



the Commission well knows, that is easier said than done – but it is an essential function, and one which will continue to be needed for the foreseeable future.

In these three Eastern RTOs, the centralized capacity markets have been successful in attracting and retaining cost-effective capacity resources sufficient to meet resource adequacy and reserve margin requirements, in spite of environmental and other challenges faced by suppliers. Further, the capacity markets under discussion have facilitated competition among various types of resources, attracting commitments from new generation and new demand response ("DR") resources, retaining existing generation, and supporting the upgrade of existing plants at prices below the cost of new generation. Going forward, sustainable and stable capacity market structures are critical to facilitate the most cost-effective entry, investment and retirement decisions and meet the underlying purpose of these capacity markets, which is to ensure reliability in these three independent system operator ("ISO") and regional transmission operator ("RTO") regions.

As I will discuss in a moment, there are important areas in which capacity market design needs to be strengthened to fulfill this core purpose, particularly related to undue price discrimination. That core purpose – providing adequate price signals for capacity as a necessary complement to the energy and ancillary services markets in the regions being discussed today – remains unchanged, and should remain so going forward. Before addressing modifications that may improve these current capacity markets, I want to stress two points that follow directly from this definition of the role of capacity markets.

First, capacity markets are a supplement to energy and ancillary services markets and need to be considered in that context. Not every market problem is a capacity market problem. Attention also must be paid to pressing energy and ancillary services market design issues, including issues that relate to several of the concerns being discussed today. To the extent we are considering capacity market fixes for what is actually energy or ancillary services problems, we have the cart before the horse. There are numerous market problems for which the capacity market "hammer" is simply not the best tool. Rather, in many cases the best solution is a revision to the energy and/or ancillary services market design.

Second, resource adequacy remains the appropriate goal and focus for capacity market design, but resource adequacy is not the same as resource planning. Capacity markets are intended to ensure an adequate amount of resources to meet the one day in ten standard. Energy markets should be the primary driver of the resource mix.

Finally, before addressing the specific questions, I would observe that price discrimination can fundamentally undermine the operation of capacity markets. One of the goals of the regions covered by ISO New England Inc. ("ISO-NE"), the New York Independent System Operator, Inc. ("NYISO") and PJM Interconnection, L.L.C. ("PJM") is to have a well-functioning competitive wholesale market which supports the restructuring of state electric markets, including the elimination of a utility's obligation to serve. Such a wholesale market should primarily rely on price signals and private decision makers to determine when to invest private capital in generation, whether to retire plants or re-invest in them, and the like. If, instead, we end up with a wholesale market that is increasingly reliant on one-off contracts with suppliers (whether new

entrants or retirement candidates), then we know that market price signals are not effective and changes to market design are necessary. If we add discriminatory pricing to the mix, so that the contracted entity gets paid a higher price than other similarly situated generators, then we have made the problem of inadequate price signals self-reinforcing, because it removes the incentive for anyone to build without a long term contract. And we are certainly not fulfilling the goals of competition and restructured markets.

## **I. Responses To Panel 4 Questions**

**Question 1: What are the main challenges facing centralized capacity markets today or that can be anticipated going forward? Are the current centralized capacity market designs able to effectively manage those challenges? If not, what changes in current design elements should be pursued going forward?**

**Response to Question 1:** There are several current challenges that should be addressed because they can undermine achieving resource adequacy in restructured markets:

- Ongoing structural price discrimination, whether by states or regional transmission organizations (“RTOs”), which can result in uneconomic retirement, including
  - new-entrant-only contracts that result in price discrimination
  - reliability-must-run (“RMR”) contracts that result in price discrimination

- other forms of subsidized entry that suppress wholesale market prices, which under certain specific circumstances can include self-build or new rate-supported entry by vertically integrated utilities.
- The ability of market participants to submit capacity bids without being subject to meaningful performance obligations. This can result in financial rather than physical participation as well as artificial price suppression in the capacity market. Consistent with the reliability purposes of these capacity markets, capacity products are physical products, not financial products.
- Another set of issues that may affect price signals in these markets includes imports of capacity resources and inconsistent capacity market rules across RTO seams.

