

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System)
Operator Corporation)
)
)

ER01-____-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, CA 95630

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

5 A. I am employed by the California Independent System Operator ("ISO") as
6 Treasurer and Director of Financial Planning.

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

8 A. As Director of Financial Planning, I am responsible for coordinating the
9 development of the ISO's annual operating and capital budgets, variance
10 reporting, and rate filings. I am also responsible for treasury functions,
11 including borrowing and investing of funds, and risk management. In addition
12 to these responsibilities, I am the Project Co-Manager (Michael Epstein is the
13 other Project Manager) of the ISO Unbundling Project Team ("Project Team"),
14 which produced the unbundled pricing proposal in this filing.

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

22 From 1992 through 1997, I was employed by Coopers & Lybrand, LLP in San
23 Francisco, in various positions, most recently as a Manager in the Financial

1 Advisory Services group, and prior to that assignment in the audit practice. I
2 performed financial analysis activities in a variety of contexts, including
3 mergers and acquisitions, business reorganizations, and litigation.

4

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

8

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

12

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

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

20 A. As a Project Manager for the Project Team, I am providing this testimony in
21 support of the unbundling filing that resulted from the Project Team's efforts.
22 The Project Team's efforts and history are described in detail in Mr. Epstein's
23 testimony.

1 I have had responsibility for developing the ISO's unbundled Service
2 Categories, including developing recommendations for management on how
3 to define these Service Categories, how to assign the ISO's costs among the
4 Service Categories, developing the forecasts for billing determinants used to
5 set the rates for these Service Categories, and in assuring that the ISO had a
6 mechanism to recover all of its costs on a timely basis.

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

8 A. First, I will describe organizational structure of the ISO.

9 Second, I will describe how the ISO tracks and accounts for its costs.

10 Third, I will describe the process used by the ISO to develop and define the
11 filed Service Categories and the procedures for the assignment of the ISO's
12 costs among the Service Categories.

13 Fourth, I will describe the ISO's budget process.

14 Fifth, I discuss the forecast of billing determinants used to recover the costs in
15 each Service Category.

16 Sixth, I will compare the unbundled rates with our current bundled rate.

17 Finally, I explain the ISO's proposed true-up process.

18 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR**
19 **DIRECT TESTIMONY?**

20 A. Yes, I am sponsoring Exhibit Nos. ISO-8 and ISO-9, which were prepared
21 under my direction and supervision. These exhibits include the Federal
22 Energy Regulatory Commission ("FERC") Section 35.13 cost statements
23 required in rate filings, the Cost Allocation Matrix which supports the

1 allocation of costs to the various ISO services, and the documentary support
2 for the Cost Allocation Matrix, entitled "Analytical Support for the California
3 ISO Grid Management Charge".

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

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

7
8 I. ORGANIZATIONAL
9 STRUCTURE OF THE ISO
10

11
12 **Q. WHAT IS THE ORGANIZATIONAL STRUCTURE OF THE ISO?**

13 A. The ISO staff is projected to number 478 full-time equivalent positions by the
14 end of 2000. The ISO is organized into seven divisions for the conduct of
15 these activities, as follows:

- 16 • Human Resources/Chief Executive Officer ("HR/CEO")
- 17 • Finance
- 18 • Information Technology
- 19 • Operations
- 20 • General Counsel
- 21 • Client Services
- 22 • Strategic Development & Communications

23 A more complete description of the activities of these divisions is contained in
24 the support for the document "Analytical Support for the California ISO Grid
25 Management Charge", which is included in this filing as Exhibit No. ISO-8.

1 Each ISO division is also divided into additional areas of responsibility called
2 cost centers. A brief overview of the divisions and the functions they perform
3 is provided below.

4

5 HR/CEO

6 This division contains the ISO's Office of the President as well as the Human
7 Resources, Office Administration, and Facilities Departments. The President
8 and CEO is responsible for the leadership and oversight of the ISO, and also
9 manages the day-to-day operations of the ISO. Human Resources is
10 responsible for the planning and development of all Human Resources
11 policies and procedures. Office Administration is responsible for physical
12 security and office services. Facilities is responsible for space planning,
13 maintenance, and general site activities.

14

15 Finance

16 The Finance Division consists of the Accounting Department, Treasury and
17 Financial Planning Group, and the Settlements Group. The Accounting
18 Department monitors and reports on the ISO's actual costs as compared to
19 the annual budget, procures services and pays vendor invoices, settles the
20 market, coordinates external audit resources, and maintains the general
21 ledger for the corporation and the ISO market costs. The Treasury and
22 Financial Planning Group develops the ISO's annual capital and operations
23 and maintenance budget; coordinates all FERC filings related to the ISO's

1 pricing and rates; and performs insurance and risk management,
2 benchmarking, debt administration, and treasury operations. The Settlements
3 Group performs settlement and billing functions for all transactions in the
4 Control Area, through the issuance of Preliminary Settlement Statements and
5 Final Settlement Statements.

6

7 Information Technology

8 The Information Technology Division provides application services, computing
9 services, telecommunications, information security, operating system support,
10 Energy Management System (“EMS”) function, and field data acquisition
11 (including administration of the Metering and the Meter Data Acquisition
12 System (“MDAS”)).

