

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) for a Certificate of Public Convenience and Necessity Authorizing the Construction of the Jefferson-Martin 230 kV Transmission Project	Application No. A-02-09-043
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**REPLY BRIEF OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR**

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I. INTRODUCTION

In accordance with Rule 75 of the Commission’s Rules of Practice and Procedure, the California Independent System Operator (“CAISO”) respectfully submits its reply brief in the above-captioned proceeding.

Only two intervenors have questioned the need for the Jefferson-Martin 230 kV Project (“JM Project”) - 280 Corridor Concerned Citizens (“280 Corridor”) and Women’s Energy Matters (“WEM”). As discussed in detail below, neither intervenor has offered any valid basis to refute a finding by the Commission that the JM Project is needed by the end of 2005 to ensure compliance with grid reliability criteria. The CAISO, therefore, respectfully urges that the Presiding Judge issue an Initial Decision recommending PG&E receive a certificate of public convenience and necessity for the construction of the JM Project.

II. ARGUMENT

A. 280 CORRIDOR'S CLAIM THAT PG&E'S SUPPLEMENTARY GUIDE IS MORE STRINGENT THAN THE CAISO'S PLANNING STANDARDS IS IRRELEVANT

As predicted in the CAISO's Opening Brief, 280 Corridor asserts that PG&E's Supplementary Guide for Application of the Criteria for San Francisco ("Supplementary Guide") is "more stringent" than the CAISO's Planning Standards. This contention rests on the absolute prohibition against load-shedding under the Supplementary Guide, which is a specific application of a CAISO Category C contingency, while the CAISO Planning Standards contemplate involuntary load interruptions as a potential solution to Category C disturbances, unless the CAISO Board decides the capital project is cost-effective. (280 Corridor Opening Brief at 5; Exhibit 4, Attachment 9; Exhibit 103.) 280 Corridor then references a section of the CAISO Planning Standards entitled "Background Behind the New Transmission Versus Involuntary Load Interruption Standard" ("Load Interruption Standard"). (280 Corridor Opening Brief at 6.) The Load Interruption Standard provides for the use of a limited probabilistic planning approach to determine whether a reliability contingency should be addressed through dropping load *when otherwise permissible*. (Exhibit 103.) Based on the foregoing, 280 Corridor concludes that "the Commission should evaluate the likelihood of the contingency events assumed by PG&E occurring," presumably to suggest load shedding, rather than the JM Project, be used to satisfy reliability criteria. (*Id.*)

280 Corridor's argument fails for three reasons. First, the purported distinction targeted by 280 Corridor is irrelevant because the CAISO has demonstrated that the JM Project is necessary by 2006 to serve load - regardless of the Supplementary Guide -

based on a CAISO Category B contingency, which generally does not allow for load-shedding. In its Opening Brief, the CAISO stated:

As explained in the CAISO [Additional] Rebuttal Testimony in the context of evaluating the efficacy of rerating the 115 kV lines between Martin and San Mateo Substations, the ability to serve load within the San Francisco Peninsula Area without the JM Project remains limited by an outage of the Tesla-Ravenswood 230 kV line overloading the Newark-Ravenswood 230 kV line. (Exhibit 165 at 6:21-7:14.) This result is reported in Attachment 1 to Exhibit 165. Thus, the need for the JM Project is demonstrated without reference to the Supplementary Guide or particular contingencies on the transmission system between San Mateo and Martin Substations. (CAISO Opening Brief at 14.)

Accordingly, whether or not the Supplementary Guide is more “stringent” or not is superfluous to determining the need of the JM Project.

Second, contrary to the impression created by 280 Corridor, the Load Interruption Standards is not a general “change in the ISO’s planning approach to include probabilistic analysis.” (280 Opening Brief at 6.) Rather, it is a provision of limited application triggered only where “the implementation of these principles [do] not result in lower levels of reliability to end-use customers than existed prior to restructuring.” (Exhibit 103.) The Supplementary Guide predates the formation of the CAISO. (Exhibit 4 at 71:11.) Given that the Supplementary Guide does not allow for load-shedding, reliance on load-shedding under a probabilistic approach, regardless of how remote the likelihood the event might occur, will necessarily result in a lower level of reliability for customers in the San Francisco Peninsula Area when compared to that which existed prior to restructuring. Thus, on its face, the Load Interruption Standard precludes its application to the JM Project.¹

