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 Service	)	Case No. 14-841-EL-SSO
In The Matter Of The Application Of Duke Energy Ohio For Authority To Amend Its Supplier Tariff	)	Case 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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I. QUALIFICATIONS

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A1. 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.

Q2. PLEASE STATE YOUR EDUCATIONAL BACKGROUND.

A2. 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.

Q3. WHAT IS YOUR PROFESSIONAL BACKGROUND?

A3. 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.

Q4. HAVE YOU PREVIOUSLY TESTIFIED AS AN EXPERT WITNESS BEFORE UTILITY REGULATORY COMMISSIONS?

A4. 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.

Q5. WHAT PROFESSIONAL ACTIVITIES HAVE YOU ENGAGED IN SINCE LEAVING EXETER AS A PRINCIPAL IN 2001?

A5. 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.

Q6. HAVE YOU PREVIOUSLY TESTIFIED ON THE SUBJECTS OF ELECTRIC RESTRUCTURING, TRANSITION TO COMPETITION, AND RETAIL DEFAULT SERVICE?

A6. 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.

II. OVERVIEW AND SUMMARY

A. Purpose of Testimony

Q7. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A7. 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").

Q8. WHAT IS THE ISSUE YOU ARE ADDRESSING CONCERNING THE DISTRIBUTION RIDER?

A8. 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.

Q9. WHAT IS THE ISSUE YOU ARE ADDRESSING CONCERNING CAPACITY COST ALLOCATION FOR SSO CUSTOMERS?

A9. 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.

Q10. WHAT ASPECT OF THE DUKE POR PROGRAM ARE YOU ADDRESSING IN YOUR TESTIMONY?

A10. 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.

Q11. WHAT IS THE ISSUE REGARDING THE "SEET TEST"?

A11. 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.

Q12. PLEASE SUMMARIZE THE RECOMMENDATIONS SET FORTH IN YOUR TESTIMONY.

A12. 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.

B. Testimony Organization

Q13. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A13. 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.

III. DISCUSSION OF ISSUES

A. Authorized ROE and the Proposed Rider DCI

Q14. WHAT IS YOUR UNDERSTANDING OF THE PROPOSED RIDER DCI?

A14. 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.

Q15. WHAT RATE OF RETURN DOES DUKE ENERGY OHIO ANTICIPATE UTILIZING FOR RIDER DCI?

A15. 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.

Q16. WHAT ARE YOUR CONCERNS WITH REGARD TO THE PROPOSED RIDER DCI?

A16. 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.

Q17. ARE YOU ASSERTING THAT THERE IS NO BUSINESS RISK ASSOCIATED WITH RIDER DCI?

A17. 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.

Q18. IS DUKE PROPOSING ANY OTHER RIDERS THAT REDUCE ITS RISK PROFILE?

A18. 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.

Q19. DOES DUKE HAVE ANY PUCO AUTHORITY OR PRE-APPROVAL FOR USING THE 9.84 PERCENT ROE IN THE DCI?

A19. 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]

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.

[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.

B. Capacity Cost Allocation for SSO Customers

Q20. WHAT IS THE PURPOSE OF DUKE'S PROPOSAL CONCERNING CHARGES FOR CAPACITY, RIDER RC?

A20. 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.

Q21. HOW DOES DUKE INCUR GENERATING CAPACITY COSTS IN CONNECTION WITH SERVING ITS SSO LOAD?

A21. 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.

Q22. DO WHOLESALE SUPPLIERS IN THE CBP AUCTIONS REVEAL THEIR PRICING REQUIREMENTS TO SERVE INDIVIDUAL CUSTOMER CLASSES?

A22. 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.

Q23. IF THE COST OF CAPACITY IS NOT DIRECTLY REVEALED IN THE AUCTION, HOW DOES DUKE DETERMINE THE MAGNITUDE OF THE CAPACITY COSTS INCURRED?

A23. 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.

Q24. DOES MR. ZIOLKOWSKI PROVIDE A DESCRIPTION OF THE METHODOLOGY FOR CALCULATING THE CAPACITY CHARGE?

A24. 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]

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

[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.*

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).

Q25. HOW IS THE CAPACITY CHARGE USED TO SET THE SSO RATES UNDER THIS METHODOLOGY?

A25. 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] 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.

Q26. HOW DOES THIS CHANGE IN THE CURRENT FILING?

A26. 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

[3] There are, of course, adjustments to the SSO retail rates for such factors as line losses, taxes, administrative costs and so forth.

(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).

Q27. CAN YOU DETERMINE THE DOLLAR IMPACT OF THIS METHODOLOGY ON THE RESIDENTIAL CLASS?

A27. 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 1
Proposed 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.

Q28. CAN YOU TRANSLATE DUKE'S PROPOSED RESIDENTIAL COST PREMIUM INTO DOLLARS?

A28. 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.

Q29. IS IT REASONABLE TO CHARGE RESIDENTIAL CUSTOMERS A COST PREMIUM FOR CAPACITY IN THE CONTEXT OF THE PURELY MARKET-BASED SSO?

A29. 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.

Q30. 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?

A30. 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] 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

[4] Based on 2013 data supplied in response to OCC-INT-12-338.

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] 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.

Q31. GIVEN YOUR OBSERVATIONS, WHAT DO YOU RECOMMEND?

A31. 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

[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.

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.

Q32. PLEASE EXPLAIN WHY CUSTOMER MIGRATION IS AN IMPORTANT RISK FOR WHOLESALE SUPPLIERS SERVING SSO LOADS?

A32. 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.

Q33. CAN YOU QUANTIFY THE LOWER RISK AND LARGER LOAD BENEFITS OF RESIDENTIAL SSO?

A33. 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.

C. POR Program Bad Debt Expense

Q34. HAS DUKE ADDRESSED ITS POR PROGRAM IN THIS CASE?

A34. 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.

Q35. HAVE PURCHASE OF RECEIVABLE PROGRAMS BEEN PREVIOUSLY ADDRESSED BY THE OCC?

A35. 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.

Q36. WHAT IS DUKE'S ANNUAL BAD DEBT EXPENSE?

A36. 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.

Q37. DOES DUKE COLLECT SSO BAD DEBT EXPENSE THROUGH RIDER UE-GEN?

A37. Yes, it does, along with CRES provider bad debt expense (response to OCC-INT-12-344).

Q38. WHAT IS YOUR RECOMMENDATION CONCERNING THE DUKE POR PROGRAM AND RIDER UE-GEN?

A38. 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.

Q39. WHY DO YOU OBJECT TO THE ZERO DISCOUNT FEATURE OF DUKE'S POR PROGRAM?

A39. 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] 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.

Q40. WILL CUSTOMERS BE HARMED BY DUKE'S ZERO DISCOUNT PROGRAM?

A40. 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

[6] The economic case subsidies date back to the 18th century "infant industry" argument of Alexander Hamilton.

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] 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.

D. Duke's SEET Proposal

Q41. WHAT IS DUKE'S PROPOSAL IN THIS CASE CONCERNING THE SEET TEST?

A41. 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

[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.

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.)

Q42. DOES WITNESS LAUB PROVIDE ANY ANALYSIS OR EVIDENCE DEMONSTRATING THAT THE 15.0 PERCENT ROE THRESHOLD CONTINUES TO BE FAIR AND REASONABLE?

A42. 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.

Q43. ARE THERE REASONS FOR CONCLUDING THAT THE CURRENT SEET THRESHOLD IS NOT REASONABLE?

A43. 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.

Q44. ARE THERE ANY OTHER REASONS FOR CONSIDERING A REDUCTION TO THE PROPOSED 15.0 PERCENT ROE FOR THE SEET?

A44. 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] 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]

[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.

[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.

Q45. IN LIGHT OF THESE CHANGES SINCE 2011 AND CURRENT CIRCUMSTANCES, WHAT IS YOUR RECOMMENDATION FOR THE SEET ROE THRESHOLD?

A45. 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.

