

Exhibit 1

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)
Operator Corporation) ER02-____-000
)
)

DIRECT TESTIMONY OF
PHILIP R. LEIBER
ON BEHALF OF THE
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION

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

2 A. My name is Philip R. Leiber and my business address is 151 Blue Ravine
3 Road, Folsom, California, 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
7 Treasurer and Director of Financial Planning.

8

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

10 A. As Director of Financial Planning, I am responsible for coordinating the
11 development of the ISO's annual operating and capital budgets, variance
12 reporting, and rate filings. I am also responsible for treasury functions,
13 including borrowing and investing of funds, risk management, and insurance.

14

15 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

16 A. I received my Bachelor of Business Administration and Master of Accounting
17 from the University of Michigan. I hold a Certified Public Accountant ("CPA")
18 license issued by the State of California, and hold the Certified Cash Manager
19 ("CCM") designation.

20

21 **Q. PLEASE STATE YOUR WORK EXPERIENCE PRIOR TO THE WORK YOU**
22 **ARE DOING TODAY.**

1 From 1992 through 1997, I was employed by Coopers & Lybrand, LLP in San
2 Francisco, in various positions, most recently as a Manager in the Financial
3 Advisory Services group, and prior to that assignment in the audit practice. I
4 performed financial analysis activities in a variety of contexts, including
5 mergers and acquisitions, business reorganizations, and litigation.

6

7 In the audit practice, I was responsible for planning, executing, and reporting
8 of financial audits of public and private companies, including some in the
9 regulated utility industry, high technology, investment, and other industries.

10

11 My other employment has included teaching positions for university-level
12 accounting courses, private CPA exam review courses, internal auditing and
13 other public accounting firm experience.

14

15 I became involved in the electric industry restructuring efforts through my
16 employment with Coopers & Lybrand. In late 1996, Coopers & Lybrand was
17 retained by the ISO Restructuring Trust ("Trust"), a predecessor to the
18 California ISO, as financial administrator for the Trust. I worked in this
19 capacity for approximately 9 months, and then joined the ISO as an
20 employee.

21

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

1 A. I am providing this testimony to support the ISO's 2002 Grid Management
2 Charge ("GMC") rates. The ISO first unbundled its rates in 2001, and I was a
3 Project Manager for that effort. This testimony will explain how the rates
4 proposed for 2002 were developed and how the unbundling effort has
5 evolved.

6

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

8 A. First, I will provide some brief background on the GMC.

9

10 Second, I will provide an overview of the unbundling process, highlighting
11 changes from the prior year to the current year.

12

13 Third, I will provide an overview of the budget process followed to develop the
14 2002 costs.

15

16 Fourth, I will describe changes in the ISO's revenue requirement and rates
17 from 2001 to 2002.

18

19 Fifth, I discuss proposed changes to the unbundled service categories.

20

21 Sixth, I discuss the forecast of billing determinants used to recover the costs
22 in each Service Category.

1 Seventh, I will discuss changes in the budget and rates from the initial
2 stakeholder review, including billing determinant forecast revisions and the
3 overall effect on the proposed rates.

4
5 Eighth, I will describe the Section 35.13 Cost Statements included with this
6 filing.

7
8 Last, I will describe the changes to the ISO Tariff being proposed in this filing.
9

10 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR**
11 **DIRECT TESTIMONY?**

12 A. Yes, I am sponsoring Exh. Nos. ISO-2 through ISO-10, which were prepared
13 under my direction and supervision. These exhibits include the Federal
14 Energy Regulatory Commission ("FERC") Section 35.13 cost statements
15 required in rate filings, the Cost Allocation Matrix which supports the
16 allocation of costs to the various ISO services, together with the documentary
17 support for the Cost Allocation Matrix, entitled "Analytical Support for the
18 California ISO Grid Management Charge." The exhibits are numbered
19 follows:

- 20
21 • Exh. No. ISO-2 Section 35.13 Cost Statements, Period I
22 • Exh. No. ISO-3 Section 35.13 Cost Statements, Period II

- 1 • Exh. No. ISO-4 “Analytical Support for the California ISO
- 2 Grid Management Charge,” including Cost
- 3 Allocation Matrix as Appendix A
- 4 • Exh. No. ISO-5 Proposed Changes to ISO Tariff (clean)
- 5 • Exh. No. ISO-6 Proposed Changes to ISO Tariff (redlined)
- 6 • Exh. No. ISO-7 September 27, 2001 Budget Presentation
- 7 • Exh. No. ISO-8 “Proposed FY2002 Grid Management
- 8 Charge” dated October 17, 2001
- 9 • Exh. No. ISO-9 October 25, 2001 Budget Presentation,
- 10 approved by the Board for 2002
- 11 • Exh. No. ISO-10 Memo From ISO President and CEO Terry
- 12 Winter to ISO Personnel, July 2, 2001
- 13

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

15 A. Yes, I will use capitalized terms as defined in the Master Definitions
16 Supplement, Appendix A of the ISO Tariff.

17
18 **I. BACKGROUND**

19
20 **Q. WHAT IS THE GMC?**

21 A. The GMC is the mechanism through which the ISO recovers generally two
22 types of costs: operating and maintenance (“O&M”) expenses and costs
23 related to the ISO's capital expenditure program, consisting of either debt

1 service costs or directly funded capital expenditures. The general operating
2 and maintenance costs are the direct operating costs for the ISO's various
3 divisions, and include such costs as:

- 4 • Salaries and benefits;
- 5 • Building, leases, and facilities costs;
- 6 • Insurance;
- 7 • Third-party vendor contracts;
- 8 • Professional and consulting services;
- 9 • Legal and audit costs;
- 10 • Training, travel and professional dues; and
- 11 • Other miscellaneous costs.

12 Debt service costs consist of principal and interest payments for the ISO's
13 start-up and development costs and ongoing capital expenditures. The
14 revenue requirement also contains certain offsets to such costs in the form of
15 interest earnings on invested funds, and certain minor fees collected outside
16 the GMC. In addition, an operating reserve credit or deficiency affects the
17 total amount of funds collected through the GMC.

18
19 Collectively, all of these categories of costs comprise the ISO's overall
20 revenue requirement that is recovered through the GMC.

21
22 **Q. PLEASE DESCRIBE HOW THE ISO ACCOUNTS FOR THESE COSTS.**

23 A. These various types of costs receive different kinds of treatment in our
24 accounting system, and are assigned to the unbundled GMC in different
25 ways.

26
27 **Q. HOW DOES THE ISO ACCOUNT FOR OPERATING COSTS?**

1 A. Operating costs are both budgeted and incurred directly by the ISO's cost
2 centers. During the budgeting process, each ISO cost center develops its
3 proposed budget, and in many cases provides the allocation factors that
4 indicate how these proposed costs are to be allocated to the ISO Service
5 Categories (for other Departments, the allocation factors are determined
6 based on the results of other departments). This allows for the proposed
7 revenue requirements and the rates for each ISO Service Category to be set
8 in advance. As operating costs are incurred, they are assigned directly to
9 individual cost centers. To report actual costs for the ISO on an unbundled
10 basis, the allocation factors developed during the budgeting process are
11 applied to the actual costs.

12

13 **Q. HOW DOES THE ISO ACCOUNT FOR CAPITAL COSTS?**

14 A. The ISO's capital costs consist primarily of computer software costs, since
15 most of the ISO's computer hardware is leased, and hence is recorded as an
16 operating expense. For the most part, this computer software is developed
17 by outside vendors under contracts with the ISO. The ISO records payments
18 made under such contracts to its fixed assets in its accounting system, and
19 such costs are recorded on the ISO's balance sheet. These costs are not
20 recorded by ISO Division or cost center, but rather by fixed asset categories,
21 such as "EMS" and "Scheduling Infrastructure." The initial infrastructure costs
22 of developing the ISO received similar treatment. Such costs consisted of
23 computer hardware and software, facilities, and startup costs. Many of these

1 costs were incurred by the ISO Restructuring Trust, and then transferred to
2 the ISO. Such costs are recovered through the GMC in the form of the debt
3 service payments of principal and interest to the ISO's creditors. When
4 possible, the ISO borrows funds to pay for capital expenditures by issuing
5 bonds directly to investors. Over time, the interest and principal payments
6 related to the bonds are paid by GMC collections. Debt service collections
7 comprise approximately 20 percent of the total GMC.

8
9 **Q. HOW DOES THE ISO ACCOUNT FOR OTHER TYPES OF COSTS?**

10 A. In addition to operating and debt service costs, the ISO collects operating
11 reserve funds through the GMC. Operating reserve collections are intended
12 to provide coverage for unforeseen expenses and to provide a cushion to
13 enable debt service payments to be made. Operating reserve collections
14 provide a necessary level of financial security demanded by ISO creditors.
15 Operating reserve collections are budgeted in setting the annual GMC, and
16 are collected at the rate of 25 percent of budgeted debt service each year.
17 Operating reserve funds, to the extent that they exceed 15 percent of the
18 operating budget for a particular GMC service category, are also available as
19 an offset to the ISO's overall revenue requirement (or, in the case of a
20 deficiency, are collected as an element of the ISO's overall revenue
21 requirement). This is discussed elsewhere in my testimony. The ISO also
22 has certain other offsets to its revenue requirements, including interest
23 earnings and other fee collections, such as fees charged to participants of

1 ISO-sponsored training classes. These are accounted for in a similar manner
2 as operating expenses.

3
4
5 **II. THE UNBUNDLING PROCESS**
6

7
8 **Q. PLEASE DISCUSS HOW THE UNBUNDLING PROCESS HAS CHANGED**
9 **IN THE PAST YEAR.**

10 A. Calendar year 2001 was the first year the ISO had an unbundled GMC rate
11 structure in place. The 2001 GMC proceeding is ongoing in Docket No.
12 ER01-313 as this Direct Testimony is being written. In 2001, the ISO filed a
13 GMC that divided the ISO costs into three service categories: Control Area
14 Services, Inter-Zonal Scheduling, and Market Operations.¹

15
16 Since developing the unbundled service costs for 2001, the ISO has improved
17 the transparency and probable accuracy of the cost allocation process
18 significantly, and has used this improved process in the development of the
19 2002 budget and rates. I note, however, that the actual results of the
20 allocation process have changed by only a few percent overall from 2001 to
21 2002, pointing to the general reasonableness of the process used in 2001.
22 Just as in 2001, the general process used for 2002 involved examining the
23 ISO's O&M and capital costs, and assigning or allocating such costs to the
24 ISO's unbundled service categories as appropriate.

¹ As I will describe later in this testimony, for 2002 the second service category, Inter-Zonal Scheduling, is being renamed Congestion Management, and the third service category, Market

1 **Q. PLEASE DESCRIBE HOW THE ISO DEVELOPED THE ASSIGNMENT**
2 **PERCENTAGES THAT WERE USED TO DISTRIBUTE THE ISO'S COSTS**
3 **AMONG THE SERVICE CATEGORIES.**

4 A. The ISO's rates are calculated separately by ISO unbundled service category.
5 This requires that all costs that make up the ISO's total revenue requirement
6 be allocated to these categories. Accordingly, the assignment percentages
7 were developed for the ISO's operating costs, capital costs, and other
8 elements of the ISO's revenue requirement. The process of assigning the
9 ISO's costs involved staff from across the ISO. ISO managers and directors
10 utilized general descriptions of the ISO tasks and responsibilities related to
11 each of the service categories in this process. The general descriptions were
12 developed through the GMC unbundling studies that took place from 1998
13 through 2000. The descriptions were related to the service categories used in
14 the 2001 GMC filing. For the 2002 service categories, slight modifications
15 were made to the definitions. After these modifications, where appropriate,
16 the departments reviewed and modified their allocations to reflect the slightly
17 different definitions. Changes to the definitions were limited -- reflecting only
18 the inclusion of ISO administration of Ancillary Service self-provision in the
19 third service category, and recognizing that all three service categories, not
20 just the third, use settlements and billing. Separate processes were used to
21 allocate O&M costs, and capital costs. I will discuss the process used for
22 O&M costs first.

Operations, is being both renamed and revised. The third category will now be called Ancillary

1 The ISO developed and used a new computer program to collect budget
2 information for 2002. The internet-based computer program was developed
3 in-house, and is known simply as the "Budget Tool". This program
4 accommodates the customized needs of the ISO's unbundled GMC. All ISO
5 O&M costs were budgeted using this tool. The ISO's O&M budget is
6 developed by "cost center," which is an area of responsibility or function.
7 Each cost center is managed by an ISO officer, director, or manager. As
8 these individuals prepared their proposed budgets for 2002, they were
9 required to document their budget request on a very detailed basis by
10 expense type. Concurrently with the development of their budgets, they were
11 required to assign all costs to one of four categories, consisting of the ISO's
12 unbundled service categories: (1) Control Area Services, (2) Congestion
13 Management (formerly Inter-Zonal Scheduling), (3) Ancillary Services and
14 Real Time Energy Operations (formerly "Market Operations"), and an
15 additional category (4) "General", for costs that were not directly related to the
16 ISO's unbundled services. As I discussed earlier, at the time the assignments
17 initially were made, the 2001 GMC categories were used. After the changes
18 to the third category were decided upon, costs were re-allocated as
19 appropriate for affected cost centers. As a result of this assignment process,
20 all ISO costs potentially could be assigned directly to the three unbundled
21 categories, if appropriate. This was an improvement over the process used in
22 2001, in which functions that were primarily overhead, such as Finance &

1 Accounting, had all costs allocated to the unbundled categories on the basis
2 of the results of direct cost assignments of other departments. In general, the
3 ISO has two types of cost centers: direct and indirect. For direct cost
4 centers, most costs can be assigned directly to the unbundled service
5 categories. Certain costs within those departments were assigned to the
6 General category, but these were re-distributed to the unbundled categories
7 based on the allocations of other costs in that department between the three
8 categories.

9
10 For departments that supervise other departments, costs were assigned
11 either directly to the three unbundled categories or to the General category.
12 Costs assigned to the General category were then reassigned to the three
13 unbundled categories based on the results of the cost allocations for the
14 departments that were supervised. This allocation method was entitled
15 "Allocated based on Supervised Departments costs."

16
17 For indirect cost centers such as Human Resources, or Facilities, which
18 provide services that are not directly related to the unbundled categories,
19 most costs were assigned to the General category, and these costs were then
20 assigned to the three unbundled categories based on the allocation results of
21 other cost centers, using one of four methods, (1) Allocated Based on
22 Department Direct Costs (which is similar to the method I just mentioned
23 above), (2) Allocated Based on Direct Operating Costs (3) Allocated Based

1 on Labor Dollar Ratios, and (4) Allocated Based on Labor Dollar Ratios –
2 Special. These approaches are described in detail in the support for the Cost
3 Allocation Matrix (Appendix A to Exh. No. ISO-4). The use of Labor Dollar
4 Ratios for 2002 represents a change from 2001. Both methods produce
5 nearly the same results.