**Question 2: In order to achieve resource adequacy goals, should centralized capacity markets be expected to meet specific reliability and operational system needs (i.e., accommodating new and emerging technologies such as variable energy resources, distributed resources, or demand-side resources)? If so, how should capacity markets be designed to procure resources with specific operational attributes and what should those attributes be?**

**Response to Question 2:** Capacity markets should complement energy markets, which should be the primary mechanism for meeting operational needs. The role of these centralized capacity markets is to provide adequate price signals for capacity needed to satisfy forecasted reliability needs which include a reserve margin. These centralized capacity markets should not be designed to institute preferences for new or emerging technologies. Nor should they be designed to achieve certain desired *types* of capacity either as a form of resource planning or to institute preferred policy goals.

Rather, as stated by Commission staff in the August 23, 2013 staff report, “the primary goal of each of these markets is the same: ensure resource adequacy at just and reasonable rates through a market-based mechanism that is not unduly discriminatory or preferential as to the procurement of resources.”<sup>3</sup> Operational and system concerns are best addressed by energy and ancillary services markets administered by the independent operators of each of these ISOs.

There are several challenges posed by attempting to use capacity markets for portfolio planning purposes:

- The first is defining operational needs for different "types" of capacity on a forward, annual basis.
- Next, whatever capacity resources are contracted on a forward basis, there still needs to be a financial incentive in the day ahead and real-time energy markets to provide the operational flexibility rather than be block loaded.

An alternative is to designate and segregate units on a months-ahead or year-ahead basis to fulfill these operational roles, regardless of economics. However, this is not an economic alternative or approach. There is a reason that RTO markets co-optimize energy and ancillary services on a day-to-day and hour-to-hour basis – meeting the operational requirements at lowest cost is best done in "real time."

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<sup>3</sup> *Centralized Capacity Market Design Elements*, Commission Staff Report, Docket No. AD13-7-000, (issued August 23, 2013), page 2.

As the Commission thinks about capacity market issues, there are a number of steps it can take today to encourage resources to offer additional flexibility, largely driven by the linkages between energy, capacity and ancillary services markets that I discussed earlier. Currently, flaws in the current energy and ancillary services markets are in effect underpricing operational flexibility right now. For instance, when expensive units are committed for reliability after the close of the day ahead market, the result is often that real time LMPs go down not up, as the supplemental unit may not set LMP; its costs are recovered through uplift charges, and a lower cost unit sets LMP instead. With on-peak hourly prices suppressed in this fashion, the incentive for resources (new or existing) to invest to increase their flexibility through lower unit minimums and/or higher ramp rates in order to capture these high price hours can be significantly reduced. Likewise, the economic incentives for storage resources, quick start units and short-notice demand side resources are artificially suppressed when peak period energy prices do not reflect the RTO's true cost of serving peak period load. However the Commission addresses future capacity market design issues, there is no reason not to address these energy market problems today.

In addition, if the Commission determines that separate capacity products should be considered as a means to ensure operational reliability, the Commission must do so carefully. For example, the Commission and stakeholders will need to carefully consider the various trade-offs in how to compensate for flexibility in a given RTO keeping in mind that overall compensation needs to come from a mix of energy, capacity and ancillary services revenues. In addition, the operational or other characteristics of any new capacity product must be clearly and specifically defined,

and the market design should permit competition by all resources that can provide those performance characteristics. As noted above, the capacity market design should not be used as a means to implement policy preference for a particular type of generation.

