BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company For a Certificate of Public Convenience and Necessity for the Northeast San Jose Transmission Reinforcement Project	)))))	A. 99-09-029

REPLY BRIEF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR

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I. INTRODUCTION

In accordance with CPUC Rule 75, the California Independent System Operator (CA ISO) respectfully files this reply brief in the above captioned case relating to the evidentiary hearings held September 4-7. On May 14, 2001, the California Public Utilities Commission (CPUC) granted the application by Pacific Gas and Electric Company (PG&E) for a Certificate of Public Convenience and Necessity (CPCN) to construct the Northeast San Jose Transmission Reinforcement Project (Northeast San Jose Project). Decision 01-05-059 at 88. The Commission selected the environmentally superior route identified in the Final Environmental Impact Report (FEIR) for the Northeast San Jose Project and ordered PG&E to prepare detailed cost estimates for the Project along the selected route. Id.

On August 14, 2001, Administrative Law Judge (ALJ) Thomas issued a ruling which established additional evidentiary hearings to address two issues: 1) whether the Northeast San Jose Project is still needed to provide electric service to the San Jose area in view of recent developments in Silicon Valley; and 2) the reasonableness and feasibility of PG&E's estimated costs for constructing the Project along the environmentally superior route adopted by the CPUC. August 14, 2001, Second Scoping Memo and Ruling of Administrative Law Judge, at 4-5. The CPUC confirmed the ruling in an August 27, 2001, Opinion Staying Decision 01-05-059. The CA ISO participated in the evidentiary hearings to present information on the on-going need for the Northeast San Jose Project.

The CA ISO concurs with the analysis on need set forth in PG&E's September 19, 2001 opening brief. The record from the September 4-7 hearings uncontrovertibly demonstrates that the Northeast San Jose Project continues to be needed. The CA ISO Grid Planning Criteria, which incorporate Western System Coordinating Council (WSCC) and North American Reliability Council (NERC) criteria, require that the grid system be capable of serving peak loads with the loss of a single transmission component (or a combined loss of one transmission line and one generator). Because it was not capable of serving peak load with a single transformer out of service, the transmission system in Northeast San Jose has been in violation of CA ISO Grid Planning criteria for the past two summers. This is true notwithstanding a recent significant reduction in load growth in the area, and a likely decline in peak loads during summer 2001.

Using any of the load projections put forward by PG&E during the September hearings, the Project will continue to be critically needed in the next several years. Even without load growth, the system will remain in violation of CA ISO Grid Planning Criteria and depending on whether and when load growth resumes in the area, demand could outstrip the ability of the transmission system in the area to serve peak load in normal conditions with all facilities in service within the next two to three years. Thus without the Northeast San Jose Project, within two to three years, involuntary curtailments could be required at peak times.

The Project remains needed notwithstanding new generation development in the area; the development that appears reasonably certain does not eliminate the need for the Project. Moreover, even if reasonably likely new generation could displace the need for the Project, which is not the case for the Northeast San Jose Project, before a decision

were made to defer the Project on the basis of new generation it would be important to compare the Reliability Must Run contract costs of such a deferral to the cost of the Project.

II. THE RECORD FROM THE SEPTEMBER 4-7 EVIDENTIARY HEARINGS UNCONTROVERTIBLY DEMONSTRATES THE CONTINUED NEED FOR THE NORTHEAST SAN JOSE PROJECT

A. The Northeast San Jose Project has been needed over the past two summers to eliminate violations of the CA ISO Grid Planning Criteria.

The CA ISO is required by state law to "ensure efficient use and reliable operation of the transmission grid consistent with achievement of planning and operating reserve criteria no less stringent than those established by the Western Systems Coordinating Council and the North American Electric Reliability Council." California Public Utilities Code § 345. To meet this responsibility, the CA ISO has adopted CA ISO Grid Planning Criteria. Exh. 601 at 2-3, see Exh. 604. CA ISO Grid Planning Criteria require that the transmission system be capable of serving load with the loss of a single transmission component (or a combined loss of one transmission line and one generator). See Exh. 601 at 2-3.