Q46. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A46. 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.us
Thomas.lindgren@puc.state.oh.us
Ryan.orourke@puc.state.oh.us
dboehm@BKLlawfirm.com
mkurtz@BKLlawfirm.com
jkylercohn@BKLlawfirm.com
Schmidt@sppgrp.com
Judi.sobecki@aes.com
Bojko@carpenterlipps.com
Allison@carpenterlipps.com
cmooney@ohiopartners.org
stnourse@aep.com
mjsatterwhite@aep.com
yalami@aep.com
asonderman@keglerbrown.com
mkimbrough@keglerbrown.com
hussey@carpenterlipps.com
mhpetricoff@vorys.com
mjsettineri@vorys.com
glpetrucci@vorys.com
dmason@ralaw.com
mtraven@ralaw.com
rchamberlain@okenergylaw.com
Amy.Spiller@duke-energy.com
Elizabeth.watts@duke-energy.com
Rocco.dascenzo@duke-energy.com
Jeanne.Kingery@duke-energy.com
haydenm@firstenergycorp.com
jmcdermott@firstenergycorp.com
scasto@firstenergycorp.com
joliker@igsenergy.com
mswhite@igsenergy.com
joseph.clark@directenergy.com
sam@mwncmh.com
fdarr@mwncmh.com
mpritchard@mwncmh.com
callwein@wamenergylaw.com
tdougherty@theOEC.org
dhart@douglasehart.com
cloucas@ohiopartners.org
gpoulos@enernoc.com
swilliams@nrdc.org
tobrien@bricker.com
ghull@eckertseamans.com
jvickers@elpc.org

Attorney Examiner:

Christine.pirik@puc.state.oh.us
Nicholas.walstra@puc.state.oh.us

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 October 1978	Long Island Lighting Company	New York Counties	Nassau & Suffolk	Economic Impacts of Proposed Rate Increase
2.	6807 January 1978	Generic	Maryland	MD Power Plant Siting Program	Load Forecasting
3.	78-676-EL-AIR February 1978	Duke Energy Ohio	Ohio	Ohio Consumers' Counsel	Test Year Sales and Revenues
4.	17667 May 1979	Alabama Power Company	Alabama	Attorney General	Test Year Sales, Revenues, Costs, and Load Forecasts
5.	None April 1980	Tennessee Valley Authority	TVA Board	League of Women Voters	Time-of-Use Pricing
6.	R-80021082	West Penn Power Company	Pennsylvania	Office of Consumer Advocate	Load Forecasting, Marginal Cost pricing
7.	7259 (Phase I) October 1980	Potomac Edison Company	Maryland	MD Power Plant Siting Program	Load Forecasting
8.	7222 December 1980	Delmarva Power & Light Company	Maryland	MD Power Plant Siting Program	Need for Plant, Load Forecasting
9.	7441 June 1981	Potomac Electric Power Company	Maryland	Commission Staff	PURPA Standards
10.	7159 May 1980	Baltimore Gas & Electric	Maryland	Commission Staff	Time-of-Use Pricing
11.	81-044-E-42T	Monongahela Power	West Virginia	Commission Staff	Time-of-Use Rates
12.	7259 (Phase II) November 1981	Potomac Edison Company	Maryland	MD Power Plant Siting Program	Load Forecasting, Load Management
13.	1606 September 1981	Blackstone Valley Electric and Narragansett	Rhode Island	Division of Public Utilities	PURPA Standards
14.	RID 1819 April 1982	Pennsylvania Bell	Pennsylvania	Office of Consumer Advocate	Rate of Return
15.	82-0152 July 1982	Illinois Power Company	Illinois	U.S. Department of Defense	Rate of Return, CWIP

16.	7559 September 1982	Potomac Edison Company	Maryland	Commission Staff	Cogeneration
17.	820150-EU September 1982	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return, CWIP
18.	82-057-15 January 1983	Mountain Fuel Supply Company	Utah	Federal Executive Agencies	Rate of Return, Capital Structure
19.	5200 August 1983	Texas Electric Service Company	Texas	Federal Executive Agencies	Cost of Equity
20.	28069 August 1983	Oklahoma Natural Gas	Oklahoma	Federal Executive Agencies	Rate of Return, deferred taxes, capital structure, attrition
21.	83-0537 February 1984	Commonwealth Edison Company	Illinois	U.S. Department of Energy	Rate of Return, capital structure, financial capability
22.	84-035-01 June 1984	Utah Power & Light Company	Utah	Federal Executive Agencies	Rate of Return
23.	U-1009-137 July 1984	Utah Power & Light Company	Idaho	U.S. Department of Energy	Rate of Return, financial condition
24.	R-842590 August 1984	Philadelphia Electric Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
25.	840086-EI August 1984	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return, CWIP
26.	84-122-E August 1984	Carolina Power & Light Company	South Carolina	South Carolina Consumer Advocate	Rate of Return, CWIP, load forecasting
27.	CGC-83-G & CGC-84-G October 1984	Columbia Gas of Ohio	Ohio	Ohio Division of Energy	Load forecasting
28.	R-842621 October 1984	Western Pennsylvania Water Company	Pennsylvania	Office of Consumer Advocate	Test year sales
29.	R-842710 January 1985	ALLTEL Pennsylvania Inc.	Pennsylvania	Office of Consumer Advocate	Rate of Return
30.	ER-504 February 1985	Allegheny Generating Company	FERC	Office of Consumer Advocate	Rate of Return

31.	R-842632 March 1985	West Penn Power Company	Pennsylvania	Office of Consumer Advocate	Rate of Return, conservation, time-of-use rates
32.	83-0537 & 84-0555 April 1985	Commonwealth Edison Company	Illinois	U.S. Department of Energy	Rate of Return, incentive rates, rate base
33.	Rulemaking Docket No. 11, May 1985	Generic	Delaware	Delaware Commission Staff	Interest rates on refunds
34.	29450 July 1985	Oklahoma Gas & Electric Company	Oklahoma	Oklahoma Attorney General	Rate of Return, CWIP in rate base
35.	1811 August 1985	Bristol County Water Company	Rhode Island	Division of Public Utilities	Rate of Return, capital Structure
36.	R-850044 & R-850045 August 1985	Quaker State & Continental Telephone Companies	Pennsylvania	Office of Consumer Advocate	Rate of Return
37.	R-850174 November 1985	Philadelphia Suburban Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return, financial conditions
38.	U-1006-265 March 1986	Idaho Power Company	Idaho	U.S. Department of Energy	Power supply costs and models
39.	EL-86-37 & EL-86-38 September 1986	Allegheny Generating Company	FERC	PA Office of Consumer Advocate	Rate of Return
40.	R-850287 June 1986	National Fuel Gas Distribution Corp.	Pennsylvania	Office of Consumer Advocate	Rate of Return
41.	1849 August 1986	Blackstone Valley Electric	Rhode Island	Division of Public Utilities	Rate of Return, financial condition
42.	86-297-GA-AIR November 1986	East Ohio Gas Company	Ohio	Ohio Consumers' Counsel	Rate of Return
43.	U-16945 December 1986	Louisiana Power & Light Company	Louisiana	Public Service Commission	Rate of Return, rate phase-in plan
44.	Case No. 7972 February 1987	Potomac Electric Power Company	Maryland	Commission Staff	Generation capacity planning, purchased power contract
45.	EL-86-58 & EL-86-59 March 1987	System Energy Resources and Middle South Services	FERC	Louisiana PSC	Rate of Return