13

14 Operations

15 The Operations Division performs the general reliability function which
16 involves grid planning, outage coordination, operations engineering,
17 scheduling, grid operations and dispatch, security coordination, and general
18 operations support and training. The Operations Division also performs the
19 market operations function, by conducting Day-Ahead, Hour-Ahead and Real
20 Time markets for congestion, providing Ancillary Services, and obtaining Real
21 Time Energy.

22

1 General Counsel

2 The General Counsel Division consists of the Legal and Regulatory
3 Department and the Department of Market Analysis (“DMA”). Legal and
4 Regulatory is responsible for all legal, regulatory, and governance matters of
5 the corporation, including preparing all FERC filings and monitoring and
6 participating in all ISO-related FERC proceedings; monitoring and
7 participating in proceedings and other matters involving relevant state
8 agencies such as the California Energy Commission and California Public
9 Utilities Commission; shaping and monitoring electric restructuring initiatives
10 and legislative proposals; formulating and helping implement the ISO's
11 regulatory policies and positions; negotiating and preparing all general
12 corporate legal documents; overseeing governance matters and maintaining
13 all corporate minutes and bylaws; and providing legal advice and assistance
14 to the officers and the Board of Governors (“Board”). DMA is responsible for
15 monitoring and analyzing the overall performance and competitiveness of the
16 Ancillary Service, Congestion Management and Real Time Markets and for
17 protecting the market from abuses of market power and other abuses that
18 have the potential to undermine the effective functioning and or overall
19 efficiency of the markets.

20

21 Client Services

22 Client Services consists of the Contracts and Compliance and Client
23 Relations Groups. The Contracts and Compliance Group is tasked with

1 developing and negotiating contracts with Market Participants; developing
2 and implementing the penalties and sanctions for the ISO Tariff (including the
3 ISO Protocols) and the ISO's agreements; and assisting other departments
4 and sections regarding contracts, compliance, FERC matters, and other
5 projects. Key functions of the Client Relations group include certification of
6 Scheduling Coordinators ("SCs"), training of SCs, day-to-day resolution of
7 settlement disputes, and answering inquiries from Market Participants on
8 matters such as settlements, operations, and billing.

9

10 Strategic Development and Communications

11 The Strategic Development Group provides for the strategic development and
12 strategic planning function of the ISO. The Communications Group is
13 responsible for the corporate communications and governmental relations
14 functions of the ISO, including internal and external communications, media
15 relations, and the relationship with legislators, the Board of Governors,
16 stakeholders, and governmental regulators.

17

18

18 II. ISO COST ACCOUNTING

19

20

21 **Q. HOW DOES THE ISO ACCOUNT FOR ITS COSTS?**

22

A. The ISO uses the Oracle Financials ("Oracle") system to account for its
23 market and corporate transactions. Market-related transactions are the costs
24 for energy, Ancillary Services, Congestion, and Reliability Must-Run
25 contracts. These costs must be paid directly by Market Participants, and are

1 not the subject of this proceeding. The corporate transactions are related to
2 all costs necessary to operate and maintain the ISO and provide for capital
3 expenditures. The Oracle accounting system provides accounts payable,
4 accounts receivable, general ledger, project, and budget-tracking functions.
5 All costs incurred by the ISO are recorded and paid through this system. This
6 system provides for a six-segment account sequence or code to assign all
7 costs to the appropriate category, and ultimately to assign all costs on the
8 ISO's statement of operations, or balance sheet. These segments are used
9 to account for the expense type, cost center, and FERC account. All costs
10 incurred by the ISO are assigned using these codes.

11 **Q. WHAT ARE THE MAIN CATEGORIES OF COSTS INCURRED BY THE**
12 **ISO?**

13 A. The Grid Management Charge ("GMC") recovers two types of costs: general
14 operating and maintenance expenses, and debt service costs. The general
15 operating and maintenance costs are the direct operating costs for the
16 Divisions noted above, and include such costs as:

- 17 • Salaries and benefits;
- 18 • Building, leases, and facilities costs;
- 19 • Insurance;
- 20 • Third-party vendor contracts;
- 21 • Professional and consulting services;
- 22 • Legal and audit costs;
- 23 • Training, travel and professional dues; and
- 24 • Other miscellaneous costs.

25 Debt service costs consist of principal and interest payments for the ISO's
26 start-up and development costs and ongoing capital expenditures. Certain

1 offsets to such costs are also available, in the form of interest earnings on
2 invested funds, and certain minor fees collected outside the GMC. In
3 addition, operating reserve funds are collected through the GMC.

4

5 Collectively, all of these categories of costs comprise the ISO's overall
6 revenue requirement that is recovered through the GMC. As described
7 below, operating reserve funds can act as an offset to the GMC revenue
8 requirement.

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

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

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

14 A. Operating costs are both budgeted and incurred directly by the ISO's cost
15 centers. During the budgeting process, each ISO cost center develops its
16 proposed budget, and provides the allocation factors that indicate how these
17 proposed costs are to be allocated to the ISO Service Categories. This
18 allows for the proposed revenue requirements and the rates for each ISO
19 Service Category to be set in advance. As operating costs are incurred and
20 payments are received, all payments are assigned directly to individual cost
21 centers. To report actual costs for the ISO on an unbundled basis, the
22 allocation factors developed during the budgeting process for each cost
23 center are applied to the actual costs.