6
7 **Q. PLEASE DISCUSS HOW THE INDIRECT COSTS WERE ALLOCATED,**
8 **AND IF THIS PROCESS DIFFERED FROM 2001.**

9 Many of the ISO's managers and directors are responsible for functions that
10 do not directly relate to any of the Service Categories, or provide benefit to all
11 of the Service Categories. Examples of these functions include human
12 resources, certain information technology functions such as general desktop
13 support, and general accounting. These "overhead" type costs were
14 assigned to the Service Categories proportionally based on the results of the
15 allocation other departments. For example, under one method used, if
16 unbundled Service Category "A" contained 40 percent of ISO costs, and
17 unbundled Service Category "B" contained 60 percent of ISO costs prior to
18 the allocation of general accounting department costs, categories A and B
19 would be allocated 40 percent and 60 percent of the accounting department
20 costs, respectively.

21
22 As I discussed above, five different approaches were used for assigning
23 these indirect costs. In general, the example described above is

1 representative. The allocation methods used for each ISO Cost Center are
2 discussed in detail in Exh. No. ISO-4, "Analytical Support for California ISO
3 Grid Management Charge."

4
5 The ISO Finance Department then totaled the costs for each cost center
6 resulting from this process to determine the total amount of operating costs
7 assigned to each Service Category.

8

9 **Q. IN GENERAL, WHAT CHANGES WERE MADE TO THE METHODS BY**
10 **WHICH OPERATING AND MAINTENANCE COSTS WERE ALLOCATED IN**
11 **2002?**

12 A. A comparison of the cost allocation matrix for 2002 versus 2001 will reveal
13 three main changes. First, the cost centers have been revised to reflect the
14 internal reorganization that the ISO undertook in early 2001. Certain new
15 costs centers were created, and others were moved to new locations.
16 Second, the methods used to allocate certain cost centers were revised. For
17 example, last year, certain simplifying assumptions were used to enhance the
18 clarity of the cost allocation matrix, leading to a possibly less than
19 theoretically optimal allocation approach. This year, to the extent possible,
20 the most theoretically sound approach was used, even if this made the
21 document somewhat more difficult to follow. For example, in 2002, the costs
22 of department that supervises other departments are generally allocated to
23 the service categories based on the results of those other departments,

1 whereas in 2001, this was not always done. Third, the method of using
2 "headcount" as a basis of allocation was replaced by "Labor Dollar Ratios".
3 Beyond that, as would be expected, the actual allocations of many
4 departments changed based on changing responsibilities, budgets, or
5 assumptions as to how they support the three unbundled service categories.

6
7 **Q. WHAT REVIEW PROCESS WAS USED BY THE ISO TO CONSIDER THE**
8 **APPROPRIATENESS OF THE ALLOCATION FACTORS DEVELOPED**
9 **PRIMARILY BY INDIVIDUAL ISO DEPARTMENTS?**

10 A. As noted above, the determination of the appropriateness of allocation factors
11 was primarily the responsibility of individual ISO department managers and
12 directors. For "Directly Assigned" departments, the ultimate allocation of that
13 department's costs primarily was subject to their knowledge and expertise. In
14 some cases, the ISO's Finance department had questions about the
15 allocation factors supplied by the department, or believed that allocation
16 factors used were inappropriate and required revision. In such cases, a
17 discussion was held between members of the ISO's Finance department and
18 these departments, and if appropriate, adjustments were made. For non-
19 "Directly Assigned" departments, whose costs were allocated based on
20 another methodology, the ISO's Finance Department generally determined
21 the most appropriate method.

22

1 **Q. PLEASE DESCRIBE HOW THE ISO DEVELOPED THE ASSIGNMENT**
2 **PERCENTAGES THAT WILL BE USED TO DISTRIBUTE THE ISO'S**
3 **CAPITAL COSTS AMONG THE SERVICE CATEGORIES.**

4 A. Essentially the same process used in 2001 was used for 2002. The ISO's
5 capital costs are collected through the GMC in the form of debt service on
6 borrowed funds. In 2002, some of these costs will now be collected directly
7 from the revenue requirement. Both are allocated in essentially the same
8 manner. These funds have either already been spent, in which case the
9 spending on the actual projects is the basis for assigning the costs to the
10 categories, or the funds anticipated to be spent on certain projects is used for
11 the basis for assigning the costs.

12
13 In order to determine how the debt service costs are allocated, it was
14 necessary to look to how the bond funds were or will be spent. The capital
15 costs incurred by the ISO to date have been analyzed retrospectively, and
16 have been assigned to the appropriate ISO Service Category using various
17 methods. Many costs had already been assigned as part of last year's
18 unbundling analysis. Final cost information for the year 2000 and cost
19 information for the year 2001 to date were analyzed and assigned to the three
20 unbundled categories.

21
22 Some capital costs were assigned entirely to one ISO Service Category.
23 Others were allocated to the categories using various methods, as

1 appropriate. This assignment and allocation process has involved not only
2 staff from the accounting and finance function, but significant involvement of
3 the users and managers of the software. To the extent possible, unbundling
4 information is obtained from them when the project is initiated. For many of
5 the ISO computer systems, such expertise is necessary to assign the costs to
6 the appropriate ISO Service Categories accurately. For example, certain of
7 the ISO's major computer systems, specifically, the Scheduling Applications,
8 Scheduling Infrastructure, and Balance of Business Systems, were procured
9 under a single contract. These computer applications are used in all of the
10 ISO's Service Categories. Accordingly, it was necessary to analyze this
11 contract in depth and to assign the costs related to various contract
12 milestones to the appropriate Service Category.

13
14 Other capital costs were allocated based on the results of other capital costs
15 allocations, or based on the results of operating cost allocations. For
16 example, facility-related costs were allocated based on the results of the
17 operating cost allocations, as facilities are used by all ISO personnel.

18
19 For capital costs that have not yet been spent, budgeted information is used.
20 For example, funds related to the 2002 capital budget are allocated based on
21 the projects in the proposed 2002 capital budget.

22

1 **Q. WERE THERE ANY OTHER COSTS TO ASSIGN TO THE SERVICE**
2 **CATEGORIES?**

3 A. Other costs that needed to be assigned included other revenues and cost
4 reimbursements, as well as operating reserve related items.

5

6 Other revenues include interest on reserve funds. Projected interest earnings
7 have been allocated to the Service Categories *pro rata*, based on the results
8 of the other cost allocations. Cost reimbursements related to Western
9 System Coordinating Council ("WSCC") dues have been assigned to the
10 same Service Category as the ISO security coordination function, which this
11 amount reimburses.

12

13 I will discuss operating reserve-related collections and credits later in my
14 testimony, but will provide an overview here. The ISO is obligated by its debt
15 agreements to collect an additional 25 percent for coverage in excess of its
16 debt service payments. These collections are allocated on the same basis as
17 the underlying debt service collection.

18

19 Additionally, the ISO's budget results from 2001 affect the 2002 revenue
20 requirement through the operating reserve. For each service category, the
21 operating reserve is calculated separately, and results in either an additional
22 collection required in 2002, or a credit towards the 2002 revenue requirement
23 for that service. I will discuss this further later.

1 **Q. WHAT WERE THE RESULTS OF THIS COST ALLOCATION PROCESS?**

2 A. The results of the cost allocation process are reflected in the Cost
3 Assignment Matrix set forth in Appendix A to Ex. No. ISO-4. This matrix
4 indicates how the costs from each of the ISO's divisions and capital-related
5 costs are to be assigned to the Service Categories. For this filing, Period I
6 data consists of year 2000 actual costs. As unbundling factors were not
7 developed for 2000, and an unbundled rate was not in effect, we have not
8 attempted to unbundle year 2000 costs. Period II data for this filing are the
9 2002 budgeted figures. For 2002, allocation factors were developed
10 concurrently with the budgeting process. It is necessary to develop new
11 allocation percentages annually to ensure that the percentages are accurate
12 in light of any new responsibilities taken on by the ISO, reorganization within
13 the ISO, or changed costs. The 2002 results (gross allocation factors, prior to
14 the effect of the operating reserve) are as follows:

15	1. Control Area Services	54.1%
16		
17	2. Congestion Management (previously Inter-Zonal Scheduling)	10.7%
18		
19	3. Ancillary Service and Real Time Energy Operations	35.2%
20	(previously Market Operations)	
21		

22 In comparison, figures used in 2001 were:

23	1. Control Area Services	48.1%
24		
25	2. Inter-Zonal Scheduling	8.7%
26		
27	3. Market Operations	43.2%
28		
29		

1 Several factors caused the change from the allocation percentages used in
2 the 2001 rate filing. These include the factors I have discussed so far, and
3 slight changes to the categories, as I will discuss later.

4
5
6
7
8

III. THE ISO'S BUDGET PROCESS

9 **Q. PLEASE DESCRIBE THE ISO'S CURRENT BUDGET APPROVAL**
10 **PROCESS.**

11 A. The current ISO budget approval process is described in general in the ISO
12 Tariff (Appendix F, Schedule 1, Part D), and generally follows the practice
13 used in previous years. In the summer of 2001, the ISO Governing Board
14 approved a schedule by which various events in the budget process are to
15 take place.

16

17 In 2001, the process of developing the 2002 budget began early in the spring.
18 Due to additional data requirements necessary for unbundling, the ISO
19 developed a new budgeting tool, as was discussed earlier. In July, the ISO's
20 various departments begin preparation of their proposed budgets for the
21 subsequent year. The process began with a memorandum by Terry Winter,
22 the ISO's CEO, to all employees who would be involved in the budgeting
23 process, providing the general framework and assumptions that would be
24 used in the process. That memorandum is provided with this filing as Exh.
25 No. ISO-10. Departments were instructed to develop a "base budget", which
26 would include those services contemplated in the 2001 budget that would be

1 necessary for 2002. Additional programs would be documented separately
2 as "incremental programs". Possible cost saving measures that would have a
3 significant impact on ISO service were documented separately as
4 "decremental programs". These budgets are reviewed and modified through
5 several iterations. The ISO Officers considered all of these separate
6 programs and developed a "management recommended budget" that was
7 presented to the ISO's Finance Committee in early September for comments
8 and guidance. The Finance Committee reviewed the proposed budget, and
9 recommended that the budget be presented to the full Governing Board at the
10 September meeting. The ISO Governing Board reviewed the proposed
11 budget and authorized it to be posted on the ISO's web-site. This posting
12 took place on September 27 (Exh. No. ISO-7). Posting of the preliminary
13 proposed budget allows for public input on the budget before approval by the
14 ISO Board of Governors and filing with FERC. Stakeholders were invited to
15 submit comments and ask questions about the budget at a public budget
16 meeting held on October 4. The workshop was attended by ISO officers,
17 various managers and staff, and stakeholders. In the three-hour meeting, the
18 budget was examined in detail, and all interested parties were given the
19 opportunity to participate in the discussion. Stakeholders were encouraged to
20 submit written comments to be presented to the Board of Governors.
21 Additionally, the ISO presented the proposed budget at the Market Issues
22 Forum stakeholder meeting on October 11. At the October Board meeting,
23 the Board was provided with a summary of stakeholder comments received

1 by the ISO, and the final version of the budget was submitted for approval.
2 Exh. No. ISO-9. During October, the ISO staff also prepared the Section
3 35.13 cost statements and testimony related to the 2002 budget and rates.
4

5 **Q. HAS THIS PROCESS GENERALLY BEEN CONSISTENT WITH THE**
6 **PROCESS YOU INDICATED WOULD BE FOLLOWED IN YOUR**
7 **PREVIOUS RATE FILING FOR 2001?**

8 A. Yes, very much so. As I indicated last year in my Direct Testimony in Docket
9 No. ER01-313, the ISO will publish annually a proposed budget timeline that
10 will contain the dates that information will be released to stakeholders for
11 input and comments. Last year I indicated that the significant milestones
12 under the schedule would be:

- 13
- 14 1. Subsequent year's proposed budget, billing determinant volumes, cost
 - 15 allocations, and rates published (September);
 - 16 2. Public budget workshop (October);
 - 17 3. Board Approval of Budget and Rates (November); and
 - 18 4. FERC Informational Filing containing budget information and rates to
 - 19 be effective January 1, 2001 (December).
- 20

21 I also indicated that the rates in the December filing would be based on the
22 rate formulas in the ISO Tariff, the approved budget, and associated billing
23 determinant projections, and that the ISO intends to provide sufficient detail
24 about the budgets, billing determinants, and resulting rates for stakeholder
25 understanding and clarity, and will provide additional supporting details and
26 workpapers to stakeholders upon request, subject to any confidentiality
27 constraints.

1 The ISO has followed these procedures for the development of the 2002
2 rates, with only a change to the dates in the items 3 and 4 noted above. The
3 dates were accelerated out of a desire to make a single filing this year rather
4 than a two-part filing, as was done for 2001.

5

6 **Q. HOW DOES THE ISO'S STAFF PREPARE THE PROPOSED CAPITAL**
7 **BUDGETS EACH YEAR?**

8 A. During June, the ISO Finance Department commences the budgeting
9 process. The capital budgeting process is performed concurrently with the
10 operating budget development process, as they are related -- the size and
11 composition of the capital budget can have an effect on the operating budget.
12 As a starting point, the Finance Department distributes a list of projects that
13 were proposed earlier, but which have not yet commenced. Managers and
14 directors review the list, and make additions and deletions to arrive at a list of
15 potential projects that might be completed in the subsequent year ("Budget
16 Year"). These projects include internally-generated project proposals or
17 process changes, regulatory-mandated changes, stakeholder requests, and
18 other business needs. The sponsor of each potential project is responsible
19 for developing or reviewing the capital cost estimate and noting the operating
20 expenses related to the project. The number of projects suggested generally
21 will exceed the number the ISO is able to implement, in terms of staffing
22 resources and preliminary funding limits. The ISO managers and officers
23 therefore will eliminate those projects that are beyond the preliminary budget

1 and staffing constraints. This is an iterative process that goes through
2 several cycles. The Finance Department maintains the list of proposed
3 projects and re-circulates it to ISO managers and officers throughout the
4 process. The projects that are included in the final proposed project listing
5 are those projects considered most critical by management. The list was
6 made available to stakeholders by a posting on the ISO's web-site. The
7 listing was masked to exclude the dollars associated with individual projects,
8 but a summary of costs by area was provided. The masking of individual
9 project costs is necessary to avoid releasing sensitive data to potential ISO
10 vendors.

