

**Matter No. M09288**

**IN THE MATTER OF A HEARING INTO AN APPLICATION BY NOVA SCOTIA POWER  
INCORPORATED FOR APPROVAL OF ITS 2020 - 2022 FUEL STABILITY PLAN,  
INCLUDING 2020-2022 BASE COST OF FUEL FORECAST RESET, 2017-2018  
ANNUAL ADJUSTMENT/BALANCE ADJUSTMENT AMOUNTS UNDER THE FUEL  
ADJUSTMENT MECHANISM (FAM) AND DIRECTION ON THE 2019 ANNUAL  
ADJUSTMENT/BALANCE ADJUSTMENT AMOUNTS**

**DIRECT EVIDENCE OF  
JONATHAN WALLACH  
ON BEHALF OF  
THE CONSUMER ADVOCATE**

Resource Insight, Inc.

AUGUST 29, 2019

1 **I. Introduction**

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

3 A: My name is Jonathan F. Wallach. I am Vice President of Resource Insight, Inc.,  
4 5 Water Street, Arlington, Massachusetts.

5 **Q: Please summarize your professional experience.**

6 A: I have worked as a consultant to the electric power industry since 1981. From  
7 1981 to 1986, I was a Research Associate at Energy Systems Research Group.  
8 In 1987 and 1988, I was an independent consultant. From 1989 to 1990, I was a  
9 Senior Analyst at Komanoff Energy Associates. I have been in my current  
10 position at Resource Insight since 1990.

11 Over the past four decades, I have advised and testified on behalf of clients  
12 on a wide range of economic, planning, and policy issues relating to the  
13 regulation of electric utilities, including: electric-utility restructuring; wholesale-  
14 power market design and operations; transmission pricing and policy; market-  
15 price forecasting; market valuation of generating assets and purchase contracts;  
16 power-procurement strategies; risk assessment and mitigation; integrated  
17 resource planning; mergers and acquisitions; cost allocation and rate design; and  
18 energy-efficiency program design and planning.

19 My resume is attached as Exhibit JFW-1.

20 **Q: Have you testified previously in utility regulatory proceedings?**

21 A: Yes. I have sponsored expert testimony in more than 90 federal, provincial, or  
22 state proceedings in the U.S. and Canada, including in Nova Scotia in NSUARB  
23 P-887(2), P-887(6), P-887(7), P-887(16), and M07611. Exhibit JFW-1 provides  
24 a detailed listing of my previous testimony.

1 **Q: Please summarize your experience with regard to the Fuel Adjustment**  
2 **Mechanism (FAM).**

3 A: I have assisted the Nova Scotia Consumer Advocate in its oversight of the FAM  
4 process since full implementation of the FAM on January 1, 2009. During that  
5 time, I have participated in FAM technical conferences and meetings of the  
6 FAM Small Working Group (SWG) on the Consumer Advocate's behalf,  
7 reviewed and evaluated all FAM reports and FAM-related filings, reviewed  
8 material filed in the FAM data room located in the offices of Nova Scotia Power  
9 Inc. (NS Power or "the Company"), and assisted the Consumer Advocate in its  
10 interventions in various General Rate Application, Base Cost of Fuel (BCF), and  
11 FAM proceedings. Finally, I provided direct evidence in:

- 12 • NSUARB P-887(2) regarding the FAM incentive mechanism.
- 13 • NSUARB P-887(6) regarding the allocation of demand-related purchased  
14 power costs to the residential class.
- 15 • NSUARB P-887(7) regarding the process for deriving the 2017 Actual  
16 Adjustment (AA) and Balancing Adjustment (BA).
- 17 • NSUARB P-887(16) regarding the 2017-2019 Fuel Stability Plan.
- 18 • NSUARB M07611 regarding the 2016 FAM Audit.

19 **Q: On whose behalf are you testifying?**

20 A: My testimony is sponsored by the Nova Scotia Consumer Advocate (CA).

21 **Q: What is the purpose of your testimony?**

22 A: On June 27, 2019, NS Power filed an application for approval of a plan to  
23 stabilize fuel costs ("Fuel Stability Plan") over the three-year period from 2020  
24 through 2022 ("Fuel Stability Period"). The proposed Fuel Stability Plan:

- 1           • Forecasts the annual Base Cost of Fuel, including the estimated annual  
2           recovery of the Maritime Link assessment, over the Fuel Stability Period.<sup>1</sup>  
3           • Derives 2020 AA and BA rates for recovery of forecasted FAM balances at  
4           the end of 2019 (i.e., the end of the current fuel stability plan).  
5           • Proposes to increase the total rate charged to each FAM customer class in  
6           each year of the Fuel Stability Period by a constant percentage amount in  
7           order to recover most, but not all of the forecasted Base Cost of Fuel  
8           expenditures during the Fuel Stability Period.<sup>2</sup>

9           The Consumer Advocate has asked me to comment on NS Power’s request  
10          for approval of its proposed Fuel Stability Plan. Specifically, my testimony  
11          addresses the following aspects of the Fuel Stability Plan:

- 12          • The proposal to set BCF rates at levels that would under-recover projected  
13          BCF costs during the Fuel Stability Period and thereby allow for a \$44  
14          million FAM deferral balance by the end of 2022.  
15          • The proposal to include the 2020 Maritime Link depreciation credit in the  
16          derivation of the 2020 BA.  
17          • The proposal to retain any non-fuel earnings in excess of the authorized  
18          rate of return on common equity during the Fuel Stability Period for the  
19          benefit of NS Power’s shareholders.