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

2 A. The ISO's capital costs consist primarily of computer software costs, since
3 most of the ISO's computer hardware is leased, and hence is recorded as an
4 operating expense. This computer software currently is developed by outside
5 vendors under contracts with the ISO. The ISO records payments made
6 under such contracts to its fixed assets in its accounting system and such
7 costs are recorded on the ISO's balance sheet. These costs are not recorded
8 by ISO Division or cost center, but rather by fixed asset categories, such as
9 EMS and scheduling infrastructure. The initial infrastructure costs of
10 developing the ISO received similar treatment. Such costs consisted of
11 computer hardware and software, facilities, and startup costs. Many of these
12 costs were incurred by the ISO Restructuring Trust, and then transferred to
13 the ISO. Such costs, in the form of the debt service payments of principal
14 and interest to the ISO's creditors, are recovered through the GMC. The ISO
15 borrows funds to pay for capital expenditures by issuing bonds directly to
16 investors. Over time, the interest and principal payments related to the bonds
17 are paid by GMC collections. Debt service collections comprise
18 approximately 30 percent of the total GMC.

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

20 A. In addition to operating and debt service costs, the ISO collects operating
21 reserve funds through the GMC. Operating reserve collections are intended
22 to provide coverage for unforeseen expenses and to provide a cushion to
23 enable debt service payments to be made. Operating reserve collections

1 provide a necessary level of financial security demanded by ISO creditors.
2 Operating reserve collections are budgeted in setting the annual GMC, and
3 are collected at the rate of 25 percent of budgeted debt service each year.
4 Operating reserve funds are also available as an offset to the ISO's overall
5 revenue requirement -- this is discussed elsewhere in my testimony. The ISO
6 also has certain other offsets to its revenue requirements, including interest
7 earnings and other fee collections, such as fees charged to participants of
8 ISO-sponsored training classes. These are accounted for in a similar manner
9 as operating expenses.

10 **Q. DOES THE ISO'S ACCOUNTING SYSTEM PROVIDE FOR COST DATA**
11 **ON AN UNBUNDLED BASIS?**

12 A. Our Oracle-based accounting system does not directly provide for this data at
13 this time, but the level of detail in the system does enable the assignment and
14 tracking of costs in a manner that, when combined with data maintained in
15 outside tools such as electronic spreadsheets, allows for the establishment
16 and maintenance of the charges on an unbundled basis. With this
17 combination of tools, we are able to develop accurate projections of the ISO's
18 costs by Service Category for purposes of setting the annually fixed rates
19 each year, to facilitate the possible quarterly rate adjustments, and to report
20 periodically on costs in the various service categories. We are in the process
21 of revamping the accounting system to perform these tasks more directly.

22
23 **III. PROCESS USED BY THE ISO TO DEFINE SERVICE CATEGORIES**
24 **AND DEVELOP ASSIGNMENT PERCENTAGES**

1 **Q. HOW DID THE PROJECT TEAM HANDLE THE TASK OF DEVELOPING**
2 **SERVICE CATEGORIES?**

3 A. The Project Team has spent over two years developing the unbundled
4 Service Categories. Mr. Epstein discusses this process in detail in his
5 testimony.

6 **Q. WHAT ARE THE ISO'S PROPOSED SERVICE CATEGORIES?**

7 A. As described by Mr. Epstein in his testimony, the three proposed Service
8 Categories are:

- 9 1. Control Area Services (including scheduling);
- 10 2. Inter-Zonal Scheduling (previously known as Congestion
11 Management); and
- 12 3. Market Operations (including settlements, billing and metering).

13
14 **Q. PLEASE DESCRIBE HOW THE ISO DEVELOPED THE ASSIGNMENT**
15 **PERCENTAGES THAT WILL BE USED TO DISTRIBUTE THE ISO'S**
16 **COSTS AMONG THE SERVICE CATEGORIES.**

17 A. The assignment percentages were developed for both operating and capital
18 costs. As discussed earlier, the process of assigning the ISO's costs involved
19 staff from across the ISO. In the course of the Service Category definition
20 process, the Project Team developed general descriptions of the ISO tasks
21 and responsibilities related to each of the Service Categories. ISO managers
22 and directors were then asked to assign their group's budgeted costs to the
23 Service Categories, consistent with the definitions provided. Most of the
24 operations-related costs were assigned directly to the ISO Service Categories
25 in this manner.

1 Many of the ISO's managers and directors are responsible for functions that
2 do not directly relate to any of the Service Categories, or provide benefit to all
3 of the Service Categories. Examples of these functions include human
4 resources, certain information technology functions such as general desktop
5 support, and general accounting. These "overhead" type costs were
6 assigned to the Service Categories proportionally based on the results of the
7 direct assignments noted above. For example, if Service Category "A"
8 contained 40 percent of ISO costs, and Service Category "B" contained 60
9 percent of ISO costs prior to the allocation of general accounting department
10 costs, categories A and B would be allocated 40 percent and 60 percent of
11 the accounting department costs, respectively.

12
13 The costs related to certain cost centers were allocated based on ISO
14 headcount. This method was used to assign certain computing-related costs
15 that support all ISO employees, and the costs of the telecommunications
16 system. A portion of telecommunication system costs was allocated to the
17 Service Categories using an all-ISO headcount; a portion of the costs was
18 allocated based on a headcount of only those departments deemed to have
19 significant usage of the system; and a portion was assigned directly to a
20 single Service Category, Market Operations, based on the nature of the
21 telecommunications costs involved.

