

**FINAL REPORT  
OF THE  
PUBLIC SERVICE COMMISSION OF MARYLAND  
TO THE  
MARYLAND GENERAL ASSEMBLY**

**OPTIONS FOR RE-REGULATION AND NEW GENERATION**



**DECEMBER 10, 2008**

**Pursuant to §2(b)(2), Chapter 549, Acts 2007**

## I. INTRODUCTION AND EXECUTIVE SUMMARY

This is the Final Report of the Maryland Public Service Commission (the “Commission” or “PSC”) to the Maryland General Assembly, as directed in Senate Bill 400 (“S.B. 400”).<sup>1</sup> In S.B. 400, and in response to the growing public and legislative belief that deregulation had not served the public interest, the General Assembly directed the Commission to study and report on whether and how Maryland might “re-regulate” its electricity markets. The Commission’s Interim Report, Part I, filed on December 3, 2007, identified and analyzed various “re-regulation” options, then modeled the economic impact of those options in light of market conditions at that time. This Final Report details the Commission’s work since the Interim Report, analyzes the current state of the energy markets, updates the prior economic analysis of the various “re-regulation” options, and offers a series of recommendations regarding the best course for taking and maintaining control of Maryland’s energy future.

The updated analyses, performed again by Commission consultants Kaye Scholer LLP (“Kaye Scholer”) and Levitan & Associates (“Levitan”),<sup>2</sup> sought to reflect not only the evolution of the fuel and electricity markets since the Interim Report, but also to incorporate now-available information regarding demand-side management and energy efficiency programs, new on- and off-shore wind generation projects, and Maryland’s solar initiative. In response to the General Assembly’s questions last session, our consultants drilled more deeply into the relative economic merits of utility-ownership versus third-party ownership of new generation. And in light of renewed legislative and public interest in the possibility of full, take-back-the-plants re-regulation, we asked Kaye Scholer and Levitan to perform an economic analysis of a hypothetical condemnation and a return to rate-based regulation of the former Pepco generation assets, now owned by Mirant.

In the Interim Report, we used the term “re-regulation” broadly, *i.e.*, to encompass the range of possible Commission or legislative responses to the deregulated markets’ failure to ensure reliable, cost-effective electricity for Maryland consumers. In that sense of the word, the Commission believes that the public interest compels some re-regulation of Maryland’s electricity markets – or, put another way, that the public interest is not served by de-regulation that requires the Commission to wait passively for market forces to deliver a reliable supply of electricity at reasonable rates. And since issuing the Interim Report, the Commission already has “re-regulated” to some degree, in that we have directed Maryland’s investor-owned utilities (“IOUs”)<sup>3</sup> to obtain demand response resources that the market had not delivered.

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<sup>1</sup> Ch. 549, Acts 2007.

<sup>2</sup> Kaye Scholer’s and Levitan’s full reports and analyses are included with the copies of this report distributed to the General Assembly and available at the Commission’s website, [www.psc.state.md.us](http://www.psc.state.md.us). The report tabbed as “Task 2 Report” will be referred to as “Kaye Scholer report” and the report tabbed as “Task 3 Report” will be referred to as “Levitan Report.”

<sup>3</sup> Maryland’s IOUs are Baltimore Gas and Electric Company (“BGE”), Delmarva Power & Light Company (“Delmarva”), Potomac Electric Power Company (“Pepco”), and The Potomac Edison Company d/b/a Allegheny Power (“Allegheny”).

The question now, and the question this Report addresses, is the extent of re-regulation that best serves the public interest. Based on our consultants' updated analysis of the Maryland electricity markets and broader conditions, we offer three fundamental observations and recommendations:

- 1. As discussed below, the Commission has undertaken and is recommending incremental re-regulation for the purposes of ensuring a reliable supply of electricity or to obtain economic benefits for ratepayers. The Commission has the authority under current law to require Maryland's IOUs to build, own and operate plants under cost-of-service regulation or to issue competitive solicitations for new plants. In addition to the reliability measures already under way, we will initiate an investigation in the coming year to determine whether and on what terms to build additional generation for economic reasons.**

**We cannot, however, recommend that the General Assembly pursue full re-regulation—the magnitude and uncertainty of the benefits, relative to the high cost of achieving the outcome do not clearly warrant the return to rate base regulation. Moreover, there are a number of other potentially serious risk factors that could create unanticipated, adverse consequences for Maryland's ratepayers. Rather than seeking to re-regulate, we recommend that the General Assembly consider legislation that would expand the range of options for obtaining new generation, while leaving the Commission the flexibility to respond to evolving economic and market conditions and ensure that new generation serves ratepayers' interests.**

The Commission's Interim Report focused on the relative economic benefits to ratepayers from various new generation options – “re-regulation light,” as it were – because we and our consultants concluded that the fair market value of the Maryland generation fleet would be too high to warrant further analysis of condemning and returning them to cost-of-service regulation. Our consultants' updated reports refresh the analyses of the “light” options to reflect current conditions and projections and, as detailed below, the results compel us to undertake a new investigation in 2009 to determine whether and on what terms to direct or solicit the construction of one or more new power plants in Maryland.

In addition, however, and in light of renewed public interest in a potential return to rate-based regulation, we also asked Levitan to analyze a hypothetical return to full regulation in one Maryland service territory. This was, by necessity, an academic exercise – the pending request for approval of Constellation Energy Group's proposed transaction with MidAmerican Energy Holdings, Inc. prevents the Commission from conducting and offering any analysis (outside of our docketed proceedings) of the value of Constellation's generation fleet, which comprises 43 percent of Maryland's in-state

generation capacity resources.<sup>4</sup> We also framed Levitan's task in purely economic terms – both reports discuss the significant risk factors that would have to be overcome, but Levitan's analysis did not factor in the timing, likelihood of success, or potential cost associated with those risk factors.

With those caveats, Levitan's analysis reveals that condemnation of the Mirant generation assets followed by their operation under rate-based regulation could be economically beneficial to ratepayers living in the Pepco territory, even if the plants are purchased at fair market value and even if one assumes that Pepco's parent company, Pepco Holdings, Inc., incurred taxable debt to purchase them (the benefits are more favorable if the General Assembly were to form a power authority that could issue tax-advantaged financing).<sup>5</sup> Even if re-regulation of the former Pepco plants were desired, full State-wide re-regulation is not the best option for Maryland's energy future:

*First*, State-wide re-regulation may have the effect of chilling merchant build-out in Maryland, thereby requiring the IOUs or the Authority to support additional generation required in this State for reliability for a significant period of time. According to Levitan's assumption, to keep the lights on in SWMAAC, the region in PJM in which central Maryland is located, requires the addition of almost 3,500 MW by 2007, a substantial amount of which may need to be borne by ratepayers under a State-wide re-regulation scenario.

*Second*, a return to rate base regulation will likely require an end to the customer choice program, as permitting customers to migrate from IOU service could have a significant negative impact on the ratepayers who remain on IOU service.

*Third*, ratepayers will be exposed to both earning upsides and downsides from year to year. In today's volatile markets, that exposure could be extreme, and in our opinion, much too risky to place upon the ratepayers of this State, many of whom are struggling in these uncertain times.

*Fourth*, re-regulating the existing generation plants in the Maryland portion of the Pepco service territory would mean re-acquiring an aging, largely coal-based fleet that will need costly maintenance, ongoing environmental upgrades if state or Federal

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<sup>4</sup> Accordingly, we offer no opinion or analysis on the question of whether or, if so, under what conditions, Constellation's generation fleet could or should be returned to BGE and brought under cost-of-service regulation. To the extent we discuss State-wide re-regulation, we assume only that such an outcome might hypothetically be possible for the Constellation fleet, without regard to whether or how that could be accomplished.

<sup>5</sup> It is important to note that the approximate value derived by Levitan was based on relatively high energy and capacity prices and did not account for the current implosion in global credit markets.

environmental regulations tighten and could become technologically obsolete.

*Fifth*, the practical constraints associated with developing the infrastructure to manage and operate the generation assets will require significant time and manpower. While these functions could be outsourced, obviously the ratepayers will pay a premium for that service.

*Sixth*, determining the fair market value of the assets is driven largely by assumptions made with respect to energy and capacity prices within PJM—the actual value of those assets may be significantly higher or lower depending upon the market conditions that exist on any given day.

*Seventh*, the transaction costs, primarily advisory costs, associated with effectuating a return of the assets to rate-base regulation may be significant. In addition, if the transaction is completed by condemnation of the assets, a protracted and expensive legal battle may result.

*Eighth*, assuming a return to rate-base regulation through an Authority structure, it is unclear what effect such a large debt issuance may have on the State's bond rating. Given that the size of the debt issuance required to return to rate-base regulation exceeds the outstanding indebtedness of the MTA by more than 4 times, any such issuance may negatively affect the State's bond rating. In addition, it is unclear whether the existing credit markets would have an appetite for such a large debt issuance, whether by an Authority or by the IOUs.<sup>6</sup>

For all of these reasons, we conclude that reacquiring these plants and having ratepayers assume the risks of owning and operating them are unlikely to be worth the potentially insurmountable expense, probable litigation and likely disruption to Maryland's electricity markets.

Our reluctance to recommend full, turn-back-the-clock re-regulation should not be read as an endorsement of the decision in 1999 to restructure Maryland's electricity markets. Our recommendation to look forward stems instead from our recognition, after two years of modeling and analysis, that seeking to unscramble the omelet will impose risks on Maryland ratepayers that could well not be worth the uncertain reward, particularly if nuclear energy is to play an expanded role in Maryland's energy future.<sup>7</sup> We recommend an emphasis on the future, *i.e.*, on augmenting and replacing existing

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<sup>6</sup> See Levitan report at 5.

<sup>7</sup> We express no opinion here on the pending certificate of public convenience and necessity for Calvert Cliffs 3, but simply recognize the magnitude of the resources necessary to add new nuclear generation.

generation with new and cleaner plants, more aggressive management of the ongoing supply mix, including investment in conservation, demand response and energy efficiency, and reasoned, ratepayer-conscious decisions about when and what to add and on what terms. In contrast, we fear that saddling ratepayers with the debt and risk from an all-or-nothing, retroactive re-regulation strategy will threaten existing projects, jeopardize our IOUs' ability to build more later, and potentially initiate years of litigation that may paralyze Maryland's electricity markets at this critical juncture.