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<sup>1</sup> The Company’s filing also provides a forecast of the Base Cost of Fuel for 2023.

<sup>2</sup> By “total rate”, I mean the rate derived as the sum of annual non-fuel, BCF, AA, and BA costs allocated to a FAM customer class divided by annual energy sales to that class.

1 **II. FAM Deferral Balance**

2 **Q: Please summarize the Company’s forecast of total rates for the years**  
3 **through 2023.**

4 A: Table 1 shows NS Power’s forecast for 2020 through 2023 of total rates on  
5 average for all FAM customer classes and for the residential class.<sup>3</sup> The  
6 Company’s forecast of total rates is based on NS Power’s BCF forecast for 2020  
7 through 2023, along with its estimate of the AA and BA rates for 2020, and  
8 assumes no change to non-fuel rates over this four-year period.<sup>4</sup>

**Table 1: Forecast of Total Rates**

	<b>FAM Class Average Rate (\$/kWh)</b>	<b>Percent Change</b>	<b>Residential Rate (\$/kWh)</b>	<b>Percent Change</b>
<b>2019</b>	0.146		0.167	
<b>2020</b>	0.146	-0.3%	0.162	-2.7%
<b>2021</b>	0.157	8.1%	0.180	10.6%
<b>2022</b>	0.157	0.0%	0.179	-0.1%
<b>2023</b>	0.159	0.8%	0.181	0.8%

9 As indicated in Table 1, NS Power is currently forecasting about a 3% drop  
10 in residential total rates from 2019 to 2020, followed by a steep 11% increase  
11 from 2020 to 2021.

12 **Q: Do the rates shown in Table 1 reflect recovery of the FAM deferral balance**  
13 **at the end of the current fuel stability period?**

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<sup>3</sup> I derived Table 1 based on data provided in NS Power’s response to CA IR-1.

<sup>4</sup> This forecast also assumes that the 2020 Maritime Link depreciation credit is refunded to customers through a one-time bill credit. I discuss NS Power’s proposal to instead apply this credit to the 2020 BA in Section III.

1 A: Yes. The total rates shown for 2020 reflect NS Power’s proposal to recover  
2 projected AA and BA balances at the end of 2019.<sup>5</sup> Specifically, the total rates  
3 shown in Table 1 for 2020 reflect NS Power’s estimate of 2020 AA and BA  
4 rates based on actual amounts through April of 2019 and forecasted amounts  
5 through the rest of 2019.<sup>6</sup>

6 **Q: What is NS Power’s proposal for recovering the forecasted Base Cost of**  
7 **Fuel over the Fuel Stability Period?**

8 A: The Company proposes BCF rates which, when combined with non-fuel, AA ,  
9 and BA rates, yield “smoothed” total rates that increase by a constant percentage  
10 during the Fuel Stability Period. Specifically, as indicated in Table 2, NS Power  
11 proposes BCF rates that result in a constant 2% increase in total rates on average  
12 across all FAM customer classes and a constant 1.5% increase in total rates for  
13 the residential class.<sup>7</sup>

14 With the proposed BCF rates, NS Power expects to under-recover the  
15 forecasted Base Cost of Fuel by about \$44 million (including interest on  
16 deferred under-recovery) over the Fuel Stability Period.<sup>8</sup> The total rates for 2023  
17 shown in Table 2 reflect full recovery of both the forecasted Base Cost of Fuel

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<sup>5</sup> On the other hand, the total rates for 2021 through 2023 incorporate AA and BA rates reset to zero, reflecting the assumption that the FAM deferral balance at the end of 2019 is fully recovered in 2020.

<sup>6</sup> The Company proposes to set total rates in its Compliance Filing using updated estimates of 2020 AA and BA rates that are based on actual amounts through September of 2019 and forecasted amounts for October through December of 2019. In this regard, for the purposes of setting AA and BA rates during the Fuel Stability Period, NS Power requests a waiver from the current requirement to set AA and BA rates based solely on actual amounts through September of 2019.

<sup>7</sup> I derived Table 2 based on data provided in NS Power’s response to CA IR-1.

<sup>8</sup> Nova Scotia Power Inc., *2020-2022 Fuel Stability Plan Application*, June 27, 2019, p. 11 [Hereinafter “Application”].

1 for 2023 and this expected \$44 million FAM deferral balance at the end of the  
2 Fuel Stability Period.

