**UNITED STATES OF AMERICA**
**FEDERAL ENERGY REGULATORY COMMISSION**

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| Capacity Markets in Regions with Organized Electric Markets | ) ) | Docket No. AD08-4-000 |

# TECHNICAL CONFERENCE COMMENTS

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**On Behalf of**

## CONSTELLATION ENERGY COMMODITES GROUP, INC. AND CONSTELLATION NEWENERGY, INC.

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### Introduction

I have been asked to provide comments and participate in this technical session on behalf of Constellation Energy Commodities Group, Inc. ("CCG") and Constellation NewEnergy, Inc. ("CME") (collectively, "Constellation").[1] This technical conference

[1] CCG is a power marketer authorized by the Commission to sell energy, capacity and certain ancillary services at market-based rates, *See, Constellation Power Source, Inc.*, 79 FERC ¶ 61,167 (1997) (order initially granting CCG market- based rate authority). CCG focuses on serving the full requirements power needs of distribution utilities, co-ops and municipalities that competitively source their load requirements. CCG also sells natural gas and other commodities at wholesale, both in the United States and abroad, and holds interests in exploration and production companies. CCG does not own any physical assets for the generation, transmission, or distribution of electric power and has no retail electric customers or service territories. However, CCG bids energy, capacity and ancillary services on behalf of generation-owning affiliates into energy markets throughout the country.

CNE is a retail electricity supplier that provides customized energy solutions and comprehensive energy services to commercial and industrial customers. CNE has been certified to act as a competitive retail electric supplier to serve customers located within various service territories throughout the United States and Canada, and has been granted market-based rate authority by the Commission. *See, NEV, L.L.C.*, 81 FERC ¶ 61,186 (1997) (order initially granting CNE market-based rate authority). Nationwide, CNE has over 15,500 MW of load under contract with over 10,000 retail customers.

was convened to discuss the forward capacity markets in PJM and New England along with the alternate capacity market proposals put forward by the American Forest & Paper Association ("AF&PA") and Portland Cement Association (PCA"). My comments today address the existing function of capacity markets and these alternate proposals.

Before I address the current markets or the alternate proposals I want to point out that the current markets are the product of years of debate and compromise by all affected stakeholders and that the current capacity markets were only approved in 2005 and 2006 respectively for New England and PJM. During that time, numerous proposals were put forward to create a capacity market that provided for a reasonable recovery of costs and established incentives for new investment to ensure reliability. By and large, the parties were divided based on the merits of each approach in producing the desired level of resource adequacy at the most efficient price.

The starting point in designing a capacity market is to address the deficiency of an energy only market. It has become accepted wisdom that a mitigated bid-based energy market alone is unlikely to produce a level of installed generation capacity that will meet planning reserve margins. The problem is a revenue insufficiency that results from the public good nature of an installed reserve margin exacerbated by the effects of market-wide bid caps. The goal of a well-designed capacity market is to make up this revenue insufficiency without producing distortions or unintended consequences within the marketplace.

I applaud AF&PA and PCA for providing substantive alternatives in this debate. My comments will deal first with the PCA proposal and then with the AF&PA proposal.

**The Portland Cement Alternative Market Design Proposal**

At its heart, the PCA's Alternative Market Design Proposal ("AMDP") is a return to a cost of service regulatory regime. Inherent to the proposal is the idea that consumers can price discriminate between "old" and "new" capacity. This concept fundamentally does not work in a market setting where both older and newer generation assets provide the

same service any more than it would work in a workplace environment. No one would imagine a working environment where a person's salary never increased throughout their working life even if they performed the same job for the entire time and newer hires were continually paid more for their services. Yet this is the construct that PCA proposes as a just and reasonable solution to create incentives for investment in new generation resources while retaining older generation assets to ensure reliable electric service.

