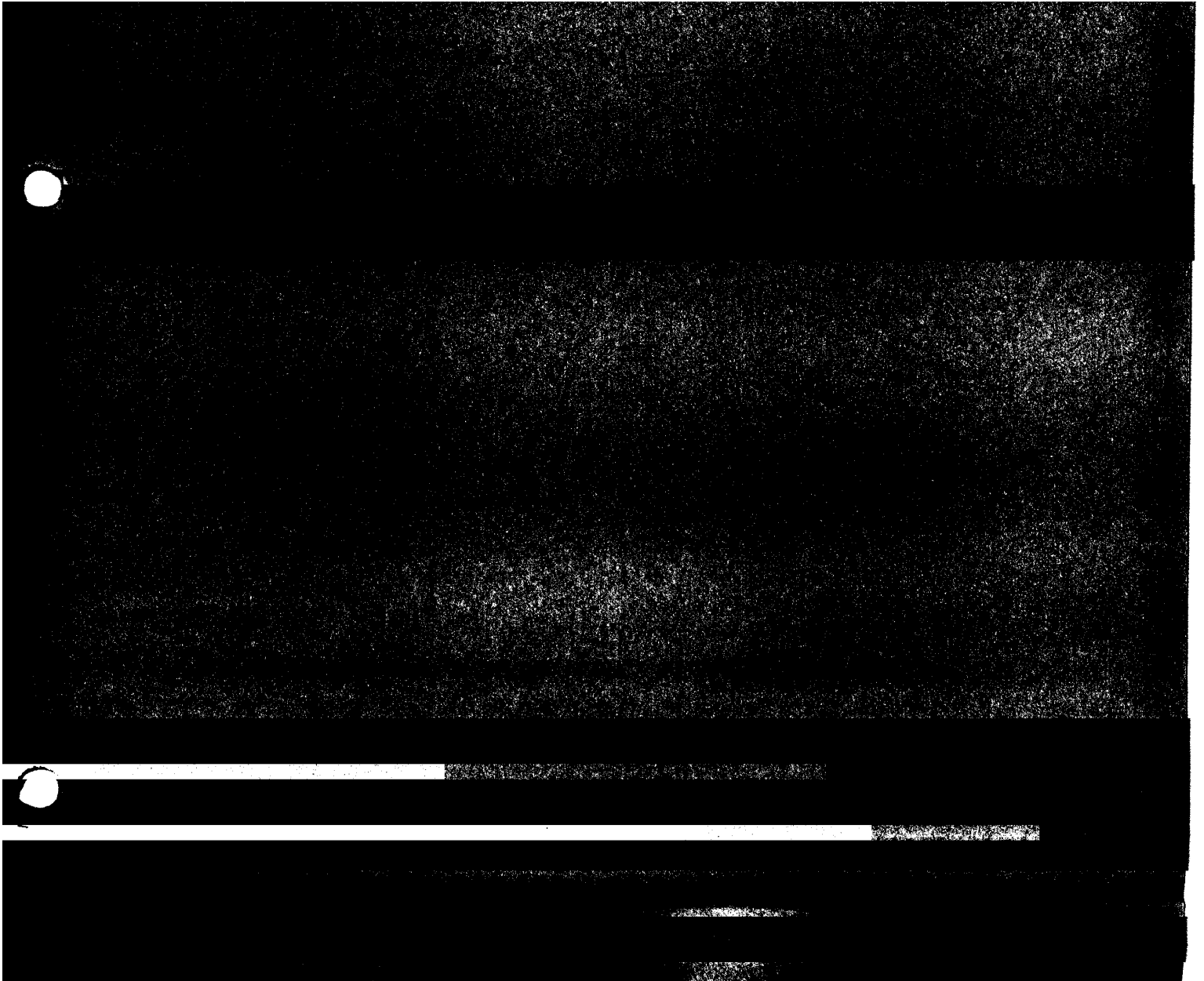


Exhibit No. ISO 2(22)

