Exhibit No.: _________________
Commissioner: Loretta M. Lynch
Administrative Law Judge: Peter Allen
Witness: Armando J. Perez and Stephen Thomas Greenleaf

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Conditional Application of PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) for a Certificate of Public Convenience and Necessity Authorizing the Construction of the Los Banos-Gates 500 kV Transmission Project	Application 01-04-012

REBUTTAL TESTIMONY OF ARMANDO J. PEREZ, STEPHEN THOMAS GREENLEAF AND KEITH CASEY ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR

Submitted by the California Independent System Operator

Jeanne M. Solé, Regulatory Counsel
Charles Robinson, Vice President and General Counsel
California Independent System Operator
151 Blue Ravine Road
Folsom California 95630
Telephone: (916) 351-4400
Facsimile: (916) 608-7296

November 15, 2001

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Conditional Application of PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) for a Certificate of Public Convenience and Necessity Authorizing the Construction of the Los Banos-Gates 500 kV Transmission Project	Application 01-04-012

REBUTTAL TESTIMONY OF ARMANDO J. PEREZ, STEPHEN THOMAS GREENLEAF AND KEITH CASEY ON BEHALF OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR

Submitted by the California Independent System Operator

Q. Please state your names, employer, positions, duties and qualifications.

A. Our names are Armando J. Perez, Director of Grid Planning of the California Independent System Operator Corporation (CA ISO), Stephen Thomas Greenleaf, Director of Regulatory Policy in the Corporate and Strategic Development Department of the CA ISO, and Keith Casey, Manager of Market Analysis and Mitigation in the Department of Market Analysis of the CA ISO. Our qualifications were submitted with our opening testimony in this case.

Q. On whose behalf are you submitting this testimony?

A. We are submitting this testimony on behalf of the CA ISO.

Q. What is the purpose of your testimony?

A. The purpose of our testimony is to respond to the Office of Ratepayer Advocates (ORA) Report on the Path 15 Project filed on November 8, 2001 in this matter (ORA Report). The conclusions in the ORA Report rest on a view that, rather than proactively ensuring that the necessary infrastructure and market conditions exist to support an effectively competitive market, California should allow conditions that permit the exercise of market power to persist, relying indefinitely on regulatory intervention by the Federal Energy Regulatory Commission (FERC) to prevent consumers from being harmed by state inaction. We believe this approach is short-sighted and respectfully suggest, that instead, California must take proactive steps, such as upgrading Path 15, to address infrastructure conditions that permit the exercise of market power.

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

A. Yes. Unless indicated otherwise, we use capitalized terms as defined in CA ISO Tariff Appendix A: Master Definitions Supplement.

Q. Have you reviewed the ORA Report?

A. Yes.

Q. Do you agree with ORA's conclusions?

A. No.

Q. Can you summarize why you disagree with ORA.

A. Yes. We will address a number of the criticisms by ORA of our opening testimony in turn. Before doing so two matters bear mentioning up front. First, there is a fundamental difference in views between the testimony of the CA ISO and that which is reflected in the ORA Report. The ORA Report appears to condone state inaction in the face of infrastructure deficiencies that create opportunities for suppliers to exercise market power based on the premise that regulators will intervene to prevent such exercise of market power. ORA's premise is contrary to the state's recent initiatives to identify and facilitate necessary upgrades to the energy infrastructure in California such as those that resulted from Assembly Bill 970. In addition, it is contrary to the express intent of FERC in adopting temporary measures to mitigate the exercise of market power only until infrastructure and market deficiencies are corrected. In contrast, the CA ISO believes that state and federal entities must work together to eliminate the infrastructure deficiencies and market imperfections that give rise to the exercise of market power, relying on regulatory intervention and the imposition of price mitigation measures in the interim to prevent undue harm to consumers or in the case of highly localized problems as we will explain in more detail below.

Second, ORA suggests that the CA ISO has used unduly pessimistic assumptions in an attempt to make an upgrade to Path 15 appear economic. This is untrue. The CA ISO will respond to this contention in detail in the context of responding to the specific criticisms of ORA. Generally, reasonable assumptions underlie our conclusion regarding the cost-effectiveness of Path 15 and are based on a realistic (rather than optimistic or pessimistic) assessment of conditions, informed by the CA ISO’s experience. We did consider the savings from conservative worst-case scenarios to support our conclusions. However, we believe that use of conservative assumptions is appropriate since prudent transmission planning requires consideration of conservative scenarios to ensure a robust and reliable electricity system and competitive market environment.