Third, even assuming the Load Interruption Standard would otherwise apply despite the degradation of service to customers in the Project Area, load shedding would still be inappropriate under the CAISO's Grid Planning Standards. The contingency scenario evaluated by the CAISO, i.e., the loss of the Tesla-Ravenswood 230 kV line, falls within the classification of a Category B disturbance (either single contingency or the combined contingency of a single generator and a single transmission line). (Exhibit 103.) Under a Category B disturbance, "involuntary load interruptions are not an acceptable consequence..., unless the ISO Board decides that the capital project alternative is clearly not cost effective." (*Id.*) As noted in the CAISO's Opening Brief, "[t]he presumption is therefore against load shedding and no determination was made that the JM project was not cost effective." (CAISO Opening Brief at 14; see also, Tr. 666:10-17.)²

B. 280 CORRIDOR'S ATTACK ON PG&E'S LOAD FORECASTS IS WITHOUT MERIT

All parties agree that load forecasting is not an exact science. (See, e.g., 280 Corridor Opening Brief at 6.) How the Commission chooses to account for this inherent uncertainty in load forecasting will depend, in large part, on its assessment of PG&E's low load forecast. In its Opening Brief, the CAISO argued that PG&E's low load growth

¹ There is no inconsistency in disregarding the Supplementary Guide for purposes of identifying criteria violations, but simultaneously relying on the Supplementary Guide to preclude load shedding. If the Supplementary Guide constituted an application of a Category B contingency, then its rejection in one context, but not the other would be disingenuous. However, given that the Supplementary Guide precludes load shedding under the greater system stress associated with a Category C contingency, the degradation of reliability under a Category B contingency would constitute a fundamental and dramatic change in service to end-use customers in the Project Area.

² In its Opening Brief, the CAISO stated that "the CAISO Board found the JM Project to be cost-effective." A more accurate statement would have been that the Board "necessarily" found the JM Project cost-effective given that the Board was explicitly aware of the costs of the JM Project at the time the Board approved the project and that it expressly evaluated the JM Project in relation to the cost of other transmission solutions.

forecast methodology, which was also used as the basis for the CAISO's testimony, was not only reasonable, but also conservative because it incorporates the effects of California's recent economic downturn. (CAISO Opening Brief at 16, citing Exhibit 4 at 65:19.) If the low load forecast is itself reasonable, then the recognition of uncertainty necessarily precludes considering the low load forecast as a maximum value for planning purposes. Moreover, the CAISO has provided evidence that the United State's economy is showing signs of recovery. (CAISO Opening Brief at 17, fn. 8.) At a minimum, therefore, some significant probability must be assigned to the possibility that load growth may well return to the levels at or near those reflected in PG&E's medium and high load forecasts. This is especially true given that this Commission, the CAISO and PG&E each have a role in ensuring that necessary transmission upgrades can be constructed in time to ensure reliable electric service to consumers on the San Francisco Peninsula.

280 Corridor attempts to stand the foregoing analysis on its head. 280 Corridor's Opening Brief states that "while PG&E's 'Low' forecast is the most reasonable of the three forecasts presented by PG&E, the Commission should take into account that this forecast still overstates future load growth in the Project Area." (280 Corridor Opening Brief at 9.) The clear implication 280 Corridor wants drawn is that the low load forecast already includes a sufficient margin to accommodate any inherent uncertainty and that the low load forecast can be viewed as a ceiling. However, for this implication to have merit, the low load forecast must possess fundamental defects. According to 280 Corridor, those purported defects are the failure to adequately consider "historical load growth in the Project Area" or "the effects of increases in demand reduction policies and

initiatives.” (*Id.*) 280 Corridor is wrong and its arguments regarding load forecasting should be disregarded.³

1. PG&E Properly Accounted For Historic Load Growth

PG&E’s low load forecast projects load growth of 86 MW for the period 2003 through 2007. Actual recorded peak load in the Project Area grew by 46 MW from 1999 through 2003. From a comparison of the two numbers, 280 Corridor attempts to disparage the low load forecast by claiming that the forecast is unreasonably high relative to historical growth in the Project Area over the past five years. (280 Corridor Opening Brief at 9-10.) 280 Corridor’s analysis is overly simplistic and misleading.

