STATE OF MARYLAND

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of the Commission's	**)**	
Investigation of Investor-Owned	**)**	
Electric Companies' Standard Offer	**)**	**Case No. 9117, Phase II**
Service for Residential and Small	**)**	
Commercial Customers in Maryland	**)**	

DIRECT TESTIMONY OF

JONATHAN WALLACH

ON BEHALF OF

THE OFFICE OF PEOPLE'S COUNSEL

Resource Insight, Inc.

OCTOBER 19, 2007

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I. Introduction and Summary

Q: Please state your name, occupation, and business address.

A: I am Jonathan F. Wallach. I am Vice President of Resource Insight, Inc., 5 Water Street, Arlington, Massachusetts.

Q: Please summarize your professional education and experience.

A: I have worked as a consultant to the electric-power industry for more than two decades. From 1981 to 1986, I was a research associate at Energy Systems Research Group. In 1987 and 1988, I was an independent consultant. From 1989 to 1990, I was a senior analyst at Komanoff Energy Associates. I have been in my current position at Resource Insight since September of 1990.

Over the last twenty-six years, I have advised clients on a wide range of economic, planning, and policy issues including: electric-utility restructuring; wholesale-power market design and operations; transmission pricing and policy; market valuation of generating assets and purchase contracts; power-procurement strategies; integrated resource planning; cost allocation and rate design; and energy-efficiency program design and planning.

My resume is attached as Exhibit JFW-1.

Q: Please summarize your experience with regard to the issue of electric restructuring in Maryland.

A: In 1997, I co-authored a major study of electric-utility restructuring in Maryland for the Office of People's Counsel ("OPC"). Since then, I have testified on behalf of OPC in most of the major proceedings relating to Maryland's restructuring process, including Case Nos. 8908, 9063, 9064,

9099, and most recently, Phase I of this proceeding. In addition, on OPC's behalf, I have monitored the SOS procurement process in every year since its inception and participated in all of the solicitation processes over the last seven years for the sale of the output of Warrior Run. Finally, on OPC's behalf, I have participated in PJM stakeholder meetings, testified at FERC technical conferences, and participated in settlement negotiations regarding PJM market design and operations.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of the Office of People's Counsel.

Q: What is the purpose of your testimony?

A: On September 25, 2007, the Commission issued a notice initiating a Phase II to Case No. 9117 to consider: (1) proposals for procuring energy-efficiency savings as part of the SOS procurement process; and (2) issues associated with utility investment in generating assets or procurement of long-term contracts to meet reliability needs. Specifically, the Commission's notice sets forth a series of questions regarding these two areas. This testimony addresses those questions.

II. Procurement of Efficiency Resources

Q: Should cost-effective energy efficiency be included in a long-term portfolio of resources for residential SOS load?

A: Yes. As I testified in Phase I of this proceeding, energy-efficiency resources should be evaluated for inclusion in an integrated resource portfolio for residential SOS load.

The addition of cost-effective energy efficiency would likely lower both portfolio expected costs and long-term risk compared to an all-supply portfolio. Energy-efficiency resources would likely lower expected portfolio costs by substituting for more-expensive supply alternatives. Efficiency resources would also likely lower long-term risk, since their costs are uncorrelated with fuel costs and negatively correlated with load.

Q: Should the Commission direct utilities to solicit offers for energy efficiency savings as part of the SOS procurement process for residential load?

A: Not at this time. Pursuant to Order No. 81637 in Case No. 9111, the utilities will be filing by October 26 comprehensive plans for implementing energy-efficiency programs.[1] The Commission should defer any decision regarding whether and how to procure efficiency savings through the SOS procurement process until the utilities' filings have been considered and final program designs have been approved in Case No. 9111. Once such utility-administered program designs are in place, the Commission can determine whether it is feasible and beneficial to modify the SOS procurement process to allow either third-party delivery of savings through the approved utility-administered programs or procurement from third parties of savings that are supplemental to those achievable through the utility-administered programs. In either case, the Commission will want to ensure that such offers for efficiency savings from bidders are not more expensive than, or in any way conflict with, utility-administered programs to be implemented under Case No. 9111.

[1] In addition, it is my understanding that the Maryland Energy Administration will soon be releasing an energy plan for Maryland that will address procurement of demand resources.

Q: How might a bid of efficiency savings conflict with a utility-administered program?

