

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)
Operator Corporation)
)

ER01-____-000

DIRECT TESTIMONY OF
MICHAEL K. EPSTEIN
ON BEHALF OF THE
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION

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

2 A. My name is Michael K. Epstein. I am employed by the California Independent
3 System Operator Corporation (the "ISO") as Controller. My business address is
4 151 Blue Ravine Road, Folsom, CA 95630.

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

6 A. I am responsible for the ISO's corporate accounting, fixed assets, procurement,
7 payables, receivables, financial, tax and Federal Energy Regulatory Commission
8 ("FERC") reporting functions, market cash settlements, and audit coordination for
9 all the ISO's activities.

10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
11 **BACKGROUND.**

12 A. I received both an MBA and a BA with a major in accounting from the University
13 of Southern California in Los Angeles, CA. I have been the Controller of the ISO
14 since 1997. From 1994 to 1997, I was Vice President (Finance) of Siskon Gold
15 Corporation, a publicly traded mining company located in Grass Valley, CA.
16 From 1989 to 1994, I was controller of the Grupe Company, a privately held
17 diversified real estate company located in Stockton, CA. From 1985 to 1989, I
18 was controller of Brush Creek Mining and Development Company, a publicly
19 traded mining company located in Auburn, CA. Prior to that, I was a Certified
20 Public Accountant in the practice of public accounting with both local and
21 international accounting firms.

22 **Q. HAVE YOU PROVIDED EXPERT TESTIMONY PREVIOUSLY?**

1 A. Yes, I have presented testimony as an expert witness in several real estate
2 valuation cases, in insurance claim matters, and in a tax and securities
3 investigation. This is my first experience testifying before FERC.

4 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

5 A. The purpose of my testimony is to support the ISO's application to unbundle the
6 Grid Management Charge ("GMC") that is currently set forth in Section 8 of the
7 ISO Tariff ("Tariff"). The ISO proposes to establish separate charges for
8 recovery of its costs through three formula rates corresponding to three Service
9 Categories, each representing specific services provided by the ISO. I have
10 participated in the GMC unbundling process since 1997 and have led, together
11 with Philip R. Leiber, the GMC Unbundling Project Team since 1998. My
12 testimony provides detailed justification for the particular Service Categories and
13 billing determinants that were developed and incorporated into the cost recovery
14 procedures in the exhibits submitted with this filing.

15 **Q. PLEASE OUTLINE YOUR TESTIMONY.**

16 A. Section I describes the history of the ISO's Grid Management Charge;
17 Section II describes the process by which the ISO unbundled its rates and
18 charges;
19 Section III describes the resulting Service Categories and the ISO activities
20 included in them;
21 Section IV explains how the billing determinants were selected to recover the
22 costs assigned to each Service Category, and why; and

1 Section V describes the estimation procedure to be used for certain non-metered
2 Loads.

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

4 A. Yes. Unless otherwise indicated, capitalized terms are as defined in the Master
5 Definitions, Appendix A of the ISO Tariff.

6
7 I. HISTORY OF THE GRID MANAGEMENT CHARGE

8
9
10 **Q. PLEASE DESCRIBE THE ORIGINAL GMC FILING.**

11 A. The ISO originally filed a Grid Management Charge on October 17, 1997. The
12 original GMC was a bundled formula rate designed to collect the costs of
13 operating the ISO, including the ISO's start-up and development costs as well as
14 ongoing operation and maintenance costs. The GMC was designed to be a
15 monthly charge assessed to all Scheduling Coordinators ("SCs").

16 **Q. WHAT WAS THE STAKEHOLDER REACTION TO THE ORIGINAL GMC**
17 **FILING?**

18 A. There were many interventions, comments, and protests regarding the original
19 GMC filing. Among the chief areas of concern at the time was the application of
20 the GMC to so-called "behind-the-meter" Load, *i.e.*, Load located in the ISO's
21 Control Area that is not separately scheduled through the ISO. Such Load
22 includes that served by qualifying facilities ("QFs") and municipal and
23 governmental entities ("GEs"). The issue was whether such "behind-the-meter"
24 Load should be charged for the ISO's services or whether the "behind-the-meter"
25 Load could be, for the purposes of the ISO's charges, said to be served by

1 “behind-the-meter” generation. In other words, for those that advocated a
2 “behind-the-meter” approach, the “behind-the-meter” Load and generation would
3 be netted against one another and would result in lower billing determinants and
4 lower charges for the particular customer. The issue surfaced again in the GMC
5 unbundling process and is described in both the testimony of Trent A. Carlson
6 (Ex. No. ISO-10) and in the testimony of Deborah A. Le Vine (Ex. No. ISO-14).

7
8 Other parties objecting to the original GMC filing included several parties with
9 Existing Transmission Contracts (“ETCs”). These parties asserted that the GMC
10 should not be applied to their ETC volumes. While ETCs and “behind-the-meter”
11 Load benefit from the ISO’s role as Control Area operator, this aspect of the
12 ISO’s functions was not separately charged in the original GMC. In general,
13 parties were concerned that the GMC was “bundled”, that is, all costs were being
14 recovered from all participants, rather than based on more precise allocations.

15 **Q. HOW WERE THE STAKEHOLDERS’ CONCERNS REGARDING THE**
16 **ORIGINAL GMC FILING RESOLVED?**

17 A. The parties entered into negotiations resulting in an uncontested settlement
18 agreement (“Settlement”) filed on April 7, 1998. Under the Settlement, the GMC
19 was set until December 31, 1998, after which time a new GMC was to be in
20 effect.

21 **Q. WHAT WERE THE TERMS OF THE APRIL, 1998 SETTLEMENT?**

22 A. Paragraph 16 of the Settlement required the ISO to make annual informational
23 filings calculating the GMC for the upcoming year based on the GMC formula

1 and the year's projected cost data and transmission volumes. The ISO made its
2 first such filing on December 15, 1998. The charge calculated in that filing, and
3 accepted by the Commission, was \$0.7781 per MWh.

4
5 In Paragraphs 19 and 20 of the Settlement, the ISO agreed to facilitate the
6 performance of an unbundling study to determine whether any ISO services
7 should be priced separately (*i.e.*, "unbundled"). The decision as to whether to file
8 new GMC rates on the basis of such an unbundling study was left to the
9 discretion of the ISO Governing Board ("Board"). A stakeholder steering
10 committee ("Steering Committee") was created to assist in the selection of a
11 consultant to conduct the study, to receive periodic progress reports from the
12 consultant, and to review the study and provide advice on what should be
13 presented to the Board. The activities of the Steering Committee are described
14 more fully below. The ISO agreed that whether or not the Board decided to file
15 an unbundled GMC, the ISO would make a new GMC rate filing to be effective as
16 of January 1, 1999.