22

1 The Project Team then totaled the costs for each cost center resulting from
2 this process to determine the total amount of operating costs assigned to
3 each Service Category. The allocation methods used for each ISO Cost
4 Center are discussed in detail in the support for the “Analytical Support for
5 California ISO Grid Management Charge” in Exhibit No. ISO-9.

6 **Q. PLEASE DESCRIBE HOW THE ISO DEVELOPED THE ASSIGNMENT**
7 **PERCENTAGES THAT WILL BE USED TO DISTRIBUTE THE ISO’S**
8 **CAPITAL COSTS AMONG THE SERVICE CATEGORIES.**

9 A. The ISO's capital costs are collected through the GMC in the form of debt
10 service on borrowed funds. In order to determine how the debt service costs
11 are allocated, it is necessary to look to how the bond funds were spent.

12

13 The capital costs incurred by the ISO to date have been analyzed
14 retrospectively, and have been assigned to the appropriate ISO Service
15 Category using various methods. Some capital costs were assigned entirely
16 to one ISO Service Category. Others were allocated to the categories using
17 various methods, as appropriate. This assignment and allocation process
18 has involved not only staff from the accounting and finance function, but
19 significant involvement of the users and managers of the software. For many
20 of the ISO computer systems, such expertise is necessary to assign the costs
21 to the appropriate ISO Service Categories accurately. For example, certain of
22 the ISO's major computer systems, specifically, the Scheduling Applications,
23 Scheduling Infrastructure, and Balance of Business Systems, were procured

1 under a single contract. These computer applications are used in all of the
2 ISO's Service Categories. Accordingly, it was necessary to analyze this
3 contract in depth and to assign the costs related to various contract
4 milestones to the appropriate Service Category.

5

6 Other capital costs were allocated based on the results of other capital costs
7 allocations, or based on the results of operating cost allocations. For
8 example, facility-related costs were allocated based on the results of the
9 operating cost allocations, as facilities are used by all ISO personnel. Bond
10 proceeds that were borrowed, but not yet spent, were allocated based on the
11 results of prior capital cost allocations.

12

13 In the future, as the ISO makes payments to vendors for this software under
14 contract milestones, such payments will be analyzed individually to determine
15 to which ISO Service Category the software is related. The costs for that
16 contract milestone will be assigned to that ISO Service Category.

17

18 Because proposed capital spending will affect the ultimate rates of the ISO
19 Service Categories, the ISO provides information as to which service
20 category(ies) capital projects relate to when they are being considered for
21 approval by the ISO Governing Board.

22

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

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

3

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

10

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

16

17 Additionally, the ISO has a revenue credit for fiscal year 2001 that is applied
18 to reduce its overall revenue requirement. This revenue credit results from
19 operating reserve funds in excess of what is required for debt service
20 purposes, and the level specified in the tariff. The revenue credit is applied to
21 the fiscal year 2001 revenue requirements for the ISO Service Categories on
22 a *pro rata* basis.

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

1 A. The results of the cost allocation process are reflected in the “CAISO Cost
2 Assignment Matrix” set forth in Attachment A to Ex. No. ISO-9. This matrix
3 indicates how the costs from each of the ISO's divisions and capital-related
4 costs are to be assigned to the Service Categories. For this filing, the cost
5 allocation percentages were gathered during 1999, and have been applied to
6 1999 actual costs. This is the Period 1 data for this proceeding; the 2001
7 budgeted figures, to be submitted in the December 15, 2000 informational
8 filing, constitute the Period 2 data. For 2001 and future years, the allocation
9 percentages will be developed and/or reviewed prospectively.

10

11 For 1999 figures, the results of this allocation process showed that costs were
12 attributable to the ISO Service Categories in the following percentages:

13	1. Control Area Services	45.1%
14	2. Inter-Zonal Scheduling	7.4%
15	3. Market Operations	47.5%

16

17 The rates that would have resulted from the application of these percentages
18 are shown in Exhibit Nos. ISO-8 and ISO-9.

19

20 Going forward, the budgeted costs for the ISO's divisions and capital
21 spending will be assigned to the Service Categories using this Cost
22 Assignment Matrix. The cost allocation percentages will be updated annually,
23 concurrent with the budgeting process. Reviewing the allocation percentages
24 annually will ensure that the percentages are accurate in light of any new
25 responsibilities taken on by the ISO, or any reorganization within the ISO.

1 **Q. HOW SENSITIVE ARE THE RESULTS OF THE COST ALLOCATION**
2 **PROCESS TO DIFFERENT ASSUMPTIONS?**

3 A. The ultimate results of the analysis change depending on the assumptions
4 used to assign the operating and maintenance costs and the debt service
5 costs to the three ISO service categories.

6

7 For the operating and maintenance costs, the sensitivity depends on whether
8 the cost is used as a basis to allocate other costs that cannot be assigned
9 directly to a particular category. For example, the costs of the transmission
10 planning group (cost center 1521) are assigned to the Control Area Services
11 function. Other costs, such as those related to the Human Resources
12 function (and telecommunications, and even certain capital costs), are
13 assigned to the three Service Categories based on the results of the
14 assignment of the direct costs, such as transmission planning. Accordingly,
15 moving funds from a group such as transmission planning from one category
16 to another has a relatively large impact on the overall allocation results. For
17 example, if \$1 million of the costs of the transmission planning group (about
18 0.6 percent of 1999 costs overall) assigned to the Control Area Services
19 category were moved to Intra-Zonal Scheduling, this would cause the overall
20 amount of costs assigned to the Control Area Services category to decrease
21 by approximately \$3.2 million (about 2 percent of 1999 costs overall.)

