APPENDIX 3

<table>
<tr>
<td colspan="2">COMPARISON OF THE STRUCTURAL DEFICIENCIES IDENTIFIED BY MSC
TO THE RESULTS OF APPLYING A/S REDESIGN EVALUATION CRITERIA</td>
</tr>
<tr>
<td>Structural Deficiencies Identified
in MSC Report[1]</td>
<td>Ancillary Services Redesign Elements
Addressing Structural Deficiencies[2]</td>
</tr>
<tr>
<td colspan="2">(A) Improvements that reduce the ISO demand for Ancillary Services.</td>
</tr>
<tr>
<td>Section 4.2
Demand for Ancillary Services is Higher than Anticipated</td>
<td>• Multiple ramp-rates [3]
• Automated BEEP [5/17]
• Ramping requirement / Load following [6/18]</td>
</tr>
<tr>
<td>Section 4.9
Other Software Difficulties:</td>
<td></td>
</tr>
<tr>
<td>1. Inability of BEEP to track operator dispatch instructions.</td>
<td>1. BEEP modifications and standardization of dispatch instructions for consistency (done); automated BEEP instructions and acknowledgements [5/17] (planned in A/S Redesign process)</td>
</tr>
<tr>
<td>2. Mishandling of downward regulation in sequential A/S evaluation</td>
<td>2. Downward regulation capacity not subtracted in sequential process (done)</td>
</tr>
<tr>
<td>3. Inadequate verification of eligibility of A/S bids</td>
<td>3. Additional SI validation (done); first phase of A/S certifications for Pmax, ramp rates and Master File updates (done); multiple ramp rates [3] (planned in A/S Redesign process)</td>
</tr>
<tr>
<td>4. Lack of coordination between Congestion Mgmt and A/S Mgmt software</td>
<td>4. A/S Mgmt takes into account updated Master File resource limits and the results of Congestion Mgmt (done); CONG/ASM Integration [8, and as relates to 11, 12, 14 and 28] (planned in A/S Redesign process)</td>
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<tr>
<td>5. Settling A/S responsibility based on scheduled rather than actual load</td>
<td>5. Billing based on metered demand (approved by ISO Board for 1999 implementation)</td>
</tr>
</table>

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[1] "Preliminary Report on the Operation of the Ancillary Services Markets of the California Independent System Operator (ISO); prepared by the MSC of the CAISO; August 1998.

[2] Bracketed "[ ]" numbers refer to specific elements of Ancillary Services Redesign process

COMPARISON OF THE STRUCTURAL DEFICIENCIES IDENTIFIED BY MSC TO THE RESULTS OF APPLYING A/S REDESIGN EVALUATION CRITERIA	
Structural Deficiencies Identified in MSC Report[1]	**Ancillary Services Redesign Elements Addressing Structural Deficiencies[2]**
6. Improper settlement for Replacement Reserve	6. Tariff amendments to settle for A/S consistent with zonal procurement (done); proper use and settlement of RR, including elimination of cost-shifting in billing based on metered demand [16/31] (planned in A/S Redesign process)
7. Lack of proper coordination between ISO's dispatch and automatic control software	7. BEEP takes into account the actual output of resources (done)
8. Lack of 10-minute real-time price information	8. BEEP publishes 10-minute zonal Imbalance Energy prices to WEnet and the ISO Home Page (done)
9. Failure to track uninstructed deviations using reserved capacity	9. Tariff amendments to eliminate payments for reserved capacity and uninstructed energy, i.e., the "No Pay" amendments (approved by ISO Board for 1999 implementation)
10. Improper payment for uninstructed deviations	10. "Min/Max", and other proposals, discussed extensively in stakeholder process, with proposals planned for ISO Board Committee presentation in January 1999
11. Ignoring impact of A/S on Congestion	11. Integration of Congestion Mgmt and A/S Mgmt [8, and as relates to elements 11, 12, 14 and 28] (planned in A/S Redesign process)
12. Lack of explicit requirement for downward regulation	12. Separate requirements for RegUp and RegDn, with single price for Regulation capacity (done); separate requirements and separate Market Clearing Prices for RegUp and RegDn [26] (planned in A/S Redesign process)
(B) Improvements that increase the supply of Ancillary Services to the ISO.	
Section 4.1 Asymmetric Regulation of Suppliers	• FERC permits all suppliers to earn market-based rates for Ancillary Services (done)
Section 4.4 Perverse Incentives Created by Reliability Must-Run Contracts	• Standard form of RMR Contract currently being negotiated to remove perverse incentives • PTO versus SC obligation to pay for cost of energy required to create Spinning Reserves and Regulation during market deficiencies [32]

