Exhibit No.: _____
Commissioner: Loretta M. Lynch
Administrative Law Judge: Charlotte TerKeurst
Witness: Gary DeShazo

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the of Pacific Gas and Electric Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of the Jefferson-Martin 230 kV Transmission Project	Application 02-09-043

REBUTTAL TESTIMONY OF GARY L. DESHAZO ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR

Submitted by the California Independent System Operator

Charles Robinson, Vice President and General Counsel
Gene L. Waas, Regulatory Counsel
Grant A. Rosenblum, Regulatory Counsel
California Independent System Operator
151 Blue Ravine Road
Folsom California 95630
Telephone: (916) 351-4400
Facsimile: (916) 608-7296

January 5, 2004

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Q. Please state your name.

A. My name is Gary L. DeShazo.

Q. Are you the same Gary L. DeShazo who submitted testimony on behalf of the California Independent System Operator ("CAISO") on October 10, 2003 regarding CPUC Docket No.A.02-09-043.

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to rebut the testimony submitted by various parties intervening in CPUC Docket No.A.02-09-043, entitled Pacific Gas and Electric Company's Application for a Certificate of Public Convenience and Necessity Authorizing the Construction of the Jefferson-Martin 230 kV Transmission Project ("J-M Project"). Specifically, my rebuttal testimony

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addresses, in order, certain statements made by Scott Logan on behalf of the Office of Ratepayer Advocates ("ORA"); Lara Lighthouse on behalf of the 280 Corridor Citizens Group, Jeffrey Shields, President of Utility Systems Associates, Inc., William M. Stephenson, Independent Consultant (" 280 Corridor Group"); Barbara George, Executive Director of Women's Energy Matters, ("WEM") on behalf of that group; Barry R. Flynn on behalf of the City and County Of San Francisco ("CCSF") and Michael E. Boyd on behalf of Californians for Renewable Energy, Inc ("CARE").

Q. Do you use any specialized terms in your testimony?

A. Yes. Unless indicated otherwise, we use capitalized terms as defined in the CAISO Tariff Appendix A: Master Definitions Supplement. The Master Definition Supplement is available on the CAISO website.

I. Rebuttal Testimony: Office of Ratepayer Advocates

Q. On page 3, lines 1-6 of the ORA testimony, Mr. Logan for ORA states, "This application has many parallels to another recent transmission application. SDG&E's Valley-Rainbow Transmission Project was submitted as the utility's solution to a local grid reliability problem... The CAISO supported SDG&E's proposal, also without exploring generation, or other 'non-wires' options." Do you agree with this statement?

A. No, I do not. The San Francisco Peninsula Long-Term Electric Transmission Planning Technical Study, dated October 24, 2000 ("SF LT Study"), and the CAISO San Francisco Peninsula Load Serving Capability Study, dated July 3, 2003 ("CAISO SF LSC Study") incorporated an analysis of a reduction in the amount of existing generation resources as well as assessments of new generation resources being proposed within San Francisco. The SF LT Study incorporated an analysis of +/- 10% change in the load forecast modeled in the study. The CAISO SF LSC Study assessed load levels that may cause a reliability problem not already being mitigated by PG&E through either an existing or

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planned transmission project. This study takes into account future reduction in load due to "non-wires" impacts.

Q. On page 5, lines 5-6 of the ORA testimony, Mr. Logan states, "It is reasonable to assume that the San Francisco Internal Cable Projects will be completed by 2006". Do you agree with this statement?

A. No, I do not. The proposed new Hunters Point-Martin 115 kV cable project is discussed in PG&E's 2003 Electric Transmission Grid Expansion Plan and is scheduled to be completed in 2007. PG&E and the CAISO are working together to establish and utilize emergency ratings for the 115 kV cable system within San Francisco until the new cable project is completed. It is expected that these emergency ratings will be in effect when the J-M Project becomes operational.

Q. On page 5, lines 25-29 of the ORA testimony, Mr. Logan for ORA states, "It is reasonable to assume that the four combustion turbines ("CT") (45 MW each) owned by the CCSF will be sited and in operation by 2006. This assumption is reasonable since it is in the CCSF's interest to do so, a contract has been signed with the California Department of Water Resources ("CDWR") for their output, and the return to the state of these 'free' resources if they are not sited soon is inevitable". Do you agree with this statement?