A: Conflict is unlikely if the bid is for the delivery of savings through a utility-administered program. In this case, the winning bidder would essentially be acting as a contractor to the sponsoring utility, delivering services specified in the program plan on behalf of the utility.

However, if the bid is for the delivery of savings outside of utility-administered programs, then conflict may arise when these non-utility efforts target for treatment the same customer groups as served by the utility-administered programs. In this case, there is a valid concern that bidders, who are contractually obligated to deliver a certain amount of savings at a fixed unit cost per saved energy, would:

- overcharge customers for participation in the program;
- skim off the fast, cheap, and easily-measured efficiency opportunities, rather than comprehensively capturing savings from treated systems; or
- leave treated buildings with new mid-efficiency equipment that fall short of, and cannot be economically replaced to achieve, the efficiency levels of the utility-administered programs.

In other words, the concern is that bidders would not provide each customer the same level of comprehensive savings as achievable under a utility-administered program, and that the opportunity for the utility program to cost-effectively make up the difference with follow-up treatment would be lost.

Q: In the event that the Commission adopts procurement of efficiency savings through the SOS procurement process, what process should the Commission employ for the solicitation of efficiency bids?

A: The process should be designed to elicit sufficient and sufficiently detailed data to determine that the efficiency bid:

- offers savings that are realistically achievable and verifiable;
- provides comprehensive savings to targeted customers in order to maximize benefits and minimize lost opportunities;
- passes both the total resource cost and societal cost test (including consideration of direct participant contributions);
- does not undermine the cost-effectiveness of utility-administered programs;
- is more cost-effective than comparable utility-administered programs; and
- is less expensive than alternative supply offers.

Including efficiency bids in the solicitation process will complicate the economic comparison of price offers in two respects. First, efficiency offers cannot be compared against other efficiency offers or against full-requirements supply offers on a simple price per megawatt-hour basis, as is current practice with supply-only procurements. This is due to the fact that, unlike full-requirements supply, efficiency offers will have savings "load shapes" that differ from each other and from full-requirements supply.[2] Second, the economic comparison of efficiency offers against alternative supply offers would need to consider that efficiency investments by a

[2] Full-requirements supply perfectly matches the shape of residential SOS load, since it serves a fixed percentage of that load at all times.

winning bidder during the course of its contract will likely persist for several years following termination of that contract.

Q: Would the solicitation of efficiency bids necessitate procurement of supply products other than full-requirements supply contracts?

A: No. Efficiency savings are functionally equivalent to full-requirements supply, in the sense that a reduction to load avoids the need for all of the services (e.g., energy, capacity, ancillary) that full-requirements supply would provide to serve that load. As a result, the SOS procurement process could continue to solicit standard full-requirements supply offers, and then assemble the mix of efficiency and full-requirements offers that meets the load requirement at the lowest total cost.

On the other hand, soliciting efficiency bids will alter the character of the full-requirements supply obligation. As under current practice, full-requirements suppliers would continue to be obligated to serve a fixed percentage of load at all times. However, in this case, that load obligation would be net of any efficiency savings procured through the solicitation process.

This change in the nature of the load obligation will increase uncertainty in terms of the magnitude and shape of contracted load and, consequently, may increase risk premiums in full-requirements offers, at least at the outset of a procurement process that combines efficiency and full-requirements offers. Full-requirements suppliers, with the contractual obligation to serve a fixed percentage of load at all times, would bear the risk of any shortfalls in savings performance by winning efficiency bidders. While the total exposure from non-performance may be small and mitigated by contractual provisions and non-performance penalties, full-requirements suppliers would likely

price some amount of risk into their price offers. Over time, this risk premium should decline as experience is gained with efficiency bidding, and as monitoring and evaluation data on efficiency performance becomes available.

Q: If the Commission implements an actively managed portfolio program, what process should be used to solicit bids for the procurement of efficiency savings?

A: The solicitation process should be designed in the same fashion as described above for the current procurement process.

Q: What criteria should be used to evaluate bids received for efficiency savings?

A: As indicated above, the evaluation process should consider whether an efficiency bid:

- offer savings that are realistically achievable and verifiable;
- provides comprehensive savings to targeted customers in order to maximize benefits and minimize lost opportunities;
- passes both the total resource cost and societal cost test (including consideration of direct participant contributions);
- conflicts with or undermines the cost-effectiveness of utility-administered programs;
- is more cost-effective than comparable utility-administered programs; and
- is less expensive than alternative supply offers.

