*OCC EXHIBIT NO. \_\_\_\_\_\_*

**BEFORE**

**THE PUBLIC UTILITIES COMMISSION OF OHIO**

|  |  |  |
| --- | --- | --- |
| In The Matter Of The Application Of Duke Energy Ohio For Authority To Establish A Standard Service Offer Pursuant To Section 4928.143, Revised Code, In The Form Of An Electric Security Plan, Accounting Modifications, and Tariffs for Generation ServiceIn The Matter Of The Application Of Duke Energy Ohio For Authority To Amend Its Supplier Tariff | )))))))))) | Case No. 14-841-EL-SSOCase No. 14-842-EL-AAM |

**DIRECT TESTIMONY**

**OF**

**MATTHEW I. KAHAL**

**On Behalf of the**

**Office of the Ohio Consumers’ Counsel**

*10 West Broad Street, Suite 1800*

*Columbus, Ohio 43215-3485*

**September 26, 2014**

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# QUALIFICATIONS

1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2. My name is Matthew I. Kahal. I am employed as an independent consultant retained by the Office of the Ohio Consumers’ Counsel (“OCC”) to address certain issues in this docket. My business address is 1108 Pheasant Crossing, Charlottesville, VA 22901.
3. PLEASE STATE YOUR EDUCATIONAL BACKGROUND.
4. I hold B.A. and M.A. degrees in economics from the University of Maryland and have completed course work and examination requirements for the Ph.D. degree in economics. My areas of academic concentration included industrial organization, economic development, and econometrics.
5. WHAT IS YOUR PROFESSIONAL BACKGROUND?
6. I have been employed in the area of energy, utility, and telecommunications consulting for the past 35 years, working on a wide range of topics. Most of my work during my consulting career has focused on electric utility integrated planning, power plant licensing, environmental compliance issues, mergers, and utility financial issues. I was a co-founder of Exeter Associates, Inc. (“Exeter”), and from 1981 to 2001, and I was employed at Exeter as a Senior Economist and Principal. During that time, I took the lead role at Exeter in performing cost of capital and financial studies. In recent years, the focus of much of my professional work has expanded to include electric utility markets, power supply procurement, and industry restructuring.

Prior to entering consulting, I served on the Economics Department faculties at the University of Maryland (College Park) and Montgomery College, teaching courses on economic principles, development economics, and business.

A complete description of my professional background is provided in Appendix A.

1. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS BEFORE UTILITY REGULATORY COMMISSIONS?
2. Yes. I have testified before approximately two dozen state and federal utility commissions, federal courts, and the U.S. Congress in more than 400 separate regulatory cases. My testimony has addressed a variety of subjects including fair rate of return, resource planning, financial assessments, load forecasting, competitive restructuring, rate design, purchased power contracts, environmental compliance, merger economics, and other regulatory policy issues. These cases have involved electric, gas, water, and telephone utilities. A list of these cases is set forth in Appendix B, with my statement of qualifications.
3. WHAT PROFESSIONAL ACTIVITIES HAVE YOU ENGAGED IN SINCE LEAVING EXETER AS A PRINCIPAL IN 2001?
4. Since 2001, I have worked on a variety of consulting assignments pertaining to electric restructuring, purchase power contracts, environmental controls, cost of capital, and other regulatory issues. Current and recent clients include the U.S. Department of Justice, U.S. Air Force, U.S. Department of Energy, the Federal Energy Regulatory Commission, Connecticut Attorney General, Pennsylvania Office of Consumer Advocate, the Ohio Consumers’ Counsel, New Jersey Division of Rate Counsel, Rhode Island Division of Public Utilities, Louisiana Public Service Commission, Arkansas Public Service Commission, the Maryland Public Service Commission, the Maine Public Advocate, the New Hampshire Consumer Advocate, the Maryland Department of Natural Resources, the Maryland Energy Administration, and certain private clients.
5. HAVE YOU PREVIOUSLY TESTIFIED ON THE SUBJECTS OF ELECTRIC RESTRUCTURING, TRANSITION TO COMPETITION, AND RETAIL DEFAULT SERVICE?
6. Yes. I have testified on these topics on numerous occasions during the past ten to fifteen years. This includes the design of programs to provide generation supply service for those retail electric customers requiring default service. Earlier this year, I testified in the pending Electric Security Program (“ESP”) involving AEP Ohio (Case No. 13-2385-EL-SSO). Please see Appendix C for a listing of such cases.

# OVERVIEW AND SUMMARY

## Purpose of Testimony

1. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?
2. I have been asked by the Office of the Ohio Consumers’ Counsel (“OCC”) to address certain issues pertaining to the filing in this case by Duke Energy Ohio (“Duke” or “the Utility”). These issues include: (1) the appropriate return on equity (“ROE”) to be employed in Duke’s proposed distribution rate rider in the event that such rider is approved by the Public Utilities Commission of Ohio (“Commission” or “PUCO”); (2) a rate design and cost allocation feature of the Utility’s Standard Service Offer (“SSO”) pricing; (3) the “zero discount” feature of the Utility’s current Purchase of Receivables (“POR”) program; and (4) Duke’s proposal concerning the Significantly Excessive Earnings Test (“SEET”).
3. what is the issue you are addressing concerning the distribution rider?
4. As part of its Electric Security Plan (“ESP”) filing in this case, Duke is proposing to implement a Distribution Capital Investment (“DCI”) Rider to provide for frequent rate adjustments to collect from ratepayers incremental capital costs related to distribution service. The merits of this proposed rider are discussed by OCC witnesses Jerome D. Mierzwa and James Williams. My testimony addresses the appropriate rate of ROE for that rider, if approved by the PUCO. My analysis concludes that the ROE requested by Duke to be used in conjunction with this rider is excessive given the rider’s very low risk and the beneficial effect of the rider on Duke’s overall financial risk profile. The requested ROE for the DCI Rider was established in Duke’s last base rate case based upon Duke’s business risk at that time.
5. what is the issue you are ADDRESSING concerning capacity cost allocation for SSO customers?
6. Duke is proposing to acquire the wholesale power supply for its SSO customer loads using a descending clock auction (“auction”) and wholesale full requirements contracts (“FRCs”). The winning wholesale suppliers will bid and be paid contract prices on a flat $-per-MWh basis for supplying a bundled capacity, energy, ancillary services, and load-following generation product. Wholesale FRC suppliers in the auctions do not submit price bids nor will they receive payment from Duke by SSO customer class.

Duke intends to perform the task of translating the bundled wholesale contract payments (which do not differ by customer class) into customer class rates for the SSO customers. In doing so, Duke administratively and artificially “unbundles” supplier bids to create an implied capacity component. Duke then goes on to perform a separate calculation of the implied capacity charge for each customer class, with residential SSO customers being required to pay a cost premium as compared to other customer classes. My testimony explains why imposing this residential cost premium is both unnecessary and improper.

1. what aspect of the Duke por program are you addressing in your testimony?
2. Duke presently operates a POR program that includes a feature whereby Duke pays the bad debt expense for participating Competitive Retail Electric Service (“CRES”) suppliers and charges that expense to utility customers. My testimony finds that if Duke continues to operate a POR program, it should be modified to eliminate the feature whereby Duke pays for CRES bad debt expense and collects that cost from the Utility’s retail ratepayers. This is an improper involuntary subsidization of unregulated CRES suppliers by captive utility customers.

While my testimony only addresses the bad debt expense feature, the OCC has consistently opposed utility POR programs as improper.

1. what is the issue regarding the “SEET TEST”?
2. The Utility’s filing proposes the protocols and parameters for the annual SEET that the filing acknowledges is required by statute. This test provides for a limit or “cap” on the Utility’s earned ROE, with any excess calculated under this test refunded to customers. Duke proposes basing the SEET threshold on a 15.0 percent ROE. At issue is the reasonableness of utilizing an ROE as high as 15.0 percent as the threshold trigger for customer refunds.
3. please summarize the recommendations set forth in your testimony.
4. The OCC and witnesses Mierzwa and Williams recommend against implementation of the proposed Rider DCI. However, if the PUCO decides in this case to proceed with implementation, then it would be appropriate to reduce the proposed 9.84 percent ROE to reflect the unquestioned low risk attributes of the Rider DCI and Duke’s improved financial risk profile that would result from this rider.

Duke has proposed an unneeded capacity rider that improperly charges residential SSO customers a price premium. This proposed price premium should *not* be approved as there is no showing that a cost premium is required by wholesale suppliers to serve residential customers.

My third recommendation is that Duke’s current POR program should cease its practice of subsidizing CRES supplier bad debt expense and collecting that expense from utility customers. If the POR program is to continue, Duke should implement a discount (or discounts) for receivable payments that fully covers CRES suppliers’ bad debt expense and avoids charging utility customers for that expense.

As noted above, Duke proposes utilization of a 15.0 percent ROE threshold for the SEET. Given current market conditions, Duke’s extremely low risk and the proposed riders in this case, I believe a 15.0 percent ROE is an unreasonable threshold. However, it is not necessary to approve the SEET ROE threshold at this time for the full three-year term of the ESP. Instead, that ROE threshold can be set in the annual Duke SEET proceedings. However, if the ROE threshold for the ESP period is to be set in advance in this case, I recommend the PUCO consider a range of 12 to 14 percent as more reasonable and more appropriately balancing customer and shareholder interests.

## Testimony Organization

1. how is the remainder of your testimony organized?
2. Section III of my testimony presents an analysis of the four issues summarized above. Section III-A discusses Duke’s ROE proposal to accompany Rider DCI. In Section III-B, I explain why residential SSO capacity cost premium is improper. Section III-C, critiques Duke’s POR program feature of a zero discount for bad debt expense and explains why that is improper. Finally, Section III-D addresses the Utility’s SEET ROE proposal.

# DISCUSSION OF ISSUES

## Authorized ROE and the Proposed Rider DCI

1. what is your understanding of the proposed rider dcI?
2. This proposal is described in the testimony of Duke Energy witness Peggy A. Laub (pages 2-6). This rider would provide the Utility with essentially automatic rate collection of all incremental distribution-related capital costs (except to the extent such capital costs are not otherwise collected in base rates or another PUCO-approved rider). The Rider DCI will encompass new capital classified as distribution, as well as other electric and general plant allocated to the distribution function. The rider also would encompass all new distribution and distribution-related capital investment since the Utility’s last base rate case. The revenue requirement elements collected under this rider would include return on investment, associated income taxes (i.e., the revenue gross-up factor), depreciation, and property taxes.