280 Corridor wholly ignores the overall environment that produced the actual peak loads from 1999 through 2003. Not only did the period coincide with a prolonged and significant economic recession, the period also overlaps with the most severe market disruption in the history of the electricity industry in the United States – the 2000-2001 California electricity crisis. The recorded peak load in the Project Area dropped 122 MW from 2000 to 2001 (temperature normalized load dropped a similar 96 MW). Since the market began to stabilize in the latter part of 2001, actual recorded peak load growth has risen in the Project Area by 39 MW annually in 2002 and 2003 and the temperature normalized peak load increased by 62 MW during this same time span. (See, 280

³ It should be noted that 280 Corridor misrepresents the CAISO by asserting that the “ISO and ORA both agree that PG&E’s ‘Low’ forecast represents the most reasonable of the three forecasts.” (280 Corridor Opening Brief at 9 [emphasis added].) 280 Corridor makes this assertion on the basis of the testimony of Gary DeShazo. However, review of that testimony merely confirms that the CAISO believes the low load forecast is reasonable, not that it is the “most” reasonable in relation to either of the other submitted forecasts:

Q: Is it also your testimony that, considering historic load growth and other factors, that the March 2003 low forecast appears to be reasonable.”

A: Yes. (Tr. at 612:15-21.)

Corridor Opening Brief at 9.) These observations clearly refute 280 Corridor's contention that there is a "downward trend" in peak load growth in the Project Area or that the approximately 17 MW per year load growth assumed under PG&E's low load forecast is unreasonable.

The danger of resting an analysis on historic data alone, as 280 Corridor has done, rather than considering economic and demographic data, can similarly be demonstrated by merely changing the chronological perspective. For example, if one were to evaluate load growth from the five-year period 1995 through 1999, the results would be an increase of 114 MW in actual recorded peak load and 97 MW in temperature normalized peak load. (Exhibit 4 at 56.) 280 Corridor provides no analysis to allow a conclusion that the period 2003-2007 is more similar in terms of economic and demographic trends to the period 1999-2003 than to the period 1995 through 1999. Without such analysis it is impossible to challenge PG&E's analysis, which did consider such data, or find that the 86 MW projected load growth reflected in the low load forecast is anything but reasonable. Simply put, 280 Corridor's arguments based on historic data are largely arbitrary.

2. PG&E's Load Forecasting Methodology Adequately Accounts For Distributed Generation, Energy Efficiency and Demand Reduction Programs

280 Corridor contends that PG&E's low load forecast fails to adequately account for increases in distributed generation ("DG"), energy efficiency, conservation, and demand reduction programs because it purportedly fails to consider "new programs and initiatives." (280 Corridor Opening Brief at 11.) DG, energy efficiency, energy conservation, and demand response programs "are generally felt as missing load that

PG&E does not need to serve.” (PG&E Opening Brief at 46:20-22.) PG&E’s load forecasting uses actual load data to reflect the absence of demand rising due to DG, energy efficiency, conservation, and demand reduction programs. PG&E’s approach is sound and 280 Corridor’s is not.

As noted in the CAISO’s Opening Brief, 280 Corridor’s argument rests on speculation and conjecture. 280 Corridor relies on recently adopted goals of the San Francisco Public Utilities Commission in its San Francisco Electricity Resource Plan (“Resource Plan”) and the Energy Action Plan jointly adopted by this Commission, the California Energy Commission, and the California Consumer Power and Conservation Financing Authority. The goals set forth in the Resource Plan and Energy Action Plan are commendable and supported by the CAISO, but the most 280 Corridor can say about the goals is that they represent a “new and ongoing effort” to increase DG, energy efficiency, conservation, and demand reduction above historic levels. (280 Corridor Opening Brief at 13.) 280 Corridor cannot point to specific results or even any interim progress that would justify the Commission assuming the substantial risk that the goals will materialize in an amount sufficient to eliminate the need for the JM Project. Indeed, both the Commission’s Final Environmental Impact Report (“FEIR”) and the Office of Ratepayer Advocates have refused to take such a leap of faith. (Exhibit 1 (FEIR, Vol. 1 at C-59); Exhibit 46 at 6:1-3.) As stated by ORA, “barring some major technological breakthrough, the supply-demand gap in 2006 could not all be closed by energy efficiency, demand response, load management, distributed generation, or other demand-side options.” (Exhibit 46 at 6:1-3.)