The Commission can use its existing re-regulation authority to direct Maryland's IOUs to construct and operate new generation under cost-of-service regulation, and will consider in future proceedings whether cost of service regulation of new plants is the best option for ratepayers.<sup>8</sup> And because our consultants' updated economic analysis suggests that ratepayers would benefit from additional generation, we will investigate specifically whether, how and under what terms new generation would benefit ratepayers. But the constantly changing economic and market conditions lead us to doubt that a rigid commitment to a single approach to providing reliable generation capacity will be in the ratepayers' long-term interest. We recommend that the General Assembly ensure that regulated plants remain one of the options available to the Commission and Maryland's IOUs, while leaving the Commission with the authority to determine the cost-recovery mechanism that best serves the ratepayers' interests. To the extent the General Assembly wishes to consider new legislation in this regard, we recommend that any legislation serve to expand the ways in which new generation might be brought to Maryland rather than restricting them.<sup>9</sup>

**2. With regard to *reliability*, Maryland and the Mid-Atlantic region still face a potential capacity shortfall in 2011 and thereafter, but the outlook has improved somewhat and the Commission has begun the process of directing new resources to fill the “gap.”**

In the Interim Report, we highlighted testimony by PJM Interconnection L.L.C. (“PJM”),<sup>10</sup> to the effect that Maryland faced a potential regional shortage of electricity to serve the projected demand at peak times, *i.e.*, hot summer days, beginning in 2011. We noted then that 2008 would bring two developments bearing directly on the fact and extent of a potential shortage – *first*, the January and May Reliability Pricing Model (“RPM”)<sup>11</sup> auctions, which established the amount of capacity committed to be available through May 2012, and *second*, the hearings and decisions in adjoining states regarding

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<sup>8</sup> Public Utility Companies Art., § 7-510(c)(6)(2008).

<sup>9</sup> For example, during the 2008 session of the General Assembly, the Commission supported House Bill 1578 as amended by the House of Delegates. HB 1578, as amended, would have authorized the Commission to allow a consortium of two or more Maryland electric companies to construct, acquire, or lease, and operate, regulated electric generating stations.

<sup>10</sup> PJM operates the transmission system and wholesale electricity markets that serve Maryland and adjoining states.

<sup>11</sup> The purpose and operation of RPM are explained in detail in the Interim Report, at 10-11, 17-25, and in Levitan's 2007 report, at 43-51.

the siting and construction of the Trans-Allegheny Interstate Line (“TrAIL”), a critically important multi-state transmission line project.

In early 2008, after reviewing a demand response program filed by Baltimore Gas and Electric, the Commission directed the state’s major electric companies to indicate how many megawatts of cost-effective demand response programs could be developed for residential customers in time for the 2011 RPM auction. We focused on the residential demand response programs because demand response programs reduce customer’s load at peak times and many commercial and industrial customers already participate in PJM demand response programs. As a result of this initial directive, the Commission approved programs in early 2008 that permitted Maryland IOUs to bid almost 500 megawatts – essentially a power plant’s worth – of new demand response into the 2011 RPM auction under Commission-approved programs that were designed to be surcharge-neutral, even to non-participants.

These programs were a good start, and the landscape has improved somewhat in other ways. Although the January and May 2008 RPM auctions did not yield enough committed resources to avoid a shortfall by themselves if TrAIL is not completed by 2011, the TrAIL project received the necessary regulatory approvals from Virginia, West Virginia and Pennsylvania, giving us greater confidence that the line will be built. That said, we do not know when TrAIL will be in service and we have no way to control or influence the regulatory or construction processes for this project, all of which occur outside of Maryland.

After reviewing the results of the May RPM auction, the Commission again took affirmative steps to obtain the additional supply Maryland needs. In July, we opened a new proceeding, the “Gap RFP” case,<sup>12</sup> to identify the size of the capacity “gap” in 2011-12 and to determine how best to fill it. We received and reviewed filings from more than twenty-five parties, including an updated analysis from PJM, and heard testimony over two days in October. The testimony revealed, among other things that Maryland’s reliability challenges would resurface in 2013, even with TrAIL in place by 2011, if PATH is not on line as well. Some witnesses also offered reason to question whether energy from the Midwest would continue to be plentiful or relatively inexpensive indefinitely. And the Commission Staff testified that there likely are significant quantities of untapped demand response and distributed generation that could be acquired quickly and relatively inexpensively to begin filling the gap.

Before directing new generation for reliability – an option that remains and that we will continue to consider – the Commission decided first, on November 6, to direct the IOUs to issue Requests for Proposals (“RFPs”) for demand response, beyond what they have included in their EmPower Maryland filings, and for Commission Staff to form a distributed generation workgroup that will facilitate greater participation by distributed generation in PJM demand response programs. After seeing how much low-hanging fruit

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<sup>12</sup> *In the Matter of the Investigation of the Process and Criteria for Use In Development of Request for Proposal by the Maryland Investor-Owned Utilities for New Generation to Alleviate Potential Short-Term Reliability Problems In the State of Maryland*, Case No. 9149.

this effort will bear, and as circumstances continue to evolve – particularly as transmission line projects progress, as demand responds to changing economic conditions, and as we see the results of this year’s demand response and energy efficiency efforts – we will determine whether and to what extent additional measures are necessary, including but not limited to new generation for reliability. In recognition of the regional nature of Maryland’s potential reliability issues, the Commission also initiated a Regional Reliability Summit through PJM that, on November 7, brought Commissioners from affected States together to discuss the scope of the problem and potential coordinated solutions, including demand response and new generation. Our recommendation below regarding new generation for economic reasons may make the case for additional generation more compelling, but we will need to study the alternatives more thoroughly and directly before making a final decision.

There also is reason to believe that demand and consumption will begin to decline, or at least grow more slowly, in 2009. Both the IOUs and PJM have amended their load forecasts downward for 2009-11 to account for the economic downturn, and we already have begun to see some reductions in year-over-year consumption in the IOUs’ monthly rate reconciliation reports. Moreover, the Commission has completed its EmPower Maryland Act proceedings and we will, as that Act requires, approve cost-effective energy efficiency and demand response programs by year-end. Although these programs will take some time to implement, we expect that they will augment any exogenous reductions in consumption and peak demand by 2011 and lower the usage baselines as the economy recovers.

3. **Maryland ratepayers would reap *economic benefits* from additional capacity in the form of new generation or demand-side resources. Accordingly, after ruling on the pending EmPower Maryland Act proposals, we will investigate in the coming year whether, when and how to build additional generation in Maryland. We also will continue our review of Standard Offer Service procurement to determine whether altering the current method could bring additional benefits.**

Our consultants’ updated analyses confirm that additional capacity will yield economic benefits to ratepayers, although the relative benefits of different approaches has changed somewhat from last year.

One conclusion from last year’s report remains unchanged: taking and maintaining control of Maryland’s energy future will require us to continue our aggressive pursuit of cost-effective demand-side management and energy efficiency resources. The key term is cost-effective – we remain concerned about the costs of implementing these programs and ensuring that the opportunities for consumers to reap real savings are distributed fairly. The potential aggregate savings in capacity and energy costs is substantial, the economic and environmental benefits real as well, and the cost far lower than the equivalent amount of new generation. As required by the EmPower Maryland Act, we will rule by year-end on the suites of demand response and energy

efficiency programs filed by Maryland's utilities. Done right, demand-side programs offer significant savings opportunities for participants and non-participants alike.

With regard to generation options, we asked Levitan for the Final Report to compare the build or lease (through power purchase agreements ("PPA")) of 1,080 MW of new, efficient combined cycle ("CC") plants in Maryland against an "overbuild" scenario, which contemplated the build-out of more than 1,080 MW of CC plants and sustained that "overhang" for a period of time. Levitan's analysis demonstrates that ratepayers will benefit from approximately 1,080 MW of CC plants—approximately two plants – and the benefits to ratepayers are roughly the same whether the unit is owned by an IOU or provided under a long-term power purchase agreement ("PPA"). The analysis of the "overbuild" scenario (building or contracting for more than the 1,080 MW beyond Levitan's Reference Case) reveals some additional value beyond the construction of the initial 1,080 MW plants, but not nearly enough incremental benefit to offset the risks and costs of the overbuild. We conclude from this analysis that building new generation in Maryland will benefit ratepayers, but only to a point, at which the cost of building additional megawatts does not justify the return.

As always, the art lies in determining whether and when to direct construction, given the rapidly shifting economic conditions and mix of pending transmission and generation projects already in progress, and how the ownership and operation of that generation should be structured. During 2008, the Commission has reviewed applications for certificates of public convenience and necessity for the construction of plants that would add 831 MW of additional capacity in Maryland, and issued one exemption for 70 MW of wind capacity. Of course, as we learned most acutely in June in connection with a project was certificated in 2005 but never built, a certificate is only one of many steps, and we are continually monitoring existing projects to determine whether, when, and under what circumstances they might come to fruition.

The year between the issuance of the Interim Report and the Final Report has been a time of unprecedented economic volatility. Among other things, we have seen fuel prices spike and retreat in 2008, the cost of building materials peak then plummet, and credit markets tighten, and in some cases, shut down altogether. These wild swings in economic conditions leave us unable to say with any confidence that Maryland ratepayers categorically will be better in the long-term under one or another mode of generation ownership. At the moment, recouping the cost of building generation under cost-of-service regulation<sup>13</sup> could provide slightly greater economic benefit to ratepayers, but we cannot say that this will always be the case. From a policy perspective, then, we believe that Maryland ratepayers will benefit if merchant generators can build here, so long as the Commission simultaneously retains the authority to direct the construction of utility-owned generation if they don't. We will, of course, continue to monitor the wholesale prices of electricity, the status of pending generation and transmission projects, and other factors to determine when best to direct the construction of resources the markets are failing to deliver.

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<sup>13</sup> The generation could be built by an IOU or by a third party under an RFP process through which the third party is compensated under cost-of-service regulation.

In light of continuing legislative and public interest in renewables, we also asked Levitan to update its analysis of the wind cases and, unlike last year, the firm performed a separate economic analysis of incremental solar generation. In developing the off-shore wind case, Levitan used the actual terms of the BlueWater Wind contract with Delmarva in Delaware, plus updated (and more favorable) operational data, in projecting the performance of the farm. The resulting analysis is more precise than last year's, but the ultimate conclusion is essentially the same: although on-shore wind generation does provide some economic benefit above and beyond its environmental benefit, the costs of off-shore wind far exceed the benefits except under a "peak oil scenario" that assumes especially high fuel prices. Moreover, under current economic and technological conditions, solar energy does not sustain value to ratepayers in light of the decline in the price of renewable energy credits ("RECs") and the assumption that the 30% Federal investment tax credit ends in 2017.