Charges to customers under this rider are to be established quarterly, with the Utility submitting a filing at least 60 days in advance of each calendar quarter. This filing and associated rate change will reflect Duke’s projection of new capital investment for that calendar quarter.

1. what rate of return does DUKE energy ohio anticipate utilizing for rider dci?
2. Witness Laub states that Rider DCI will use the rate of return approved in the Utility’s last base rate case. This is a pre-tax overall rate of return of 10.70 percent, including a return on common equity of 9.84 percent. This rate of return was established in a PUCO-approved Stipulation in Case No. 12-1682-EL-AIR, May 1, 2013.
3. what are your concerns with regard to the proposed rider dci?
4. This proposal is being comprehensively addressed by OCC witnesses Mierzwa and Williams, who set forth the OCC’s recommendations concerning Rider DCI. My testimony addresses the ROE issue.

I have two main concerns regarding the appropriateness of using in Rider DCI the PUCO-approved 9.84 percent ROE, established by a settlement process, in the 2012-2013 base rate case. First, rate setting through a quarterly DCI mechanism would materially change (i.e., would improve) Duke’s business risk profile for providing distribution service. This risk reduction and the rider’s very timely and frequent rate adjustments are undoubtedly why Duke (and other utilities such as AEP Ohio) so vigorously advocate for this type of rate mechanism. The Rider DCI did not exist at the time of the 2013 rate case settlement nor was it part of that settlement. Had the Rider DCI been in place at the time of the Stipulation (or implemented as part of the settlement), it is plausible that the ROE agreed to by the parties would have been *lower* than the approved 9.84 percent. In other words, the 9.84 percent ROE was established by the parties (and approved by the PUCO) absent the risk-reducing attributes of Rider DCI.

A second and related concern is that witness Laub proposes, going forward, using a rate of return that was established in the context of a conventional base rate case for a very low-risk rate rider. Assuming that 9.84 percent is an appropriate authorized ROE for a (2012-2013) standard base rate case, it logically follows that it must be too high a return for Rider DCI. This results from the well-accepted financial principle that business risk, all else equal, affects a utility’s market cost of capital—the lower the risk, the lower the cost of equity. Thus, if the PUCO decides to approve Rider DCI, it would be reasonable to reduce the ROE component in that rider from the proposed 9.84 percent to reflect this lowered risk.

1. are you asserting that there is no business risk associated with rider DCI?
2. No, it does not completely eliminate Duke’s business risk. Rider DCI is designed to provide full, timely, and automatic cost collection of all incremental distribution-related capital costs (except those not recovered in another rider), but it does not address O&M expense that may be lower or higher than the amount included in the distribution base rate case. Moreover, there is at least a theoretical possibility of a prudence disallowance, although such “execution risk” seems very small. My point is not that Rider DCI is risk-free but that it is very low risk relative to standard ratemaking through conventional base rate cases. Moreover, Rider DCI, if approved as proposed, enhances Duke’s risk profile as compared to its risk profile at the time of the last rate case.
3. is duke proposing any other riders that reduce its risk profile?
4. Yes. Witness Laub also sets forth Duke’s proposal for the Distribution Storm Rider (“Rider DSR”), which is intended to provide timely and automatic cost recovery of storm-related Operations and Maintenance (“O&M”) expenses. If this rider is approved, in conjunction with Rider DCI, this will further improve Duke’s business risk profile, which further argues for a rate of return reduction.
5. does Duke have any PUCO authority or pre-approval for using the 9.84 percent ROE in the DCI?
6. No. The PUCO’s Opinion and Order in the last rate case cites to the Stipulation (II.B.(2)) as follows:

The ROE agreed upon in the Stipulation shall not be used as precedent in any future electric proceeding, except for purposes of determining the revenue requirement for collection from customers in proceedings addressing Duke’s SmartGrid Rider (Rider (DR-IM))…Duke shall bear the burden of proof with respect to any future ROE request not otherwise provided for in this provision.[[1]](#footnote-2)

As Rider DCI clearly incorporates a new ROE request, the Utility has no automatic presumption under the terms of the Stipulation and PUCO approval order to employ the 9.84 percent ROE. Neither witness Laub nor any other Duke witness has demonstrated that the requested 9.84 percent ROE is appropriate or fair to customers in the context of this proposed rider (as well as proposed Rider DSR). No Duke witness has demonstrated or provided any evidence that an agreed upon ROE that was established in a conventional rate case is appropriate for a very low-risk rider.

## Capacity Cost Allocation for SSO Customers

1. what is the purpose of duke’s proposal concerning charges for capacity, rider rc?
2. The Rider RC proposal in this case is discussed in the testimony of Duke witness Ziolkowski. While Mr. Ziolkowski actually calculates generation capacity costs on a total company (i.e., assuming no shopping) basis, in reality Rider RC will only apply to the actual SSO loads during the term of proposed ESP. Rider RC is therefore intended to provide a rate mechanism for the recovery of PJM Interconnection, L.L.C (“PJM”) determined generating capacity costs that Duke incurs (indirectly) in serving the SSO load.
3. how does duke incur generating capacity costs in connection with serving its sso load?
4. This is best explained by Duke witness Lee, who describes Duke’s competitive bidding process (“CBP”) plan to procure wholesale generation supply to serve the SSO load. Mr. Lee and his firm (Charles River Associates, or “CRA”) have been retained by Duke to design and implement the CBP plan. During the term of the ESP, CRA will conduct a number of auctions that solicit FRCs from potential wholesale bidders. While the contract length can vary in order to provide “price‑smoothing benefits for customers,” the basic contract structure under the CBP plan is uniform. The wholesale suppliers will bid to serve “tranches” of Duke’s aggregated SSO load. Each tranche is precisely 1.0 percent of the actual SSO load at each hour during the term of the supplier contract. This means that a wholesale supplier’s MW load, service obligation under an FRC will fluctuate hourly. Because customers can “migrate” to and from the SSO, for a fixed number of tranches, the supplier’s contract load service obligation could be quite different toward the end of the contract as compared with what that supplier originally expected.

Mr. Lee further explains that each winning wholesale supplier must provide a complete package of generation products as required by PJM to serve SSO load requirements. As Mr. Lee states, “each successful [wholesale] supplier will provide full requirements SSO supply, including energy, capacity, transmission ancillaries, and other transmission services as defined in the Master SSO Supply Agreement.” (Lee testimony, page 8). The wholesale suppliers combine these various generation products into a “package” and are required under the auction format to bid a single $-per-MWh price. In each auction (Duke will conduct two auctions per year), all winning bidders receive the same market-clearing price for the full package of generation products servicing the tranches, (i.e., percentages) for the entire SSO load.

Duke must pay the winning bidders based on the market-clearing contract prices established in the auctions, and the Utility will fully recover these contract costs from the SSO customers. Duke will pay wholesale supplier counterparties a fixed $-per-MWh price for the package of generation products. The individual components (e.g., capacity versus energy versus ancillaries) are not separately priced. (Lee testimony, pages 8-9) For example, the wholesale suppliers must price into their bids the cost (or estimated cost) of each product, along with compensation for risk, its profit requirement, the supplier’s administrative costs, etc., but the pricing of each individual component is not revealed.

In summary, Duke will incur capacity costs as an implicit and unquantified component of its total payments to wholesale suppliers for SSO service.

1. do wholesale suppliers in the cbp AUCTIONS reveal their pricing requirements to serve individual customer classes?
2. No, they do not because the auctions solicit supply for tranches of the aggregated SSO load, not customer class loads. This is not to suggest that the SSO customer class mix does not matter to wholesale bidders. It likely does matter. But the specific effects of customer class mix on price bids cannot (and need not) be determined by Duke.
3. if the cost of capacity is not directly revealed in the auction, how does duke determine the magnitude of the capacity costs incurred?
4. As discussed in the testimony of witness Ziolkowski, Duke assumes that the capacity cost component is equal to the PJM Reliability Pricing Model (“RPM”) annual clearing price (e.g., $125.99 per MW-day for the first year). Mr. Ziolkowski allocates this capacity cost to customer classes based on each class’s percentage contribution to the 2013 PJM five coincident peak. (Ziolkowski testimony, page 9). This results in a 45.37 percent allocation to the residential class, which he acknowledges is larger than the 39.12 percent established in Duke’s previous ESP case, Case No. 11-3549-EL-SSO, *et al.* This proposal is about a 16 percent increase in the residential class’s allocation share of the (implicit) cost of capacity.
5. does mr. ziolkowski provide a description of the methodology for calculating the capacity charge?
6. No. His testimony on this subject identifies the proposed change in the customer class cost allocation percentages and some of the rate impacts this change will produce. His testimony refers the reader to the settlement reached in the 2011 Duke ESP case for a description of the methodology. That methodology is described in the Supplemental Testimony of Duke witness Wathen in that docket (October 28, 2011, pages 8-13 and Attachment B, Exhibit 1).[[2]](#footnote-3)

In that settlement, the parties agreed upon customer class allocation percentages of the capacity costs associated with servicing the SSO loads for the term of that prior ESP (Case No. 11-3549-EL-SSO, et al., Attachment B). For example, the residential class in the settlement was allocated 39.12 percent of the total. The total capacity costs were based on PJM’s RPM auction pricing results.

Once the capacity costs were allocated to customer classes, Duke then translated this cost into a cents-per-KWh charge for each class. For example, in year (1) of the ESP (i.e., 2012), the total Utility capacity charge averaged 0.42 cents-per-KWh, and for the residential class, it averaged 0.46 cents-per-KWh. Thus, the residential costs premium relative to total company in this settlement was about 9.5 percent (i.e., 0.46/0.42).