11
12 This process results in the capital budget that is reviewed with the Finance
13 Committee of the Board in order to develop the proposed budget that is
14 posted for public comment and then submitted to the full Board for approval.

15
16 The capital budget that is approved by the Board is not a static list of projects
17 that will be implemented during the next year. Rather, it is a list indicative of
18 the magnitude of anticipated overall spending, and the priorities at that time.
19 During the course of the Budget Year, all projects with costs in excess of \$1
20 million are brought to the Board for approval, so continued review and
21 approval of each project is maintained.

22

1 In addition, before spending on a project proceeds, the project is subjected to
2 a rigorous internal review at the ISO. First, a proposed project is brought to
3 the ISO Project Steering Committee, consisting of a number of ISO Officers,
4 Directors, and Managers. A summary of the proposed project is presented
5 and the project sponsor must justify the need for the project. If a proposed
6 project clears this Committee, the project sponsor may proceed to prepare
7 the additional documentation that is required before any project commences.
8 This project documentation consists of a business impact analysis, risk
9 analysis, system impact analysis, and cost-benefit analysis. Once completed,
10 the documentation is reviewed by all parties required to authorize a project in
11 the ISO. These parties include a responsible Director, Executive Sponsor (an
12 ISO Officer), the ISO Project Steering Committee leader, the Chief Financial
13 Officer, and CEO (if the project is over \$100,000.) All projects with a value in
14 excess of \$100,000 must be approved by the ISO's CEO. Furthermore, as
15 discussed above, projects in excess of \$1 million must be approved by the
16 ISO Governing Board.

17
18 With the unbundled pricing structure, an additional factor to consider in the
19 capital budget development and project approval process is the impact of
20 project development costs on the estimated rates for each Service Category.
21 As previously discussed, all capital project and associated support costs will
22 be allocated between the Service Categories that the project is deemed to
23 support.

1 **Q. HOW IS THE BUDGETING PROCESS RELATED TO THE UNBUNDLING**
2 **EFFORTS?**

3 A. As discussed elsewhere, the information necessary to calculate the
4 unbundled rates is gathered during the budgeting process. Allocation
5 percentages for operating costs were gathered or developed concurrently
6 with the proposed budget. As I discussed earlier, for many departments,
7 specific costs are assigned directly to the unbundling categories as the
8 budget is developed. For other departments, their costs are allocated
9 unbundling categories by the ISO Finance department using various
10 methodologies, as documented in the Cost Allocation Matrix. Exh. No. ISO-4,
11 Appendix A.

12
13 Items in the proposed capital Budget also require assignment to one or more
14 of the ISO's Service Categories. This assignment process is performed as
15 projects are initiated for projects already underway, or at the time proposed
16 projects are included in the proposed 2002 capital budget.

17
18 Information on the unbundling process, including the cost allocation
19 methodology, and detailed cost allocation matrix was provided to
20 stakeholders as part of the budget posting made available to stakeholders on
21 September 27, 2001. Exh. No. ISO-7.

22

1 **Q. WERE ANY CHANGES MADE TO THE BUDGET OR RATES AFTER THE**
2 **POSTING OF THE PRELIMINARY PROPOSED BUDGET ON THE ISO**
3 **WEBSITE?**

4 A. Yes. I will discuss these changes later in my testimony.

5
6
7
8

IV. CHANGES IN REVENUE REQUIREMENT AND RATES
FROM 2001 TO 2002

9 **Q. HOW ARE THE RATES FOR 2002 DIFFERENT FROM 2001?**

10

11 A. The rates for all three of the GMC service categories are changing.
12 Unfortunately, two of the GMC rates increase substantially. The rate for the
13 third category is essentially flat. Each rate is calculated by dividing the
14 revenue requirement for that category (the numerator) by the forecasted
15 billing determinant volume for that category (the denominator). There have
16 been significant changes to the amounts in the numerator and denominator of
17 all three service categories. I will primarily discuss the numerator of these
18 equations here, focusing on change to the ISO's overall revenue requirement.
19 I will then describe the effect of these changes on the rates. I discussed the
20 cost allocations previously, and will discuss changes in the billing determinant
21 volumes later in this testimony.

22

23 **Q. HOW DID THE ISO'S OVERALL REVENUE REQUIREMENT CHANGE**
24 **FROM 2001 TO 2002?**

25 A. For the ISO as a whole, the revenue requirement increased from \$225 million
26 to \$244.5 million. These figures are the ISO's net revenue requirement, after

1 the affect of any carry-forwards from the prior year due to the effect of the
2 ISO's operating reserve. On a gross basis, the revenue requirement
3 increased from \$232 million to \$243 million. Because the ISO's rates are
4 unbundled, a separate revenue requirement is calculated for each service
5 category. At this point I will generally describe the revenue requirement of the
6 ISO as a whole.

7
8 **Q. WHAT WERE THE CAUSES OF THOSE CHANGES?**

9 A. Four main factors caused the change in the overall revenue requirement.

10 These were:

- 11 • Operating and Maintenance Budget
- 12 • Finance and Cash Funded Capital Expenditure Budget
- 13 • Expense Recovery Budget
- 14 • The Available Revenue Credit or Deficiency

15
16 **Q. PLEASE EXPLAIN THE INCREASE IN THE O & M BUDGET.**

17 A. The O&M budget increased from \$171.8 million to \$177.5 million, an increase
18 of about 3 percent. The increase was generally caused by an increase in
19 responsibilities undertaken by the ISO since the 2001 budget was prepared.
20 As has been the case since 1998, the sheer number of tasks performed by
21 the ISO, and continued changes to our market rules and structure, increased
22 the ISO's cost of doing business. Since the 2001 budget was prepared in the
23 summer of 2000, much has changed in the wholesale California energy

1 market, such as the demise of the Power Exchange, the entrance of the
2 California Department of Water Resources as purchaser of the net short
3 position, the bankruptcy of Pacific Gas and Electric Company, the expansion
4 of demand responsiveness, continued modifications to our market rules,
5 refund litigation, continued settlement statement re-runs, and investigations
6 from numerous regulatory and governmental authorities.

7
8 The budget was prepared in such a way as to highlight the costs of continuing
9 tasks from the 2001 budget. The cost of performing in 2002 those activities
10 contemplated in the 2001 budget would be approximately \$166 million.
11 Salary and compensation adjustments for ISO employees would cost
12 approximately \$3 million. The difference between the ISO's proposed O&M
13 budget of \$177.5 million and \$169 million explained above is due to new
14 requirements for 2002 and for services not included in the 2001 approved
15 budget.

16

17 **Q. PLEASE EXPLAIN THE CHANGES IN THE FINANCE AND CASH FUNDED**
18 **CAPITAL EXPENDITURE BUDGET.**

19 A. This category consists of debt service on ISO outstanding and planned debt,
20 cash funded capital expenditures, and the coverage requirement on the debt.
21 These costs increased from \$63.1 million in 2001 to \$68.3 million for 2002, an
22 increase of \$5.2 million. \$2.5 million of the change was due changes in debt
23 service cost on the ISO's year 2000 bond issuance. Contributing factors were

1 higher interest expense in 2002, due to the loss of the ISO's creditworthy
2 bond rating, and higher principal payments, as these were inadvertently
3 under-budgeted in 2001. Next, a new bond issuance is planned for 2002. A
4 similar bond issuance was planned for 2001, but was never completed due to
5 the financial crisis in the California energy markets leading to the ISO's
6 inability to secure credit. A total of \$10.6 million was included in the year
7 2001 revenue requirement to service this bond issuance. In 2002, a total of
8 \$4.4 million is included in the revenue requirement to support the planned
9 2002 bond issuance. Accordingly, the revenue requirement decreases \$6.2
10 million related to the change in the amount of the planned bond issuance in
11 2002 as compared with the planned bond issuance in 2001.

12
13 Last, this category includes \$8.3 million for cash funded capital expenditures.
14 The ISO has budgeted \$22 million to support its capital expenditure needs for
15 2002. This \$22 million is to be funded in part by the planned bond issuance,
16 with the remainder funded by the \$8.3 million directly funded from the
17 revenue requirement. The ISO requires this \$8.3 million direct funding
18 because it is unlikely that the ISO will be able to issue bonds as funds are
19 needed in 2002, due to continued financial uncertainty related to the energy
20 crisis. We assume that a bond issuance will be possible by the second or
21 third quarter of 2002. The \$8.3 million will provide funds for the capital budget
22 until that time. The \$8.3 million will be deposited in the ISO's operating

1 reserve as collected, and the operating reserve will be drawn upon as the
2 capital expenditures are made.

3

4 **Q. PLEASE DESCRIBE THE PLANNED 2002 BOND ISSUANCE.**

5 A. The ISO intends to issue \$20 million in bonds to fund a portion of the 2002
6 capital budget. The bonds would have a five-year amortization, matched to
7 the expected life of the assets the bonds would finance, which are mainly
8 computer software. We expect the bonds would have a higher interest rate
9 than our current debt, due to the ISO's impaired credit rating. We assume a
10 5.5 percent interest rate. If the ISO is unable to execute the bond issuance,
11 or this issuance must take place much later than anticipated, the ISO will
12 have to cut its capital budget below the \$22 million. To some extent, the
13 ISO's operating reserve could be used to fund a portion of the shortfall, as
14 was done in 2001, but this is not a desirable option. The ISO will submit a
15 Section 204 filing with FERC to request authorization for the bond issuance at
16 some time in 2002, when financial conditions will permit the bond issuance to
17 proceed.

18

19 **Q. IF THE ISO EXECUTES A BOND ISSUANCE, COULD THE PROCEEDS BE**
20 **USED TO REPLENISH THE OPERATING RESERVE FUNDS USED AS**
21 **CASH FUNDED CAPITAL EXPENDITURES?**

22 A. Yes, this is possible. Of the planned \$20 million bond issuance, \$13.7 million
23 will be spent to fund the 2002 capital budget. The difference, \$6.3 million,

1 could be either (1) set aside for 2003 capital expenditures, or (2) used to
2 replenish part of the operating reserve spending planned for 2002. Neither
3 approach would have a direct effect on 2002 rates, but could affect 2003 and
4 future rates. If the ISO's capital budget for 2003 is minimal, it may make the
5 most sense to follow the first option. If the capital budget is expected to be
6 larger, the second option may be preferable, as a bond issuance in 2003 may
7 be necessary. Replenishing the reserve would best spread the costs of the
8 capital projects over the expected life of the capital improvements. This rate
9 filing provides for the first alternative, but the ISO will continue to study both
10 alternatives and will decide next year if a change is warranted.

11
12 **Q. PLEASE EXPLAIN THE CHANGES TO THE EXPENSE RECOVERY**
13 **BUDGET.**

14 A. These changes were very minor. The expense recovery budget increased
15 from \$2.4 million in 2001 to \$2.6 million in 2002. This budget consists of
16 various offsets to the ISO revenue requirement, including interest income,
17 WSCC reimbursements for the security coordination function, and scheduling
18 coordinator application fees. The increase is due to additional WSCC
19 reimbursements.

20
21 **Q. HOW DID THE OPERATING RESERVE AFFECT THE REVENUE**
22 **REQUIREMENT FOR EACH CATEGORY?**

1 A. The operating reserve acts as a balancing account related to the costs of the
2 previous year. Accordingly, costs and revenues from year 2001 affect the
3 revenue requirement in 2002. For two of the three service categories (Control
4 Area Services and Inter-Zonal Scheduling/Congestion Management),
5 shortfalls in 2001 resulted in the need for additional revenue collections in
6 2002. For the third, Ancillary Service and Real Time Energy Operations
7 (previously entitled "Market Operations"), excess net revenues from 2001
8 result in a credit toward the revenue requirement in 2002.

9

10 **Q. DID THE ISO FOLLOW THE PROCEDURE DISCUSSED IN THE 2001**
11 **RATE FILING WITH RESPECT TO THIS ISSUE?**

12 A. Yes. In my testimony related to the 2001 rates, I discussed the process that
13 the ISO would use to reconcile the actual costs and revenues for its services
14 with the budgeted costs and revenues. I noted that the rates for the three
15 ISO Service Categories will be set annually based on budgeted costs and a
16 forecast of the billing determinant for each service, and that an operating
17 reserve will be maintained for each ISO Service Category to record the
18 variance between budget and actual figures. I also noted that the operating
19 reserve is funded annually with a collection of 25 percent of budgeted debt
20 service, and that the operating reserve ultimately is targeted to build to a level
21 equal to 15 percent of overall budgeted operating expenses by ISO Service
22 category. I also noted that because the operating reserve includes the effects
23 of variances from one year to the next, that it is possible that some excess

1 collections in one year will be used to subsidize rates in a subsequent year, or
2 vice-versa. Finally, I discussed that the operating reserve helps serve an
3 essential purpose to ensure that the ISO will have sufficient resources in the
4 event of variances during the year.

5

6 This mechanism has served its intended purpose, and has worked according
7 to the procedures I noted would be in place in the 2001 rate filing.

8

9 **Q. HOW WAS THE OPERATING RESERVE CALCULATED FOR EACH**
10 **SERVICE CATEGORY?**

11 A. This required a comprehensive analysis, which was performed separately for
12 each service category. Additionally, because we have not yet completed year
13 2001, assumptions were required for what would happen in the remaining
14 months of this year. I'll provide an overview of the steps involved in the
15 process. The final calculation was provided in the budget package submitted
16 to the ISO Governing Board for approval that was also posted to the ISO
17 web-site on October 25, 2001. Exh. No. ISO-9. The steps were as follows:

- 18 • Calculate beginning reserve balance at January 1, 2001
- 19 • Forecast 2001 revenues and expenses
- 20 • Estimate any other items affecting reserve balances
- 21 • Calculate ending reserve balance by summing the above items
- 22 • Compare the ending balance to the reserve requirement of 15 percent of
23 2002 O&M costs

- 1 • Use any excess or short-fall is used to adjust the 2002 revenue
2 requirement.

3
4 **Q. WHAT WERE THE RESULTS OF THIS CALCULATION?**

5 A. For the Control Area Services category, there was a shortfall of \$9.2 million.
6 Several factors led to this result. The beginning reserve balance was \$9.8
7 million. There was a shortfall in revenues in 2001 for this category of about
8 \$8 million, due to lower than anticipated volumes. There also were
9 forecasted savings in the O&M budget of approximately \$5 million, debt
10 service savings of \$2 million, and use of the operating reserve for Capital
11 Expenditures consuming \$7 million. A portion of the ISO generator fines and
12 penalties collected by the ISO, \$2.4 million, also was applied to this service
13 category. This left a forecasted reserve balance at the end of 2001 of \$4.7
14 million, compared to a requirement of \$13.9 million, for a shortfall of \$9.2
15 million.