April 25, 2000

STEERING COMMITTEE MEETING





**GMC Unbundling Steering
Committee Meeting
April 25, 2000
10:00 a.m. – 2:00 p.m. in 101A-1a**

Sign-in Sheet

Ray Bliken	RCS for CAC / EPUC
David Cohen	TANC
LARRY Lau	Cal Pr.
Gene Waas	Calpr
Bert Hansen	SCE
BOB ORBETA	PG&E
MIKE Epstein	CAISO
Charlotte Martin	CAISO
Laurie Durnell	The Grove Consultants Intl
Nick Henery	SMUD
Ed Jensen	Simpson
Phil Terloni & Julia Moore - Swidler Berlin	
Bob Conden (Conden ⁹³)	PG&E
Ray Venner	PG&E
Ed Berlin (Impress)	Swidler Berlin
Phil Leibur	CAISO
Bill Rigan	CAISO
Steve Greenleaf	CAISO
Mike Turner	CAISO

Facilitator

Call-in

GMC UNBUNDLING OPTIONS

TIMES	ACTIVITIES
10:00	Welcome
10:15	Presentation of unbundling options + CAISO management recommendation to the board
10:45	Questions... comments...
12:00	Diagram Alternative recommendations
	Discussion/consensus
2:00	Wrap-up + close. Additional meeting notes

ROLES

Laurie → Neutral facilitation
 Daniel → The GMC Consultants Int'l

COMMITTEE TEAM
 PRRR

* (where possible) achieve consensus.

RULES

- ▷ Make space for everyone to talk.
- ▷ 1 conversation
- ▷ Propose alternatives.
- ▷ See detail when asked. impacts.
- ▷ Get in... make your point... get out!
- ▷ note representation
- ▷ Avoid rehashing old ground

OUTCOMES

- ▷ Everyone understands the current status of unbundling the GMC.
- ▷ Committee articulates a recommendation for the board. *How close can we get?*
- ▷ Set time for 'next-level' of detail for implementation



GMC UNBUNDLING ~ PRESENTATION QUESTIONS.

- Q** Settlements over time...
 - Won't take off 2± yrs.
 - Q** SE pay 1/2 for A/S?
 - Not currently on stmt
 - Q** SE self provide?
 - Not charged, no units on statement
 - Q** Use historical period for A/S?
 - Yes. Will re-set rates. *Look at what PX is planning*
 - Q** Self-provision now at
 - 3%. Not material.
 - Q** Gross load overlaps w/ TAC. Discriminatory. Within QFs.
 - We file separately from TAC
 - GMC - load behind the meter - be consistent before + after March 31.
 - Q** How much load behind the meter?
 - data from CVC website. public info.
 - 10,000 MWh for estimate on impacts. (QF only)
 - Q** What's the status of W. Power Complaint?
 - Pending e PERC.
 - Don't expect anything out
 - Q** Software status?
 - less than \$500K
 - Keep it simple! stakeholders do simple spreadsheets.
 - Q** Cost correlation w/ PJM?
 - ISO's unique... *We'll look at it*
 - Q** PJM + ISO N. Eng.?
 - in process of settlement
 - thrown out by PERC re-submitting. labor analysis questions
 - Q** Formula filed in Oct.
 - Budget filed after
 - Board approval.
 - Q** What's net?
 - Schedules netted to what load is generation
 - Imports or exports from the zone.
 - C** Hurts PG + E... we cross 2 zones. Our load will be hit twice.
 - break schedules by zones.
- Match budget w/o 2yr lag → 2000 June 2001 Sept.*
- Allocations 'as you go'*
- please get us formulas*
- 4/25 ①

PRESENTATION QUESTIONS cont'd.

Q Mkt Ops + Billing + Settlements combined into one.
 • Bill + S costs are in Mkt ops.

Q Why 3 buckets?
 • We may evolve... 2-3 yr time horizon

Q Metering exp. \$?
 • in Billing + Settlements.

Q Deviation included?
 • yes..

Q # schedules a determinant?
 • thrown out... wrong incentives.

Q for existing contracts that don't buy or sell the same? • yes.
 • if you utilize the Mkt - you pay.

Q on ETC for non-ISO w/entity providing its own.
 • Now can't be charged.
 • Would be charged if its in the control area.

Q New PTO, gov't agency...
 • Everyone in control area.

C 2 yrs ago ISO commitment to track costs. Keep the detailed tracking.
 • Current act system will continue at lowest cost center level.
 New software costs will also be allocated.

Q How get QF load alloc?