17
18 In Paragraph 23 and Schedule 1, the Settlement required that holders of
19 "Existing Contract" rights would be assessed the GMC based on 50 percent of
20 their metered consumption, rather than the 100 percent of metered consumption
21 for those without Existing Contracts. The Settlement exempted the "behind-the-
22 meter" Load of QFs (called QF "on-site" or "contiguous site Load") from paying
23 the GMC in 1998. Finally, in Paragraph 24, the parties agreed that during 1998

1 the ISO would not assess any Grid Operations Charge, charge for Black Start,
2 Voltage Support, or Unaccounted For Energy (“UFE”) (together, “the Specified
3 Charges”) or a GMC for any transmission service that was in the ISO Control
4 Area but not scheduled over the ISO Controlled Grid.

5
6 In Paragraph 25, the parties agreed not to challenge the level of the GMC for
7 1998 at any time in any forum.

8
9 Thus, the major exceptions to the general GMC that were carved out by the April
10 1998 Settlement were:

- 11 1) A 50 percent discount for Existing Contract volumes (those scheduled
12 over the ISO Controlled Grid under contracts with the Investor Owned
13 Utilities (“IOUs”) in effect at startup);
- 14 2) A 100 percent exclusion for Existing Contract volumes in the ISO Control
15 Area but not scheduled over the ISO Controlled Grid; and
- 16 3) A 100 percent exclusion for volumes of “behind-the-meter” Load served by
17 QFs.

18 **Q. HOW DID THE STAKEHOLDERS RESPOND TO THE SETTLEMENT?**

19 A. Some stakeholders made a point of indicating they had concerns with the
20 manner in which the GMC was structured pursuant to the Settlement, but that
21 they would allow it to be filed unopposed to allow the ISO to proceed with its
22 start-up schedule. As well, these parties were aware that delay in approving the

1 GMC would have had a negative impact on the ISO's further efforts to secure
2 financing.

3 **Q. HOW DID THE COMMISSION RESPOND TO THE APRIL 1998**
4 **SETTLEMENT?**

5 A. The Commission accepted the Settlement in a Letter Order issued on June 1,
6 1998.

7 **Q. WAS THE UNBUNDLING STUDY REQUIRED UNDER THE SETTLEMENT**
8 **COMPLETED?**

9 A. Yes. On August 17, 1998, an unbundling study was produced by R. J. Rudden
10 Associates, Inc. ("Rudden Study"), the consultant selected by the stakeholder
11 steering committee. The Rudden Study identified two cost categories: (1)
12 Control Area Operations and (2) Market Operations.

13 **Q. DID THE UNBUNDLING STUDY RESULT IN AN UNBUNDLED GMC FILING**
14 **BY THE DEADLINE SPECIFIED IN THE APRIL 1998 SETTLEMENT?**

15 A. No. As 1998 drew to a close, it became clear that a consensus on a new GMC
16 would not be achieved by the December 31, 1998 deadline. Although the study
17 required under the April 1998 Settlement had been completed, the members of
18 the steering committee determined that more time and additional data were
19 necessary to craft an appropriate unbundled GMC.

20 **Q. DID THE ISO FILE A RESTRUCTURED OR UNBUNDLED GMC TO TAKE**
21 **EFFECT AFTER THE JUNE, 1999 EXPIRATION OF THE EXISTING GMC?**

22 A. No. On February 25, 1999, ISO management requested Board direction for an
23 April 30 GMC filing, with two alternatives presented: 1) continuation of the

1 existing settlement structure; or 2) simplified unbundling. The Board believed
2 that a more complete unbundling proposal would be necessary before going
3 forward, and voted to extend the settlement.

4
5 On April 30, 1999, the ISO filed Tariff Amendment No. 16 to extend the current
6 GMC structure until December 31, 2000. The Commission accepted
7 Amendment No. 16 on June 17, 1999.

8 **Q. SINCE THE COMMISSION'S ACCEPTANCE OF AMENDMENT NO. 16, WHAT**
9 **FURTHER STEPS HAVE BEEN TAKEN TO UNBUNDLE THE GMC?**

10 A. Before and after Amendment 16 was filed, the ISO engaged in a lengthy and
11 thorough stakeholder process to craft an appropriate GMC.

12 **Q. PLEASE DESCRIBE THE STAKEHOLDER PROCESS.**

13 A. To help explain the process, a timetable of GMC events is included with this filing
14 as Ex. No. ISO-2. Further details on the events of the meetings, including
15 agendas and materials presented at each meeting are included in Ex. Nos. ISO-
16 2(1) through ISO-2(34). The materials included in these exhibits are meant to be
17 illustrative of the stakeholder process, rather than comprehensive. Moreover,
18 much of the data included in the exhibits, especially cost data, have been
19 overtaken by subsequent events, and are not meant to demonstrate the ISO's
20 current costs.

21
22 The stakeholder process began early in 1998, just a few months after the original
23 GMC filing. The initial meeting of the unbundling Steering Committee was held

1 on February 4, 1998. Our main goal at that time was to select an outside
2 consultant to conduct a study on how the GMC could best be unbundled.
3 Subsequent meetings and conference calls among the members of the Steering
4 Committee took place over the next several months.

5
6 R. J. Rudden Associates was selected to conduct the unbundling study, as I
7 noted earlier. Rudden produced an interim analysis on May 8, 1998 and a
8 functional overview of the ISO on July 9, 1998. The final unbundling study (Ex.
9 No. ISO-3) was completed by Rudden on August 17, 1998. The next several
10 Steering Committee meetings were concerned with evaluating the study and
11 determining whether the two cost category result would be suitable for a new
12 GMC structure to go into effect by January 1, 1999.

13
14 The stakeholders determined that the Rudden structure was not a suitable basis
15 for an unbundled GMC filing, and decided that the existing GMC Settlement
16 structure should be extended. The result was the October 1998 Settlement
17 extension filing. Since this filing only requested an extension until June 30, 1999,
18 the Steering Committee continued our efforts to craft an unbundled GMC.
19 Indeed, on the very day the October 1998 Settlement extension was filed,
20 October 28, the Steering Committee conducted a meeting to discuss furthering
21 the unbundling process.