16
17 A similar shortfall occurred in the Inter-Zonal Scheduling Service category (to
18 be renamed "Congestion Management" in 2002). The beginning reserve
19 balance was \$1.8 million. There was a shortfall in revenues in 2001 for this
20 category of about \$3 million, due to lower than anticipated volumes. There
21 also were forecasted savings in the O&M budget of approximately \$0.6
22 million, debt service savings of \$0.5 million, and use of the operating reserve
23 for Capital Expenditures consuming \$0.5 million. A portion of the ISO

1 generator fines and penalties collected by the ISO, \$0.5 million, also was
2 applied to this service category. This left a forecasted reserve balance at the
3 end of 2001 of \$1.1 million, compared to a requirement of \$2.2 million, for a
4 shortfall of \$1.1 million. This amount is collected in the 2002 revenue
5 requirement.

6

7 For the third GMC category, "Market Operations" (to be replaced by "Ancillary
8 Services and Real-Time Energy Operations" in 2002), a substantial revenue
9 credit of \$8.5 million is available for 2002. The beginning reserve balance
10 was \$8.8 million. Revenues in 2001 for this category are anticipated to be
11 about \$4 million higher than budget. There also were forecasted savings in
12 the O&M budget of approximately \$3.5 million, debt service savings of \$2.2
13 million, and use of the operating reserve for Capital Expenditures consuming
14 \$5.1 million. A portion of the ISO generator fines & penalties collected by the
15 ISO, \$2.2 million, also was applied to this service category. This left a
16 forecasted reserve balance at the end of 2001 of \$18.8 million, compared to a
17 requirement of \$10.2 million, for an excess of \$8.6 million. This amount is
18 credited toward the 2002 revenue requirement.

19

20 **Q. WHY IS IT NECESSARY TO COLLECT THESE UNDER-RECOVERIES IN**
21 **2002? ISN'T IT POSSIBLE TO JUST NET THE AMOUNTS TOGETHER?**

22 A. The ISO Tariff requires that the reserve be calculated separately for each
23 service category. While the net shortfall is only \$1.6 million, the amounts

1 must be treated separately, and added or subtracted to the revenue
2 requirement for each GMC category. Accordingly, while there is a revenue
3 credit for the third GMC category, there is a shortfall in the first two. We are
4 obligated to collect any shortfall, and provide any revenue credit separately
5 for each service category.

6

7 **Q. SO, TO SUMMARIZE, HOW HAVE THE RATES FOR EACH CATEGORY**
8 **CHANGED AS A RESULT OF THESE ISSUES?**

9 A. The rate for the Control Area Services category increases by about 42
10 percent, from \$0.406 to \$0.575 per MWh. This is due to a change in the
11 revenue requirement for this category by approximately \$33 million, or 31
12 percent from the net revenue requirement of \$108 million in 2001. About one-
13 third of the increase is due to under-recovery of costs and revenue related to
14 2001. The remaining increase is due to changes in cost allocation between
15 the service categories, and cost increases related to the ISO's overall
16 revenue requirement. These factors alone would cause an increase in the
17 rate, but the decrease in the billing determinant volume of approximately 7.8
18 percent from 2001 to 2002 makes the problem worse. These factors
19 combined account for the increase in the Control Area Services rate of
20 approximately 42 percent.

21

22 The rate for the Congestion Management category (previously "Inter-Zonal
23 Scheduling" in 2001) increases by about 65 percent, from \$0.223 to \$0.368

1 per MWh. This is due to a change in the revenue requirement for this
2 category of approximately \$8 million, or 42 percent from the net revenue
3 requirement of \$20 million in 2001. About 20 percent of the increase is due to
4 under-recovery of costs and revenue related to 2001. The remaining
5 increase is due to changes in cost allocation between the service categories,
6 and cost increases related to the ISO's overall revenue requirement.
7 Because this is the smallest of the ISO's GMC categories in terms of
8 associated revenue requirement (with \$20 million in costs in 2001 and \$28
9 million in 2002), a relatively small shift of actual dollars from the other
10 categories to this one results in a large percentage change in the ultimate rate
11 for this category. Again, these factors alone would cause an increase in the
12 rate, but the decrease in the billing determinant volume of approximately 13.7
13 percent from 2001 to 2002 makes the problem worse. These factors
14 combined account for the increase in the Congestion Management rate of
15 approximately 65 percent.

16
17 Finally, the rate for the third GMC category, (known as "Market Operations" in
18 2001, and reestablished as "Ancillary Services and Real-Time Energy
19 Operations" in 2002, as I will discuss later) remains generally flat from 2001 to
20 2002. There have been significant changes to the numerator and
21 denominator used to calculate this rate, however -- both have decreased by
22 about 23 percent. The net revenue requirement for this category decreases
23 by approximately \$24 million, or 23 percent from the net revenue requirement

1 of \$102 million in 2001. About 43 percent of the decrease is due to funds
2 available in the ISO's operating reserve related to this category from 2001.
3 The remaining decrease is due to changes in cost allocation between the
4 service categories and less spending in this area. Additionally, a change in
5 the denominator (billing determinant) of the rate equation of 23 percent offset
6 this reduction in the numerator. The change in the billing determinant is due
7 to a significant reduction in volumes seen in the ISO energy and Ancillary
8 Service markets in 2001. The September 27 budget package presented to
9 the Stakeholders and ISO Governing Board (and as later revised, in
10 "Proposed FY2002 Grid Management Charge" dated October 17, 2001)
11 contained a chart illustrating this issue. See Exh. Nos. ISO-7 and ISO-8. As I
12 will discuss next, the decrease in the billing determinant volume would have
13 been greater, but for a change to the billing determinant definition to include a
14 portion of self-provided Ancillary Service volumes.

15
16 **V. CHANGES IN SERVICE CATEGORIES OR BILLING DETERMINANTS**

17
18 **Q. HAVE THERE BEEN ANY CHANGES IN THE ISO'S SERVICE**
19 **CATEGORIES OR BILLING DETERMINANTS SINCE THE PREVIOUS**
20 **FILING?**

21 **A.** Yes. In 2001, the three service categories were: Control Area Services,
22 Inter-Zonal Scheduling, and Market Operations. In 2002, a change to the
23 third category is proposed. The Market Operations category will be replaced

1 by a "Ancillary Services and Real Time Energy Operations" Charge. The
2 billing determinant will change from "purchases and sales of ancillary services
3 and real-time energy" to "purchases and sales of ancillary services and real-
4 time energy", plus 50 percent of self-provided ancillary service volumes. In
5 addition, the boundaries of what services are included in this category have
6 been redefined slightly. There are some additional minor clarifications and
7 changes to the other categories, as well.

8

9 **Q. WHY IS THE ISO PROPOSING A CHANGE TO THE MARKET**
10 **OPERATIONS CATEGORY?**

11 A. Primary due to the increase in self-provision of Ancillary Services ("A/S") that
12 has taken place in 2001. When the structure of the original unbundled GMC
13 was discussed and finalized in 2000, the ISO was aware that self-provision of
14 ancillary services was an issue that might have to be addressed at some
15 point in the future. At the time, self-provision was known to be a desire of
16 certain market participants, but was not a substantial issue in 2000.
17 However, beginning in January 2001, due to the significant changes that
18 occurred as a result of the California energy crisis, self-provision increased
19 substantially. From January 2001 to August 2001, purchased A/S decreased
20 from 14.4 percent of gross load to 4 percent of gross load. Self-provided A/S
21 increased from 3 percent to 6.3 percent over this same period. Without a
22 change, the billing determinant volume for this GMC category will fall
23 substantially, causing the rate to increase quite significantly, by at least 30

1 percent, but likely more, due to the fact that self-provision of Ancillary
2 Services is planned by other market participants.

3

4 **Q. WHY IS IT APPROPRIATE TO CHARGE SELF-PROVIDERS THIS**
5 **CHARGE?**

6 A. Self-provision does not result in less work effort for the ISO. To
7 accommodate self-provision requires a comparable effort by ISO staff and
8 software systems as that for ancillary services procured through the ISO
9 market. This is described in the Direct Testimony of Mr. Spence Gerber,
10 included with this filing as Exh. No. ISO-11.

11

12 **Q. WHY IS THE ISO PROPOSING TO ASSESS ONLY 50 PERCENT OF**
13 **SELF-PROVIDED VOLUMES THIS CHARGE?**

14 A. While self-provision requires the use of most of the same software modules
15 as A/S procured through ISO markets, there may be certain modules which
16 are unused by self-providers. Accordingly, the ISO proposes to charge self-
17 providers a lower rate, by assessing only 50 percent of self-provided A/S
18 volumes the "Ancillary Services and Real Time Energy Operations" Charge.
19 It should be noted that the effect of this discount is to charge self-providers
20 only 25 percent of what they would pay if they bid their own resource into the
21 ISO market and then procured the reserves from that resource, as they would
22 pay the full charge for this category on both the buy and sell side.

23

1 If time and resources permitted, the ISO likely would have explored the
2 creation of a separate GMC service category related to A/S provision for
3 2002. However, the general turmoil of 2001 did not permit us to perform such
4 a comprehensive study. We expect to conduct a full review of the GMC
5 structure to study this and other issues as soon as time and resources permit.
6 Absent this study, we are confident that the 50 percent charge for self-
7 provision is very fair figure, and reflects a substantial discount compared to
8 the true work effort involved.

9
10 **Q. WERE STAKEHOLDERS PROVIDED WITH THE OPPORTUNITY TO**
11 **PROVIDE INPUT ON THIS CHANGE?**

12 A. The ISO attempted to give stakeholders a voice in the consideration of this
13 change. The short time between the point at which the ISO noted that
14 increased self-provision was going to be a significant issue (mid-September)
15 and the date by which the budget had to be completed did not permit a full-
16 blown stakeholder process on this change. However, the ISO did its best to
17 keep stakeholders apprised of the change and seek their views. After posting
18 the proposed budget on September 27, 2001 (Exh. No. ISO-7), where notice
19 of this potential change was made, the ISO discussed the proposed change
20 at a Market Issues Forum meeting on October 11, and also released a
21 position paper on the proposed change on October 15. The ISO requested
22 stakeholder comments on the proposed change. Several parties did provide
23 comments, and these were provided to the ISO Board of Governors at their

1 meeting on October 25, where the final budget (described in Exh. No. ISO-9)
2 was approved.

3

4 **Q. HOW ELSE IS THIS SERVICE CATEGORY CHANGING?**

5 A. The individual ISO tasks included in this category have changed somewhat. I
6 should begin with some history of the ISO's unbundling process. During
7 1999, the ISO developed an unbundling approach with five service
8 categories. These were: (1) Control Area Services, (2) Scheduling, (3) Inter-
9 Zonal Scheduling, (4) Settlements, Billing & Metering, and (5) Market
10 Operations. During 2000, when the ISO was finalizing the selection of billing
11 determinants for these categories, some of these categories were combined,
12 because the same billing determinant was selected for two categories.
13 Scheduling was combined with Control Area Services, while Settlements,
14 Billing & Metering was combined with Market Operations. Accordingly, when
15 the unbundling system was implemented in 2001, only those parties who
16 were charged the Market Operations charge paid a portion of the ISO's costs
17 for performing the Settlements, Billing & Metering function. In reality, this
18 function is used for not only the ISO's Market Operations, *i.e.*, the ancillary
19 service and real time energy auctions, but also for congestion, neutrality,
20 reliability must-run contract administration, treatment of existing contract
21 issues, and other functions that are related to the Control Area Services and
22 Inter-Zonal scheduling functions. Accordingly, it is appropriate for the other
23 service categories to bear a portion of the costs of the Settlements, Billing

1 and Metering tasks that the ISO performs. Therefore, for 2002 these costs
2 are distributed across the three service categories to move in the direction of
3 reflecting that work effort. This is a change from 2001. I should note that this
4 has only been done for the O&M costs related to the Settlements, Billing and
5 Metering task. Capital costs still are assigned primarily to the third GMC
6 category, "Ancillary Services and Real Time Energy Operations." While that
7 may at first appear inconsistent, this is not unreasonable, as the majority of
8 the costs of building the ISO Settlement & Billing system generally were
9 related to administering the markets. However, on a day-to-day basis, the
10 ISO staff actually spend a significant amount of their time on other issues, as
11 noted above.

12
13 **Q. ARE THERE ANY CLARIFICATIONS YOU WOULD LIKE TO MAKE WITH**
14 **REGARD TO THIS CATEGORY PROPOSED?**

15 A. Yes. The ISO is clarifying that all out-of-market ("OOM") transactions are
16 subject to this charge. This follows the treatment of out-of-market
17 transactions in 2001. Additionally, energy acquired to make up for line losses
18 or other transmission losses will also be assessed this charge. Again, this is
19 not a change from 2001, but merely a clarification. Finally, as another
20 clarification, the term "Other Appropriate Parties" is relevant to this category,
21 in that this charge will be applied to non-Scheduling Coordinators (whether
22 they be out of state or instate entities) that provide real time power through
23 out of market purchases. The term "Other Appropriate Party" was introduced

1 in the ISO Tariff in the implementation of the ISO's 2001 unbundled GMC
2 rates, to permit the GMC to be billed to parties who are not ISO Scheduling
3 Coordinators. This term has now been added to the Master Definitions
4 Supplement, Appendix A of the ISO Tariff.

5

6 **Q. PLEASE DISCUSS ANY CHANGES OR CLARIFICATIONS TO THE INTER-**
7 **ZONAL SCHEDULING CATEGORY.**

8 A. For 2002, this category will be renamed "Congestion Management". No
9 change to the billing determinant or the boundaries of the services which
10 comprise this category are proposed, other than as noted above for the
11 Ancillary Services and Real-Time Energy Operations Charge, a portion of the
12 Settlements & Billing costs (approximately 7 percent) appropriately are
13 assigned to this service category, as work effort by that function is required in
14 support of this GMC category.

15

16 Additionally, schedules on the California Oregon Transmission Path ("COTP")
17 will be deemed to be Existing Contracts for purposes of assessing this
18 charge, accordingly, they would be exempted from paying this charge. I
19 mention this to make the ISO's position clear - this is a not change from 2001.