1. how is the capacity charge used to set the sso rates UNDER this methodology?
2. In the aggregate, Duke only charges SSO customers for power supply based on the blended prices resulting from the wholesale auctions that it conducts.[[3]](#footnote-4) As noted above, the cost of capacity is implicit in those $-per-MWh auction clearing prices, but it is not separately specified. Duke therefore administratively “unbundles” the blended clearing price into energy and capacity components. Duke calculates the capacity charge (on a per KWh basis), as noted above, and subtracts this figure from the auction price to obtain the SSO energy price. Each customer class then pays the sum of the energy price and the class-specific capacity charge to derive the total SSO retail rate.
3. How does this change in the current filing?
4. The basic methodology does *not* change. However, Mr. Ziolkowski proposes modifying the customer class allocation percentages for the capacity charges that is highly adverse for the residential class, from 39.12 percent to 45.37 percent (testimony, page 9). This is a 16 percent increase in the residential allocation as compared to the 2011 settlement (45.37/39.12 = 1.16).
5. can you determine the dollar impact of this METHODOLOGY on the residential class?
6. Yes. In response to OCC-INT-12-341, Duke provides its calculation of the cents per KWh capacity charge, by customer class that will result from its new allocation proposed for the ESP year June 2015 – May 2016. (This is based on a PJM RPM clearing price of $135.79 per MW-day). I show this in Table 1 below:

|  |
| --- |
| **Table 1Proposed Capacity Prices, June 2015-May 2016(cents-per-KWh)** |
| Residential (RS, TD, ORH) | 1.52 ¢/KWh |
| Secondary Distribution – Small (DM) | 1.46 |
| Secondary Distribution (DS) | 1.21 |
| Primary Distribution (DP) | 0.98 |
| Transmission Voltage (TS) | 0.72 |
| Lighting | 0.10 |
| **Total** | **1.22 ¢/KWh** |

The residential capacity charge under this proposal is 1.52 cents compared to total company 1.22 cents, or a 0.30 cents-per-KWh (i.e., $3-per-MWh) cost premium. This translates into a 24.5 percent capacity charge cost premium for residential customers as compared to about 9.5 percent in the 2011 ESP settlement. In other words, Duke’s proposal in this case causes that residential premium cost to nearly triple.

1. can you translate duke’s PROPOSED residential cost premium into dollars?
2. Yes, it can be estimated. Based on 2013 data, the residential SSO load is about 3.8 million MWh per year. A $3-per-MWh cost premium would translate into an added cost for residential SSO customers of about $11 million per year. This proposed cost premium could differ in future years of the ESP depending on the size of the residential SSO load and the PJM RPM clearing prices. But nonetheless, some substantial level of capacity charge premium will be paid by residential SSO customers in all years of the ESP.
3. is it reasonable to charge residential customers a cost premium for capacity in the context of the purely market-based sso?
4. No, it is not. The use of so-called “cost causation” allocation techniques is really a holdover from traditional cost of service regulation. There is no evidence presented by Duke supporting the notion that the winning bidders in the Duke wholesale auctions would charge residential loads a cost premium as compared to non-residential customers. This appears to be an assumption on Duke’s part, and I believe it to be incorrect. Duke’s cost allocation proposal is an administratively-determined pricing adjustment and not the result of bidding behavior for the wholesale FRCs that will supply the SSO loads.
5. duke’s allocation is purportedly based on the “FIVE cp” method. are you stating that wholesale suppliers are indifferent to customer class mix or load factors?
6. No, not at all. That load factor information is clearly important to suppliers and is priced into bids. All else equal, my view is that the relatively lower load factor for the residential class may well merit a capacity cost premium as compared to a higher load factor. The problem is with the “all else equal” assumption. There are two other critical factors that affect market pricing that the Utility’s methodology does not consider in setting class-specific SSO rates. First, the size of the overall SSO load is likely to influence wholesale supplier interest in participating in a wholesale auction, with a large load attracting more bidders and therefore a more competitive pricing outcome. Duke’s allocation and price premiums ignore the fact the residential class accounts for more than 70 percent of the SSO KWh sales.[[4]](#footnote-5) Absent the residential class, the Duke wholesale auctions would be quite small and therefore much less attractive to potential bidders.

A second and even more important consideration is “migration risk.” The wholesale bidders are exposed to unpredictable SSO load changes over the contract term due to customer migration to or from competitive service, and this is a very difficult risk to manage. Unlike other uncertainties, this risk cannot be hedged. This risk inevitably will be priced into the bids submitted in the Duke auctions. While all customer classes are permitted to (and do) migrate, medium and large non-residential customers generally have a greater tendency to shop and, in that sense, are more “market sensitive.” This makes SSO loads for large non-residential customers far less certain and potentially volatile. Residential customers over time may also move to competitive service, but such movements do not tend to be as abrupt. For example, at this time about half of the residential customers remain on Duke’s SSO. This is true of the small commercial customers as well.[[5]](#footnote-6) All of this suggests that, with respect to SSO customers, wholesale suppliers may perceive much less migration risk in serving the residential class. Hence, all else is not equal, and Duke’s capacity adjustment price premium for residential customers may be contrary to wholesale market requirements under the FRC construct recommended by Duke witness Lee. At a minimum, there is no showing by Duke that wholesale bidders in the auctions require a price premium to serve the residential class.

1. given your observations, what do you recommend?
2. There are two alternative remedies to this unwarranted price premium that Duke proposes to charge to residential customers. The most straightforward solution would be simply to not include the capacity allocation adjustment in the customer class pricing because there is no showing that the market actually requires a price premium when risk factors are included. This would reduce the residential SSO price in year one by about $3-per-MWh, using the Utility’s data. This would also likely provide similar residential customer savings in years two and three of the ESP.

Another market-based alternative would be to have a separate power supply procurement for the residential class. This would not require separate residential and non-residential auctions, but rather the auction could be conducted in the normal manner but with separate residential and non-residential products identified. Bidders would then have the flexibility to submit bids for residential tranches and/or non-residential tranches within the same auction. There would be separate clearing prices for residential and non-residential FRCs, which would obviate the need for Duke’s capacity allocation methodology.

In my opinion, the first alternative would be the simplest and most practical solution to the problem. It would both simplify the setting of SSO retail rates and would eliminate an unwarranted cost premium. It is therefore my preferred recommendation.

1. PLEASE EXPLAIN WHY CUSTOMER MIGRATION IS AN IMPORTANT RISK FOR WHOLESALE SUPPLIERS SERVING SSO LOADS?
2. This risk arises due to the load serving obligations that wholesale suppliers take on under the terms of the FRCs (as described by Duke witness Lee in his testimony, pages 8-9) coupled with uncertainties in wholesale energy markets. Stated simply, prices in energy markets over time can be volatile and uncertain. Fortunately, wholesale suppliers engage in hedging activity to manage energy market price risk. For example, if a supplier has an obligation to serve a fixed 100 MW load over a two-year contract term, the supplier can mitigate market risk for that contract by hedging forward using energy futures markets. However, under the FRC structure the supplier’s obligation is to serve a fixed *percentage* (not fixed number of MWs) of the uncertain SSO load. This load uncertainty undermines the supplier’s ability to manage market risk through hedging.

The SSO load can either increase or decrease in unexpected ways during the term of a supplier’s contract. If it decreases (customers abruptly moving to competitive retail electric service (“CRES”) providers), then wholesale FRC suppliers may have over hedged, (i.e., purchased too much energy in the forward market) and will incur a loss if market prices unexpectedly fall. Indeed, the market price decline may be the motivation for market-sensitive customers to migrate from SSO to CRES suppliers. Similarly, if market energy prices sharply rise and customers move back to SSO (as their CRES contracts expire), then the wholesale FRC supplier now finds, unexpectedly, that he must serve a larger load. He therefore must supply or purchase more energy from the market, but his FRC contract price is fixed (i.e., set by Duke’s auction). This can also result in economic losses for the winning supplier.

This discussion makes clear that unexpected changes (increases or decreases) in the SSO load is a risk that suppliers must consider and price in under the FRC structure. The supplier has no control over and cannot predict changes in load due to in or out migration. While this risk is present for all customer classes, residential and small commercial customer migration tends to be far more gradual and less risky.

1. CAN YOU QUANTIFY THE LOWER RISK AND LARGER LOAD BENEFITS OF RESIDENTIAL SSO?
2. No, this cannot be quantified unless Duke separately procures power supply for residential and non-residential SSO loads. It is therefore impossible to say whether such benefits partly, fully or more than offset the $3-per-MWh “load factor” premium Duke seeks to impose on residential SSO pricing. It is for this reason that I believe it is appropriate not to charge residential customers a cost premium, nor do I propose providing residential customers a rate discount due to the lower migration risk for that customer class.

## POR Program Bad Debt Expense

1. HAS DUKE ADDRESSED ITS POR PROGRAM IN THIS CASE?
2. Only in a very limited way. The present POR plan and the associated bad debt expense collection arrangement results from Duke’s 2011 ESP settlement (Case No. 11-3549-EL-SSO, et al.). In that case, Duke was permitted to implement Rider UE-GEN (“Uncollectible Expense – Electric Generation Rider”) for the full duration of that ESP. This allows Duke to recover generation-related uncollectibles from utility customers including customers of CRES providers (unless the CRES provider does not participate in the POR program). The Rider UE-GEN also states that Duke will purchase 100 percent of a participating CRES supplier’s receivables otherwise stated as “at zero discount.” Thus, Duke incurs the CRES supplier’s bad debt expense and under this rider charges customers for all such bad debt expense incurred.

In this case, Duke proposes making certain modifications to its POR program. Specifically, Duke witness Jones proposes several technical changes to the Certified Supplier Tariff, including making CRES provider participation in the POR program mandatory if the provider uses Duke’s consolidated billing. (Jones testimony, pages 6-10). Mr. Jones notes that at present only two of 55 CRES providers do not participate in the POR program.

HAVE PURCHASE OF RECEIVABLE PROGRAMS BEEN PREVIOUSLY ADDRESSED BY THE OCC?

1. Yes, they have. In comments submitted by the OCC in PUCO Case No. 12-3151-EL-COI, the OCC opposed POR programs. OCC opposed POR programs because it would impose costs on customers and may not produce material benefits for customers. OCC noted the lack of a demonstrated need for such programs to enhance retail competition. OCC also argued that the POR program causes customers to pay a regulatory subsidy to CRES providers, when regulatory subsidies are inappropriate in a deregulated market. In particular, revenue and bad debt expense reflect the normal business risks associated with the unregulated market.

WHAT IS DUKE’S ANNUAL BAD DEBT EXPENSE?

1. The Utility’s response to OCC-INT-12-345 states that for the 12-months ending March 31, 2014 total charge offs were about $2.3 million. However, it does not have an estimate of the portion of bad debt expense associated with its zero discount POR program.

DOES DUKE COLLECT SSO BAD DEBT EXPENSE THROUGH RIDER UE-GEN?