A. While I would agree that the successful siting, construction, and operation of the CCSF combustion turbines is an assumption, I do not believe it to be a "reasonable" assumption when considering the timing of the in-service date of the J-M project. The CA ISO believes that unless something is done to increase the LSC for the San Francisco Peninsula Area by the end of 2005, the forecasted load will exceed the LSC of the area resulting in CA ISO Planning Standard violations. There is uncertainty in any siting process and there certainly is no finality that the CCSF combustion turbines will be online by 2006. Although the CCSF's intent is to do so and a contract has been signed with the CDWR, the CCSF CT's permitting process through various state regulatory agencies still has

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to be completed. The Williams turbines still fact significant environmental hurdles and community opposition. When the last several years are considered, there are numerous examples that illustrate this uncertainty in the generation development business. Proposed power plant projects have been delayed, canceled or put on indefinite hold after they have been permitted by the California Energy Commission ("CEC") and in at least in one case, after the project was well under construction. Because of this uncertainty CA ISO Grid Planning studies only model new power plant projects that are under construction and even then there is risk that these projects will never see the opportunity for commercial operation. The Commission has the authority to site the J-M project; as such PG&E is before the Commission now seeking their approval to construct the J-M project to assure that the line is placed in-service when it is needed.

Q. On page 6, line 15 of the ORA testimony, Mr. Logan for ORA states, "Cases 32 and 34 provide the best estimate of the value of the J-M Project". Do you agree with this statement?

A. No, I do not. Cases 32 and 34 are a comparison of the CCSF CTs and the J-M Project whereas Cases 29 and 34 within the CAISO SF LSC Report compare scenarios with and without the J-M Project. These cases represent generation assumptions are consistent between the two cases which removes generation as a variable when assessing the value of the J-M Project.

Q. On page 6, lines 23-24 of the ORA testimony, Mr. Logan concludes that "Based on these results, J-M provides 75 MW of LSC to San Francisco, and 135 MW of LSC to the total area above the scenario which we believe will occur before J-M is cited and constructed." Do you agree with this statement?

A. No, I do not. As I stated above Cases 32 and 34 are a comparison of the CCSF CT's and the J-M Project whereas Cases 29 and 34 compare pre and post J-M Project scenarios while holding the generation assumptions consistent between the two cases. Based on these cases, J-M would increase San Francisco LSC by 159 MW and Peninsula LSC by 126 MW for a total LSC increase of 285 MW.

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This is covered in more detail within the CAISO SF LSC Report within the section titled "Interpretation of Study Results" starting on page 48. Specifically, when assessing the full potential capability of the J-M Project, CAISO analysis has shown it to be as much as 351 MW more LSC for the area north of San Mateo Substation.

Q. On page 7, lines 14-15 of the ORA testimony, Mr. Logan concludes that "It is also apparent that the re-rates provide far greater LSC than the Internal Cable Projects". Do you agree with this statement?

A. No, I do not. This conclusion is not correct. The South of San Mateo Re-rates should not be compared against the Internal Cable Projects since they mitigate bottlenecks in different electrical and geographic areas. These areas are in series and are interdependent.

Q. On page 8, lines 26-27 of the ORA testimony, Mr. Logan concludes that, "ORA recommends that the Commission defer its decision on this application until the record is clear on what will be the disposition of the CCSF turbines." Do you agree with this statement?

A. No, I do not. As I stated above, the CA ISO believes that unless something is done to increase the LSC for the San Francisco Peninsula Area by the end of 2005, the forecasted load will exceed the LSC of the area resulting in CA ISO Planning Standard violations. There is uncertainty in any siting process and there certainly is no finality that the CCSF combustion turbines will be online by 2006. Should the Commission follow the ORA's recommendation, the in-service date of the J-M Project will most certainly be delayed beyond when it is needed. If the CCSF CTs are not in operation as expected, CA ISO Planning Standard violations will exist until the J-M Project is placed in-service. The Commission has the authority to site the J-M project; as such PG&E is before the Commission now seeking their approval to construct the J-M project to assure that the line is placed in-service when it is needed.

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II. Rebuttal Testimony: 280 Corridor Concerned Citizens

Q. On page 7, fourth paragraph of the testimony of the 280 Corridor Group, Lara Lighthouse states that "PG&E excluded the residents of the 280 Corridor from its planning process. PG&E never solicited input from the neighborhoods through which it proposes to install its 230 kV transmission lines. The ISO Stakeholder Report lists the members of the Stakeholder Group which includes almost every segment of the interested and affected community except those in the areas that would be most directly impacted by construction of the J-M Project". Is this a correct statement?

A. No, I do not. While the statement directly references PG&E, it also refers to an ISO Stakeholder Report list that is not clearly referenced in the 280 Corridor Group's testimony. I assume the statement is a reference to Attachment 17 – List of Stakeholders Study Group Members within the CAISO San Francisco Peninsula Load Serving Capability Report. The list does include a Mr. Steven Drake as a representative of the 280 Corridor Group.