20

21 **Q. PLEASE DISCUSS ANY CHANGES OR CLARIFICATIONS TO THE**
22 **CONTROL AREA SERVICES CATEGORY.**

1 A. The changes or clarifications here are limited to three items. First, Southwest
2 Power Link ("SWPL") exports are to be assessed this charge in 2002. In
3 2001, the ISO did not assess the Control Area Services Charge on Energy
4 transmitted over SWPL belonging to joint participants in SWPL other than
5 San Diego Gas & Electric Company. SWPL Energy is designated as a
6 "Wheel Through" Energy type in the ISO's Scheduling Infrastructure. This
7 means that the import and export are balanced and the quantity is deemed
8 delivered to the ISO Control Area, and out again. In 2001, the ISO
9 considered this type of energy to warrant an exemption from the GMC. After
10 reviewing this position, however, this exemption was determined to be
11 inconsistent with our overall position as regards to other exports, as the ISO
12 still performs services on behalf of such exports. Accordingly, we will end this
13 exemption effective January 1, 2002.

14
15 Second, the ISO intends to bill the Participating Transmission Owner for
16 behind-the-meter municipal (or government entity) Load where the non-
17 jurisdictional entity does not voluntarily provide the ISO with the information
18 necessary for the entity to be billed directly. This is not a change in the ISO's
19 position from the 2001 GMC, but is merely a clarification. Third, and finally,
20 the term "Other Appropriate Parties" is intended to refer to the non-
21 jurisdictional entities discussed in point 2, that is, the non-Scheduling
22 Coordinators on whom the ISO will assess the Control Area Services Charge.

23

1 **Q. IS THE ISO PROPOSING ANY ADDITIONAL CHANGES TO THE GMC**
2 **SERVICE CATEGORIES?**

3 A. No.
4

5 **VI. THE ISO'S FORECAST OF BILLING DETERMINANTS**
6

7 **Q. HOW DO BILLING DETERMINANTS AFFECT THE UNBUNDLED RATES?**

8 A. The rates are calculated by dividing the ISO costs for each Service Category
9 by the billing determinant volumes.
10

11 **Q. WERE THERE ANY CHANGES TO THE BILLING DETERMINANTS**
12 **OTHER THAN FOR THE ANCILLARY SERVICES AND REAL-TIME**
13 **ENERGY OPERATIONS CHARGE?**

14 A. No, other than the minor changes I discussed above. The billing
15 determinants for the services are as follows:
16

<u>Service</u>	<u>Billing Determinant</u>
1. Control Area Services	Control Area Gross Load and Exports in MWh
2. Congestion Management	Net Inter-Zonal Scheduled Load in MWh
3. Ancillary Services and Real-Time Energy Operations	Ancillary Services and Real Time Energy procured through ISO markets, plus out of market energy, plus 50% of self-provided Ancillary Services in MWh.

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1 **Q. HOW WERE THE BILLING DETERMINANT VOLUMES FORECAST?**

2 A. The ISO developed the forecasts for the three billing determinants noted
3 above based on historical information available in its settlements and other
4 computer systems, together with estimates from outside sources. Data for
5 the year 2001 was the primary source. In general, 2001 volume experience
6 was expected to continue in 2002. Each billing determinant was forecast
7 separately, but the second two billing determinants were based primarily on
8 the results of Control Area Gross Load and Exports forecast.

9

10 **Q. HOW WAS CONTROL AREA GROSS LOAD FORECAST?**

11 A. This billing determinant forecast was developed primarily from information
12 available in the ISO settlements system for 2001. Certain components of this
13 billing determinant, such as the Qualifying Facility behind-the-meter load
14 estimate, were not available directly from ISO records, however, and had to
15 be estimated based on information obtained from other sources, as was
16 described in the ISO's 2001 GMC filing in testimony by James E. Price. As
17 described by Mr. Price,

18 The ISO's preferred approach [for estimating on-site load] would
19 be to use the billing determinants for the demand component of
20 the [Utility Distribution Company ("UDC")] Standby rate tariffs.
21 This method is preferred because it relies on public information
22 provided in the utilities' retail rate cases. In addition, it would
23 avoid the need for audits of utility billing data that I mentioned
24 earlier in discussing the non-coincident peak demand method.

25

26 Standby contract demand is generally the lower of (a) the
27 nameplate capacity of the customer's generating facility, or (b)
28 the customer's peak demand. This definition is specifically
29 stated in [Southern California Edison Company's] retail Standby

1 tariff, Schedule S. The amount standby contract demand is the
2 maximum demand that the utility is expected to provide for
3 backup service and is dependent upon the relationship between
4 the two variables (*i.e.*, the capacity of the generating facility and
5 the customer's peak demand). The determination of the
6 maximum demand can be illustrated using the following two
7 scenarios: (A) a customer with a generating facility that has a
8 capacity of 3MW and a peak demand of 10MW, and (B) a
9 customer with a generating facility that has a capacity of 10MW
10 and a peak demand of 3MW. In the first example, the highest
11 amount of generation the UDC would be required to back up
12 would be the capacity of generating unit or 3MW (the remaining
13 7 MW of peak demand would already be served under another
14 service schedule, *e.g.*, as Supplemental Load). In the second
15 example, the highest amount of generation the UDC would be
16 required to supply would be the customer's peak demand of
17 3MW.

18
19 After the contract demand amount is determined, a load factor
20 would then be applied to derive the actual billing determinants
21 for the billing period. The load factor could be obtained by
22 reference to the particular class of standby customer or could be
23 up to 100 percent of the contract demand....The load factor
24 would be based on the workpapers supporting the standby rate
25 and other aspects of revenue allocation and rate design before
26 regulatory commissions. [I]t is important to recognize that each
27 class of Standby customers... has a comparable class of full
28 service customers (*i.e.*, customers that do not have on-site
29 generation)... The ISO proposes that the load factor to be
30 applied to the standby contract demands be determined by
31 reference to the load factors for the comparable full service
32 classes of the three utilities.[T]his results in load factors of
33 less than 100 percent (ranging from 7.6 percent to 62.9
34 percent). These load factors represent a conservative estimate
35 of the Control Area Gross Load that is represented by Load
36 served by on-site generation.

37
38 Direct Testimony of James E. Price, November 1, 2000, Docket No. ER01-
39 313, at pp. 8-10.

1 As noted above, the forecast process involved developing historical figures
2 from ISO records and making appropriate adjustments, including additions
3 and deletions of volume. For example, SWPL Energy was added to the
4 forecast as it was not billed in 2001. Additionally, an estimate of municipal
5 behind-the-meter load for Modesto Irrigation District, Turlock Irrigation District,
6 Redding, and other municipal entities was added to the 2001 data.

7
8 Actual historical data for year 2001 was available through September 2001.
9 Estimates were developed for October through December by multiplying
10 budgeted volumes for that period by the variance between budgeted and
11 actual volumes experienced in September. Volumes in 2002 are expected to
12 be the same as 2001, except that the adjustments noted above were added.
13 In other words, no load growth was assumed from 2001 to 2002. This is
14 reasonable, as 2001 load through April 2001 is in all likelihood higher than
15 volumes that may be seen in those months for 2002, as this was prior to the
16 higher energy rates for consumers and businesses that started in June 2001,
17 and also prior to the more significant economic downturn that is forecast for
18 the state of California.

19
20 **Q. HOW WERE NET SCHEDULED INTER-ZONAL FLOWS FORECAST?**

21 A. Our process for forecasting this billing determinant was unchanged from the
22 method we used for 2001. We examined the relationship between net
23 scheduled inter-zonal flows ("IZF") and Control Area Gross Load and exports

1 for 2001. We noted that a relatively stable relationship existed between these
2 two variables. On a monthly basis, the quantity of IZF divided by Control
3 Area Gross Load ranged from 28 percent to 33 percent, and averaged 30.7
4 percent for 2001. We developed our forecast for Control Area Gross Load
5 and exports for 2002 and multiplied the result by 30.7 percent.

6

7 **Q. HOW WAS THE BILLING DETERMINANT FOR THE ANCILLARY**
8 **SERVICES AND REAL TIME ENERGY OPERATION CATEGORY**
9 **FORECAST?**

10 A. The process was generally the same as last year, except that an adjustment
11 for self-provided Ancillary Service volumes was added. Purchases and sales
12 of A/S and real-time energy as a percentage of Control Area Gross Load and
13 exports for 2001 was determined. In 2001, this relationship was quite
14 variable, ranging from 71 percent in February to 30.0 percent in August. It
15 was this downward trend that led us to reexamine the billing determinant for
16 this service category, and to propose the addition of self-provided A/S
17 volumes. Because the downward trend has continued throughout 2001, and
18 may not yet be fully complete, we assumed a figure slightly below the low end
19 of this range, 29.3 percent, as the basis for the 2002 forecast.

20

21 To develop the 2002 forecast, we multiplied 29.3 percent by the 2002 forecast
22 of Control Area Gross Load and exports. Next, we added in our estimate for
23 self-provision. We determined that self-provided Ancillary Service volumes

1 were 5.2 percent of Control Area Gross Load and exports for February -
2 August 2001. Accordingly, we multiplied 5.2 percent by the 2002 forecast of
3 Control Area Gross Load and exports, and multiplied that by 50 percent (the
4 volume exclusion for self-provision) to arrive at the billing determinant volume
5 estimate for this category for 2002.

6
7 To the extent that this forecast is too pessimistic, and actual volumes for 2002
8 are higher than this, we can make an adjustment to the rate through the
9 quarterly GMC adjustment mechanism. See ISO Tariff Section 8.4 and
10 Appendix F, Schedule 1, Part B.

11
12
13 **VII. CHANGES IN THE BUDGET AND RATES FROM INITIAL**
14 **STAKEHOLDER REVIEW**
15
16

17 **Q. WHAT CHANGES WERE MADE TO THE BUDGET AND PROPOSED**
18 **RATES FROM THE DATE THE PROPOSED BUDGET WAS POSTED ON**
19 **THE ISO WEBSITE?**

20 **A.** Certain changes were made after the preliminary budget was posted to the
21 ISO's web-site on September 27 (Exh. No. ISO-7). The Budget and proposed
22 rates were approved by the ISO Governing Board on October 25, 2001. No
23 changes were made to the ISO's total proposed capital or O&M budgets
24 between those dates. However, after September 27, the ISO obtained more
25 information about 2001 billing determinant volumes. This information affected
26 the 2002 billing determinant forecast, and the 2001 operating reserve

1 calculation, which in turn lowered the overall revenue requirement for 2002.
2 These changes resulted in decreased volume for the Control Area Services
3 category and increased volume for the other two GMC categories. Next,
4 revisions were made to the debt service assumptions for the planned 2002
5 bond issuance. The debt service was decreased to recognize that the bonds
6 would be outstanding for only a portion of 2002. Next, the third GMC
7 category was modified, by changing the billing determinant to include self-
8 provided ancillary service volumes. This is described elsewhere in my
9 testimony, and notification of this potential change was included in the
10 preliminary budget posting on September 27. Exh. No. ISO-7. Finally, a final
11 review of the ISO's cost allocation matrix resulted in some changes. Some
12 corrections were made, and some assumptions were changed. For example,
13 the costs of the settlements and billing function were included in part in all
14 three GMC service categories rather than being assigned entirely to the third
15 category, to reflect the fact that this service is required not just for the ISO's
16 ancillary service and real time markets, but for the Congestion Management
17 (previously Inter-Zonal Scheduling) and Control Area Services functions as
18 well. This change resulted in a shift of overall costs from the third category
19 toward the other two, but was made to better reflect the principle of cost
20 causation. While it would have been preferable to make this change prior to
21 the web posting on September 27, the short period of time in which the
22 budget data had to be compiled did not permit this.

1 I note that similar changes were made after the budget posting for
 2 stakeholder review last year as well. After the preliminary budget was posted
 3 for stakeholder review on September 28, 2000, updates were made to the
 4 Control Area Gross Load volume figures, and volumes for the Market
 5 Operations Charge were reduced as a result of anticipated changes due to a
 6 FERC order discouraging reliance on real-time markets. So, while changes
 7 of this nature are not desirable, I believe they are unavoidable if the ISO's
 8 filing and rates are to reflect the best and latest information.

9

10 **Q. WHAT WAS THE MAGNITUDE OF THESE CHANGES?**

11 A. The changes affected the cost allocations, net revenue requirement (due to
 12 the changes to the reserve), and the billing determinant forecasts. These
 13 factors affected the rates for each service category. These items are shown
 14 below, as per the September 27, 2001 preliminary budget posting, and the
 15 final approved budget (amounts in thousands)

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	<u>9/27/2001</u>	<u>Final</u>
<u>Gross Revenue Requirement</u>		
1. Control Area Services ("CAS")	\$123,754	\$130,570
2. Congestion Mgmt. ("CONG")	\$21,248	\$26,071
3. Ancillary Service and Real-Time Energy Operations ("ASREO")	\$100,355	\$85,545
Total	\$245,356	\$243,186

	<u>9/27/2001</u>	<u>Final</u>	
1			
2			
3	<u>Net Revenue Requirement</u>		
4	1. Control Area Services ("CAS")	\$129,209	\$141,815
5			
6	2. Congestion Mgmt. ("CONG")	\$23,012	\$27,791
7			
8	3. Ancillary Service and Real-Time Energy Operations ("ASREO")	\$98,325	\$75,188
9			
10			
11	Total	\$250,545	\$244,794
12			
13	<u>Gross Allocation Percentages</u>		
14	1. Control Area Services ("CAS")	50.4%	54.1%
15			
16	2. Congestion Mgmt. ("CONG")	8.7%	10.7%
17			
18	3. Ancillary Service and Real-Time Energy Operations ("ASREO")	40.9%	35.2%
19			
20			
21	<u>Billing Determinant Forecasts</u>		
22			
23	1. Control Area Services ("CAS")	251,260	246,487
24			
25	2. Congestion Mgmt. ("CONG")	74,602	75,558
26			
27	3. Ancillary Service and Real-Time Energy Operations ("ASREO")	61,272	78,597
28			
29			
30	<u>Rates</u>		
31	1. Control Area Services ("CAS")	\$0.514	\$0.575
32			
33	2. Congestion Mgmt. ("CONG")	\$0.308	\$0.368
34			
35	3. Ancillary Service and Real-Time Energy Operations ("ASREO")	\$1.605	\$0.957
36			
37			

38 (Note the third category was entitled "Market Operations" and the second
39 category was entitled "Inter-Zonal Scheduling" on September 27, 2001).