46.	ER-87-72-001 April 1987	Orange & Rockland	FERC	PA Office of Consumer Advocate	Rate of Return
47.	U-16945 April 1987	Louisiana Power & Light Company	Louisiana	Commission Staff	Revenue requirement update phase-in plan
48.	P-870196 May 1987	Pennsylvania Electric Company	Pennsylvania	Office of Consumer Advocate	Cogeneration contract
49.	86-2025-EL-AIR June 1987	Cleveland Electric Illuminating Company	Ohio	Ohio Consumers' Counsel	Rate of Return
50.	86-2026-EL-AIR June 1987	Toledo Edison Company	Ohio	Ohio Consumers' Counsel	Rate of Return
51.	87-4 June 1987	Delmarva Power & Light Company	Delaware	Commission Staff	Cogeneration/small power
52.	1872 July 1987	Newport Electric Company	Rhode Island	Commission Staff	Rate of Return
53.	WO 8606654 July 1987	Atlantic City Sewerage Company	New Jersey	Resorts International	Financial condition
54.	7510 August 1987	West Texas Utilities Company	Texas	Federal Executive Agencies	Rate of Return, phase-in
55.	8063 Phase I October 1987	Potomac Electric Power Company	Maryland	Power Plant Research Program	Economics of power plant site selection
56.	00439 November 1987	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Cogeneration economics
57.	RP-87-103 February 1988	Panhandle Eastern Pipe Line Company	FERC	Indiana Utility Consumer Counselor	Rate of Return
58.	EC-88-2-000 February 1988	Utah Power & Light Co. PacifiCorp	FERC	Nucor Steel	Merger economics
59.	87-0427 February 1988	Commonwealth Edison Company	Illinois	Federal Executive Agencies	Financial projections
60.	870840 February 1988	Philadelphia Suburban Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return

61.	870832 March 1988	Columbia Gas of Pennsylvania	Pennsylvania	Office of Consumer Advocate	Rate of Return
62.	8063 Phase II July 1988	Potomac Electric Power Company	Maryland	Power Plant Research Program	Power supply study
63.	8102 July 1988	Southern Maryland Electric Cooperative	Maryland	Power Plant Research Program	Power supply study
64.	10105 August 1988	South Central Bell Telephone Co.	Kentucky	Attorney General	Rate of Return, incentive regulation
65.	00345 August 1988	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Need for power
66.	U-17906 September 1988	Louisiana Power & Light Company	Louisiana	Commission Staff	Rate of Return, nuclear power costs Industrial contracts
67.	88-170-EL-AIR October 1988	Cleveland Electric Illuminating Co.	Ohio	Northeast-Ohio Areawide Coordinating Agency	Economic impact study
68.	1914 December 1988	Providence Gas Company	Rhode Island	Commission Staff	Rate of Return
69.	U-12636 & U-17649 February 1989	Louisiana Power & Light Company	Louisiana	Commission Staff	Disposition of litigation proceeds
70.	00345 February 1989	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration	Load forecasting
71.	RP88-209 March 1989	Natural Gas Pipeline of America	FERC	Indiana Utility Consumer Counselor	Rate of Return
72.	8425 March 1989	Houston Lighting & Power Company	Texas	U.S. Department of Energy	Rate of Return
73.	EL89-30-000 April 1989	Central Illinois Public Service Company	FERC	Soyland Power Coop, Inc.	Rate of Return
74.	R-891208 May 1989	Pennsylvania American Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return

75.	89-0033 May 1989	Illinois Bell Telephone Company	Illinois	Citizens Utility Board	Rate of Return
76.	881167-EI May 1989	Gulf Power Company	Florida	Federal Executive Agencies	Rate of Return
77.	R-891218 July 1989	National Fuel Gas Distribution Company	Pennsylvania	Office of Consumer Advocate	Sales forecasting
78.	8063, Phase III Sept. 1989	Potomac Electric Power Company	Maryland	Depart. Natural Resources	Emissions Controls
79.	37414-S2 October 1989	Public Service Company of Indiana	Indiana	Utility Consumer Counselor	Rate of Return, DSM, off-system sales, incentive regulation
80.	October 1989	Generic	U.S. House of Reps. Comm. on Ways & Means	N/A	Excess deferred income tax
81.	38728 November 1989	Indiana Michigan Power Company	Indiana	Utility Consumer Counselor	Rate of Return
82.	RP89-49-000 December 1989	National Fuel Gas Supply Corporation	FERC	PA Office of Consumer Advocate	Rate of Return
83.	R-891364 December 1989	Philadelphia Electric Company	Pennsylvania	PA Office of Consumer Advocate	Financial impacts (surrebuttal only)
84.	RP89-160-000 January 1990	Trunkline Gas Company	FERC	Indiana Utility Consumer Counselor	Rate of Return
85.	EL90-16-000 November 1990	System Energy Resources, Inc.	FERC	Louisiana Public Service Commission	Rate of Return
86.	89-624 March 1990	Bell Atlantic	FCC	PA Office of Consumer Advocate	Rate of Return
87.	8245 March 1990	Potomac Edison Company	Maryland	Depart. Natural Resources	Avoided Cost
88.	000586 March 1990	Public Service Company of Oklahoma	Oklahoma	Smith Cogeneration Mgmt.	Need for Power

89.	38868 March 1990	Indianapolis Water Company	Indiana	Utility Consumer Counselor	Rate of Return
90.	1946 March 1990	Blackstone Valley Electric Company	Rhode Island	Division of Public Utilities	Rate of Return
91.	000776 April 1990	Oklahoma Gas & Electric Company	Oklahoma	Smith Cogeneration Mgmt.	Need for Power
92.	890366 May 1990, December 1990	Metropolitan Edison Company	Pennsylvania	Office of Consumer Advocate	Competitive Bidding Program Avoided Costs
93.	EC-90-10-000 May 1990	Northeast Utilities	FERC	Maine PUC, et al.	Merger, Market Power, Transmission Access
94.	ER-891109125 July 1990	Jersey Central Power & Light	New Jersey	Rate Counsel	Rate of Return
95.	R-901670 July 1990	National Fuel Gas Distribution Corp.	Pennsylvania	Office of Consumer Advocate	Rate of Return Test year sales
96.	8201 October 1990	Delmarva Power & Light Company	Maryland	Depart. Natural Resources	Competitive Bidding, Resource Planning
97.	EL90-45-000 April 1991	Entergy Services, Inc.	FERC	Louisiana PSC	Rate of Return
98.	GR90080786J January 1991	New Jersey Natural Gas	New Jersey	Rate Counsel	Rate of Return
99.	90-256 January 1991	South Central Bell Telephone Company	Kentucky	Attorney General	Rate of Return
100.	U-17949A February 1991	South Central Bell Telephone Company	Louisiana	Louisiana PSC	Rate of Return
101.	ER90091090J April 1991	Atlantic City Electric Company	New Jersey	Rate Counsel	Rate of Return
102.	8241, Phase I April 1991	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	Environmental controls

103.	8241, Phase II May 1991	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	Need for Power, Resource Planning
104.	39128 May 1991	Indianapolis Water Company	Indiana	Utility Consumer Counselor	Rate of Return, rate base, financial planning
105.	P-900485 May 1991	Duquesne Light Company	Pennsylvania	Office of Consumer Advocate	Purchased power contract and related ratemaking
106.	G900240 P910502 May 1991	Metropolitan Edison Company Pennsylvania Electric Company	Pennsylvania	Office of Consumer Advocate	Purchased power contract and related ratemaking
107.	GR901213915 May 1991	Elizabethtown Gas Company	New Jersey	Rate Counsel	Rate of Return
108.	91-5032 August 1991	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return
109.	EL90-48-000 November 1991	Entergy Services	FERC	Louisiana PSC	Capacity transfer
110.	000662 September 1991	Southwestern Bell Telephone	Oklahoma	Attorney General	Rate of Return
111.	U-19236 October 1991	Arkansas Louisiana Gas Company	Louisiana	Louisiana PSC Staff	Rate of Return
112.	U-19237 December 1991	Louisiana Gas Service Company	Louisiana	Louisiana PSC Staff	Rate of Return
113.	ER91030356J October 1991	Rockland Electric Company	New Jersey	Rate Counsel	Rate of Return
114.	GR91071243J February 1992	South Jersey Gas Company	New Jersey	Rate Counsel	Rate of Return
115.	GR91081393J March 1992	New Jersey Natural Gas Company	New Jersey	Rate Counsel	Rate of Return
116.	P-870235, et al. March 1992	Pennsylvania Electric Company	Pennsylvania	Office of Consumer Advocate	Cogeneration contracts