The CA ISO stakeholder process for transmission planning is administered through the CA ISO Coordinated Planning process. This process requires the CA ISO to work with interested stakeholders throughout the transmission planning process. The CA ISO relies on public self-awareness during this stakeholder process and welcomes public participation. As such, whenever the CA ISO initiates a transmission planning process, notification of the process is sent to all stakeholders that are listed on the CA ISO's Market Participant email list. This email list is maintained by the CA ISO and any stakeholder interested in CA ISO activities, transmission planning or otherwise, may have their name placed on this list. During this stakeholder planning process, it is not known what the outcome will be and what, if any transmission project will be proposed. When a preferred transmission project is determined, the CA ISO relies on the Participating Transmission Owner (in this case PG&E) to submit an application to the CPUC for approval and through CPUC requirements and regulations, interact appropriately with public and private entities. The CA ISO utilized the Market Participant mailing list to notify stakeholders of the CA ISO's J-M transmission planning activities

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And, as I discussed in my testimony dated October 10, 2003, CA ISO staff has made several presentations about the J-M to the CA ISO Board of Governors since October 2000. All presentation information is posted on the CA ISO's public web site for all stakeholders to view.

Q. On page 17 of the 280 Corridor Group testimony, William M. Stephenson states that "The Proposed Project Will Not Address the Root Cause of the 1998 Blackout". Do you agree with this interpretation?

A. No, I do not. Common sense suggests that building the J-M project will not prevent human error, however, building the J-M Project will certainly contribute to mitigating the overall impact to San Francisco and the adjoining peninsula of what occurred in 1998, by providing a separate source to feed power into San Francisco and the peninsula. The J-M Project is needed to serve load in San Francisco and the peninsula within the boundaries defined by the CA ISO planning standards. The fact that the proposed route is separate from the existing San Mateo – Martin corridor and that the J-M Project terminates at Martin rather than San Mateo are benefits that should be recognized but not held above the need for the J-M Project.

Q. On page 18 of the 280 Corridor Group testimony, Jeffrey Shields states "The Proposed Project Will Not Effectively Diversify the Transmission System in the Project Area". Do you agree with this statement?

A. No, I do not. The testimony provided by Mr. Shields states that the "Proposed Project would simply shift the "choke point" on the existing transmission system north from the San Mateo Substation to the Martin Substation." Whether the J-M line terminates at Martin or some location further within San Francisco, the ability to serve load in San Francisco and the peninsula will be "diversified" by this project because it provides a second source of power into a point in PG&E's system that benefits San Francisco and peninsula customers. One need only consider the benefit of the J-M project had it been in-service when the 1998 disturbance occurred. Indeed, the J-M project would have benefited San Francisco and peninsula customers alike by providing an independent source of

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power to the area during the disturbance and reduced the overall impact of the 1998 disturbance to PG&E's customers in this area.

Q. On page 19, fourth paragraph of the 280 Corridor Group testimony, Jeffrey Shields states "Nevertheless, based on PG&E's most recent load forecast, revised to be consistent with the growth in PG&E's recorded peak loads over the past five years, and reasonable assumptions regarding PG&E's existing transmission system and the addition of new generation, the Proposed Project would not be needed even if a planning horizon longer than five years were used in this proceeding." Do you agree with this statement?

A. No, I do not. First of all, the Commission's consideration of the Valley – Rainbow Interconnection Project bears no relationship on the consideration of need for this project. This is a different project and the assessment of need should be based on this project's merits. Further, the determination of need for the J-M Project is based on a different analytical approach than was used for the Valley – Rainbow Interconnection Project; that of determining LSC for the San Francisco Peninsula Area. This LSC analytical approach was described in my October 10, 2003 testimony and again in detail in the CAISO SF LSC study report. Suffice it to say that using the LSC analytical approach decouples and insulates the study results from changes in load projections. Therefore, LSC information can be evaluated on its own merits rather than to comparisons of subjective load forecasts or "planning horizons." As such, the determination of LSC renders information about the amount of load that can be served in an area by the electrical transmission system into that area and the available generation within that area, without violating the CA ISO Planning Standards. When compared to load projections, the results of the LSC analysis describe, from a Grid Planning perspective, what combinations of transmission reinforcement and generation within the San Francisco Peninsula Area would be required to meet the CA ISO Planning Standards. The bottom line is that a load forecast is required to assess "when" the J-M Project will be needed not "if" the J-M Project is needed. As I stated in my initial testimony, based on load forecast information available to the ISO & PG&E's timely completion of CA ISO approved projects in PG&E's 2003 Ten Year Bulk Power Expansion

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Plan, the project is needed by the end of 2005 after which the projected load will exceed the LSC of the San Francisco Peninsula Area.