**Table 2: Proposed Smoothed Total Rates**

	<b>FAM Class Average Rate (\$/kWh)</b>	<b>Percent Change</b>	<b>Residential Rate (\$/kWh)</b>	<b>Percent Change</b>
<b>2019</b>	0.146		0.167	
<b>2020</b>	0.149	2.0%	0.169	1.5%
<b>2021</b>	0.152	2.0%	0.172	1.5%
<b>2022</b>	0.155	2.0%	0.174	1.5%
<b>2023</b>	0.164	5.7%	0.186	6.7%

3 **Q: Do the rates shown in Table 2 reflect recovery of the FAM deferral balance**  
4 **at the end of the current fuel stability period?**

5 A: Yes. Like the Company’s forecast of total rates without smoothing shown in  
6 Table 1, the smoothed total rates shown in Table 2 reflect full recovery in 2020  
7 of forecasted AA and BA amounts at the end of 2019. However, unlike the rates  
8 shown in Table 1, the rates shown in Table 2 reflect NS Power’s proposal to  
9 refund the 2020 Maritime Link depreciation credit through the 2020 BA rather  
10 than through a one-time bill credit in 2020. I discuss this proposal in Section III.

11 **Q: Why is NS Power proposing to follow the current fuel stability period with**  
12 **another three-year period of rates increasing on average by 2% per year?**

13 A: The Company is proposing a Fuel Stability Plan for 2020 through 2022 in order  
14 to “provide a consistent overall percentage rate increase in line with inflation  
15 each year.”<sup>9</sup>

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<sup>9</sup> Application, p. 12.

1 **Q: Do you have any concerns regarding the Company's proposal for**  
2 **smoothing residential total rates over the Fuel Stability Period?**

3 A: Yes. I am concerned about the magnitude of the rate increase in 2023 under the  
4 Company's proposal. As indicated in Table 2 above, the residential total rate is  
5 expected to increase by almost 7% from 2022 to 2023 in order to recover the  
6 residential class's share of: (1) the forecasted Base Cost of Fuel for 2023; and  
7 (2) the expected \$44 million FAM balance at the end of the Fuel Stability  
8 Period. In other words, under the Company's proposal, three years of  
9 comparative rate stability would be followed by a steep increase in residential  
10 rates.

11 I am also concerned that the residential rate increase in 2023 could be even  
12 sharper than expected due to such factors as:

- 13 • Unanticipated fuel commodity cost increases during the Fuel Stability  
14 Period and in 2023.<sup>10</sup>
- 15 • Unanticipated fuel cost increases due to the potential loss of supply from  
16 the Donkin coal mine.<sup>11</sup>
- 17 • Potential increases in non-fuel rates in 2023.<sup>12</sup>

18 **Q: Could residential rates be smoothed in a way that allows residential rates to**  
19 **increase in line with inflation but also mitigates the risk of rate shock in**  
20 **2023?**

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<sup>10</sup> The Company cites such unanticipated cost increases during the current fuel stability period as a major cost driver and one of the reasons why it is proposing a fuel stability plan for the years 2020 through 2022. *See* Application, pp. 10-11.

<sup>11</sup> The Company discusses the potential impact on the FAM deferral balance from the loss of Donkin coal supply during the Fuel Stability Period in its response to NSUARB IR-18.

<sup>12</sup> NS Power's forecast of FAM customer total rates in 2023 assumes no change in non-fuel rates.



1 A: Yes. In response to Bates White IR-37, NS Power shows that annual increases  
 2 in residential total rates of 1.9% during the Fuel Stability Period (as opposed to  
 3 1.5% in the Company’s proposal) would fully recover the residential share of  
 4 the forecasted Base Cost of Fuel without any need to defer BCF costs beyond  
 5 2022. In addition, the response to Bates White IR-37 shows that residential total  
 6 rates would need to be further increased by only 2.3% from 2022 to 2023 in  
 7 order to fully recover the residential share of the forecasted Base Cost of Fuel in  
 8 2023. In other words, as indicated in Table 3, increasing residential total rates by  
 9 1.9% in each year of the Fuel Stability Period would allow for steady rate  
 10 increases in line with inflation over four years (2020-2023) rather than over the  
 11 three-year Fuel Stability Period proposed by NS Power.

**Table 3: Smoothed Residential Total Rates**

	<b>NS Power Proposal (\$/kWh)</b>	<b>Percent Change</b>	<b>Alternative Smoothing (\$/kWh)</b>	<b>Percent Change</b>
<b>2019</b>	0.167		0.167	
<b>2020</b>	0.169	1.5%	0.170	1.9%
<b>2021</b>	0.172	1.5%	0.173	1.9%
<b>2022</b>	0.174	1.5%	0.177	1.9%
<b>2023</b>	0.186	6.7%	0.181	2.3%

12 **Q: What do you recommend with regard to the smoothing of total residential**  
 13 **rates during the proposed Fuel Stability Period?**

14 A: I recommend that the Board condition any approval of the Company’s proposed  
 15 Fuel Stability Plan on NS Power establishing residential BCF rates in each year  
 16 of the Fuel Stability Period that:

- 1 • Provide for full recovery of the residential class’s share of forecasted Base  
2 Cost of Fuel during the Fuel Stability Period without any deferral of BCF  
3 costs beyond 2022.
- 4 • Yield total residential rates when combined with non-fuel, AA, and BA  
5 rates which increase at a constant percentage amount in each year of the  
6 Fuel Stability Period.

