BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Refinements to and Further Development of the Commission's Resource Adequacy Requirements Program.	Rulemaking 05-12-013 (Filed December 15, 2005)

PROPOSAL OF MIRANT CALIFORNIA, LLC, MIRANT DELTA, LLC AND MIRANT POTRERO, LLC REGARDING LOCAL RESOURCE ADEQUACY REQUIREMENTS

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Pursuant to Decision 05-10-042 issued by the California Public Utilities Commission ("Commission"), and the extension of time granted by the Commission's Executive Director on December 14, 2005, Mirant California, LLC, Mirant Delta, LLC and Mirant Potrero, LLC ("Mirant") submit the attached Proposal Regarding Local Resource Adequacy Requirements.

Mirant appreciates the opportunity to present this proposal and looks forward to working with the Commission and interested parties in this proceeding.

Respectfully submitted,

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Mirant Proposal Regarding
Local Resource Adequacy Requirements

R.05-12-013

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Pursuant to Decision 05-10-042 issued by the California Public Utilities Commission ("Commission"), Mirant California, LLC, Mirant Delta, LLC and Mirant Potrero, LLC ("Mirant") provide the following proposal regarding local resource adequacy requirements ("Local RAR") for load-serving entities ("LSEs") in California. This proposal builds upon the Local RAR proposal that Mirant presented in last year's Phase 2 resource adequacy workshops.

1. Introduction

A Local RAR element is a critical component of the Commission's overall resource adequacy requirements ("RAR") program. Effective Local RAR will ensure that sufficient generation resources are available in local reliability areas when needed, thereby enabling LSEs to serve their customers, and assisting the California Independent System Operator ("CAISO") in maintaining the reliability of the transmission system.

The most effective way to achieve the goals of Local RAR in California is to establish a locational capacity market that relies on a non-vertical demand curve. A well-designed locational capacity market would support the Commission's overall RAR program, facilitate Commission control over Local RAR costs, and provide needed incentives for new resources and transmission, thereby ensuring that sufficient generation will be available in local reliability areas when needed.

In approaching this task, California should look to the experience gained in the capacity markets that have been established in the Eastern states. Capacity markets in place or being implemented in those markets all use some form of a downward sloping demand curve. The methodology used in the capacity market administered by the New York Independent System Operator ("NYISO") has been in place for more than three years, and has proved to be effective so far. Other regional transmission operators such as the New England Independent System Operator ("ISO-NE") and the PJM Interconnection ("PJM") are implementing modified versions of New York's demand curve mechanism. California should take the opportunity to use and benefit from the NYISO's experience and the methodologies determined for the ISO-NE and PJM capacity markets. Whatever the differences among these individual markets, they all offer the advantage of an "entrant price" using Long-Run Marginal Cost set either administratively or by appropriate market signals, with a downward sloping curve to

accommodate changes in the availability of supply. This methodology has proven to be a viable approach to setting the goals for a capacity procurement process.

This proposal is divided into the following parts:

- Section 2 explains generally why adoption of a locational capacity market mechanism using a downward sloping demand curve makes sense for California, and how it will address the implementation and coordination issues that are inherent in Local RAR.

- Section 3 outlines the essential elements of a capacity market solution, and proposes a process for implementation that consists of: (1) issuance of a formal Commission policy recommendation in June 2006; (2) a collaborative process involving the CAISO and stakeholders to make the necessary factual determinations; and (3) preparation and submission of a comprehensive proposal to the Federal Energy Regulatory Commission ("FERC") for approval.

- Section 4 provides comments on a possible interim Local RAR solution that could be put in effect pending implementation of a capacity market.

2. Why A Capacity Market Offers The Best Solution

A locational capacity market structure that uses a downward sloping demand curve makes sense for California for a number of reasons.

