OCC EXHIBIT NO. ______

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of	)	
The Dayton Power and Light Company for	)	
A Finding That Its Current Electric Security	)	Case No. 20-680-EL-UNC
Plan Passes the Significantly Excessive	)	
Earnings Test and More Favorable in the	)	
Aggregate Test in R.C. 4928.143(E).	)	

(PUBLIC VERSION)

DIRECT TESTIMONY OF MATTHEW I. KAHAL

On Behalf of the
The Office of the Ohio Consumers' Counsel
65 East State Street, 7th Floor
Columbus, Ohio 43215

OCTOBER 22, 2020

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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 case. 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., 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 440 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 A, 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 California Public Utilities Commission, the New Mexico Attorney General, the Maine Public Advocate, the New Hampshire Consumer Advocate, the Maryland Department of Natural Resources, and the Maryland Energy Administration.

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 10 to 15 years. This includes the design of programs to provide generation supply service for those retail electric customers requiring default service. During the past several years, I testified before the Public Utilities Commission of Ohio (the "PUCO" or the "Commission") in the Electric Security Plan ("ESP") cases involving AEP Ohio (Case No. 13-2385-EL-SSO), Duke Energy Ohio (Case No. 14-841-EL-SSO and Case Nos. 17-1263-SSO, et. al.), and the three FirstEnergy Utilities (Case No. 14-1297-EL-SSO). I also submitted testimony in the Dayton Power and Light Company ESP case in 2016/2017 (Case Nos. 16-0395-EL-SSO, et. al.).

II. OVERVIEW AND SUMMARY

A. Purpose of Testimony and Case Background

Q7. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A7. I have been asked by OCC to evaluate the Application submitted in this case by Dayton Power and Light Company ("DP&L" or the "Utility") for a finding that its Electric Security Plan ("ESP") (i) continues to be "more favorable in the aggregate" than a Market Rate Offer ("MRO") and (ii) is not substantially more likely to result in significantly excess earnings.

DP&L is a distribution electric utility owned by DPL, Inc., which in turn is owned by AES Corporation. DP&L previously owned non-regulated generation supply assets, but pursuant to the PUCO's directive and its own plan, it divested those assets to an unregulated affiliate and subsidiary of DPL, Inc., AES Ohio Generation, in 2017.[1] Consequently, the Utility operates as a pure delivery service utility, and my testimony assumes that will continue to be the case.

This case results from a unilateral decision by DP&L in November 2019 to terminate its PUCO-approved Electric Security Plan (referred to as "EPS III"). The Utility's decision to withdraw from ESP III was prompted by a PUCO ruling at that time generally

[1] Case No. 13-2420-EL-UNC*, In the Matter of the Application of The Dayton Power and Light Company for Authority to Transfer or Sell its Generation Assets*, Finding & Order (September 17, 2014). Please note that while DP&L divested its generation, it continues to own a small portion (4.9 percent) of Ohio Valley Electric Corporation ("OVEC") which is not used to serve its retail customers. DP&L is made whole by its retail customers for any losses associated with OVEC, which eliminates that market risk.

upholding ESP III but removing from that plan the Distribution Modernization Rider ("DMR") finding it "is unlawful and violates important regulatory practices and principles."[2] ESP III and its DMR had been in effect since October 2017.

On December 18, 2019, the PUCO approved the withdrawal and also permitted the Utility to revert back to ESP I, which was established in Case No. 08-1094-EL-SSO. This allowed the Utility to collect from its utility customers a Rate Stabilization Charge ("RSC") of about $79 million per year. The Rate Stabilization Charge is a subsidy that allows DP&L to continue to collect from customers a non-cost of service fee.

In approving the reinstatement of ESP I, however, the PUCO also noted that since the time period in effect had reached or exceeded three years, pursuant to R.C. 4928.143(E), the plan must be tested in year four ("the Quadrennial Review") to determine whether ESP I, including pricing and other terms (inclusive of any deferrals) is expected to be more favorable in the aggregate ("MFA") than the alternative of a Market Rate Offer ("MRO"). In addition, the PUCO also must determine whether ESP I going forward is likely to produce for the Utility a return on equity ("ROE") that significantly exceeds the returns likely to be earned by risk comparable public companies (referred to as the prospective Significantly Excessive Earnings Test, or prospective "SEET").

[2] *Supplemental Opinion and Order,* Case No. 16-395-EL-SSO, November 21, 2019, paragraph 110.

On April 1, 2020, the Utility complied with this directive through the filed testimony of Gustavo Garavaglia ("Garavaglia testimony") and R. Jeffrey Malinak ("Malinak testimony). The Garavaglia testimony provides background on the financial condition and credit quality of DP&L and its parent DPL, Inc., including a discussion of various actions taken over time to mitigate financial weakness problems. Mr. Garavaglia also outlines the information and assumptions that he provided to Mr. Malinak for use in the development of his financial modeling and projections. Mr. Malinak presents the results of his financial modeling and analysis, concluding that ESP I passes both the MFA and prospective SEET tests, and it therefore should be permitted to continue (with its $79 million per year RSC) through 2023.

The Application and supporting testimony, however, are silent on what happens to the $79 million per year RSC after 2023. During the 2020 to 2023 ESP I continuation period, the RSC will enable DP&L to collect from customers about $314 million, unrelated to any utility cost of providing service to those customers. As my testimony explains, the main purpose of the RSC is to financially support the non-utility debt of parent DPL, Inc., which totals about $800 million. Since that long-term debt will remain on the DPL, Inc. balance sheet and must be serviced after 2023, there is every reason to believe that DP&L will later argue that the RSC (or some successor version of it) must continue for many years after in order to protect the credit quality of both DPL, Inc. and DP&L at consumer expense.

Q8. WHY IS THE DPL, INC. LONG-TERM DEBT CENTRAL TO THIS CASE?

A8. When viewed in isolation, DP&L appears to be a very conventional distribution/transmission ("T&D") electric utility regulated by the PUCO on a cost of service basis. It should therefore be able to provide safe and reliable electric service to its customers at reasonable rates, earn a fair return, and attract the debt and equity financing purposes of investing in new plant and equipment as needed. However, and as explained in Mr. Garavaglia's testimony, DP&L is financially intertwined with its parent, DPL, Inc. He argues that it is therefore important to DP&L that the DPL, Inc. debt be serviced, and financial covenants be met. And he asserts it is not sufficient for DP&L merely to service its own debt and maintain adequate financial ratios for itself. According to his testimony, a DPL, Inc. debt default would not be a viable option since it potentially could trigger a change in control for DP&L. It is not enough for DP&L merely to meet its own financial obligations, he claims.

I would note that neither DP&L witness in this case has provided any explanation as to how DP&L and DPL, Inc. are in this predicament and why DPL, Inc. has roughly $800 million of long-term debt that supports no productive or revenue producing assets. Rather, the testimony seems to be that the DPL, Inc. debt exists, is massive, and must be serviced by utility customers for the indefinite future. There simply is no plan to end this onerous obligation that is being imposed on customers. A DPL, Inc. non-utility debt balance of $800 million effectively amounts to a customer liability of about $1,500 per

DP&L utility customer (assuming 526,000 retail customers identified in Mr. Malinak's testimony) along with the ongoing interest expense on that debt.

Q9. WHAT FINDINGS DID DP&L REACH CONCERNING THE ESP VERSUS MRO TEST AND THE PROSPECTIVE SEET THAT ARE SUPPOSED TO BE CONSUMER PROTECTIONS?

A9. The Utility presents its analysis under the statutory tests for the proposed ESP continuation in the April 1, 2020 testimony of witness R. Jeffery Malinak. He presents highly detailed, and in my opinion, rather opaque financial projections for DP&L and DPL, Inc. for the time period 2020-2023 under several ESP and MRO scenarios. For the ESP scenarios, this is shown with and without the $79 million per year RSC. In addition, he calculates a range of hypothetical Financial Integrity Charges ("FIC") that he claims would be imposed on consumers by the PUCO in conjunction with the MRO alternative. Specifically, he identifies two potential FICs that he would recommend be imposed on consumers, both of which are far larger and vastly more expensive than the RSC, [redacted] million per year and [redacted] million per year. Mr. Malinak finds that under the ESP (with the RSC) the credit quality outcomes for DP&L and DPL, Inc. are generally acceptable, and that DP&L's average earned ROE is within a reasonable range and would not be considered to be significantly excessive.

As a result of his modeling exercise, he finds that the ESP I continuation through 2023 (with the RSC) produces lower customer rates than the MRO alternative. This is the simple result of his assuming that under the MRO alternative, consumers would be burdened by an FIC that is hundreds of millions of dollars more expensive than the RSC. Further, although of much less importance, he asserts that there are several qualitative or non-quantifiable benefits to the ESP I continuation relative to the MRO. Hence, he finds that the ESP I continuation (with the RSC) passes the MFA test, and it would also adequately address the financial integrity/credit quality concerns.