### 7 **III. 2020 Maritime Link Depreciation Credit**

8 **Q: What is the purpose of the Maritime Link depreciation credit?**

9 A: The BCF rates established for the current fuel stability period were designed to  
10 recover anticipated amounts for the Maritime Link interim assessment in 2018  
11 and 2019. However, the approved assessments for those years were less than  
12 anticipated amounts, reflecting a deferral of 2018 and 2019 depreciation and  
13 deferred amortization costs. The deferred amounts recovered through the BCF  
14 rates in 2017 and 2018 were refunded to FAM customers in the following year  
15 through a one-time bill credit.

16 **Q: What does NS Power propose with respect to the deferred amounts  
17 recovered through BCF rates in 2019?**

18 A: The Company indicates that about \$53.6 million of Maritime Link deferrals will  
19 be collected through BCF rates in 2019.<sup>13</sup> Rather than refunding these deferred  
20 amounts through a one-time bill credit in 2020, NS Power proposes to credit  
21 these amounts through the BA rate for 2020. With either approach, FAM  
22 customers will be receive a refund of \$53.6 million. However, NS Power

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<sup>13</sup> Application, p. 15.

1 proposes refunding the 2019 deferral amount through 2020 BA rates in order to  
2 dampen annual increases in total rates during the proposed Fuel Stability Period.

3 **Q: Has NS Power provided intervenors with an estimate of the impact on**  
4 **smoothed total rates or the FAM deferral balance at the end of the Fuel**  
5 **Stability Period if the 2020 Maritime Link depreciation credit were instead**  
6 **refunded through a one-time bill credit?**

7 A: No. Consequently, I am unable to determine at this time whether NS Power  
8 could still provide for reasonably moderate increases in total rates over the Fuel  
9 Stability Period without the \$53.6 million offset to forecasted BCF costs from  
10 the 2020 Maritime Link depreciate credit.

11 **Q: What do you recommend with respect to the Company's proposal to refund**  
12 **the 2020 Maritime Link depreciation credit through 2020 BA rates?**

13 A: To aid intervenors and the Board in their assessment of the Company's proposal,  
14 NS Power should include as part of its rebuttal filing:

- 15 • A forecast of the constant percentage increases in total rates, by FAM  
16 customer class and average over all classes, required to fully recover BCF  
17 costs over the Fuel Stability Period (i.e., no deferral of 2020-2022 BCF  
18 costs to 2023) for the scenario where the 2020 Maritime Link depreciation  
19 credit is refunded through a one-time bill credit.
- 20 • An estimate of the FAM deferral balance at the end of the Fuel Stability  
21 Period if total rates for each FAM customer class were the same as those  
22 proposed by NS Power in the Fuel Stability Plan but where the 2020  
23 Maritime Link depreciation credit is refunded through a one-time bill  
24 credit.

1 **IV. Excess Earnings Credit**

2 **Q: Does NS Power’s forecast of the FAM balance at the end of 2019 reflect**  
3 **non-fuel earnings in excess of the authorized return on common equity**  
4 **during the current fuel stability period?**

5 A: Yes. In accordance with the provisions of the Electricity Plan Implementation  
6 (2015) Act, NS Power has directly credited excess earnings in 2017 and 2018 to  
7 its forecast of the FAM balance at the end of 2019. In addition, NS Power  
8 indirectly credited excess earnings in 2015 and 2016 to its forecast of the FAM  
9 balance through a reduction to the Base Cost of Fuel for 2017. Thus, the  
10 Company’s estimate of the 2020 BA rate reflects a credit for excess earnings in  
11 the years 2015 through 2018.

12 Although not reflected in the 2020 BA rate, NS Power intends to credit  
13 2019 excess earnings to the BA deferral balance during the proposed Fuel  
14 Stability Period. Consequently, all excess earnings from 2015 through 2019 will  
15 effectively be returned to FAM customers during the Fuel Stability Period.

16 **Q: Does NS Power intend to return excess earnings in the years 2020 through**  
17 **2022 to FAM customers?**

18 A: No. According to the Company’s response to NSUARB IR-18, NS Power is not  
19 proposing to refund any excess earnings generated after 2019. Instead, all such  
20 excess earnings will be retained by NS Power for the benefit of its shareholders.

21 **Q: Would it be reasonable for the Company to retain excess earnings**  
22 **generated during the Fuel Stability Period?**

23 A: No. The Company’s current non-fuel rates were established several years ago  
24 based on the Company’s cost of service at that time, and it is the difference  
25 between actual cost of service and that embedded in current non-fuel rates that

1 has given rise to excess earnings since then.<sup>14</sup> Standard utility ratemaking  
2 practice would be to reset non-fuel rates to reflect current cost of service and  
3 cost of capital in order to provide NS Power with a reasonable but not excessive  
4 return on its capital investment. In contrast, the Company's proposal to maintain  
5 non-fuel rates at current levels would effectively lock in the excess earnings  
6 embedded in those non-fuel rates for the duration of the proposed Fuel Stability  
7 Period. It would not be reasonable for NS Power to retain excess earnings that  
8 would not have been generated but for the Company's decision to maintain non-  
9 fuel rates at current levels.

