## THE UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

San Diego Gas & Electric Company,	)
Complainant,	)
<b>v</b> .	) Docket No. EL00-95-045
Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange, Respondents.	/ ) ) )
Investigation of Practices of the California	)
Independent System Operator and the	) Docket No. EL00-98-042
California Power Exchange	)

## SUMMARY OF THE PREPARED REUBTTAL TESTIMONY OF MARK ROTHLEDER ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

In his Rebuttal Testimony, Mr. Mark Rothleder responds to selected criticisms and proposed modifications to the ISO's methodology for calculating mitigated prices for purposes of determining refund liability pursuant to the Commission's July 25 Order.

In the first section of his testimony, Mr. Rothleder addressed proposed revisions to the ISO's calculation of incremental heat rates using the average heat rate data provided by generators. Mr. Rothleder first explains that the incremental heat rates used by the ISO in calculating the mitigated price are not "hypothetical" heat rates, as they are derived from actual input/output measurements, and that the Commission's reference to hypothetical heat rates appears to have been used in the context of its rejection of a hypothetical dispatch of units, and does not indicate a prohibition on the use of incremental heat rates. Ex. No. ISO-20 at 4:13-5:17. Mr. Rothleder then responds to the assertion of Dr. Stern, on behalf of the California Parties, that the ISO's assumed linear relationship between measuring points to calculate average heat rate curves results in the overstating of incremental heat rates. Mr. Rothleder explains that although the ISO's method is consistent with the data structure used by the ISO system for dispatching units, that Dr. Stern's "arc line measurement" technique is also a reasonable approach as well. Ex. No. ISO-20 at 6:1-7:14. Mr. Rothleder also responds to the contention made by several witnesses that the ISO should not have adjusted the incremental heat rate curves to ensure that they were monotonically non-decreasing. Mr. Rothleder reiterates that this assumption was made in order to maintain consistency with the ISO's market design and software, but recognizes that monotonicity is not strictly necessary for the refund period. Ex. No. ISO-20 at 8:1-9:7.

In the next section of his testimony, Mr. Rothleder addresses proposed modifications to heat rate data submitted to the ISO by generators. Mr. Rothleder describes these changes, Ex. No. ISO-20 at 9:18-12:2, notes that the ISO has not incorporated any of these changes into its mitigated price calculation, Ex. No. ISO-20 at 12:4-8, and states that the ISO does not currently have sufficient information to make a recommendation regarding which of these proposed changes should be incorporated. Ex. No. ISO-20 at 12:10-19.

In the third section of his testimony, Mr. Rothleder discusses two criticisms of the daily spot market gas costs developed by the ISO by witnesses in this proceeding. First, Rothleder addresses the contention that the ISO's calculations are inconsistent with the Commission's direction on how gas proxy costs should be calculated, and

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explains why, under the Commission Orders, daily spot prices should be based on the "midpoint" of the indices that the Commission required be used. Ex. No. ISO-20 at 14:7-15:17. Mr. Rothleder also responds to the argument that the gas prices used by the ISO do not reflect the true spot or marginal natural gas prices, stating that the midpoint index price represents a reasonable proxy spot gas price over the entire refund proceeding. Ex. No. ISO-20 at 15:19-16:13.

In the final section of his testimony, Mr. Rothleder addresses a quantitative analysis performed by Dr. Chicchetti on behalf of the Competitive Supplier Group that attempts to demonstrate that the ISO's methodology for calculating mitigated prices is incorrect based on the heat rate reported by the Commission as establishing the mitigated price during the last Stage 1 Emergency in California. Mr. Rothleder points out the errors made by Dr. Chicchetti in his analysis and explains that this example actually evidences Commission support for the ISO's methodology. Ex. No. ISO-20 at 17:3-19:3.