1. Yes, it does, along with CRES provider bad debt expense (response to OCC-INT-12-344).

WHAT IS YOUR RECOMMENDATION CONCERNING THE DUKE POR PROGRAM AND RIDER UE-GEN?

1. I recommend that Duke’s current POR program be modified to eliminate the Utility’s payment to CRES providers for bad debt expense, (i.e., the zero discount feature). Instead, the discount rate should be set at a level such that it is sufficient to cover participating CRES providers’ bad debt expense and updated periodically based on actual CRES bad debt experience. In addition, Rider UE-GEN should be phased out. If the “zero discount” feature is ended, the rider is not needed for CRES provider bad debt. The bad debt expense associated with the SSO purchases should be collected directly in the SSO retail rates.

If the zero discount rate feature is corrected to equal the actual bad debt expense, this rider would no longer be needed. The use of this bad debt expense rider is an example of improper single-issue ratemaking.

WHY DO YOU OBJECT TO THE ZERO DISCOUNT FEATURE OF DUKE’S POR PROGRAM?

1. Under the zero discount feature, Duke incurs the costs of nonregulated CRES providers’ bad debt expense. This is an outright subsidy, and there is no showing that this subsidy is either necessary for CRES provider viability or of any benefit to customers. Market logic and long-held experience dictate that subsidies to private suppliers induce greater supply as well as introducing the potential for market distortion. Subsidies from captive monopoly customers are contrary to the notion of freely-functioning competitive markets. Indeed in an extreme sense, we could benefit and thereby promote CRES supplier activity even further by amending Duke’s POR program to provide payments of 110 percent of billed receivables instead of just 100 percent. Duke’s program provides an explicit subsidy to unregulated companies, and one that is arbitrary at that. Additionally, subsidies such as this are contrary to the policy of the state set forth in R.C. 4928.02(H).

I am not suggesting that subsidies to markets or suppliers can never be justified. There can be both economic and noneconomic arguments for subsidies both for social policy reasons and/or to correct market distortions.[[6]](#footnote-7) But such arguments must be supported with a convincing public interest analysis and fully justified. The argument for a CRES provider subsidy, paid by customers, has not been set forth by Duke and does not seem credible.

WILL CUSTOMERS BE HARMED BY DUKE’S ZERO DISCOUNT PROGRAM?

1. Yes, because customers must bear the actual bad debt expense (through Duke’s bad debt expense rider). This responsibility should belong to CRES providers as it is a cost of doing business. A defender of the zero discount might argue that competitive forces may lead CRES suppliers to reduce their price offers, thereby offsetting the customer-imposed cost of the bad debt rider. But there is no assurance that such a customer savings offset will be realized.

This “no harm to customers” argument, however, assumes a fully developed competitive market where competition always drives price down to cost (inclusive of a competitively-required return). But if this were the case, then a POR program of any kind could not be justified to enhance the retail market, let alone one with a large subsidy.

More realistically, CRES suppliers serving the retail market understand that, at least at this time, a large portion (about half) of residential customers continue to take SSO generation service. Consequently, to attract customers and increase market share, CRES suppliers must compete against the SSO (as well as each other) and therefore must offer a price that provides savings relative to the SSO rate in order to attract and/or retain customers. A POR program, with or without a subsidy embedded in the zero discount feature, has no effect on the determination of the SSO price.[[7]](#footnote-8) Consequently, there is no reason to be confident that CRES suppliers would reduce their price offers accordingly to flow through the bad debt expense subsidy paid by utility customers due to the Duke POR program.

The end result is an overall net increase in customer costs by the amount of the subsidy embedded in the Duke POR program and bad debt expense rider.

## Duke’s SEET Proposal

WHAT IS DUKE’S PROPOSAL IN THIS CASE CONCERNING THE SEET TEST?

1. Duke witness Laub sponsors the Utility’s proposal to accompany its ESP filing (Laub testimony, page 8 and Attachment PAL-2). She states that the current SEET proposal, which incorporates a 15.0 percent ROE threshold, “is similar to Commission-approved manner in which the SEET is applied to Duke Energy Ohio under its current ESP.” (Id., page 8). This is a reference to the SEET established in Case No. 11-3549-EL-SSO, et al. pursuant to a settlement approved by the PUCO. That settlement reflected the 15.0 percent ROE threshold for triggering customer rate refunds in the case of significantly excessive earnings realized by the Utility. (See Section IX(M)) and Attachment H of the Stipulation and Recommendation.)

DOES WITNESS LAUB PROVIDE ANY ANALYSIS OR EVIDENCE DEMONSTRATING THAT THE 15.0 PERCENT ROE THRESHOLD CONTINUES TO BE FAIR AND REASONABLE?

1. No, other than the citation to the settlement in Duke’s previous ESP case, which took place three years ago, Duke offers no analysis or evidence supporting the reasonableness of the threshold. That settlement reflected a compromise among the parties on numerous issues, and the SEET threshold adopted by that settlement is non‑precedential.

ARE THERE REASONS FOR CONCLUDING THAT THE CURRENT SEET THRESHOLD IS NOT REASONABLE?

1. Yes. The current 15.0 percent ROE threshold was established by settlement in the context of conditions at that time (i.e., October 2011) and the ESP program approved in that case. Important changes have taken place since that settlement, which support a significant reduction in the SEET ROE at this time.

The most important of these changes, or potential changes include:

* The market cost of capital has declined since 2011. As noted earlier, Duke’s currently authorized ROE was set at 9.84 percent in the 2012/2013 rate case.
* Since the time of the 2011 settlement in the last ESP docket, Duke has divested substantially all of its generation assets (other than its OVEC entitlement). As monopoly distribution service is viewed as far less risky than the generation supply function, this improves Duke’s business risk profile. Generation supply is subject to considerable market risk and risks associated with actual and potential environmental compliance.
* Duke in this case has proposed rate rider arrangements that, if approved, will improve its business risk profile as compared to conventional base rate case cost collection, as well as its last ESP.

ARE THERE ANY OTHER REASONS FOR CONSIDERING A REDUCTION TO THE PROPOSED 15.0 PERCENT ROE FOR THE SEET?

1. Yes. For example, in AEP Ohio’s last ESP case, the PUCO decided to set that utility’s SEET ROE threshold at 12.0 percent “to ensure that the Company does not reap disproportionate benefits from the ESP.”[[8]](#footnote-9) Similarly, in Dayton Power and Light Company’s (“DP&L’s”) last ESP case, the PUCO also adopted a SEET ROE threshold of 12.0 percent.[[9]](#footnote-10)

IN LIGHT OF THESE CHANGES SINCE 2011 AND CURRENT CIRCUMSTANCES, WHAT IS YOUR RECOMMENDATION FOR THE SEET ROE THRESHOLD?

1. There is no need for the PUCO to set the SEET ROE threshold for the three-year term of the ESP at this time. Instead, it should be set in the annual SEET review proceedings. If, however, the PUCO does choose to set the SEET ROE threshold at this time, these changes, as discussed above, in my opinion, support a large reduction in the current 15.0 percent ROE threshold. While the appropriate SEET ROE threshold may not necessarily be susceptible to precise calculation, I recommend that the PUCO consider a threshold value in the range of 12 to 14 percent. It should be noted that 12 to 14 percent is far greater than Duke’s currently authorized ROE for setting its base distribution rates of 9.84 percent. The lower end of my suggested SEET range of 12.0 percent is a 216 basis point premium, and the high end is a 416 basis point premium above Duke’s currently authorized ROE.
2. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
3. Yes, it does. However, I reserve the right to incorporate new information that may subsequently become available.

**CERTIFICATE OF SERVICE**

It is hereby certified that a true copy of the foregoing *Direct Testimony of Matthew I. Kahal on Behalf of The Ohio Consumers’ Counsel* was served via electronic transmission this 26th day of September, 2014.

 /s/ Maureen R. Grady

 Maureen R. Grady

 Assistant Consumers’ Counsel

**SERVICE LIST**

|  |  |
| --- | --- |
| Steven.beeler@puc.state.oh.usThomas.lindgren@puc.state.oh.usRyan.orourke@puc.state.oh.usdboehm@BKLlawfirm.commkurtz@BKLlawfirm.comjkylercohn@BKLlawfirm.comSchmidt@sppgrp.comJudi.sobecki@aes.comBojko@carpenterlipps.comAllison@carpenterlipps.comcmooney@ohiopartners.orgstnourse@aep.commjsatterwhite@aep.comyalami@aep.comasonderman@keglerbrown.commkimbrough@keglerbrown.comhussey@carpenterlipps.commhpetricoff@vorys.commjsettineri@vorys.comglpetrucci@vorys.comdmason@ralaw.commtraven@ralaw.comrchamberlain@okenergylaw.comAttorney Examiner:Christine.pirik@puc.state.oh.usNicholas.walstra@puc.state.oh.us | Amy.Spiller@duke-energy.comElizabeth.watts@duke-energy.comRocco.dascenzo@duke-energy.comJeanne.Kingery@duke-energy.comhaydenm@firstenergycorp.comjmcdermott@firstenergycorp.comscasto@firstenergycorp.comjoliker@igsenergy.commswhite@igsenergy.comjoseph.clark@directenergy.comsam@mwncmh.comfdarr@mwncmh.commpritchard@mwncmh.comcallwein@wamenergylaw.comtdougherty@theOEC.orgdhart@douglasehart.comcloucas@ohiopartners.orggpoulos@enernoc.com swilliams@nrdc.orgtobrien@bricker.comghull@eckertseamans.comjvickers@elpc.org  |

**APPENDIX A**

**QUALIFICATIONS OF**

**MATTHEW I. KAHAL**

**MATTHEW I. KAHAL**

Since 2001, Mr. Kahal has worked as an independent consulting economist, specializing in energy economics, public utility regulation, and utility financial studies. Over the past three decades, his work has encompassed electric utility integrated resource planning (IRP), power plant licensing, environmental compliance, and utility financial issues. In the financial area, he has conducted numerous cost of capital studies and addressed other financial issues for electric, gas, telephone, and water utilities. Mr. Kahal’s work in recent years has expanded to electric power markets, mergers, and various aspects of regulation.

Mr. Kahal has provided expert testimony in approximately 400 cases before state and federal regulatory commissions, federal courts, and the U.S. Congress. His testimony has covered need for power, integrated resource planning, cost of capital, purchased power practices and contracts, merger economics, industry restructuring, and various other regulatory and public policy issues.