117.	8413 March 1992	Potomac Electric Power Company	Maryland	Dept. of Natural Resources	IPP purchased power contracts
118.	39236 March 1992	Indianapolis Power & Light Company	Indiana	Utility Consumer Counselor	Least-cost planning Need for power
119.	R-912164 April 1992	Equitable Gas Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
120.	ER-91111698J May 1992	Public Service Electric & Gas Company	New Jersey	Rate Counsel	Rate of Return
121.	U-19631 June 1992	Trans Louisiana Gas Company	Louisiana	PSC Staff	Rate of Return
122.	ER-91121820J July 1992	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Rate of Return
123.	R-00922314 August 1992	Metropolitan Edison Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
124.	92-049-05 September 1992	US West Communications	Utah	Committee of Consumer Services	Rate of Return
125.	92PUE0037 September 1992	Commonwealth Gas Company	Virginia	Attorney General	Rate of Return
126.	EC92-21-000 September 1992	Entergy Services, Inc.	FERC	Louisiana PSC	Merger Impacts (Affidavit)
127.	ER92-341-000 December 1992	System Energy Resources	FERC	Louisiana PSC	Rate of Return
128.	U-19904 November 1992	Louisiana Power & Light Company	Louisiana	Staff	Merger analysis, competition competition issues
129.	8473 November 1992	Baltimore Gas & Electric Company	Maryland	Dept. of Natural Resources	QF contract evaluation
130.	IPC-E-92-25 January 1993	Idaho Power Company	Idaho	Federal Executive Agencies	Power Supply Clause

131.	E002/GR-92-1185 February 1993	Northern States Power Company	Minnesota	Attorney General	Rate of Return
132.	92-102, Phase II March 1992	Central Maine Power Company	Maine	Staff	QF contracts prudence and procurements practices
133.	EC92-21-000 March 1993	Entergy Corporation	FERC	Louisiana PSC	Merger Issues
134.	8489 March 1993	Delmarva Power & Light Company	Maryland	Dept. of Natural Resources	Power Plant Certification
135.	11735 April 1993	Texas Electric Utilities Company	Texas	Federal Executives Agencies	Rate of Return
136.	2082 May 1993	Providence Gas Company	Rhode Island	Division of Public Utilities	Rate of Return
137.	P-00930715 December 1993	Bell Telephone Company of Pennsylvania	Pennsylvania	Office of Consumer Advocate	Rate of Return, Financial Projections, Bell/TCI merger
138.	R-00932670 February 1994	Pennsylvania-American Water Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
139.	8583 February 1994	Conowingo Power Company	Maryland	Dept. of Natural Resources	Competitive Bidding for Power Supplies
140.	E-015/GR-94-001 April 1994	Minnesota Power & Light Company	Minnesota	Attorney General	Rate of Return
141.	CC Docket No. 94-1 May 1994	Generic Telephone	FCC	MCI Comm. Corp.	Rate of Return
142.	92-345, Phase II June 1994	Central Maine Power Company	Maine	Advocacy Staff	Price Cap Regulation Fuel Costs
143.	93-11065 April 1994	Nevada Power Company	Nevada	Federal Executive Agencies	Rate of Return
144.	94-0065 May 1994	Commonwealth Edison Company	Illinois	Federal Executive Agencies	Rate of Return
145.	GR94010002J June 1994	South Jersey Gas Company	New Jersey	Rate Counsel	Rate of Return

146.	WR94030059 July 1994	New Jersey-American Water Company	New Jersey	Rate Counsel	Rate of Return
147.	RP91-203-000 June 1994	Tennessee Gas Pipeline Company	FERC	Customer Group	Environmental Externalities (oral testimony only)
148.	ER94-998-000 July 1994	Ocean State Power	FERC	Boston Edison Company	Rate of Return
149.	R-00942986 July 1994	West Penn Power Company	Pennsylvania	Office of Consumer Advocate	Rate of Return, Emission Allowances
150.	94-121 August 1994	South Central Bell Telephone Company	Kentucky	Attorney General	Rate of Return
151.	35854-S2 November 1994	PSI Energy, Inc.	Indiana	Utility Consumer Counsel	Merger Savings and Allocations
152.	IPC-E-94-5 November 1994	Idaho Power Company	Idaho	Federal Executive Agencies	Rate of Return
153.	November 1994	Edmonton Water	Alberta, Canada	Regional Customer Group	Rate of Return (Rebuttal Only)
154.	90-256 December 1994	South Central Bell Telephone Company	Kentucky	Attorney General	Incentive Plan True-Ups
155.	U-20925 February 1995	Louisiana Power & Light Company	Louisiana	PSC Staff	Rate of Return Industrial Contracts Trust Fund Earnings
156.	R-00943231 February 1995	Pennsylvania-American Water Company	Pennsylvania	Consumer Advocate	Rate of Return
157.	8678 March 1995	Generic	Maryland	Dept. Natural Resources	Electric Competition Incentive Regulation (oral only)
158.	R-000943271 April 1995	Pennsylvania Power & Light Company	Pennsylvania	Consumer Advocate	Rate of Return Nuclear decommissioning Capacity Issues
159.	U-20925 May 1995	Louisiana Power & Light Company	Louisiana	Commission Staff	Class Cost of Service Issues

160.	2290 June 1995	Narragansett Electric Company	Rhode Island	Division Staff	Rate of Return
161.	U-17949E June 1995	South Central Bell Telephone Company	Louisiana	Commission Staff	Rate of Return
162.	2304 July 1995	Providence Water Supply Board	Rhode Island	Division Staff	Cost recovery of Capital Spending Program
163.	ER95-625-000, et al. August 1995	PSI Energy, Inc.	FERC	Office of Utility Consumer Counselor	Rate of Return
164.	P-00950915, et al. September 1995	Paxton Creek Cogeneration Assoc.	Pennsylvania	Office of Consumer Advocate	Cogeneration Contract Amendment
165.	8702 September 1995	Potomac Edison Company	Maryland	Dept. of Natural Resources	Allocation of DSM Costs (oral only)
166.	ER95-533-001 September 1995	Ocean State Power	FERC	Boston Edison Co.	Cost of Equity
167.	40003 November 1995	PSI Energy, Inc.	Indiana	Utility Consumer Counselor	Rate of Return Retail wheeling
168.	P-55, SUB 1013 January 1996	BellSouth	North Carolina	AT&T	Rate of Return
169.	P-7, SUB 825 January 1996	Carolina Tel.	North Carolina	AT&T	Rate of Return
170.	February 1996	Generic Telephone	FCC	MCI	Cost of capital
171.	95A-531EG April 1996	Public Service Company of Colorado	Colorado	Federal Executive Agencies	Merger issues
172.	ER96-399-000 May 1996	Northern Indiana Public Service Company	FERC	Indiana Office of Utility Consumer Counselor	Cost of capital
173.	8716 June 1996	Delmarva Power & Light Company	Maryland	Dept. of Natural Resources	DSM programs
174.	8725 July 1996	BGE/PEPCO	Maryland	Md. Energy Admin.	Merger Issues