The CA ISO's response to specific ORA criticisms can be summarized as follows:

- it is imprudent to rely indefinitely on regulatory intervention to address a significant infrastructure deficiency, such as the limited capacity over Path 15, that gives rise to undue supplier market power;
- the CA ISO’s conclusion that an upgrade to Path 15 is justified properly assumes a one in ten year drought hydro scenario;
- the CA ISO's assumption about the availability of transmission capacity subject to Existing Transmission Contracts (ETCs) is justified and based on current experience;
- the CA ISO did not assume the elimination of existing state contracts or that generation would materialize primarily in Southern California, but rather pointed out that there is uncertainty associated with these factors and the range of risk associated with unfavorable conditions.

Q. ORA criticized the CA ISO for assuming that any current reduction in market power abuse is temporary, and argues that FERC would only lift current mitigation measures that limit the ability of suppliers to exercise market power "if it was evident that the market was ready and that consumers were protected.” ORA Report at 10. What is your response to this criticism?

A. As an initial matter it bears clarifying that our study does not assume that suppliers will exercise market power in all circumstances. Instead, our study determines the circumstances in which suppliers would be able to exercise market power and assumes that in these circumstances, suppliers will exercise market power.

More directly, ORA's argument is circular. It states that FERC will not lift mitigation measures that restrain generators from exercising market power until the market and consumers are protected, but then argues against an important step that would ensure that the market and consumers are protected. In essence, ORA is arguing for a prolonged game of "chicken" between the state and the FERC, in which, failing to take actions that are within the state's jurisdiction to eliminate the opportunity for suppliers to exercise market power, the state at the same time insists to FERC that it cannot lift market mitigation measures because market power remains. This approach is short-sighted.

FERC has indicated clearly that it expects its mitigation measures to be in effect temporarily while steps are taken to eliminate the conditions that allowed suppliers to exercise market power. For example, in its April 26, 2001 Order Establishing Prospective Mitigation and Monitoring Plan for the California Wholesale Electric Markets and Establishing an Investigation of Public Utility Rates in Wholesale Western Energy Markets (95 FERC 61,115)(April 26 Order), FERC stated that its plan would be in place for one year, and stressed "Reliance on mitigation should not supplant or slow down efforts to add generation as well as develop more effective market mechanisms, and terminating this mitigation plan in a year will help ensure that all parties work to achieve these goals." April 26 Order at 25.

More recently, in its June 19 Order on Rehearing of Monitoring and Mitigation Plan for the California Wholesale Electric Markets, Establishing West-Wide Mitigation, and Establishing Settlement Conference (95 FERC 61,418)(June 19 Order), FERC noted its view that many of the steps that must be taken to address the crisis are in the hands of California;

> We emphasize that the rate mitigation prescribed in this order is part of a series of steps the Commission has taken to remedy dysfunctions in the California wholesale power markets. However, as we recognized in our first remedial order on December 15, 2000, many of the critical remedies that need to be taken fall either wholly or in part within the jurisdiction of the State of California. In particular, the consummation of additional long-term wholesale contracts, the development of demand side response signals, the siting of new generation and transmission, and the construction of intrastate natural gas delivery infrastructure are critical to remedying the current market dysfunctions and are dependent on State action. We recognize the significant progress that California has made thus far and urge further implementation of these critical measures. June 19 Order at 9.

Further in this order, FERC again stressed the temporary nature of its mitigation measures: "The purpose of instituting this dual plan is to stabilize the market in the short-term and permit California time to repair its market mechanisms. . . . The mitigation plan established in this order, in effect, provides breathing room for the markets to right themselves." June 19 Order at 23.

It is clear, therefore, that in adopting temporary mitigation measures, FERC intended to give the state of California time to put into place the infrastructure and market improvements necessary to support an effective competitive market. It did not intend the state to rely on the mitigation measures indefinitely, and to explicitly decline to put into place infrastructure necessary to support a healthy competitive market because it expected FERC to maintain indefinitely the current regulatory mechanisms to check the exercise of market power.