## **II. ABBREVIATED LEGISLATIVE HISTORY AND SELECTED PROCEEDINGS SINCE THE INTERIM REPORT**

In Part I of its Interim Report, the PSC provided a detailed history of the events preceding S.B. 400, which we will not repeat here.<sup>14</sup> S.B. 400 required the PSC to:

conduct hearings, including the use of any necessary outside experts and consultants, to study and evaluate the status of electric restructuring in the State as it pertains to the current and future availability of competitive generation to residential and small commercial customers and the structure, procurement, and terms and conditions of standard offer service for residential and small commercial customers.

In its evaluation, the Commission shall consider changes that are necessary to provide residential and small business customers the benefit of a reliable electric system at the best possible price, including options for re-regulation, if advisable, and to allow electric companies to develop a portfolio of electricity supply that provides electricity at the lowest cost with the least volatility.

In its evaluation, the Commission shall also consider the availability of adequate transmission and generation facilities to serve the electrical load demands of all customers in the State, pricing and physical constraints on the electrical transmission and distribution grids in the State, and options and policy recommendations to provide an adequate, safe and reliable supply of electricity at a reasonable cost to all customers in the State.<sup>15</sup>

In conducting the analysis described above, the General Assembly specifically directed the PSC to consider the implications of certain approaches:

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<sup>14</sup> Interim Report, Part I, at 5-7.

<sup>15</sup> S.B. 400, § 7(a)(1)-(3).

- Requiring or allowing investor-owned electric companies to purchase electricity by competitive or negotiated contracts of various durations or through other appropriate methods to minimize price volatility;
- Requiring or allowing investor-owned electric companies to construct, acquire, or lease peak load or other generating plants and associated transmission lines;
- Providing a process, at the time bids by investor owned electric companies for electricity supply are obtained for the standard offer service, to solicit bids for the procurement of cost-effective energy efficiency and conservation programs and services if energy efficiency and conservation programs are less expensive than electricity generation;
- Establishing a long-term goal for savings over a period of time of the total residential retail energy consumed in a year in an electric company's service territory through the procurement and implementation of cost effective energy efficiency and conservation programs and services;
- Providing a process to allow investor-owned electric companies to obtain a portion of their electricity supply for standard offer service through the negotiation of bilateral contracts with wholesale electricity suppliers, either in conjunction with or outside of procurement through competitive wholesale auctions;
- Allowing opt-out aggregation of residential electric customer demand and small commercial electric customer demand by local governments in the service territories of investor-owned electric companies;<sup>16</sup>
- Establishing an office of retail market development; and

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<sup>16</sup> In the Order Initiating Proceeding, *in the Matter of the Commission's Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers in Maryland*, Order No. 81563, Case No. 9117 (Aug. 16, 2007), the PSC ordered the parties to consider whether there were price benefits for aggregating low-income residential customers. Evaluation of the submissions in Case 9117 is ongoing, with comment deadlines of November 21 and December 5, and hearings set for December 18 and 19, and we will report further to the General Assembly on aggregation once we have reached a decision.

- Requiring investor-owned electric companies to purchase accounts receivable of electricity suppliers for residential and small commercial accounts.<sup>17</sup>

In Part I of its Interim Report, the PSC reported on proceedings held in compliance with S.B. 400 during calendar year 2007.<sup>18</sup> Since the last report, the PSC has overseen additional proceedings aimed at resolving the important issues highlighted by S.B. 400, beginning with the potential electricity shortage:

- The “Gap RFP” Case. As set forth in greater detail below,<sup>19</sup> the Commission opened a proceeding, Case No. 9149, for the purpose of defining and investigating how to fill the potential capacity shortfall in 2011-12 and thereafter. The Commission also asked PJM to convene a Regional Reliability Summit, which was held on November 7, 2008 and involved discussions among representatives from PJM and fellow PJM states.

- Standard Offer Service Procurement. During 2008, the PSC ordered additional investigation in Case No. 9117, *In the Matter of the Commission’s Investigation of Investor-Owned Electric Companies’ Standard Offer Service[SOS] for Residential and Small Commercial Customers in Maryland.* We ordered the IOUs to evaluate long-term procurement plans for providing SOS to residential and small commercial customers, with resource mixes that include new generation, generation upgrades, demand response programs, PSC-approved residential energy efficiency programs, potential or proposed commercial and industrial energy efficiency programs, implementation of a smart grid system and upgrades to the transmission and distribution system, and to recommend which portfolio mix best balances the “competing mandates set forth in Senate Bill 400, that is, ‘a portfolio of electricity supply that provides electricity at the lowest cost with the least volatility.’”<sup>20</sup> The IOUs submitted their evaluations and recommendations by October 1, 2008, and the PSC stated in its order that it would afford the parties the opportunity to comment and to “hold further proceedings.” Parties filed comments on the IOUs’ plans by November 21, and the IOUs have until December 5 to file reply comments. Hearings are scheduled for December 15, 17 and 19, 2008.

- Energy Efficiency and Demand Response – The EmPower Maryland Act Cases. As directed by the EmPower Maryland Act, the PSC is reviewing energy efficiency and demand response proposals from five IOUs, and has held more than five days of hearings on the filings submitted. Cases No. 9153 through 9157, *In the Matter of Allegheny Power’s, Baltimore Gas & Electric Company’s, Potomac Electric Power Company’s, Delmarva Power & Light’s, and SMECO’s* [respectively] *Energy Efficiency, Conservation, and Demand Response Program Pursuant to the EmPower Maryland Energy Efficiency Act of 2008.* The last EmPower Maryland hearing was held on

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<sup>17</sup> See Rulemaking 17 (notice of final rule to be published in Maryland Register December 19, 2008).

<sup>18</sup> Interim Report, Part I, at 8-10.

<sup>19</sup> See subsection IV.B below, at 20.

<sup>20</sup> S.B. 400, § 7(a)(1)-(2).

December 9, 2008, and on December 1 the PSC issued an interim order directing the parties to draft an RFP for a baseline study against which future progress may be measured. The PSC expects to issue orders on all five IOUs' proposals by December 31, 2008.

- **Retail Choice Regulations.** The PSC has held three rulemakings relevant to retail choice: Rulemaking 34, which seeks to create a uniform statewide definition of "small commercial customer," and Rulemakings 17 (electric) and 35 (gas), which establish regulations to protect consumers dealing with competitive electricity and gas suppliers and facilitate competitive suppliers' participation in the Maryland marketplace. In addition to setting consumer protection rules, Rulemakings 17 and 35 will, if adopted in the current form, require the IOUs to purchase accounts receivable of electricity suppliers for residential and small commercial customers. These proposed final rules are expected to be published in the Maryland Register on December 19.<sup>21</sup> These important ground rules should be firmly in place by early 2009.

### **III. STATUS OF ELECTRIC RESTRUCTURING**

Part II of the Interim Report, filed on January 17, 2008, detailed the history and status of numerous long-lingering disputes regarding the mechanics of electric restructuring in Maryland, most notably of the former BGE generation fleet. Those disputes have since been resolved in a settlement that was memorialized in Senate Bill 1013 of 2008 and is summarized below. We also offer brief updates on the status of retail electric choice and Standard Offer Service procurement, the latter of which is currently under a detailed review.

#### **A. Constellation Energy Group Settlement of Post-Deregulation Matters**

In March 2008, the Governor, General Assembly and the PSC reached a settlement with Constellation Energy Group that resolved all claims arising out of the 1999 deregulation. The settlement's total benefit to ratepayers is estimated to be \$2.033 billion. As part of the settlement, BGE's residential customers received a one-time refund of \$170 per household as a credit on their bill in September of 2008, equaling \$187 million in rate relief. The settlement also eliminated a \$5.2 billion BGE ratepayer liability for decommissioning Calvert Cliffs Nuclear Power Plants, saving ratepayers \$1.5 billion in future contributions. All responsibility for proper funding and oversight of the funding for the nuclear decommissioning of the Calvert Cliffs facility going forward is to be borne by Constellation.<sup>22</sup> Constellation also agreed, all else being equal, to make Calvert Cliffs 3 its number one site priority if it moved forward with plans for a new nuclear plant. And the settlement resolved all pending claims or lawsuits arising out of

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<sup>21</sup> The PSC also completed rulemakings on small system interconnection (RM 31), solar energy (RM 32) and energy-efficient distribution transformers (RM 33). Rulemaking 34 is still pending.

<sup>22</sup> Because the terms of SB 1 were left intact, all ratepayers will continue to pay decommissioning charges through 2016, but residential ratepayers will continue to be credited \$18.6 million annually through 2016. After that date, the credit ends, and there will be no further collections or credits.

the 1999 Settlement Agreement, including the restoration of \$346 million out of \$386 million in credits enacted in Senate Bill 1 in 2006.

The settlement included amendments to the Public Utility Companies Article that permit up to 20 percent of Constellation stock to be acquired without advance approval of the PSC, and remove the “class restrictions” that currently limit what types of companies can buy Constellation stock. The PSC retains approval authority when a purchaser exercises “substantial influence” over BGE or other public service companies, even if it has not purchased 20 percent of the holding company’s stock. The legislation also incorporated into Maryland law certain authority that the Commission has under federal law to obtain relevant documents from non-regulated affiliates of regulated utilities by subpoena.

Finally, BGE agreed to delay any changes in distribution rates until October 2009, and to be limited to a 5 percent increase unless the PSC determined that a higher rate would be in the public interest, and not to file any follow-up rate case until August 2010. The legislation entitled BGE to utilize a certain depreciation method until its next rate case. BGE also agreed to add at least two independent directors to its Board, which sits separately from Constellation’s, and ultimately added three in mid-2008.

## **B. Status of Retail Electric Supply**

The Electric Customer Choice and Competition Act of 1999 restructured the electricity industry in Maryland. Among other things, the Maryland General Assembly determined that the supply of electricity would be partially restructured and that customers could choose their electricity provider from a list of qualified suppliers.<sup>23</sup>

Each of Maryland’s IOUs offers an electricity supply service known as Standard Offer Service (“SOS”). If a retail customer is unable to or does not choose to purchase electricity from a competitive supplier, the local electric company provides his or her supply under SOS.<sup>24</sup> At the onset of restructuring, SOS service included a rate reduction and an extended cap on the SOS price to provide an immediate benefit for the various customer classes that decided not to shop. It was envisioned that the regulated distribution companies would obtain and provide SOS power supplies for a set number of years to afford the competitive retail markets time to mature. However, during the transition period, the wholesale market price of electricity rose and a competitive market for retail electricity supply did not develop as expected.<sup>25</sup> Competitive suppliers have not

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<sup>23</sup> Electricity suppliers operating in Maryland must first obtain a license and abide by applicable standards (e.g., financial integrity, accurate consumer information) before PSC issues a license to operate in the State. Qualified suppliers either own electric generation facilities or purchase the output of generation facilities operating in the PJM wholesale market.