175.	U-20925 August 1996	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Rate of Return Allocations Fuel Clause
176.	EC96-10-000 September 1996	BGE/PEPCO	FERC	Md. Energy Admin.	Merger issues competition
177.	EL95-53-000 November 1996	Entergy Services, Inc.	FERC	Louisiana PSC	Nuclear Decommissioning
178.	WR96100768 March 1997	Consumers NJ Water Company	New Jersey	Ratepayer Advocate	Cost of Capital
179.	WR96110818 April 1997	Middlesex Water Co.	New Jersey	Ratepayer Advocate	Cost of Capital
180.	U-11366 April 1997	Ameritech Michigan	Michigan	MCI	Access charge reform/financial condition
181.	97-074 May 1997	BellSouth	Kentucky	MCI	Rate Rebalancing financial condition
182.	2540 June 1997	New England Power	Rhode Island	PUC Staff	Divestiture Plan
183.	96-336-TP-CSS June 1997	Ameritech Ohio	Ohio	MCI	Access Charge reform Economic impacts
184.	WR97010052 July 1997	Maxim Sewerage Corp.	New Jersey	Ratepayer Advocate	Rate of Return
185.	97-300 August 1997	LG&E/KU	Kentucky	Attorney General	Merger Plan
186.	Case No. 8738 August 1997	Generic (oral testimony only)	Maryland	Dept. of Natural Resources	Electric Restructuring Policy
187.	Docket No. 2592 September 1997	Eastern Utilities	Rhode Island	PUC Staff	Generation Divestiture
188.	Case No.97-247 September 1997	Cincinnati Bell Telephone	Kentucky	MCI	Financial Condition

189.	Docket No. U-20925 November 1997	Entergy Louisiana	Louisiana	PSC Staff	Rate of Return
190.	Docket No. D97.7.90 November 1997	Montana Power Co.	Montana	Montana Consumers Counsel	Stranded Cost
191.	Docket No. EO97070459 November 1997	Jersey Central Power & Light Co.	New Jersey	Ratepayer Advocate	Stranded Cost
192.	Docket No. R-00974104 November 1997	Duquesne Light Co.	Pennsylvania	Office of Consumer Advocate	Stranded Cost
193.	Docket No. R-00973981 November 1997	West Penn Power Co.	Pennsylvania	Office of Consumer Advocate	Stranded Cost
194.	Docket No. A-1101150F0015 November 1997	Allegheny Power System DQE, Inc.	Pennsylvania	Office of Consumer Advocate	Merger Issues
195.	Docket No. WR97080615 January 1998	Consumers NJ Water Company	New Jersey	Ratepayer Advocate	Rate of Return
196.	Docket No. R-00974149 January 1998	Pennsylvania Power Company	Pennsylvania	Office of Consumer Advocate	Stranded Cost
197.	Case No. 8774 January 1998	Allegheny Power System DQE, Inc.	Maryland	Dept. of Natural Resources MD Energy Administration	Merger Issues
198.	Docket No. U-20925 (SC) March 1998	Entergy Louisiana, Inc.	Louisiana	Commission Staff	Restructuring, Stranded Costs, Market Prices
199.	Docket No. U-22092 (SC) March 1998	Entergy Gulf States, Inc.	Louisiana	Commission Staff	Restructuring, Stranded Costs, Market Prices
200.	Docket Nos. U-22092 (SC) and U-20925(SC) May 1998	Entergy Gulf States and Entergy Louisiana	Louisiana	Commission Staff	Standby Rates
201.	Docket No. WR98010015 May 1998	NJ American Water Co.	New Jersey	Ratepayer Advocate	Rate of Return
202.	Case No. 8794 December 1998	Baltimore Gas & Electric Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan

203.	Case No. 8795 December 1998	Delmarva Power & Light Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan
204.	Case No. 8797 January 1998	Potomac Edison Co.	Maryland	MD Energy Admin./Dept. Of Natural Resources	Stranded Cost/ Transition Plan
205.	Docket No. WR98090795 March 1999	Middlesex Water Co.	New Jersey	Ratepayer Advocate	Rate of Return
206.	Docket No. 99-02-05 April 1999	Connecticut Light & Power	Connecticut	Attorney General	Stranded Costs
207.	Docket No. 99-03-04 May 1999	United Illuminating Company	Connecticut	Attorney General	Stranded Costs
208.	Docket No. U-20925 (FRP) June 1999	Entergy Louisiana, Inc.	Louisiana	Staff	Capital Structure
209.	Docket No. EC-98-40-000, et al. May 1999	American Electric Power/ Central & Southwest	FERC	Arkansas PSC	Market Power Mitigation
210.	Docket No. 99-03-35 July 1999	United Illuminating Company	Connecticut	Attorney General	Restructuring
211.	Docket No. 99-03-36 July 1999	Connecticut Light & Power Co.	Connecticut	Attorney General	Restructuring
212.	WR99040249 Oct. 1999	Environmental Disposal Corp.	New Jersey	Ratepayer Advocate	Rate of Return
213.	2930 Nov. 1999	NEES/EUA	Rhode Island	Division Staff	Merger/Cost of Capital
214.	DE99-099 Nov. 1999	Public Service New Hampshire	New Hampshire	Consumer Advocate	Cost of Capital Issues
215.	00-01-11 Feb. 2000	Con Ed/NU	Connecticut	Attorney General	Merger Issues
216.	Case No. 8821 May 2000	Reliant/ODEC	Maryland	Dept. of Natural Resources	Need for Power/Plant Operations

217.	Case No. 8738 July 2000	Generic	Maryland	Dept. of Natural Resources	DSM Funding
218.	Case No. U-23356 June 2000	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Fuel Prudence Issues Purchased Power
219.	Case No. 21453, et al. July 2000	SWEPCO	Louisiana	PSC Staff	Stranded Costs
220.	Case No. 20925 (B) July 2000	Entergy Louisiana	Louisiana	PSC Staff	Purchase Power Contracts
221.	Case No. 24889 August 2000	Entergy Louisiana	Louisiana	PSC Staff	Purchase Power Contracts
222.	Case No. 21453, et al. February 2001	CLECO	Louisiana	PSC Staff	Stranded Costs
223.	P-00001860 and P-0000181 March 2001	GPU Companies	Pennsylvania	Office of Consumer Advocate	Rate of Return
224.	CVOL-0505662-S March 2001	ConEd/NU	Connecticut Superior Court	Attorney General	Merger (Affidavit)
225.	U-20925 (SC) March 2001	Entergy Louisiana	Louisiana	PSC Staff	Stranded Costs
226.	U-22092 (SC) March 2001	Entergy Gulf States	Louisiana	PSC Staff	Stranded Costs
227.	U-25533 May 2001	Entergy Louisiana/ Gulf States	Louisiana Interruptible Service	PSC Staff	Purchase Power
228.	P-00011872 May 2001	Pike County Pike	Pennsylvania	Office of Consumer Advocate	Rate of Return
229.	8893 July 2001	Baltimore Gas & Electric Co.	Maryland	MD Energy Administration	Corporate Restructuring
230.	8890 September 2001	Potomac Electric/Connectivity	Maryland	MD Energy Administration	Merger Issues

231.	U-25533 August 2001	Entergy Louisiana / Gulf States	Louisiana	Staff	Purchase Power Contracts
232.	U-25965 November 2001	Generic	Louisiana	Staff	RTO Issues
233.	3401 March 2002	New England Gas Co.	Rhode Island	Division of Public Utilities	Rate of Return
234.	99-833-MJR April 2002	Illinois Power Co.	U.S. District Court	U.S. Department of Justice	New Source Review
235.	U-25533 March 2002	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Nuclear Uprates Purchase Power
236.	P-00011872 May 2002	Pike County Power & Light	Pennsylvania	Consumer Advocate	POLR Service Costs
237.	U-26361, Phase I May 2002	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Purchase Power Cost Allocations
238.	R-00016849C001, et al. June 2002	Generic	Pennsylvania	Pennsylvania OCA	Rate of Return
239.	U-26361, Phase II July 2002	Entergy Louisiana/ Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contracts
240.	U-20925(B) August 2002	Entergy Louisiana	Louisiana	PSC Staff	Tax Issues
241.	U-26531 October 2002	SWEPCO	Louisiana	PSC Staff	Purchase Power Contract
242.	8936 October 2002	Delmarva Power & Light	Maryland	Energy Administration Dept. Natural Resources	Standard Offer Service
243.	U-25965 November 2002	SWEPCO/AEP	Louisiana	PSC Staff	RTO Cost/Benefit
244.	8908 Phase I November 2002	Generic	Maryland	Energy Administration Dept. Natural Resources	Standard Offer Service
245.	02S-315EG November 2002	Public Service Company of Colorado	Colorado	Fed. Executive Agencies	Rate of Return