Education

 B.A. (Economics) – University of Maryland, 1971

 M.A. (Economics) – University of Maryland, 1974

Ph.D. candidacy – University of Maryland, completed all course work and qualifying examinations.

Previous Employment

 1981-2001 Founding Principal, Vice President, and President

 Exeter Associates, Inc.

 Bethesda, MD

 1980-1981 Member of the Economic Evaluation Directorate

 The Aerospace Corporation

 Washington, D.C.

 1977-1980 Economist

 Washington, D.C. consulting firm

 1972-1977 Research/Teaching Assistant and Instructor

 Department of Economics, University of Maryland (College Park)

 Lecturer in Business and Economics

 Montgomery College (Rockville, MD)

Professional Experience

Mr. Kahal has more than thirty years’ experience managing and conducting consulting assignments relating to public utility economics and regulation. In 1981, he and five colleagues founded the firm of Exeter Associates, Inc., and for the next 20 years he served as a Principal and corporate officer of the firm. During that time, he supervised multi-million dollar support contracts with the State of Maryland and directed the technical work conducted by both Exeter professional staff and numerous subcontractors. Additionally, Mr. Kahal took the lead role at Exeter in consulting to the firm’s other governmental and private clients in the areas of financial analysis, utility mergers, electric restructuring, and utility purchase power contracts.

At the Aerospace Corporation, Mr. Kahal served as an economic consultant to the Strategic Petroleum Reserve (SPR). In that capacity, he participated in a detailed financial assessment of the SPR, and developed an econometric forecasting model of U.S. petroleum industry inventories. That study has been used to determine the extent to which private sector petroleum stocks can be expected to protect the U.S. from the impacts of oil import interruptions.

Before entering consulting, Mr. Kahal held faculty positions with the Department of Economics at the University of Maryland and with Montgomery College, teaching courses on economic principles, business, and economic development.

Publications and Consulting Reports

Projected Electric Power Demands of the Baltimore Gas and Electric Company, Maryland Power Plant Siting Program, 1979.

Projected Electric Power Demands of the Allegheny Power System, Maryland Power Plant Siting Program, January 1980.

An Econometric Forecast of Electric Energy and Peak Demand on the Delmarva Peninsula, Maryland Power Plant Siting Program, March 1980 (with Ralph E. Miller).

A Benefit/Cost Methodology of the Marginal Cost Pricing of Tennessee Valley Authority Electricity, prepared for the Board of Directors of the Tennessee Valley Authority, April 1980.

An Evaluation of the Delmarva Power and Light Company Generating Capacity Profile and Expansion Plan, (Interim Report), prepared for the Delaware Office of the Public Advocate, July 1980 (with Sharon L. Mason).

Rhode Island-DOE Electric Utilities Demonstration Project, Third Interim Report on Preliminary Analysis of the Experimental Results, prepared for the Economic Regulatory Administration, U.S. Department of Energy, July 1980.

Petroleum Inventories and the Strategic Petroleum Reserve, The Aerospace Corporation, prepared for the Strategic Petroleum Reserve Office, U.S. Department of Energy, December 1980.

Alternatives to Central Station Coal and Nuclear Power Generation, prepared for Argonne National Laboratory and the Office of Utility Systems, U.S. Department of Energy, August 1981.

“An Econometric Methodology for Forecasting Power Demands,” Conducting Need-for-Power Review for Nuclear Power Plants (D.A. Nash, ed.), U.S. Nuclear Regulatory Commission, NUREG-0942, December 1982.

State Regulatory Attitudes Toward Fuel Expense Issues, prepared for the Electric Power Research Institute, July 1983 (with Dale E. Swan).

“Problems in the Use of Econometric Methods in Load Forecasting,” Adjusting to Regulatory, Pricing and Marketing Realities (Harry Trebing, ed.), Institute of Public Utilities, Michigan State University, 1983.

Proceedings of the Maryland Conference on Electric Load Forecasting (editor and contributing author), Maryland Power Plant Siting Program, PPES-83-4, October 1983.

“The Impacts of Utility-Sponsored Weatherization Programs: The Case of Maryland Utilities” (with others), in Government and Energy Policy (Richard L. Itteilag, ed.), 1983.

Power Plant Cumulative Environmental Impact Report, contributing author (Paul E. Miller, ed.) Maryland Department of Natural Resources, January 1984.

Projected Electric Power Demands for the Potomac Electric Power Company, three volumes (with Steven L. Estomin), prepared for the Maryland Power Plant Siting Program, March 1984.

“An Assessment of the State-of-the-Art of Gas Utility Load Forecasting” (with Thomas Bacon, Jr. and Steven L. Estomin), published in the Proceedings of the Fourth NARUC Biennial Regulatory Information Conference, 1984.

“Nuclear Power and Investor Perceptions of Risk” (with Ralph E. Miller), published in The Energy Industries in Transition: 1985-2000 (John P. Weyant and Dorothy Sheffield, eds.), 1984.

The Financial Impact of Potential Department of Energy Rate Recommendations on the Commonwealth Edison Company, prepared for the U.S. Department of Energy, October 1984.

“Discussion Comments,” published in Impact of Deregulation and Market Forces on Public Utilities: The Future of Regulation (Harry Trebing, ed.), Institute of Public Utilities, Michigan State University, 1985.

An Econometric Forecast of the Electric Power Loads of Baltimore Gas and Electric Company, two volumes (with others), prepared for the Maryland Power Plant Siting Program, 1985.

A Survey and Evaluation of Demand Forecast Methods in the Gas Utility Industry, prepared for the Public Utilities Commission of Ohio, Forecasting Division, November 1985 (with Terence Manuel).

A Review and Evaluation of the Load Forecasts of Houston Lighting & Power Company and Central Power & Light Company – Past and Present, prepared for the Texas Public Utility Commission, December 1985 (with Marvin H. Kahn).

Power Plant Cumulative Environmental Impact Report for Maryland, principal author of three of the eight chapters in the report (Paul E. Miller, ed.), PPSP-CEIR-5, March 1986.

“Potential Emissions Reduction from Conservation, Load Management, and Alternative Power,” published in Acid Deposition in Maryland: A Report to the Governor and General Assembly, Maryland Power Plant Research Program, AD-87-1, January 1987.

Determination of Retrofit Costs at the Oyster Creek Nuclear Generating Station, March 1988, prepared for Versar, Inc., New Jersey Department of Environmental Protection.

Excess Deferred Taxes and the Telephone Utility Industry, April 1988, prepared on behalf of the National Association of State Utility Consumer Advocates.

Toward a Proposed Federal Policy for Independent Power Producers, comments prepared on behalf of the Indiana Consumer Counselor, FERC Docket EL87-67-000, November 1987.

Review and Discussion of Regulations Governing Bidding Programs, prepared for the Pennsylvania Office of Consumer Advocate, June 1988.

A Review of the Proposed Revisions to the FERC Administrative Rules on Avoided Costs and Related Issues, prepared for the Pennsylvania Office of Consumer Advocate, April 1988.

Review and Comments on the FERC NOPR Concerning Independent Power Producers, prepared for the Pennsylvania Office of Consumer Advocate, June 1988.

The Costs to Maryland Utilities and Ratepayers of an Acid Rain Control Strategy – An Updated Analysis, prepared for the Maryland Power Plant Research Program, October 1987, AD-88-4.

“Comments,” in New Regulatory and Management Strategies in a Changing Market Environment (Harry M. Trebing and Patrick C. Mann, editors), Proceedings of the Institute of Public Utilities Eighteenth Annual Conference, 1987.

Electric Power Resource Planning for the Potomac Electric Power Company, prepared for the Maryland Power Plant Research Program, July 1988.

Power Plant Cumulative Environmental Impact Report for Maryland (Thomas E. Magette, ed.), authored two chapters, November 1988, PPRP-CEIR-6.

Resource Planning and Competitive Bidding for Delmarva Power & Light Company, October 1990, prepared for the Maryland Department of Natural Resources (with M. Fullenbaum).

Electric Power Rate Increases and the Cleveland Area Economy, prepared for the Northeast Ohio Areawide Coordinating Agency, October 1988.

An Economic and Need for Power Evaluation of Baltimore Gas & Electric Company’s Perryman Plant, May 1991, prepared for the Maryland Department of Natural Resources (with M. Fullenbaum).

The Cost of Equity Capital for the Bell Local Exchange Companies in a New Era of Regulation, October 1991, presented at the Atlantic Economic Society 32nd Conference, Washington, D.C.

A Need for Power Review of Delmarva Power & Light Company’s Dorchester Unit 1 Power Plant, March 1993, prepared for the Maryland Department of National Resources (with M. Fullenbaum).

The AES Warrior Run Project: Impact on Western Maryland Economic Activity and Electric Rates, February 1993, prepared for the Maryland Power Plant Research Program (with Peter Hall).

An Economic Perspective on Competition and the Electric Utility Industry, November 1994, prepared for the Electric Consumers’ Alliance.

PEPCO’s Clean Air Act Compliance Plan: Status Report, prepared for the Maryland Power Plant Research Plan, January 1995 (w/Diane Mountain, Environmental Resources Management, Inc.).

The FERC Open Access Rulemaking: A Review of the Issues, prepared for the Indiana Office of Utility Consumer Counselor and the Pennsylvania Office of Consumer Advocate, June 1995.

A Status Report on Electric Utility Restructuring: Issues for Maryland, prepared for the Maryland Power Plant Research Program, November 1995 (with Daphne Psacharopoulos).

Modeling the Financial Impacts on the Bell Regional Holding Companies from Changes in Access Rates, prepared for MCI Corporation, May 1996.

The CSEF Electric Deregulation Study: Economic Miracle or the Economists’ Cold Fusion?, prepared for the Electric Consumers’ Alliance, Indianapolis, Indiana, October 1996.

Reducing Rates for Interstate Access Service: Financial Impacts on the Bell Regional Holding Companies, prepared for MCI Corporation, May 1997.

The New Hampshire Retail Competition Pilot Program: A Preliminary Evaluation, July 1997, prepared for the Electric Consumers’ Alliance (with Jerome D. Mierzwa).

Electric Restructuring and the Environment: Issue Identification for Maryland, March 1997, prepared for the Maryland Power Plant Research Program (with Environmental Resource Management, Inc.).

An Analysis of Electric Utility Embedded Power Supply Costs, prepared for Power-Gen International Conference, Dallas, Texas, December 1997.