During its preparation for the September 4-7 hearings, the CA ISO did not have revised load forecasts from PG&E that took into account reductions in load over the summer from load in prior summers. Thus, the CA ISO undertook an analysis of the current load serving capability of the transmission system in San Jose with and without the Northeast San Jose Project, and in a number of different new generation scenarios. Exh. 607 at 2-3; Exh 607, Table 1. The purpose of this exercise was to determine the highest load level that could be served in San Jose without violating reliability criteria,

given different scenarios.[1] Exhibit 607 at 2. The studies indicated the system load serving capability under normal conditions (with all facilities in service) and with contingencies. See Exh. 607, table 1. To meet CA ISO Grid Planning criteria, the system would have to be able to serve peak load in any of the contingencies studied by the CA ISO and reported in Table 1 (loss of one transmission line, loss of one transformer, loss of one transmission line and one generator). See Exh. 601 at 2-3; and Exh. 605.

The results of the CA ISO studies indicate that to meet CA ISO Grid Planning Criteria, load in the Northeast San Jose area (as defined by the CA IS0)[2] could not exceed 1595MW (when the existing FMC peaking plant is operating) or 1545 MW (when the existing FMC peaking plant is not operating)[3]. See Exh. 607, Table 1. Moreover, the total load serving capability of the transmission system in Northeast San Jose under normal conditions (with all facilities in service) is 1886 MW (when the existing FMC peaking plant is operating) or 1825 MW (when the existing FMC peaking plant is not operating).[4] Id.

[1] To undertake its studies, the CA ISO required a load forecast to use as a base and to establish the distribution of load in the area. The CA ISO proportionally increased or decreased the substation loads and undertook power flow studies to test the limits of the system under various transmission and generation scenarios. The CA ISO used the load forecast from the PG&E 2001 Annual Transmission Expansion plan but adjusted the load for Silicon Valley Power (SVP). The CA ISO considered that the load forecast for SVP was unduly high in light of actual loads encountered in the area to date. Exh. 607 at 3-4. Since the CA ISO used the load forecast only as a starting point and to establish a distribution of load in the area, the adjustment to the SVP load has no effect other than to provide for a more even distribution of load in the cases studied by the CA ISO.

[2] At the hearings, CA ISO and PG&E witnesses explained that in undertaking studies in preparation for the hearings, the CA ISO reported a smaller area than that reported by PG&E. See Tr. (Green) at 1516-17; Tr. (Kozminski) at 1531-1533. Accordingly, load forecast figures presented by PG&E in its testimony cannot be translated directly to the load numbers set forth in the CA ISO studies as the CA ISO had intended. Instead, to roughly correlate the CA ISO numbers with the PG&E load forecast numbers, it is necessary to subtract 350 MW from the PG&E load forecast numbers. Tr. (Kozminski) at 1532.

[3] The limiting condition in the case of the San Jose transmission system is a single transformer outage.

[4] After conclusion of the hearings, in mid September, the CA ISO was forced to terminate the Reliability Must Run Contract for the FMC facility in light of a provision in the lease agreement for the plant, and the CA ISO understands that the facility will likely be removed.

Load in the San Jose area in 2000 reached 1870 MW. Exh. 607 at 5. This figure significantly exceeds the 1595 MW maximum load that can be served by the transmission system in San Jose without violating CA ISO Grid Planning Criteria. Moreover, the figure is dangerously close to the 1886MW limit of the system under normal conditions. In addition to addressing transmission facility overloads, the Northeast San Jose Project would improve voltages and increase the voltage stability margin in the South Bay, especially on the Newark 230 kV bus to which the Project will be connected. Exh. 600 at 10. In fact, on June 14, 2000, the CA ISO was forced to institute involuntary load curtailment in the Bay Area because unacceptably low voltages were observed. Exh. 607 at 5. The Northeast San Jose Project would likely have avoided or reduced these curtailments. Id.