Mr. Malinak approaches the SEET issue by first arguing that the ROE threshold under the SEET should be increased from the 12.0 percent authorized in ESP III to 16.6 percent. His financial modeling for ESP I (with the RSC) produces an average ROE for DP&L much lower than that, about [redacted] percent. Thus, he argues that the proposed ESP I would easily pass the prospective SEET.

Q10. DO YOU AGREE WITH MR. MALINAK'S MFA TEST AND PROSPECTIVE SEET RESULTS?

A10. No, I do not. The essence of Mr. Malinak's MFA analysis is that the PUCO would burden consumers under the MRO with a FIC vastly more expensive than the RSC that DP&L itself deems to be satisfactory.[3] This simply makes no sense. Moreover, since making consumers pay the RSC is a highly improper departure from accepted ratemaking

[3] In his MFA analysis Mr. Malinak correctly recognizes that the Utility's Standard Service Offer ("SSO") cost for customers not taking competitive generation service would be identical under both the ESP and MFA. This is because in both cases the SSO price would be determined by an identical auction process. (Malinak testimony, at 79).

principles (as noted by the PUCO in its 2019 rejection of the DMR for DP&L), it is very unlikely that any FIC would be approved, let alone one far more expensive to consumers than the RSC. Indeed, my testimony demonstrates that an FIC is not needed.

If the PUCO were to find that as part of an MRO some level of FIC is warranted (and lawful) to charge to customers, it would be far lower than either of Mr. Malinak's inflated assumed values or the RSC. Hence, the ESP I cannot pass the quantitative part of the MFA test. Mr. Malinak also sets forth some qualitative arguments in support of the ESP. I find such arguments to be of minor importance and unpersuasive.

Regarding the SEET issue, Mr. Malinak's projections seem highly questionable. To start with, I see no reason to drastically increase the SEET ROE threshold value from the 12 percent established in ESP III to the requested 16.6 percent as part of determining if DP&L will owe consumers a refund. The previously approved 12 percent is a far more reasonable benchmark that is at least 200 basis points above both earned and allowed returns on equity for the electric utility industry generally.

The larger problem with Mr. Malinak's analysis is that it produces projections of DP&L's earned return on equity that seem unreasonably low. For example, the RSC alone—before considering any equity returns for utility operations—provides an ROE contribution in the range of about 8 to 10 percent (depending on the equity balance assumed for DP&L). Further, the actual data that we have for the two most recent years

(2018 and 2019, the two years following generation divestiture for DP&L) indicate that DP&L achieved ROEs of over 20 percent. While such extraordinarily high (significantly excessive) returns during the past two years may not persist at that level in future years, it does cast considerable doubt regarding whether the ESP continuation, with a $79 million a year RSC revenue contribution, could pass the SEET test, particularly if the SEET ROE threshold were to be set at a reasonable value of 12 percent. What that would mean for DP&L consumers is that they might finally benefit from the SEET by receiving a refund for DP&L's significantly excessive earnings. Thus, Mr. Malinak's finding that the ESP I continuation, as proposed, passes the prospective SEET (meaning customers would be unlikely to receive a refund) is unpersuasive, not supported by credible evidence, and should be rejected.

Q11. WHAT RECOMMENDATIONS ARE YOU PROPOSING CONCERNING THE APPLICATION OF THE STATUTORY MORE FAVORABLE IN THE AGGREGATE AND PROSPECTIVE SEET TESTS IN THIS CASE?

A11. I recommend that the PUCO find that the continuation of ESP I does not pass the consumer protection standards of the MFA test or the prospective SEET. ESP I therefore should be terminated in favor of "the more advantageous alternative"[4] for customers --the MRO alternative. If the PUCO allows DP&L to continue under an electric security plan, I recommend that the RSC be set to zero since it is not part of any costs associated with providing utility service to consumers.

[4] R.C. 4928.143(E).

In addition, the PUCO should issue a finding that the financial predicament for DP&L described by Utility witnesses is not the responsibility of Utility customers, but rather it is the responsibility of the ultimate parent, AES Corporation. AES has the responsibility to ensure that DPL, Inc.'s debt problems do not impair the credit quality of the Utility and that DP&L is properly capitalized in a manner that allows it to operate efficiently and undertake needed capital investments. In doing so, AES would be living up to its public service obligations and commitments originally articulated in the 2011 merger proceeding at the PUCO when it acquired DP&L.[5]

Q12. YOU DISPUTE DP&L'S MFA TEST AND SEET FINDINGS. PLEASE ELABORATE.

A12. I do not disagree with DP&L's witnesses that it is important for DPL, Inc. to pay its $800 million of non-utility debt. Utility witnesses assign responsibility for that debt entirely to Utility customers, even though that debt finances no utility assets. Moreover, Utility customers already have paid out more than $200 million in charges (with no refund) under the DMR which the PUCO ruled is unlawful and violates regulatory principles. In this case, Utility witnesses propose to impose another $314 million of charges related to that debt. And, this will not end in 2023, but will continue as long as that $800 million remains on DPL, Inc.'s balance sheet.

[5] Case No. 11-3002-EL-MER, Opinion & Order (November 11, 2011).

As this debt pertains to legacy unregulated operations that failed to provide the anticipated revenue stream (and/or debt used to finance the 2011 AES acquisition of DP&L and DPL, Inc.), this debt problem is the responsibility of DPL, Inc.'s parent, AES Corporation and should not be the problem of consumers. AES has the ability and financial capability to solve this problem and thereby protect both the Utility and its customers. This is not recognized by Utility witnesses. However, AES has little incentive to address and solve this asserted financial distress problem if the PUCO allows the massive RSC subsidy to continue at consumer expense. That is, AES's incentive here is to allow the problem to persist, seeking to impose the cost on Utility customers, in order to justify the large RSC. There is no reason to believe this problem will go away after 2023.

Utility witnesses present no evidence at all in testimony concerning AES's financial capability and ability to contribute to a solution to this issue. They merely cite to AES's willingness to infuse an additional $150 million in capital into DP&L in 2021 conditioned on the ESP I continuation and the RSC subsidy continuing. In other words, AES will only inject the capital in 2021 if it gets what it wants in this case from the PUCO. This conditional equity infusion is neither shareholder beneficence nor a financial sacrifice. The AES equity infusion, while welcome, is a parent investment in the utility it owns on which it will earn a competitive, regulated return over time. This is what a utility holding company is supposed to do.

Q13. BASED ON YOUR REVIEW AND ANALYSIS, WHAT ARE YOUR PRINCIPAL FINDINGS AND CONCLUSIONS?

A13. I have reached the following findings and conclusions from my review of the filed testimony and available evidence.

(1) Generally speaking, DP&L is a low-risk delivery service electric utility company regulated on a cost of service basis by the PUCO. Absent being encumbered by the problems with the DPL, Inc. debt load, its credit ratings would be solidly investment grade.

(2) DP&L accounts for virtually all of DPL, Inc.'s assets and revenue. The only salient difference between DP&L and DPL, Inc. is that the latter has about $800 million in additional long-term debt. DPL, Inc.'s total debt of about $1.3 billion (inclusive of the DP&L debt) is simply far too large relative to its revenue producing asset base (which is almost entirely that of the Utility). This is neither financially sound nor reasonable.

(3) AES Corporation is a massive, diversified energy company, with an enterprise value (market capitalization plus debt) on the order of about $34 billion. Based on its current financial fundamentals and outlook (*i.e.*, its liquidity, access to capital, cash flow, dividend payments to shareholders and growth), it is fully capable of both ensuring that DP&L is properly capitalized and addressing the serious excessive debt problem at DPL, Inc.

(4) DP&L, DPL and AES this year have been able to successfully access debt markets to either raise capital, lower interest expense by refinancing high cost

debt or both. Mr. Malinak has not incorporated these recent changes and interest expense savings into his financial projections.

(5) AES Corporation's unwillingness at this time to properly address the DPL, Inc. unregulated debt problem, and instead impose that problem on Utility customers, is not consistent with the commitments made at the time of its 2011 acquisition of DP&L approved by the PUCO. This very large DPL, Inc. debt overhang problem has resulted from some combination of leveraged financing of the merger and AES's "bet" on the market value of unregulated coal-fired generation that it acquired in that merger.

(6) DP&L complains that its financial strength and risk profile are impaired by the absence of the types of cost recovery riders or trackers that other Ohio electric utilities enjoy (*e.g.*, the Distribution Investment Rider or "DIR"). The witnesses use this fact to argue for an extraordinarily high SEET ROE threshold. DP&L's complaint overlooks the fact that it was DP&L itself that abandoned such riders when it unilaterally decided to terminate ESP III and revert to ESP I.

(7) Mr. Malinak's financial projections used in his MFA test and prospective SEET are highly complex and opaque, and incorporate numerous assumptions that cannot be verified. Most concerning is that his projections appear to incorporate an assumption provided by Mr. Garavaglia that over the entire extension period for EPS I, there will be no base rate increase (although I do not read the testimony as committing to a rate case stay out). For this reason

(perhaps along with other assumptions), it is not surprising that Mr. Malinak's DP&L earnings projections from utility operations (as opposed to earnings derived from the RSC) are so weak. Under the RSC it appears that almost all of the earnings come from just the RSC revenue and FERC transmission, possibly as a result of this puzzling assumption.