First, this mechanism is supported by the Energy Division's analysis and recommendations in its August 25, 2005 Capacity Markets White Paper ("Staff White Paper"). The Staff White Paper recommends that California "adopt a short-run capacity market approach with a downward sloping capacity-demand curve for the CAISO."[1] The Staff White Paper explains that the New York Public Service Commission ("NYPSC") and the NYISO developed the downward scoping demand curve design as a way to provide price stability, address market power concerns and provide a more stable revenue stream for resources.[2] The Staff White Paper explains that use of a downward sloping curve in New York has stabilized price and revenue streams for suppliers, and is being adapted for use in the ISO-NE and PJM markets.[3] The Staff White Paper further recommends adoption of "reasonable locational installed capacity requirements with locally varying demand curves" as a way to address the need for Local RAR.[4] The Staff White Paper explains that "a locational capacity market (one that includes locational

[1] Staff White Paper at 40.
[2] *Id.* at 29.
[3] *Id.* at 31-34.
[4] *Id.* at 40.

demand curves) can complement and reinforce the locational energy price signals to ensure generation locates where it is needed and not in areas that are inaccessible to load."[5]

Second, based on experience in New York, the demand curve mechanism is relatively mature and tested, and has proven to be capable of resolving local capacity requirements.[6] California therefore has an opportunity to benefit from "lessons learned" in the Eastern markets, and to apply those lessons early in the implementation process, rather than after years of experimentation with a new, untested model for Local RAR. The opportunity to start from a proven model and to build on the experience of the NYISO, ISO-NE and PJM would simplify the implementation process for California, and greatly enhance the likelihood that the outcome will successfully achieve the goals of Local RAR. The similarities between California and New York – both are large states with a single-state transmission system operator that rely heavily on imported resources and hydroelectric generation – also suggest that some version of the New York demand curve model could be adapted successfully for use in California.

Third, adopting a downward sloping demand curve for pricing capacity implicitly resolves many of the implementation and coordination issues that are inherent in Local RAR. The very nature of Local RAR presents a number of challenges that must be resolved to ensure a fair, open and transparent process that provides appropriate incentives for maintaining existing resources and developing new resources (including generation, load response and transmission) within local areas. These challenges, and the manner in which they can be addressed through a capacity market solution, are discussed below.

a) Transmission Alternatives. The need for resources in specific locations is the result of insufficient transmission capacity into the area. This need could be met through construction of new resources, or the construction of new transmission capacity that provides access to other generating resources outside the area. One set of challenges facing a Local RAR mechanism is assuring that price benchmarks for new transmission or generation resources are established to facilitate evaluation of alternatives. When considering transmission alternatives, the mechanism must also be able to confirm that sufficient generation is available outside the local area to serve load requirements. A capacity market construct addresses this by setting the cost of local capacity in the demand curve process, thereby creating a benchmark that is available to factor in local capacity costs (as well as congestion costs) in evaluating potential transmission projects.

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[5] *Id.* at 24.

[6] Third Annual Compliance Report on Implementation of the ICAP Demand Cure and Withholding Behavior Under the ICAP Demand Curve, filed at FERC in Docket No. ER03-647-000 on January 3, 2006 ("NYISO 2005 Compliance Report") at 10-11.

Transmission expansion that changes local generation requirements would reduce or eliminate Local RAR.

b) Market Power. A Local RAR mechanism must address both seller market power and buyer market power. In areas where all generation is needed or where one or more suppliers are pivotal, some mechanism may be needed to mitigate the exercise of market power. Likewise, a mechanism may be needed to mitigate buyer market power. A single large LSE can exercise market power against sellers interested in providing Local RAR resources, or against competing LSEs if it controls all the resources within an area. A capacity market mechanism provides the optimal solution available for this problem. Market power mitigation is a primary feature of sloping demand curve mechanisms. The combination of the pre-set price and sloping demand curve virtually eliminates the ability of resource owners to impact prices through physical or economic withholding. This conclusion was a key point in the Staff White Paper, where Staff observed that "a capacity market may have the ability to almost eliminate market power," thereby providing a solution that is preferable to mitigation measures such as those currently used in energy markets.[7] The NYISO also has reported that it has not observed any significant economic or physical withholding in its capacity markets since the May 2003 implementation of its downward sloping demand curve mechanism.[8]

c) Resource Reallocation. It is also possible that an LSE will control resources in local areas that it does not need to serve its own load, whether through previous commitments or changes in load served. The Local RAR mechanism must include some process for these resource imbalances to be reallocated. A capacity market addresses this by offering auctions for local capacity. By offering capacity into local capacity auctions, LSEs would be able to recover the local capacity value of resources they do not need to meet their requirements from LSEs that do need the Local RAR capacity.

d) Free Riders. If some LSEs provide more resources than they need, the Local RAR requirement could be met even if other LSEs are not carrying their fair share. In a capacity market, all LSEs are obligated to pay for Local RAR capacity based on their load obligations. There are no free riders.

e) Small Requirements. A small LSE serving load within a load pocket could have Local RAR that are too small to be commercially attainable or

[7] Staff White Paper at 21.