246.	EL02-111-000 December 2002	PJM/MISO	FERC	MD PSC	Transmission Ratemaking
247.	02-0479 February 2003	Commonwealth Edison	Illinois	Dept. of Energy	POLR Service
248.	PL03-1-000 March 2003	Generic	FERC	NASUCA	Transmission Pricing (Affidavit)
249.	U-27136 April 2003	Entergy Louisiana	Louisiana	Staff	Purchase Power Contracts
250.	8908 Phase II July 2003	Generic	Maryland	Energy Administration Dept. of Natural Resources	Standard Offer Service
251.	U-27192 June 2003	Entergy Louisiana and Gulf States	Louisiana	LPSC Staff	Purchase Power Contract Cost Recovery
252.	C2-99-1181 October 2003	Ohio Edison Company	U.S. District Court	U.S. Department of Justice, et al.	Clean Air Act Compliance Economic Impact (Report)
253.	RP03-398-000 December 2003	Northern Natural Gas Co.	FERC	Municipal Distributors Group/Gas Task Force	Rate of Return
254.	8738 December 2003	Generic	Maryland	Energy Admin Department of Natural Resources	Environmental Disclosure (oral only)
255.	U-27136 December 2003	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Purchase Power Contracts
256.	U-27192, Phase II October/December 2003	Entergy Louisiana & Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contracts
257.	WC Docket 03-173 December 2003	Generic	FCC	MCI	Cost of Capital (TELRIC)
258.	ER 030 20110 January 2004	Atlantic City Electric	New Jersey	Ratepayer Advocate	Rate of Return
259.	E-01345A-03-0437 January 2004	Arizona Public Service Company	Arizona	Federal Executive Agencies	Rate of Return
260.	03-10001 January 2004	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return

261.	R-00049255 June 2004	PPL Elec. Utility	Pennsylvania	Office of Consumer Advocate	Rate of Return
262.	U-20925 July 2004	Entergy Louisiana, Inc.	Louisiana	PSC Staff	Rate of Return Capacity Resources
263.	U-27866 September 2004	Southwest Electric Power Co.	Louisiana	PSC Staff	Purchase Power Contract
264.	U-27980 September 2004	Cleco Power	Louisiana	PSC Staff	Purchase Power Contract
265.	U-27865 October 2004	Entergy Louisiana, Inc. Entergy Gulf States	Louisiana	PSC Staff	Purchase Power Contract
266.	RP04-155 December 2004	Northern Natural Gas Company	FERC	Municipal Distributors Group/Gas Task Force	Rate of Return
267.	U-27836 January 2005	Entergy Louisiana/ Gulf States	Louisiana	PSC Staff	Power plant Purchase and Cost Recovery
268.	U-199040 et al. February 2005	Entergy Gulf States/ Louisiana	Louisiana	PSC Staff	Global Settlement, Multiple rate proceedings
269.	EF03070532 March 2005	Public Service Electric & Gas	New Jersey	Ratepayers Advocate	Securitization of Deferred Costs
270.	05-0159 June 2005	Commonwealth Edison	Illinois	Department of Energy	POLR Service
271.	U-28804 June 2005	Entergy Louisiana	Louisiana	LPSC Staff	QF Contract
272.	U-28805 June 2005	Entergy Gulf States	Louisiana	LPSC Staff	QF Contract
273.	05-0045-EI June 2005	Florida Power & Lt.	Florida	Federal Executive Agencies	Rate of Return
274.	9037 July 2005	Generic	Maryland	MD. Energy Administration	POLR Service
275.	U-28155 August 2005	Entergy Louisiana Entergy Gulf States	Louisiana	LPSC Staff	Independent Coordinator of Transmission Plan

276.	U-27866-A September 2005	Southwestern Electric Power Company	Louisiana	LPSC Staff	Purchase Power Contract
277.	U-28765 October 2005	Cleco Power LLC	Louisiana	LPSC Staff	Purchase Power Contract
278.	U-27469 October 2005	Entergy Louisiana Entergy Gulf States	Louisiana	LPSC Staff	Avoided Cost Methodology
279.	A-313200F007 October 2005	Sprint (United of PA)	Pennsylvania	Office of Consumer Advocate	Corporate Restructuring
280.	EM05020106 November 2005	Public Service Electric & Gas Company	New Jersey	Ratepayer Advocate	Merger Issues
281.	U-28765 December 2005	Cleco Power LLC	Louisiana	LPSC Staff	Plant Certification, Financing, Rate Plan
282.	U-29157 February 2006	Cleco Power LLC	Louisiana	LPSC Staff	Storm Damage Financing
283.	U-29204 March 2006	Entergy Louisiana Entergy Gulf States	Louisiana	LPSC Staff	Purchase power contracts
284.	A-310325F006 March 2006	Alltel	Pennsylvania	Office of Consumer Advocate	Merger, Corporate estructuring
285.	9056 March 2006	Generic	Maryland	Maryland Energy Administration	Standard Offer Service Structure
286.	C2-99-1182 April 2006	American Electric Power Utilities	U. S. District Court Southern District, Ohio	U. S. Department of Justice	New Source Review Enforcement (expert report)
287.	EM05121058 April 2006	Atlantic City Electric	New Jersey	Ratepayer Advocate	Power plant Sale
288.	ER05121018 June 2006	Jersey Central Power & Light Company	New Jersey	Ratepayer Advocate	NUG Contracts Cost Recovery
289.	U-21496, Subdocket C June 2006	Cleco Power LLC	Louisiana	Commission Staff	Rate Stabilization Plan
290.	GR0510085 June 2006	Public Service Electric & Gas Company	New Jersey	Ratepayer Advocate	Rate of Return (gas services)

291.	R-000061366 July 2006	Metropolitan Ed. Company Penn. Electric Company	Pennsylvania	Office of Consumer Advocate	Rate of Return
292.	9064 September 2006	Generic	Maryland	Energy Administration	Standard Offer Service
293.	U-29599 September 2006	Cleco Power LLC	Louisiana	Commission Staff	Purchase Power Contracts
294.	WR06030257 September 2006	New Jersey American Water Company	New Jersey	Rate Counsel	Rate of Return
295.	U-27866/U-29702 October 2006	Southwestern Electric Power Company	Louisiana	Commission Staff	Purchase Power/Power Plant Certification
296.	9063 October 2006	Generic	Maryland	Energy Administration Department of Natural Resources	Generation Supply Policies
297.	EM06090638 November 2006	Atlantic City Electric	New Jersey	Rate Counsel	Power Plant Sale
298.	C-2000065942 November 2006	Pike County Light & Power	Pennsylvania	Consumer Advocate	Generation Supply Service
299.	ER06060483 November 2006	Rockland Electric Company	New Jersey	Rate Counsel	Rate of Return
300.	A-110150F0035 December 2006	Duquesne Light Company	Pennsylvania	Consumer Advocate	Merger Issues
301.	U-29203, Phase II January 2007	Entergy Gulf States Entergy Louisiana	Louisiana	Commission Staff	Storm Damage Cost Allocation
302.	06-11022 February 2007	Nevada Power Company	Nevada	U.S. Dept. of Energy	Rate of Return
303.	U-29526 March 2007	Cleco Power	Louisiana	Commission Staff	Affiliate Transactions
304.	P-00072245 March 2007	Pike County Light & Power	Pennsylvania	Consumer Advocate	Provider of Last Resort Service
305.	P-00072247 March 2007	Duquesne Light Company	Pennsylvania	Consumer Advocate	Provider of Last Resort Service