Q. On page 23 of the 280 Corridor Group testimony Jeffrey Shields states "Although CCSF has not obtained regulatory approvals to site and operate the Williams turbines, it is reasonable to assume that these turbines will be constructed and operational." Do you agree with this statement?

A. While I would agree that the successful siting, construction, and operation of the Williams turbines is an assumption, I do not believe it to be a "reasonable" assumption when considering the timing of the in-service date of the J-M project. The CA ISO believes that unless something is done to increase the LSC for the San Francisco Peninsula Area by the end of 2005, the forecasted load will exceed the LSC of the area resulting in CA ISO Planning Standard violations. There is uncertainty in any siting process and there certainly is no finality that the Williams turbines will be online by 2006. Although the CCSF's intent is to do so and a contract has been signed with the CDWR, the CCSF CT's permitting process through various state regulatory agencies still has to be completed. The Williams turbines still fact significant environmental hurdles and community opposition as fervently opposed to the need of these turbines as the 280 Corridor Group is opposed to the need of the J-M Project. When the last several years are considered, there are numerous examples that illustrate this uncertainty in the generation development business. Proposed power plant projects have been delayed, canceled or put on indefinite hold after they have been permitted by the California Energy Commission ("CEC") and in at least in one case, after the project was well under construction. Because of this uncertainty CA ISO Grid Planning studies only model new power plant projects that are under construction and even then there is risk that these projects will never see the opportunity for commercial operation. The Commission has the authority to site the J-M Project; as such PG&E is before the Commission now seeking their approval to construct the J-M Project to assure that the line is placed in-service when it is needed.

Q. On page 24 of the 280 Corridor Group testimony, William M. Stephenson states "Under the planning contingency used by PG&E – both the 230 kV cable and the San Mateo-Martin 115 kV line

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out of service – there are five remaining 115 kV lines to serve the load in the Project Area. If each line was re-rated to have a gross rating of 261 MW, the rating of five lines could be as high as 1,305 MW (five lines multiplied by 261 MW per line). In a parallel system with intermediate loads (or generation), the lines generally do not carry the same amount of power. If series reactors are placed in some of the lines to equalize the load, this 1,305 MW total can likely be achieved." Mr. Stephenson further states "To the extent reactors are needed to increase the capacity of the 115 kV lines between the San Mateo and Martin substations, the cost of such construction would represent a mere fraction of the expected cost of the Proposed Project, without any of the environmental impacts that would be associated with constructing a 27 mile long transmission line." Do you agree with these statements?

A. I believe that the first statement is misleading by attempting to oversimplify a solution to a complex problem. For example, he fails to adequately account for the physical characteristics of the 115kV system between San Mateo and Martin and the operational complexities of operating six parallel circuits through the use of switchable series reactors. In theory, Mr. Stephenson's proposal makes electrical sense but PG&E is the appropriate entity to address whether his proposal merits consideration.

Nonetheless, I do not agree with Mr. Stephenson's second statement that suggests that increasing the capability of the 115kV system between San Mateo and Martin would displace the need for the J-M Project. Were it possible, increasing the capability across the 115kV system between San Mateo and Martin beyond what PG&E has been able to so far achieve will not displace the need for the J-M Project. As I discussed in my October 10, 2003 testimony, for an area like the San Francisco Peninsula Area where the load is served through a radial transmission system, the ability to serve load in San Francisco and the peninsula is rooted in the capability of the interconnected system to deliver the necessary power to load that is not served by local generation. It follows that stress placed on PG&E's existing transmission infrastructure in the San Francisco Peninsula Area results from load in this area. Therefore, not only the load serving needs in San Francisco but also the peninsula underpins the need for the J-M project.

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Q. On page 26 of the 280 Corridor Group testimony, Jeffrey Shields states that comparing the revised load forecast with the LSC in the Project area demonstrates that the J-M Project is not needed by 2006. Further, it is stated, "Under the planning contingency employed by PG&E both the San Mateo-Martin 230 kV cable and the San Mateo-Millbrae 115 kV circuit are assumed to be out and Potrero Unit 3 is off-line. As shown in Figure 4-8, the total load serving capability under this scenario would be 1,713 MW assuming the 115 kV lines are re-rated as discussed above." Do you agree with these statements?