PCA's AMDP proposes a unit-specific pay-as-bid market for capacity with an associated obligation to supply energy at unit marginal cost. The market would settle through a series of auctions where less than the full reserve requirement level of capacity is acquired on a forward basis in each auction to ensure against the potential outcome of over contracting for supply. This design suffers from several fundamental flaws that I will only touch on in these comments. First, the auction process relies on a pay-as-bid process that inherently creates an incentive to bid at or above each units true cost. In a single clearing price market, every unit has an incentive to bid its marginal cost. In a pay-as-bid auction, participants have incentive to "guess" at what the last cleared offer will be and formulate a bid based on the guess that captures the most revenue. In this case, generators will formulate a guess on the last clearing capacity bid and, instead of bidding their marginal cost, they will attempt to bid up to what they think the marginal offer will be. Absent regulatory intervention to limit capacity bids, it is difficult to determine where PCA anticipates a cost savings from the incentive structure of the AMDP. Second, the less than full requirement nature of the procurement auction could lead to some unintended consequences that reduce any potential savings and force a higher level of regulatory intervention. By procuring less than the full reserve requirements in each auction, PCA asserts that the AMDP process will assure that load does not over-procure generation capacity. This may be true; but in so doing, the AMDP may force retirements by driving down near-term capacity or removing capacity payments from low capacity factor generation assets and driving prices up for the capacity that is available to subsequent auctions. If the AMDP capacity auction has an excess supply relative to the less than full reserve requirement, prices will be driven down and more generating units will not receive any capacity payments. In many cases,

these capacity payments are essential to keep older and higher heat rate units from retiring. This is clearly illustrated by the number of delayed retirements and unmothballed or recommissioned generation assets in PJM and New England due to RPM and FCM payments. If older and higher heat rate units are retired, the AMDP will find that supply is driven down to minimal levels and prices in subsequent auctions to acquire the residual reserve capacity is driven up. Again the savings that PCA asserts will be assured to customers is less than certain and most likely only achievable through regulatory mandate not efficient market operation.

When the Commission settled upon the current capacity market designs, the desire was for a market outcome that provided incentives for existing generators to participate and new generators to enter the market to ensure reliability with just and reasonable rates to consumers. It is difficult to see how the AMDP meets these criteria absent out-of-market regulatory intervention.

**The American Forest & Paper Association Financial Performance Option**

I want to commend Don Sipe and the AF&PA for putting forward a market-based proposal that seeks to build upon the foundation of the existing capacity market designs in New England and PJM. The AF&PA proposal of the Financial Performance Option ("FPO") offers an interesting modification to the current capacity markets. The FPO creates a capacity market with an associated call option on energy at a specified strike indexed to gas, effectively a heat rate option. In general, this type of proposal is not outside of the realm of reason and offers an alternative that, with some effort and compromise, could provide a workable solution. I will offer comment on the proposal with this mind and highlight the areas that the FPO fails to achieve the objectives of providing a market incentive to existing and new generators to participate to ensure reliability. Before discussing the specifics of the FPO, however, I would like to point out that the key elements of the FPO proposal can be replicated with current financial products without changing the status quo. Moreover, by allowing the current market structure to supply these products, the entities most capable of managing the risk can be the counterparties improving efficiency for all participants.

The FPO allows generators to participate in the capacity market or become an energy only resource. For generators that choose to participate, they would be paid a capacity payment and would provide a call option for energy at a fixed heat rate. In any given hour, a generator would be responsible for providing its load-obligation ratio of energy and would be paid the lower of the strike price or market. If the generator failed to provide its load-obligation share, it would be required to pay the market price of energy as a liquidated damage to the capacity holders. The FPO provides capacity holders a financial hedge for energy prices in the form of an index price cap. My remaining comments will address the incentives that this type of capacity and energy call option product create. These issues would need to be addressed before an alternate proposal such as the FPO could be considered as a viable modification to the FCM and RPM capacity markets.