10 **Q: What do you recommend with regard to the Company's proposal to retain**  
11 **excess earnings generated during the Fuel Stability Period?**

12 A: As a condition on any approval of the proposed Fuel Stability Plan, I  
13 recommend that the Board require NS Power to return any excess earnings  
14 generated during the Fuel Stability Period to FAM customers through a credit to  
15 the FAM deferral balance.

16 **Q: Does this conclude your direct evidence?**

17 A: Yes.

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<sup>14</sup> Actual excess earnings may in fact be greater than earnings in excess of the authorized return on common equity, to the extent that NS Power's required return on equity has declined since its currently authorized return on equity was last approved.

Qualifications of  
**JONATHAN F. WALLACH**

Resource Insight, Inc.  
5 Water Street  
Arlington, Massachusetts 02476

**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.

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“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.

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“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.

## EXPERT TESTIMONY

- 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.
- 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.
- 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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- Maryland PSC** Case No. 8797, comprehensive restructuring agreement for Potomac Edison Company, Maryland Office of People’s Counsel. October 1999.
- Support of proposed comprehensive restructuring settlement agreement
- 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.

**Maryland PSC** Case No. 8994, Delmarva Power & Light recovery of generation-related uncollectibles; Maryland Office of People's Counsel. Direct, March 2004; Supplemental April 2004.

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

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Reasonableness and risks of resource-procurement plan.

2005 **FERC** Docket No. ER05-428-000, revisions to ICAP demand curves; City of New York. Statement, March 2005.

Net-revenue offset to cost of new capacity. Winter-summer adjustment factor. Market power and in-City ICAP price trends.

**FERC** Docket No. PL05-7-000, capacity markets in PJM; Maryland Office of People's Counsel. Statement, June 2005.

Inefficiencies and risks associated with use of administratively determined demand curve. Incompatibility of four-year procurement plan with Maryland standard-offer service.

**FERC** Dockets Nos. ER05-1410-000 & EL05-148-000, proposed market-clearing mechanism for capacity markets in PJM; Coalition of Consumers for Reliability, Affidavit October 2005, Supplemental Affidavit October 2006.

Inefficiencies and risks associated with use of administratively determined demand curve. Effect of proposed reliability-pricing model on capacity costs.

2006 **Maryland PSC** Case No. 9052, Baltimore Gas & Electric rates and market-transition plan; Maryland Office of People's Counsel, February 2006.

Transition to market-based residential rates. Price volatility, bill complexity, and cost-deferral mechanisms.

**Maryland PSC** Case No. 9056, default service for commercial and industrial customers; Maryland Office of People's Counsel, April 2006.

Assessment of proposals to modify default service for commercial and industrial customers.

**Maryland PSC** Case No. 9054, merger of Constellation Energy Group and FPL Group; Maryland Office of People's Counsel, June 2006.

Assessment of effects and risks of proposed merger on ratepayers.

**Illinois Commerce Commission** Docket No. 06-0411, Commonwealth Edison Company residential rate plan; Citizens Utility Board, Cook County State's Attorney's Office, and City of Chicago, Direct July 2006, Reply August 2006.

Transition to market-based rates. Securitization of power costs. Rate of return on deferred assets.

**Maryland PSC** Case No. 9064, default service for residential and small commercial customers; Maryland Office of People's Counsel, Rebuttal Testimony, September 2006.

Procurement of standard-offer power. Structure and format of bidding. Risk and cost recovery.

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Distorting effects of proposed reliability-pricing model on clearing prices. Economically efficient alternative treatment.

**Maryland PSC** Case No. 9063, optimal structure of electric industry; Maryland Office of People's Counsel, Direct Testimony, October 2006; Rebuttal November 2006; surrebuttal November 2006.

Procurement of standard-offer power. Risk and gas-price volatility, and their effect on prices and market performance. Alternative procurement strategies.

**Maryland PSC** Case No. 9073, stranded costs from electric-industry restructuring; Maryland Office of People's Counsel, Direct Testimony, December 2006.

Review of estimates of stranded costs for Baltimore Gas & Electric.

2007 **Maryland PSC** Case No. 9091, rate-stabilization and market-transition plan for the Potomac Edison Company; Maryland Office of People's Counsel, Direct Testimony, March 2007.

Rate-stabilization plan.

**Maryland PSC** Case No. 9092, rates and rate mechanisms for the Potomac Electric Power Company; Maryland Office of People's Counsel, Direct Testimony, March 2007.

Cost allocation and rate design. Revenue decoupling mechanism.

**Maryland PSC** Case No. 9093, rates and rate mechanisms for Delmarva Power & Light; Maryland Office of People's Counsel, Direct Testimony, March 2007.

Cost allocation and rate design. Revenue decoupling mechanism.

**Maryland PSC** Case No. 9099, rate-stabilization plan for Baltimore Gas & Electric; Maryland Office of People's Counsel, Direct, March 2007; Surrebuttal April 2007.

Review of standard-offer-service-procurement plan. Rate stabilization plan.

**Connecticut DPUC** Docket No. 07-04-24, review of capacity contracts under Energy Independence Act; Connecticut Office of Consumer Counsel, Joint Direct Testimony June 2007.