Moreover, 280 Corridor's fundamental premise that PG&E's historical analysis fails to reflect new programs or initiatives is misleading. It is true that PG&E does not directly predict the results of future programs or initiatives that are currently unknown or unknowable. However, that does not mean future programs and initiatives are ignored. PG&E has set forth in excruciating detail in Chapter 6 of Exhibit 4 the programs incorporated into its analysis, including programs emanating from the Resource Plan. The critical point to recognize is that the actual data is not static. In other words, the actual load data reflects the effect of programs that were initiated during the data collection period. (See, e.g. Exhibit 4 at 48:2-49:16, 51:14-23.) Thus, the issue is not whether future programs are included, but rather whether the historical rate of growth in energy efficiency, demand response, load management, distributed generation, or other demand-side options is expected to materially accelerate in the future to the point sufficient to eliminate the need for the JM Project. When viewed from this perspective, the appropriateness of the conclusion reached by ORA regarding the ability to defer the JM Project becomes manifest.

C. 280 CORRIDOR'S SUPPLY FORECAST IS UNREASONABLE

280 Corridor correctly states that to determine when the JM Project is needed, the likelihood of new generation becoming available or the Hunters Point Units not being retired by 2006 must be considered. The CAISO disagrees, however, with 280 Corridor's conclusion that 180 MW of new generation from the San Francisco combustion turbines ("SF CTs") and Hunters Point Unit 1 should be assumed available to meet load in 2006 and therefore included in the supply forecast.

1. Inclusion of the SF CTs Violates The Prudent Transmission Planning Principles Underlying the Valley-Rainbow Decision

The parties to this proceeding have provided their respective evidence regarding the status of the efforts to site the SF CTs. It is undisputed that the evidence fails to satisfy the test recently articulated in the *Valley-Rainbow* decision – the SF CTs are neither under construction nor permitted. Accordingly, the real question centers on whether the Presiding Judge elects to recommend that the Commission abandon the bright-line and conservative principles underlying *Valley-Rainbow* in favor of an *ad hoc* case-by-case approach that injects additional uncertainty into the transmission planning process. In addition, to the extent the inclusion of the SF CTs is then used to justify deferral of construction of the JM Project, the Commission must recognize that such decision effectively forces the continued operation of Hunters Point Unit 4 to maintain reliability should the assumed availability of the SF CTs not occur in a timely manner if at all.

The *Valley-Rainbow* decision articulated a bright-line and prudent test:

Standard industry practice indicates that we should include proposed generating units that are under construction or have received regulatory permits in the resource mix for transmission planning purposes unless there is compelling evidence that the future of such plants is in question.⁴

In fact, the language used by the Commission clarifies that resources which do not satisfy the standard cannot be bootstrapped into the resource mix based on evidence beyond the test factors. Evidence pertaining to matters other than construction and permitting can

⁴ *In the Matter of the Application of San Diego Gas & Electric Company (U 902-E) for a Certificate of Public Convenience and Necessity Valley-Rainbow 500 kV Interconnect Project*, D.02-12-066 (Dec. 24, 2002), mimeo at 33.

only operate to exclude resources from consideration, not serve as a basis for inclusion as advocated by 280 Corridor.

This aspect of the *Valley-Rainbow* decision advances the fundamental goal of transmission planning, which is to ensure that resources are in place when needed. Similar to the CAISO Planning Standards Committee guidelines,⁵ the *Valley-Rainbow* test requires tangible manifestations that the project is far enough along its road to becoming reality to warrant inclusion in the resource mix. It deliberately and reasonably drew a line on a risk management continuum that generally favors being caught resource long, rather than resource short. The ad hoc approach suggested by 280 Corridor will necessarily move the line on the risk management continuum back toward the direction of greater uncertainty and thereby increase the likelihood that needed transmission resources will not be available when needed to ensure reliable electric service.

280 Corridor argues that the Palomar project, discussed in the *Valley-Rainbow* decision, provides a perfect example for why the Commission should not exclude potential generating resources simply because such projects have not obtained all necessary regulatory approvals. (280 Opening Brief at 17.) 280 reaches this conclusion on the basis that the Palomar project is “now being offered as the primary project to meet SDG&E’s resource needs,” despite being excluded from the resource mix in *Valley-Rainbow*. (*Id.*) Looking through the prism of hindsight, however, does not provide a reasoned foundation for future planning decisions. Even the primary opponents to the Valley-Rainbow 500 kV project, Save Southwest Riverside County, recognized that “because Palomar does not yet have its regulatory permits, ... Palomar should not be

⁵ Exhibit 165 at 6:3-6.

included in planning studies if the planning horizon is five years.”⁶ Here, the JM Project will be needed by 2006, well before the minimum 5-year planning horizon. Thus, the concern is not with the ultimate success or failure to realize the SF CT project, but rather whether it will be in place in a timely manner. Adherence to *Valley-Rainbow* will increase the likelihood that the Commission will render decisions that ensure resources will be constructed and ready when needed.