**Question 3: Going forward, should centralized capacity markets be designed to meet additional or different goals than those established to date?**

**Response to Question 3:** The principal purpose of capacity markets should continue to be supplementing energy and ancillary services revenues to the extent necessary to maintain and attract sufficient resources to meet resource adequacy determinations based on the one day in ten standard by taking advantage of the benefits that flow from competitive markets. Centralized capacity markets in the three regions being discussed today were developed to meet this goal by providing a price signal sufficient to maintain existing resources and support new resources that meet peak electric demand plus a reserve margin. Their key design elements including a forward auction, appropriate mitigation of both buyer-side and seller-side market power, and a mechanism for ensuring capacity location in light of the physical constraints of the system, should be preserved and enhanced. By fostering competition among potential capacity resources on a comparable basis, consumers benefit from the operation of well-designed capacity markets.

Respectfully submitted,

**/s/Michael M. Schnitzer**

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**ATTACHMENT A**

**Resume of Michael M. Schnitzer  
Co-founder and Director  
The NorthBridge Group**

Michael Schnitzer is a co-founder and Director of The NorthBridge Group. He focuses on management consulting and works with clients in regulated industries to address strategy issues central to maximizing performance. Helping clients develop effective responses to increasingly deregulated markets is central to Mr. Schnitzer's work for electric and gas utilities. He has developed initiatives in marketing, pricing, regulatory relations and supply planning. He also has broad experience in utility reorganizations, having served as a financial advisor to secured parties in three utility bankruptcies and has developed and evaluated a wide array of restructuring proposals. Mr. Schnitzer's project assignments have included:

- Helped develop and analyze alternative restructuring plans, including resolution of such issues as residual vertical and horizontal market power, stranded costs, and ultimate organization of the competitive market for generation.
- Analyzed the financial opportunities afforded by restructuring – including leverage, sale/leaseback and splitting off generating assets – to develop strategies for improving competitiveness and increasing shareholder value.
- Analyzed and developed various rate plans designed to return stranded costs to utilities, including appropriate length of transition periods, true-ups, access charges, and the like.
- Assessed transmission capacity and helped develop economically efficient transmission tariffs, including policies for encouraging economic transmission expansions.
- Estimated the likely price of competitive new generation for cogenerators and IPPs as a basis for assisting utilities in planning their pricing, capacity additions, and marketing plans.
- Assessed pricing and shareholder value under alternative regulatory treatments, and formulated several proposals for rate case settlement.
- Analyzed rate levels and asset values under alternative financial structures and ratemaking treatments.
- Assessed short- and long-term opportunities in the wholesale electricity market and developed marketing plans and proposals for specific candidate buyers.
- Analyzed the economics of completing current utility construction programs and evaluated alternative ratemaking treatments of new generating capacity.
- Assessed regulatory policy issues associated with privatization of the electric supply industry in the United Kingdom, including policies to accomplish access to the transmission system.
- Analyzed the economics of municipal takeover of a portion of the franchise area versus continued service by a utility.

- Assisted in the development of acid rain compliance plans, including the merits of policies to require utilities to incorporate monetized environmental externalities in the resource planning process.
- Helped develop comprehensive cost recovery programs, including incentives, for utility-sponsored conservation and load management programs.

Mr. Schnitzer has testified before the public utility commissions of Arkansas, Delaware, Indiana, Maine, Maryland, Massachusetts, New Hampshire, New Mexico, New York, Ohio, Pennsylvania, Rhode Island, Texas, Vermont, and Wisconsin. He is a former adjunct research fellow at the Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University.

Before joining NorthBridge, Mr. Schnitzer was a Managing Director at Putnam, Hayes & Bartlett, Inc., where he co-directed the firm's regulated industry practice. Prior to that he was a member of the executive staff of the Appalachian Mountain Club. His experience as assistant to the executive director included the development of financial models and organizational strategic plans, as well as the negotiation of multi-party real estate transactions and the settlement of environmental litigation.

Mr. Schnitzer received an A.B. in chemistry, with honors, from Harvard University, and an M.S. in management from the Sloan School, Massachusetts Institute of Technology.