(1) A. No, I do not. The load serving capability calculation done by the 280 Corridor Group assumes that "transfer capability" and "LSC" are equivalent and no technical analysis has been provided to demonstrate how the LSC could be achieved. Based on the information shown in Figure 4-8 of the 280 Corridor Group testimony, Mr. Shields appears to be determining the load serving capability of the area by summing the "expected" future transfer capabilities of five San Mateo – Martin 115 kV circuits, and adding that sum to the amount of "Anticipated Generation 2006" shown in Figure 4-6 less the generation from Potrero unit 3. By adding the "expected" future transfer capabilities of five San Mateo – Martin 115kV circuits implies that the "transfer capability" of these lines is directly equivalent to the "LSC" which they provide. I do not agree with this implication.. When the ISO initiated the San Francisco Peninsula LSC study, it was recognized that many stakeholders did not understand what "transfer capability" and "LSC" were and how they were related. One of the objectives of the study was to address that issue through interactive communication with stakeholders involved in reviewing this study. The result was a detailed discussion about "transfer capability" and "LSC" being included in the final version of the report that discusses why directly equating transmission line "transfer capability" to "LSC" is fundamentally flawed and can lead to misstating the ability of a transmission system to actually serve load. At this point in time, the 280 Corridor Group has not provided any technical analysis performed by them that substantiates the LSC claims they are making.

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Q. On page 27 of the 280 Corridor Group testimony, Jeffrey Shields states that "Distributed Generation, Renewable Initiatives and Demand Reduction will further reduce any need for the proposed Project." Do you agree with this statement?

A. While I would agree, "Distributed Generation, Renewable Initiatives and Demand Reduction" may defer the need for new transmission infrastructure, I do not believe it to be a "reasonable" assumption when considering the timing of the in-service date of the J-M project. The 280 Corridor Group has not provided any substantiated basis to assume that the amount of "expected" demand reduction would actually materialize in the future. Even if an assumption is made that, all demand reduction programs referenced in the 280 Corridor Group testimony will be implemented, it will still not be enough to defer the need for the project. As I have stated earlier, the CA ISO believes that unless something is done to increase the LSC for the San Francisco Peninsula Area by the end of 2005, the forecasted load will exceed the LSC of the area resulting in CA ISO Planning Standard violations.

III. Rebuttal Testimony: Women's Energy Matters

Q. Barbara George on behalf of WEM states on page 4, line 3 of their "testimony" that "J-M actually REDUCES load serving capability in San Francisco, although PG&E and the CAISO went to great lengths to paper over this fact." This statement is attributed to study results documented in two power flow case studies (Cases 28 and 33) within the CAISO San Francisco Peninsula Load Serving Capability Report referred to above and is shown within Appendix A of the WEM testimony. Do you agree with this interpretation of the study results?

A. No, I do not. The Jefferson-Martin line increases the LSC within the entire San Francisco Peninsula. It does not decrease it as stated by WEM. The entire San Francisco Peninsula refers to a combination of areas served and identified by PG&E as the San Francisco and Peninsula areas. WEM tells only part of the story, and in so doing confuses the record. The scenarios modeled and documented in Cases 28 and 33 are limited to an analysis of the Jefferson-Martin 230 kV line in

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combination with reinforcing the transmission system south of the San Mateo Substation. The comparison of these two cases for assessing the benefits of J-M Project is improper since the driving point limitations for these cases are within the City of San Francisco. The City of San Francisco is an independent system and any limitation within the city has to be fixed by project(s) other than Jefferson-Martin. Therefore, to have a complete picture of the planned LSC within the San Francisco Peninsula, consideration of reinforcement of the 115 kV cable transmission system within San Francisco is necessary. Cases 29 and 34 within the CAISO San Francisco Peninsula LSC Report correctly illustrate the potential increase in San Francisco Peninsula LSC after the construction of the J-M Project. These are the cases that WEM should have referred to for comparison purposes. These Cases show an increase in San Francisco LSC from 1911 MW to 2196 MW after the Jefferson-Martin 230 kV line is in service. PG&E is presently projecting load within the San Francisco Peninsula to be 1949 MW in 2006. The CAISO's San Francisco LSC studies show that the import contribution of the J-M Project is 351 MW across the San Mateo-Martin corridor.

Q. On page 5, line 9 of the WEM testimony, Barbara George states, "Why are PG&E and CAISO so eager to go forward with the project even though the study shows it reduces power in SF? Will the problems really be easily resolved?" Do you agree with the statement in the question that the J-M Project will reduce power in SF?

A. No, I do not. Again, I believe that WEM misinterpreted the facts. Cases 29 and 34 within the CAISO San Francisco Peninsula LSC Report correctly illustrate the potential increase in San Francisco Peninsula LSC. These Cases demonstrate that the J-M line will increase the LSC in the San Francisco Peninsula by 285 MW (from 1911 MW to 2196 MW) after the Jefferson-Martin 230 kV line is in service.

Q. On page 9, line 13 of the WEM testimony, Barbara George states, "CAISO adopted PG&E's criteria and focused only on the San Mateo to Martin corridor, cleverly eliminating the pesky

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constraints north and south of the J-M line that showed up in its own SF LSC study." Do you agree with this statement?