Assessment of proposed capacity contracts.

**Maryland PSC** Case No. 9117, residential and small-commercial standard-offer service; Maryland Office of People's Counsel. Direct and Reply, September 2007; Supplemental Reply, November 2007; Additional Reply, December 2007; presentation, December 2008.

Benefits of long-term planning and procurement. Proposed aggregation of customers.

**Maryland PSC** Case No. 9117, Phase II, residential and small-commercial standard-offer service; Maryland Office of People's Counsel. Direct, October 2007.

Energy efficiency as part of standard-offer-service planning and procurement. Procurement of generation or long-term contracts to meet reliability needs.

2008 **Connecticut DPUC 08-01-01**, peaking generation projects; Connecticut Office of Consumer Counsel. Direct (with Paul Chernick), April 2008.

Assessment of proposed peaking projects. Valuation of peaking capacity. Modeling of energy margin, forward reserves, other project benefits.

**Ontario EB-2007-0707**, Ontario Power Authority integrated system plan; Green Energy Coalition, Penimba Institute, and Ontario Sustainable Energy Association. Evidence (with Paul Chernick and Richard Mazzini), August 2008.

Critique of integrated system plan. Resource cost and characteristics; finance cost. Development of least-cost green-energy portfolio.



2009 **Maryland PSC** Case No. 9192, Delmarva Power & Lights rates; Maryland Office of People's Counsel. Direct, August 2009; Rebuttal, Surrebuttal, September 2009.

Cost allocation and rate design.

**Wisconsin PSC** Docket No. 6630-CE-302, Glacier Hills Wind Park certificate; Citizens Utility Board of Wisconsin. Direct and Surrebuttal, October 2009.

Reasonableness of proposed wind facility.

**PUC of Ohio** Case No 09-906-EL-SSO, standard-service-offer bidding for three Ohio electric companies; Office of the Ohio Consumers' Counsel. Direct, December 2009.

Design of auctions for SSO power supply. Implications of migration of First-Energy from MISO to PJM.

2010 **PUC of Ohio** Case No 10-388-EL-SSO, standard-service offer for three Ohio electric companies; Office of the Ohio Consumers' Counsel. Direct, July 2010.

Design of auctions for SSO power supply.

**Maryland PSC** Case No. 9232, Potomac Electric Power Co. administrative charge for standard-offer service; Maryland Office of People's Counsel. Reply, Rebuttal, August 2010.

Proposed rates for components of the Administrative Charge for residential standard-offer service.

**Maryland PSC** Case No. 9226, Delmarva Power & Light administrative charge for standard-offer service; Maryland Office of People's Counsel. Reply, Rebuttal, August 2010.

Proposed rates for components of the Administrative Charge for residential standard-offer service.

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Proposed rates for components of the Administrative Charge for residential standard-offer service.

**Wisconsin PSC** Docket No. 3270-UR-117, Madison Gas & Electric gas and electric rates; Citizens Utility Board of Wisconsin. Direct, Rebuttal, Surrebuttal, September 2010.

Standby rate design. Treatment of uneconomic dispatch costs.

**Nova Scotia UARB** Case No. NSUARB P-887(2), fuel-adjustment mechanism; Nova Scotia Consumer Advocate. Direct, September 2010.

Effectiveness of fuel-adjustment incentive mechanism.

**Manitoba PUB**, Manitoba Hydro rates; Resource Conservation Manitoba and Time to Respect Earth's Ecosystems. Direct, December 2010.

Assessment of drought-related financial risk.

2011 **Mass. DPU 10-170**, NStar–Northeast Utilities merger; Cape Light Compact. Direct, May 2011.

Merger and competitive markets. Competitively neutral recovery of utility investments in new generation.

**Mass. DPU 11-5, -6, -7**, NStar wind contracts; Cape Light Compact. Direct, May 2011.

Assessment of utility proposal for recovery of contract costs.

**Wisc. PSC** Docket No. 4220-UR-117, electric and gas rates of Northern States Power: Citizens Utility Board of Wisconsin. Direct, Rebuttals (2) October 2011; Surrebuttal, Oral Sur-Surrebutal November 2011;

Cost allocation and rate design. Allocation of DOE settlement payment.

**Wisc. PSC** Docket No. 6680-FR-104, fuel-cost-related rate adjustments for Wisconsin Power and Light Company: Citizens Utility Board of Wisconsin. Direct, October 2011; Rebuttal, Surrebuttal, November 2011

Costs to comply with Cross State Air Pollution Rule.

2012 **Maryland PSC** Case No. 9149, Maryland IOUs' development of RFPs for new generation; Maryland Office of People's Counsel. March 2012.

Failure of demand-response provider to perform per contract. Estimation of cost to ratepayers.

**PUCO** Case Nos. 11-346-EL-SSO, 11-348-EL-SSO, 11-349-EL-AAM, 11-350-EL-AAM, transition to competitive markets for Columbus Southern Power Company and Ohio Power Company; Ohio Consumers' Counsel. May 2012

Structure of auctions, credits, and capacity pricing as part of transition to competitive electricity markets.