306.	EM07010026 May 2007	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Power Plant Sale
307.	U-30050 June 2007	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contract
308.	U-29956 June 2007	Entergy Louisiana	Louisiana	Commission Staff	Black Start Unit
309.	U-29702 June 2007	Southwestern Electric Power Company	Louisiana	Commission Staff	Power Plant Certification
310.	U-29955 July 2007	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contracts
311.	2007-67 July 2007	FairPoint Communications	Maine	Office of Public Advocate	Merger Financial Issues
312.	P-00072259 July 2007	Metropolitan Edison Co.	Pennsylvania	Office of Consumer Advocate	Purchase Power Contract Restructuring
313.	EO07040278 September 2007	Public Service Electric & Gas	New Jersey	Rate Counsel	Solar Energy Program Financial Issues
314.	U-30192 September 2007	Entergy Louisiana	Louisiana	Commission Staff	Power Plant Certification Ratemaking, Financing
315.	9117 (Phase II) October 2007	Generic (Electric)	Maryland	Energy Administration	Standard Offer Service Reliability
316.	U-30050 November 2007	Entergy Gulf States	Louisiana	Commission Staff	Power Plant Acquisition
317.	IPC-E-07-8 December 2007	Idaho Power Co.	Idaho	U.S. Department of Energy	Cost of Capital
318.	U-30422 (Phase I) January 2008	Entergy Gulf States	Louisiana	Commission Staff	Purchase Power Contract
319.	U-29702 (Phase II) February, 2008	Southwestern Electric Power Co.	Louisiana	Commission Staff	Power Plant Certification
320.	March 2008	Delmarva Power & Light	Delaware State Senate	Senate Committee	Wind Energy Economics
321.	U-30192 (Phase II) March 2008	Entergy Louisiana	Louisiana	Commission Staff	Cash CWIP Policy, Credit Ratings

322.	U-30422 (Phase II) April 2008	Entergy Gulf States - LA	Louisiana	Commission Staff	Power Plant Acquisition
323.	U-29955 (Phase II) April 2008	Entergy Gulf States - LA Entergy Louisiana	Louisiana	Commission Staff	Purchase Power Contract
324.	GR-070110889 April 2008	New Jersey Natural Gas Company	New Jersey	Rate Counsel	Cost of Capital
325.	WR-08010020 July 2008	New Jersey American Water Company	New Jersey	Rate Counsel	Cost of Capital
326.	U-28804-A August 2008	Entergy Louisiana	Louisiana	Commission Staff	Cogeneration Contract
327.	IP-99-1693C-M/S August 2008	Duke Energy Indiana	Federal District Court	U.S. Department of Justice/ Environmental Protection Agency	Clean Air Act Compliance (Expert Report)
328.	U-30670 September 2008	Entergy Louisiana	Louisiana	Commission Staff	Nuclear Plant Equipment Replacement
329.	9149 October 2008	Generic	Maryland	Department of Natural Resources	Capacity Adequacy/Reliability
330.	IPC-E-08-10 October 2008	Idaho Power Company	Idaho	U.S. Department of Energy	Cost of Capital
331.	U-30727 October 2008	Cleco Power LLC	Louisiana	Commission Staff	Purchased Power Contract
332.	U-30689-A December 2008	Cleco Power LLC	Louisiana	Commission Staff	Transmission Upgrade Project
333.	IP-99-1693C-M/S February 2009	Duke Energy Indiana	Federal District Court	U.S. Department of Justice/EPA	Clean Air Act Compliance (Oral Testimony)
334.	U-30192, Phase II February 2009	Entergy Louisiana, LLC	Louisiana	Commission Staff	CWIP Rate Request Plant Allocation
335.	U-28805-B February 2009	Entergy Gulf States, LLC	Louisiana	Commission Staff	Cogeneration Contract
336.	P-2009-2093055, et al. May 2009	Metropolitan Edison Pennsylvania Electric	Pennsylvania	Office of Consumer Advocate	Default Service
337.	U-30958 July 2009	Cleco Power	Louisiana	Commission Staff	Purchase Power Contract

338.	EO08050326 August 2009	Jersey Central Power Light Co.	New Jersey	Rate Counsel	Demand Response Cost Recovery
339.	GR09030195 August 2009	Elizabethtown Gas	New Jersey	New Jersey Rate Counsel	Cost of Capital
340.	U-30422-A August 2009	Entergy Gulf States	Louisiana	Staff	Generating Unit Purchase
341.	CV 1:99-01693 August 2009	Duke Energy Indiana	Federal District Court – Indiana	U. S. DOJ/EPA, et al.	Environmental Compliance Rate Impacts (Expert Report)
342.	4065 September 2009	Narragansett Electric	Rhode Island	Division Staff	Cost of Capital
343.	U-30689 September 2009	Cleco Power	Louisiana	Staff	Cost of Capital, Rate Design, Other Rate Case Issues
344.	U-31147 October 2009	Entergy Gulf States Entergy Louisiana	Louisiana	Staff	Purchase Power Contracts
345.	U-30913 November 2009	Cleco Power	Louisiana	Staff	Certification of Generating Unit
346.	M-2009-2123951 November 2009	West Penn Power	Pennsylvania	Office of Consumer Advocate	Smart Meter Cost of Capital (Surrebuttal Only)
347.	GR09050422 November 2009	Public Service Electric & Gas Company	New Jersey	Rate Counsel	Cost of Capital
348.	D-09-49 November 2009	Narragansett Electric	Rhode Island	Division Staff	Securities Issuances
349.	U-29702, Phase II November 2009	Southwestern Electric Power Company	Louisiana	Commission Staff	Cash CWIP Recovery
350.	U-30981 December 2009	Entergy Louisiana Entergy Gulf States	Louisiana	Commission Staff	Storm Damage Cost Allocation
351.	U-31196 (ITA Phase) February 2010	Entergy Louisiana	Louisiana	Staff	Purchase Power Contract
352.	ER09080668 March 2010	Rockland Electric	New Jersey	Rate Counsel	Rate of Return
353.	GR10010035 May 2010	South Jersey Gas Co.	New Jersey	Rate Counsel	Rate of Return

354.	P-2010-2157862 May 2010	Pennsylvania Power Co.	Pennsylvania	Consumer Advocate	Default Service Program
355.	10-CV-2275 June 2010	Xcel Energy	U.S. District Court Minnesota	U.S. Dept. Justice/EPA	Clean Air Act Enforcement
356.	WR09120987 June 2010	United Water New Jersey	New Jersey	Rate Counsel	Rate of Return
357.	U-30192, Phase III June 2010	Entergy Louisiana	Louisiana	Staff	Power Plant Cancellation Costs
358.	31299 July 2010	Cleco Power	Louisiana	Staff	Securities Issuances
359.	App. No. 1601162 July 2010	EPCOR Water	Alberta, Canada	Regional Customer Group	Cost of Capital
360.	U-31196 July 2010	Entergy Louisiana	Louisiana	Staff	Purchase Power Contract
361.	2:10-CV-13101 August 2010	Detroit Edison	U.S. District Court Eastern Michigan	U.S. Dept. of Justice/EPA	Clean Air Act Enforcement
362.	U-31196 August 2010	Entergy Louisiana Entergy Gulf States	Louisiana	Staff	Generating Unit Purchase and Cost Recovery
363.	Case No. 9233 October 2010	Potomac Edison Company	Maryland	Energy Administration	Merger Issues
364.	2010-2194652 November 2010	Pike County Light & Power	Pennsylvania	Consumer Advocate	Default Service Plan
365.	2010-2213369 April 2011	Duquesne Light Company	Pennsylvania	Consumer Advocate	Merger Issues
366.	U-31841 May 2011	Entergy Gulf States	Louisiana	Staff	Purchase Power Agreement
367.	11-06006 September 2011	Nevada Power	Nevada	U. S. Department of Energy	Cost of Capital
368.	9271 September 2011	Exelon/Constellation	Maryland	MD Energy Administration	Merger Savings
369.	4255 September 2011	United Water Rhode Island	Rhode Island	Division of Public Utilities	Rate of Return