• Tough...
 • Not treat as implementation detail
 • Now requesting meter data from QF's via FERC.
 • Utilities... we get to bill at the end of the day.
 • Decision made via TAC.
 • Collected afterwards.
 • Potential revenue under-recovery.

Q Gross load includes exports?
 • Yes... will be charged.
 • Won't charge for A/S.
 Q Export required to buy A/S?
 • Exports will pick up deviation absolute value.
 → if an export question... not a GMC question.

*renew tariff on how A/S are assessed.

Q \$216 - too low!
 • LADWP - not in control area. **FBE CLEAR**

Q \$ from settlement info.

Q Do we include ACTIVE zones or all zones?

C No price differentiation between zones.
 The more zones - the higher the denominator.

C 4/1/01 earliest implementation of CONG.

Q Numbers based on NP 15 + SP 15 not 4/25 ②

PRESENTATION QUESTIONS.

Q Why zones vs interchanges?

- felt inter-zonal was best driver.

- Biggest driver... perhaps scheduling across the zone.

- Exporting out of state would balance. Imports causing cong.!

Q Who's charged across state lines?

- Congest. won't pick it up

*IMPORTS

*create a list of imports & exports

look for congested paths.

areas round CA - a zone.

Q If LADHP joins... depends.. are they a zone?

Q Would 3 buckets change internal ISO org?

- No.. layers deep.

Q Gross/net...

- covered in several other forms - they'd influence GMC.

Q Mini-load issue..

- broader than GMC issue.

Q QF's includes all self gen?

- Depends on TAC.

*Define QF

*Define consistently

4/25 (3)

NEXT STEPS

1 MIF = Agree
Disagree
Open Issues.

5/10

1-5p after MIF

2 Committee Mtng after MIF Before Finance

3 ISO mgmt create V 2.0 of recommend. Draft #'s included.

4 2nd meeting date →

5/22

10a-2p
Holiday



CALIFORNIA ISO

BILLING DETERMINANTS

<u>Identified Five Buckets</u>	<u>Identified Potential Billing Determinants (MWh)</u>	<u>ISO Management Recommendation</u>
• Control Area	Gross Load with QFs Gross Load without QFs	{ Gross Load with QFs TAC gross load denominator. (concern about estimating at first)
• Scheduling	Gross Load with QFs Net Load	
• Congestion	Net Inter-Zonal Schedules Charges for Congestion	{ Net Inter-Zonal Schedules with tie points.
• Market Operations	Purchases and Sales of A/S & Real Time Purchases only of A/S & Real Time	{ Purchases and Sales of A/S & Real Time
• Billing & Settlements	Purchases and Sales of A/S & Real Time Purchases only of A/S & Real Time	4/25 (9.1)

Identified Five Buckets	Co-Gen, QF	LOAD	MUNI's	IOU/PX	OTHER SC's
• Control Area	Live with results of TAC/PQA	As resolved by TAC Gross Load Without QFs	Gross/net load negotiations. Depends on outcomes in other forums. ① Net Load Gross Load with QFs	Diff. of opinion w/in group. PX... less concern than IOU's. Emission Gross Load With QFs Gross Load Without QFs QF's before & after work... discrimination Net Load Gross Load with QFs want even understanding of gross & net	AGREE
• Scheduling					
• Congestion					
• Market Operations	Inter-zonal S. + Schedules across all tie points. Enter control areas.		① Net Zonal Schedules ② Charges for Congestion	Inter-zonal Schedules → plus, include tie points around the state	AGREE w/ tie points
• Billing & Settlements	Results of PQA.		① Purposes of SLS of Real Time ② Purposes only of Real Time	AGREE	AGREE
					1/25 (4)

DISCUSSION of RECOMMENDATION

▷ Resolution of cases key.
TAC - one year away.
PGA - close to provisional view.

▷ PG & E - nervous about trapped in middle w/ cost. ruling on threshold... obligation to acquire non ISO info.

▷ Filing in Oct will need to be a formula subject to change

Gross loads w/ QF will be filing & be adjusted if ISO loses filing.

▷ Gross defn. excludes QF's for TAC
Now bill based on installed capacity.

▷ IOU's will need time to install meters.

TO DO
ISO will define gross load

▷ What's the resolution/standing of ISO re other changes?