III. Utility Procurement of Generation for Reliability

Q: What is the probability of the planned 502 Junction to Loudon 500 KV line and the Amos Station to Kemptown transmission project being completed as scheduled and what in-service date for these projects should the Commission use for planning purposes?

A: This question is most appropriately answered by PJM Interconnection, LLC.

Q: What options exist for preserving reliability in Maryland if either the 502 Junction to Loudon 500 KV lines or the Amos Station to Kemptown transmission lines is delayed or if both projects are delayed?

A: This question is most appropriately answered by PJM Interconnection, LLC ("PJM") and Maryland's utilities.

Q: Other than the concern about timely completion of the proposed transmission projects, are there other imminent reliability issues that should concern the Commission?

A: Yes. Specifically, the Commission should be aware that in all three of the Reliability Pricing Model ("RPM") auctions conducted so far, the amount of capacity procured for the Southwest MAAC region has fallen short of the minimum reliability requirement for that region.[3] Moreover, that shortfall has grown with each successive auction, from about 70 MW in the first auction for the 2007-08 planning period to about 430 MW in the most recent auction for the 2009-10 planning period.[4] Thus, the amount of capacity committed to

[3] Southwest MAAC comprises the service territories of Baltimore Gas and Electric and Potomac Electric Power.

[4] Cleared capacity also fell short of the Eastern MAAC requirement in two of the three auctions, and short of the MAAC+APS requirement in the most recent auction for the 2009-10

the PJM market over the next three years is less than required to meet minimum adequacy requirements for the Southwest MAAC region.

Given these auction results, the Commission should request that PJM and the affected utilities provide a detailed description of the measures that can potentially be pursued through the Regional Transmission Expansion Process to address the adequacy shortfall in Southwest MAAC (and in the other local areas affecting Maryland.) In addition, the RPM Tariff provides for an economic evaluation of transmission upgrades whenever the clearing price for a local area exceeds the PJM-wide clearing price in two consecutive auctions.[5] Since this provision has apparently triggered for Southwest MAAC (and all other local areas), the Commission should request that PJM describe the status and outcome of that evaluation.

Q: Assuming newly built generation is necessary to maintain reliability in Maryland, should the Commission require IOUs to enter into contracts for the construction of generation owned by the IOU?

A: To the extent that transmission upgrade or expansion is not a viable option, and therefore there is a need for new supply to maintain reliability in Maryland, the Commission should direct the utilities to: (1) solicit offers for either the construction of utility-owned generation or the long-term sale of the output from a new resource; and (2) select the offer or offers that satisfies the reliability need at the lowest expected cost at an acceptable level of risk.[6]

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planning period. Eastern MAAC includes the service territory of Delmarva Power and Light; MAAC+APS includes Potomac Edison Company.

[5] PJM Interconnection, LLC, *Open Access Transmission Tariff*, Attachment DD, "Reliability Pricing Model", Section 15.

[6] As I discussed in my direct testimony in Phase I of this proceeding, the utilities should also evaluate procurement of long-term contracts or asset ownership as an option for

No one resource option is clearly superior to the other in the abstract; each resource offer – whether generation ownership or long-term contract – will involve trade-offs between expected cost and long-term risk that need to be balanced as part of the selection process.

In addition, the Commission should direct the utilities to evaluate whether demand response can cost-effectively substitute for new supply, and, if so, to acquire such resources either through a utility-administered program or by soliciting demand-response offers.

Q: Should such a requirement be limited to generation serving only certain rate classes, such as SOS and Type I ratepayers?

A: No. Reliability requirements are determined for the system as a whole, not for individual rate classes, and, regardless of plant size or contractual obligations, any addition to satisfy such system-wide reliability needs will provide reliability benefits to all load in Maryland (as well as throughout PJM.)[7] Such reliability additions should therefore be considered as serving all Maryland load.

Q: Assuming newly built generation is necessary to maintain reliability in Maryland, should the Commission require IOUs to enter into purchase power agreements for the long-term supply of electricity for some or all of the IOUs load?

A: See the responses to the previous two questions.

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minimizing expected long-term costs and risks to residential SOS customers, and for advancing environmental or other public-policy goals.

[7] All load in Maryland would also benefit to the extent that the new resource reduces spot-market prices in PJM.

Q: How would the procurement of new resources to meet reliability needs impact the objectives of furthering retail competition in Maryland?