1 **Q. WERE STAKEHOLDERS NOTIFIED THAT SUCH CHANGES WERE**
2 **POSSIBLE?**

3 A. Yes. In the September 27, 2001 web-posting, we noted that such changes
4 could result as the ISO assessed various factors. The following footnote was
5 included in the September 27 posting on page 17, entitled "FY2001/FY2002
6 UNBUNDLED GRID MANAGEMENT CHARGE COMPARISONS":

7 Note:

- 8 • Supporting documentation for GMC unbundling will be
9 released subsequently.
- 10 • Billing determinant volumes may change as additional
11 forecast data becomes available for 2001.
- 12 • The ISO is also considered [sic] changes to the billing
13 determinant for the Market Operations Charge, assessing
14 this fee on some portion of self-provided A/S.

15
16 Exh. No. ISO-7 at 17.

17
18 As I discussed earlier, the ISO provided for Stakeholder input with regard to
19 the change.

20
21 **VIII. SECTION 35.13 COST STATEMENTS**

22
23 **Q. WHAT IS THE PURPOSE OF THIS PART OF YOUR TESTIMONY?**

24 A. The purpose of this part of my testimony is to provide an explanation of the
25 Period I and Period II cost statements included with this filing. In this filing,
26 the ISO has used actual data from 2000 for Period I, and budgeted figures for
27 2002 for Period II. These statements are required by 18 C.F.R. § 35.13 and
28 include:

29

1	Statement AA:	Balance Sheet
2	Statement AB:	Income Statement
3	Statement AC:	Retained Earnings
4	Statement AD:	Cost of Plant
5	Statement AE:	Accumulated Depreciation and Amortization
6	Statement AF:	Specified Deferred Credits
7	Statement AG:	Specified Plant Accounts
8	Statement AH:	Operation and Maintenance Expenses
9	Statement AI:	Wages and Salaries
10	Statement AJ:	Depreciation and Amortization Expenses
11	Statement AK:	Taxes Other than Income Taxes
12	Statement AL:	Working Capital
13	Statement AM:	Construction Work in Progress
14	Statement AN:	Notes Payable
15	Statement AO:	Rate for Allowance for Funds Used During Construction
16	Statement AP:	Federal Income Tax Deductions - Interest
17	Statement AQ:	Federal Income Tax Deductions - Other Than Interest
18	Statement AR:	Federal Tax Adjustments
19	Statement AS:	Additional State Income Tax Deduction
20	Statement AT:	State Tax Adjustments
21	Statement AU:	Revenue Credits
22	Statement AV:	Cost of Capital
23	Statement AW:	Cost of Short Term Debt

1	Statement AX:	Other Recent and Pending Rate Changes
2	Statement AY:	Income and Revenue Tax Rate Data
3	Statement BA:	Wholesale Customer Rate Groups
4	Statement BB:	Allocation of Demand and Capability Data
5	Statement BC:	Reliability Data
6	Statement BD:	Allocation Energy and Supporting Data
7	Statement BE:	Specific Assignment Data
8	Statement BF:	Exclusive Use Commitments of Major Power Supply
9		Facilities
10	Statement BG:	Revenue Data to Reflect Changed Rates
11	Statement BH:	Revenue Data to Reflect Present Rates
12	Statement BJ:	Summary Data Tables
13	Statement BK:	Electric Cost of Service, Total and Allocated
14	Statement BL:	Rate Design Information
15	Statement BM:	Construction Program Statement

16

17 Some of these statements are not applicable to the California ISO, and I will
18 note why in each case.

19

20 **Q. HOW IS THIS PORTION OF YOUR TESTIMONY ORGANIZED?**

21 A. I will provide a brief explanation of each statement according to the order
22 listed above.

23

1 **Q. DO THE STATEMENTS LISTED ABOVE IDENTIFY THE COSTS BY**
2 **UNBUNDLED COST CATEGORY?**

3 A. Yes, for FY2002 they do, where appropriate. However, the California ISO did
4 not assess its GMC based on unbundled rates in FY2000, and accordingly
5 does not have unbundled rate information for that year.

6

7 **INCOME STATEMENT AND BALANCE SHEET**

8

9 **Q. PLEASE SUMMARIZE THE CONTENTS OF STATEMENTS AA AND**
10 **STATEMENT AB.**

11 A. Statement AA and AB contain the FY 2000 Balance Sheet and Income
12 Statement (Period I), and a forecasted Balance Sheet and Income Statement
13 for FY 2002. The financial statements are prepared on an accrual basis of
14 accounting in accordance with generally accepted accounting principles
15 ("GAAP").

16

17 **Q. PLEASE EXPLAIN THE VARIOUS ACCOUNTS INCLUDED IN THE**
18 **FINANCIAL STATEMENTS.**

19 A. I will provide details and explanation of the various accounts throughout my
20 testimony.

21

22 **Q. DOES STATEMENT AB SERVE AS SUPPORT FOR THE ISO'S RATE'S**
23 **AND REVENUE REQUIREMENT?**

1 A. Not really. This statement provides some information about the ISO's
2 financial results, but is not directly used in setting the rates or revenue
3 requirement. The reason for this is that the ISO's rates are calculated based
4 on actual spending in a given year, including operating & maintenance costs
5 and debt service costs. Statement AB includes depreciation, which is not an
6 actual cash expenditure, and does not include debt service principal
7 payments. Also, it does not include cash funded capital expenditures, which
8 may be collected through the ISO's rates. In summary, this statement does
9 not match the rate formula used to establish the ISO's revenue requirement,
10 as set forth in the ISO Tariff.

11

12 **STATEMENT AC: RETAINED EARNINGS**
13

14 **Q. PLEASE PROVIDE AN EXPLANATION OF THE STATEMENT AC,
15 RETAINED EARNINGS.**

16 A. In a for-profit entity, retained earnings are net profits that are kept to
17 accumulate in a business after dividends are paid. A retained earnings
18 statement is required by GAAP whenever comparative balance sheets and
19 income statements are presented. The ISO, however, is a not-for-profit,
20 public benefit corporation. Therefore, the California ISO does not have
21 "retained earnings" in the sense that the term is typically used.

22

1 **Q. WHAT IS INCLUDED IN CALIFORNIA ISO'S STATEMENT AC, RETAINED**
2 **EARNINGS, AND WHY IS THE RETAINED EARNINGS BALANCE**
3 **NEGATIVE?**

4 A. The retained earnings statement shows changes to the account, such as
5 profits or losses from operations and any items charged or credited to
6 retained earnings. Retained earnings are negative for the California ISO for
7 Period I and Period II, due to start-up costs which, for generally accepted
8 accounting purposes, were charged to earnings as incurred. For rate-making
9 purposes, these costs are recovered over time, through debt service charges
10 that comprise part of the ISO's annual revenue requirement. Over time, as
11 the ISO approaches the end of its debt service term in 2008, the retained
12 earnings will eventually reach "0". The negative retained earnings balance
13 does not adversely affect the ISO, but requires explanation to potential
14 lenders or creditors.

15

16

STATEMENT AD: COST OF PLANT

17

18 **Q. PLEASE PROVIDE AN EXPLANATION OF STATEMENT AD, COST OF**
19 **PLANT.**

20 A. Statement AD provides an overview of the ISO's cost of plant, consistent with
21 standard FERC reporting categories. The average balances are based on a
22 beginning-of-period and end-of-period simple average. All fixed assets are
23 recorded at cost. The cost of plant is split into two functional classifications:

1 Intangible and General. The Intangible Plant functional classification includes
2 the following items:

- 3 Software - Primary Systems
- 4 Energy Management System (EMS)
- 5 Scheduling Infrastructure (SI)
- 6 Scheduling Applications (SA)
- 7 Settlements System
- 8 Metering and Data Acquisition System (MDAS)
- 9 Security (CUDA)
- 10 Others
- 11 Software - Corp Systems

12
13 The General Plant functional classification includes:

- 14 Structures and Improvements
- 15 Leasehold Improvements
- 16 Office Furniture and Equipment
- 17 Furniture
- 18 Transportation Equipment
- 19 Field Vehicles
- 20 Communication Equipment
- 21 Other Tangible Property
- 22 Hardware - Primary Systems
- 23 Energy Management System (EMS)
- 24 Scheduling Infrastructure (SI)
- 25 Scheduling Applications (SA)
- 26 Settlements System
- 27 Metering and Data Acquisition System (MDAS)
- 28 Others
- 29 Hardware - Corp Systems

30
31
32 The information is presented for Period I and Period II. Period I uses actual
33 recorded data for the year 2000. Period II averages are based on partial year
34 2001 actual data, and forecast information for the remainder of 2001, and the
35 2002 capital budget.

36

**STATEMENT AE: ACCUMULATED DEPRECIATION
AND AMORTIZATION**

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Q. PLEASE EXPLAIN THE PURPOSE OF STATEMENT AE, ACCUMULATED DEPRECIATION AND AMORTIZATION.

A. Statement AE presents the accumulated depreciation data for the recorded year 2000, and forecast balances for year 2002. Averages for accumulated depreciation and amortization are based on a beginning-of-period and end-of-period simple average. Depreciation is computed on the straight-line method over the assets' estimated useful lives, which range from 3-10 years. Software is generally 5 years, computer hardware 3 years, and leasehold improvements 10 years. The amortization and depreciation rates are calculated by dividing the average balances by their respective depreciation expenses.

Q. WHEN WERE MOST OF THE ISO'S FIXED ASSETS PLACED IN SERVICE?

A. Most fixed assets were placed in service on March 31, 1998, when the California ISO commenced operations. However, the ISO has continued to make a substantial investment in necessary fixed assets since that date. The cost of improvements to, or replacement of, fixed assets is capitalized.

Q. HOW DOES THE ISO ACCOUNT FOR ASSETS THAT ARE RETIRED?

1 A. When assets are retired or otherwise disposed of, the cost and related
2 depreciation are removed from the accounts and any resulting gain or loss is
3 reflected in income for the Period. Gains and losses on dispositions of assets
4 are not used in setting the ISO's GMC rates, but are only used for financial
5 statement purposes. Repairs and maintenance costs are charged to expense
6 when incurred.

7 **Q. WHAT ASSETS ARE CAPITALIZED?**

8 A. The ISO generally capitalizes costs in excess of \$2,000 where the spending
9 provides a benefit for beyond the current fiscal year. For GAAP financial
10 statement purposes, the ISO capitalizes direct costs of salaries and certain
11 indirect costs incurred to develop or obtain software for internal use. Costs of
12 software development related to abandoned projects are expensed when the
13 decision to abandon is made. However, internal ISO costs are not capitalized
14 for purposes of the GMC rates -- items originally budgeted as O&M costs are
15 not reclassified to the capital budget. Debt issuance costs are also
16 capitalized and amortized, using the bonds outstanding method.

17

18 **STATEMENT AF: DEFERRED CREDITS**

19

20 **Q. PLEASE EXPLAIN THE CONTENTS OF STATEMENT AF, DEFERRED**
21 **CREDITS.**

22 A. Deferred credits include Post Retirement Liability, and Supplemental
23 Executive Retirement Plan liability. The Post Retirement Medical Benefit Plan

1 provides for post retirement health care benefits to all employees who retire
2 from the ISO on or after attaining age 60 with at least five years of service.
3 The Supplemental Executive Retirement Plan is a non-qualified plan intended
4 to provide selected executives of the ISO with target retirement benefits.
5 Amounts for 2002 are estimated, pending the availability of actuarial
6 calculations in 2003.

7

8

**STATEMENT AG: SPECIFIED PLANT ACCOUNT
AND DEFERRED DEBITS**

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11

12

Q. PLEASE EXPLAIN THE CONTENTS OF STATEMENT AG.

13

A. Averages for deferred debits are based on a beginning of Period and end of
14 Period simple average. Year-ending balances capitalized debt issuance
15 costs are the only items on this schedule. The balances for December 31,
16 2002 include the remaining un-amortized balance of debt issuance costs from
17 the year 2000 bond issuance, plus debt issuance costs related to the planned
18 2002 issuance.

19

20

STATEMENT AH: OPERATION AND MAINTENANCE (O&M) EXPENSES

21

22

Q. WHAT EXPENSES ARE INCLUDED IN STATEMENT AH?

23

A. Statement AH is a summary of nearly all O&M expenses (only property taxes
24 are excluded.) Period I includes actual data for FY2000. Period II costs are
25 forecasted based on the 2002 budget. Allocations to the unbundled cost

1 categories for FY2002 are based on a thorough allocation process described
2 in Exh. No. ISO-4. While the Cost Allocation Matrix (Exh. No. ISO-4,
3 Appendix A) does not display the budget information in FERC account format,
4 that information is available and is used to develop account balances
5 necessary for the Section 35.13 statements. Because the ISO's GMC was
6 not unbundled in FY2000, the allocations for these amounts are estimated.

7 Expenses for the following line items are included in Statement AH:

- 8 560 Operation Supervision and Engineering
- 9 561 Load Dispatching
- 10 566 Miscellaneous Transmission Expenses
- 11 568 Maintenance Supervision and Engineering
- 12 901 Supervision
- 13 902 Meter Reading Expenses
- 14 903 Customer Record and Collection Expenses
- 15 905 Miscellaneous Customer Accounts Expenses
- 16 907 Customer Service and Informational Expenses – Supervision
- 17 908 Customer Assistance Expenses
- 18 909 Informational and Instructional Advertising Expenses
- 19 920 Administrative and General Salaries
- 20 921 Office Supplies and Expenses
- 21 923 Outside Services Employed
- 22 924 Property Insurance
- 23 925 Injuries and Damage

- 1 928 Regulatory Commission Expenses
- 2 930 Miscellaneous General Expenses
- 3 931 Rents
- 4 935 Maintenance of General Plant

5

6 **Q. PLEASE PROVIDE A DETAILED EXPLANATION OF THE O&M COSTS.**

7 A. The ISO prepares elaborate detail to support its annual budget proposal. All
8 of this information is retained by the ISO, and a summary of it (including major
9 changes in the ISO's budget from 2001 to 2002) is made available during
10 ISO's budget stakeholder review process. See Exh. No. ISO-7. The ISO
11 does not release to the public all supporting budget information due to the
12 need to keep certain of this information from being used by ISO vendors
13 against the interests of the ISO and ratepayers.