<sup>24</sup> Fixed rates and SOS provisions were established for IOU customers. Customers of Maryland’s two electric cooperatives, SMECO and Choptank Electric, were given the ability to select their own electricity suppliers.

<sup>25</sup> The rise in retail electricity prices is in part a reflection of a rise in underlying fossil-fuel prices, particularly natural gas, as well as constraints on the electric transmission system that limits the import of lower cost electricity into Maryland.

been able to consistently make offers below the SOS rates for the residential and small commercial customer classes.

The total statewide number of distribution service accounts eligible for electric choice, as of September 2008, was 2,202,890 of which 1,970,647 were residential and 232,243 were non-residential. The Commission’s most recent choice enrollment report indicates that the electric suppliers have made significant inroads in providing electricity supplies to the commercial and industrial businesses that operate in Maryland; particularly, the large commercial and industrial classes. As table III.B.1 indicates, competitive electric suppliers supply electricity to the bulk of the large commercial and industrial (“C&I”) accounts (87.5 percent), nearly half the mid-sized accounts (44.7 percent), but only a minor share of the small C&I accounts (15.9 percent). Moreover, few residential customers have chosen electric supply via competitive electric suppliers.

<b>Distribution Utility</b>	<b>Residential</b>	<b>Small C &amp; I</b>	<b>Mid C &amp; I</b>	<b>Large C &amp; I</b>	<b>Total</b>
Allegheny Power	0.0%	14.8%	38.0%	80.0%	2.4%
Baltimore Gas and Electric	2.6%	14.6%	45.9%	91.1%	4.5%
Delmarva Power & Light	0.8%	12.6%	39.7%	92.5%	3.3%
Potomac Electric Power Co.	5.9%	23.0%	46.8%	84.3%	8.3%
<b>Total</b>	<b>3.0%</b>	<b>15.9%</b>	<b>44.7%</b>	<b>87.5%</b>	<b>5.1%</b>

Note: C&I indicates Commercial and Industrial Accounts  
Source: Maryland Public Service Commission, Electric Choice Enrollment Monthly Report All Investors Owned Utilities in Maryland Month Ending September 2008

The Commission continues to oversee the SOS procurement process. This process provides default service for residential and small- and medium-sized commercial customers. For the residential and small- and medium-sized commercial customers, SOS service is procured through wholesale market contracts. Large industrial SOS customers pay a variable hourly rate. The Maryland IOUs do not own or control generation supply resources (with some possible minor exceptions), but electricity for SOS from qualified suppliers that are not price-regulated. As a result, retail procurements of electricity from either SOS or directly from qualified suppliers are largely dependent on underlying wholesale market conditions.

To mitigate retail price volatility, the Commission oversees SOS procurements of electricity supply for the residential and small commercial customers. This load is filled through two-year laddered contracts, with 25 percent of the load procured twice per year. SOS electricity supply for Type II customers is procured using three-month contracts, with 100 percent of the load procured four times per year.

As part of Senate Bill 400,<sup>26</sup> § 7-510 of the Public Utility Companies Article required the Commission to establish a wholesale power procurement process that is “designed to obtain the best prices for residential and small commercial customers in light of prevailing market conditions at the time of the procurement and the need to protect these customers against excessive price increases.”<sup>27</sup> On August 16, 2007, the Commission opened a new proceeding to evaluate and consider alternatives to the auction methodology, including the actively managed portfolio approach of SMECO to the Request for Proposal process for full requirements service used by the IOUs and aggregation for low-income customers.<sup>28</sup> The Commission later expanded the case to consider procedures to solicit bids for cost-effective energy efficiency and conservation programs and services and the possibility of directing electric companies to build, acquire or lease peak-load or other generating plants.

After testimony and hearings for both phases, the Commission issued an order on January 3, 2008, directing the IOUs to submit proposed diversified SOS procurement plans. The utilities were instructed to utilize contracts of between ten and fifteen years in length, based on identified parameters and to mix those longer-term contracts with other products. The utilities filed their plans on October 1, 2008, various parties commented on them, and the Commission will conduct hearings on December 15, 17 and 19, 2008. A further order should issue during the first part of 2009.

#### **IV. THE STATE OF ELECTRICITY IN MARYLAND AND RECOMMENDATIONS FOR “RE-REGULATION”**

##### **A. Committed Capacity And Transmission Capabilities Still Fall Short Of Maryland’s Peak Needs Beginning In 2011-12.**

Maryland’s electric system is part of an integrated transmission system that is coordinated on the wholesale level by PJM. PJM dispatches generation located within its regional boundaries (the “RTO”),<sup>29</sup> and coordinates the transmission of that electricity into and within the State of Maryland. IOUs are responsible for maintaining the transmission and distribution lines that deliver electricity to individual homes.

In order to coordinate energy transmission, PJM dispatches generation located within the RTO in a manner that balances the supply and demand of electricity within the RTO. As a means of ensuring reliability of the electric system in the RTO, PJM annually conducts a long-term planning process that compares the potential available generation located within the RTO and the import capability of the RTO against the estimated demand of customers within the RTO and establishes the amount of generation and transmission required to maintain the reliability of the electric grid within PJM. This

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<sup>26</sup> Chapter 549 of 2007.

<sup>27</sup> PUC Article Section 7-510(c)(4)(ii).

<sup>28</sup> *In the Matter of the Commission’s Investigation of Investor-Owned Electric Companies’ Standard Offer Service for Residential and Small Commercial Customers in Maryland*, Case No. 9117.

<sup>29</sup> The RTO includes all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

process produces the Regional Transmission Expansion Plan. Using this information, PJM evaluates bids from generators and other resources three years in advance to be available for a one year delivery period (up to three years for new generation) through the Reliability Planning Model (“RPM”) Base Residual Auction (“BRA”).

Once PJM completes its Regional Transmission Expansion Plan and conducts its Reliability Planning Model Auction, PJM is in a position to evaluate the reliability of its system. PJM must operate the transmission system to meet reliability criteria established by the Federal Energy Regulatory Commission and administered by the North America Electric Reliability Corporation (“NERC”).

#### 1. The 2011/2012 Capacity Auctions

In May 2008, PJM held its first BRA for the 2011/2012 delivery period.<sup>30</sup> The PJM planning process for the 2011/2012 delivery period made the questionable assumption that the TrAIL line would be in service on or before June 1, 2011, even though construction has not yet commenced.<sup>31</sup> As a result, the 2011/2012 BRA procured the amount of capacity required by PJM under that assumption rather than the amount required without it. In addition, according to PJM, approximately 3,000 MWs of planned or existing generation assets located within the region were not “accepted” by PJM through the 2011/2012 BRA and therefore are uncommitted to PJM for the 2011/2012 delivery year through the BRA process (the “2011/2012 Uncommitted Resources”).<sup>32</sup> PJM has testified that not all of 2011/2012 Uncommitted Resources can reliably be counted on to deliver energy during the 2011/2012 delivery period either because the generation owner will not perform the requisite maintenance on the units or because planned generation may not be completed before the delivery year commences.<sup>33</sup> But PJM agrees that its do not authorize it to hold incremental capacity auctions to obtain commitments from the 2011/2012 Uncommitted Resources unless the need for additional capacity if the need arises from a delay to the in service date of the TrAIL line.<sup>34</sup>

Accordingly, at this point, any process for obtaining commitments from the 2011/2012 Uncommitted Resources, or any other resources for that time period, falls to this Commission – hence the Gap RFP case and the other “re-regulation” steps that the Commission has taken to secure additional capacity. Although PJM and its stakeholders are currently evaluating changes in PJM’s tariff that might, after approval by FERC, authorize PJM to conduct incremental auction for reasons other than increasing load forecasts, the timing and outcome of that stakeholder process is unpredictable, and we cannot leave the integrity of Maryland’s electricity supply to these processes.<sup>35</sup>

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<sup>30</sup> The delivery year runs from June 1, 2011 to May 31, 2012.

<sup>31</sup> See pages 16-17 for details.

<sup>32</sup> Administrative Meeting-May 21, 2008; PJM Status Reports presented by Michael J. Kormos; *see also* Transcript of Hearing, Oct. 3, 2008 (M. Kormos) at 36.

<sup>33</sup> Transcript of Hearing, Oct. 3, 2008 (M. Kormos), at 34-35

<sup>34</sup> *Id.* at 77-79, 83-85, 105-06.

<sup>35</sup> *Id.*

2. Critical Backbone Transmission Line Projects Have Progressed Since The Interim Report, But Remain Uncertain.

In the Interim Report, the Commission identified and discussed two critical transmission line projects: The Trans-Allegheny Interstate Line (“TrAIL”) TrAIL and Potomac-Appalachian Transmission Highline project (“PATH”). The first of these projects, TrAIL, has surmounted important regulatory hurdles in other states, while PATH and another regional line, MAPP, appear to be making progress toward filings and construction. But although the Commission will play a role in siting and possibly approving the Maryland portions of PATH and MAPP, the Commission does not and cannot direct the timing or in-service dates of these projects, leaving uncertainty regarding the role these lines can or will play in addressing Maryland’s reliability issues.

**Trans-Allegheny Interstate Line**

TrAIL is an alternating current single circuit 500 kV overhead transmission line that begins in Washington County, Pennsylvania, passes through West Virginia, and ends in Loudon County, Virginia. According to PJM, TrAIL provides critical support to the eastern Mid-Atlantic PJM area and maintains reliability in Northern Virginia and the Baltimore/Washington D.C. area once comes on line in June 2011. The expectation is that this line will import electricity from low-cost baseload generators in the Midwest to Maryland.



TrAIL has been approved by the West Virginia (August 1, 2008), Virginia (October 7, 2008), and Pennsylvania (November 13, 2008) Commissions. The West Virginia approval remains subject to certain conditions that the company believes will be resolved now that the other states have approved. Pennsylvania's recent approval removes a significant hurdle.

The project's rate of return also has been resolved. On July 21, 2008, the Federal Energy Regulatory Commission ("FERC") approved an uncontested settlement among TrAILCo, the PSC and other parties that resolved all issues relating to the transmission cost of service formula rate that governs construction and operation of the project. The PSC had contested certain incentives sought by TrAILCo that imposed an unwarranted burden that would ultimately be borne by ratepayers. As a result of the PSC's advocacy with other states, the incentive return on equity ("ROE") was reduced by settlement to 12.7 percent from 13.9 percent.<sup>36</sup> TrAILCo will provide a public update on the status of TrAIL to the Commission at an Administrative Meeting in January.