A. No, I do not. It appears that WEM has either misunderstood the information or failed to take into account all of the documented results and conclusions within the CAISO SF LSC Study report. This report includes two important conclusions (Conclusions 1 and 6, located on page 8). These conclusions state the following:

1. The LSC of the San Francisco Peninsula Area is directly related to generation located within this Area and the capability of the San Mateo-Martin Corridor, the 230 kV system south of San Mateo, and local transmission along the San Francisco Peninsula. The San Francisco internal 115 kV cable system supports the LSC within the City of San Francisco.
6. Utilization 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 within San Francisco.

Q. On page 10, line 12 of the WEM testimony, Barbara George states, "J-M will increase LSC in the Project Area, but if you read it more carefully, it actually says that J-M will increase the load serving capability of the electrical grid SOUTH of the Project Area and implies that in some unspecified way that will improve things in the Project Area". Do you agree with these statements?

A. Again, WEM is not interpreting the study results correctly. The J-M Project will increase both the LSC between the San Mateo and Martin Substations and south of San Mateo Substation because the J-M Project is virtually parallel to several existing transmission lines and substations from which load is served. An outage of one of the existing transmission lines now has an additional transmission line to help carry its power flow.

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Q. On page 11, line 10 of the WEM testimony, Barbara George states, "CAISO numbers are different from PG&E's." Do you agree with this statement and is it indicative of erroneous study results?

A. I agree that the study results were different, but the difference (365 MW per PG&E and 351 MW per CAISO) is not considered significant. Some, if not most, of this difference may be accounted for by the fact that the CAISO SF LSC Study started from a power flow base case representing 2004 summer load conditions with the load scaled upwards to simulate load growth, while PG&E's San Francisco Internal Transmission System After AP-1 Technical Study started from a power flow base case specifically representing 2006 summer load conditions.

Q. On page 12, lines 18, 26 and 35 of the WEM testimony, Barbara George states, "PG&E and CAISO differ about the geography of the system... CAISO initially agreed with PG&E and listed Peninsula load as approximately 300 MW... CAISO now requires these lines to serve a much larger area, assigning a load of more than 900 MW on the Peninsula on top of 900 MW in the City". Do you agree with these statements and if so, please explain the difference in the PG&E and CAISO study area?

A. I agree that the study areas that have been defined as most relevant to the J-M Project are different between PG&E and the CAISO. During it's analysis, the CAISO defined the study area as the complete area most directly associated with power being delivered to and coming off the J-M line. This included the entire San Francisco Peninsula area as well as the 230 kV lines that cross San Francisco Bay. For CA ISO SF LSC Study, the CAISO also performed a study to verify a previous analysis done by PG&E to assess the transmission benefits of the JM project. For the purpose of verification only, South of San Mateo substations were not included for this analysis, and PG&E's Corridor criteria were used. The results of this analysis showed the transfer capability benefits of the project across San Mateo-Martin corridor. Either way the CAISO has performed studies to assess the J-M Project benefits, it has arrived at the same conclusion that the J-M Project provides significant

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additional load serving capability to the San Francisco Peninsula system. However, utilization 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 within San Francisco. PG&E chose not to include the area south of San Mateo Substation in their J-M Project analysis, but did include the J-M Project in their 2003 Electric Transmission Grid Expansion Plan studies where the area south of San Mateo Substation and lines across San Francisco Bay were analyzed.

Q. On page 13, lines 4 and 14 of the WEM testimony, Barbara George states, "PG&E acknowledges that the current Jefferson-Martin 60 kV line serves substations on the Western half of the Peninsula:. CAISO pretends there's nothing there." Do you agree with this statement?

A. No, I do not. The transmission system illustrated in diagrams within the CA ISO SF LSC Study report were only intended to include the 230 and 115 kV transmission system and not all of the 60 kV system. The CA ISO is fully aware of the entire transmission system within the San Francisco Peninsula including 60 kV transmission lines and substations. The transmission system modeled for CA ISO technical analysis includes all of PG&E's transmission system including 60 kV lines and substations.

Q. On page 13, line 22-31 of the WEM testimony, Barbara George states, "The above passage refers to the two 230 kV lines between Martin and Embarcadero...We are puzzled why many PG&E and ISO documents downplay or ignore the existence of the 230 kV lines". Please comment on the WEM statements referenced above.

A. Once again, it appears that WEM is "not correctly understanding the facts". The 230 kV lines in question are 230 kV cables that exist between Martin and Embarcadero Substations and are to serve distribution load from Embarcadero Substation. These 230 kV lines are not directly related to, effect, or are affected by the Power Plants in San Francisco, the 115 kV cable system or the J-M Project.