2. 280 Corridor Wrongly Evaluates The Continuing Operation Of Hunters Point Unit 1 In Isolation

As noted in the CAISO’s Opening Brief, the Commission has consented to seeking the expeditious closure of the entire Hunters Point Power Plant by approving the closure agreement among the City of San Francisco, PG&E, and various citizen organizations. (CAISO Opening Brief at 22.) Continuing to include any capacity from the Hunters Point Power Plant in siting decisions impedes realization of that goal and therefore is incompatible with the Commission’s prior approval of the closure agreement. For this reason, the Commission should reject 280 Corridor’s suggestion that the capacity from Hunters Point Unit 1 be included in the supply mix.

Notwithstanding the foregoing, whether or not Hunters Point Unit 1 is included in the supply forecast only has relevance to the outcome of this proceeding if coupled with some other assumption regarding the existence of additional generation in the Project Area. 280 Corridor’s own powerflow analysis rebuts any theory that simply retaining Hunters Point Unit 1 in the supply mix, without other major generation or transmission projects, is sufficient to eliminate the need for the JM Project. (See, Exhibits 154, 156 and 165; CAISO Opening Brief at 24-25; PG&E Opening Brief at 61-65.) 280 Corridor

⁶ *Valley-Rainbow* mimeo at 32.

also does not dispute that Hunters Point Unit 4 should be assumed retired for planning purposes. (280 Opening Brief at 21.) Under these circumstances, the treatment of Hunters Point Unit 1 will have no effect on altering the fact that the JM Project will be needed by 2006 to satisfy the load serving capability needs of the San Francisco Peninsula Area.

280 Corridor, however, distorts the supply conditions likely to prevail in the San Francisco Peninsula Area by considering Hunters Point Unit 1 capacity available along with the capacity from the SF CTs. The coupling of Hunters Point Unit 1's capacity with that of the SF CTs cannot be justified on the record. As the CAISO has expressly acknowledged, "all generation at Hunters Point can be retired if the following is successfully completed: 1) All transmission and generation requirements identified in the ISO's April 18, 2003 letter [Exhibit 36]; 2) The Tesla-Newark #2 -230kV line bundling is completed; and 3) the Ravenswood-Ames 115kV lines #1 and #2 are recondored." (Exhibit 37.) Upon installation of the CCSF CTs, each of the enumerated preconditions will have been met, eliminating the underpinning for a continued Reliability Must Run contract and the final barrier to decommissioning the entire Hunters Point Power Plant pursuant to the terms of the 1998 agreement. (Exhibit 36 and Exhibit 37.) Accordingly, only in direct contravention of the closure agreement could the capacity from Hunters Point Unit 1 be included in a supply assessment that also includes the SF CTs.

D. CONTRARY TO 280 CORRIDOR'S OPENING BRIEF, THE JM PROJECT IS NEEDED PRIOR TO 2012

280 Corridor asserts that assuming Hunters Point Unit 4 is retired, but not Hunters Point 1,⁷ and the SF CTs are operational by 2006, and applying PG&E's low load forecast, the JM Project is not needed until 2012. (280 Corridor's Opening Brief at 21-22.) 280 Corridor is wrong for two reasons. First, as discussed above, including Hunters Point Unit 1 along with the capacity from the SF CTs is not realistic. Consequently, 280 Corridor's estimation of the load serving capability is overstated by roughly 50 MW.

Second, and more important, restricting an examination of the value of the JM Project to the Project Area does not comport with the operational and physical characteristics of the relevant transmission system. Importing power into the more narrow Project Area relies on power through the San Mateo Substation. Four 230 kV circuits connect to the San Mateo Substation – two from substations in the East Bay and two from the Ravenswood Substation, north of the Dumbarton Bridge. (Exhibit 4 at 19:14-24.) The ability to serve load in San Francisco and/or on the Peninsula rests in the capability of the entire import path to deliver the necessary power to the load that is not served by local generation. (Exhibit 38 at 8:27-28.) For example, if the transmission system within San Francisco was capable of serving 1000 MW of load, but the import path to San Francisco was only capable of delivering 900 MW, the import constraint would also serve to limit the load serving capability of the San Francisco system. (See, Exhibit 4, Attachment 6 at 15.)