### **Potomac-Appalachian Transmission Highline (PATH)**

PATH is a 765 kV transmission project that will run from Amos, West Virginia to Kemptown, Maryland. According to PJM, PATH resolves numerous overloads in the Baltimore-Washington region, beginning as early as 2013 and extending beyond 2022. PJM states that PATH will reduce the flow on existing PJM 500 kV west to east transmission paths and provide significant benefits to the constrained Baltimore/Washington area. The line as proposed by AEP is estimated to cost \$1.8 billion; the return on equity proceedings are well under way at FERC, and the Commission has fought incentives that are, in our view, excessive.<sup>37</sup>

PATH is farther from completion than TrAIL – as recently October 17, 2008, the route of the line was reconfigured, and the final line route and other details are still being completed. We understand that PATH expects to file applications for approval by state regulatory commissions during the first quarter 2009, and the projected in-service date was recently delayed from June 2012 to June 2013.

### **Mid-Atlantic Power Pathway (MAPP)**

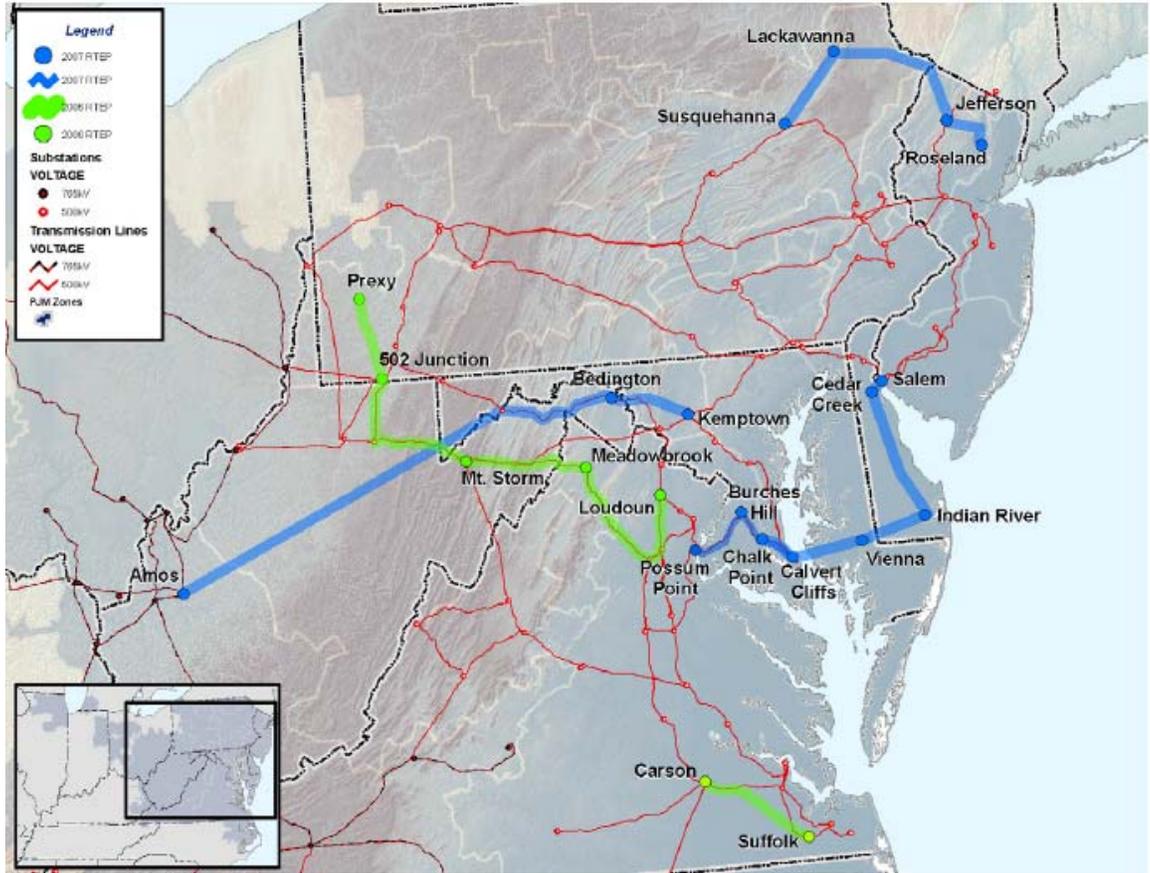
As proposed, the PHI MAPP 500 kV circuit will run from Possum Point, Virginia to the Salem 500 kV station in New Jersey. The 230-mile long line is expected to be built primarily along existing right-of-ways and is intended to pass through Burches Hill, Chalk Point, Calvert Cliffs, Vienna, Indian River and Cedar Creek stations. The planned

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<sup>36</sup> FERC docket number ER07-562

<sup>37</sup> On February 28, 2008, over the objections of the PSC and other parties to the amounts and multiple guarantees awarded, the FERC granted four rate incentives for the project including (1) an incentive return on equity for new transmission of 14.3 percent, (2) recovery of a return on 100 percent of prudently incurred transmission-related Construction Work in Progress prior to the project's in-service date, (3) recovery of all startup business and administrative costs incurred prior to the time that rates go into effect, and (4) authorization to recover all prudently incurred development and construction costs if the PATH project is abandoned as a result of factors beyond the control of PATH or its parents. FERC's docket number for this project is ER08-386. Motions for rehearing by the PSC and others are pending.

line consists primarily of overhead construction, but also includes a submarine crossing of the Chesapeake Bay. The line is estimated to cost \$1.05 billion, as proposed.<sup>38</sup>



The right-of-way routes shown on this map are for illustrative purposes only and may not depict the actual route(s) that may eventually be chosen. Substation locations may also be modified if more beneficial connection are determined by PJM.

PJM reports that MAPP is projected to resolve 33 overloads on several interfaces in the Mid-Atlantic region, bringing congestion relief and reliability benefits to the Baltimore-Washington area and Eastern Shore, and will provide a strong path for generation into the southern part of the Delmarva peninsula. Pepco states the project will provide access to more than 1,300 megawatts of renewable wind generation in the western portion of PJM and will be operated using “smart grid” technology. According to FERC, the project is expected to save \$113 million annually to the Mid-Atlantic region, and \$70 million annually for the entire PJM region if operated as an AC line. If the portion of the project crossing under the Chesapeake Bay is built as a 640 kV high voltage direct current (“DC”) line, the annual savings would be \$174 million and \$91 million, respectively, and reduce production costs by \$58 million annually for the entire PJM region.

<sup>38</sup> On November 3, 2008, in Docket No. ER08-1423, FERC authorized a 1.5 percent return on equity (ROE) adder to the company’s existing 11.3 percent ROE. That will result in an overall ROE of 12.8 percent. FERC also authorized full recovery of construction work in progress and prudently incurred abandoned plant costs. The rates took effect November 1, 2008.

\* \* \*

To summarize:

(1) TrAIL has resolved some of the regulatory hurdles it faced, but still has not even begun construction;

(2) PATH is continuing to evolve, but its proponents have pushed back their initial deadlines for seeking regulatory approvals, and it is far from certain that either of these projects will be in-service in time to solve Maryland's (or PJM's) reliability problems; and

(3) MAPP, while helpful to the Delmarva Peninsula, New Jersey and beyond, is not expected to significantly lessen central Maryland's capacity gap.

#### **B. Proceedings To Identify And Fill The Reliability Gap Began This Year And Are Well Under Way.**

During the Commission's Summer 2007 Electricity Planning Conference,<sup>39</sup> PJM first reported to the Commission the possibility of electricity shortfalls on hot summer days beginning in 2011. Since then, PJM has updated its projections at least three more times—in the fall of 2007,<sup>40</sup> again in May 2008<sup>41</sup> and again in November 2008.<sup>42</sup> In each such report, PJM's fundamental message was the same: with the results of the 2011/2012 BRA in hand, unless TrAIL is in service by June 1, 2011, and assuming that PJM cannot rely on any capacity resources that were offered into, but not "accepted" by PJM in the 2011/2012 BRA, it appears that the Mid-Atlantic region faces a shortfall of capacity on the order of 2,600-3,000 MWs.<sup>43</sup> Maryland's proportionate share of the shortfall is approximately 600-690 MWs.<sup>44</sup>

Although, as discussed above, the outlook has improved for TrAIL to be online by 2011, PJM has testified that the relief from TrAIL could be short-lived, and another regional capacity shortfall may reappear in 2013 unless PATH is in service by then as well.<sup>45</sup> The PATH joint venture has recently announced that the anticipated in service date of the PATH line is now projected to be June 2013 (instead of June 2012, as

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<sup>39</sup> *In the Matter Of The Commission's Maryland Electricity Planning Conference*, Public Conference No. PC9.

<sup>40</sup> See Case No. 9117, Phase II, direct Testimony of Michael J. Kormos, Senior Vice President of Reliability Services for PJM, October 19, 2007 and Reply Testimony, October 30, 2007.

<sup>41</sup> Administrative Meeting-May 21, 2008; PJM Status Reports presented by Michael J. Kormos.

<sup>42</sup> Eastern PJM Region Reliability Summit Regional Planning, November 7, 2008.

<sup>43</sup> It is worth noting that the RTO as a whole does not have a capacity shortfall, but rather, absent TrAIL, the transmission grid within the RTO is not strong enough to support the transmission of capacity from the generation sources to the load pockets that require it. Transcript of Hearing, Oct. 3, 2008 (M. Kormos) at 47. For ease of reference, we refer to that transmission capacity shortfall as a regional capacity shortfall.

<sup>44</sup> *Id.*

<sup>45</sup> See Transcript of Hearing, Oct. 3, 2008 (M. Kormos), at 17-18.

previously expected), based not upon construction delays, but on “reliability studies by PJM.”<sup>46</sup> Again, as of the date of this report, PATH has not yet begun the process of seeking regulatory approvals from the States it crosses and now will delay its filings until the first quarter of 2009.<sup>47</sup>

a. Case No. 9149

In response to the potential regional capacity shortfall highlighted by PJM, the Commission instituted a new proceeding in July 2008 to investigate whether and how to fill the “gap,” *i.e.*, the potential regional capacity shortfall.<sup>48</sup> The Commission directed parties to file information regarding the extent of the potential shortfall and possible solutions. The Commission held a hearing on the matter on October 3, 2008. PJM presented a similar analysis to that provided at the May 23, 2008 Reliability Conference and interested parties also proposed potential solutions. The hearing focused largely on how and whether Maryland can attempt to “solve” a regional capacity shortfall that affects several other states and the types of resources that can most cost-effectively be utilized to reduce the regional capacity shortfall.