22

1 Despite these continued efforts, many on the Steering Committee preferred yet
2 another Settlement extension to filing an unbundled GMC when the October
3 1998 extension was due to expire. Not all stakeholders preferred an extension,
4 but the majority did. As well, the ISO Governing Board, itself comprised of
5 stakeholders and stakeholder representatives, voted on March 25, 1999 to
6 extend the GMC Settlement structure once again, until December 31, 2000.

7 **Q. HOW DID THE STEERING COMMITTEE GO ABOUT DESIGNING THE**
8 **UNBUNDLED GMC?**

9 A. Over the course of many months, the Steering Committee discussed suitable
10 service categories and billing determinants for an unbundled GMC. As
11 demonstrated in the documents included in Ex. Nos. ISO-2(1) through ISO-2(33),
12 stakeholders had varying views on what an appropriate unbundled GMC would
13 look like. Proposals by ISO personnel and by stakeholders were reviewed by the
14 Steering Committee, and the pros and cons of such proposals freely and
15 extensively debated. Stakeholders were encouraged to comment and provide
16 suggestions at every step of this process.

17 **Q. WERE MARKET PARTICIPANTS KEPT APPRISED OF THE UNBUNDLING**
18 **EFFORTS OUTSIDE OF THE STEERING COMMITTEE PROCESS?**

19 A. Yes. In addition to the regular Steering Committee process, ISO personnel such
20 as myself made presentations to Market Participants through the Market Issues
21 Forum ("MIF") process. Such presentations, which allow for comments and
22 questions from interested parties, took place on January 6, 1999, March 10,
23 1999, June 7, 2000, and August 9, 2000. Further, the Audit and Finance

1 Committees of the ISO Board, who are responsible for GMC unbundling
2 activities, made presentations explaining the status of GMC unbundling as part of
3 regular Committee meetings taking place at the time of monthly ISO Board of
4 Governors meetings. In addition, ISO management presentations to the Audit
5 and Finance Committees took place on February 24, 1999, May 24, 2000, June
6 21, 2000, and September 6, 2000. Also, as noted above, the ISO Board of
7 Governors voted in support of the GMC structure being proposed in this filing at
8 several stages of its development. Such Board votes took place on June 22,
9 2000 (approving the service categories and billing determinants) and September
10 7, 2000 (approving the Tariff language).

11 **Q. WHEN WAS THE UNBUNDLED GMC PRESENTED TO THE BOARD?**

12 A. We took the proposal to the Board in two stages, relating to the GMC structure,
13 on the one hand, and the Tariff language necessary to implement the structure,
14 on the other. At the June 21, 2000 Joint Audit/Finance Committee meeting, the
15 GMC structure, including the three cost categories and their respective billing
16 determinants, was presented and discussed. The members of the Joint
17 Audit/Finance Committee voted to submit the structure for Board approval. The
18 next day, June 22, 2000, the Governing Board approved the structure.

19
20 After the Board approved the structure of the unbundled GMC, the Steering
21 Committee concentrated our efforts on two fronts: drafting appropriate Tariff
22 language to implement the new structure, and coming up with a mechanism to
23 calculate the Board-approved billing determinants.

1 **Q. WHAT WAS THE ROLE OF THE STEERING COMMITTEE IN DRAFTING**
2 **TARIFF LANGUAGE?**

3 A. Several drafts of the Tariff language were circulated among the Steering
4 Committee members during August 2000. The comments and suggestions of
5 stakeholders were then discussed and, to the extent possible, incorporated in the
6 final draft of Tariff language submitted for Board approval at the September 6-7
7 Board meeting. A matrix listing changes to the Tariff language requested by
8 stakeholders, and how the ISO responded to them, is included as Ex. No. ISO-4.

9 **Q. HOW DID THE STEERING COMMITTEE DEVELOP MECHANISMS TO**
10 **CALCULATE THE BILLING DETERMINANTS?**

11 A. This has been the most difficult and contentious element of the stakeholder
12 process. The root of the problem is that certain categories of Generators, most
13 notably QFs and GEs, are not ISO Metered Entities. This means that their Load
14 information is not available to the ISO unless they provide it directly.
15 Unfortunately, representatives of many of the QFs were unwilling to provide the
16 ISO the information needed to calculate their share of the GMC, specifically, the
17 Control Area Services Charge. One such representative even stated that it
18 would take a court order for the QFs to hand over the information. *See, e.g., Ex.*
19 *No. ISO-2(28) at 4.* The GEs, for their part, have expressed support for the ISO's
20 GMC unbundling proposal, including charging the Control Area Services
21 category to all Load within the ISO's Control Area. The GEs also have indicated,
22 however, that all participants in the Control Area need to be treated equally. *See*
23 *the minutes of the May 24, 2000 and June 21, 2000 Joint Audit/Finance*

1 Committee meetings, included in today's filing as Ex. Nos. ISO-2(24) and ISO-
2 2(27). In other words, if the QFs are able to net "behind-the-meter" Load and
3 generation, the GEs want the same ability to "net" Load and generation and
4 reduce their share of the ISO's Control Area Services charge.

5
6 Finally, I should note that the ISO's current method for obtaining Load data from
7 SCs often involves receiving settlement quality data where the hourly data is
8 estimated using Load profiles. This topic is described more fully in the testimony
9 of Mr. Price.

10 **Q. HOW COULD THE BILLING DETERMINANTS BE CALCULATED WITHOUT**
11 **THIS INFORMATION?**

12 A. The absence of the information necessitated the estimation process that I
13 describe below, and which is described in greater detail in the Direct Testimony
14 of James E. Price, Ex. No. ISO-12. The effort to come up with a fair estimation
15 process took up much of the Steering Committee's time and effort over the
16 August and September 2000 timeframe. Various stakeholders suggested
17 procedures to be used to make the necessary estimates. Some of these
18 suggestions can be found in Ex. No. ISO-2(33). After much discussion and
19 debate, the method described by James Price was decided upon.

20 **Q. WERE THERE ANY FURTHER STAKEHOLDER ACTIVITIES INVOLVED IN**
21 **THE UNBUNDLING PROCESS?**

22 A. The last stage of the journey has been the 2001 ISO Budget process. As is done
23 every year, the ISO conducted a workshop this fall to explain the budgeting

1 process for the coming year. This year, a budget workshop held on October 19
2 was devoted in part to explaining how the GMC structure filed today would be
3 applied to the 2001 ISO Budget.