⁷ 280 Corridor's Opening Brief mistakenly states in text that it is "assuming HPPP Unit 1 is retired." Its Table III-4, estimating load serving capability, as well as other text makes clear that 280 meant to assume the retirement of Hunters Point Unit 4.

Each of the resources identified above are subject to congestion or act as a bottleneck. (Exhibit 38 at 8:22-24.) Accordingly, evaluating the capability of the transmission system can be better assessed through enlarging the study to encompass the critical transmission facilities that serve load in the entire study area. In so doing, however, the load for the entire study area must also be considered. The CAISO did this by studying the San Francisco Peninsula Area, which encompasses the City and County of San Francisco and the San Francisco peninsula or the area north of the Ravenswood Substation. (Exhibit 4, Attachment 6 at p. 12; see also Exhibit 167.)

With these two corrections, the load serving capability of the San Francisco Peninsula Area is 2034 MW as detailed in the CAISO's Opening Brief (see pgs. 26-27). The CAISO's Opening Brief then compared the load serving capability number with PG&E's low load forecast for the San Francisco Peninsula Area to determine that the JM Project was needed by no later than 2009. That load forecast number is not directly part of the record. The CAISO has petitioned to remedy this oversight by seeking to reopen the record in this proceeding to ensure that the Commission has a full, complete and accurate record upon which to render its decision. Nevertheless, the conclusion that the JM Project is needed by 2009 can be deduced from existing record evidence as well. The load forecast for the San Francisco Peninsula Area projects load to be 1949 MW for 2006 and 2050 MW for 2010. (Exhibit 38 at 3:28-4:4.) If the total increase of 101 MW (2050 MW – 1949 MW = 101 MW) is assumed to increase at a constant rate over the entire period from 2006 through 2010, then the estimated load for 2009 would be 2025 MW ($101 \text{ MW} / 4 \text{ years} = 25 \text{ MW/year}$; $2050 \text{ MW} - (1 \text{ yr} \times 25 \text{ MW}) = 2025 \text{ MW}$). Moreover, as argued in the CAISO's Opening Brief, given that off-peak (winter) load levels on the

San Francisco Peninsula are nearly identical to on-peak (summer) load levels, prudent planning would dictate targeting construction of the JM Project by the end of 2008 to ensure that the resource is in place when needed. Thus, the need for the JM Project clearly satisfies the minimum five-year planning horizon articulated in the *Valley-Rainbow* decision.

E. WEM’S CLAIM THAT THE JM PROJECT WILL REDUCE LOAD SERVING CAPABILITY FOR THE SAN FRANCISCO PENINSULA AREA IS WRONG

Many of the accusations leveled in WEM’s Opening Brief rest on the mistaken belief that the JM Project will result in reducing the load serving capability in the San Francisco Peninsula Area. WEM’s error arises from a misinterpretation of the CAISO’s technical studies, a failure to appreciate which case studies are most directly relevant, and confusion regarding which case studies were affected by a modeling error and the limited scope of that modeling error.

WEM asserts that “[a]ll but two cases cited in ISO’s 2003 San Francisco Peninsula Load Serving Capability Study (Exhibit 155) showed J-M causes a reduction in [load serving capability or] LSC of –25 to –70 MW in the Project Area (Exhibit 155, p. 51).” (WEM Opening Brief at 4.) The cited section of the CAISO’s San Francisco Peninsula Load Serving Capability Study (“SF LSC Study”) compares pre- and post-JM Project scenarios under a given set of modeling assumptions that do not consider the effects of any south of San Mateo rerates or upgrades to the internal San Francisco 115 kV system. (See, Exhibit 155 at pp. 32 and 51 [Cases 1-6].) Under the conditions modeled, the additional power flow on the JM Project was shown to cause higher loading on some transmission facilities both south and north of the line to limit the overall LSC.