Load in the San Jose area in 2001 is estimated to be somewhat below 2000 load. Exh. 607 at 5. PG&E witness Kozminski hazarded what he characterized as a very, very rough estimate for load in the area in summer 2001 at 2,100 MW. Tr. (Kozminski) at 1538. As described in footnote 2, to correlate PG&E load figures to CA ISO load serving capability figures it is necessary to subtract 350 MW from the PG&E load figures. This calculation yields a very rough estimate for a peak load in summer 2001 in the San Jose area of 1750 MW, a figure still well above the 1595 MW maximum load figure that can be currently served in the area without violating CA ISO Grid Planning Criteria.

Accordingly, the record demonstrates that the San Jose area has been in violation of the CA ISO Grid Planning Criteria for the past two summers, that the area was dangerously close to the system's load serving capability under normal conditions during summer 2001, and that involuntary load curtailments, that could have been

avoided or reduced by the Northeast San Jose Project, were in fact required on June 14, 2000.

B. Under any of the load forecasts presented by PG&E the Northeast San Jose Project is needed immediately to eliminate on-going violations of the CA ISO Grid Planning Criteria and will become necessary to meet load under normal conditions within the next several years.

PG&E ordinarily prepares its load forecasts based on seven years of historical peak load data. Exh. 26 at 19. To present a range of possible load forecasts to the Commission, PG&E prepared two additional load forecasts for the hearings in September: 1) a medium forecast which assumed that load will remain at the year 2001 level throughout the rest of 2001, and would begin rising again in 2002 from this lower base line at the historic 4% load growth; and 2) a low forecast which assumed that load will remain at the year 2001 level throughout the rest of 2001, and would begin rising again in 2002 from this lower base line at a more modest 2.5% rate through 2003, before resuming historic growth rates. Exh. 26 at 20. PG&E testified that assuming the modest forecast, the area would remain in violation of CA ISO Grid Planning Criteria and that load would exceed the load serving capability of the system under normal conditions (with all facilities in service) by 2003. Exh. 26 at 21. PG&E testified that, even assuming the low forecast, the area would remain in violation of CA ISO Grid Planning Criteria, and that load would exceed the load serving capability of the system under normal conditions (with all facilities in service) by 2004. Id.

Since the system currently violates CA ISO Grid Planning Criteria, PG&E's finding that violations will continue is not surprising. Assuming no new generation, to eliminate violations, load would have to decrease further in the future rather than to grow.

Moreover, any growth in load brings load precariously close to the load serving capability of the system under normal conditions.

C. Projected new generation does not eliminate the need for the Northeast San Jose Project.

The CA ISO studies assessed the impact on the load serving capability of the system in San Jose of new generation that is currently proposed. Exh. 607 at 6-9; Exh. 607 Table 1. The results of these studies demonstrate that possible development of new generation in the San Jose area does not justify a determination that the Northeast San Jose Project is not needed.

In undertaking transmission planning, PG&E only considers generating units that have been permitted by the California Energy Commission (CEC) and for which the CA ISO has reviewed and approved the facility siting plan. Tr. (Kozminski) at 1529. The practice of considering only plants that have been permitted is a standard industry practice, is accepted by the CA ISO and the Western Systems Coordinating Council, and tends to match up fairly well with the projects that do in fact come on line. Tr. (Dasso) at 1550. This practice is further supported by the fact that both the CA ISO and PG&E in reviewing the need for transmission upgrades assume that all existing generation will remain in service. See Exh. 26 at 19.

At the time the hearings were held, the only two proposed generating plants in the area that had been permitted by the CEC were Gilroy 1 and Moss Landing[5]. Exh. 26 at

[5] Since the conclusion of the hearings, the CEC permitted the Metcalf Energy Center on September 24, 2001. However, the CA ISO studies show that without transmission system upgrades, the Metcalf Energy Center will decrease rather than increase system load serving capability in San Jose by 48 MW in normal conditions or 80 MW in the case of a single transformer outage. See Exh. 607 at 7.