14

15 **STATEMENT AI: SALARIES AND WAGES**

16

17 **Q. WHAT EXPENSES ARE INCLUDED IN STATEMENT AI?**

18 A. Statement AI includes all wages and salary expenses. Period I includes
19 actual data for FY2000. Period II costs are forecasted based on a
20 comprehensive budgeting process described earlier in my testimony.
21 Allocations to the unbundled cost categories for FY2002 are based on a
22 thorough allocation process described in Exh. No. ISO-4. Expenses for the
23 following line items are included in Statement AI:

1

1	560	Operation Supervision and Engineering
2	561	Load Dispatching
3	566	Miscellaneous Transmission Expenses
4	568	Maintenance Supervision and Engineering
5	901	Supervision
6	902	Meter Reading Expenses
7	903	Customer Record and Collection Expenses
8	905	Miscellaneous Customer Accounts Expenses
9	907	Supervision
10	908	Customer Assistance Expenses
11	920	Administrative and General Salaries
12	921	Office Supplies and Expenses
13	935	Maintenance of General Plant

14

15 ISO salary costs are budgeted using actual salaries for all positions that are
16 currently filled, and estimated costs for unfilled or new positions. Salary costs
17 assume all positions are filled throughout the year. Cost savings generated
18 from actual position vacancies generally are used to fund other human
19 resource related costs, such as recruiting costs, relocation costs, or
20 temporary and contract staff to fulfill the work while the position is vacant.
21 ISO staff and officer compensation is benchmarked annually against the utility
22 industry and other peer organizations. ISO total compensation is established
23 to be in the 75th percentile of comparable firms.

1 In addition to actual base salary costs, the compensation figures include
2 related benefit costs, budgeted at 32 percent of base salary costs, to cover all
3 employer related compensation costs such as payroll taxes, and the cost of
4 benefits such as medical, dental, vision, and life insurance coverage. The
5 figures also include the costs of the ISO's incentive compensation program.
6 All ISO employees are eligible to receive from 12-20 percent of their
7 compensation (from 50-100 percent for ISO Corporate Officers) in an annual
8 incentive payment based on the achievement of corporate goals. The actual
9 pay-out will vary between 0 and 100 percent of the theoretical maximum
10 depending on how well the ISO achieves its corporate goals. For budget
11 purposes, a pay-out ratio of 73 percent for 2002 was assumed.

12
13 **STATEMENT AJ: DEPRECIATION AND AMORTIZATION EXPENSES**

14
15 **Q. PLEASE EXPLAIN THE PURPOSE OF STATEMENT AJ.**

16 A. Statement AJ shows the depreciation expenses for Period I (FY 2000) and
17 Period II (estimated FY2002). As I mentioned earlier, depreciation expense is
18 not used in the calculation of the ISO's rates.

19
20 **Q. PLEASE EXPLAIN HOW DEPRECIATION RATES ARE COMPUTED IN
21 STATEMENT AJ.**

22 A. The annual depreciation rates shown in this schedule are calculated by
23 dividing annual depreciation expenses by the average fixed asset balances.

1 Depreciation expenses for FY2000 are actual amounts. The depreciation
2 expenses amounts are calculated using estimated fixed asset balances by
3 asset class, assuming capital additions according to the ISO's 2002 capital
4 budget.

5

6 **Q. PLEASE EXPLAIN WHAT ASSETS ARE INCLUDED IN THE GENERAL
7 AND INTANGIBLE FUNCTIONAL CATEGORIES.**

8 A. Assets are divided according to the same split into the General and Intangible
9 functional categories as found in Statement AD, Cost of Plant.

10

11 **STATEMENT AK: TAXES OTHER THAN INCOME TAXES**

12

13 **Q. PLEASE EXPLAIN WHAT IS INCLUDED ON STATEMENT AK, TAXES
14 OTHER THAN INCOME TAXES.**

15 A. The following tax expenses are included on Statement AK: Property Taxes
16 (including state use tax and environmental fees), and Employer Payroll
17 Taxes.

18

19 **Q. WHAT IS INCLUDED WITH THE EMPLOYER PAYROLL TAXES?**

20 A. Employer payroll taxes include the following: FICA, Medicare, and California
21 State Tax. FICA is based on 6 percent of employee wages up to \$77,000.
22 Medicare taxes include 1.45 percent of employee wages. The California
23 State Tax entails 2.4 percent of first \$7000 of compensation per employee.

1 Employer payroll taxes are included in the labor costs detailed in Statement
2 AI.

3

4 **Q. PLEASE EXPLAIN WHY PROPERTY TAXES ARE INCLUDED ON**
5 **STATEMENT AK.**

6 A. The ISO is exempt from most property tax due to a successful exemption
7 petition completed in 2001 by the ISO (based on the ISO's tax-exempt status
8 under section 501(c)(3) of the Internal Revenue Code.) However, the ISO
9 does pay property taxes on leased equipment, leased property, and
10 properties that are currently unused, such as land. The 2002 budget amount
11 is for these items.

12

13 **Q. PLEASE EXPLAIN WHY USE TAXES ARE INCLUDED ON STATEMENT AK.**

14 A. Sales and use tax on the purchases of materials and supplies from out of the
15 state of California are included in the Use Tax line item on Statement AK.
16 While the ISO's was recently successful in its petition with the California
17 Franchise Board for exemption from property taxes as a not-for-profit entity,
18 no such general exemption is available for sales and use taxes.

19

20 **STATEMENT AL: WORKING CAPITAL**

21

22 **Q. PLEASE EXPLAIN THE PURPOSE OF STATEMENT AL.**

1 A. Statement AL shows an estimate of the ISO working capital by month during
2 Periods I and II. For Period II, the beginning and ending balances are the
3 forecasted operating reserve balances by service category.
4

5 **Q. CAN YOU EXPLAIN WHAT YOU MEAN BY THE “OPERATING**
6 **RESERVE”?**

7 A. As I described earlier in my Testimony, the GMC is designed to recover the
8 Company’s operating costs and debt service requirement and to provide for
9 an operating reserve. The operating reserve is funded annually by collections
10 of 25 percent of debt service payments. The operating reserve accumulates
11 until the reserve becomes fully funded (at 15 percent of budgeted annual
12 operating and maintenance costs). At that point, any excess may be used to
13 reduce the following year’s GMC rate.

14 **Q. HAS THE OPERATING RESERVE BEEN FULLY FUNDED?**

15 A. Yes. At December 31, 2000, the operating reserve was fully funded. In
16 FY2001, however, due to a variety of reasons, the California ISO is projecting
17 that the operating reserve will be below the 15 percent level, for two of the
18 three GMC service categories, and above for the third. Overall, it is
19 \$1,608,000 below the 15 percent level. As I described above, since each
20 GMC category is maintained separately, for two service categories the
21 deficiency is added to the 2002 revenue requirement, and for the third
22 category, a revenue credit is available to offset the 2002 revenue
23 requirement.

1 **Q. CAN YOU EXPLAIN WHAT TYPE OF CASH AND CASH EQUIVALENTS**
2 **ARE INCLUDED IN THE OPERATING RESERVE?**

3 A. Cash and cash equivalents include cash on hand, governmental securities,
4 commercial paper, mutual funds, and certificates of deposit with original
5 maturities of three months or less. Cash and cash equivalents include
6 restricted amounts held by a bond trustee under and indenture agreement,
7 and restricted amounts held for operating reserves. Cash and cash
8 equivalents are held primarily with five financial institutions.

9

10 **STATEMENT AM: CONSTRUCTION WORK IN PROGRESS**

11

12 **Q. PLEASE EXPLAIN THE PURPOSE OF STATEMENT AM.**

13 A. Statement AM represents the FY2000 and FY2002 estimated average
14 balances for construction work in progress ("CWIP"). The averages are
15 based on a beginning of Period and end of Period simple average.

16

17 Construction work in progress for Period I and Period II includes the following
18 capital items under construction:

- 19
- 20 • OASIS, Evaluation of Market Separation
 - 21 • ADS (Automated Dispatch System)
 - 22 • Existing Transaction Contracts and Outage
 - 23 • BITS (Interchange Scheduling) to EMS (Energy Management
24 System) and Conversion
 - 25 • Intra-zonal Congestion/Congestion Management
 - 26 • Congestion Reform
 - 27 • E Tag part II (NERC Electronic Tagging)
 - Oracle financials new modules

- 1 • CHASE project (Change Management-Help Desk-Asset
- 2 Management Service Level Agreements- Employee Life Cycle
- 3 • EDMS (Electronic Document Management System)
- 4 • New EMS (Energy Management System)
- 5 • Common Information Model (CIM)
- 6 • Field Data Acquisition System
- 7 • New Folsom facility
- 8 • Other minor projects and overhead.
- 9

10 The ISO classifies its CWIP for purposes of this statement into two functional
11 classifications: Intangible and General. Eighty percent of land costs are
12 included with the Intangible functional category, and twenty percent of land
13 costs are included in the General category.

14

15 **STATEMENT AN: NOTES PAYABLE**

16

17 **Q. PLEASE EXPLAIN THE PURPOSE OF STATEMENT AN**

18 A. Statement AN includes notes payable. The California ISO did not have any
19 notes payable in 2000, and does not project having any notes payable in
20 2002.

21

22 **STATEMENT AO: RATE FOR ALLOWANCE FOR FUNDS USED**
23 **DURING CONSTRUCTION**

24

25

26 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

27 A. As a not-for-profit entity, the ISO does not require or request a return on funds
28 used during construction. Accordingly, this statement has not been
29 completed.

1 **STATEMENT AP: FEDERAL INCOME TAX DEDUCTIONS-INTEREST**

2

3 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

4 A. As a not-for-profit entity, the ISO does not pay Federal income tax.
5 Accordingly, this statement has not been completed.

6

7 **STATEMENT AQ: FEDERAL INCOME TAX DEDUCTIONS –**
8 **OTHER THAN INTEREST**

9

10 **Q. WHY HAD THIS STATEMENT NOT BEEN COMPLETED?**

11 A. As a not-for-profit entity, the ISO does not pay Federal income tax.
12 Accordingly, this statement has not been completed.

13

14 **STATEMENT AR: FEDERAL TAX ADJUSTMENTS**

15

16 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

17 A. As a not-for-profit entity, the ISO does not pay Federal income tax.
18 Accordingly, this statement has not been completed.

19

20 **STATEMENT AS: ADDITIONAL STATE INCOME TAX DEDUCTION**

21

22 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

23 A. The ISO is a not-for-profit entity under both State and Federal law.
24 Accordingly, this statement has not been completed.

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STATEMENT AT: STATE TAX ADJUSTMENTS

Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?

A. The ISO is a not-for-profit entity under both State and Federal law. Accordingly, this statement has not been completed.

STATEMENT AU: REVENUE CREDITS

Q. PLEASE EXPLAIN THE CONTENTS OF STATEMENT AU, REVENUE CREDITS.

A. Revenue credits include "Other Operating Revenues", which are comprised of the following: the Grid Management Charge, MCI Subscriber charges (Telecommunications), WSCC Security Coordinator FEES, Scheduling Coordinator Application Fees, and Fines and Penalties.

Q AS YOU ALREADY HAVE EXPLAINED THE GRID MANAGEMENT CHARGE, PLEASE PROVIDE AN EXPLANATION FOR THE REMAINING LINE ITEMS INCLUDED IN STATEMENT AU?

A. The major items on this statement include WSCC Security Coordinator fees and Fines and Penalties. Below is a description:

1 MCI (Telecommunications) Subscriber Charges: Initially, the ISO had
2 separate charges for use of its telecommunications system. These charges
3 were eliminated in 1999.

4
5 WSCC Security Coordinator Fees: The California ISO acts as a
6 security coordinator for the WSCC. As a security coordinator, it is reimbursed
7 for time and expenses related to this function.

8
9 Fines and Penalties: On December 8, 2000, the FERC approved an
10 amendment to the ISO Tariff that allowed the imposition of penalties on
11 participating generators that fail to fully comply with dispatch instructions
12 when the Company is seeking to prevent an imminent or threatened system
13 emergency. The fines are subject to the normal dispute process as are any
14 market charges. Fines and penalties have not been budgeted in 2002, but to
15 the extent that fines and penalties are assessed and collected, they would be
16 available to offset the revenue requirement in the subsequent year. For 2002,
17 the ISO's operating reserve has included \$5 million for fines and penalties to
18 be collected in 2002, and available as a revenue offset for 2003.

19
20 **Q. ARE THERE ANY ADDITIONAL REVENUE CREDITS WHICH ARE NOT**
21 **EXPLICITLY STATED IN STATEMENT AU?**

22 **A.** Yes. Not shown in the formal body of this statement is the calculation of the
23 revenue credit or deficiency applied to either Period I or Period II. Period I did

1 not have any revenue credit or deficiency. Period II does. A calculation of
2 the amount available for each GMC category is shown in lines 9-31.

3

4

STATEMENT AV: COST OF CAPITAL

5

6 **Q. PLEASE EXPLAIN THE PURPOSE OF STATEMENT AV, COST OF**
7 **CAPITAL.**

8 A. Statement AV shows the actual amount of debt outstanding for Period I and
9 estimated amount to be outstanding for Period II. Outstanding debt consists
10 of Variable Rate Demand Revenue Bonds ("the Bonds"). The average
11 interest cost is also shown on this statement.

12

13 **Q. WHEN DID THE ISO ISSUE THE BONDS?**

14 A. In April 2000, the California ISO issued \$293,000,000 of Variable Rate
15 Demand Revenue Bonds through the California Infrastructure and Economic
16 Development Bank ("CIEBD"). The proceeds of the bonds were used to retire
17 \$256,900,000 of Variable Rate Demand Revenue Bonds issued through the
18 California Economic Development Financial Authority ("CEDFA"), a
19 predecessor to CIEBD, with the remainder available to finance the
20 Company's capital expenditures for 2000 and 2001.

21

1 **Q. HOW IS REPAYMENT OF THE BONDS GUARANTEED?**

2 A. The Bonds are guaranteed by a pledge of the ISO's revenues. Additional
3 credit assurance is provided to bondholders through a standby bond
4 purchase agreement provided by a Banking Syndicate that can be drawn
5 upon in the event of default of the Bonds, or to reimburse the re-marketing
6 agents who act as dealers for the Bonds. Additionally, as I will discuss below,
7 the bonds are insured for repayment of principal and interest by MBIA, a firm
8 that provides such bond insurance.

9

10 **Q. WHEN DID THE STANDBY BOND PURCHASE AGREEMENT INITIALLY**
11 **EXPIRE?**

12 A. The original standby agreement expired on April 12, 2001, and the California
13 ISO secured a one-year extension of the agreement, at a cost over three
14 times the original agreement due to the financial uncertainty resulting from the
15 California Energy crisis.

16

17 **Q. DOES THE CALIFORNIA ISO HAVE BOND INSURANCE?**

18

19 A. Yes. Without such bond issuance, the bonds would have initially required a
20 much higher interest rate for potential investors. In the recent environment,
21 they would have been unmarketable due to credit concerns about the ISO.
22 The bond insurance is effective for the term of the Bonds, and is not subject
23 to cancellation provided that annual insurance payments are made.