(8) Mr. Malinak's positive quantitative MFA result is entirely an artifact of him assuming the PUCO would approve a massive FIC for charging to consumers in conjunction with an MRO, and him assuming that such a hypothetical FIC would be hundreds of millions of dollars more than the RSC over four years. Even assuming such an FIC charge to be lawful (which I understand should not be assumed), there is no reason to assume the PUCO would make consumers pay an FIC as part of an MRO, especially given that the statute speaks to the PUCO approving "the more advantageous alternative" to consumers upon finding that the MFA test is not met . Mr. Malinak's FIC assumptions are implausibly large, arbitrary and at best speculative. Even if the PUCO were to approve an FIC (which Mr. Malinak has not substantiated), it likely would be far less than the $314 million RSC (if any FIC at all would be lawful).

(9) Mr. Malinak sets forth qualitative arguments in favor of the ESP over the MRO for consumers. Such arguments are either minor, incorrect, or unpersuasive.

(10) Mr. Malinak has presented no persuasive reason why it is appropriate to increase the SEET ROE threshold from 12 percent to 16.6 percent – a massive increase that would make it more difficult for consumers to receive a refund in a future SEET case. His proposal certainly cannot be justified by any market data or change in DP&L's circumstances. The previously approved value of 12 percent should be retained.

(11) Mr. Malinak's use of projections for a simulation of the ESP I with the RSC produces a 2020 to 2023 ROE of [redacted] for DP&L, which is to suggest that DP&L would not be making enough profit compared to both the 12 percent and 16.6 percent thresholds. However, the RSC's revenue contribution by itself (unrelated to any cost or investment) would provide a ROE of at least 8 percent, before considering any contribution to earnings from FERC transmission or PUCO regulated distribution service that will increase the ROE. For this reason, along with recent past experience, it is doubtful that ESP I would result in earnings below the 12 percent threshold.

(12) AES Corporation, if it chooses, can successfully address the DPL, Inc. debt problem. It could do so by committing to pay all DPL, Inc. interest expense on the non-utility debt (roughly $36 million per year), effectively guaranteeing that debt. A more comprehensive and cleaner solution would be for AES to directly redeem and refinance all $800 million of that debt. As a practical matter, this has the effect of moving it from the DPL, Inc. balance sheet to the AES Corporation balance sheet with no significant change in the

AES Corporation consolidated long-term debt balance or interest expense. Doing so would provide considerable credit quality benefit for DP&L, and there would be no need for DPL, Inc. to issue new debt in the future. This debt restructuring would not harm shareholders, but it would eliminate any justification for the RSC. It would place responsibility for the non-utility debt where it properly belongs with shareholders and not the responsibility of utility consumers.

As discussed above and later in my testimony, the appropriate solution for the DPL, Inc. financial predicament is for AES Corporation to assume responsibility rather than imposing this enormous cost on Utility customers. In doing so, AES would be taking responsibility for its own business decisions, which include highly leveraged financing of the merger in 2011 and making a big bet on unregulated coal-fired generation assets.

AES certainly could do so, but it has no incentive to solve the problem if the continuation of the ESP I with its $314 million RSC is approved by the PUCO at consumer expense. Mr. Garavaglia argues that a DPL, Inc. debt default would endanger the Utility's financial integrity and could even trigger a "change in control" for DP&L. However, if such a scenario would come to pass, AES would need to consider the impact on its investment in DP&L, an asset with a net plant and likely market value of well in excess of $1 billion. AES therefore has every incentive to address the DPL, Inc. financial predicament and certainly has the capability to do so. But it would only do so if DP&L's

proposed ESP I and RSC are rejected by the PUCO to protect consumers from being made a source of corporate welfare to DPL, Inc. and AES.

B. <u>Testimony Outline</u>

Q14. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A14. Section III of my testimony provides background information on the financial status of DP&L, DPL, Inc. and AES Corporation. This includes the current status of the outstanding debt of DP&L and DPL, Inc., updating some information in Mr. Malinak's testimony. The AES Corporation discussion illustrates its financial capability to address the DPL, Inc. debt predicament. Section IV of my testimony is a discussion of Mr. Malinak's MFA test, which is derived from his financial modeling and his assumptions regarding the size of a FIC that would accompany an MRO. I also discuss his qualitative arguments supporting the ESP. Section V of my testimony addresses the SEET issue and why Mr. Malinak's assertion that ESP I would pass that test is at best questionable.

III. BACKGROUND ON DP&L, DPL, INC. AND AES

Q15. PLEASE DESCRIBE DP&L'S RECENT FINANCIAL PERFORMANCE.

A15. DP&L's recent financial performance is reported in the DPL, Inc./DP&L SEC 10-K annual report for the year-ending 2019 filed in early 2020. That report shows that the Utility's financial performance during the past two years was quite favorable, in a large part due to the $105 million annual DMR collected from customers. DP&L's net income was $123.3 million in 2019 and $88.7 million in 2018. Given the average common equity (*i.e.*, average of beginning of year and end of year) for those two years, the actual return on equity was 26.8 percent for 2019 and 22.9 percent for 2018.[6]

The cash flow statement also shows considerable strength in those two years. In 2019, operating cash flow was $199.9 million and in 2018 was a $195.8 million. The operating cash flow amounts exceeded construction expenditures of $167.1 million and $93.1 million in 2018. In addition to using cash flow for capital investment, DP&L paid out dividends to its parent of $43.8 million in 2018 and $95 million in 2019. Thus, DP&L paid out most of its net income in dividends during those two years.

During the past two years, DP&L has been strengthening its balance sheet due in large part from AES equity infusions. Specifically, DP&L received an $80 million infusion in 2018 and a $150 million infusion in the first half of 2020, as mentioned by Company witnesses. Between year-end 2017 (which is subsequent to its generation asset divestiture) and June 30, 2020, the common equity balance increased from $331 million to $640 million, a near doubling.[7] With long-term debt at June 30, 2020 of $574.2 million and almost no short-term debt, the common equity ratio at that date is a very healthy 52.7

[6] Figures are from the DP&L income statement and balance sheet (adjusted for other comprehensive income) from the SEC 10-K, with average equity of $459.4 million in 2019 and $388 million in 2018.

[7] Based on balance sheet data from the SEC Form 10-k for the year 2019 and SEC 10-Q for the quarter ending June 30, 2020.

percent. Thus, in addition to strong earnings, DP&L has a strong balance sheet. Note that the $574.2 million of debt compares to net plant (inclusive of construction work in progress) of $1,464 million. Clearly, DP&L does not have an excess leverage problem.

Q16. HAS DP&L RECENTLY ISSUED ANY LONG-TERM DEBT?

A16. Yes, it has. In August 2020, DP&L issued $140 million in First Mortgage Bonds in order to refinance its variable rate debt. The new bonds carry an interest rate of 3.20 percent and have a term of 20 years. Clearly, DP&L has the ability to issue long-term debt on very favorable terms. Utility witnesses complain about the weakness of DP&L credit ratings – middle or low triple B or BB in the case of Standard & Poor's. But theses witnesses are only citing to the corporate or issuer ratings. DP&L's long-term debt is predominantly secured debt, and those ratings are much higher, high triple B to low single A (medium triple B for Standard & Poor's).[8] In addition to the $140 million of First Mortgage Bonds just mentioned, the Utility also has a $425 million issue due in 2049 at a 3.95 percent interest and a $17.4 million bond at 4.20 percent interest.[9] I calculate that DP&L's long-term interest expense going forward is about $22 million per year, which is quite manageable given the size of the company.

[8] DPL, Inc./DP&L SEC Form 10-K for the year ending December 31, 2019 at 41.

[9] DPL, Inc./DP&L SEC Form 10-Q, for the quarter ending June 30, 2019, Note 6 to financial statements ("Long-Term Debt"), pages 20-22.

Q17. PLEASE ADDRESS THE FINANCIAL CONDITION OF DPL, INC.

A17. From an operational standpoint at this time, DPL, Inc. owns the Utility and little else. The salient difference between DPL, Inc. and the Utility concerns the former's debt burden. DPL, Inc.'s outstanding debt (excluding subsidiary DP&L debt) totals about $830 million. I calculate that the annual interest bill on this debt (not including any borrowings under its revolving credit facility) would be about $36 million per year.[10] This is larger than DP&L's relatively modest interest expense bill of about $22 million per year mentioned above. DPL, Inc. would not be able to pay this very large interest expense bill from its own revenue because it has little revenue of its own (other than that of DP&L).

DPL, Inc.'s total debt (its own plus that of DP&L) is on the order of $1,393 million. As its net plant is $1,484 million, this means that the ratio of debt to net plant is approaching 100 percent. DPL, Inc. has excess leverage as its own debt does not appear to be supporting any assets. Assigning this debt to DP&L effectively more than doubles the Utility's debt expense from about $22 million per year to $58 million per year.