27. Both these Projects are south of downtown San Jose. Ms. Green testified that "the net impact of planned generation additions south of downtown San Jose is not to decrease the need for the Project but instead to likely make the Project even more necessary." Exh. 607 at 8.

The CA ISO did not directly study the impact of Moss Landing, most likely because it was felt to be too far removed to be of assistance in Northeast San Jose. The CA ISO did study the impact of the addition of the Metcalf Energy Center and found that it would decrease rather than increase the load serving capability of the system because it would increase the loading on the Metcalf 230/115 kV transformers. Exh. 607 at 7. PG&E testified that the Moss Landing project too would have to pass through the Metcalf substation transformers. Exh. 26 at 28. Accordingly, it is safe to conclude that like the Metcalf Energy Center, the Moss Landing project would reduce rather than increase the system load serving capability in Northeast San Jose.

The CA ISO also studied the impact of the 146MW Gilroy peaker project. Adding this project would increase loadings on the 115 kV transmission lines in South San Jose, but would nonetheless slightly increase the system load serving capability to 1930 MW under normal conditions and no more than 1665 to 1678 MW with contingencies. Even with this improvement however, the system in San Jose would have been in violation of CA ISO Grid Planning Criteria this summer as even depressed peak loads were in the vicinity of 1750MW. Any load growth would exacerbate the problem.

The CA ISO agrees with PG&E that, in accordance with industry practice, all other generating units proposed in the San Jose area are too speculative to be considered in determining whether the Northeast San Jose Project is needed. In any event, only two

of the several proposed power plants are proposed to locate in the downtown San Jose area, where they would be of most help. Of these only one, the Calpine C* Power Los Esteros Critical Energy Facility (C* Power facility), is in the permitting process; the other, a 200 MW plant in Milpitas has not yet even applied for permit. Exh. 607 at 8. If built the C* Power facility would add 152 MW of load serving capability to the system and allow for up to 1747 MW of load in the San Jose area without reliability criteria violations. Exh. 607 at 8; Exh. 607, Table 1. Thus, the C* Power facility, which is unduly speculative to be relied on, would in any event barely provide for compliance with CAISO Grid planning Criteria at the depressed load levels of 2001. Any load growth would result in renewed criteria violations. If both C* Power and the Gilroy facilities were built the system could escape criteria violations but only so long as load in the San Jose area remains largely flat (at 2001 levels) and only if existing and new peaking generation remains available in peak times. Even with both the Gilroy and C* Power facilities, a return to 2000 load levels (1870 MW) would cause criteria violations in the Northeast San Jose area.

Moreover, without the Northeast San Jose Project, the CA ISO would likely require Reliability Must Run (RMR) agreements with any generation that develops in the San Jose area to ensure that generating units are available when needed for local area reliability, and the cost of such agreements would be millions of dollars. Exh. 607 at 9. In addition, even with new generation, the Northeast San Jose Project could become needed in the San Jose area within several years. Id.

The discussion above illustrates the critical need for the Northeast San Jose project. The Project was urgently needed in 2000. Lower than expected loads in 2001

forestalled significant reliability problems in the San Jose area during peak periods in 2001. However the area remained in violation of CA ISO Grid Planning Criteria and would remain in violation of such criteria even assuming no load growth at all and the addition of those proposed generating plants that, in accordance with well established utility planning practice, are sufficiently certain to merit serious consideration. Any resurgence in load, or outages or retirements of existing generation would exacerbate criteria violations, and could result in involuntary load curtailments such as those that occurred in June 2000.

III. CONCLUSION

The Northeast San Jose Project remains urgently needed to maintain reliable electric service in the San Jose area. The CA ISO urges the CPUC to expeditiously reaffirm its finding that the Project is needed and its grant of a CPCN for the Project so that PG&E can once again proceed with project construction.

Respectfully submitted October 1st, 2001, by:

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