(*Id.* at 51.) However, as explained in the CAISO SF LSC Study, the constraints south of the line are fast, easy, and inexpensive to fix. (*Id.* at 51-52.) Similarly, as also explained in the CAISO SF LSC Study, the constraints within San Francisco reflected modeling errors:

the addition of the Jefferson-Martin 230 kV Cable Project (and its accompanying reinforcements such as a second Martin 230/115 kV transformer) drastically changes the voltage profile and MVAR flows within the 115 kV network north of Martin substation. The post-Jefferson-Martin cases exhibit higher MVAR flows (and consequently, higher current flows) across the Hunters Point-Martin 115 kV circuits. These higher flows cause the Hunters Point-Martin constraint to emerge at a much lower load level, resulting in a lower calculated LSC. This appears to be a modeling issue, which if resolved should give the same LSC results for this [Case 33], as for similar pre Jefferson-Martin case (Case 28).

Simply put, WEM is incorrect that the JM Project will create or exacerbate internal San Francisco constraints to reduce in-city load serving capability. Rather the need to reinforce the internal San Francisco cable system is driven by reduced generation within the Project Area, not by the existence or non-existence of the JM Project. For this reason, the CAISO SF LSC Study acknowledged that “[u]tilization of the Jefferson-Martin 230 kV Project with a reduction in existing generation within San Francisco requires reinforcement of both the transmission system south of San Mateo Substation and the 115 kV cable system in San Francisco.” (Exhibit 155 at 58 [emphasis added].)

Further, WEM fails to appreciate that not all case sensitivities are equal, and those cases cited by WEM are of little assistance in evaluating the true value and effect of the JM Project because they do not model the actual physical makeup of the transmission system as it will exist if the JM Project is constructed by 2006. WEM ignores that steps have been, and are being, taken to relieve the constraints both south and north of the JM

Project to accommodate a potential reduction in generation in the Project Act. The CAISO SF LSC Study specifies that three of four identified south of San Mateo rerate projects – the Tesla-Newark 230 kV, Newark-Ravenswood 230 kV, and Ravenswood-San Mateo 115 kV – “were completed prior to 2003 summer.” (Exhibit 155 at 33.) The fourth south of San Mateo rerate project – the Monta Vista-Jefferson 1 & 2 230 kV – has been approved by the CAISO and has an operational date of May 2004. (Exhibit 4 at 42:15-21 and 43.)

Similarly, the CAISO SF LSC Study ran scenarios that assumed upgrades to the internal San Francisco 115 kV system to address in-city constraints. There are, however, two possible means to relieve constraints in the internal San Francisco 115 kV system – the projects modeled by the CAISO or the adoption of new higher emergency ratings. The adoption of new emergency ratings can be accomplished with little expense or regulatory approvals, and the CAISO and PG&E are currently working to finalize, adopt and implement the new rating. (Exhibit 15 at 32:20-21.)

Thus, to properly assess the amount of load serving capability that the JM Project will bring, therefore, WEM should have focused on cases 29 and 34 of the CAISO SF LSC Study. These two cases provide the proper perspective because they model a pre- and post-JM Project scenario coupled with the effects of the south of San Mateo rerates and increases in load serving capability in San Francisco. These cases show that the load serving capability for San Francisco Peninsula Area changes from 1911 MW to 2196 MW after construction of the JM Project, for an increase of 287 MW. (Exhibit 155 at 107 and 112.) Therefore, had WEM considered the appropriate case sensitivities, it would have realized that more than the so-called “special study-within-a-study” case

demonstrated that the JM Project increased the load serving capacity in the San Francisco Peninsula Area.

III. CONCLUSION

The need for the JM Project to ensure reliability by 2006 has been amply demonstrated. Consequently, the CAISO respectfully urges the Commission to expeditiously issue a CPCN for the JM Project.

Respectfully submitted,



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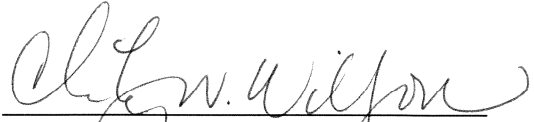
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Dated: March 18, 2004

PROOF OF SERVICE

I hereby certify that on March 18, 2004 I served, by electronic and U.S. mail, the Reply Brief of The California System Operator Corporation to the parties in Docket # A.02-09-043.

DATED at Folsom, California on March 18, 2004.

A handwritten signature in cursive script, appearing to read "Charity N. Wilson". The signature is written in black ink and is positioned above a horizontal line.

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