4 **Q. PLEASE DESCRIBE THE CHANGES MADE TO THE ISO TARIFF IN THIS**
5 **FILING.**

6 A. The ISO Tariff sections dealing with the GMC had to be changed significantly to
7 accommodate the new structure. Sections related to the GMC had to undergo
8 minor revisions, as well. Among the significant revisions to the GMC Tariff
9 provisions were:

- 10 • Section 2.2.7.3 was revised to reflect the current calculation of estimated
11 aggregate liabilities.
- 12 • Section 8.2, which describes the costs to be recovered through the GMC,
13 has been revised to combine Start Up and Development Costs with
14 Financing Costs.
- 15 • Section 8.3 now describes the three Service Categories of the GMC and
16 the basis for their billing:
 - 17 (1) Control Area Services based on Control Area Gross Load and
18 exports;
 - 19 (2) Inter-Zonal Scheduling based on net scheduled inter-zonal flow;
20 and
 - 21 (3) Market Operations based on Purchases and Sales of Ancillary
22 Services and Supplemental and Imbalance Energy (instructed and
23 uninstructed).
- 24 • Section 8.4 describes the adjustments made to the annual rate and
25 quarterly adjustments may be made if forecast determinant volumes
26 change by more than 5 percent.
- 27 • Definitions of the three Service Categories have been added, as has a
28 definition of Control Area Gross Load. The definition of Gross Load has
29 been revised to distinguish this concept, applicable to the Transmission
30 Access Charge, from Control Area Gross Load.
- 31 • Schedule 1 Part A was revised to reflect the three Service Categories.
- 32 • Schedule 1 Part B describes the adjustments made to the annual rate and
33 quarterly adjustments that may be made if forecast determinant volumes
34 change by more than 5 percent. It has been revised to reflect the three
35 Service Categories.

- 1 • Schedule 1 Part C describes the costs recovered through the GMC and
2 the maintenance of three separate memoranda accounts for each Service
3 Category.
- 4 • Schedule 1 Part D describes the Budget process and information
5 requirements that result in revenue requirements for the GMC.
- 6 • Scheduling and Billing Protocol (“SABP”) 2.2.1 was revised to reflect the
7 three Service Categories.
- 8 • SABP 3.1 was revised to provide for the use of the best available
9 information where meter data is not provided, and to reflect the three
10 Service Categories.
- 11 • SABP 3.2.1 and SABP 5 were revised to describe the details of the GMC
12 Service Categories that will be provided on the invoices.
- 13 • SABP Appendix A was revised to describe the three Service Categories of
14 the GMC, and how the rates of each are calculated.

15
16 As I noted earlier, a matrix of Tariff changes suggested by stakeholders, and the
17 ISO’s response to these suggestions, is included in this filing as Ex. No. ISO-4.

18
19 II. OVERVIEW OF ISO’s UNBUNDLING PROCESS

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21
22 **Q. HOW DOES THE ISO CURRENTLY RECOVER ITS COSTS?**

23 A. The ISO incurs costs for the numerous functions and activities described in the
24 Direct Testimony of Philip R. Leiber, Ex. No. ISO-7. The current GMC rate
25 structure is the result of an extension of the April 1998 Settlement described
26 above. As noted earlier, the Settlement structure provides for:

- 27 (1) a 50 percent exclusion for Existing Contract (“ETC”) volumes (those
28 scheduled over the ISO Controlled Grid under contracts with the IOUs in
29 effect at startup);
- 30 (2) a 100 percent exclusion for volumes in the ISO Control Area but not
31 scheduled over the ISO Controlled Grid; and

1 (3) a 100 percent exclusion for volumes of “behind-the-meter” Load served by
2 QFs.

3 **Q. HOW DOES THE ISO PROPOSE TO RECOVER ITS COSTS?**

4 A. The ISO now proposes to unbundle the services currently provided under the
5 GMC into three distinct Service Categories. By unbundling in this fashion, the
6 ISO best aligns the costs of providing its services with the customers that utilize
7 such services.

8 **Q. PLEASE PROVIDE AN OVERVIEW OF STAKEHOLDER INVOLVEMENT IN**
9 **THE UNBUNDLING PROCESS.**

10 A. As I described earlier, in connection with the GMC Settlement process a
11 stakeholder group, the GMC Unbundling Steering Committee, was formed. The
12 Steering Committee has been working since early 1998 with the ISO staff to
13 identify, review, and reach consensus on approaches to unbundling the GMC.
14 Recommendations from the Steering Committee and Management have been
15 presented to the Market Issues Forum (“MIF”) for wider stakeholder input. My
16 role in the process has focused on working with stakeholders to develop the
17 Service Categories, unbundling project administration and implementation
18 issues, including the information needed from ISO participants, and how these
19 costs should be recovered from users, including which billing determinants
20 should be used for each Service Category.

21 **Q. WHAT CRITERIA WERE USED IN PROPOSING SERVICE CATEGORIES?**

22 A. The Steering Committee and the ISO agreed that the number of categories
23 should not be overly burdensome on the SCs, that they should not discourage

1 entrance of small SCs into the market, and that categories should exceed 5
2 percent of ISO costs. The creation of many categories would cause additional
3 costs for SCs and possibly discourage participation in the ISO.

4 **Q. DESCRIBE THE RESULTS OF THE REVIEW AND ANALYSIS.**

5 A. After review and analysis, the Committee agreed that the Control Area
6 Operations costs, one of the categories defined by the Rudden Study, could be
7 further divided into three categories:

8 (1) Control Area Operations,

9 (2) Scheduling, and

10 (3) Congestion Management (which has been renamed Inter-Zonal
11 Scheduling).

12 The Steering Committee also agreed that Market Operations costs, the second
13 Rudden category, could be divided into two categories:

14 (1) Market Operations, and

15 (2) Billing and Settlements.

16 Although another category for ETCs also was identified, the category did not
17 meet the threshold (five percent of ISO costs) agreed upon by the Steering
18 Committee and it was dropped from consideration. These five categories were
19 identified in the April 1999 FERC filing.

20 **Q. WERE THOSE FIVE CATEGORIES LATER MODIFIED?**

21 A. Yes, the five categories were combined into three categories as follows:

22 (1) Scheduling was combined with Control Area Services, as scheduling is a
23 Control Area function covering all interties as well as within the ISO

1 Controlled Grid. Additionally, the billing determinants for these services,
2 Control Area Gross Load and exports, are the same, as described later in
3 the testimony; and

4 (2) Billing and settlements were combined with Market Operations, as billing
5 and settlements are the last step in the market process. Additionally, the
6 billing determinants for these services, purchases and sales of Ancillary
7 Services and Real Time energy, are the same. These billing determinants
8 are described later in the testimony.