22

1 For debt service costs, the impact of changing the allocation percentages also
2 depends on whether the amount to be reallocated/transferred is used as a
3 basis for allocating other amounts. As an example, for costs of the ISO's
4 infrastructure, "Direct Assigned Items" in the Cost Allocation Matrix, moving
5 \$1 million of costs (\$1 million of \$301.4 million total ISO borrowing -- 0.33
6 percent -- which requires \$142 thousand to be recovered through debt service
7 -- 0.09 percent of total 1999 costs) from the Control Area Services category to
8 Intra-Zonal Scheduling causes the overall amount of costs assigned to the
9 Control Area Services category to decrease by \$431 thousand (or about 0.27
10 percent of overall 1999 costs). The impact is amplified given that certain other
11 infrastructure costs are allocated based on the results of this assignment.

12

13 The net effect on the GMC of the assignment of costs to a particular category
14 from capital spending is mitigated in any given year, as debt service costs are
15 spread over time. Over time, the effect of the assignment/allocation decision
16 would be more significant, as the cost would be collected through the GMC
17 for several years as the debt is amortized.

18

19

IV. THE ISO'S BUDGET PROCESS

20

21

22

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

23

24

A. The current ISO budget approval process was specified in the 1998 GMC
Settlement Agreement. It provides for substantial public input into the

25

1 budgets before they are approved by the ISO Board of Governors and filed
2 with FERC.

3

4 The budget process begins in June and lasts through December. In June, the
5 ISO's various divisions begin preparation of their proposed budgets for the
6 subsequent year. These budgets are reviewed and modified through several
7 iterations. By August, a proposed preliminary budget is completed and
8 presented to the ISO's Finance Committee for comments and guidance. In
9 September, the proposed budget is made available to the public through
10 posting on the ISO's website. Stakeholders are invited to submit comments
11 and ask questions about the budget, and the ISO conducts a public budget
12 meeting in October for this purpose. In November, the ISO Board is provided
13 with a summary of stakeholder comments received by the ISO, and the final
14 version of the budget is submitted to the Board for approval. In December,
15 the ISO staff prepares and submits the approved budget in the form of an
16 informational filing with FERC.

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

19 A. During June, the ISO Finance Department commences the budgeting
20 process. The capital budgeting process is performed concurrently with the
21 operating budget development process, as they are related -- the size and
22 composition of the capital budget affects the operating budget. Managers
23 and directors of the ISO identify a list of the potential projects that might be

1 completed in the subsequent year (“Budget Year”). These initiatives include
2 internally-generated project proposals or process changes, regulatory-
3 mandated changes, stakeholder requests, and other business needs. The
4 sponsor of each potential project develops an estimate of the capital costs
5 and the operating expenses related to the project. The Finance Department
6 compiles a list of all such potential projects and distributes it to ISO managers
7 and officers. The number of projects suggested generally will exceed the
8 number the ISO is able to implement, in terms of staffing resources and
9 preliminary funding limits. The ISO managers and officers will therefore
10 eliminate those projects that are beyond the preliminary budget and staffing
11 constraints. Accordingly, the projects that are included in the final proposed
12 project listing are those projects considered most critical by management.

13

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

17

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

1 With the introduction of the unbundled pricing structure, an additional factor to
2 consider in the capital budget development and project approval process is
3 the impact of project development costs and ongoing support costs on the
4 estimated rates for each Service Category. As previously discussed, all
5 capital project and associated support costs will be allocated between the
6 Service Categories that the project is deemed to support.

7 **Q. DOES THE ISO HAVE ANY ADDITIONAL PROCEDURES FOR**
8 **EVALUATION OF, AND STAKEHOLDER INPUT INTO, THE ISO'S**
9 **PROJECT BUDGETS?**

10 A. Yes. Stakeholders have ongoing involvement in how the ISO spends its
11 capital funds. First, as noted above, there is opportunity to influence the
12 components of the proposed capital budget during the public budget review
13 process. Additionally, during the year, Market Participants can request the
14 ISO to implement system changes and other capital projects through the
15 ongoing monthly Market Issues Forum ("MIF"). Market Participants also may
16 request Board members to bring up proposed capital items for discussion at
17 Board meetings.

18 **Q. HOW IS THE BUDGETING PROCESS RELATED TO THE UNBUNDLING**
19 **EFFORTS?**

20 A. As discussed elsewhere, the information necessary to calculate the
21 unbundled rates is gathered during the budgeting process.

22

1 For all of the ISO's divisions, allocation percentages for operating costs are
2 gathered or developed based on the proposed operating budget. Items in the
3 proposed capital Budget also require assignment to one or more of the ISO's
4 Service Categories.

5
6 Finally, information on the unbundling process, including the cost allocation
7 methodology, is provided to stakeholders during the budgeting process.

8
9 V. THE ISO'S FORECAST OF BILLING DETERMINANTS

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

11
12
13 A. The rates are calculated by dividing the ISO costs for each Service Category
14 by the billing determinant volumes.