AGREE

☐ Congestion across all constituents

- ☐ First proposal of for QF's Go w/ resolution of TAC, etc. *Open issue = jumping off point*
- ☐ Mgmt will check on definition of gross load ~ same as TAC filing?
- ☐ Realize CAISO will probably act consistently w/ TAC CONTROL AREA *CAISO will determine which proceeding to follow for purposes of the filing.*

☐ MKT Ops/Bis across all constituents.

OUTSTANDING

- ☐ Outstanding cases where gross load is an issue.
- ☐ \$ impact *what generic #'s are available?*
- ☐ How ISO will get data for internally generated load. Authority?

4/25 (5)

CAISO Proposed Billing Determinants and Current Charge Types

CONTROL AREA SERVICES

- Gross Load with QFs - Control Area Metered Load & Exports in MWh including loads served by internal generation (behind the meter) for Munis and QFs. Total load and export volumes reported prior to any discounts.
- Gross Load without QFs - same as above but excluding QFs.

SCHEDULING

- Gross Load with QFs - Control Area Metered Load & Exports in MWh including loads served by internal generation (behind the meter) for Munis and QFs. Total load and export volumes reported prior to any discounts.
- Net Loads - Control Area Metered Load & Exports in MWh excluding loads served by internal generation (behind the meter) for Munis and QFs. Total load and export volumes reported after 100% ETC discounts but prior to any 50% discounts.

CONGESTION

- Volumes in MWh of actual Congestion charges - This determinant is based solely on the MWh's of Charge Types 203, 253 & 256. These charges result from the running of CONG when congestion is present (Note: 204, 254 and 255 are credits to rebate FTR charges to TCs).
- Net scheduled load and generation by a SC on an Inter-Zonal basis - Absolute value of net scheduled load and generation by zone. This calculation is done by subtracting an SC's Scheduled Load from their Generation separately within both zones SP15 and NP15. The absolute value of the result of this calculation for each zone is then added together. The concept is that if an SC does not balance their Load with their Generation within a zone, then they must schedule the remainder to cross between zones, or inter-zonally. This remainder must be considered in our Congestion Modeling and so is a possible Billing Determinant.

MARKET OPERATIONS (including Billings and Settlements)

- AS & Real Time traded volumes (purchases and sales) in MWh - This is the net sum of the Billable Quantity of a SC's Ancillary Services. Charges/Payments and their Real Time quantities. The Billable Quantity of the Ancillary Services Charges/Payments comes from the Charge Types 1, 2, 3, 4, 5, 6, 51, 52, 53, 54, 55, 56, 111, 112, 114, 115 and 116. The Billable Quantity of a SC's Real Time quantities were derived from Charge Types 301, 402, 403, 404 and 405. For both Billable Quantity amounts, the absolute value of the positive and negative billable quantities of the above Charge Types were added together to derive this Billing Determinant.
- AS & Real Time traded volumes (purchases only) in MWh - This is the net sum of the Billable Quantity of a SC's Ancillary Services Charges and their Real Time purchase quantities. The Billable Quantity of the Ancillary Services Charges comes from Charge Types 111, 112, 114, 115 and 116. The Billable Quantity of a SC's Real Time purchase quantities were derived from Charge Types 301, 402, 403, 404 and 405. For both Billable Quantity amounts, the absolute value of the negative billable quantities of the above Charge Types were added together to derive this Billing Determinant.

Charge Type Listing***Ancillary Services***

0001 Day-Ahead Spinning Reserve due SC
0002 Day-Ahead Non-Spinning Reserve due SC
0003 Day-Ahead AGC/Regulation due SC (discontinued)
0004 Day-Ahead Replacement Reserve due SC
0005 Day-Ahead Regulation Up due SC
0006 Day Ahead Regulation Down due SC

0051 Hour-Ahead Spinning Reserve due SC
0052 Hour-Ahead Non-Spinning Reserve due SC
0053 Hour-Ahead AGC/Regulation due SC (discontinued)
0054 Hour-Ahead Replacement Reserve due SC
0055 Hour Ahead Regulation Up due SC
0056 Hour Ahead Regulation Down due SC