Market Power Outlook for Generation Supply in Louisiana, December 2000, prepared for the Louisiana Public Service Commission (with others).

A Review of Issues Concerning Electric Power Capacity Markets, prepared for the Maryland Power Plant Research Program, December 2001 (with B. Hobbs and J. Inon).

The Economic Feasibility of Air Emissions Controls at the Brandon Shores and Morgantown Coal-fired Power Plants, February 2005 (prepared for the Chesapeake Bay Foundation).

The Economic Feasibility of Power Plant Retirements on the Entergy System, September 2005, with Phil Hayet (prepared for the Louisiana Public Service Commission).

Expert Report on Capital Structure, Equity and Debt Costs, prepared for the Edmonton Regional Water Customers Group, August 30, 2006.

Maryland’s Options to Reduce and Stabilize Electric Power Prices Following Restructuring, with Steven L. Estomin, prepared for the Power Plant Research Program, Maryland Department of Natural Resources, September 2006.

Expert Report of Matthew I. Kahal, on behalf of the U. S. Department of Justice, August 2008, Civil Action No. IP-99-1693C-MIS.

Conference and Workshop Presentations

Workshop on State Load Forecasting Programs, sponsored by the Nuclear Regulatory Commission and Oak Ridge National Laboratory, February 1982 (presentation on forecasting methodology).

Fourteenth Annual Conference of the Michigan State University Institute for Public Utilities, December 1982 (presentation on problems in forecasting).

Conference on Conservation and Load Management, sponsored by the Massachusetts Energy Facilities Siting Council, May 1983 (presentation on cost-benefit criteria).

Maryland Conference on Load Forecasting, sponsored by the Maryland Power Plant Siting Program and the Maryland Public Service Commission, June 1983 (presentation on overforecasting power demands).

The 5th Annual Meetings of the International Association of Energy Economists, June 1983 (presentation on evaluating weatherization programs).

The NARUC Advanced Regulatory Studies Program (presented lectures on capacity planning for electric utilities), February 1984.

The 16th Annual Conference of the Institute of Public Utilities, Michigan State University (discussant on phase-in and excess capacity), December 1984.

U.S. Department of Energy Utilities Conference, Las Vegas, Nevada (presentation of current and future regulatory issues), May 1985.

The 18th Annual Conference of the Institute of Public Utilities, Michigan State University, Williamsburg, Virginia, December 1986 (discussant on cogeneration).

The NRECA Conference on Load Forecasting, sponsored by the National Rural Electric Cooperative Association, New Orleans, Louisiana, December 1987 (presentation on load forecast accuracy).

The Second Rutgers/New Jersey Department of Commerce Annual Conference on Energy Policy in the Middle Atlantic States, Rutgers University, April 1988 (presentation on spot pricing of electricity).

The NASUCA 1988 Mid-Year Meeting, Annapolis, Maryland, June 1988, sponsored by the National Association of State Utility Consumer Advocates (presentation on the FERC electricity avoided cost NOPRs).

The Thirty-Second Atlantic Economic Society Conference, Washington, D.C., October 1991 (presentation of a paper on cost of capital issues for the Bell Operating Companies).

The NASUCA 1993 Mid-Year Meeting, St. Louis, Missouri, sponsored by the National Association of State Utility Consumer Advocates, June 1993 (presentation on regulatory issues concerning electric utility mergers).

The NASUCA and NARUC annual meetings in New York City, November 1993 (presentations and panel discussions on the emerging FERC policies on transmission pricing).

The NASUCA annual meetings in Reno, Nevada, November 1994 (presentation concerning the FERC NOPR on stranded cost recovery).

U.S. Department of Energy Utilities/Energy Management Workshop, March 1995 (presentation concerning electric utility competition).

The 1995 NASUCA Mid-Year Meeting, Breckenridge, Colorado, June 1995 (presentation concerning the FERC rulemaking on electric transmission open access).

The 1996 NASUCA Mid-Year Meeting, Chicago, Illinois, June 1996 (presentation concerning electric utility merger issues).

Conference on “Restructuring the Electric Industry,” sponsored by the National Consumers League and Electric Consumers Alliance, Washington, D.C., May 1997 (presentation on retail access pilot programs).

The 1997 Mid-Atlantic Conference of Regulatory Utilities Commissioners (MARUC), Hot Springs, Virginia, July 1997 (presentation concerning electric deregulation issues).

Power-Gen ‘97 International Conference, Dallas, Texas, December 1997 (presentation concerning utility embedded costs of generation supply).

Consumer Summit on Electric Competition, sponsored by the National Consumers League and Electric Consumers’ Alliance, Washington, D.C., March 2001 (presentation concerning generation supply and reliability).

National Association of State Utility Consumer Advocates, Mid-Year Meetings, Austin, Texas, June 16-17, 2002 (presenter and panelist on RTO/Standard Market Design issues).

Louisiana State Bar Association, Public Utility Section, Baton Rouge, Louisiana, October 2, 2002 (presentation on Performance-Based Ratemaking and panelist on RTO issues).

Virginia State Corporation Commission/Virginia State Bar, Twenty-Second National Regulatory Conference, Williamsburg, Virginia, May 10, 2004 (presentation on Electric Transmission System Planning).

**APPENDIX B**

**LIST OF PAST TESTIMONY OF**

**MATTHEW I. KAHAL**

 1. 27374 & 27375 Long Island Lighting Company New York Counties Nassau & Suffolk Economic Impacts of Proposed

 October 1978 Rate Increase

 2. 6807 Generic Maryland MD Power Plant Load Forecasting

 January 1978 Siting Program

 3. 78-676-EL-AIR Duke Energy Ohio Ohio Ohio Consumers’ Counsel Test Year Sales and Revenues

 February 1978

 4. 17667 Alabama Power Company Alabama Attorney General Test Year Sales, Revenues, Costs,

 May 1979 and Load Forecasts

 5. None Tennessee Valley TVA Board League of Women Voters Time-of-Use Pricing

 April 1980 Authority

 6. R-80021082 West Penn Power Company Pennsylvania Office of Consumer Advocate Load Forecasting, Marginal Cost

 pricing

 7. 7259 (Phase I) Potomac Edison Company Maryland MD Power Plant Siting Program Load Forecasting

 October 1980

 8. 7222 Delmarva Power & Light Maryland MD Power Plant Siting Program Need for Plant, Load

 December 1980 Company Forecasting

 9. 7441 Potomac Electric Maryland Commission Staff PURPA Standards

 June 1981 Power Company

10. 7159 Baltimore Gas & Electric Maryland Commission Staff Time-of-Use Pricing

 May 1980

11. 81-044-E-42T Monongahela Power West Virginia Commission Staff Time-of-Use Rates

12. 7259 (Phase II) Potomac Edison Company Maryland MD Power Plant Siting Program Load Forecasting, Load

 November 1981 Management

13. 1606 Blackstone Valley Electric Rhode Island Division of Public Utilities PURPA Standards

 September 1981 and Narragansett

14. RID 1819 Pennsylvania Bell Pennsylvania Office of Consumer Advocate Rate of Return

 April 1982

15. 82-0152 Illinois Power Company Illinois U.S. Department of Defense Rate of Return, CWIP

 July 1982

16. 7559 Potomac Edison Company Maryland Commission Staff Cogeneration

 September 1982

17. 820150-EU Gulf Power Company Florida Federal Executive Agencies Rate of Return, CWIP

 September 1982

18. 82-057-15 Mountain Fuel Supply Company Utah Federal Executive Agencies Rate of Return, Capital

 January 1983 Structure

19. 5200 Texas Electric Service Texas Federal Executive Agencies Cost of Equity

 August 1983 Company

20. 28069 Oklahoma Natural Gas Oklahoma Federal Executive Agencies Rate of Return, deferred taxes,

 August 1983 capital structure, attrition

21. 83-0537 Commonwealth Edison Company Illinois U.S. Department of Energy Rate of Return, capital structure,

 February 1984 financial capability

22. 84-035-01 Utah Power & Light Company Utah Federal Executive Agencies Rate of Return

 June 1984

23. U-1009-137 Utah Power & Light Company Idaho U.S. Department of Energy Rate of Return, financial

 July 1984 condition

24. R-842590 Philadelphia Electric Company Pennsylvania Office of Consumer Advocate Rate of Return

 August 1984

25. 840086-EI Gulf Power Company Florida Federal Executive Agencies Rate of Return, CWIP

 August 1984

26. 84-122-E Carolina Power & Light South Carolina South Carolina Consumer Rate of Return, CWIP, load

 August 1984 Company Advocate forecasting

27. CGC-83-G & CGC-84-G Columbia Gas of Ohio Ohio Ohio Division of Energy Load forecasting

 October 1984

28. R-842621 Western Pennsylvania Water Pennsylvania Office of Consumer Advocate Test year sales

 October 1984 Company

29. R-842710 ALLTEL Pennsylvania Inc. Pennsylvania Office of Consumer Advocate Rate of Return

 January 1985

30. ER-504 Allegheny Generating Company FERC Office of Consumer Advocate Rate of Return

 February 198531. R-842632 West Penn Power Company Pennsylvania Office of Consumer Advocate Rate of Return, conservation,

 March 1985 time-of-use rates

32. 83-0537 & 84-0555 Commonwealth Edison Company Illinois U.S. Department of Energy Rate of Return, incentive

 April 1985 rates, rate base

33. Rulemaking Docket Generic Delaware Delaware Commission Staff Interest rates on refunds

 No. 11, May 1985

34. 29450 Oklahoma Gas & Electric Oklahoma Oklahoma Attorney General Rate of Return, CWIP in rate

 July 1985 Company base

35. 1811 Bristol County Water Company Rhode Island Division of Public Utilities Rate of Return, capital

 August 1985 Structure

36. R-850044 & R-850045 Quaker State & Continental Pennsylvania Office of Consumer Advocate Rate of Return

 August 1985 Telephone Companies

37. R-850174 Philadelphia Suburban Pennsylvania Office of Consumer Advocate Rate of Return, financial

 November 1985 Water Company conditions

38. U-1006-265 Idaho Power Company Idaho U.S. Department of Energy Power supply costs and models

 March 1986

39. EL-86-37 & EL-86-38 Allegheny Generating Company FERC PA Office of Consumer Advocate Rate of Return

 September 1986

40. R-850287 National Fuel Gas Pennsylvania Office of Consumer Advocate Rate of Return

 June 1986 Distribution Corp.