370.	P-2011-2252042 October 2011	Pike County Light & Power	Pennsylvania	Consumer Advocate	Default service plan
371.	U-32095 November 2011	Southwestern Electric Power Company	Louisiana	Commission Staff	Wind energy contract
372.	U-32031 November 2011	Entergy Gulf States Louisiana	Louisiana	Commission Staff	Purchased Power Contract
373.	U-32088 January 2012	Entergy Louisiana	Louisiana	Commission Staff	Coal plant evaluation
374.	R-2011-2267958 February 2012	Aqua Pa.	Pennsylvania	Office of Consumer Advocate	Cost of capital
375.	P-2011-2273650 February 2012	FirstEnergy Companies	Pennsylvania	Office of Consumer Advocate	Default service plan
376.	U-32223 March 2012	Cleco Power	Louisiana	Commission Staff	Purchase Power Contract and Rate Recovery
377.	U-32148 March 2012	Entergy Louisiana Energy Gulf States	Louisiana	Commission Staff	RTO Membership
378.	ER11080469 April 2012	Atlantic City Electric	New Jersey	Rate Counsel	Cost of capital
379.	R-2012-2285985 May 2012	Peoples Natural Gas Company	Pennsylvania	Office of Consumer Advocate	Cost of capital
380.	U-32153 July 2012	Cleco Power	Louisiana	Commission Staff	Environmental Compliance Plan
381.	U-32435 August 2012	Entergy Gulf States Louisiana LLC	Louisiana	Commission Staff	Cost of equity (gas)
382.	ER-2012-0174 August 2012	Kansas City Power & Light Company	Missouri	U. S. Department of Energy	Rate of return
383.	U-31196 August 2012	Entergy Louisiana/ Entergy Gulf States	Louisiana	Commission Staff	Power Plant Joint Ownership
384.	ER-2012-0175 August 2012	KCP&L Greater Missouri Operations	Missouri	U.S. Department of Energy	Rate of Return
385.	4323 August 2012	Narragansett Electric Company	Rhode Island	Division of Public Utilities and Carriers	Rate of Return (electric and gas)

386.	D-12-049 October 2012	Narragansett Electric Company	Rhode Island	Division of Public Utilities and Carriers	Debt issue
387.	GO12070640 October 2012	New Jersey Natural Gas Company	New Jersey	Rate Counsel	Cost of capital
388.	GO12050363 November 2012	South Jersey Gas Company	New Jersey	Rate Counsel	Cost of capital
389.	R-2012-2321748 January 2013	Columbia Gas of Pennsylvania	Pennsylvania	Office of Consumer Advocate	Cost of capital
390.	U-32220 February 2013	Southwestern Electric Power Co.	Louisiana	Commission Staff	Formula Rate Plan
391.	CV No. 12-1286 February 2013	PPL et al.	Federal District Court	MD Public Service Commission	PJM Market Impacts (deposition)
392.	EL13-48-000 February 2013	BGE, PHI subsidiaries	FERC	Joint Customer Group	Transmission Cost of Equity
393.	EO12080721 March 2013	Public Service Electric & Gas	New Jersey	Rate Counsel	Solar Tracker ROE
394.	EO12080726 March 2013	Public Service Electric & Gas	New Jersey	Rate Counsel	Solar Tracker ROE
395.	CV12-1286MJG March 2013	PPL, PSEG	U.S. District Court for the District of Md.	Md. Public Service Commission	Capacity Market Issues (trial testimony)
396.	U-32628 April 2013	Entergy Louisiana and Gulf States Louisiana	Louisiana	Staff	Avoided cost methodology
397.	U-32675 June 2013	Entergy Louisiana and Entergy Gulf States	Louisiana	Staff	RTO Integration Issues
398.	ER12111052 June 2013	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Cost of capital
399.	PUE-2013-00020 July 2013	Dominion Virginia Power	Virginia	Apartment & Office Building Assoc. of Met. Washington	Cost of capital
400.	U-32766 August 2013	Cleco Power	Louisiana	Staff	Power plant acquisition
401.	U-32764 September 2013	Entergy Louisiana and Entergy Gulf States	Louisiana	Staff	Storm Damage Cost Allocation

402.	P-2013-237-1666 September 2013	Pike County Light and Power Co.	Pennsylvania	Office of Consumer Advocate	Default Generation Service
403.	E013020155 and G013020156 October 2013	Public Service Electric and Gas Company	New Jersey	Rate Counsel	Cost of capital
404.	U-32507 November 2013	Cleco Power	Louisiana	Staff	Environmental Compliance Plan
405.	DE11-250 December 2013	Public Service Co. New Hampshire	New Hampshire	Consumer Advocate	Power plant investment prudence
406.	4434 February 2014	United Water Rhode Island	Rhode Island	Staff	Cost of Capital
407.	U-32987 February 2014	Atmos Energy	Louisiana	Staff	Cost of Capital
408.	EL 14-28-000 February 2014	Entergy Louisiana Entergy Gulf States	FERC	LPSC	Avoided Cost Methodology (affidavit)
409.	ER13111135 May 2014	Rockland Electric	New Jersey	Rate Counsel	Cost of Capital
410.	13-2385-SSO, et al. May 2014	AEP Ohio	Ohio	Office of Consumers' Counsel	Default Service Issues
411.	U-32779 May 2014	Cleco Power, LLC	Louisiana	Staff	Formula Rate Plan
412.	CV-00234-SDD-SCR June 2014	Entergy Louisiana Entergy Gulf	U.S. District Court Middle District Louisiana	Louisiana Public Service Commission	Avoided Cost Determination Court Appeal
413.	U-32812 July 2014	Entergy Louisiana	Louisiana	Staff	Nuclear Power Plant Prudence

APPENDIX C

PAST TESTIMONY ON DEFAULT GENERATION SERVICE OF

MATTHEW I. KAHAL

Expert Testimony
of Matthew I. Kahal

	Docket Number	Utility	Jurisdiction	Client
236.	P-00011872 May 2002	Pike County Power & Light	Pennsylvania	Consumer Advocate
242.	8936 October 2002	Delmarva Power & Light	Maryland	Energy Administration Dept. Natural Resources
244.	8908 Phase I November 2002	Generic	Maryland	Energy Administration Dept. Natural Resources
247.	02-0479 February 2003	Commonwealth Edison	Illinois	Dept. of Energy
250.	8908 Phase II July 2003	Generic	Maryland	Energy Administration Dept. of Natural Resources
270.	05-0159 June 2005	Commonwealth Edison	Illinois	Department of Energy
274.	9037 July 2005	Generic	Maryland	MD. Energy Administration
285.	9056 March 2006	Generic	Maryland	Maryland Energy Administration
292.	9064 September 2006	Generic	Maryland	Energy Administration
304.	P-00072245 March 2007	Pike County Light & Power	Pennsylvania	Consumer Advocate
305.	P-00072247 March 2007	Duquesne Light Company	Pennsylvania	Consumer Advocate
315.	9117 (Phase II) October 2007	Generic (Electric)	Maryland	Energy Administration
336.	P-2009-2093055, et al. May 2009	Metropolitan Edison Pennsylvania Electric	Pennsylvania	Office of Consumer Advocate
354.	P-2010-2157862 May 2010	Pennsylvania Power Co.	Pennsylvania	Consumer Advocate
364.	2010-2194652 November 2010	Pike County Light & Power	Pennsylvania	Consumer Advocate
370.	P-2011-2252042 October 2011	Pike County Light & Power	Pennsylvania	Consumer Advocate
375.	P-2011-2273650 February 2012	FirstEnergy Companies	Pennsylvania	Office of Consumer Advocate
402.	P-2013-237-1666 September 2013	Pike County Light and Power Co.	Pennsylvania	Office of Consumer Advocate
410.	13-2385-EL-SSO May 2014	AEP Ohio	Ohio	Office of Consumer Council

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Case No(s). 14-0841-EL-SSO, 14-0842-EL-ATA

Summary: Testimony Direct Testimony of Matthew I. Kahal on Behalf of the Office of the Ohio Consumers' Counsel electronically filed by Ms. Deb J. Bingham on behalf of Grady, Maureen R. Ms.