0111 Spinning Reserve due ISO
0112 Non-spinning Reserve due ISO
0113 AGC/Regulation due ISO
0114 Replacement Reserve due ISO
0115 Regulation Up due ISO
0116 Regulation Down due ISO

Congestion

0203 Day-Ahead Inter-Zonal Congestion Settlement
0204 Day-Ahead Inter-Zonal Congestion Refund due TO

0253 Hour-Ahead Inter-Zonal Congestion Settlement
0254 Hour-Ahead Inter-Zonal Congestion Refund due TO
0255 Hour Ahead Inter-zonal Congestion Debit due TO
0256 Hour Ahead Inter-zonal Congestion Debit due SC

Supplemental Energy

0301 Ex-Post A/S Energy due SC

Imbalance Energy

0402 Generation Deviation Settlement
0403 Load Deviation Settlement
0404 Export Deviation Settlement
0405 Import Deviation Settlement

0502 Effective Price Generation Deviation Settlement
0503 Effective Price Load Deviation Settlement
0504 Effective Price Export Deviation Settlement
0505 Effective Price Import Deviation Settlement



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Unbundling Options

April 25, 2000

GMC Unbundling Committee



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Where We Are

Initially Identified 5 Buckets

- Control Area Services
- Scheduling
- Congestion
- Market Operations
- Billing and Settlements



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Identified Potential Billing Determinants

- **Control Area** Gross Load with QFs
 Gross Load without QFs
- **Scheduling** Gross Load with QFs
 Net Load
- **Congestion** Net Inter-Zonal Schedules
 Charges for Congestion
- **Market Operations** Purchases and Sales of A/S & Real Time
 Purchases only of A/S & Real Time
- **Billing & Settlements** Purchases and Sales of A/S & Real Time
 Purchases only of A/S & Real Time



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Summary of Buckets & Cost Percentages

	Rudden 1998	ISO 1999	ISO 2000	PJM 1999	NE 1999
Control Area	68%	35%	38%	52%	34%
Scheduling	-	11%	10%	11%	-
Congestion	-	7%	7%	4%	22%
Market Ops	31%	23%	22%	33%	44%
Billing & Settlements	-	24%	23%	-	-

Note: 2000 ISO bucket %'s based on applying 1999 percentages to 2000 budget



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Where We Are Going

Unbundling Drivers

- Current settlement expires 12/31/00
- Current rate subject to refund from 6/1/00
- FERC filing required by 10/31/00
- New Rate to be effective 1/1/01
- PJM & ISO New England filed unbundled GMCs
- FERC not likely to accept current settlement
- Must develop unbundled GMC proposal



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Proposed Schedule

- May 10 MIF - update
- May 24-25 Audit/Finance Committee - update
- June 7 MIF - policy on buckets & determinants
- June 21-22 Board - policy on buckets & determinants
- July - Aug Stakeholders - implementation details
- Aug 9 MIF - GMC Tariff filing
- Sept 6-7 Committee/Board - Tariff discussion

– other dates as needed by Unbundling Committee



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Management Recommendation

Three Bucket GMC

- Control Area Services (including Scheduling) using Gross Loads including QFs
- Congestion Management using Final Net Inter-Zonal Schedules
- Market Operations (including Billing & Settlements) using traded volumes of Purchases and Sales of Ancillary Services and Real Time Energy



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Rationale

- Control Area (Reliability) Services benefits all Load in Control Area
- Scheduling combined with Control Area Services as scheduling all Load of control area is required
- Inter-Zonal schedules require congestion management whether congestion occurs or not
- Purchases and sales benefit from market. Costs should be borne by both parties in the market
- Billing and settlements part of running market and combined with Market Operations



CALIFORNIA ISO RATES

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	1999	2000
Bundled GMC		
Loads billed per settlement MWh	204M	216M
rate per unit	\$0.78	\$0.83
Unbundled GMC		
Control Area Services		
Estimated Gross Loads MWh	243M	255M
rate per unit	\$0.30	\$0.34
Congestion Management		
Net Inter-Zonal Schedules MWh	106M	110M
rate per unit	\$0.10	\$0.11
Market Operations		
Traded volumes of buys & sells MWh	106M	110M
rate per unit	\$0.70	\$0.74

Note: 1999 data based on 9 month annualized data. 2000 data based on 6% increase to 2000 data.

Cost & Accounting Department