Moreover, so long as a competitive wholesale market remains the objective, and to date, FERC has clearly indicated that it does, it is important to put into place the infrastructure needed to support a competitive market. The CA ISO does recognize that a balance must be struck between infrastructure upgrades and regulatory intervention. For example, the CA ISO does not believe that it would be appropriate to upgrade the transmission system in all cases, and at all levels any time a failure to do so creates an opportunity to exercise market power. To the contrary, in the case of local transmission system limitations or constraints, the CA ISO has been supportive of permanent mechanisms to ensure that reliability can be maintained at reasonable prices, for example through the use of Reliability Must Run (RMR) Contracts or some type of bid mitigation. It would be inefficient and prohibitively expensive to build a transmission system so robust that there would be no constraints in any location requiring access to services from particular resources under particular circumstances. Moreover, the CA ISO's experience indicates that local constraints can be addressed through the right to call on particular units or load for determined numbers of hours to maintain local reliability.

In contrast, backbone system constraints such as the limitation over Path 15 preclude effective operation of the competitive market on a statewide/regional basis. To solve these types of constraints, much more dramatic on-going protections would be required such as the market wide mitigation measures currently in place, or at a minimum, the ongoing imposition of mitigated prices in high load periods in affected zones. We consider that where an infrastructure limitation gives rise to the need to impose broad market-wide mitigation measures to prevent the exercise of market power it is prudent to correct the infrastructure deficiency rather relying on an on-going and prevalent regulatory intervention in the market.

In fact, the state of California has already recognized that it cannot rely on regulatory intervention to remedy the effects of a supply/demand imbalance and an undue reliance on spot markets by load-serving entities, conditions that were largely implicated in the ability of generators to exercise market power over the past year. Moreover, through the expedited generation siting program and the focus on identifying and addressing transmission constraints set forth in Assembly Bill 970, the state has also recognized the need to facilitate the transmission and generation infrastructure improvements required to create the conditions necessary for a robust and competitive energy market. ORA’s recommendation is contrary to this trend.

In sum, we consider that ORA's suggestion that rather than upgrade Path 15, the state of California should rely on ongoing market mitigation measures by FERC to address market power concerns created by limited capacity over Path 15, is short-sighted. Moreover, this approach is contrary to the FERC's clear and unambiguous pronouncements that the market mitigation measures are temporary mechanisms to give California time to make the investments in infrastructure and market changes necessary to support a competitive market and that California should not refrain from these activities based on a premise that FERC will maintain indefinitely market mitigation measures.

Q. Do you have a response to ORA's suggestion that the CA ISO made unduly pessimistic assumptions about the number of drought years in order to justify the Path 15 Upgrade?

A. Yes. Contrary to what ORA implies, our testimony states that it is appropriate to assume draught years with a frequency of one in ten years -- our opening testimony states "[w]e believe that it is very plausible to assume ... that drought conditions will materialize with a one-in-ten year probability, as they have in the past." Testimony of Armando J. Perez, Stephen Thomas Greenleaf and Keith Casey on Behalf of the California Independent System Operator (CA ISO Opening Testimony) at 7. Our conclusions are based on this assumption.

ORA's suggestion that a more pessimistic assumption regarding drought years is necessary to justify the cost of the Path 15 Upgrade is premised on other ORA assumptions (discussed below), and particularly, on a view that the market will have full access to transmission currently subject to existing contracts. The CA ISO's view that a Path 15 Upgrade would pay for itself within one draught hydro year and three normal years is premised on the cost savings available if it is assumed that in conditions where they are able to do so, suppliers will exercise market power, that transmission capacity subject to ETC will not be fully available in forward markets, that long term contracts will remain in place and that generation will develop evenly between Northern and Southern California. As described in more detail below, these are reasonable assumptions, neither unduly pessimistic nor unduly optimistic. Using these reasonable assumptions, in a drought year, the savings are $205 million dollars or two thirds of the project cost and, in a normal year, the savings are $104 million. Thus, even in a normal year, the savings significantly exceed ORA's estimate of the annualized costs of the Project of $50 million dollars.