Despite its financial weakness and excess leverage, DPL, Inc. has been able to issue new debt recently. In June 2020, DPL issued $415 million in new long-term debt at a 4.13 percent interest rate in order to refinance early a $380 million long-term debt issue carrying a much higher interest rate.[11] The size of the new debt issue also covered the

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[10] Calculated as: $415 million x 4.13% + $400 million x 4.35% + $15.6 million x 8.125% = $35.8 million.

[11] *Id.*

cost of a "make whole" payment to reflect the interest rate differential. DPL, Inc. will not face another long-term debt maturity until 2025, and as far as I can tell, it has no plans to downsize its very large debt balance.

Q18. PLEASE DISCUSS THE FINANCIAL RESOURCES OF AES CORPORATION.

A18. AES is a very large and diversified energy company owning both utilities and unregulated generation both in the U.S. and foreign countries around the world. I have consulted four sources to obtain an overview of AES: the AES SEC Form 10-K for 2019, its SEC Form 10-Q report for the second quarter 2020, the most recent *Value Line Investment Survey* report on AES (dated September 18, 2020), and the Corporation's recent financial presentation to securities analysts.[12] These sources report AES as having an enterprise value (market equity plus debt) of about $33 billion and total assets of $35 billion. This means that DP&L, with an asset base of less than $2 billion, is a small but material portion of AES Corporation's vast array of investments.

The Value Line data for AES indicate that its financial outlook is relatively favorable. The publication projects earnings to increase from $0.45 per share in 2019 to $1.60 per share five years from now. Dividend payments are expected to be about $380 million in 2020 increasing to $430 million five years from now. Its return on equity is expected to increase from 18.5 percent in 2020 to 34.5 percent five years from now. Value Line also

[12] The AES Corporation, SEC Form 10-K for the year ending, December 31, 2019; The AES Corporation, SEC Form 10-Q for the quarter ending June 30, 2020; "The AES Corporation Second Quarter 2020 Financial Review", August 6, 2020**:** *Value Line Investment Survey, AES Corporation report, September 18, 2020.*

reports that AES has enjoyed strong market returns on its common stock in recent years. The report shows that market returns (stock price gains plus dividends) increased by a cumulative 77.9 percent in the last five years (roughly a 12 percent annualized return) and 78.4 percent for the last three years (a market rate of return of roughly 21 percent.

Q19. DOES THE RECENT FINANCIAL REVIEW PRESENTATION BY AES ALSO DISCUSS THE CORPORATION'S FINANCIAL RESOURCES?

A19. Yes, it does, although in a much more granular form than Value Line and with primary focus on its vast unregulated generation investments. AES Corporation's growth outlook over the next couple of years is a 7 to 9 percent per year growth in earnings and cash flow.[13] The Corporation claims to have $3.5 billion in liquidity defined as credit lines of $1.3 billion plus cash (or equivalents) of $2.2 billion.[14] The presentation further states that in 2020 it will generate or have available $1.4 billion in what it terms "discretionary cash" and $3.4 billion over the three year period 2020 – 2022.[15]

Q20. HAS AES CORPORATION RECENTLY UNDERTAKEN ANY LARGE DEBT ISSUANCES?

A20. Yes, it has, as documented in its second quarter SEC Form 10-Q report. In May 2020, AES issued $900 million in long-term debt at 3.30 percent, maturing in 2025, and $700

[13] Financial review, at 3.

[14] *Id*. at 28.

[15] *Id*. at 29.

million in new long-term debt at 3.95 percent, maturing in 2030. This is secured debt with the proceeds used for debt refinancing purposes. AES reports that its secured debt is rated investment grade and it anticipates another debt rating upgrade to investment grade later this year.[16] This demonstrates that AES has access to debt markets on favorable terms.

Q21. WHY IS THE FINANCIAL INFORMATION REGARDING AES FINANCIAL CONDITION AND RESOURCES IMPORTANT?

A21. A business and financial review of AES demonstrates that the Corporation has considerable financial resources. While DPL, Inc. may have debt problems, there is no justification for imposing that liability on Utility customers through either an RSC or an FIC in conjunction with an MRO. Rather, it would be far more appropriate to solve this problem using the financial resources of AES Corporation. This could be done either by AES stepping forward to take responsibility for the DPL, Inc. ongoing interest expense payments, which I estimate to be about $36 million per year. This would be tantamount to AES guaranteeing the debt. AES clearly has the cash flow or other resources to provide that payment, obviating the need for DP&L to do so through dividend payments to its parent.

[16] *Id*. at 3.

A more definitive and permanent fix would involve AES refinancing the roughly $800 million of DPL, Inc. debt, in effect moving it from the DPL, Inc. balance sheet to its own balance sheet. AES has demonstrated that it can issue long-term debt on attractive terms, particularly for refinancing purposes. This action would not materially alter the total amount of long-term debt for the consolidated AES but would merely move it from one balance sheet to another within AES Corporation. Both approaches (or even a combination of the two) would be very helpful to DP&L by removing an impediment to an improvement in its credit quality and by increasing the Utility's financial flexibility.

IV. ESP VERSUS MRO TEST

A. <u>The Statutory Test</u>

Q22. WHAT IS THE ESP VS. MRO TEST IN THE CONTEXT OF THIS CASE?

A22. When the PUCO evaluates an application for an electric security plan, it must determine under R.C. 4928.143(C) whether the proposed ESP is "more favorable in the aggregate as compared to the expected results that would otherwise apply under" an MRO. If an ESP is longer than three years, the law requires the PUCO to assess the ESP vs. MRO test again in the fourth year. Under R.C. 4928.143(E), the PUCO must determine whether the utility's ESP "continue to be more favorable in the aggregate and during the remaining term of the plan as compared to the expected results that would otherwise apply under" an MRO. Because DP&L's ESP I has been in effect for more than three years, this case involves the PUCO's review of ESP I under R.C. 4928.143(E), *i.e.*, whether ESP I continues to be more favorable in the aggregate for consumers than an MRO.

B. <u>DP&L's Application of the Test</u>

Q23. PLEASE DESCRIBE HOW DP&L HAS APPLIED THIS TEST.

A23. Utility witness Malinak addresses the ESP versus MRO statutory test (also known as the "more favorable in the aggregate" or "MFA" test) on pages 78-84 of his direct testimony. He begins by stating that the test has three components: (a) the quantified rate impacts, referred to as the "Aggregate Price Test"; (b) other quantified impacts; and (c) qualitative attributes.[17] He states that item (c) could incorporate a rather wide range of possible effects including customer pricing, service area economic impacts, service quality or reliability.

Recognizing that the $79 million per year ($316 million over four years) RSC is the most controversial element of the ESP continuation, he analyzes two alternatives. The first is the ESP continuation for 2020 – 2023, as proposed. The second is the MRO alternative, but accompanied by a Financial Integrity Charge ("FIC") adder that he questionably assumes the PUCO would impose in order to address the asserted problem of DP&L's financial integrity and credit quality. In doing so, he develops two alternative FICs in

[17] Mr. Malinak at 78 cites as authority for this framework the following PUCO decisions: Case No. 11-346-EL-SSO, Opinion and Order at 77 (August 8, 2012); Case No. 12-1230-EL-SSO, Opinion and Order at 56-57 (July 18, 2012).

order to present a range, but he does not express a preference between the two. The lower value is [redacted] million per year ([redacted] million over four years, and the higher FIC value is $[redacted] million ($[redacted] million over four years).

Mr. Malinak proceeds to identify other potential factors that could affect rates and therefore should, in his opinion, be addressed as part of the Aggregate Price Test. These other factors considered include a one-time [redacted] million environmental compliance cost for [redacted] that would be collected under the ESP but apparently not the MRO, the ESP's Infrastructure Investment Rider (for Smart Grid costs) and the generation costs charged to SSO customers. He directly incorporates the environmental charge into the Aggregate Price Test, favoring the MRO by the amount of that charge. He argues that the cost of the Infrastructure Investment Rider does not affect the test because an identical amount of those costs, while considerable, would be recovered in the MRO alternative through a distribution base rate (or some other rate mechanism). Thus, he testifies it has no effect on the Aggregate Price Test. He reaches a similar conclusion for the generation supply rates for SSO customers. He correctly recognizes that under both the ESP and MRO alternative generation supply would be acquired through a CBP in compliance with PUCO rules, and there would be no difference in the supply cost result.[18] Armed with these assumptions, his Aggregate Price Test results are straight forward. According to his analysis, the ESP I continuation provides substantial savings

[18] Malinak testimony, at 79-80.

relative to the two MRO alternatives over four years ranging from $[redacted] million to [redacted] million.[19]

Note that these two amounts net out from the MRO cases the cost of the environmental charge mentioned above that would exist under the RSP but would not be imposed under the MRO. These results are transparently simple: ESP I prevails under this test because the $79 million per year RSC is substantially less than the FIC high and low values **that he questionably assumes the PUCO would impose under an MRO**. His test results are driven entirely by this one assumption.

Mr. Malinak also considers the possibility that the PUCO would approve a FIC to accompany the MRO but not the range he developed – in fact it could approve an FIC less than the $79 million per year RSC. In such a case, the ESP I would not pass the Aggregate Price Test. He responds to that possibility by asserting that if the PUCO were to approve a FIC less than the RSC value, then relative to the ESP I case, DP&L's level of reliability would suffer: "DP&L would be forced to make cuts to its O&M and capital expenditures, which would negatively impact DP&L's ability to provide safe and reliable service."[20]

[19] *Id.* at 80.