A: The impact of procuring reliability resources would be competitively neutral. As noted above, the addition of such resources would provide system-wide reliability benefits to all load, and perhaps reduce market prices paid by all load, whether served by wholesale SOS suppliers or competitive retail suppliers.

Q: Does this conclude your testimony?

A: Yes.

Exhibit JFW-1

Qualifications of

JONATHAN F. WALLACH

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SUMMARY OF PROFESSIONAL EXPERIENCE

1990–Present **Vice President, Resource Insight, Inc.** Provides research, technical assistance, and expert testimony on electric- and gas-utility planning, economics, regulation, and restructuring. Designs and assesses resource-planning strategies for regulated and competitive markets, including estimation of market prices and utility-plant stranded investment; negotiates restructuring strategies and implementation plans; assists in procurement of retail power supply.

1989–90 **Senior Analyst, Komanoff Energy Associates.** Conducted comprehensive cost-benefit assessments of electric-utility power-supply and demand-side conservation resources, economic and financial analyses of independent power facilities, and analyses of utility-system excess capacity and reliability. Provided expert testimony on statistical analysis of U.S. nuclear plant operating costs and performance. Co-wrote *The Power Analyst*, software developed under contract to the New York Energy Research and Development Authority for screening the economic and financial performance of non-utility power projects.

1987–88 **Independent Consultant.** Provided consulting services for Komanoff Energy Associates (New York, New York), Schlissel Engineering Associates (Belmont, Massachusetts), and Energy Systems Research Group (Boston, Massachusetts).

1981–86 **Research Associate, Energy Systems Research Group.** Performed analyses of electric utility power supply planning scenarios. Involved in analysis and design of electric and water utility conservation programs. Developed statistical analysis of U.S. nuclear plant operating costs and performance.

EDUCATION

BA, Political Science with honors and Phi Beta Kappa, University of California, Berkeley, 1980.

Massachusetts Institute of Technology, Cambridge, Massachusetts. Physics and Political Science, 1976–1979.

PUBLICATIONS

"The Future of Utility Resource Planning: Delivering Energy Efficiency through Distributed Utilities" (with Paul Chernick), *International Association for Energy Economics Seventeenth Annual North American Conference* (460–469). Cleveland, Ohio: USAEE. 1996.

"The Price is Right: Restructuring Gain from Market Valuation of Utility Generating Assets" (with Paul Chernick), *International Association for Energy Economics Seventeenth Annual North American Conference* (345–352). Cleveland, Ohio: USAEE. 1996.

"The Future of Utility Resource Planning: Delivering Energy Efficiency through Distribution Utilities" (with Paul Chernick), *1996 Summer Study on Energy Efficiency in Buildings* 7(7.47–7.55). Washington: American Council for an Energy-Efficient Economy, 1996.

"The Transfer Loss is All Transfer, No Loss" (with Paul Chernick), *Electricity Journal* 6:6 (July, 1993).

"Benefit-Cost Ratios Ignore Interclass Equity" (with Paul Chernick et al.), *DSM Quarterly*, Spring 1992.

"Consider Plant Heat Rate Fluctuations," *Independent Energy*, July/August 1991.

"Demand-Side Bidding: A Viable Least-Cost Resource Strategy" (with Paul Chernick and John Plunkett), *Proceedings from the NARUC Biennial Regulatory Information Conference*, September 1990.

"New Tools on the Block: Evaluating Non-Utility Supply Opportunities With *The Power Analyst*, (with John Plunkett), *Proceedings of the Fourth National Conference on Microcomputer Applications in Energy*, April 1990.

REPORTS

"Integrated Portfolio Management in a Restructured Supply Market" (with Paul Chernick, William Steinhurst, Tim Woolf, Anna Sommers, and Kenji Takahashi). 2006. Columbus, Ohio: Office of the Ohio Consumers' Counsel.

"First Year of SOS Procurement." 2004. Prepared for the Maryland Office of People's Counsel.

"Energy Plan for the City of New York" (with Paul Chernick, Susan Geller, Brian Tracey, Adam Auster, and Peter Lanzalotta). 2003. New York: New York City Economic Development Corporation.

"Peak-Shaving–Demand-Response Analysis: Load Shifting by Residential Customers" (with Brian Tracey). 2003. Barnstable, Mass.: Cape Light Compact.

"Electricity Market Design: Incentives for Efficient Bidding; Opportunities for Gaming." 2002. Silver Spring, Maryland: National Association of State Consumer Advocates.