9 **Q. WHAT ARE THE FINAL THREE SERVICE CATEGORIES?**

10 A. The three Service Categories that are reflected in this filing are as follows:

- 11 (1) Control Area Services (including Scheduling),
12 (2) Inter-Zonal Scheduling Services (previously called Congestion
13 Management), and
14 (3) Market Operations Services (including Billing and Settlements).

15 Each of these Service Categories relates to a definable service to which the ISO
16 has been able to allocate costs of ISO activities, as described in the testimony of
17 Philip R. Leiber.

18
19 III. DESCRIPTION OF SERVICE CATEGORIES

20
21
22 **Q. FOR CONTROL AREA SERVICES, PLEASE PROVIDE A BRIEF**
23 **DESCRIPTION OF THE SERVICE CATEGORY AND THE ACTIVITIES**
24 **GROUPED IN THAT CATEGORY.**

1 A. The Control Area Service Category comprises the costs associated with the
2 ISO's role as the Control Area Operator. The ISO's responsibilities include
3 ensuring safe, reliable operation of the transmission grid, dispatch of bulk power
4 supplies, and adhering to regional and national reliability standards. In fulfilling
5 these responsibilities, the ISO: performs operation studies and system security
6 analyses; monitors and develops transmission maintenance standards; performs
7 system planning to ensure overall reliability; provides integration services with
8 other Control Areas; and provides emergency management, outage coordination,
9 and transmission planning services. In addition, the ISO schedules Generating
10 Units, Loads, imports, exports, and wheeling in the Day-Ahead and Hour-Ahead
11 of actual operations.

12 **Q. FOR INTER-ZONAL SCHEDULING SERVICES, PLEASE PROVIDE A BRIEF**
13 **DESCRIPTION OF THE SERVICE CATEGORY AND THE ACTIVITIES**
14 **GROUPED IN THAT CATEGORY.**

15 A. The Inter-Zonal Scheduling Service Category comprises the ISO's costs of
16 Congestion Management, which is conducted by the ISO during the scheduling
17 process and results in the economic rationing of transmission service in order to
18 prevent congestion. This service includes: Congestion Management, the Firm
19 Transmission Right ("FTR") auction, FTR monitoring, and secondary market
20 monitoring and scheduling.

21 **Q. FOR MARKET OPERATIONS SERVICES, PLEASE PROVIDE A BRIEF**
22 **DESCRIPTION OF THE SERVICE CATEGORY AND THE ACTIVITIES**
23 **GROUPED IN THAT CATEGORY.**

1 A. The Market Operations Service Category includes the ISO's costs associated
2 with providing open and non-discriminatory transmission access, maintaining the
3 Day-Ahead and Hour Ahead Ancillary Services markets, and maintaining the
4 Real Time Imbalance Energy market. In addition, the ISO posts market
5 information; engages in market surveillance activities and analysis; and provides
6 settlement, billing, and metering services. While simple to state in general terms,
7 "settlements, billing, and metering" includes managing large complex sets of data
8 and involves information from Day-Ahead scheduling, Hour-Ahead scheduling,
9 Real Time operations, market clearing prices, bid prices, ex-post prices, and
10 metered information from generators, loads, and inter-tie points. The goal of
11 these activities is to balance the billing of and payments for energy, capacity, and
12 transmission service in and out of the systems. Statements and invoices are
13 sent to SCs, Participating Transmission Owners ("PTOs"), and non-SCs (*e.g.*,
14 other Control Areas) to collect and pay for use of the ISO market and Control
15 Area needs.

16
17 IV. BILLING DETERMINANTS FOR RECOVERY OF COSTS
18 ASSIGNED TO EACH SERVICE CATEGORY
19

20
21 **Q. PLEASE EXPLAIN WHAT IS MEANT BY A BILLING DETERMINANT.**

22 A. A billing determinant is a measurable unit that is used to bill customers for
23 service. A billing determinant can be a unit of usage, such as Megawatt-hours
24 ("MWh"), or another factor, such as the number of users. In the Tariff sheets
25 submitted with this filing, aggregate MWhs are used in developing the rate for

1 each Service Category (*i.e.*, either actual or projected MWhs). The billing
2 determinants for each Service Category are simply the individual MWhs
3 associated with the activity of each Scheduling Coordinator (“SC”).

4 **Q. WHAT BILLING DETERMINANT IS THE ISO CURRENTLY USING TO BILL**
5 **ITS GMC?**

6 A. The ISO currently uses the usage on the transmission system, measured in
7 MWhs, as the billing determinant for the GMC.

8 **Q. IS THE ISO CHANGING ITS BILLING DETERMINANTS AS PART OF ITS**
9 **PROPOSAL TO UNBUNDLE THE GMC?**

10 A. Yes. The ISO has developed billing determinants for each of the three Service
11 Categories included in this filing.

12 **Q. PLEASE DESCRIBE THE PROCESS USED TO ESTABLISH THE BILLING**
13 **DETERMINANTS.**

14 A. After the Service Categories were developed, the Steering Committee proposed
15 several alternative determinants for each category. Management selected two
16 proposed determinants from those recommended for each of the three
17 categories and reviewed the choices extensively with the Steering Committee. In
18 this manner, a final billing determinant for each category was determined upon.

19 **Q. WHAT CRITERIA WERE USED IN PROPOSING BILLING DETERMINANTS?**

20 A. The Steering Committee and the ISO agreed that the rates for each Service
21 Category and the billing determinants should reflect cost causation, maximization
22 of price certainty, minimization of adverse impacts on market behavior, impacts
23 on market entry, and practicality.

1 **Q. EXPLAIN WHAT IS MEANT BY ASSIGNMENT ON THE BASIS OF COST**
2 **CAUSATION.**

3 A. In order to recover Service Category costs from the appropriate customer
4 groups, the Service Category rates and billing determinants should reflect as
5 much as possible the customer's use of each service. Cost causation means
6 that the costs of the benefits and services provided and incurred by the ISO
7 should be charged to and borne by the participants most benefiting from or using
8 each service. This will maximize equitable cost recovery and minimize cross-
9 subsidization. Development of Service Category billing determinants based on
10 cost causation provides a more accurate economic signal to Service Category
11 customers who may then judge their anticipated use and make business
12 decisions accordingly.

13 **Q. PLEASE EXPLAIN WHAT IS MEANT BY MAXIMIZATION OF PRICE**
14 **CERTAINTY.**

15 A. The ISO sought to develop a process for establishing, and making adjustments
16 to, GMC charges that would afford SCs the greatest degree of forecast certainty.
17 This has been accomplished by fixing rates for a year at a time, with a provision
18 for adjusting the rates no more than quarterly if forecast volumes vary by more
19 than 5 percent, as well as by using, where appropriate, determinants that can be
20 forecast with a high degree of certainty. Additionally, any remaining over- or
21 under-collection of Service Categories' costs will be credited or charged to the
22 subsequent year's rates.