On November 6, 2008, in the Commission issued an order directing the IOUs to develop and issue Requests for Proposals (“RFPs”) to procure demand response and interruptible load for reliability resources above and beyond what was promised in early 2008<sup>49</sup> and what was proposed in the IOUs’ pending EmPower Maryland Act filings, which are currently under review.<sup>50</sup> The IOUs were directed to submit proposed RFPs to Commission Staff by December 1, 2008.<sup>51</sup> Commission Staff will then make a recommendation to the Commission with respect to those RFPs on or before December 31, 2008. In addition, the Commission directed Staff to convene a distributed generation work group of all interested stakeholders, including the Maryland Department of the Environment and Maryland Energy Administration, to determine the scope of potentially available distributed generation resources and propose a methodology to harness those resources.<sup>52</sup>

The demand response RFP Order represents an important first step designed to corral readily available and less expensive resources before deciding whether to order new construction. Once the Commission has had an opportunity to see the results of the RFP, and to consider them in the context of evolving load growth forecasts (which are declining), we will decide whether other resources, including new generation, are

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<sup>46</sup> Press Release, “PATH Announces Change to Transmission Line In-Service Date,” Oct. 31, 2008.

<sup>47</sup> *Id.*

<sup>48</sup> *In the Matter of the Investigation of The Process and Criteria For Use in Development of Request for Proposal by the Maryland Investor-Owned Utilities for New Generation to Alleviate Potential Short-Term Reliability Problems in the State of Maryland*, Case No. 9149.

<sup>49</sup> See subsection IV.C. below at 22-25.

<sup>50</sup> *In the Matter of the Investigation of the Process and Criteria For Use in Development of Request for Proposal by the Maryland Investor-Owned Utilities for New Generation to Alleviate Potential Short-Term Reliability Problems in the State of Maryland*, Case No. 9149 at 7.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* at 8.

necessary for reliability purposes and, if so, how and under what conditions to obtain them.

#### b. Regional Reliability Summit

The interconnected nature of the electricity system means that any capacity shortfall affects connected regions, not just states or cities. As a result, any step taken by the Maryland Commission alone that imposes additional costs on Maryland ratepayers will require our ratepayers to bear a disproportionate share of what should be a regional burden. Accordingly, at the Commission's request, PJM convened a Regional Reliability Summit on November 7, 2008, and representatives from Maryland, New Jersey, Delaware, Virginia, the District of Columbia, Pennsylvania and Indiana participated.

The Summit featured a presentation by PJM describing the potential extent of a regional capacity shortfall if the TrAIL line is not in service by June 1, 2011.<sup>53</sup> PJM reiterated that its tariff, as currently approved by FERC, does not permit it to hold incremental auctions for the purpose of obtaining additional capacity in the event a transmission project is delayed beyond its original in-service date. As a result, PJM concluded that any regional solution, given the authority currently conferred upon PJM by its tariff, will need to be implemented by or through the affected states. Each of the states present at the Summit agreed to continue the dialogue with respect to possible solutions, long- and short-term, possibly through the Organization of PJM States, Inc. ("OPSI"). Chairman Nazarian of the PSC will assume the OPSI Presidency in 2009.

#### C. The Commission Began Demand-Side Management And Energy Conservation Programs Before EmPower Maryland Act.<sup>54</sup>

As discussed briefly in the Interim Report,<sup>55</sup> the PSC "substantially expanded its analysis of demand-side management and energy efficiency programs" even before the passage of the EmPower Maryland Energy Efficiency Act of 2008 (the "EmPower Act").<sup>56</sup> The PSC established a collaborative process involving several IOUs, its technical staff, People's Counsel and other interested agencies, suppliers, public interest groups and consumer organizations, to consider technical standards for and operational capabilities of advanced meters, offering demand-side management programs on a

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<sup>53</sup> Eastern PJM Region Reliability Summit Regional Planning, November 7, 2008.

<sup>54</sup> In addition to the discussion in this section, the PSC has pushed for favorable treatment of demand-side management and energy efficiency in PJM's capacity markets (*see* Section IV.E) and ordered an RFP for additional demand-side management in Case 9149 (*see* Section IV.B). While the PSC asked the IOUs to consider whether energy efficiency could be bid as part of SOS (Notice Initiating Phase II Proceeding, *In the Matter of the Commission's Investigation of Investor-Owned Electric Companies' Standard Offer Service for Residential and Small Commercial Customers*, Case No. 9117(September 25, 2007), none proposed a means to do so at the state level. However, once energy efficiency is bid into PJM's markets it will effectively become part of Maryland SOS prices. Proposals for bidding energy efficiency into RPM are currently being considered in the PJM stakeholder process.

<sup>55</sup> Interim Report, Part I, at 9.

<sup>56</sup> *In The Matter Of The Commission's Investigation Of Advanced Metering Technical Standards Demand Side Management Cost Effectiveness Tests, Demand Side Management Competitive Neutrality, And Recovery Of Costs Of Advanced Meters And Demand Side Management Programs.*

competitively-neutral basis, recovery of costs of demand-side management programs, and measuring the cost-effectiveness of demand-side management programs.<sup>57</sup> In September 2007, after participants in the collaborative process had filed a report and comments, the PSC ordered all electric companies to develop and file energy efficiency, conservation and demand reduction plans designed to collectively achieve 50 percent of the EmPower Maryland goal.<sup>58</sup> The PSC also ruled on minimum technical requirements for advanced metering initiatives and the methods by which IOUs could recover demand-side management expenses and provided guidance on how it would evaluate the cost-effectiveness of demand-side management programs.

The greatest success from the pre-EmPower Act period came from a BGE program, now called Peak Rewards. Peak Rewards is a voluntary program in which customers can agree, in exchange for bill credits, to allow BGE to install a device through which BGE can turn down the customer's air conditioning on peak demand days. As approved, Peak Rewards is surcharge-neutral, even to non-participants, because BGE can fund it with the proceeds from bidding the resulting demand response into the RPM capacity auctions. As a result of Peak Rewards, BGE bid 495 MW of demand response into the May 2008 auction – effectively a power plant's worth of demand response that substitutes for an equivalent amount of new generation. Having approved Peak Rewards, the Commission directed Pepco, Delmarva, Allegheny and SMECO on January 3, 2008 to file similar demand response programs and, with the exception of Allegheny, all of them now have programs of their own.

The energy efficiency programs filed before the EmPower Act were generally less successful. Although the Commission approved “fast-track,” pilot-scale programs for most of the utilities, we rejected a broader suite of programs filed by BGE on August 18, 2008, after finding that most were not cost-effective.<sup>59</sup> The other utilities' filings are being considered simultaneously with the EmPower Act programs.

#### **D. The EmPower Maryland Act Cases Accelerated The Commission's Work On Energy Efficiency And Demand Response.**

During the 2008 legislative session, the General Assembly passed the EmPower Act, which recognized that energy efficiency is among the least expensive ways to meet the growing electricity demands of the State. The Act sets significant and aggressive goals for reducing the state's peak demand and energy consumption in a set time frame, *i.e.*, a 15 percent reduction in per capita electricity consumption by the end of 2015, and a 15 percent reduction in per capita peak demand by the end of 2015. The Act requires the IOUs to offer appropriate and cost-efficient programs to its residential, commercial and industrial customers designed to achieve a 5 percent reduction by 2011 and a 15 percent

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<sup>57</sup> Order No. 81448 (June 8, 2007). By a separate letter order the PSC had also established a collaborative on demand-side management and advanced metering initiatives for Pepco and Delmarva Power and Light, and it had earlier approved pilot advanced metering and demand-side management programs for BGE. *Id.* at 4. A few months later it also approved Residential Compact Fluorescent Light Programs for Pepco and Delmarva Power and Light. Order No. 81618 (September 19, 2007).

<sup>58</sup> Order No. 81637, Case No. 9111 (September 28, 2007).

<sup>59</sup> See Letter to W. Harbaugh, Aug. 18, 2008.

reduction by 2015 in per capita peak demand and a 5 percent reduction by 2011 and a 10 percent reduction by 2015 in per capital electricity consumed. Additionally, the Act requires the IOUs to include energy efficiency and conservation programs specifically targeted to low-income and low-to-moderate income communities.

The Act directed the IOUs, as well as the Southern Maryland Electric Cooperative, to submit plans to the PSC on or before September 1, 2008 that detail the companies' proposals for achieving the reduction targets. Prior to the submission date, the PSC's Technical Staff, along with the Maryland Energy Administration ("MEA"), conducted several workgroup meetings with the IOUs. As a result of these meetings, the PSC issued its "EmPower Maryland Plan Outline," which provided guidance to the IOUs on how to organize, present and document their proposed EmPower Maryland Plans.

Each of the five IOUs submitted detailed plans on or before September 1, 2008. Although each proposal reflects that utility's unique customer base and prior experience with energy efficiency and conservation programs, there are numerous similarities among the IOUs. For example, each utility's portfolio of program offerings includes appliance rebates and total home energy audits for residential customers and lighting programs and custom applications for the industrial customers. All programs include a customer education and outreach component.

The Act compels participation of MEA in the formulation and implementation of the EmPower Maryland programs. Prior to July 1, 2008, the Act required each utility to consult with MEA regarding the design and adequacy of the programs it was proposing. Each utility is also required to provide an annual update to the PSC and MEA on plan implementation and progress towards meetings the goals. The PSC, in consultation with MEA, must provide an annual report to the General Assembly regarding the status of the programs, a recommendation for the appropriate funding level to adequately fund the programs and services, and the per capita electricity consumption and peak demand for the previous year.

The PSC established a separate proceeding and schedule for each utility's filing. Motions to Intervene were filed by eight to ten parties in each proceeding; the PSC granted all such motions. Comments by the intervenors, as well as a response by the utility, have been filed in each proceeding. The PSC has conducted hearings, each of which has lasted more than a day, on each utility's proposal. According to the Act, in determining whether a program or service encourages and promotes the efficient use and conservation of energy, and therefore whether it should be approved, the PSC must consider (i) the cost-effectiveness; (ii) the impact on rates of each ratepayer class; (iii) the impact on jobs; and (iv) the impact on the environment.

Although the Commission has until December 31, 2008 to issue an Order in each proceeding, several points warrant comment. *First*, four of the five IOUs' plans (Allegheny Power is the exception) meet the Act's goal of a 5 percent peak demand reduction by 2011. By 2015, only Baltimore Gas and Electric Company and Potomac Electric Power Company meet the 15 percent reduction in peak demand. The numbers are

even worse for energy consumption. In 2011, only Southern Maryland Energy Cooperative is able to meet the 5 percent reduction in energy consumption; in 2015, no utility's proposal reaches the 10 percent goal. It is clear that more aggressive, innovative programs are required.