In fact, recognizing that some ETCs expire in 2005, our conclusion that the Path 15 Upgrade would pay for itself in one drought and three normal years assumed that only one half of the existing ETC capacity would remain unavailable to the market (otherwise we would have concluded that the project would pay for itself in one drought year and a little over one normal year). A rough estimate of the annual savings of the Path 15 Upgrade with half the capacity subject to ETCs unavailable can be obtained by dividing by two the difference between the savings in the ETC unavailable case and the ETC available case, and adding the results to the savings in an ETC available case (for a drought year $134 million – ($205-$62)/2 + $62 -- and for a normal year $67 million -- ($104-$31)/2 + $31). Thus, even assuming that only half of the ETC capacity will be available to the market, the Path 15 Upgrade savings still exceed ORA's estimate of annualized costs of the Project in both normal and drought years. Thus, ORA's claim that it is necessary to assume significantly more than a one-in-ten year drought scenario only holds true if an unduly optimistic assumption is made about the availability of transmission capacity subject to ETCs.

Q. Do you have a response to ORA's view that it is unduly pessimistic to assume that transmission capacity subject to ETC will remain unavailable to the market?

A. Yes, several. First, as described earlier above, in arriving at our conclusions, we assumed that only half the capacity currently subject to ETCs would remain unavailable to reflect the fact that some ETC contracts will expire in 2005. Second, the CA ISO has advocated and will continue to advocate before FERC and with the owners of ETCs for a mechanism to make available to the forward electricity markets unused transmission capacity subject to ETCs. However, despite the CA ISO's best efforts, the issue persists and has persisted since CA ISO start up. While the CA ISO hopes that the issue will be addressed expeditiously, and will continue to urge the relevant policy-makers to do so, we believe that it is naive to assume that an issue that has persisted since start up will miraculously disappear.

Q. Do you have a response to ORA's suggestion that the CA ISO used unduly pessimistic assumptions about the development of generation and the continued existence of state contracts?

A. Yes. The CA ISO made realistic assumptions as to both of these issues. The CA ISO assumed that generation would develop evenly throughout the state, and that state long term contracts would continue to exist. However, the CA ISO pointed out that there is uncertainty associated with the development of generation and the continuation (at least in their current form) of state contracts, and that there are significant potential savings available if developments related to these two items are less favorable than the CA ISO assumed.

As described earlier, in concluding that the Path 15 Upgrade would pay for itself within one drought year and three normal years, the CA ISO assumed that generation would develop evenly throughout the state. The CA ISO did not suggest that more generation is more likely to develop in the South than in the North, but noted that if this happened, the savings from the Project would be even more significant (ranging from $69 million per year to $1,304 million per year depending on the other assumptions that are made). Of course, if more generation develops in Northern California than Southern California the converse is true (savings would range from $12 million per year to $137 million per year). These figures provide a range of the relative risks associated with generation development. Even if there is a low level of risk that a disproportionate level of generation will develop in Southern California, it is worth noting that there could be a high cost associated with this risk absent an upgrade to Path 15.

ORA states that it is unrealistic to assume that more generation will develop in Southern rather than Northern California, arguing that the California Power Authority and the California Public Utilities Commission will ensure that adequate generation will develop in Northern California. Again, the CA ISO assumed even development throughout the state. Moreover, the CA ISO must note that there continues to be uncertainty regarding the role of and funding available for the California Power Authority. Thus, in making its assumptions about new generation development, the CA ISO relied on the best existing information on proposed new generation in Northern and Southern California through the year 2005. Nonetheless, the high cost of a less favorable outcome is instructive.

The same is true with regards to the existence of state long term contracts. In reaching its conclusions, the CA ISO assumed that the state's long term contracts would remain in place. Nonetheless, the CA ISO pointed out that there would be significant additional savings from a Path 15 Upgrade if this does not turn out to be the case. We considered that while it is appropriate to make realistic assumptions, it is also appropriate to understand worse case scenarios in making investment decisions.

In sum, in reaching conclusions regarding the cost-effectiveness of Path 15, we made reasonable assumptions. We did not rely on more pessimistic assumptions but did take note of them to understand the extent of the potential downside to California end use customers if Path 15 is not upgraded. This approach is prudent.

More fundamentally, we assumed that where infrastructure limitations provide the basis for the system-wide exercise of market power, it is important to make the upgrades necessary to rectify the situation. The state of California has recognized this concept with regards to the supply/demand imbalance and the need for long term contracts, and should do so similarly in the context of significant regional transmission constraints such the limited capacity over Path 15. ORA in contrast appears to favor unduly optimistic assumptions and ongoing reliance on market mitigation mechanisms that the FERC has clearly and repeatedly indicated are temporary in nature and intended to give California time to make the infrastructure and market improvements necessary to support a competitive market.

Q. Thank-you. I have no further questions.