1 **Q. PLEASE EXPLAIN WHAT IS MEANT BY THE MINIMIZATION OF ADVERSE**
2 **IMPACTS ON MARKET BEHAVIOR AND ON MARKET ENTRY.**

3 A. As a general principle, rates for a given Service Category should be equitable
4 and should reflect cost causation. Poorly designed rates could alter substantially
5 the behavior of certain Market Participants or could act as a barrier to entry. For
6 example, for services associated with energy transactions scheduled through the
7 ISO, a per-schedule determinant potentially could have the unwanted effect of
8 discouraging SCs from submitting schedules. As schedules are a critical
9 component to the ISO system, a Service Category rate structure should not
10 discourage the submission of balanced schedules. Further, although the ISO
11 also carefully reviewed the use of a flat customer charge in addition to a
12 volumetric activity fee, several stakeholders suggested that a flat charge would
13 discourage small SCs from participating.

14 **Q. PLEASE EXPLAIN WHAT IS MEANT BY PRACTICALITY.**

15 A. Practicality means that billing determinants should be straightforward, easy to
16 understand, and easy to administer. The ISO should be able to gather or
17 compute the data required to develop rates and to forecast rate components with
18 reasonable certainty, without causing unduly burdensome work requirements and
19 without significantly impacting operations. Billing determinants also should be
20 selected so they can be consistently measured and reported.

21 **Q. WITH REGARD TO CONTROL AREA SERVICES, PLEASE PROVIDE A**
22 **BRIEF DESCRIPTION OF THE BILLING DETERMINANT THAT WILL BE**
23 **APPLIED TO THIS SERVICE CATEGORY.**

1 A. The billing determinant for Control Area Services is Control Area Gross Load and
2 exports of the Scheduling Coordinator or other appropriate party. Control Area
3 Gross Load is defined as all Demand for Energy within the ISO Control Area.
4 Control Area Gross Load does *not* include auxiliary Load (*i.e.*, Energy used in the
5 power production process) or Load that is isolated electrically from the ISO
6 Controlled Grid (*i.e.*, Load that cannot be served from the ISO Controlled Grid).
7 The reasons for using Control Area Gross Load are described in both the
8 Testimony of Trent A. Carlson (Ex. No. ISO-10) and the Testimony of Deborah A.
9 Le Vine (Ex. No. ISO-14). Mr. Carlson discusses the ISO's scheduling system,
10 balanced schedule requirement, and Control Area responsibilities which, with few
11 exceptions, require that Load and generation be scheduled and metered
12 separately. Ms. Le Vine describes the reasons for using "Control Area Gross
13 Load" as a billing determinant for GMC purposes and how this differs from
14 "Gross Load" that is used as the billing determinant for the purposes of charging
15 the ISO's transmission Access Charge.

16 **Q. THIS BILLING DETERMINANT WILL APPLY TO SERVICE TO WHICH**
17 **CUSTOMER GROUPS?**

18 A. Control Area Gross Load will be applied to service to all Load serving entities in
19 the ISO Control Area.

20 **Q. WERE OTHER BILLING DETERMINANTS CONSIDERED FOR CONTROL**
21 **AREA SERVICES?**

22 A. Alternatives for this billing determinant that were considered were ones that
23 would have excluded the following types of Load from Control Area Gross Load:

- 1 (1) Load served by on-site generation (*i.e.*, QFs);
- 2 (2) Load (principally GEs) served by "behind-the-meter" generation; and
- 3 (3) Load not scheduled over the ISO Controlled Grid.

4 **Q. WHY WERE THESE ALTERNATIVES NOT ADOPTED?**

5 A. The ISO provides reliability services to all Loads within the ISO Control Area. As
6 discussed in the testimony of Mr. Carlson, the ISO's scheduling system requires
7 that SCs submit separate schedules for Load and generation and that the SC's
8 schedules be balanced. Thus, under the ISO's scheduling paradigm, an SC can
9 match specific Load with specific generation. To some extent, the matching of
10 generation and Load is contained in the proposals of those who believe a
11 "behind-the-meter" approach should be used. Under the ISO's rules, however,
12 an SC will incur a charge for the scheduling services provided by the ISO (based
13 on Load). Under a "behind-the-meter" approach, the Load and generation would
14 again be matched, but the SC would incur no charge for the ISO's scheduling
15 services because the Load would be "netted" against the generation leaving a
16 billing determinant of zero.

17

18 Both Mr. Carlson and Ms. Le Vine describe some of the difficulties associated
19 with the "behind-the-meter" concept and the affect of netting Load and
20 generation on the recovery of ISO charges. The main difficulties are that the
21 concept is not easily limited (GE's and others, as well as QFs, can argue they
22 have "behind-the-meter" Loads too), and that it shifts costs onto those remaining

1 customers and Loads that cannot organize themselves into a "behind-the-meter"
2 configuration.

3
4 Moreover, as described in Mr. Carlson's testimony, the Western Systems
5 Coordinating Council ("WSCC") guidelines specify that the Control Area operator
6 needs to oversee even "behind-the-meter" Load. The Control Area operator
7 must maintain reliability at all times in order to stand-by for the Load served by
8 on-site generation. It was the consensus of the Committee, with the exception of
9 the QF representatives, that all Load in the ISO Control Area be included and
10 that no exclusions be provided. Representatives of GEs, in particular, made
11 clear their view that all Load should be treated alike, and that their approval of
12 the new GMC mechanism was contingent on such equal treatment. *See, e.g.,*
13 Ex. Nos. ISO-2(24) at 3 and ISO-2(27) at 24.

14 **Q. WAS CONTROL AREA GROSS LOAD APPROVED AS A BILLING**
15 **DETERMINANT BY THE ISO BOARD?**

16 A. Yes. On June 22, 2000, the ISO Board of Governors approved a motion on
17 GMC unbundling to use Control Area Gross Load to calculate and bill the Control
18 Area Services component of the GMC. The Board's determination to use Control
19 Area Gross Load for the Control Area Services component of the GMC was
20 based on the notion that all Load within the ISO Control Area benefits from the
21 ISO's provision of Control Area Services. The Board's determination treats all
22 Load within the ISO Control Area similarly and does not single out any Load for
23 disparate or discriminatory treatment. To exempt certain Loads within the ISO

1 Control Area from GMC charges would shift GMC costs inappropriately to the
2 remaining Load within the Control Area.

3 **Q. FOR 1999, WHAT ARE THE PRO FORMA COSTS, REVENUES, AND**
4 **OPERATING RESERVE CONTRIBUTIONS FOR THE CONTROL AREA**
5 **SERVICES CATEGORY?**

6 A. Applying the proposed unbundled GMC to 1999 actual figures (*i.e.*, our "Period 1"
7 data), the actual ISO costs assigned to Control Area Services are \$70.96 million
8 or 45.1 percent of total ISO costs. Control Area Services revenues were \$76.76
9 million from 245,513 GWh of Load and exports at a unit rate of \$0.3127 per
10 MWh. Control Area Services contributed \$5.18 million to Operating Reserves.
11 These figures are found in Ex. Nos. ISO-8 and ISO-9.