*Second*, there is no current baseline study of Maryland customers that allows the utilities or the regulators to assess the reasonableness of the utilities' assumptions regarding participation rates, necessary rebates, and the like. The participants in these proceedings have urged the PSC to initiate such a study so that all parties have a reasonable baseline to utilize when predicting and evaluating program results. The PSC issued an order on December 1 directing the utilities to collaborate on and issue a request for proposals to initiate a State-wide baseline study during 2009, which will help refine these programs going forward and help ensure they are and remain cost-effective.

Although the Commission has struggled to find and approve the appropriate mix of programs, there is no doubt that energy efficiency and demand response programs yield the greatest bang for the ratepayers' investment buck. Levitan's analysis demonstrates that meeting the EmPower Maryland goals would provide one of the highest levels of economic value added ("EVA") as compared to business-as-usual. Levitan evaluated four of the five EmPower Maryland plans<sup>60</sup> and "grossed up" their proposed energy reductions to ensure that they would meet the 15 percent reduction by 2015. The "reference case," designed to simulate a business-as-usual approach, assumes only 25 percent of the EmPower Maryland goals will be met. As compared to the reference case, Levitan's "15x15" scenario showed cost savings every year, rising in later years to nearly \$500 million per year. However, Levitan assumes that costs will rise as market penetration increases, so that the highest benefit to cost ratio is for the early "low-hanging fruit," the first 25 percent included in the reference case. Annual savings skyrocket under the "peak oil" scenario, to over \$1 billion per year in later years, but more importantly, remain strongly positive under the much lower oil price scenario (*i.e.*, the *Federal Outlook* case). According to Levitan, meeting the EmPower Maryland goals would also reduce carbon dioxide emissions nearly three times as much as the annual target under the Regional Greenhouse Gas Initiative. Demand-side initiatives must be an important weapon in Maryland's reliability arsenal, and our work on these programs will continue in 2009 and beyond.

#### **E. The Commission Has Served As An Advocate For Maryland's Energy Interests In The Wholesale Electricity Markets, And The Fight Will Continue.**

Approximately 80 percent of the typical Maryland ratepayer's electric bill reflects the wholesale cost of the electricity he or she uses – a cost that, under restructuring, the PSC no longer regulates. But as reported last year, Maryland's electricity needs have not been satisfied or well-served by the "restructured" electricity markets. Accordingly, the PSC has devoted substantial time, effort and resources to serving as an advocate for

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<sup>60</sup> All but SMECO.

Maryland ratepayers at PJM and before the Federal Energy Regulatory Commission (“FERC”).

We have focused our efforts over the last year on market rules and pricing issues. Retail electric service and prices in Maryland are affected by prices and practices relating to the provision of generation and transmission at the wholesale level, over which FERC has authority under the Federal Power Act. Currently, suppliers providing generation to serve Maryland load have market-based rate (“MBR”) authority, which means that they are allowed to charge rates that are not subject to FERC’s approval (based upon its determination that the supplier lacks market power or has sufficiently mitigated its market power in the market to be served). Whether they are established by bilateral contract or by the winning bid in a market run by PJM, rates for wholesale generation sold by suppliers with MBR authority must be just and reasonable under the Federal Power Act.

The wholesale electricity markets are not unbridled market environments – they operate according to rules that can be subject to interpretation and judgment in applying them. When we become aware of rules that are being interpreted or applied unfairly, we have challenged those rules, and we will continue to do so. During 2008, the PSC filed complaints asking FERC to require PJM to lift the exemptions from offer-capping applicable to certain interfaces and generators, and to provide a remedy for unjust and unreasonable generation capacity prices occurring in the transition to PJM’s Reliability Pricing Model (“RPM”) capacity construct.

There are several other ways to help support competitive wholesale generation markets. One way to bring more discipline to PJM’s generation markets (and to advance Maryland’s energy conservation goals) is to ensure that energy efficiency and demand response are part of the bidding process. Demand response has been permitted to bid into PJM’s capacity markets, but to date energy efficiency has not. Proposals are pending, and the Commission has participated in FERC proceedings (and PJM stakeholder procedures) on the participation of energy efficiency in PJM’s markets. Ensuring that PJM’s interconnection procedures will not present an undue barrier to the entry of new generation or merchant transmission projects needed to relieve transmission constraints is another way to support competitive markets and help ensure reliable service at reasonable prices; and the PSC has participated in FERC proceedings and PJM stakeholder procedures in an effort to improve the efficiency of this process.

Another important way to enhance competitive generation markets (and help ensure reliable service at reasonable rates) is to have sufficient regulated transmission available (particularly high-voltage, backbone facilities) to support power transfers. The PSC supports rate incentives that will encourage investment in transmission that will bring regional benefits by increasing import capability, relieving congestion, or improving access to markets by renewable generation. But we also are mindful that while the lion’s share of the delivered price for electric service is related to generation, transmission costs are increasing too. We have participated in several incentive pricing proceedings at FERC in connection with transmission investments by various PJM transmission owners. The PSC consistently has opposed incentive treatment in

connection with investments that are needed to ensure local reliability in the transmission owner's distribution territory, since electric companies generally are required to provide reliable service by state statute (as in Maryland).

Even if the transmission investment provides regional benefits, the PSC believes that the incentives must be reasonably connected to the risks involved. Investments in transmission needed to support PJM's markets do not carry a large risk; and PJM's transmission owners have developed much experience and expertise by building transmission facilities for years. Hence, the PSC has opposed large return on equity ("ROE") adders on new transmission investments, unless warranted by sheer magnitude of the project or the utility's use of new technology. This is particularly true if the transmission owner seeks recovery of abandonment costs and construction work in progress ("CWIP").

So far, a FERC majority has awarded incentive ROEs that the PSC opposed as unwarranted in several proceedings, almost always with two of five Commissioners dissenting; and the PSC is seeking rehearing of the FERC majority's orders. Additionally, the PSC has participated in formulary rate proceedings filed by PJM transmission owners outside Maryland. Participation in such proceedings is necessary not only in terms of establishing FERC precedent, but also because Maryland shares some of these transmission costs under PJM's current transmission rate design. Finally, the allocation of the costs of transmission investment in PJM affects Maryland ratepayers, and the PSC is participating in a judicial review proceeding in support of FERC's order establishing PJM's rate design.

The PSC will continue to play an informed and aggressive role in advocating for Maryland's energy interests in the PJM shareholder process and other PJM fora, and before FERC. This will require additional in-house resources (the PSC lost its last PJM technical expert in large part due to the inability to compete with private sector salaries and needs to build expertise in wholesale electricity markets) as well as outside counsel and experts for large-scale litigation.

#### **F. The Commission's Consultants' Analyses Demonstrate That New Generation Will Benefit Maryland Ratepayers.**

As discussed in more detail in the Kaye Scholer report, restructuring has failed to stimulate construction of new power plants in Maryland: only 700 MW of new capacity has been added since 2000. Maryland has approved construction of more than 3,000 MW of new generation, but less than 200 MW of that is expected to be in-service by year-end 2009. At the same time, Maryland's generation fleet is aging: 67 percent of the State's total generating capacity over 31 years old, and another 11 percent over 21 years old. Under deregulation, merchant generators were expected to respond to market signals regarding needed generation, but despite high LMPs and capacity payments, Maryland's generation needs are not being met. Indeed, one merchant generator testified before the PSC that no matter how high RPM payments were, it could not finance a new generation

project in Maryland without a PPA for at least ten years.<sup>61</sup> Complicating the situation is the fact that merchant generators and companies owning generation share a vested interest in maintaining high LMPs and capacity payments.

The PSC's consultants explored multiple options for obtaining additional generation in Maryland, and specifically whether each of these options would yield economic benefits for ratepayers when measured against Levitan's baseline Reference Case. Levitan modeled two options for 1,080 MW of combined-cycle gas generation: long-term PPAs with merchant generators and IOU-owned and -operated new construction under traditional cost-of-service regulation. Both Levitan and Kaye Scholer also explored various options for a state power authority, including the construction of new generation. Levitan also modeled solar and wind options.

Stated generally, our consultants' analysis reveals that Maryland ratepayers would benefit from 1,080 MW of additional generation, above and beyond basic reliability needs, and that the economic benefits are roughly equal regardless of ownership and cost-recovery structure. The benefits from further generation, the "overhang" case, are less clear, and the purely economic benefits from renewables even less so:

**1. Long-term PPAs.**<sup>62</sup> Long-term PPAs have the potential to solve some of the market deficiencies that have led to a deficit of new generation in Maryland and other constrained states. They can provide a guaranteed stream of income to the generation owner, which in turn enables project financing and reduces the cost of investment risk built into energy costs. They can allow Maryland to control the timing, location, type and environmental impact of new generation, and to diversify its options as a hedge against market risk. They can encourage new entrants to the Maryland energy market, thereby enhancing competition. Finally, strategic placement of new generation under a long-term PPA could lower LMPs and capacity costs, thus lowering wholesale prices. PJM has provided guidance on preferred sites that provide more reliability "bang for the buck."

Levitan modeled a 20-year PPA between an IOU and a merchant generator, which would entitle the IOU to the market value of 1,080 MW of new capacity (including energy, capacity and ancillary services sales in PJM markets) in exchange for fixed and variable payments to the merchant generator. Fixed payments would include recovery of capital costs, adjusted for the value of the site from years 21 to 30, as well as return on equity. Variable payments would include fuel and non-fuel operating costs. Levitan projected annual savings of roughly \$300 to nearly \$800 million compared to the "business as usual" reference case. Although there was a small but insignificant increased benefit of IOU-built new generation, after factoring in the risk of cost overruns the long-term PPA may edge out the IOU build. However, long-term PPAs require a great many decisions, including how best to structure the procurement process to stimulate competition, how to ensure lowest price and best terms, whether to contract for capacity and/or energy, how to index the fuel price to allow the developer reasonable flexibility without exposing ratepayers to excessive volatility, how best to encourage the

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<sup>61</sup> Transcript of October 3, 2008 hearing, Case No. 9149, at 209 (testimony of D. Egan).

<sup>62</sup> See Levitan report at 110-12, Kaye Scholer report at 79-86.

developer to maintain availability and efficiency, whether to take actual delivery of the capacity/energy from the facility versus “financial” delivery (in which the buyer gets payments equal to the market values of the capacity and/or energy), what performance guarantees should be built in, and the ideal length of the contract, among others. The risks from long-term PPAs include technological obsolescence, fuel costs (although some of this risk is normally allocated through indexing), stranded costs, and discouraging retail suppliers from entering the market.