"Best Practices in Market Monitoring: A Survey of Current ISO Activities and Recommendations for Effective Market Monitoring and Mitigation in Wholesale Electricity Markets" (with Paul Peterson, Bruce Biewald, Lucy Johnston, and Etienne Gonin). 2001. Prepared for the Maryland Office of People's Counsel, Pennsylvania Office of Consumer Advocate, Delaware Division of the Public Advocate, New Jersey Division of the Ratepayer Advocate, Office of the People's Counsel of the District of Columbia.

"Comments Regarding Retail Electricity Competition." 2001. Filed by the Maryland Office of People's Counsel in U.S. FTC Docket No. V010003.

"Final Comments of the City of New York on Con Edison's Generation Divestiture Plans and Petition." 1998. Filed by the City of New York in PSC Case No. 96-E-0897.

"Response Comments of the City of New York on Vertical Market Power." 1998. Filed by the City of New York in PSC Case Nos. 96-E-0900, 96-E-0098, 96-E-0099, 96-E-0891, 96-E-0897, 96-E-0909, and 96-E-0898.

"Preliminary Comments of the City of New York on Con Edison's Generation Divestiture Plan and Petition." 1998. Filed by the City of New York in PSC Case No. 96-E-0897.

"Maryland Office of People's Counsel's Comments in Response to the Applicants' June 5, 1998 Letter." 1998. Filed by the Maryland Office of People's Counsel in PSC Docket No. EC97-46-000.

"Economic Feasibility Analysis and Preliminary Business Plan for a Pennsylvania Consumer's Energy Cooperative" (with John Plunkett et al.). 1997. 3 vols. Philadelphia, Penn.: Energy Coordinating Agency of Philadelphia.

"Good Money After Bad" (with Charles Komanoff and Rachel Brailove). 1997. White Plains, N.Y.: Pace University School of Law Center for Environmental Studies.

"Maryland Office of People's Counsel's Comments on Staff Restructuring Report: Case No. 8738." 1997. Filed by the Maryland Office of People's Counsel in PSC Case No. 8738.

"Protest and Request for Hearing of Maryland Office of People's Counsel." 1997. Filed by the Maryland Office of People's Counsel in PSC Docket Nos. EC97-46-000, ER97-4050-000, and ER97-4051-000.

"Restructuring the Electric Utilities of Maryland: Protecting and Advancing Consumer Interests" (with Paul Chernick, Susan Geller, John Plunkett, Roger Colton, Peter Bradford, Bruce Biewald, and David Wise). 1997. Baltimore, Maryland: Maryland Office of People's Counsel.

"Comments of the New Hampshire Office of Consumer Advocate on Restructuring New Hampshire's Electric-Utility Industry" (with Bruce Biewald and Paul Chernick). 1996. Concord, N.H.: NH OCA.

"Estimation of Market Value, Stranded Investment, and Restructuring Gains for Major Massachusetts Utilities" (with Paul Chernick, Susan Geller, Rachel Brailove, and Adam Auster). 1996. On behalf of the Massachusetts Attorney General (Boston).

"Report on Entergy's 1995 Integrated Resource Plan." 1996. On behalf of the Alliance for Affordable Energy (New Orleans).

"Preliminary Review of Entergy's 1995 Integrated Resource Plan." 1995. On behalf of the Alliance for Affordable Energy (New Orleans).

"Comments on NOPSI and LP&L's Motion to Modify Certain DSM Programs." 1995. On behalf of the Alliance for Affordable Energy (New Orleans).

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"Technical Information." 1993. Appendix to "Energy Efficiency Down to Details: A Response to the Director General of Electricity Supply's Request for Comments on Energy Efficiency Performance Standards" (UK). On behalf of the Foundation for International Environmental Law and Development and the Conservation Law Foundation (Boston).

"Integrating Demand Management into Utility Resource Planning: An Overview." 1993. Vol. 1 of "From Here to Efficiency: Securing Demand-Management Resources" (with Paul Chernick and John Plunkett). Harrisburg, Pa.:Pennsylvania Energy Office

"Making Efficient Markets." 1993. Vol. 2 of "From Here to Efficiency: Securing Demand-Management Resources" (with Paul Chernick and John Plunkett). Harrisburg, Pa.: Pennsylvania Energy Office.

"Analysis Findings, Conclusions, and Recommendations." 1992. Vol. 1 of "Correcting the Imbalance of Power: Report on Integrated Resource Planning for Ontario Hydro" (with Paul Chernick and John Plunkett).

