effective self-provision is the amount of self-provision for which each SC
19 will receive credit on a regional level; this credit will reduce a SC's
20 Ancillary Service obligations. The effective self-provision is the difference
21 between the scheduled self-provision and the unqualified self-provision.

1 • The scheduled self-provision is calculated as the maximum of the Day
2 Ahead self-provision ("DA SP") and Hour Ahead self-provision ("HA SP").
3 If HA SP < DA SP, then the ISO must procure the additional AS at the
4 hour-ahead zonal market clearing price for the SC. If the total increase of
5 self-provision in the hour-ahead market is less than the ISO's incremental
6 needs for the region, then all SC's HA SP will be accepted without any
7 disallowance. If the total increase of self-provision in the hour-ahead
8 market is greater than the ISO's incremental needs, then a portion of each
9 SC's self-provision will be considered unqualified.

10
11 • Unqualified self-provision is calculated as the difference between the HA
12 SP and the allowable HA SP.

13
14 In addition, both bid-in suppliers and self-providers are "paid" by ISO. Self-
15 providers are paid implicitly by reducing their Ancillary Services obligations.
16 This necessarily requires settlement calculations. To the extent that the SC
17 has under self-provided, the calculated residual requirement is assessed the
18 appropriate share of market costs. To the extent the SC has over-self-
19 provided, the calculated residual amount is used to determine the
20 compensation for the SC at the prevailing clearing price for the specific
21 service in question. Regardless of whether the SC has self-provided or not,
22 the ISO performs a comparable amount of work in the billing and settlements
23 area.

1

2 **Q. ARE THERE OTHER CONSIDERATIONS THAT SHOULD BE**
3 **CONTEMPLATED WHEN EVALUATING THE IMPACT OF SELF-**
4 **PROVIDED ANCILLARY ON THE ISO'S SYSTEMS?**

5 A. Yes. As Control Area Operator, the ISO has the responsibility to be the
6 provider of last resort of Ancillary Services. The ISO, therefore, must maintain
7 systems for Ancillary Services procurement, whether or not the Market
8 Participants choose to use them. The need to maintain and operate these
9 systems results in ongoing costs (such as: maintaining the database of units
10 capable of providing such services, including the capabilities of each unit at
11 any given time, coordination of the locational availability of such units,
12 constant cross reference with the ISO's outage database, etc.) that need to
13 be recovered from all parties that benefit from their existence.

14

15 **Q. HOW ARE FIXED COSTS RELATED TO SELF-PROVIDED ANCILLARY**
16 **SERVICES?**

17 A. The ISO has made a substantial investment in fixed assets and other costs
18 that do not vary with usage volume. These systems provide, among other
19 things, for the calculation of system Ancillary Service requirements to meet
20 NERC criteria and the WSCC MORC and determining who is responsible for
21 the costs associated with ensuring that these standards are met.

22

23

1 **Q. SHOULD THESE CAPITAL COSTS CONTINUE TO BE RECOVERED?**

2 A. The ISO is a not-for-profit entity that must recover its capital and operating
3 costs. However, if demand for certain services falls, it may be appropriate to
4 re-scale the commitment of resources to this function to reflect new priorities.
5 In the short term, it may not be possible to make such adjustments
6 immediately and certain fixed costs could end up as "stranded" costs. In the
7 instant example, (systems to ensure adequate Ancillary Services for the ISO
8 Control Area), there is no such "falling demand".
9

10 **Q. HOW DO YOU RECOMMEND CHARGING FOR THE ISO'S SERVICES**
11 **RELATED TO SELF-PROVIDED ANCILLARY SERVICES?**

12 A. After the careful consideration of many factors, the ISO is recommending
13 changing the Market Operations category of the GMC to "Ancillary Services
14 and Real-Time Energy Operations Charge". As stated in Mr. Leiber's
15 testimony, the ISO has expanded the billing determinant volume to include 50
16 percent of all self-provided Ancillary Services volume, which would be
17 assessed the same charge as other users of this GMC category. In effect,
18 excluding 50 percent of self-provided volumes would provide a significant
19 discount to self-providers. The discounted charge itself could act as an
20 incentive to SCs to make greater use of self-provision of Ancillary Services,
21 which should increase certainty in the ISO's markets. Moreover, the change
22 will further the ISO's goal of better allocating expenses on the basis of cost
23 causation.

1

2 **Q. WHY IS THE ISO PROPOSING TO ASSESS ONLY 50% OF SELF-**
3 **PROVIDED VOLUMES THIS CHARGE?**

4 A. As stated in Mr. Leiber's testimony (Exh. No. ISO-1), while self-provision
5 requires the use of most of the same software modules as Ancillary Services
6 procured through ISO markets, there may be certain modules which are
7 unused by self- providers. Examples of such software modules that may not
8 be used by Ancillary Service self-providers include: bid assessment and
9 evaluation, rational buyer, and Day Ahead/Hour Ahead award notifications.
10 Accordingly, the ISO will acknowledge this and charge self-providers a lower
11 rate, implemented by assessing only 50 percent of self-provided Ancillary
12 Services volumes the "Ancillary Services and Real-Time Energy Operations"
13 charge.