**2. Order new generation to be built by IOUs.**<sup>63</sup> Levitan also modeled 1,080 MW of new combined-cycle gas generation built by IOUs in Maryland, subject to cost-of-service regulation. The Commission would have to decide the extent to which the IOUs could pass certain costs of generation on to ratepayers – generally, prudently-incurred capital, operating and management expenses, including the cost of fuel, would be charged to ratepayers, plus a reasonable rate of return. The capacity, energy and ancillary services from the generator would then be sold into the markets and ratepayers would be credited with their value. As compared to the reference case, new IOU-built generation is projected to save between roughly \$200 and \$800 million per year.<sup>64</sup>

**3. Effect of surplus capacity (“overbuild” or “overhang”).**<sup>65</sup> Levitan modeled an option under which Maryland attempts to maintain a surplus of capacity through 2018 by frequent additions of capacity (through either of the previous two options). Although Levitan found that this option provided a somewhat higher present value economic benefit than the previous two options, and could save between roughly \$300 and \$800 million per year, the direct costs are more than twice as high as either of the previous two options. The marginal benefits of the overbuild or overhang scenario over the previous two options do not, in Levitan’s opinion, overcome the substantial additional cost (\$2.5 billion additional ratepayer funds at risk) relative to the potential additional benefits(\$350 million).

**4. State power authority.**<sup>66</sup> Whether or not the General Assembly were to pursue full re-regulation, it could form a state power authority that would give Maryland greater control over new generation, but by putting the State into the electricity business would dramatically increase ratepayers’ economic risk. A power authority could reduce capital costs, especially given its tax-advantaged status, but would expose ratepayers to full responsibility for any adverse outcomes, such as fuel volatility, credit market abnormalities, technological obsolescence, and environmental impact, to name a few. Initially, a state power authority would certainly be less efficient than merchant generators or IOUs in developing and managing generation assets. In addition, an authority would require substantial manpower and take a significant period of time to develop the infrastructure to manage and operate the generation assets. Without market

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<sup>63</sup> Levitan report at 108-09, 112-114.

<sup>64</sup> The differences in the projected savings between new generation built by IOUs and new generation “leased” through a long-term PPA results from differences in the assumptions made for pattern of recovery. IOUs are assumed to recover a relatively larger portion of their costs up-front as compared to the out years, whereas merchant generators are assumed to recover costs equally throughout the duration of the PPA.

<sup>65</sup> Levitan report at 114-15.

<sup>66</sup> Kaye Scholer report at 86-88, Levitan report at 178-89.

incentives, a public power authority may not operate over the long run as efficiently as private owners. And at least one study showed that power authorities are less efficient as generation owners than IOUs.<sup>67</sup>

**5. Renewable generation: onshore and offshore wind.**<sup>68</sup> Delmarva currently has two onshore wind projects in development: Synergics' 60 MW Eastern Wind Energy and 40 MW Roth Rock Wind Energy. Both of these projects have been included in the reference case. BlueWater Wind's 200 MW offshore wind project has not been included in the reference case since its development is contingent on additional sales.

Levitan modeled the addition of 20-year PPAs for total installed onshore wind capacity of 200 MW, added at 40 MW per year from 2011 to 2015, with the costs and benefits apportioned to the IOUs based on load share. Because wind's total installed capacity is heavily discounted for reliability purposes, 40 MW per year is viewed by PJM as only 12 MW per year (its Unforced Capacity or "UCAP").<sup>69</sup> Although onshore wind of this size is too small to offset any other capacity that would need to be added, it does provide potential cost savings of between \$10 and \$60 million per year. Onshore wind also has positive economic value added when compared to the reference case. Wind also provides a valuable source of renewables to meet Maryland's Renewable Energy Portfolio Standard. The full 200 MW of onshore wind are projected to reduce carbon dioxide emissions by 267,000 to 487,000 tons per year, roughly one quarter to one half of the yearly Regional Greenhouse Gas Initiative ("RGGI") goal.

For the offshore wind analysis, Levitan used actual BlueWater Wind contract information and assumed that Maryland IOUs would contract for 300 MW of installed capacity, which would allow the 200 MW under contingent contract with Delmarva to proceed, adding a total of 500 MW installed capacity to the region by 2014. Offshore wind, while using a more reliable wind source and producing greater dioxide reductions (747,000 to 975,000 tons per year, as compared to the full-year RGGI target for 2015 of 937,600), is roughly twice as expensive to build and operate and is thus projected to result in economic loss to ratepayers, not a net benefit. Offshore wind may merit a second look if onshore wind development becomes bogged down by local opposition or if fuel costs are extremely high, but the only scenario showing a (slightly) positive economic value added was the "peak oil scenario."

**6. Renewable generation: solar power.**<sup>70</sup> Levitan modeled full compliance with the Solar Renewable Portfolio Standard, through installation of 1 MW solar installations at large commercial and industrial ratepayers' sites. By 2022, roughly 1,100 MW of solar capacity would be installed, to be used as "behind the meter" capacity that would replace electricity the commercial and industrial ratepayers would otherwise take from the PJM system.

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<sup>67</sup> Kaye Scholer report at 87, n. 332.

<sup>68</sup> Levitan report at 142-159.

<sup>69</sup> Levitan report at 146.

<sup>70</sup> Levitan report at 160-66.

Assuming the continuing existence of investment tax credits (ITC), solar renewable energy credits (RECs) and Modified Accelerated Cost Recovery System (MACRS) depreciation, and with no more than 30 percent debt, Levitan calculated that solar power owners could receive a 10 percent return on equity and positive cash flow from year two forward. Changes to the ITC or RECs could make such solar installations impractical unless solar installation costs fall considerably. New thin film technology may indeed cut installation costs, possibly by as much as half.

Levitan also looked at the aggregate effect of such solar installations on ratepayers by assuming ratepayer-backed 20 year PPAs for the energy, capacity and RECs from the facilities. The result was not as favorable. The capital costs and subsidies that must be paid by all ratepayers to fund the RECs, together with the assumption that the Federal ITC value substantially decreases after 2017, result in negative economic value, regardless of oil prices. To the extent that technological progress cuts the cost of rooftop photovoltaic cells at a much faster rate than the 2.5 percent per year contemplated in this study, solar economics may be materially different from the negative economic value reported in the Levitan report.

### **G. We Cannot Recommend A Strategy Of Condemning Assets And Returning Existing Plants To Cost of Service Regulation.<sup>71</sup>**

Given the strong reactions to rate increases in the wake of deregulation, it was perhaps inevitable that some would call for a return to the days when all of Maryland's generation assets were owned by IOUs regulated under cost-of-service regulation. At our direction, both Levitan and Kaye Scholer evaluated options for returning generation to cost-of-service regulation. The exercise as a somewhat awkward one: since the fair market value of the Constellation fleet is at issue in a pending Commission proceeding, we directed Levitan to model only the condemnation of Mirant's fleet in Pepco's Maryland service territory. Kaye Scholer took a broader but less in-depth view of the potential benefits and risks of attempting to return all Maryland generation to full cost-of-service regulation. Both assumed that the State would have to use its condemnation powers and compensate the current generation owners at fair market value as of the date the taking occurred.

Levitan's economic analysis reveals that certain ratepayers could benefit from a return to cost-of-service regulation – specifically, the ratepayers in the service territory of the plants being condemned and returned. The precise fair market value of the plants is extremely difficult to set, but even within the range in Levitan's report – which sets the value of the Mirant assets into the billions of dollars – the return to cost-of service regulation yields positive economic benefits to those ratepayers ranging from roughly negative \$200 million or positive \$200 million in the early years of IOU or state power authority ownership, respectively, to nearly a billion dollars per year in the later years under either IOU or state power authority ownership. The potential savings are greater with higher fuel costs, and conversely there is no positive economic value added with

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<sup>71</sup> Kaye Scholer report at 73-78, Levitan report at 167-89.

IOU ownership under the lower fuel cost assumptions. Power authority ownership continues to have positive economic value added even using lower fuel cost assumptions. Viewed in purely economic terms, then, one can argue that ratepayers would be better off if Maryland returned to cost-of-service regulation.

It is difficult to do justice to these highly complex analyses in an overview, and a mistake to review the economic analysis in a vacuum. Both Levitan and Kaye Scholer caution that a return to full regulation of Maryland's generation is fraught with risks, and they have not calculated the costs of these risks, among them the following very real and practical obstacles:

- Finding the money, billions of dollars, would be a gargantuan hurdle in the best of times. Current credit market conditions only worsen that prognosis;
- As the Maryland Constitution requires the compensation to be agreed upon between the parties or awarded by a jury, a return to full cost of service regulation could quickly become bogged down in contentious litigation. Fair market value would not be discounted for credit woes currently being suffered by some generation owners, but would be based, at least in part, on the expected stream of earnings for the plants' remaining operating lives;
- By reducing wholesale prices, a return to rate-base regulation will deter merchant generation, both conventional and renewable. As the existing generation fleet is aging, this would force the IOUs or state power authority to assume the cost and risks of supplying all new generation in addition to maintaining the existing fleet;
- IOUs or an authority would likely also have to begin managing all of the risks for standard offer service, currently assumed by competitive suppliers. The IOUs or the State could end up with stranded costs, especially for assets regulated into obsolescence due to evolving emissions standards;
- Ratepayers or taxpayers will assume all investment risk. Both Levitan and Kaye Scholer serve up cautionary tales of poor investments in nuclear power that performed poorly and left ratepayers with higher-than-market rates;
- Ratepayers would experience earnings upsides and disappointments relative to the assumptions built into fair market value. If a state power authority assumed ownership of the generating assets, it would experience a steep learning (and hiring) curve as it attempted to build the skilled staff necessary to

effectively operate and manage them. Outsourcing the management and operation, either temporarily or permanently, could fill the need for skilled labor but result in additional costs; and

- The Maryland fleet is an aging one, and taking back the existing fleet would invest billions of dollars in old plants rather than investing in new, cleaner plants.

We cannot reconcile the perhaps visceral appeal of full re-regulation with the very real obstacles to and consequences from a strategy designed to turn back the clock. As economic and financial conditions change, we believe that ratepayers are better served if the Commission retains the ability – which it has now, under current law – to direct and guide the construction of future generation in Maryland to serve the best interests of Maryland ratepayers. Although we can model positive economic benefits to ratepayers from a return to full cost-of-service regulation, the transactional and other costs to ratepayers far outweighs those potential benefits in our judgment – and would commit enormous resources to a retrospective strategy rather than a prospective one. Accordingly, we cannot recommend that the General Assembly pursue full re-regulation. Instead, we recommend that any legislation regarding “re-regulation” expand the Commission’s authority to re-regulate, in our sense of the term, in a measured, rational and incremental way.

## **V. CONCLUSION**

This represents the Public Service Commission’s Final Report to the General Assembly pursuant to Senate Bill 400. We look forward to briefing the General Assembly on these issues and in continuing our work to take control of Maryland’s electricity future.