15 **Q. HOW WERE THE BILLING DETERMINANTS SELECTED?**

16 A. The Unbundling Project Team followed the process for selecting the billing
17 determinants as set forth in Mr. Epstein's testimony, and ultimately selected
18 the billing determinants as set forth below:

<u>ISO Service Category</u>	<u>Billing Determinant</u>
19 1. Control Area Services	Control Area Gross Load and
20	Exports
21	
22 2. Inter-Zonal Scheduling	Net scheduled inter-zonal flow
23	(excluding ETCs) per path
24 3. Market Operations	Purchases and sales of Ancillary
25	Services and Real Time Energy
26	

27 The Project Team, using information obtained from the ISO settlements and
28 other computer systems, provided information to participants as to what the

1 unbundled rates would be if they were based on different possible billing
2 determinants.

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

4 A. The ISO developed the forecasts for the three billing determinants noted
5 above based on historical information available in its settlements and other
6 computer systems, together with estimates from outside sources. This
7 information was analyzed for 1999 and for information available through
8 2000, and projected over the remainder of 2000, and then projected over
9 2001. Each billing determinant was forecast separately, but the second two
10 billing determinants were based on the results of Control Area Gross Load
11 forecast.

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

13 A. This billing determinant forecast was developed primarily from information
14 available in the ISO settlements system. Much of the information necessary
15 to develop this forecast was required to be collected for billing the current
16 GMC, so historical data was readily available for 1999 and 2000. Certain
17 components of this billing determinant were not available directly from ISO
18 records, however, and had to be estimated based on information obtained
19 from other sources, which are described in Mr. Epstein's and Mr. Price's
20 testimony.

21

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.

4
5 Next, this historical data was projected over the remainder of 2000, using the
6 growth rate shown in the data from the first six months of 1999 to the first six
7 months of 2000. This amount was then projected over 2001, by inflating the
8 2000 total volume by an anticipated load growth rate, which was based on an
9 average of the load growth shown in the ISO data from 1999 to 2000, as well
10 as load growth estimates obtained from outside sources.

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

12 A. We examined the relationship between net scheduled inter-zonal flows
13 (“IZF”) and Control Area Gross Load shown in the data we had available for
14 1999 and 2000. We noted that a relatively stable relationship existed
15 between these two variables. On a monthly basis, the quantity of IZF divided
16 by Control Area Gross Load averaged 32 percent, with a standard deviation
17 of 3.2 percent, which represents a generally very predictable relationship.

18
19 Accordingly, we developed our forecast for Control Area Gross Load for 2001,
20 and multiplied the result by 32 percent. We note, however, that proposed
21 changes to ISO markets from Comprehensive Market Redesign/Congestion
22 Management Reform could result in the creation of a greater number of
23 congestion zones or locational pricing areas, and accordingly could change

1 this relationship. As of the date this testimony is being submitted, the details
2 of any such changes to existing congestion zones have not been finalized or
3 presented to the Commission for approval. If such changes are made, we
4 can revise the rate through the quarterly adjustment mechanism discussed
5 elsewhere.

6 **Q. HOW WERE PURCHASES AND SALES OF ANCILLARY SERVICES AND**
7 **REAL TIME ENERGY (“PSE”) FORECAST?**

8 A. Like IZF, PSE was forecast as a percentage of Control Area Gross Load
9 based on the historical relationship between these data. To develop the
10 historical relationship between PSE and Control Area Gross Load, we divided
11 monthly PSE quantities for the period of January 1999 to June 2000 by
12 monthly Control Area Gross Load quantities. The resulting percentages were
13 again quite stable, averaging 45 percent with a standard deviation of 3.2
14 percent. The low standard deviation suggests that the monthly percentages
15 calculated do not vary greatly from the mean of 45 percent, so PSE can be
16 forecasted as a percentage of Control Area Gross Load with reasonable
17 certainty. After determining the average PSE to Control Area Gross Load
18 percentage for the period of January 1999 to June 2000, the monthly
19 forecasted Control Area Gross Load for 2001 was multiplied by 45 percent to
20 derive the PSE for fiscal year 2001

21

22 If ISO markets are utilized to a significantly different extent than in the past,
23 the forecast volume for this billing determinant may need to be revised either

1 upward (due to more "under-scheduling") or downward (due to self-provision
2 of Ancillary Services, or more forward market scheduling), as discussed in
3 greater detail below.

4
5 VI. CALCULATION OF RATES UNDER THE FILED FORMULAS
6

7
8 **Q. PLEASE SUMMARIZE THE PROCEDURE BY WHICH THE ISO WILL**
9 **DETERMINE THE RATES THAT WILL BE ESTABLISHED FOR EACH**
10 **SERVICE CATEGORY AND BY WHICH CUSTOMERS WILL BE NOTIFIED**
11 **OF THE NEW RATES EACH YEAR.**

12 A. The rates that are proposed to be in effect will be published concurrently with
13 the budgeting process, outlined above. The ISO will publish annually a
14 proposed budget timeline that will contain the dates that information will be
15 released to stakeholders for input and comments. Significant milestones
16 under the current year's schedule are:

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

23
24 The rates in the December filing will be based on the rate formulas in the ISO
25 Tariff, the approved budget, and associated billing determinant projections.

26 The ISO intends to provide sufficient detail about the budgets, billing
27 determinants, and resulting rates for stakeholder understanding and clarity,

1 and will provide additional supporting details and workpapers to stakeholders
2 upon request, subject to any confidentiality constraints.