[20] *Id.* at 83.

Q24. DOES WITNESS MALINAK PROVIDE ANY OTHER QUANTIFICATIONS?

A24. No. He does not identify any other non-rate quantifications or even other impacts that could be quantified.[21]

Q25. DOES WITNESS MALINAK ADDRESS QUALITATIVE ATTRIBUTES OF THE ESP?

A25. Yes, at pages 81-83 of his testimony, he outlines five qualitative arguments in support of the ESP I relative to the MRO alternative. The first is that under the ESP I AES Corporation has agreed to inject $300 million of equity into DP&L to fund the large capital spending program it proposes and to strengthen the Company's balance sheet and capital structure. This would be done in two installments (indeed the first $150 million infusion already has occurred), with the second installment of $150 million taking place this year. He claims that this would not occur under an MRO. The apparent reason for this difference is that AES Corporation finds that the Infrastructure Investment Rider is an attractive rate mechanism for earning a return on the very large Smart Grid investments, and it does not intend to invest its equity in DP&L absent that mechanism in place.

The second qualitative argument pertains to the SEET, a mechanism that potentially can provide customers with refunds if DP&L's earned ROEs are high enough. The SEET

[21] *Id*. at 81.

would accompany the ESP I continuation but would not be available for customers under an MRO.

The third argument is based on the notion of "optionality". Specifically, if the Utility is required to implement an MRO, then it cannot file for an ESP again in the future. He believes this is a "loss" because the PUCO has determined in past cases that ESPs are beneficial and approved them.[22]

The fourth argument is that the RSC is a non-by-passable charge meaning that all DP&L distribution customers must pay their allocated portions of the total charge. According to Mr. Malinak, an FIC under an MRO is different and would be bypassable, meaning that only SSO customers would pay that charge, and customers who shop with a marketer can avoid it. Under his two MRO/FIC cases, this will lead to generation rates for SSO customers sharply above market, causing customers to leave SSO, meaning the FIC would be spread over a drastically shrinking customer base. He believes this is not sustainable and will result in a "death spiral."

The fifth argument pertains to the Infrastructure Investment Rider for the collection of Smart Grid costs. While he argues that DP&L would collect these costs under either the RSC or MRO, it would be more gradual (presumably annual rate changes) under the ESP I continuation. Under the MRO, which the cost collection would be determined in base

[22] *Id*. at 82.

rate cases, the collection would be more abrupt – "rate shock". In that manner, the ESP contributes to rate stability relative to the MRO alternative.

C. <u>Critique of DP&L's Application of the Test</u>

Q26. HOW HAVE YOU APPROACHED THE ESP VERSUS MRO TEST?

A26. Mr. Malinak's financial projection modeling plays a key role in how he conducts the MFA test, and I therefore review his approach to that modeling. He approaches it by defining five financial scenarios for DPL, Inc./DP&L, two for the ESP and three for the MRO. These are (a) the ESP I as proposed (i.e., with the $314 million RSC), (b) the ESP I with no RSC, (c) the MRO with the lower end FIC, (d) the MRO with the upper end FIC, and (e) the MRO with no (i.e., zero) FIC. The input assumptions in all scenarios stated in his testimony as being the same (other than the RSC or FIC amounts), but under the MRO there is no Infrastructure Investment Rider and no AES $150 million equity infusion in 2021 (which for reasons not clear or even rational are directly linked to the Infrastructure Investment Rider). The broad conclusions he draws from his modeling are not surprising.

His three scenarios with the RSC and the range of FICs produce financial results for DP&L over this four-year period that are quite positive in terms of financial strength and credit quality, with the MRO appearing to be perhaps even better for DP&L than the RSC since they are much larger. He finds the ESP with the RSC would put DP&L on a "stable financial footing" and would enable it to carry out its planned very large "projected capital spending program," including its proposed grid modernization, thereby ensuring safe and adequate service.[23]

Q27. MR. MALINAK CALCULATES A RANGE OF FIC VALUES THAT HE ASSUMES THE PUCO WOULD APPROVE UNDER AN MRO. ARE THESE VALUES REASONABLE?

A27. No. They are absurdly high and unreasonable. Without his unreasonable FIC values, there is no way that ESP I with the RSC could pass the Aggregate Price Test under the MFA. These are purely his assumptions, and he has no realistic basis for believing the PUCO would approve these outlandishly high prices for charging to consumers. It is therefore worth reviewing how he developed these contrived figures (that are also of questionable legality).

The calculation of the lower end FIC calculation is fairly simple, as shown on his Exhibit 8A. He calculates that value by assuming the PUCO would simply include in a FIC the same dollars as the current RSC (the $79 million per year). On top of that, he assumes that the PUCO would award DP&L and charge SSO customers for the loss of the $150 million equity contribution that AES would infuse under the ESP but would refuse to provide under an MRO. Moreover, equity infusion dollars are after tax, so this amount

[23] *Id*., page 11. For the favorable resulting credit rating results, *see* Exhibit RJM-16A.

must be grossed up for income taxes. This explains why the lower bound FIC is so much higher in dollar terms than the $314 million RSC.

The upper bound FIC is massively higher than either the lower bound figure (just described) or the RSC, and its calculation is also more complex. This higher FIC is calculated as the dollar amount that would cover most of the construction budget during the 2020-2023 time period plus the DPL, Inc. interest expense (apparently all of it), minus the cash flow that DP&L could expect to experience absent any RSC or FIC.

Q28. WHY DO YOU FIND MR. MALINAK'S FIC RANGE VALUES TO BE UNREASONABLE?

A28. Keep in mind these calculated values are his assumptions of the FIC amounts that the PUCO would award under an MRO (if the FIC charge is even lawful under an MRO).[24] To begin with the dollar amounts would produce for DP&L absurdly high ROEs at consumer expense. The lower bound FIC of $[redacted] million per year, given the most current equity balance for June 2020 mentioned earlier of $640 million translates into a ROE of [redacted] percent. This is just for the FIC by itself and assumes that DP&L does not generate a single dollar of earnings from the rest of its distribution and transmission operations. If those operations produced a 10 percent ROE, then the resulting DP&L ROE (FIC plus normal operations) would be over [redacted] percent. The ROE for the high-end FIC is even more extreme. The $[redacted] million per year FIC with the $640 million most recent actual

[24] In my discussion of this topic I am taking no position on whether an FIC amount added to or included in the MRO is even lawful. My testimony should not be interpreted as supporting any dollar amount of or even the concept of an FIC to accompany an MRO.

equity balance is a [redacted] percent ROE. Again, if normal T&D operations provides a 10 percent ROE, then the DP&L total ROE would be nearly [redacted] percent.[25] These results are simply not credible, and it is unreasonable to assume that the PUCO would approve something like this at consumer expense (or to assume what would be the outcome of the issue of the legality of such a charge).

A second set of reasons is that the RSC departs drastically from accepted regulatory principles that I believe this Commission would follow. For example, the only reason why the lower bound FIC exceeds the RSC (and it does so substantially) is because Mr. Malinak assumes the FIC must provide revenues, at consumer expense, to "make up" for the fact that AES refuses to provide DP&L with a financially beneficial and presumably needed equity infusion. The PUCO would have to be convinced by DP&L in an MRO filing that AES Corporation's financial decisions dictate to the PUCO the magnitude of the rate increase for an FIC that DP&L is entitled to receive from consumers. I cannot imagine any Commission standing for that kind of parental intransigence and then rewarding that intransigence with a rate increase to cover the parent's financial obligation at consumer expense. In any event, the PUCO should not be dictated to or controlled by the actions or inactions of AES or DPL, Inc. The PUCO should protect consumers.

Moreover, AES Corporation's denial of the equity infusion under the MRO scenarios (part of the basis for the FIC) does not even make any logical sense. Mr. Malinak states

[25] Note that all of my after-tax earnings calculations assume an effective federal/state income tax factor of 1.2755.

that the reason for the AES willingness to make the equity infusion under the ESP was linked to the Infrastructure Investment Rider that would fund the very large Smart Grid investments. Yet, Mr. Malinak assumes that under the MRO DP&L would recover exactly the same dollars as under ESP for the Smart Grid investments – just the timing would be different since they would be recovered in a "lumpier" fashion through conventional rate cases. Thus, as DP&L recovers the same dollars but using different rate mechanisms, there is no reason for AES under the MRO to walk away from its equity infusion, which I view as its financial obligation. Mr. Malinak cannot have it both ways.