The proposed FPO creates incentives to opt-out of the capacity market in high price and high volatility areas and exacerbates the problem of meeting planning reserves. The ability for a generator to "opt-out" of the FPO capacity market eliminates or reduces many of the benefits of LMP and locational installed capacity prices. Generators have an incentive to opt-out of the FPO any time the efficiently priced call option for the energy and capacity of the unit exceeds the clearing price in the FPO market. If the FPO has a binding price cap on capacity, this opting-out will happen most often in areas that are most in need of investment to ensure reliability. Additionally, generators that have high heat rates or high forced outage rates ("EFORd") face risk associated with the financial obligation and potential non-performance. Many of these units will have incentive to opt out of the FPO to avoid this risk and without a capacity payment, many of these units will fail to be revenue sufficient , thereby forcing the retirement of generation assets that could still provide valuable reliability service even if they were rarely called upon for energy.

The issue of opting-out is directly related to how the FPO is priced and the option premium that generators will incorporate into their capacity offers. Pricing and selling a financial call option will not be a core competency of many generation resource owners.

Uncertainty and unfamiliarity associated with the provision of an hourly call option that incorporates the forced outage rate of the generation unit could result in large premiums embedded in the capacity offer prices. Moreover, in high LMP areas, the volatility and scarcity in the market that results in energy price spikes above the strike price will result in this loss in revenue being priced into the FPO call option. Risk will be transferred from the energy market to the capacity market. Current call option financial products for energy are available and can be procured in the current system without forcing every generation resource to offer a call option or opt-out of the capacity market. Moreover, the FPO proposal begs the question whether a mandatory bundled approach will be lower cost to the customer than the efficiently priced capacity contract administered through PJM or ISO-NE plus a call option for energy. As I mentioned previously, when the efficiently priced call option for energy at the specified strike is anticipated to be greater than the clearing price for the FPO, generators will have an incentive to opt-out of the FPO to become an energy only resource. Load pockets that should create higher prices for capacity and energy to attract investment will be the first places that generation opts-out of the FPO.

Related to the option pricing and opting-out issues that the FPO creates is the fundamental issue that the FPO moves revenue from the energy and ancillary services markets to the capacity market. The net effect of this is to reduce the impact of real time price signals that support intermittent generation such as wind and induce demand reductions during hours when load reductions are most valuable. The Commission and other government agencies have devoted significant time and resources to create a market environment that can easily incorporate intermittent renewable generation and demand response. By imposing charges that are not manageable for intermittent resources and by forcing much of the volatility from the energy market into the capacity market, the FPO potentially creates a significant barrier to the integration of intermittent renewable resources and demand response.

When AF&PA put forward the FPO, one of the primary claimed benefits was the incentive that the FPO created for long-term contracting. The FPO creates a system

where generators are writing covered calls for the output of their plant at potentially truncated option prices. It is difficult to understand the incentive an FPO generator would have to sign a long-term contract to sell energy forward since that would leave the generator (at least partially) short the FPO call option on energy. Generators are only motivated to sign long-term contracts under the FPO when they have opted-out of the FPO.

Lastly, the FPO seems at odds with the benefits of retail competition. The AF&PA proposal asserts that load is lacking in proper hedging instruments and asserts that the FPO will solve that problem by forcing the generators to hedge the energy risk. The problem with this assertion is that it over-solves the problem by forcing all consumers to enter into a standard and fully hedged position. This reduces the number of products that can be offered to consumers in retail choice states and reduces overall consumer welfare. Under the current system, consumers in retail choice states can choose their level of risk tolerance from the market. This is clearly illustrated by the number of hedging products offered in the retail energy market.

Despite these issues with the FPO, it is a reasonable alternative that has been presented in the spirit of a constructive dialogue on how to improve existing capacity market designs. In that vein, it is perhaps most appropriately addressed through the existing stakeholder process for the individual RTOs, together with other design improvements that may be identified.

Respectfully submitted,

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