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Both Potrero and Hunters Point Power Plants are connected to the San Francisco 115 kV cable system and not to the two 230 kV cables in question. These 230 kV lines are modeled in all CAISO studies, and have not indicated relevance to an analysis of the interconnected 115 kV cable system within San Francisco with less than existing generation resources available. Both the proposed J-M Project and the output of existing power plants in San Francisco do not impact power flow on the 230 kV cables between Martin and Embarcadero Substations.

Q. On page 14, line 9 of the WEM testimony, Barbara George states, "Assuming the single 230 kV line is out (Line minus 1) and the Line #4 upgrade is done, the six 115 kV lines from San Mateo to Martin could apparently carry 1320 MW — with no SF generation." Do you agree with this interpretation of the study results and are these transmission line power flow capabilities possible while meeting established reliability criteria?

A. No. It appears that the capability cited on page 14, line 11 of 1320 MW is based on determining the LSC over these 115 kV lines through simple addition of what each line can carry. There is more to the process than adding the capability of the lines. The transmission system is planned according to established reliability criteria and through technical analysis utilizing established analytical power system simulation programs. Based on technical study analysis as documented in the CAISO San Francisco Peninsula LSC Report (Case 27a), the LSC under conditions with no generation on-line within San Francisco, is 686 MW for the San Francisco area and 1391 MW for the San Francisco Peninsula area. This illustrates the present day dependence on generation resources within San Francisco to meet the projected load of 942 MW in San Francisco and 1949 MW within the San Francisco Peninsula area by 2006.

Q. On page 14, line 28 of the WEM testimony, Barbara George states, "Since April, 2003, WEM has been asking for the list of power plants in the Greater Bay Area that CAISO assumes can deliver power to the Project Area...Earlier, in a SF Power Flow meeting 11/7/03, CAISO had confirmed that it uses outdated assumptions". Do you agree with these statements?

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51 Blue Ravine Rd
Folsom CA 95630

A. No, I do not. To better understand the existing transmission and generation system and therefore better understand planned reinforcements and additions, WEM (Barbara George) requested and was given several diagrams and documents on September 15, 2003 related to the CAISO 2004 Reliability Must-Run ("RMR") Study and Local Area Reliability Service ("LARS") designation of generator units to maintain reliability within the San Francisco Bay Area Local RMR Area. These documents had been discussed and distributed publicly as part of the CAISO 2004 RMR and LARS processes. These documents listed all generator units considered within the San Francisco Bay Area Local RMR Area for maintaining reliability of the electric system in this area.

IV. Rebuttal Testimony: City And County Of San Francisco

Q. On page 3, line 9 of the initial CCSF testimony, Barry Flynn states, "Providing an electric system that meets the reliability criteria contained in the California ISO Planning Standards may not be sufficient to provide reliable power to San Francisco." Do you agree with this statement?

A. All of PG&E's transmission system is planned to meet all CA ISO Planning Standards. The facilities that are required to meet this requirement are documented in PG&E's annual transmission expansion plan, of which the most current is the PG&E 2003 Electric Transmission Grid Expansion Plan. Not withstanding this fact, my interpretation of Mr. Flynn's statement is that providing "reliable" power to San Francisco may be of sufficient importance that the application of a more stringent reliability criteria to the San Francisco transmission system may be appropriate. The CA ISO sponsors the CAISO Planning Standards Committee which is tasked with addressing this type of issue and would be the appropriate forum to discuss what, if any, changes are needed to assure that a reliable source of power is provided to San Francisco.

CAISO
151 BLUE RAVINE RD
FOLSOM CA 95630

V. Rebuttal Testimony: Californians for Renewable Energy

Q. On pages 3-4 and 11-13 CARE makes various statements that relate to the CA ISO's governance structure as well as raising certain discrimination claims. Do you have any comment on these allegations?

A. Yes. I have been advised by my legal counsel that these allegations do not relate in any way to the need for the J-M Project and that they have been addressed or are being addressed in other regulatory fora.

Q. Does this conclude your rebuttal testimony?

A. Yes. It does.

CAISO
151 BLUE RAVINE RD
FOLSOM CA 95630

PROOF OF SERVICE

I hereby certify that on January 5, 2004, I served by electronic and U.S. mail, the Rebuttal Testimony of Gary L. DeShazo on Behalf of The California Independent System Operator in Docket # A.02-09-043.

DATED at Folsom, California on January 5, 2004.