The problem is even worse under the high FIC charge. Included in that charge, SSO customers must provide in the rates that they pay a non-cost of service charge that covers the vast majority of DP&L capital spending (in effect "expensing") of capital investment plus 100 percent (dollar for dollar) of the DPL, Inc. debt interest expense. The FIC thus makes the SSO customers 100 percent responsible for the interest expense on over $400 million of debt that supports no distribution rate base, plant or any regulated asset. To make matters worse, not only are the SSO customers charged for in effect the expensing of capital investment (in effect a 100 percent depreciation rate), but they do not even get the benefit of expensing. That is, none of the FIC dollars would be credited to depreciation reserve to reduce rate base in the future. This FIC departs so drastically from sound ratemaking principles and is so transparently unreasonable and unfair (not to mention there is also an issue of its legality), that I cannot imagine a utility even proposing it in an MRO proceeding, let alone the PUCO approving it.

Finally, Mr. Malinak makes the interesting observation that the FIC would be charged just to SSO customers and would result in an unsustainable "death spiral" as SSO customers flee from the SSO cost, burdened with the FIC, that exceeds market. This is another reason why his FIC values are totally unrealistic, and I cannot imagine them even being proposed. Mr. Malinak's Exhibit RJM-44A (the ESP income statement without the RSC) identifies first year SSO revenues absent a FIC or RSC as being [redacted] million. This means that the lower bound FIC of [redacted] million increases the bypassable SSO cost to customers by about [redacted] percent, and the upper end [redacted] million charge increases it by about [redacted] percent. Again, these charges would be completely unrealistic, and I cannot imagine a rational utility proposing such a thing let alone the PUCO approving such charges.

Q29. DO YOU HAVE ANY REASON TO QUESTION MR. MALINKA'S RELIANCE ON A $79 MILLION-PER-YEAR RSC VALUE?

A29. Yes. Mr. Malinak's ESP scenario with the $79 million per year RSC is really his "base case" against which all other relevant scenarios are compared for purposes of both assessing financial adequacy and conducting the statutory Aggregate Price Test. Therefore, it is worth closely examining those results and how he arrived at them. In addition to his various exhibits showing cash flows, credit metric ratios and the like, he provides a much simpler exhibit that simply shows the ROEs that DP&L can expect to earn under the extension of the RSC. This is his Exhibit RJM-29. This shows the ROEs changing somewhat from year to year but averaging a relatively reasonable [redacted] percent over four years. While this may seem reasonable and reassuring on its surface, it is a very troubling result. The RSC by itself provides about $62 million of earnings (i.e., $79 million/ 1.2755 tax factor = $62 million). The $62 million divided by the latest 2020 equity balance of $640 million translates into a ROE of 9.7 percent. In other words, Mr. Malinak's modeling of the base case ESP I finds that the RSC provides [redacted] of DP&L's earnings, on average, over 2020- 2023. Of course, DP&L's equity balance is likely to grow over the next three years. If one assumes that the average 2020-2023 equity balance averages, say, a healthy $750 million, then the RSC would provide an average ROE of 8.3 percent (i.e., $62 million/ $750 million = 8.3%).

When considering this result, I note that DP&L should also be receiving earnings from DP&L's FERC transmission under which DP&L enjoys formula rates that will be updated annually for cost of service. Based on FERC Form 1 data for 2019, I find that transmission is roughly 15 percent of DP&L.[26] Thus, FERC transmission, if it earns a 10 percent ROE, this would contribute 1.5 percent to DP&L's total ROE. This means that with a $750 million average equity balance, the sum of the RSC contribution and transmission would be 8.3% + 1.5% = 9.8%. Again, this exercise shows that Mr. Malinak's modeling of ESP I with the RSC seems to assume that distribution service (even after including the earnings contribution effects of the Infrastructure Investment Rider) would imply an earnings contribution from distribution service [redacted]. All

[26] This is based on year-end 2019 net distribution plant of $976 million ($1,882 million gross - $906 million depreciation) and net transmission plant of $185 million ($417million gross - $232 million depreciation), implying transmission is about 16% of T+D net plant. Source: DP&L FERC Form 1, at pp 205-219.

of this implies that in order to accept Mr. Malinak's modeling analysis as having validity, one must accept the embedded assumption and result that PUCO regulated distribution service's contribution to DP&L's earnings over this four-year period is extremely weak.

Q30. WHAT EXPLAINS THIS MODELING RESULT?

A30. At the outset, as far as I can tell, this result of a [redacted] contribution to earnings for distribution is not just for the RSC base case, but affects all of the scenarios used in the Aggregate Price Test. The problem seems to arise from the study assumption that there will be no distribution base rate case during 2020 – 2023. At page 26 of his direct testimony when discussing the modeling input assumptions or projections he provided to Mr. Malinak, Mr. Garavaglia states that during this study time period "DP&L does not project to have a distribution rate case during 2020 – 2023."[27] The assumption of no distribution rate case during the entire study period could explain the extremely poor distribution earnings performance under all scenarios, but it might even be more distorted under the MRO scenarios. At least under the base case ESP I scenario, Mr. Malinak and Mr. Garavaglia assume that the Infrastructure Investment Rider will be providing substantial revenues and earnings for the Utility. But that rider is absent under the MRO. Mr. Malinak says that this is no problem because an identical amount of revenue would be obtained through base rate cases, but his analysis seems to assume no base rate cases.

[27] Garavaglia Testimony at 26.

Q31. WHAT DO YOU CONCLUDE FROM THIS?

A31. Mr. Malinak asserts that the existing RSC provides DP&L with the financial integrity it needs to maintain or improve its credit ratings and carry out its ambitious capital spending plan, as proposed. However, his analysis is far too pessimistic because it finds essentially [redacted] from distribution service, a perverse result driven by the assumption that no base rate case would take place regardless of the Utility's distribution earnings. As a result, he cannot show that the $79 million RSC is needed, either in part or in full. Rather, the solution to the currently asserted credit quality weakness for DP&L over the next several years is not the RSC but obtaining additional revenues from a conventional rate case, plus AES meeting its obligations to support DPL, Inc. and DP&L as is its responsibility. Utility customers must not be required to pay in rates, either through an RSC or FIC, for the DPL, Inc. interest expense as that debt is not part of utility service.

Mr. Malinak's Aggregate Price Test result depends upon the acceptance of his assumption that the PUCO would impose on SSO customers a FIC charge vastly greater than the $79 million RSC. For the reasons discussed above, I very much doubt the PUCO would do that (and it should not do that). It would violate regulatory principles and would not be feasible. It should be noted that the total of the DPL, Inc. interest expense (the real issue in this case) is about $36 million per year for long-term debt, as I show in Section

III of my testimony.[28] Thus, even if the PUCO were to find that customers should pay a charge to cover some or all of that expense (which would not be proper), this is far less than the $79 million RSC. DP&L's financial needs can addressed through base rate cases—which DP&L can file anytime at its sole discretion—when and to the extent that it can demonstrate the need for one or more base rate increases, and through AES financial support for DPL, Inc.

My conclusion is that the extension of the ESP I, with its $79 million RSC, does not pass the Aggregate Price Test component of the MFA test. Mr. Malinak's FIC scenarios are unsupportable, infeasible and unrealistic (and of questionable legality). Not only has the Utility not met its statutory burden of proof, but its Aggregate Price Test is not even plausible. DP&L's assumption that the PUCO would approve a FIC in an MRO that is as high or substantially higher than the $79 million RSC is speculative, entirely unreasonable, and completely inconsistent with fundamental principles of utility regulation (and of questionable legality, per advice of counsel).

[28] Of course, there may be some additional interest expense dollars associated with the revolving credit facility, but this would not substantially alter the $36 million figure.

Q32. IS AES CORPORATION'S UNWILLINGNESS TO MEET ITS FINANCIAL OBLIGATIONS TO DPL, INC. AND DP&L CONSISTENT WITH REPRENTATIONS IT MADE WHEN IT ACQUIRED DP&L?

A32. I have reviewed the PUCO's merger approval order from 2011, and in my opinion the actions of AES Corporation in general and as those actions pertain to this case fall short of the PUCO's merger approval order.[29] In that decision, the PUCO made a number of observations concerning the benefits that AES can provide for DP&L and its customers. At paragraph 3 of that decision, the PUCO expressed an expectation that "the applicants explained the benefits that the merger will bring customers" and that this would include the "benefits of the AES Group's technical expertise and global resources". In paragraph 4, the PUCO expressed the expectation that the merger "promotes the public convenience and provides for continued reliable service at reasonable rates". At paragraph 15, the PUCO observes that the Applicants "have committed to maintain DP&L's credit ratings at investment grade." At paragraph 17(e) the PUCO notes the commitment that customers would not be charged any merger related costs "through regulated rates" including closing costs.

However, AES financed the merger using a great deal of debt, and this may be one reason there is so much debt on the DPL, Inc. balance sheet that does not support any utility or otherwise productive assets. The issues of credit quality and reliability of service are the same issues that are the focus of Mr. Malinak's testimony were also the focus of the

[29] Case No. 11-3002-EL-MER, Finding & Order (November 22, 2011).

PUCO's merger order. However, in this case, the Utility seeks to shift the commitments and responsibilities articulated in the merger case to DP&L customers.