"Demand-Management Programs: Targets and Strategies." 1992. Vol. 1 of "Building Ontario Hydro's Conservation Power Plant" (with John Plunkett, James Peters, and Blair Hamilton).

"Review of the Elizabethtown Gas Company's 1992 DSM Plan and the Demand-Side Management Rules" (with Paul Chernick, John Plunkett, James Peters, Susan Geller, Blair Hamilton, and Andrew Shapiro). 1992. Report to the New Jersey Department of Public Advocate.

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"Comments on the Utility Responses to Commission's November 27, 1990 Order and Proposed Revisions to the 1991–1992 Annual and Long Range Demand Side Management Plans" (with John Plunkett et al.). 1991.

"Comments on the 1991–1992 Annual and Long Range Demand-Side-Management Plans of the Major Electric Utilities" (with John Plunkett et al.). Filed in NY PSC Case No. 28223 in re New York utilities' DSM plans. 1990.

"Profitability Assessment of Packaged Cogeneration Systems in the New York City Area." 1989. Principal investigator.

"Statistical Analysis of U.S. Nuclear Plant Capacity Factors, Operation and Maintenance Costs, and Capital Additions." 1989.

"The Economics of Completing and Operating the Vogtle Generating Facility." 1985. ESRG Study No. 85-51A.

"Generating Plant Operating Performance Standards Report No. 2: Review of Nuclear Plant Capacity Factor Performance and Projections for the Palo Verde Nuclear Generating Facility." 1985. ESRG Study No. 85-22/2.

"Cost-Benefit Analysis of the Cancellation of Commonwealth Edison Company's Braidwood Nuclear Generating Station." 1984. ESRG Study No. 83-87.

"The Economics of Seabrook 1 from the Perspective of the Three Maine Co-owners." 1984. ESRG Study No. 84-38.

"An Evaluation of the Testimony and Exhibit (RCB-2) of Dr. Robert C. Bushnell Concerning the Capital Cost of Fermi 2." 1984. ESRG Study No. 84-30.

"Electric Rate Consequences of Cancellation of the Midland Nuclear Power Plant." 1984. ESRG Study No. 83-81.

"Power Planning in Kentucky: Assessing Issues and Choices—Project Summary Report to the Public Service Commission." 1984. ESRG Study No. 83-51.

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"Customer Programs to Moderate Demand Growth on the Arizona Public Service Company System: Identifying Additional Cost-Effective Program Options." 1982. ESRG Study No. 82-14C.

"The Economics of Alternative Space and Water Heating Systems in New Construction in the Jersey Central Power and Light Service Area, A Report to the Public Advocate." 1982. ESRG Study No. 82-31.

"Review of the Kentucky-American Water Company Capacity Expansion Program, A Report to the Kentucky Public Service Commission." 1982. ESRG Study No. 82-45.

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"Electricity Market Design: Incentives for Efficient Bidding, Opportunities for Gaming." NASUCA Northeast Market Seminar, Albany, N.Y., February 2001.

"Direct Access Implementation: The California Experience." Presentation to the Maryland Restructuring Technical Implementation Group on behalf of the Maryland Office of People's Counsel. June 1998.

"Reflecting Market Expectations in Estimates of Stranded Costs," speaker, and workshop moderator of "Effectively Valuing Assets and Calculating Stranded Costs." Conference sponsored by International Business Communications, Washington, D.C., June 1997.

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1989 **Mass. DPU** on behalf of the Massachusetts Executive Office of Energy Resources. Docket No. 89-100. Joint testimony with Paul Chernick relating to statistical analysis of U.S. nuclear-plant capacity factors, operation and maintenance costs, and capital additions; and to projections of capacity factor, O&M, and capital additions for the Pilgrim nuclear plant.

1994 **NY PSC** on behalf of the Pace Energy Project, Natural Resources Defense Council, and Citizen's Advisory Panel. Case No. 93-E-1123. Joint testimony with John Plunkett critiques proposed modifications to Long Island Lighting Company's DSM programs from the perspective of least-cost-planning principles.

1994 **Vt. PSB** on behalf of the Vermont Department of Public Service. Docket No. 5270-CV-1 and 5270-CV-3. Testimony and rebuttal testimony discusses rate and bill effects from DSM spending and sponsors load shapes for measure- and program-screening analyses.