12 **Q. WITH REGARD TO INTER-ZONAL SCHEDULING SERVICES, PLEASE**
13 **PROVIDE A BRIEF DESCRIPTION OF THE BILLING DETERMINANT THAT**
14 **WILL BE APPLIED TO THIS SERVICE.**

15 A. The billing determinant for Inter-Zonal Scheduling Services is the absolute value
16 of the net scheduled inter-zonal flow (excluding ETCs) per path for that SC.

17 **Q. THIS BILLING DETERMINANT WILL APPLY TO SERVICE TO WHICH**
18 **CUSTOMER GROUPS?**

19 A. Net scheduled inter-zonal flows will apply to all SCs that schedule inter-zonal
20 flows except for that portion scheduled under ETCs.

21 **Q. WERE OTHER BILLING DETERMINANTS CONSIDERED FOR INTER-ZONAL**
22 **SCHEDULING SERVICES?**

1 A. Alternatives considered for this billing determinant were: (1) to include ETCs in
2 inter-zonal flows, or (2) to use congestion charges instead of inter-zonal flows.

3 **Q. WHY WAS THE PROPOSAL TO INCLUDE ETCS NOT ADOPTED?**

4 A. ETCs were excluded because they have rights not subject to the ISO's
5 congestion process. Currently, ISO congestion management software
6 accommodates the scheduling of Existing Contracts by excluding ETCs' Loads
7 before running. The software still settles correctly if the SC for the ETC provides
8 all of the correct information. The software was designed to accommodate ETCs
9 as pre-existing rights.

10 **Q. WHY WAS THE PROPOSAL TO USE CONGESTION CHARGES NOT**
11 **ADOPTED?**

12 A. Congestion charges were not adopted because they only reflect congestion and
13 not the activities behind Congestion Management. Congestion Management
14 takes place at all times, whether there is congestion or not. Scheduling inter-
15 zonal flows creates the need for Congestion Management. Thus, inter-zonal
16 flows are the appropriate determinant of this charge, rather than any resulting
17 congestion. In addition, congestion charges are less predictable than inter-zonal
18 flows.

19 **Q. FOR 1999, WHAT ARE THE *PRO FORMA* COSTS, REVENUES, AND**
20 **OPERATING RESERVE CONTRIBUTIONS FOR THE CATEGORY OF INTER-**
21 **ZONAL SCHEDULING SERVICES?**

22 A. Applying the proposed unbundled GMC to 1999 figures, the actual costs
23 assigned to Inter-Zonal Scheduling Services are \$11.61 million or 7.4 percent of

1 total ISO costs. Inter-Zonal Scheduling revenues are \$10.81 million resulting
2 from 66,388 GWh of scheduled inter-zonal flows at a unit rate of \$0.1628 per
3 MWh. Inter-Zonal Scheduling Services used \$0.80 million of Operating Reserves
4 for 1999. These figures are found in Ex. Nos. ISO-8 and ISO-9.

5 **Q. WITH REGARD TO MARKET OPERATIONS SERVICE, PLEASE PROVIDE A**
6 **BRIEF DESCRIPTION OF THE BILLING DETERMINANT THAT WILL BE**
7 **APPLIED TO THIS SERVICE.**

8 A. The billing determinant for Market Operations Service is the SC's total purchases
9 and sales of Ancillary Services, Supplemental Energy, and Imbalance Energy
10 (both instructed and uninstructed).

11 **Q. THIS BILLING DETERMINANT WILL APPLY TO SERVICE TO WHICH**
12 **CUSTOMER GROUPS?**

13 A. It will apply to all SCs utilizing the ISO's Ancillary Service and Real Time Markets,
14 and those SCs that are charged or credited for Ancillary Services or Real Time
15 Energy.

16 **Q. WERE OTHER BILLING DETERMINANTS CONSIDERED FOR MARKET**
17 **OPERATIONS SERVICES?**

18 A. Alternatives considered for this billing determinant were: (1) to use only the
19 amounts for buyers or "load"; or (2) to use transactions (settlement records)
20 instead of purchases and sales.

21 **Q. WHY WAS THE PROPOSAL TO USE PURCHASES ONLY NOT ADOPTED?**

22 A. The proposed approach for allocating costs associated with Market Operations
23 and Billing and Settlements to both buyers and sellers is consistent with the

1 principles of cost causation, and parallels other commodity markets. In the case
2 of the Real Time Energy market, it is crucial that costs be allocated to both
3 buyers and suppliers since both these groups ultimately contribute to the costs
4 associated with the Imbalance Energy market. For instance, the inclusion of
5 activity in the Real Time Energy market as a key component of the billing
6 determinant for market operations will provide a more accurate reflection of the
7 true costs associated with both supply and demand activities in the Real Time
8 market. The use of purchases only would not be consistent with the principles of
9 cost causation and would distort the Market Operations Services charge.

10 **Q. DO OTHER ISOS USE THE QUANTITY OF GENERATION (“SALES” AS**
11 **WELL AS PURCHASES) AS A BILLING DETERMINANT FOR THEIR COST**
12 **RECOVERY MECHANISMS?**

13 A. Yes. In connection with charging generators (sellers), PJM Interconnection, LLC
14 (“PJM”), uses sales as well as purchases as a billing determinant in charging out
15 its Market Support Service category (Schedule 9-5). PJM uses regulation used
16 (purchased) as well as regulation supplied (sold) as part of its Regulation and
17 Frequency Response Administration Service category (Schedule 9-8). In PJM's
18 settlement filing of May 12, 2000, this determinant is defended on the ground that
19 the generators or sellers benefit from the market PJM makes for the generators'
20 services.