COMPARISON OF THE STRUCTURAL DEFICIENCIES IDENTIFIED BY MSC TO THE RESULTS OF APPLYING A/S REDESIGN EVALUATION CRITERIA	
Structural Deficiencies Identified in MSC Report[1]	**Ancillary Services Redesign Elements Addressing Structural Deficiencies**[2]
	(planned in A/S Redesign process) • Ancillary Service procurement in real-time from market resources, instead of exclusively from RMR units [33] (planned in A/S Redesign process)
Section 4.5 Zonal Purchases of Ancillary Services	• ISO procedures clarified and distributed to stakeholders (done) • ISO Market Surveillance Unit is monitoring for any exercise of zonal market power (on-going)
Section 4.6 Ambiguous Dispatch Practices for the Provision of Imbalance Energy	• PWC Operational Audit follow-up, including additional training and improvements in the consistency of dispatch instructions and logging • BEEP modifications (planned for 1999 completion) and standardization of dispatch instructions for consistency (done); automated BEEP instructions and acknowledgements [5/17] (planned in A/S Redesign process) • BEEP takes into account the actual output of resources (done) • BEEP publishes 10-minute zonal Imbalance Energy prices to SC workspaces and the ISO Home Page (done) • Split BEEP stack such that energy from Spinning and Non-Spinning reserves are called only for contingencies [4] (planned in A/S Redesign process) • Tariff amendments to eliminate payments for reserved capacity and uninstructed energy, i.e., the "No Pay" amendments (planned) for second quarter 1999 • "Min/Max", and other proposals, discussed extensively in stakeholder process, with proposals planned for ISO Board Committee presentation in January 1999
Section 4.8	

COMPARISON OF THE STRUCTURAL DEFICIENCIES IDENTIFIED BY MSC TO THE RESULTS OF APPLYING A/S REDESIGN EVALUATION CRITERIA	
Structural Deficiencies Identified in MSC Report[1]	**Ancillary Services Redesign Elements Addressing Structural Deficiencies[2]**
Exclusion of Suppliers from Outside of the ISO Control Area	• A/S imports of Spin, Non-Spin and Replacement reserves (done) • Uninstructed deviations compromise and use of Replacement Reserve [2/16/31] • Imports of Regulation [11] (planned in A/S Redesign process) • Bid / Self-Provide from same unit in same Settlement Period [13] (planned in A/S Redesign process) • Non-firm exports for Non-Spinning and Replacement reserves [14] (planned in A/S Redesign process) • Hour-Ahead buy-back of Ancillary Services based on tie-line derates [27] (planned in A/S Redesign process) • CONG/ASM Integration [8, and as relates to 11, 12, 14 and 28] (planned in A/S Redesign process)
Section 4.9 Other Software Difficulties	• See items listed above regarding Section 4.9 "Other Software Difficulties" • Non-firm exports for Non-Spinning and Replacement reserves [14] • Demand participation and aggregation [21] • A/S procurement in real-time [33]
(C) Improvements in the efficiency of the auction [and enhancement of bilateral markets].	
Section 4.3 Ancillary Services are not Procured Rationally	• Tariff amendments to settle for A/S consistent with zonal procurement (done) • Rational buyer procurement of Ancillary Services [15] (planned in A/S Redesign process) • Reg Up and Reg Dn priced separately [26] (planned in A/S Redesign process)
Section 4.6 Ambiguous Dispatch Practices for the Provision of Imbalance Energy	• See items listed above regarding Section 4.6 "Ambiguous Dispatch Practices for the Provision of Imbalance Energy" • Proper use and settlement of RR, including elimination of cost-shifting in billing based on

COMPARISON OF THE STRUCTURAL DEFICIENCIES IDENTIFIED BY MSC TO THE RESULTS OF APPLYING A/S REDESIGN EVALUATION CRITERIA	
Structural Deficiencies Identified in MSC Report[1]	**Ancillary Services Redesign Elements Addressing Structural Deficiencies[2]**
	metered demand [16/31] (planned in A/S Redesign process)
Section 4.7 Flawed Allocation of Ancillary Service Costs to Scheduling Coordinators	• Billing based on metered demand (approved by ISO Board for 1999 implementation) • Tariff amendments to settle for A/S consistent with zonal procurement (done) • Tariff amendments to eliminate payments for reserved capacity and uninstructed energy, i.e., the "No Pay" amendments (approved by ISO Board for 1999 implementation) • Ramping requirement / Load following [6/18] (planned in A/S Redesign process) • Proper use and settlement of RR, including elimination of cost-shifting in billing based on metered demand [16/31] (planned in A/S Redesign process)
Section 4.9 Other Software Difficulties	• See items listed above regarding Section 4.9 "Other Software Difficulties" • Inter-SC Trades of A/S [7/12] • Bid / Self-Provide from same unit in same Settlement Period [13]