14

15 **Q. PLEASE EXPLAIN THE ADVANTAGES OF THIS APPROACH.**

16 A. Advantages include: (1) self-provision would not be substantially further
17 encouraged by continuing with the ISO's rate structure, to the detriment of the
18 ISO markets as a whole, and (2) the approach acknowledges that utilization
19 of certain ISO systems by self-providers may be less than for those that use
20 the ISO's Ancillary Services markets, and (3) the approach provides an
21 appropriate discount, thus furthering the unbundled ISO's goal of allocating
22 charges on the basis of cost causation.

23

1 **Q. ARE THERE ANY DISADVANTAGES TO THIS APPROACH?**

2 A. The ISO has contemplated not providing a discount or volume exclusion to
3 self-providers, noting that administering self-provision was just as
4 burdensome for the ISO as for Ancillary Services procured through the ISO
5 auctions. If no discount were offered, the GMC rate for this category would
6 be lower by approximately \$0.073. However, recognizing that valid
7 arguments can be made by those self-providing that the ISO systems were
8 designed to utilize markets, I believe the discount is appropriate. It is also
9 argued by certain existing transmission Customers ("ETCs") that they pay
10 these costs under their interconnected service agreements with their
11 transmission owner. This is a matter which the ISO would dispute and which,
12 even if true, has no real direct impact on the actual costs incurred by the ISO.

13
14 **Q. HAVE YOU CONSIDERED KEEPING ISO'S CURRENT THREE GMC**
15 **CATEGORIES AND ADDING A NEW SERVICE CATEGORY?**

16 A. Yes. An alternative to our proposed structure would be to consider whether
17 one or more additional GMC categories would be appropriate. For example,
18 a fourth GMC category, called "Ancillary Services Provision", could be broken
19 out from the current Market Operations category. This might have certain
20 advantages, including the ability to study even further the division of costs
21 between the various categories. However, it would not be possible to
22 complete this effort by the required filing date of November 3, 2001 for the
23 2002 rate case. While this option may warrant further consideration for 2003,

1 it is not a viable option now. The ISO will study this and other alternatives
2 when the unbundling steering committee is reconvened, as early as 2002.

3
4 **Q. DOES THE ISO HAVE SELF-PROVIDED ANCILLARY SERVICE VOLUME**
5 **DATA?**

6 A. Yes. Most data regarding the self-provision of Ancillary Services is currently
7 available to the ISO Settlements department. Accordingly, changes can be
8 made to the GMC billing module to incorporate the additional volume in the
9 GMC calculation.

10
11 **Q. IS DATA AVAILABLE FOR ETC SELF-PROVIDED ANCILLARY**
12 **SERVICES?**

13 A. Data is not always available for the specifics of ETC Ancillary Services self-
14 provision since some is provided from system units. The ISO will need to
15 obtain this data through the establishment of specific arrangements with
16 various ETC rights holders or their SC.

17
18 **Q. WILL THIS CATEGORY BE CHANGING IN OTHER WAYS?**

19 A. Yes. Additional modifications and clarifications regarding the three service
20 categories are being made. These changes are discussed in Mr. Leiber's
21 testimony (Exh. No. ISO-1). Historically, the entire costs associated with the
22 Settlements Department have been included in the Market Operations
23 category (which will become the Ancillary Services and Real-Time Energy

1 Operations category, as I described earlier). However, these costs are more
2 accurately spread across all service categories since the services it performs
3 go beyond the scope of solely administering and settling markets. The ISO
4 Settlements Department calculates and allocates payments and charges
5 associated with all aspects of operating the Transmission System including
6 elements distinct from Control Area operations and congestion management.
7 The settlements department validates generator owners Reliability Must Run
8 invoices before forwarding to Transmission Owners for payment in support of
9 Control Area operations. In the course of regular market settlements, the ISO
10 must also consider the effects of ETC transmission rights and except their
11 usage when allocating congestion management and wheeling charges to the
12 users of the ISO controlled grid.

13
14
15 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**


16 **A. Yes, it does.**

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

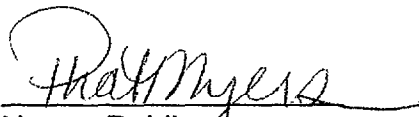
City of Folsom)
State of California)
_____)

AFFIDAVIT OF WITNESS

I, Spence Gerber, being duly sworn, depose and say that the statements and exhibits contained in my Direct Testimony on behalf of the California Independent System Operator Corporation in this proceeding are true and correct to the best of my knowledge, information, and belief.


Spence Gerber

Subscribed and sworn before
me this 31st day of October, 2001


Notary Public
State of California
County of Sacramento