**Wisconsin PSC** Docket No. 3270-UR-118, Madison Gas & Electric rates, Wisconsin Citizens Utility Board. Direct, August 2012; Rebuttal, September 2012.

Cost allocation and rate design (electric).

**Wisconsin PSC** Docket No. 05-UR-106, We Energies rates, Wisconsin Citizens Utility Board. Direct, Rebuttal, September 2012.

Cost allocation and rate design (electric).

**Wisconsin PSC** Docket No. 4220-UR-118, Northern States Power rates, Wisconsin Citizens Utility Board. Direct, Rebuttal, October 2012; Surrebuttal, November 2012.

Recovery of environmental remediation costs at a manufactured gas plant. Cost allocation and rate design.

2013 **Corporation Commission of Oklahoma** Cause No. PUD 201200054, Public Service Company of Oklahoma environmental compliance and cost recovery, Sierra Club. Direct, January 2013; rebuttal, February 2013; surrebuttal, March 2013.

Economic evaluation of alternative environmental-compliance plans. Effects of energy efficiency and renewable resources on cost and risk.

**Maryland PSC** Case No. 9324, Starion Energy marketing, Maryland Office of People's Counsel. September 2013.

Estimation of retail costs of electricity supply.

**Wisconsin PSC** Docket No. 6690-UR-122, Wisconsin Public Service Corporation gas and electric rates, Wisconsin Citizens Utility Board. Direct, August 2013; Rebuttal, Surrebuttal September 2013.

Cost allocation and rate design; rate-stabilization mechanism.

**Wisconsin PSC** Docket No. 4220-UR-119, Northern States Power Company gas and electric rates, Wisconsin Citizens Utility Board. Direct, Rebuttal, Surrebuttal, October 2013.

Cost allocation and rate design.

**Michigan PSC** Case No. U-17429, Consumers Energy Company approval for new gas plant, Natural Resources Defense Council. Corrected Direct, October 2013.

Need for new capacity. Economic assessment of alternative resource options.

2014 **Maryland PSC** Case Nos. 9226 & 9232, administrative charge for standard-offer service; Maryland Office of People's Counsel. Reply, April 2014; surrebuttal, May 2014.

Proposed rates for components of the Administrative Charge for residential standard-offer service.

**Conn. PURA** Docket No. 13-07-18, rules for retail electricity markets; Office of Consumer Counsel. Direct, April 2014.

Estimation of retail costs of power supply for residential standard-offer service.

**PUC Ohio** Case Nos. 13-2385-EL-SSO, 13-2386-EL-AAM; Ohio Power Company standard-offer service; Office of the Ohio Consumers' Counsel. Direct, May 2014.

Allocation of distribution-rider costs.

**Wisc. PSC** Docket No. 6690-UR-123, Wisconsin Public Service Corporation electric and gas rates; Citizens Utility Board of Wisconsin. Direct, Rebuttal, August 2014; Surrebuttal, September 2014.

Cost allocation and rate design.

**Wisc. PSC** Docket No. 05-UR-107, We Energy biennial review of electric and gas costs and rates; Citizens Utility Board of Wisconsin. Direct, August 2014; Rebuttal, Surrebuttal September 2014.

Cost allocation and rate design.

**Wisc. PSC** Docket No. 3270-UR-120, Madison Gas and Electric Co. electric and gas rates; Citizens Utility Board of Wisconsin. Direct, Rebuttal, September 2014.

Cost allocation and rate design.

**Nova Scotia UARB** Case No. NSUARB P-887(6), Nova Scotia Power fuel-adjustment mechanism; Nova Scotia Consumer Advocate. Evidence, December 2014.

Allocation of fuel-adjustment costs.

2015 **Maryland PSC** Case No. 9221, Baltimore Gas & Electric cost recovery; Maryland Office of People's Counsel. Second Reply, June 2015; Second Rebuttal, July 2015.

Proposed rates for components of the Administrative Charge for residential standard-offer service.

**Wisconsin PSC** Docket No. 6690-UR-124, Wisconsin Public Service Corporation electric and gas rates; Citizens Utility Board of Wisconsin. Direct, Rebuttal, September 2015; Surrebuttal, October 2015.

Cost allocation and rate design.

**Wisconsin PSC** Docket No. 4220-UR-121, Northern States Power Company gas and electric rates; Citizens Utility Board of Wisconsin. Direct, Rebuttal, Surrebuttal, October 2015.

Cost allocation and rate design.

**Maryland PSC** Cases Nos. 9226 & 9232, administrative charge for standard-offer service; Maryland Office of People's Counsel. Third Reply, September 2015; Third Rebuttal, October 2015.

Proposed rates for components of the Administrative Charge for residential standard-offer service.

**Nova Scotia UARB** Case No. NSUARB P-887(7), Nova Scotia Power fuel-adjustment mechanism; Nova Scotia Consumer Advocate. Evidence, December 2015.

Accounting adjustment for estimated over-earnings. Proposal for modifying procedures for setting the Actual Adjustment.

2016 **Maryland PSC** Case No. 9406, Baltimore Gas & Electric base rate case; Maryland Office of People's Counsel. Direct, February 2016; Rebuttal, March 2016; Surrebuttal, March 2016.