3 **Q. PLEASE DESCRIBE THE METHODOLOGY BY WHICH RATES WILL BE**
4 **ESTABLISHED FOR EACH SERVICE.**

5 A. The calculation of the rates is straightforward. The costs attributable to each
6 ISO Service Category are developed through the budgeting process and
7 through the use of the Cost Allocation Matrix. The total costs for each
8 Service Category are divided by the forecast of the billing determinant volume
9 for each Service Category. The result is the charge, or rate, for each Service
10 Category. This is demonstrated in Schedule 1 of ISO Tariff, Exhibit No. ISO-
11 5.

12
13 VII. COMPARISON OF REVENUES UNDER
14 CURRENT AND PROPOSED RATES
15

16
17 **Q. HAVE YOU COMPARED THE REVENUES THAT WOULD BE PRODUCED**
18 **BY THE ISO'S CURRENT RATE STRUCTURE WITH THOSE THAT**
19 **WOULD BE PRODUCED BY THE PROPOSED RATES?**

20 A. Yes. By design, the total revenues collected under both approaches should
21 be equal, because both include formula rates that are designed to recover, in
22 the aggregate, all of the ISO's budgeted costs. The individual participants,
23 however, can and will see their contributions to the support of overall ISO
24 costs change. In order to provide an indication of the effect of the proposed
25 unbundling scheme on individual participants, the ISO created and made

1 available an electronic spreadsheet that compared an individual participant's
2 total GMC costs on a bundled and unbundled basis. These figures were
3 based on actual settlements data for each ISO participant for 1999, so the
4 participants can see the total costs they would have paid had the proposed
5 unbundled pricing been in effect during 1999. Providing this information was
6 an essential aspect of the unbundling stakeholder process, as it allowed
7 parties who were affected negatively by the change in rate design to ask
8 questions and argue for more favorable treatment, by proposing the use of
9 different billing determinant, for example.

10

11 It is important to note that it is not possible to sum the actual rates in \$/MWh
12 for the three unbundled Service Categories and compare that result to the
13 bundled GMC that has been in effect to date. This is because the unbundled
14 rates each use different billing determinants.

15 **Q. PLEASE COMPARE THE IMPACTS OF THE BUNDLED RATES FOR 1999**
16 **AGAINST THE RATES THAT WOULD HAVE BEEN BILLED HAD THE**
17 **PROPOSED UNBUNDLED GMC BEEN IN EFFECT AT THAT TIME.**

18 A. If the GMC had been unbundled along the lines proposed in this filing in 1999, the
19 charge paid by the municipal and governmentally-owned utilities ("GEs") would
20 have been \$23.2 million, compared with the \$10.7 million that GEs actually paid
21 in 1999. This difference is due to the fact that in 1999, 17,800 GWh of GE Load
22 was 100 percent excluded from the GMC, and 25,700 GWh of Load was 50
23 percent excluded. This Load would not be excluded from the proposed GMC.

1 Additionally, almost \$4.8 million of the *pro forma* GMC relates to market
2 operations charges for two GEs.

3 The unbundled 1999 costs to qualifying facilities (“QFs”) would have been
4 approximately \$2.1 million. This is due to the fact that 6,800 GWh of Load (based
5 on an estimate of QF load developed as described in Mr. Price's testimony) that
6 would have been 100 percent excluded from the GMC in 1999 would not be
7 excluded from the GMC in the proposed structure.

8 For other Scheduling Coordinators, the impact of the unbundled GMC is mixed.
9 For one class, their costs increase as the result of including sales of Ancillary
10 Services and Real Time Energy in the Market Operations billing determinant
11 under the proposed GMC structure.

12 For other SCs, unbundled 1999 costs would have been significantly less than that
13 actually charged in 1999. The decrease is attributable primarily to the addition of
14 Load that previously was excluded from paying the GMC and the inclusion of
15 sales of Ancillary Services and Real Time Energy in the Market Operations billing
16 determinant.

17 Thus, while some Market Participants will find their GMC costs increased
18 under the new structure, others will find their costs significantly decreased.
19 The proposed GMC does a much better job of assigning ISO costs to those
20 entities that either cause the costs to be incurred or utilize the ISO services.

1 **Q. WHO ARE THE BENEFICIARIES OF THE SERVICES OF THE**
2 **CALIFORNIA ISO?**

3 A. The beneficiaries of the services provided by the California ISO are the
4 people of California. The Direct participants that utilize the ISO services are:

- 5 1) SCs;
6 2) Transmission owners within the ISO Control Area; and
7 3) Generation owners who provide the ISO with reliability services.

8 In addition, other entities benefit from the grid reliability services provided to
9 the California electric grid, including GEs and small generators including QF.

10

11

12

VIII. THE ISO'S PROPOSED TRUE-UP PROCESS

13

14

15

Q. PLEASE DESCRIBE THE PROCESS THAT THE ISO WILL USE TO
16 **RECONCILE THE ACTUAL COSTS AND REVENUES FOR ITS SERVICES.**

17

A. The rates for the three ISO Service Categories will be set annually based on
18 budgeted costs and a forecast of the billing determinant for each service. To
19 the extent that actual costs and billing determinant volumes vary from those
20 used to set the rate, an under- or over-collection occurs. Over- or under-
21 collections will be handled generally in the same manner as they are in our
22 current bundled GMC: through an operating reserve. What is changing,
23 however, is that now an operating reserve will be maintained for each ISO
24 Service Category on a separate basis.