Charity N. Wilson
An Employee of the California
Independent System Operator

NORMAN I BOOK, JR
CARR MCCLELLAN INGERSOLLTHOMPSON
206 PARK ROAD
BURLINGAME, CA 94010

MARK HUDAK
INGERSOLL,THOMPSON&HORN
PROFESSIONAL
216 PARK ROAD
BURLINGAME, CA 94010

MARTHA DEBRY
TOWN OF HILLSBOROUGH
1600 FLORIBUNDA AVENUE
HILLSBOROUGH, CA 94010

STAN GUSTAVSON
CITY ATTORNEY
CITY HALL
333 90TH STREET
DALY CITY, CA 94015

MARY K RAFTERY
ATTORNEY AT LAW
COUNTY OF SAN MATEO
OFFICE OF THE COUNTY COUNSEL
400 COUNTY CENTER
REDWOOD CITY, CA 94063

PAMELA THOMPSON
CITY ATTORNEY
CITY OF SAN BRUNO
567 EL CAMINO REAL
SAN BRUNO, CA 94066

MICHAEL J VALENCIA, ATTORNEY
ROSS HACKETT DOWLING VALENCIA WALTI
600 EL CAMINO REAL
SAN BRUNO, CA 94066-0279

Marion Peleo
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
LEGAL DIVISION ROOM 4107
SAN FRANCISCO, CA 94102-3214

JOSEPH P COMO
DEPUTY CITY ATTORNEY
CITY AND COUNTY OF SAN FRANCISCO
1 DR CARLTON B GOODLETT PLACE
CITY HALL, ROOM 234
SAN FRANCISCO, CA 94102-4682

PETER H WEINER
ATTORNEY AT LAW
PAUL HASTINGS JANOFSKY AND WALKER,
LLP
55 2ND STREET, 24TH FLOOR
SAN FRANCISCO, CA 94105-3441

ZACHARY R WALTON
PAUL,HASTINGS,JANOFSKY&WALKER LLP
55 SECOND STREET, 24TH FLOOR
SAN FRANCISCO, CA 94105-3441

JEANNE B ARMSTRONG
RITCHIE & DAY, LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111

MICHAEL B DAY
ATTORNEY AT LAW
GOODIN MACBRIDE SQUERI RITCHIE & DAY
LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111

RICHARD W RAUSHENBUSH
ATTORNEY AT LAW
LATHAM & WATKINS
505 MONTGOMERY STREET, SUITE 1900
SAN FRANCISCO, CA 94111

EDWARD W O'NEILL
ATTORNEY AT LAW
DAVIS WRIGHT TREMAINE LLP
ONE EMBARCADERO CENTER, SUITE 600
SAN FRANCISCO, CA 94111-3834

A KARP
ATTORNEY AT LAW
WHITE & CASE LLP
3 EMBARCADERO CTR STE 2210
SAN FRANCISCO, CA 94111-4050

DAVID KRASKA
ATTORNEY AT LAW
PACIFIC GAS & ELECTRIC COMPANY
PO BOX 7442
SAN FRANCISCO, CA 94120

PETER W HANSCHEN
ATTORNEY AT LAW
MORRISON & FOERSTER, LLP
101 YGNACIO VALLEY ROAD, SUITE 450
WALNUT CREEK, CA 94596-8130

PATRICK WHITNELL
ATTORNEY AT LAW
MEYERS NAVE RIBACK SLVER & WILSON
555 12 ST , SUITE 1500
OAKLAND, CA 94607

CLARE LAUFENBER GALLARDO
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS 46
SACRAMENTO, CA 95814

BARBARA GEORGE
EXECUTIVE DIRECTOR
WOMEN'S ENERGY MATTERS
PO BOX 162008
SACRAMENTO, CA 95816-9998

Maria E Stevens
CALIF PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET SUITE 500
EXECUTIVE DIVISION
LOS ANGELES, CA 90013

Billie C Blanchard
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ENGINEERING, ENVIRONMENTAL STUDIES,
CUSTOMER SERVICE AREA 4-A
SAN FRANCISCO, CA 94102-3214

Charlotte TerKeurst
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5021
SAN FRANCISCO, CA 94102-3214

Harriett J Burt
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
PUBLIC ADVISOR OFFICE ROOM 2103
SAN FRANCISCO, CA 94102-3214

Joseph A Abhulimen
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ELECTRICITY RESOURCES AND PRICING
BRANCH ROOM 4209
SAN FRANCISCO, CA 94102-3214

Kelly C Lee
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
WATER AND NATURAL GAS BRANCH ROOM
4102
SAN FRANCISCO, CA 94102-3214

Lainie Motamedi
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
DIVISION OF STRATEGIC PLANNING ROOM
5119
SAN FRANCISCO, CA 94102-3214

Scott Logan
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ELECTRICITY RESOURCES AND PRICING
BRANCH ROOM 4209
SAN FRANCISCO, CA 94102-3214

SUSAN LEE
ASPEN ENVIRONMENTAL GROUP
235 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94104