[8] 2005 NYISO Compliance Report at 12.

physically dispatchable. A capacity market resolves this problem by providing a mechanism for the acquisition of small amounts of capacity. Because Local RAR capacity can be acquired through the capacity market clearing mechanism, small requirements can be met without transacting directly with individual resources.

f) Jurisdictional Balance. Any approach to Local RAR presents some potential confusion or conflict between FERC's jurisdiction over transmission and the Commission's jurisdiction to establish and oversee RAR for LSEs. A capacity market mechanism provides a way of balancing these roles. In a capacity market construct, FERC exercises its responsibility for regulating transmission and wholesale energy pricing, while the Commission establishes local capacity requirements. Balance and operation of the resource adequacy process thus can be overseen by both entities. This is consistent with other regions and has been acceptable to state and federal regulators, including in the context of the NYISO market. The Staff White Paper also notes that a capacity market "provides an effective means for the Commission to monitor and enforce compliance with its [RAR]."[9]

g) Cost Allocation. Local RAR will probably result in LSEs incurring different costs depending on where their customers are located. Under the current cost allocation mechanism the state's investor-owned utilities do not differentiate prices on a locational basis. Location-specific costs such as reliability must-run costs are allocated to all customers (bundled and direct access) through reliability service charges. Capacity markets provide a transparent means of calculating reliability service charges (if the Commission chooses to continue that approach) by establishing a clearing price for locational capacity. Alternatively, locational differences in Local RAR costs could be allocated to LSEs based on the location of the load they serve. Either cost allocation mechanism is compatible with a capacity market mechanism.

h) Regulatory Certainty and Stability. As pointed out in the Staff White Paper, California needs to demonstrate a reasonable amount of regulatory certainty to increase investor confidence and facilitate new resource development. Adopting a Local RAR mechanism that is reasonably consistent with the process that has been used in NYISO and other Eastern markets should eliminate much of the concern about the workings of California's program. NYISO's compliance report filed with FERC earlier this month shows that a stable capacity market mechanism can

[9] Staff White Paper at 24.

improve investor confidence and be accounted for in project valuation.[10] Establishing a capacity market that is based on an accepted model would enhance potential investors' confidence in California. Such confidence is critical if California is to attract the investment needed to ensure that adequate new resources are built and brought into operation in time to meet growing demand.

3. Elements Of A Capacity Market Solution And Process For Implementation

Based on the foregoing, a capacity market should be adopted in California that has the following essential characteristics:

- The market should utilize a downward-sloping demand curve to provide for stable capacity pricing and mitigate market power.
- The demand curve price should be tied to the cost of new entry and offset for energy market rents to allow a competitive energy market to develop and offset capacity market payments.
- The demand curve should be calibrated to facilitate full cost recovery at or slightly above the desired resource level, *e.g.*, 115-117% of summer peak load.
- Separate locational demand curves should be used for Local RAR purposes, based on the relative costs of building generation in local areas.
- Local RAR capacity should apply to an LSE's overall RAR.
- Only resources participating in the capacity market should retain a must-offer obligation.
- The capacity market mechanism should be administered by the CAISO and implemented through the CAISO's tariffs and protocols.

The Commission has the ability to move forward quickly to implement a capacity market that has the foregoing characteristics. The record developed in the resource adequacy portion of R.04-04-003, which includes the proposals presented in last year's workshop process and the Staff White Paper and associated comment materials, supports that effort and is fully available in this proceeding. The Commission also has the ability to draw on studies and reports analyzing the effectiveness of New York's capacity

[10] NYISO 2005 Compliance Report at 10-11 (citing increased anecdotal evidence that the demand curve mechanism has facilitated and encouraged the sale or transfer of existing generation assets, based in part on investors' growing willingness to credit the capacity demand curve for some level of revenues in long-term market projections).

market. This background will allow the Commission to proceed toward implementation of a capacity market that could be in place in time to support Local RAR for compliance year 2008.