21
22 ISO-New England, Inc. (“ISO-NE”) proposed using generators and generation
23 (sellers and sales) as billing determinants for its proposed Energy Administration

1 Service and its Reliability Administration Service in a filing dated November 1,
2 1999. ISO-NE argued in that filing that the benefits received and cost-causation
3 of the sellers and sales in including this category in its billing determinants.
4 Although the Commission rejected ISO-NE's proposed rate structure due to ISO-
5 NE's lack of operational experience, the proposed structure presented an
6 interesting and well-considered model.

7 **Q. WHY WAS THE PROPOSAL TO USE TRANSACTIONS NOT ADOPTED?**

8 A. Transactions initially were proposed as billing determinants in the Rudden Study
9 in August of 1998. The stakeholders resoundingly rejected the proposal, citing
10 overly burdensome cost shifts to small and medium SCs of an extent likely to
11 prohibit their entrance into the market.

12
13 Moreover, there is no good definition of what constitutes a "transaction" to use as
14 a billing determinant. An approximation might be found in settlement records, but
15 as I mentioned earlier, settlements and billing includes large, complex sets of
16 data and involves, among other things, information from Day-Ahead scheduling,
17 Hour-Ahead scheduling, and Real Time operations. There are many different
18 types of settlement records and charge types, and there are more than 100
19 different database tables in the ISO's Settlement System. In short, settlement
20 data does not provide an easy reference point from which a single definition of
21 "transaction" can be created.

1 **Q. FOR 1999, WHAT ARE THE COSTS, REVENUES AND OPERATING**
2 **RESERVE CONTRIBUTION FOR THE MARKET OPERATIONS SERVICES**
3 **CATEGORY.**

4 A. Applying the proposed unbundled GMC to 1999 figures, the actual costs
5 assigned to Market Operations are \$74.71 million or 47.5 percent of total ISO
6 costs. Market Operations revenues are \$74.31 million from 101,069 GWh of
7 purchases and sales of Ancillary Services and Real Time energy, at a unit rate of
8 \$0.7352 per MWh. Market Operations used \$0.40 million of Operating Reserves
9 for 1999. These as found in Ex. Nos. ISO-8 and ISO-9.

10
11
12
13

V. ESTIMATION OF BILLING DETERMINANT AMOUNTS

14 **Q. FOR CONTROL AREA GROSS LOAD AND EXPORTS, WHAT TYPES OF**
15 **LOADS REQUIRE ESTIMATION BY THE ISO?**

16 A. The type of Load that may require estimation by the ISO is the "behind-the-
17 meter" Load (either QF "on-site" Load or GE Load). It is important not to confuse
18 the type of metering in place (*e.g.* ISO or non-ISO Metering) with the availability
19 of Load data itself. For "behind-the-meter" Loads (either QF "on-site" Load or GE
20 Load), the Load data exists; the issue is whether the entity is willing to share that
21 information with the ISO for billing purposes. As I mentioned earlier, the GEs
22 have committed to sharing this information (either actual or estimated data),
23 while the QF representatives confirmed that information would not be provided by
24 QF entities short of a court order. The details of how the ISO could obtain the
25 actual Load data given the existing meters is described in Mr. Carlson's

1 testimony. The estimation procedures the ISO proposes to use are described in
2 the testimony of Mr. Price (Ex. No. ISO-12).

3 **Q. FOR LOAD SERVED BY ON-SITE GENERATION, WHAT ESTIMATION**
4 **PROCEDURES WILL BE UTILIZED?**

5 A. There are two proposals for on-site load: (1) to use non-coincident peak demand
6 incurred over a test period; or (2) to use contract demand reported in the utilities
7 rate cases. These are described in greater detail in the testimony of James E.
8 Price, Ex. No. ISO-12. The ISO prefers the contract demand method.

9 **Q. PLEASE DESCRIBE THE CONTRACT DEMAND METHOD.**

10 A. The ISO's conceptual approach would be to use the demand component of the
11 UDC standby rate tariffs. Standby contract demand is the lower of generation
12 capacity or on-site Load. The load factor would then be applied, by class of
13 standby customer or by some other percentage (*e.g.*, 60 percent) to the contract
14 demand. As described in the Testimony of James E. Price, a "load factor" is the
15 ratio between actual electric Energy consumption and the consumption that
16 would have occurred if the Load were sustained at its maximum level over the
17 same period of time. Ex. No. ISO-12. The load factor is in the workpapers
18 supporting the standby rate. If a QF either installed a meter or agreed to give the
19 ISO the data for on-site Load, then the ISO would recommend converting that
20 facility from the estimated billing determinants in the formula to the actual Load
21 data.

22 **Q. UNDER THE ISO'S PROPOSAL, CAN AN ENTITY SWITCH BACK AND**
23 **FORTH BETWEEN PROVIDING ACTUAL LOAD DATA AND BEING SUBJECT**

1 **TO ESTIMATED LOAD DATA?**

2 A. No, under the ISO's proposal, once an entity decided either to install a meter or
3 to provide the ISO with actual Load data on an ongoing basis, the entity would no
4 longer have its bill determined by estimated data. Switching back and forth
5 between the use of actual and estimated data based on whichever method is
6 more favorable is not acceptable to the ISO.

7 **Q. PLEASE DESCRIBE WHY THE CONTRACT DEMAND METHOD WAS**
8 **CHOSEN.**

9 A. This method was chosen primarily because it relies on public information
10 provided by the utilities rather than requiring audits of UDC prepared schedules.

11 **Q. FOR UNREPORTED GE INTERNAL LOADS, WHAT ESTIMATION**
12 **PROCEDURES WILL BE UTILIZED?**

13 A. It is important to remember that the GE community is willing to provide the actual
14 Load data to the ISO. Like the QFs, GEs know, or can determine, the Load they
15 serve. The difference is the GEs are willing to provide the Load data to the ISO.
16 In addition, the GE's have expressed a willingness to work toward installing
17 metering equipment so that the ISO can eventually receive metered Load data.

18
19 If the ISO receives no other Load data for a GE, then the ISO will use an
20 estimated Load from the Loads that the GE reported to WSCC. The Loads are
21 reported in the subsequent year (*i.e.*, 1999 Loads are reported in 2000).
22 Substantially all GEs in California report their Loads to the WSCC, and we will
23 utilize the amounts reported for 2000 after adding a factor for Load growth to

1 equate the amounts reported to the relevant year. When the GE is able to report
2 metered Load data, the ISO will discontinue using the estimates. Additionally,
3 amounts reported under this Tariff are subject to audit and an appropriate audit
4 plan will be developed to audit the data the GE provides to the ISO.

5 **Q. THANK YOU, MR. EPSTEIN. I HAVE NOTHING FURTHER.**

6