41. 1849 Blackstone Valley Electric Rhode Island Division of Public Utilities Rate of Return, financial

 August 1986 condition

42. 86-297-GA-AIR East Ohio Gas Company Ohio Ohio Consumers’ Counsel Rate of Return

 November 1986

43. U-16945 Louisiana Power & Light Louisiana Public Service Commission Rate of Return, rate phase-in

 December 1986 Company plan

44. Case No. 7972 Potomac Electric Power Maryland Commission Staff Generation capacity planning,

 February 1987 Company purchased power contract

45. EL-86-58 & EL-86-59 System Energy Resources and FERC Louisiana PSC Rate of Return

 March 1987 Middle South Services46. ER-87-72-001 Orange & Rockland FERC PA Office of Consumer Advocate Rate of Return

 April 1987

47. U-16945 Louisiana Power & Light Louisiana Commission Staff Revenue requirement update

 April 1987 Company phase-in plan

48. P-870196 Pennsylvania Electric Company Pennsylvania Office of Consumer Advocate Cogeneration contract

 May 1987

49. 86-2025-EL-AIR Cleveland Electric Ohio Ohio Consumers’ Counsel Rate of Return

 June 1987 Illuminating Company

50. 86-2026-EL-AIR Toledo Edison Company Ohio Ohio Consumers’ Counsel Rate of Return

 June 1987

51. 87-4 Delmarva Power & Light Delaware Commission Staff Cogeneration/small power

 June 1987 Company

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 July 1987 Company

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 October 1987 Company selection

56. 00439 Oklahoma Gas & Electric Oklahoma Smith Cogeneration Cogeneration economics

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 July 1988 Cooperative

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 August 1988 Telephone Co. regulation

65. 00345 Oklahoma Gas & Electric Oklahoma Smith Cogeneration Need for power

 August 1988 Company

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 Industrial contracts

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 April 1989 Public Service Company

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 July 1989 Distribution Company

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83. R-891364 Philadelphia Electric Pennsylvania PA Office of Consumer Financial impacts

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93. EC-90-10-000 Northeast Utilities FERC Maine PUC, et al. Merger, Market Power,

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94. ER-891109125 Jersey Central Power New Jersey Rate Counsel Rate of Return

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96. 8201 Delmarva Power & Light Maryland Depart. Natural Resources Competitive Bidding,

 October 1990 Company Resource Planning

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98. GR90080786J New Jersey

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99. 90-256 South Central Bell Kentucky Attorney General Rate of Return

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101. ER90091090J Atlantic City New Jersey Rate Counsel Rate of Return

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 Trust Fund Earnings

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 Capacity Issues

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191. Docket No. EO97070459 Jersey Central Power & Light Co. New Jersey Ratepayer Advocate Stranded Cost

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193. Docket No. R-00973981 West Penn Power Co. Pennsylvania Office of Consumer Advocate Stranded Cost

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199. Docket No. U-22092 (SC) Entergy Gulf States, Inc. Louisiana Commission Staff Restructuring, Stranded

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244. 8908 Phase I Generic Maryland Energy Administration Standard Offer Service

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246. EL02-111-000 PJM/MISO FERC MD PSC Transmission Ratemaking

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251. U-27192 Entergy Louisiana Louisiana LPSC Staff Purchase Power Contract

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261. R-00049255 PPL Elec. Utility Pennsylvania Office of Consumer Advocate Rate of Return

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262. U-20925 Entergy Louisiana, Inc. Louisiana PSC Staff Rate of Return

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263. U-27866 Southwest Electric Power Co. Louisiana PSC Staff Purchase Power Contract

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264. U-27980 Cleco Power Louisiana PSC Staff Purchase Power Contract

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265. U-27865 Entergy Louisiana, Inc. Louisiana PSC Staff Purchase Power Contract

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274. 9037 Generic Maryland MD. Energy Administration POLR Service

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275. U-28155 Entergy Louisiana Louisiana LPSC Staff Independent Coordinator

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276. U-27866-A Southwestern Electric Louisiana LPSC Staff Purchase Power Contract

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277. U-28765 Cleco Power LLC Louisiana LPSC Staff Purchase Power Contract

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278. U-27469 Entergy Louisiana Louisiana LPSC Staff Avoided Cost Methodology

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280. EM05020106 Public Service Electric New Jersey Ratepayer Advocate Merger Issues

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281. U-28765 Cleco Power LLC Louisiana LPSC Staff Plant Certification, Financing, Rate Plan

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282. U-29157 Cleco Power LLC Louisiana LPSC Staff Storm Damage Financing

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283. U-29204 Entergy Louisiana Louisiana LPSC Staff Purchase power contracts

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290. GR0510085 Public Service Electric New Jersey Ratepayer Advocate Rate of Return (gas services)

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291. R-000061366 Metropolitan Ed. Company Pennsylvania Office of Consumer Advocate Rate of Return

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292. 9064 Generic Maryland Energy Administration Standard Offer Service

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294. WR06030257 New Jersey American Water New Jersey Rate Counsel Rate of Return

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295. U-27866/U-29702 Southwestern Electric Power Louisiana Commission Staff Purchase Power/Power Plant Certification

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297. EM06090638 Atlantic City Electric New Jersey Rate Counsel Power Plant Sale

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298. C-2000065942 Pike County Light & Power Pennsylvania Consumer Advocate Generation Supply Service

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299. ER06060483 Rockland Electric Company New Jersey Rate Counsel Rate of Return

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300. A-110150F0035 Duquesne Light Company Pennsylvania Consumer Advocate Merger Issues

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301. U-29203, Phase II Entergy Gulf States Louisiana Commission Staff Storm Damage Cost Allocation

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302. 06-11022 Nevada Power Company Nevada U.S. Dept. of Energy Rate of Return

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303. U-29526 Cleco Power Louisiana Commission Staff Affiliate Transactions

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305. P-00072247 Duquesne Light Company Pennsylvania Consumer Advocate Provider of Last Resort Service

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306. EM07010026 Jersey Central Power New Jersey Rate Counsel Power Plant Sale

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307. U-30050 Entergy Louisiana Louisiana Commission Staff Purchase Power Contract

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308. U-29956 Entergy Louisiana Louisiana Commission Staff Black Start Unit

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309. U-29702 Southwestern Electric Power Louisiana Commission Staff Power Plant Certification

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310. U-29955 Entergy Louisiana Louisiana Commission Staff Purchase Power Contracts

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314. U-30192 Entergy Louisiana Louisiana Commission Staff Power Plant Certification Ratemaking,

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315. 9117 (Phase II) Generic (Electric) Maryland Energy Administration Standard Offer Service Reliability

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316. U-30050 Entergy Gulf States Louisiana Commission Staff Power Plant Acquisition

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317. IPC-E-07-8 Idaho Power Co. Idaho U.S. Department of Energy Cost of Capital

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318. U-30422 (Phase I) Entergy Gulf States Louisiana Commission Staff Purchase Power Contract

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319. U-29702 (Phase II) Southwestern Electric Louisiana Commission Staff Power Plant Certification

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320. March 2008 Delmarva Power & Light Delaware State Senate Senate Committee Wind Energy Economics

321. U-30192 (Phase II) Entergy Louisiana Louisiana Commission Staff Cash CWIP Policy, Credit Ratings

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322. U-30422 (Phase II) Entergy Gulf States - LA Louisiana Commission Staff Power Plant Acquisition

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324. GR-070110889 New Jersey Natural Gas New Jersey Rate Counsel Cost of Capital

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328. U-30670 Entergy Louisiana Louisiana Commission Staff Nuclear Plant Equipment

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329. 9149 Generic Maryland Department of Natural Resources Capacity Adequacy/Reliability

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330. IPC-E-08-10 Idaho Power Company Idaho U.S. Department of Energy Cost of Capital

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331. U-30727 Cleco Power LLC Louisiana Commission Staff Purchased Power Contract

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332. U-30689-A Cleco Power LLC Louisiana Commission Staff Transmission Upgrade Project

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333. IP-99-1693C-M/S Duke Energy Indiana Federal District U.S. Department of Justice/EPA Clean Air Act Compliance

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335. U-28805-B Entergy Gulf States, LLC Louisiana Commission Staff Cogeneration Contract

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337. U-30958 Cleco Power Louisiana Commission Staff Purchase Power Contract

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340. U-30422-A Entergy Gulf States Louisiana Staff Generating Unit Purchase

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343. U-30689 Cleco Power Louisiana Staff Cost of Capital, Rate Design, Other

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344. U-31147 Entergy Gulf States Louisiana Staff Purchase Power Contracts

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347. GR09050422 Public Service New Jersey Rate Counsel Cost of Capital

 November 2009 Electric & Gas Company

348. D-09-49 Narragansett Electric Rhode Island Division Staff Securities Issuances

 November 2009

349. U-29702, Phase II Southwestern Electric Louisiana Commission Staff Cash CWIP Recovery

 November 2009 Power Company

350. U-30981 Entergy Louisiana Louisiana Commission Staff Storm Damage Cost

 December 2009 Entergy Gulf States Allocation

351. U-31196 (ITA Phase) Entergy Louisiana Louisiana Staff Purchase Power Contract

 February 2010

352. ER09080668 Rockland Electric New Jersey Rate Counsel Rate of Return

 March 2010

353. GR10010035 South Jersey Gas Co. New Jersey Rate Counsel Rate of Return

 May 2010

354. P-2010-2157862 Pennsylvania Power Co. Pennsylvania Consumer Advocate Default Service Program

 May 2010

355. 10-CV-2275 Xcel Energy U.S. District Court U.S. Dept. Justice/EPA Clean Air Act Enforcement

 June 2010 Minnesota

356. WR09120987 United Water New Jersey New Jersey Rate Counsel Rate of Return

 June 2010

357. U-30192, Phase III Entergy Louisiana Louisiana Staff Power Plant Cancellation Costs

 June 2010

358. 31299 Cleco Power Louisiana Staff Securities Issuances

 July 2010

359. App. No. 1601162 EPCOR Water Alberta, Canada Regional Customer Group Cost of Capital

 July 2010

360. U-31196 Entergy Louisiana Louisiana Staff Purchase Power Contract

 July 2010

361. 2:10-CV-13101 Detroit Edison U.S. District Court U.S. Dept. of Justice/EPA Clean Air Act Enforcement