Mirant recommends that the Commission proceed with a three-step implementation process. As an initial step, the Commission should issue a decision in this proceeding by June 2006 that presents a formal policy recommendation concluding that a capacity market with the essential elements listed above is the appropriate mechanism for backstopping and benchmarking LSEs' resource adequacy compliance.[11] As explained in the Staff White Paper, a capacity market mechanism will encourage and facilitate bilateral transactions and self-provision of capacity, though LSEs could choose to acquire all or part of their RAR through the short term capacity market.[12]

The second step in the process will be to resolve several key factual issues that are essential to successful implementation of a capacity market. The factual issues should be addressed through a collaborative process involving the Commission, the CAISO and stakeholders either concurrently with development of the Commission's formal policy recommendation, or immediately after it is issued. The necessary factual determinations will include the following.

a) Define Local RAR area boundaries and requirements. The appropriate reliability metric is a factual issue. Given the CAISO's role as the entity responsible for ensuring system reliability, its Local RAR assessment proposal should serve as the starting position for this finding. Parties that object should be required to demonstrate that the CAISO's proposal is not appropriate.

b) Establish new entrant pricing/new resource cost benchmarks. Developing appropriate new resource cost levels is an important step, but one that is well documented. For example, the Levitan Study prepared for the NYISO in 2004 provides an excellent framework for state-wide and regional analysis.[13] IEP's Reliability Capacity Services Tariff ("RCST") filing with FERC also provides information and guidance on this issue.[14]

c) Develop demand curve shapes and parameters for each local area. Different demand curve shapes may be appropriate for different local areas based on criteria such as expected load growth rate, the percentage of local generation needed to meet Local RAR, and other considerations.

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[11] This is supported by conclusions in the Staff White Paper. *See e.g.,* Staff White Paper at 18.

[12] Staff White Paper at 25.

[13] Independent Study to Establish Parameters of the ICAP Demand Curves for the New York Independent System Operator, Levitan and Associates, August 16, 2004

[14] *See* Complaint of Independent Energy Producers Association to Implement An Interim Reliability Capacity Services Tariff, FERC Docket No. EL05-146-000 (filed August 26, 2005).

Here again, analyses performed for the Eastern markets, including the NYISO, should inform the process.

d) Include energy rent offsets. The mechanism to offset capacity payments by expected infra-marginal energy revenues should reasonably represent market price expectations and apply on a going forward basis to provide capacity market stability.

e) Incorporate generator performance. The actual availability of resources should also be incorporated into the market structure to encourage resource owners to take prudent actions to keep their units available to serve load. Some sort of "unforced capacity" calculation thus should be included.

The third step in the process will be for the Commission, the CAISO and interested parties to work together to prepare CAISO tariff provisions and a proposal for submission to FERC for approval. The Commission and the CAISO could present the proposal to FERC jointly, similar to the process followed by the NYISO and the NYPSC.

4. Interim Considerations

As Mirant recognized in its prehearing conference statement in this proceeding, it may be necessary to formulate an interim mechanism for facilitating Local RAR that would be replaced once the more optimal capacity market construct is implemented. To address this need, it may make sense to consider a CAISO backstop program for 2007 whereby the CAISO would procure needed uncommitted capacity on behalf of load. This could occur under existing or expanded RMR, unless some other backstop mechanism, such as the RCST being considered at FERC, is available.

The key for any interim solution will be to keep it simple, and to avoid allowing development of the temporary mechanism to distract from the more critical task of implementing a capacity market mechanism for 2008. California should focus on getting a capacity market in place as soon as possible, rather than delaying real work on a capacity market to devote substantial resources to developing a sub-optimal interim solution. ⊕

Certificate of Service

I hereby certify that I have this day served a copy of the

Proposal of Mirant California, LLC, Mirant Delta, LLC and Mirant Potrero, LLC Regarding Local Resource Adequacy Requirements

on all known parties to R.05-12-013 by sending a copy via electronic mail and by mailing a properly addressed copy by first-class mail with postage prepaid to each party named in the official service list without an electronic mail address.

Executed on January 24, 2006, at San Francisco, California.

Parashita Marschall