Q33. ***CAN THE CONCERNS OVER FINANCIAL INTEGRITY AND CREDIT QUALITY RAISED IN THE UTILITY'S FILING BE ADDRESSED WITHOUT THE RSC OR FIC?***

A33. Yes, they can. DP&L on a stand-alone basis can operate successfully. It does not need an ESP or an RSC, nor absent an ESP—under an MRO—would it need a FIC. The [redacted] earnings shown by Mr. Malinak absent the RSC are merely the result of assuming away the possibility of additional, cost of service revenues through a standard base rate case. If the Company were to pursue that, which it can do any time, there is no reason to believe its financial integrity and credit quality would not be maintained.

Of course, I recognize that DP&L is not standalone, but is presently encumbered by DPL, Inc. and its more than $800 million of long-term debt not supported by any assets and its $36 million per year plus of interest expense. These are the responsibility of AES Corporation which clearly has the wherewithal to fully address the DPL, Inc. drag on the Utility. It can do so by committing to pay the DPL, Inc. interest expense (rather than improperly charging ratepayers for that cost). A more long-term solution would be to move some or all of that long-term debt off the balance sheet of DPL, Inc. and onto its own balance sheet by redemption and refinancing.

Q34. DO MR. MALINAK'S QUALITATIVE ARGUMENTS HAVE ANY MERIT?

A34. No, in my opinion these arguments are either unreasonable or of minor importance. They certainly cannot save the MFA test given the fact that the Aggregate Price Test provides a net cost to customers of $314 million. Mr. Malinak sets forth five qualitative arguments, and I briefly respond below to each.

Mr. Malinak's first argument is that under the RSC, AES Corporation will make a $150 million equity contribution next year, but under the MRO it will not since the MRO does not provide the Infrastructure Investment Rider. This argument does not make sense and should be accorded no weight. Mr. Malinak already has conceded that DP&L would collect the same Smart Grid cost of service dollars from customers whether the rider is present or not. AES has decided to make a $150 million equity contribution in 2021 because it perceives it to be a good business decision. The presence or absence of ESP I does not change that. Moreover, it is AES Corporation's explicit responsibility, as the ultimate parent, to ensure that DP&L is properly capitalized. It is improper of AES to attempt to hold the PUCO hostage by threatening to withdraw investment funds in order to leverage from the PUCO additional earnings in the form of the RSC. This argument has no merit and should be rejected as supporting the MFA test.

Second, Mr. Malinak states that the ESP provides for a SEET while an MRO does not. However, Mr. Malinak provides no evidence that there is any realistic prospect of a SEET refund, and in fact his testimony provides assurance that this would not happen (or else he could not justify the continuation of the RSC). This may be partly attributable to his recommendation to increase the SEET ROE threshold to 16.6 percent, as I discuss further in Section V. It is my understanding that DP&L customers have never received any refund benefits from the SEET. If Mr. Malinak believes there is any realistic possibility that the RSC could produce for DP&L a ROE higher than 16.6 percent (a return dramatically higher than his modeling would indicate), then that is a reason for rejecting the ESP I continuation with its very onerous RSC, not accepting it. The best protection for customers is not the SEET, but rather an MRO with the scrutiny of costs and earnings that result from a base rate case.

The third argument is a strange one: "optionality." Mr. Malinak argues that the rejection of the ESP in this case, moving to the MRO alternative, would deny the option of using the ESP in the future. In a sense, it is impossible to evaluate this argument since he never explains why a future ESP would be either needed or desired for customers. The argument also has an element of circular logic. It appears that he is arguing the statute itself is flawed, and that the remedy would be to find that an ESP is always beneficial. In other words, the MFA test has no meaning, because even if it would come out to be negative, he would argue that the PUCO should find in favor of the ESP over the MRO in order to "preserve the option" for the future. If one were to accept this argument, then the outcome of the test has no meaning. This argument should be rejected.

The fourth argument is that if there is an RSC and FIC (accompanying the MRO) of equal size, the RSC is far superior since it is non-bypassable. I agree that the RSC (if it is to continue) should be non-bypassable, since its stated purpose is to support credit quality and enhance reliability. Those are unrelated to whether the customer receives generation from the SSO or shops with a marketer. That argument cannot be given any weight in this case because the Utility cannot demonstrate the need for an FIC. As my testimony shows, DP&L's financial needs can be addressed without an RSC or FIC through a combination of base rate cost recovery, when needed and demonstrated, and AES Corporation taking responsibility for DPL, Inc.'s debt problem. Hence, the issue of bypassability should never arise.

The final qualitative argument is that the Infrastructure Investment Rider provides gradual rate increases whereas base rate recovery provides for more abrupt rate changes which he terms "rate shock". The problem is that he presents no data at all quantifying the problem illustrating that during 2020 - 2023 this would be a material issue. Recall that during this time period, the Company would be just ramping up its program, and it is not clear that there would be large, disruptive rate increases under either method of cost recovery, let alone "rate shock". At the end of the day, this is little more than a collateral attack on traditional base rate case cost recovery. Mr. Malinak has no evidence that customers would have a preference for incurring annual, essentially automatic rate increases over cost collection resulting from a base rate case where costs are carefully scrutinized and rate increases authorized only to the extent that there is a showing that earnings are insufficient.

Q35. WHAT IS YOUR CONCLUSION REGARDING THE MFA?

A35. The ESP I, with its $314 million RSC does not pass the Aggregate Price Test, as there is no evidence, analysis or credible argument that the PUCO would impose a FIC of more than $314 million—or any amount at all. Doing so is not needed as DPL's legitimate financial and credit quality needs can be addressed through standard base rate cases (apparently assumed away for reasons never explained by DP&L witnesses) and AES Corporation taking responsibility, as it should, for DPL, Inc. massive debt. That debt has nothing whatsoever to do with DP&L's utility service. The qualitative arguments cannot save Mr. Malinak's failed Aggregate Price Test, as those arguments are of minor import, incorrect or unconvincing.

Because ESP I fails the MFA test, the PUCO should order DP&L to transition to the more advantageous alternative for consumers, which would be a Market Rate Offer with no financial integrity charge.

V. THE PROSPECTIVE SEET TEST

Q36. WHAT IS MR. MALINAK'S POSITION ON THE SEET TEST?

A36. The law (R.C. 4928.143(E)) requires DP&L to prove that the continuation of ESP I is not "substantially likely to provide [DP&L] with a return on common equity that is significantly in excess of the return on common equity that is likely to be earned by publicly traded companies, including utilities, that face comparable business and financial risk…." In other words, DP&L must show that the ESP I continuation is not likely to breach the SEET ROE threshold. Mr. Malinak's analysis of the SEET test focuses on two elements. First, he recommends that the PUCO adopt a ROE threshold for DP&L's SEET of 16.6 percent, and his testimony explains the basis for that threshold. Second, he references his financial projections for the ESP/RSC scenario discussed earlier for 2020 – 2023. Those projections indicate a ROE that averages [redacted] percent, although there are some year-to-year fluctuations. Since this ROE (as well as individual year figures) are well below the 16.6 percent – or even using a much lower threshold value – he concludes that ESP I is very unlikely to exceed the threshold and that it therefore passes the SEET standard.

Q37. TURNING TO THIS FIRST ELEMENT OF HIS TEST, HOW DID HE DETERMINE THAT THE PROPER THRESHOLD SHOULD BE 16.6 PERCENT?

A37. Mr. Malinak begins by gathering peer group data on publicly-traded electric utility companies using data from the *Value Line Investment Survey* and a broad proxy group of companies included in the exchange traded fund (ETF) referred to as XLU. He examines actual earned ROEs for the time period 2016 – 2019 and ROE projections extending out five years. He states that this information supports a benchmark of 10.4 percent.[30] He multiplies this benchmark by 1.5 to provide a premium and then adds another 100 basis

[30] Exhibit RJM-21.

points, as recommended by Mr. Garavaglia to account for DP&L's larger than normal risk, producing a threshold value of 16.6 percent.[31] His testimony does not explain why there is a need to increase the ROE threshold over and above the 12 percent value previously allowed under ESP III that had been in effect through 2019.

Q38. IS IT REASONABLE TO RAISE THE ROE THRESHOLD TO 16.6 PERCENT?

A38. No, it is not. That is an outlandish increase compared to the more reasonable threshold of 12.0 percent of 460 basis points, or nearly 40 percent. He simply fails to explain why such a drastic increase is warranted. Please note that the Utility was awarded a ROE of 9.999 percent in its most recent base rate case, and ROEs typically awarded to delivery service electric tend to be somewhat lower than that figure – typically in the low to mid 9s. The requested threshold of 16.6 percent is nearly 70 percent above the Utility's currently-authorized ROE, and that cannot be justified. Please note that while Mr. Malinak cites to a ROE (historical and projected ROE of 10.4 percent for the XLU group, the historical (2016-2019) actual ROE for the entire Value Line electric utility industry group is 9.8 percent.

A more reasonable approach would be to adopt the 12.0 percent ROE threshold authorized in ESP III. This is a reasonable figure to use as it provides a premium of a full 200 basis points above the Utility's authorized ROE and more than 200 basis points above the ROEs actually earned by the Value Line utility group.

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[31] Malinak testimony, at 85.