25

1 An operating reserve acts as a "cushion", and allows the ISO to meet its
2 expenses even though actual operating results may not precisely match what
3 was anticipated when the rates for each service were set. To the extent that
4 costs are lower, and/or billing determinant volumes are higher than
5 anticipated, excess funds above and beyond those necessary to cover the
6 ISO's expenses are available, and will be maintained in the operating reserve.
7 Such excess reserves can be used as an offset to the following year's
8 revenue requirement for a particular ISO service. On the other hand, if costs
9 are higher and/or billing determinant volume is lower than that used in setting
10 the rate for a particular service, the operating reserve for a particular service
11 will be drawn down to pay for the expenses related to that ISO service.

12 **Q. HOW WILL THE OPERATING RESERVE CALCULATION WORK?**

13 A. I will first discuss how the operating reserve currently works. From the
14 inception of the ISO's operations, the ISO has collected funds above and
15 beyond those needed to cover budgeted operating expenses. These excess
16 funds have been used to build up the operating reserve. These funds are
17 collected every year at the rate of 25 percent of budgeted debt service
18 (consisting of principal and interest payments). The operating reserve
19 ultimately is targeted to build to a level equal to 15 percent of overall
20 budgeted operating expenses (excluding debt service).

21

22 As of December 31, 2000, it is anticipated that the ISO operating reserve will
23 be "full", in that it will have reached a level in excess of 15 percent of the

1 subsequent year's budgeted operating expenses. Once the reserve balance
2 is fully funded, any excess funds can be used as an offset to the subsequent
3 year's revenue requirement, resulting in a lower GMC. The proposed GMC
4 for 2001 will contain such a revenue requirement offset. The ISO will apply
5 the excess on a *pro rata* basis to each of the three ISO Service Categories.

6

7 From January 1, 2001 forward, the ISO will maintain separate reserves for
8 each Service Category. On January 1, 2001, the ISO will divide the existing
9 reserve into three pools, *pro rata*, based on the contribution of each Service
10 Category to the overall revenue requirement for 2001. Thereafter, the ISO
11 will apply the same process as described in the paragraph above to each of
12 the three ISO Service Categories, and will separate the operating reserves.

13 **Q. ARE COSTS MAINTAINED ON A SEPERATE BASIS FOR EACH SERVICE**
14 **CATEGORY?**

15 A. Yes. As noted above, rates are calculated separately for each of the three
16 Service Categories. Actual costs are recorded separately, and over- and
17 under-collections are determined separately through the three operating
18 reserves.

19

20 The rate design the ISO is proposing meets two of the major concerns
21 expressed during the unbundling process – that rates be made certain and
22 that different services not subsidize one another. The ISO is responding to
23 customers' desires that rates be fixed so that they can make assessments as

1 to the cost of a given service, budget, and make usage decisions accordingly.
2 Additionally, costs are maintained separately for each service so that users of
3 one service do not bear the expenses related to other services they do not
4 use.

5
6 A relatively minor issue with this approach is the fact that as the collections in
7 a given year may not precisely match actual costs, there may be a small
8 amount of intergenerational subsidization, *i.e.*, there could be some burdening
9 or benefiting of one set of customers in one year for under-collections or over-
10 collections resulting from charges to a different set of customers in a prior
11 year. This is not likely to be significant, however, as in general the ISO's
12 costs are relatively stable and amenable to accurate budgeting, and the billing
13 determinants selected are expected to be amenable to generally accurate
14 forecasting as well. This minor drawback is inevitable given the two criteria
15 stakeholders considered paramount – the absence of cross-subsidization and
16 the presence of rate certainty.

17 **Q. DOES THIS APPROACH PROVIDE ADEQUATE REVENUE STABILITY**
18 **FOR THE ISO?**

19 A. Revenue stability for the ISO is important, because even though the ISO has
20 the operating reserves to cushion minor-to-moderate under-collections,
21 significant underachievement of a billing determinant's volume could leave
22 the ISO with insufficient financial resources to meet its expenses. This is of
23 key concern to the ISO's creditors who provide long term bond financing.

1 They require that the ISO design a rate structure that provides strong
2 assurance that the bond debt service payments will be made on a timely
3 basis. In the proposed rate, the ISO has two tools available to ensure that it
4 can effectively manage its funding requirements.

5
6 First, if it becomes apparent during the year that under- or over-collections
7 are likely to become significant, it may be necessary to recalculate the rate on
8 a going forward basis. This is the same flexibility that is provided in the
9 current GMC. If it is forecast that a billing determinant's volume at year-end
10 will vary by more than 5 percent from the budgeted billing determinant volume
11 used to set the rate, the ISO has the ability to revise the effective rate. This is
12 the quarterly adjustment mechanism provided for in Schedule 1, Part B of the
13 ISO Tariff.

14
15 Next, the ISO plans to have in place a bank-provided working capital line of
16 credit. While the quarterly adjustment mechanism, combined with the
17 operating reserves, should provide the ISO with adequate financial resources
18 if there is a significant underachievement of billing determinant volume, or if
19 costs for a particular Service Category significantly exceed the budget, the
20 ISO could be short of resources. This would primarily be due to the lag that
21 arises from the quarterly adjustment mechanism. The lag consists of 1) the
22 time it takes to identify the shortfall, with the receipt of settlements

1 information, and 2) the time it takes to prepare the new proposed rate, and to
2 put the adjusted rate into effect.

3

4 The ISO believes these measures will provide the needed level of overall
5 stability that is necessary and fiscally prudent.

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