24

1 **Q. WHAT INTEREST RATE DO THE BONDS BEAR?**

2 A. The Bonds bear interest on a weekly rate. Accordingly, the interest rate
3 changes every week. During 2001, the interest rate has fluctuated much
4 more dramatically than in the past, due to the effect of the California energy
5 crisis. Interest expense has been significantly higher in 2001 than it would
6 have been absent the energy crisis. Fortunately, rates paid by the ISO on its
7 bonds have begun to fall significantly by October 2001, but are still higher
8 than they should be.

9

10 **Q. WHAT OTHER BOND-RELATED FINANCIAL AGREEMENTS DOES THE**
11 **CALIFORNIA ISO HAVE?**

12 A. The ISO also has entered into a variable to fixed interest rate swap
13 agreement ("Swap") with a financial institution. Under the Swap, the ISO
14 pays the Swap counter-party a fixed rate of 4.82 percent. In return, the
15 counter-party pays the ISO a variable rate interest, at the Bond Market
16 Association ("BMA") Municipal SWAP Index Rate. The BMA swap rate
17 approximates, but does not exactly match the variable rate of the California
18 ISO's bonds. Until the financial crisis which overtook the California energy
19 markets in January 2001, the ISO's bonds yield approximately 0.4 percent (40
20 basis points) below the BMA index. During the crisis, California ISO bonds
21 yielded 3-4 percent above the BMA index. Recently this premium has fallen,
22 but the yield on ISO bonds is still above the BMA rate.

23

1 **Q. WHAT IS THE TERM OF THE SWAP?**

2 A. The term of the Swap matches the maturity of the Bonds, and expires in
3 2008.

4

5 **Q. WHAT INTEREST EXPENSES ARE RECORDED BY THE ISO?**

6 A. Interest expenses include amounts paid on the Bonds, payments and receipts
7 under the Swaps, bond re-marketing costs, and bond insurance and liquidity
8 costs. In addition, amortization of bond issuance costs are shown as Interest
9 Expense on statement AB.

10

11 **Q. WHY DIDN'T THE ISO ISSUE ADDITIONAL BONDS, AS PLANNED, IN**
12 **FY2001?**

13 A. Due to uncertainties in the California energy market, the ISO's credit rating
14 was downgraded to below investment grade levels by both Standard and
15 Poor's and Moody's credit rating agencies. The ISO, therefore, was not able
16 to issue debt as planned.

17

18 **Q. WHAT IS THE IMPACT OF NON-ISSUANCE OF 2001 DEBT ON THE TEST**
19 **YEAR FY 2002 GMC?**

20 A. The inability to issue debt in 2001 forced the ISO to pay for critically needed
21 capital projects from its operating reserve. Furthermore, several capital
22 projects have been deferred. The 2001 capital budget, originally set at \$37.7
23 million has been reduced to \$24 million. The \$24 million has been funded by

1 a combination of using the debt service included in the GMC revenues which
2 was allocated for the 2001 bonds which were not issued, (\$10.6 million
3 including the 25 percent Debt Service coverage requirement), with the
4 balance funded directly by the operating reserve.

5

6 **Q. WHAT DEBT EXPENSES ARE PROJECTED FOR THE TEST PERIOD,**
7 **FY2002?**

8 A. Interest expenses include anticipated interest expense on the ISO's bonds
9 issued in year 2000, plus interest expense on the planned 2002 bond
10 issuance. For the 2000 bonds (Series A, B, and C), the all-inclusive interest
11 rate varies from 3.98 - 4.88 percent. The rate used for each Series of bond is
12 dependent on whether an interest rate swap is in place, and on a forecast of
13 interest rates and other expenses.

14

15 For the planned 2002 bond issuance, the following assumptions are used: a
16 bond issuance of \$20 million, five-year amortization, 5.5 percent interest rate,
17 outstanding 3/4 of the year in 2002. Also included interest expense in these
18 Section 35.13 statements is the amortization of the bond issuance costs.

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STATEMENT AW: COST OF SHORT TERM DEBT

Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?

A. The ISO did not have short-term debt outstanding in Period I. The ISO does not expect to have short-term debt outstanding in Period II.

STATEMENT AX: OTHER RECENT AND PENDING RATE CHANGES

Q. WHAT IS THE PURPOSE OF THIS STATEMENT?

A. This statement is intended to document other pending rate changes. The ISO has none.

STATEMENT AY: INCOME AND REVENUE TAX RATE DATA

Q. WHY HAS THIS STATEMENT HAS NOT BEEN COMPLETED?

A. The ISO is a not-for-profit entity under both State and Federal law. Accordingly, this statement has not been completed.

STATEMENT BA: WHOLESALE CUSTOMER RATE GROUPS

Q. PLEASE SUMMARIZE THE CONTENTS OF STATEMENT BA.

A. Statement BA provides a description of the rate classes that comprise the ISO's unbundled Grid Management Charge. For Period I, year 2000, the ISO did not have an unbundled GMC. For Period II, the proposed GMC

1 categories are: (1) Control Area Services, (2) Congestion Management, (3)
2 Ancillary Services and Real Time Energy Operations. This is described
3 earlier in my Testimony.
4

5 **STATEMENT BB: ALLOCATION OF DEMAND AND CAPABILITY DATA**

6

7 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

8 A. This statement does not appear to be applicable to the ISO. Demand and
9 capability data is not used in setting the GMC rates.
10

10

11

STATEMENT BC: RELIABILITY DATA

12

13 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

14 A. This statement does not appear to be applicable to the California ISO. The
15 ISO does not maintain data for generating capacity reserves, and this
16 information is not used in setting the GMC rates.
17

17

18 **STATEMENT BD: ALLOCATION ENERGY AND SUPPORTING DATA**

19

20 **Q. PLEASE SUMMARIZE THE CONTENTS OF STATEMENT BD, ALLOCATION**
21 **ENERGY.**

22 A. Statement BD is a statement of the ISO's energy volumes for Period I and
23 Period II. Period I volumes are the actual monthly volumes experienced in

1 year 2000, calculated on the 1998 GMC Settlement basis. The billing
2 determinant volumes for 2002 are estimated. The basis for the forecast is
3 described elsewhere in my testimony.

4

5 **Q. IT APPEARS THAT STATEMENT BD RELATES TO A UTILITY'S**
6 **WHOLESALE CUSTOMER GROUPS. DOES THE ISO HAVE DIFFERENT**
7 **WHOLESALE CUSTOMER GROUPS?**

8 A. While the ISO does not use the concept of "wholesale customer groups" in
9 setting its rates, it does have different GMC service categories. These
10 include Control Area Services, Congestion Management, and Ancillary
11 Services and Real-Time Energy Operations. These service categories are
12 described elsewhere in my testimony.

13

14 **STATEMENT BE: SPECIFIC ASSIGNMENT DATA**

15

16 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

17 A. This statement does not appear to be applicable to the ISO. The ISO does
18 not allocate its costs based on a direct assignment approach.

19

1 **STATEMENT BF: EXCLUSIVE - USE COMMITMENTS OF**
2 **MAJOR POWER SUPPLY FACILITIES**
3

4 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

5 A. This statement does not appear to be applicable to the ISO. The ISO does
6 not own electric utility generation plants or major transmission facilities.
7

8 **STATEMENT BG: REVENUE DATA TO REFLECT CHANGED RATES**
9

10 **Q. WHAT IS THE PURPOSE OF STATEMENT BG, REVENUE DATA TO**
11 **REFLECT CHANGED RATES?**

12 A. For Period II, Statement BG shows the projected billing determinant volumes,
13 rates/MWh, and resulting revenues for the ISO's unbundled service
14 categories. This statement demonstrates that the total revenue collected
15 essentially equals the ISO's 2002 revenue requirement. By definition, the
16 ISO's rates are set to cover the revenue requirement. For Period I, Statement
17 BG shows monthly billing determinant volumes for FY2000, the rate in
18 \$/MWh, and resulting FY2000 revenues.
19

20 **STATEMENT BH: REVENUE DATA TO REFLECT PRESENT RATES**
21

22 **Q. WHAT IS THE PURPOSE OF STATEMENT BH, REVENUE DATA TO**
23 **REFLECT PRESENT RATES?**

1 A. For Period II, Statement BH presents the revenue collected for each GMC
2 service category, assuming that the 2001 rates for similar categories were in
3 effect, and that the billing determinant volumes were defined on the same
4 basis as for 2001. This demonstrates that the 2001 rates will be deficient to
5 recover 2002 costs. Accordingly, a change in the rates is needed. Without a
6 change in rates, the ISO will significantly under-recover its costs. Because
7 Period I includes FY2000 data, present rates were not applied to FY2000
8 data.

9

10 **STATEMENT BI: FUEL COST ADJUSTMENT FACTORS**

11

12 **Q. WHY HAS THIS STATEMENT HAS BEEN COMPLETED?**

13 A. This statement is not applicable to the ISO. The ISO does not use fuel cost
14 adjustment factors in setting its GMC rates.

15

16 **STATEMENT BJ: SUMMARY DATA TABLES**

17

18 **Q. PLEASE DESCRIBE STATEMENT BJ, SUMMARY DATA TABLES.**

19 A. Statement BJ is a summary presentation of significant values used in the
20 Section 35.13 statements.

**STATEMENT BK: ELECTRIC COST OF SERVICE,
TOTAL AND ALLOCATED**

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Q. PLEASE DESCRIBE STATEMENT BK, ELECTRIC UTILITY COST OF SERVICE, TOTAL AND ALLOCATED

A. Statement BK is a presentation of cost data that supports the ISO's GMC rates. This statement presents an overview of the methodology for computing the ISO's FY2000 historical GMC rate and its proposed GMC rates for FY2002. The statement shows the 2002 rates by unbundled service category.

The ISO is a not-for-profit public benefit corporation, and its method of rate-making is different than that of a for-profit entity. As I described earlier, the ISO charges a Grid Management Charge to the market participants or Scheduling Coordinators to recover the Company's costs and to provide an operating reserve. The Company's costs recovered in a given year are the projected actual cash spending on O&M costs and debt service costs, and accordingly, the rate calculation excludes non-cash charges such as depreciation and amortization expenses. There is no rate base upon which a return is calculated.

Q. WHAT ARE THE ADDITIONAL SUPPORTING STATEMENTS YOU HAVE PROVIDED WITH STATEMENT BK?

1 A. These three statements serve two purposes. First, the first two show the
2 ISO's complete O&M budget and salary/labor costs listed by both FERC
3 account and by ISO cost center. The ISO's cost allocations are primarily
4 documented in the ISO's Cost Allocation Matrix, Appendix A to Exh. No. ISO-
5 4. These schedules show how the costs are translated into the appropriate
6 FERC accounts. Second, the last statement shows the allocation factors for
7 each ISO department (cost center) documenting the percentage of that
8 department's costs associated with the provision of the ISO's three unbundled
9 services. These factors are used in the two statements I just described.
10 These supporting statements are provided only for Period II, as the ISO did
11 not have an unbundled rate structure in Period I.

12
13 **STATEMENT BL: RATE DESIGN INFORMATION**

14
15 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

16 A. The discussion regarding the changes to the ISO's proposed rates for 2002
17 are included in my other testimony, and that of Mr. Gerber. The cost support
18 for the proposed change is provided in the Cost Allocation Matrix, Appendix A
19 to Exh. No. ISO-4.

20

1 **STATEMENT BM: CONSTRUCTION PROGRAM STATEMENT**

2
3 **Q. WHY HAS THIS STATEMENT NOT BEEN COMPLETED?**

4 A. This statement is not applicable to the California ISO, which does not have a
5 construction program to replace or expand its power supply.
6

7 **IX. TARIFF CHANGES**

8
9 **Q. WHAT CHANGES TO THE ISO TARIFF ARE BEING PROPOSED IN THIS**
10 **GMC FILING?**

11 A. The Tariff changes being proposed in this proceeding are designed to
12 describe the changes in names of two of the service categories and the
13 content of the former Market Operations Charge, to create greater flexibility in
14 the calculation of the revenue requirement, to acknowledge the possibility that
15 the ISO may be required to make annual Section 205 GMC filings, to define
16 the term "Other Appropriate Party", and to make grammatical, typographical,
17 and conforming corrections. The specific changes are found in the following
18 Tariff Sections:

- 19
20 • Tariff Sections 8.3; and Appendix F, Schedule 1, Parts B and D,
21 include changes to reflect the fact that the ISO may be required to
22 make annual GMC 205 Filings, rather than providing for annual rate
23 changes through informational filings.

- 1 • Tariff Sections 8.3(2); 8.3.2; Appendix A (Master Definitions
2 Supplement); Appendix F, Schedule 1, Parts A and C; and Settlement
3 and Billing Protocol (“SABP”) Appendix A (Grid Management Charge
4 Computation) have been revised to replace “Inter-Zonal Scheduling”
5 with “Congestion Management”.
- 6 • Tariff Sections 8.3(3); 8.3.3; Appendix A (Master Definitions
7 Supplement); Appendix F, Schedule 1, Parts A and C; and SABP
8 Appendix A (Grid Management Charge Computation) have been
9 changed to replace “Market Operations” with “Ancillary Services and
10 Real-Time Energy Operations”, with regard to both the name and the
11 assessment of this charge.
- 12 • Tariff Sections 8.3.1; 8.3.3; 8.4; 8.4.1; Appendix A (Master Definitions
13 Supplement); SABP 3.1; SABP 3.2.1; SABP 5; and SABP 6.5.3 have
14 been changed to introduce “Other Appropriate Party” as a defined
15 term. In addition to the definition itself, these changes incorporate the
16 term in Tariff Sections where it is helpful to describe what entities will
17 be assessed the GMC.
- 18 • Appendix F, Schedule 1, Part C has been changed to provide for
19 greater flexibility in the calculation of the revenue requirement.

20
21 The pertinent portions of the ISO Tariff are included with this filing both as
22 Attachment A and as Exh. Nos. ISO-5 (clean version) and ISO-6 (redlined
23 version).


1 Q. **THANK YOU, MR. LEIBER. I HAVE NO FURTHER QUESTIONS.**

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

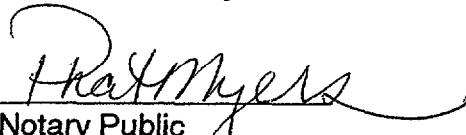
City of Folsom
State of California

AFFIDAVIT OF WITNESS

I, Philip R. Leiber, 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.


Philip R. Leiber

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


Notary Public
State of California
County of Sacramento