There is no merit to increasing the ROE threshold due to the risk associated with DP&L's operations or ESP I. Despite the concerns raised by Utility witnesses, DP&L remains a very low risk delivery service utility. Mr. Garavaglia recommends adding a substantial premium for DP&L due to the fact that DP&L no longer can use various cost recovery riders associated with ESP III and due to its lower than average credit ratings.[32] These alleged disadvantages are the Utility's own doing. It voluntarily walked away from the riders granted in ESP III, and its credit rating issues are the result of the business decisions of its ultimate parent, AES Corporation, which chose to finance the merger and coal plant investments with massive amounts of debt. These are not valid reasons for adding a large premium to the SEET ROE threshold, which ultimately could be a consumer burden.

Q39. WHETHER THE ROE THRESHOLD IS 16.6 PERCENT AS MR. MALINAK RECOMMENTS OR 12.0 PERCENT AS YOU RECOMMEND, DOES THE ESP I CONTINUATION PASS THE SEET TEST?

A39. I do not believe that the Utility has met its burden of proof demonstrating that it has done so. Mr. Malinak's position is that ESP I, with the RSC, will produce earnings that are roughly in the range of about [redacted] percent, a figure well within either the 12.0 percent or the 16.6 percent threshold. Thus, he finds that ESP I comfortably passes the SEET test required by the PUCO.[33]

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[32] Garavaglia Testimony at 5-7.

[33] Malinak testimony, at 88.

In order for that to be correct, however, his financial projections for ESP I (with the RSC) must be reasonable. They are not. As I noted in some detail in Section IV of my testimony, his ESP/RSC scenario embeds an unwarranted assumption that O&M expenses will escalate sharply over the next several years and DP&L will embark on an ambitious capital spending program. Despite these major cost of service increases, over this entire time period the Utility will not file a rate case – even though there is no "stay out" requirement or commitment, meaning DP&L can file a base rate case any time it wants. The result of this no rate case assumption is that in his projections distribution service provides [redacted] earnings. If one relaxes that puzzling assumption and allows for some reasonable level of earnings – even if it is somewhat less than the currently-authorized 10.0 percent – then the modeled ROE for the ESP scenario would increase dramatically. Earlier I showed that the RSC by itself would provide a ROE contribution of about 8.3 percent (assuming a $750 million equity balance on average), and FERC transmission could be expected to contribute about 1.5 percent. Thus, the expected ROE at zero distribution earnings is about 9.8 percent. If distribution could provide a contribution to total company earnings of say 4 percent, then the total ROE would be in the 13 to 14 percent range, well above a reasonable SEET threshold of 12.0 percent. If distribution provided a ROE contribution of 8 percent, then the total ROE would approach 17 percent, slightly above even Mr. Malinak's highly inflated threshold of 16.6 percent.

It should be recalled that in Section III I showed that DP&L's actual earnings in 2018 and 2019 were in excess of 20 percent with the DMR. While the DMR is more lucrative than the RSC, this demonstrates that that it is certainly a realistic expectation that ESP I could breach the SEET ROE threshold.

On an annualized basis the DMR provided about $20 million in earnings more than the RSC. However, reducing earnings by $20 million in 2018 and 2019 still produces a very high ROE in those years. Moreover, in 2018, DP&L received a base rate increase of nearly $30 million but not until October of that year. If that rate increase were to be annualized in 2018, this would eliminate most of the difference between the DMR and RSC. Thus, while the DMR and RSC are different, I believe that the ROEs in those two years in excess of 20 percent are illustrative of the potential, and even likelihood, of ESP I exceeding the SEET ROE threshold.

Q40. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A40. Yes, it does. However, I reserve the right to update and supplement my testimony as new information becomes available.

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing *Direct Testimony of Matthew I. Kahal on Behalf of the Office of the Ohio Consumers' Counsel,* (***PUBLIC VERSION)*** was served via electronic transmission to the persons listed below on this 22nd day of October 2020.

/s/ Christopher Healey
Christopher Healey
Assistant Consumers' Counsel

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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 more than 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.

<u>Education</u>

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.

<u>Previous Employment</u>

1981-2001	Founding Principal, Vice President, and President Exeter Associates, Inc. Columbia, MD
1980-1981	Member of the Economic Evaluation Directorate The Aerospace Corporation Washington, D.C.
1977-1980	Consulting Economist

	Washington, D.C. consulting firm
1972-1977	Research/Teaching Assistant and Instructor (part time) Department of Economics, University of Maryland (College Park) Lecturer in Business and Economics Montgomery College (Rockville and Takoma Park, MD)

Professional Experience

Mr. Kahal has more than thirty-five 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).

Expert Testimony
of Matthew I. Kahal

	Docket Number	Utility	Jurisdiction	Client	Subject
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	Ohio Power Company	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

Expert Testimony
of Matthew I. Kahal

	Docket Number	Utility	Jurisdiction	Client	Subject
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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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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 Restructuring
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)

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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

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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

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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

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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

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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

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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

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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)

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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

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410.	13-2385-SSO, et al. May 2014	AEP Ohio	Ohio	Ohio 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	Louisiana Public Service Commission	Nuclear Power Plant Prudence
414.	14-841-EL-SSO September 2014	Duke Energy Ohio	Ohio	Ohio Consumer' Counsel	Default Service Issues
415.	EM14060581 November 2014	Atlantic City Electric Company	New Jersey	Rate Counsel	Merger Financial Issues
416.	EL15-27 December 2014	BGE, PHI Utilities	FERC	Joint Complainants	Cost of Equity
417.	14-1297-EL-SSO December 2014	First Energy Utilities	Ohio	Ohio Consumer's Counsel and NOPEC	Default Service Issues
418.	EL-13-48-001 January 2015	BGE, PHI Utilities	FERC	Joint Complainants	Cost of Equity
419.	EL13-48-001 and EL15-27-000 April 2015	BGE and PHI Utilities	FERC	Joint Complainants	Cost of Equity
420.	U- 33592 November 2015	Entergy Louisiana	Louisiana Public Service Commission	Commission Staff	PURPA PPA Contract
421.	GM15101196 April 2016	AGL Resources	New Jersey	Rate Counsel	Financial Aspects of Merger
422.	U-32814 April 2016	Southwestern Electric Power	Louisiana	Staff	Wind Energy PPAs
423.	A-2015-2517036, et.al. April 2016	Pike County	Pennsylvania	Office of Consumer Advocate	Merger Issues

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424.	EM15060733 August 2016	Jersey Central Power & Light Company	New Jersey	Rate Counsel	Transmission Divestiture
425.	16-395-EL-SSO November 2016	Dayton Power & Light Company	Ohio	Ohio Consumer's Counsel	Electric Security Plan
426.	PUE-2016-00001 January 2017	Washington Gas Light	Virginia	AOBA	Cost of Capital
427.	U-34200 April 2017	Southwestern Electric Power Co.	Louisiana	Commission Staff	Design of Formula Rate Plan
428.	ER-17030308 August 2017	Atlantic City Electric Co.	New Jersey	Rate Counsel	Cost of Capital
429.	U-33856 October 2017	Southwestern Electric Power Co.	Louisiana	Commission Staff	Power Plant Prudence
430.	4:11 CV77RWS December 2017	Ameren Missouri	U.S. District Court	U.S. Department of Justice	Expert Report FGD Retrofit
431.	D-17-36 January 2018	Narragansett Electric Co.	Rhode Island	Division Staff	Debt Issuance Authority
432.	4770 April 2018	Narragansett Electric Co.	Rhode Island	Division Staff	Cost of Capital
433.	4800 June 2018	Suez Water	Rhode Island	Division Staff	Cost of Capital
434.	17-32-EL-AIR et.al. June 2018	Duke Ohio	Ohio	Ohio Consumer's Counsel	Electric Security Plan
435.	Docket No. ER18010029/ GR18010030 August 2018	Public Service Electric & Gas Co.	New Jersey	Division of Rate Counsel	Rate of Return
436.	4:11 CV77RWS April 2019	Ameren Missouri	U.S. District Court	U.S. Department of Justice	Oral Trial Testimony— Environmental Compliance
437.	A-2018-3006061 April 2019	Aqua American/Peoples Gas	Pennsylvania	Office of Consumer Advocate	Merger Issues

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438.	4929 April 2019	Narragansett Electric	Rhode Island	Division Staff	Wind Energy PPA
439.	ER19050552 October 2019	Rockland Electric Co.	New Jersey	Division of Rate Counsel	Rate of Return
440.	19-00170-UT November 2019	Southwest Public Service Co.	New Mexico	Attorney General	Rate of Return
441.	D-19-17 November 2019	Narragansett Electric	Rhode Island	Division of Public Utilities	Debt Issuance
442.	ER-20-1074-000 March 2020	Marsh Landing	FERC	California PUC	Capital Structure
443.	19-00317-UT July 2020	New Mexico Gas Company	New Mexico	Attorney General	Rate of Return
444.	EO1801115 August 2020	Public Service Electric & Gas Co.	New Jersey	Rate Counsel	Rate of Return
445.	20-00104-UT October 2020	El Paso Electric Company	New Mexico	Attorney General	Rate of Return