Allocation of Smart Grid costs. Recovery of conduit fees. Rate design.

**Nova Scotia UARB** Case No. NSUARB P-887(16), Nova Scotia Power 2017-2019 Fuel Stability Plan; Nova Scotia Consumer Advocate. Direct, May 2016; Reply, June 2016.

Base Cost of Fuel forecast. Allocation of Maritime Link capital costs. Fuel cost hedging plan.

**Wisconsin PSC** Docket No. 3270-UR-121, Madison Gas and Electric Company electric and gas rates; Citizens Utility Board of Wisconsin. Direct, August 2016; Rebuttal, Surrebuttal, September 2016.

Cost allocation and rate design.

**Wisconsin PSC** Docket No. 6680-UR-120, Wisconsin Power and Light Company electric and gas rates; Citizens Utility Board of Wisconsin. Direct, Rebuttal, Surrebuttal, Sur-surrebuttal, September 2016.

Cost allocation and rate design.

**Minnesota PSC** Docket No. E002/GR-15-826, Northern States Power Company electric rates; Clean Energy Organizations. Direct, June 2016; Rebuttal, September 2016; Surrebuttal, October 2016.

Cost basis for residential customer charges.

**Nova Scotia UARB** Case No. NSUARB M07611, Nova Scotia Power 2016 fuel adjustment mechanism audit; Nova Scotia Consumer Advocate. Direct, November 2016.

Sanctions for imprudent fuel-contracting practices.

- 2017 **Kentucky PSC** Case No. 2016-00370, Kentucky Utilities Company electric rates; Sierra Club. Direct, March 2017.
- Cost basis for residential customer charges. Design of residential energy charges.
- Kentucky PSC** Case No. 2016-00371, Louisville Gas & Electric Company electric rates; Sierra Club. Direct, March 2017.
- Cost basis for residential customer charges. Design of residential energy charges.
- Massachusetts DPU** 17-05, Eversource Energy electric rates; Cape Light Compact. Direct, April 2017; Supplemental Direct, Surrebuttal, August 2017.
- Cost Allocation. Cost basis for residential customer charges. Demand charges for net metering customers.
- Michigan PSC** Case No. U-18255, DTE Electric Company electric rates; Natural Resources Defense Council, Michigan Environmental Council, and Sierra Club. Direct, August 2017.
- Cost basis for residential customer charges.
- North Carolina NCUC** Docket No. E-2, Sub 1142, Duke Energy Progress electric rates; North Carolina Justice Center, North Carolina Housing Coalition, Natural Resources Defense Council, and Southern Alliance for Clean Energy. Direct, October 2017.
- Cost basis for residential customer charges.
- Indiana Utility Regulatory Commission** Cause No. 44967, Indiana Michigan Power Company electric rates; Citizens Action Coalition of Indiana, Indiana Coalition for Human Services, Indiana Community Action Association, and Sierra Club. Direct, November 2017.
- Cost basis for residential customer charges.
- 2018 **North Carolina NCUC** Docket No. E-7, Sub 1146, Duke Energy Carolinas electric rates; North Carolina Justice Center, North Carolina Housing Coalition, Natural Resources Defense Council, and Southern Alliance for Clean Energy. Direct, January 2018.
- Cost basis for residential customer charges.
- PUC Ohio** Case Nos. 15-1830-EL-AIR, 15-1831-EL-AAM, 15-1832-EL-ATA; Dayton Power and Light Company electric rates; Natural Resources Defense Council. Direct, April 2018.
- Cost basis for residential customer charges.

**Indiana Utility Regulatory Commission** Cause No. 45029, Indianapolis Power and Light Company electric rates; Citizens Action Coalition of Indiana, Indiana Coalition for Human Services, Indiana Community Action Association, and Sierra Club. Direct, May 2018.

Cost basis for residential customer charges. Design of residential energy rates.

**PUC of Texas** Docket No. 48401, Texas-New Mexico Power Company electric rates; Office of Public Utility Counsel. Direct, Cross-Rebuttal, August 2018.

Cost of service study. Allocation of requested revenue increase.

**West Virginia PSC** Case No. 18-0646, Appalachian Power Company and Wheeling Power Company electric rates; Consumer Advocate Division. Direct, Rebuttal, October 2018.

Cost allocation and rate design.

2019 **South Carolina PSC** Docket No. 2018-319-E, Duke Energy Carolinas electric rates; South Carolina State Conference of the NAACP, South Carolina Coastal Conservation League, and Upstate Forever. Direct, February 2019; Surrebuttal, March 2019.

Cost basis for residential customer charges.

**South Carolina PSC** Docket No. 2018-318-E, Duke Energy Progress electric rates; South Carolina State Conference of the NAACP, South Carolina Coastal Conservation League, and Upstate Forever. Direct, Surrebuttal, March 2019.

Cost basis for residential customer charges.

**Indiana Utility Regulatory Commission** Cause No. 45159, Northern Indiana Public Service Company electric rates; Citizens Action Coalition of Indiana. Direct, February 2019; Responsive, June 2019.

Proposed industrial rate restructuring. Allocation of requested revenue increase. Cost basis for residential customer charges.