 August 2010 Eastern Michigan

362. U-31196 Entergy Louisiana Louisiana Staff Generating Unit Purchase and

 August 2010 Entergy Gulf States Cost Recovery

363. Case No. 9233 Potomac Edison Maryland Energy Administration Merger Issues

 October 2010 Company

364. 2010-2194652 Pike County Light & Power Pennsylvania Consumer Advocate Default Service Plan

 November 2010

365. 2010-2213369 Duquesne Light Company Pennsylvania Consumer Advocate Merger Issues

 April 2011

366. U-31841 Entergy Gulf States Louisiana Staff Purchase Power Agreement

 May 2011

367. 11-06006 Nevada Power Nevada U. S. Department of Energy Cost of Capital

 September 2011

368. 9271 Exelon/Constellation Maryland MD Energy Administration Merger Savings

 September 2011

369. 4255 United Water Rhode Island Rhode Island Division of Public Utilities Rate of Return

 September 2011

370. P-2011-2252042 Pike County Pennsylvania Consumer Advocate Default service plan

 October 2011 Light & Power

371. U-32095 Southwestern Electric Louisiana Commission Staff Wind energy contract

 November 2011 Power Company

372. U-32031 Entergy Gulf States Louisiana Commission Staff Purchased Power Contract

 November 2011 Louisiana

373. U-32088 Entergy Louisiana Louisiana Commission Staff Coal plant evaluation

 January 2012

374. R-2011-2267958 Aqua Pa. Pennsylvania Office of Consumer Advocate Cost of capital

 February 2012

375. P-2011-2273650 FirstEnergy Companies Pennsylvania Office of Consumer Advocate Default service plan

 February 2012

376. U-32223 Cleco Power Louisiana Commission Staff Purchase Power Contract and

 March 2012 Rate Recovery

377. U-32148 Entergy Louisiana Louisiana Commission Staff RTO Membership

 March 2012 Energy Gulf States

378. ER11080469 Atlantic City Electric New Jersey Rate Counsel Cost of capital

 April 2012

379. R-2012-2285985 Peoples Natural Gas Pennsylvania Office of Consumer Advocate Cost of capital

 May 2012 Company

380. U-32153 Cleco Power Louisiana Commission Staff Environmental Compliance

 July 2012 Plan

381. U-32435 Entergy Gulf States Louisiana Commission Staff Cost of equity (gas)

 August 2012 Louisiana LLC

382. ER-2012-0174 Kansas City Power Missouri U. S. Department of Energy Rate of return

 August 2012 & Light Company

383. U-31196 Entergy Louisiana/ Louisiana Commission Staff Power Plant Joint

 August 2012 Entergy Gulf States Ownership

384. ER-2012-0175 KCP&L Greater Missouri U.S. Department of Energy Rate of Return

 August 2012 Missouri Operations

385. 4323 Narragansett Electric Rhode Island Division of Public Utilities Rate of Return

 August 2012 Company and Carriers (electric and gas)

386. D-12-049 Narragansett Electric Rhode Island Division of Public Utilities Debt issue

 October 2012 Company and Carriers

387. GO12070640 New Jersey Natural New Jersey Rate Counsel Cost of capital

 October 2012 Gas Company

388. GO12050363 South Jersey New Jersey Rate Counsel Cost of capital

 November 2012 Gas Company

389. R-2012-2321748 Columbia Gas Pennsylvania Office of Consumer Advocate Cost of capital

 January 2013 of Pennsylvania

390. U-32220 Southwestern Louisiana Commission Staff Formula Rate Plan

 February 2013 Electric Power Co.

391. CV No. 12-1286 PPL et al. Federal District MD Public Service PJM Market Impacts

 February 2013 Court Commission (deposition)

392. EL13-48-000 BGE, PHI FERC Joint Customer Group Transmission

 February 2013 subsidiaries Cost of Equity

393. EO12080721 Public Service New Jersey Rate Counsel Solar Tracker ROE

 March 2013 Electric & Gas

394. EO12080726 Public Service New Jersey Rate Counsel Solar Tracker ROE

 March 2013 Electric & Gas

395. CV12-1286MJG PPL, PSEG U.S. District Court Md. Public Service Commission Capacity Market Issues

 March 2013 for the District of Md. (trial testimony)

396. U-32628 Entergy Louisiana and Louisiana Staff Avoided cost methodology

 April 2013 Gulf States Louisiana

397. U-32675 Entergy Louisiana and Louisiana Staff RTO Integration Issues

 June 2013 Entergy Gulf States

398. ER12111052 Jersey Central Power New Jersey Rate Counsel Cost of capital

 June 2013 & Light Company

399. PUE-2013-00020 Dominion Virginia Virginia Apartment & Office Building Cost of capital

 July 2013 Power Assoc. of Met. Washington

400. U-32766 Cleco Power Louisiana Staff Power plant acquisition

 August 2013

401. U-32764 Entergy Louisiana Louisiana Staff Storm Damage

 September 2013 and Entergy Gulf States Cost Allocation

402. P-2013-237-1666 Pike County Light Pennsylvania Office of Consumer Default Generation

 September 2013 and Power Co. Advocate Service

403. E013020155 and Public Service Electric New Jersey Rate Counsel Cost of capital

 G013020156 and Gas Company

 October 2013

404. U-32507 Cleco Power Louisiana Staff Environmental Compliance Plan

 November 2013

405. DE11-250 Public Service Co. New Hampshire Consumer Advocate Power plant investment prudence

 December 2013 New Hampshire

406. 4434 United Water Rhode Island Rhode Island Staff Cost of Capital

 February 2014

407. U-32987 Atmos Energy Louisiana Staff Cost of Capital

 February 2014

408. EL 14-28-000 Entergy Louisiana FERC LPSC Avoided Cost Methodology

 February 2014 Entergy Gulf States (affidavit)

409. ER13111135 Rockland Electric New Jersey Rate Counsel Cost of Capital

 May 2014

410. 13-2385-SSO, et al. AEP Ohio Ohio Office of Consumers’ Default Service Issues

 May 2014 Counsel

411. U-32779 Cleco Power, LLC Louisiana Staff Formula Rate Plan

 May 2014

412. CV-00234-SDD-SCR Entergy Louisiana U.S. District Court Louisiana Public Avoided Cost Determination

 June 2014 Entergy Gulf Middle District Louisiana Service Commission Court Appeal

413. U-32812 Entergy Louisiana Louisiana Staff Nuclear Power Plant Prudence

 July 2014

**APPENDIX C**

**PAST TESTIMONY ON DEFAULT GENERATION SERVICE OF**

**MATTHEW I. KAHAL**

236. P-00011872 Pike County Power Pennsylvania Consumer Advocate

 May 2002 & Light

242. 8936 Delmarva Power & Light Maryland Energy Administration

 October 2002 Dept. Natural Resources

244. 8908 Phase I Generic Maryland Energy Administration

 November 2002 Dept. Natural Resources

247. 02-0479 Commonwealth Illinois Dept. of Energy

 February 2003 Edison

250. 8908 Phase II Generic Maryland Energy Administration

 July 2003 Dept. of Natural Resources

270. 05-0159 Commonwealth Edison Illinois Department of Energy

 June 2005

274. 9037 Generic Maryland MD. Energy Administration

 July 2005

285. 9056 Generic Maryland Maryland Energy

 March 2006 Administration

292. 9064 Generic Maryland Energy Administration

 September 2006

304. P-00072245 Pike County Light & Power Pennsylvania Consumer Advocate

 March 2007

305. P-00072247 Duquesne Light Company Pennsylvania Consumer Advocate

 March 2007

315. 9117 (Phase II) Generic (Electric) Maryland Energy Administration

 October 2007

336. P-2009-2093055, et al. Metropolitan Edison Pennsylvania Office of Consumer

 May 2009 Pennsylvania Electric Advocate

354. P-2010-2157862 Pennsylvania Power Co. Pennsylvania Consumer Advocate

 May 2010

364. 2010-2194652 Pike County Light & Power Pennsylvania Consumer Advocate

 November 2010

370. P-2011-2252042 Pike County Pennsylvania Consumer Advocate

 October 2011 Light & Power

375. P-2011-2273650 FirstEnergy Companies Pennsylvania Office of Consumer

 February 2012 Advocate

402. P-2013-237-1666 Pike County Light Pennsylvania Office of Consumer

 September 2013 and Power Co. Advocate

410. 13-2385-EL-SSO AEP Ohio Ohio Office of Consumer May 2014 Council

1. *In The Matter Of The Application Of Duke Energy Ohio, Inc. For An Increase In Rates, Opinion and Order*, Case No. EL-1682-EL-AIR, et al. (May 1, 2013), at p. 6. [↑](#footnote-ref-2)
2. In the *Matter of the Application of Duke Energy Ohio for Authority to Establish a Standard Service Offer* *Pursuant to Section 4928.143, Revised Code, in the Form with an Electric Security Plan, Accounting Modification and Tariffs for Generation Service*, Case No. 11-3549-EL-SSO, *et al.* [↑](#footnote-ref-3)
3. There are, of course, adjustments to the SSO retail rates for such factors as line losses, taxes, administrative costs and so forth. [↑](#footnote-ref-4)
4. Based on 2013 data supplied in response to OCC-INT-12-338. [↑](#footnote-ref-5)
5. *Source:* Duke response to OCC-INT-12-338. Please note that for the large non-residential classes (i.e., DS, DP and TS) roughly 70 to 90 percent or more of customers or load is on competitive service. [↑](#footnote-ref-6)
6. The economic case subsidies date back to the 18th century “infant industry” argument of Alexander Hamilton. [↑](#footnote-ref-7)
7. It is even possible that a highly subsidized POR program could increase SSO prices by creating uncertainty on the part of wholesale bidders in the Utility’s auctions. This is “migration risk” discussed in Section III-B, which is priced into the auction bids. [↑](#footnote-ref-8)
8. *In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to Section 4928.143, Revised Code, in the Form of an Electric Security Plan, Opinion and Order*, Case No. 11-346-EL-SSO, Opinion and Order August 8, 2012, at page 37. [↑](#footnote-ref-9)
9. *In the Matter of the Application of the Dayton Power and Light Company for Approval of Its Electric Security Plan, Case No. 12-426-EL-SSO et al., Opinion and Order*, September 4, 2013, page 26. [↑](#footnote-ref-10)