1996 **New Orleans City Council** on behalf of the Alliance for Affordable Energy. Docket Nos. UD-92-2A, UD-92-2B, and UD-95-1. Rates, charges, and integrated resource planning for Louisiana Power & Lights and New Orleans Public Service, Inc.

1996 **New Orleans City Council** Docket Nos. UD-92-2A, UD-92-2B, and UD-95-1. Rates, charges, and integrated resource planning for Louisiana Power & Lights and New Orleans Public Service, Inc.; Alliance for Affordable Energy. April, 1996.

Prudence of utilities' IRP decisions; costs of utilities' failure to follow City Council directives; possible cost disallowances and penalties; survey of penalties for similar failures in other jurisdictions.

1998 **Massachusetts Department of Telecommunications and Energy** Docket No. 97-111, Commonwealth Energy proposed restructuring; Cape Cod Light Compact. Joint testimony with Paul Chernick, January, 1998.

Critique of proposed restructuring plan filed to satisfy requirements of the electric-utility restructuring act of 1997. Failure of the plan to foster competition and promote the public interest.

Massachusetts Department of Telecommunications and Energy Docket No. 97-120, Western Massachusetts Electric Company proposed restructuring; Massachusetts Attorney General. Joint testimony with Paul Chernick, October, 1998. Joint surrebuttal with Paul Chernick, January, 1999.

Market value of the three Millstone nuclear units under varying assumptions of plant performance and market prices. Independent forecast of wholesale market prices. Value of Pilgrim and TMI-1 asset sales.

1999 **Maryland PSC** Case No. 8795, Delmarva Power & Light comprehensive restructuring agreement, Maryland Office of People's Counsel. July 1999.

Support of proposed comprehensive restructuring settlement agreement

Maryland PSC Case Nos. 8794 and 8808, Baltimore Gas & Electric Company comprehensive restructuring agreement, Maryland Office of People's Counsel. Initial Testimony July 1999; Reply Testimony August 1999; Surrebuttal Testimony August 1999.

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Connecticut DPUC Docket No. 99-03-35, United Illuminating standard offer, Connecticut Office of Consumer Counsel. November 1999.

Reasonableness of proposed revisions to standard-offer-supply energy costs. Implications of revisions for other elements of proposed settlement.

2000 **U.S. FERC** Docket No. RT01-02-000, Order No. 2000 compliance filing, Joint Consumer Advocates intervenors. Affidavit, November 2000.

Evaluation of innovative rate proposal by PJM transmission owners.

2001 **Maryland PSC** Case No. 8852, Charges for electricity-supplier services for Potomac Electric Power Company, Maryland Office of People's Counsel. March 2001.

Reasonableness of proposed fees for electricity-supplier services.

Maryland PSC Case No. 8890, Merger of Potomac Electric Power Company and Delmarva Power and Light Company, Maryland Office of People's Counsel. September 2001; surrebuttal, October 2001. In support of settlement: Supplemental, December 2001; rejoinder, January 2002.

Costs and benefits to ratepayers. Assessment of public interest.

Maryland PSC Case No. 8796, Potomac Electric Power Company stranded costs and rates, Maryland Office of People's Counsel. December 2001; surrebuttal, February 2002.

Allocation of benefits from sale of generation assets and power-purchase contracts.

2002 **Maryland PSC** Case No. 8908, Maryland electric utilities' standard offer and supply procurement, Maryland Office of People's Counsel. Direct, November 2002; Rebuttal December 2002.

Benefits of proposed settlement to ratepayers. Standard-offer service. Procurement of supply.

2003 **Maryland PSC** Case No. 8980, adequacy of capacity in restructured electricity markets; Maryland Office of People's Counsel. Direct, December 2003; Reply December 2003.

Purpose of capacity-adequacy requirements. PJM capacity rules and practices. Implications of various restructuring proposals for system reliability.

2004 **Maryland PSC** Case No. 8995, Potomac Electric Power Company recovery of generation-related uncollectibles; Maryland Office of People's Counsel. Direct, March 2004; Supplemental March 2004, Surrebuttal April 2004.

Calculation and allocation of costs. Effect on administrative charge pursuant to settlement.

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Calculation and allocation of costs. Effect on administrative charge pursuant to settlement.

Maryland PSC Case No. 8985, Southern Maryland Electric Coop standard-offer service; Maryland Office of People's Counsel. Direct, July 2004.

Reasonableness and risks of resource-procurement plan.

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