



STATE OF NORTH DAKOTA
BEFORE THE NORTH DAKOTA PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION OF
NORTHERN STATES POWER COMPANY FOR
AUTHORITY TO INCREASE RATES FOR
ELECTRIC SERVICE IN NORTH DAKOTA

Case No. PU-24-376

**DIRECT TESTIMONY OF
KARL R. PAVLOVIC**

**Submitted on Behalf of
the Advocacy Staff of the
North Dakota Public Service Commission**

July 8, 2025

1 **QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

3 A. My name is Karl Richard Pavlovic. My business address is 22 Brookes Avenue,
4 Gaithersburg, MD 20877. I am a Senior Consultant with and the Managing Director of
5 PCMG and Associates LLC.

6 **Q. PLEASE DESCRIBE PCMG.**

7 A. PCMG and Associates LLC (PCMG) is an association of experts in economics, accounting,
8 finance, and utility regulation and policy, with over 75 years collective experience
9 providing assistance to counsel and expert testimony regarding the regulation of electric,
10 gas, water, and wastewater utilities. PCMG began operation on January 1, 2015. During
11 its most recent year of operation, PCMG has provided assistance to counsel and/or
12 testimony in regulatory proceedings before Federal Energy Regulatory Commission, the
13 Pennsylvania Public Service Commission, the California Public Utility Commission, North
14 Dakota Public Service Commission, the Arkansas Public Service Commission, the New
15 Jersey Board of Public Utilities, and the Hawaii Public Utilities Commission. PCMG is
16 currently providing assistance to the Hawaii Division of Consumer Advocate, the New
17 Jersey Division of Rate Counsel, Utility Consumers' Action Network, and the
18 Pennsylvania Office of Consumer Advocate.

19 **Q. HAVE YOU PREPARED A SUMMARY OF YOUR QUALIFICATIONS AND**
20 **EXPERIENCE?**

21 A. Yes. Exhibit KRP-1 to my testimony summarizes my qualifications and experience.

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1 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN REGULATORY**
2 **PROCEEDINGS?**

3 A. Yes. Exhibit KRP-1 also contains a complete list of my engagements as an expert and/or
4 expert witness in matters before state and federal regulatory agencies. I have submitted
5 testimony to the Federal Communications Commission, the Federal Energy Regulatory
6 Commission, the Alaska Public Utilities Commission, the Alberta Utilities Commission,
7 the California Public Utilities Commission, the Delaware Public Service Commission, the
8 Public Service Commission of the District of Columbia, the Hawaii Public Utilities
9 Commission, the Illinois Commerce Commission, the Kansas Corporation Commission,
10 the Maine Public Utilities Commission, the Maryland Public Service Commission, the
11 Massachusetts Department of Public Utilities, the Missouri Public Service Commission,
12 and the North Dakota Public Service Commission.

13 **Q. IN WHICH PROCEEDINGS HAVE YOU PREVIOUSLY APPEARED BEFORE**
14 **THIS COMMISSION?**

15 A. I appeared on behalf of the North Dakota Public Service Commission Advocacy Staff in
16 Case Nos. PU-12-813 Application of Northern States Power Company for Authority to
17 Increase Rates for Electric Service in North Dakota, PU-17-295 Montana-Dakota
18 Utilities Co. for Authority to Establish Increased Rates for Natural Gas Service, PU-20-
19 441 Application of Northern States Power Company for Authority to Increase Rates for
20 Electric Service in North Dakota, PU-21-381 Application of Northern States Power
21 Company for Authority to Increase Rates for Natural Gas Service in North Dakota, PU-
22 23-342 Application of Otter Tail Power Company for Authority to Increase Rates for

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1 Electric Utility Service in North Dakota, PU-23-341 Montana-Dakota Utilities Co. for
2 Authority to Establish Increased Rates for Natural Gas Service, and PU-23-367
3 Application of Northern States Power Company for Authority to Increase Rates for Gas
4 Service in North Dakota.

5 **Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS?**

6 A. I received undergraduate and graduate degrees in Philosophy from Yale College and
7 Purdue University. By education and professional experience, I have expertise in formal
8 and mathematical logic, statistics, economics, financial analysis, econometrics, and
9 computer modeling. I have knowledge and experience in the areas of commercial and
10 industrial operations in the energy, transportation, and telecommunications industries and
11 am familiar with a wide range of experimental and investigative methods in science and
12 engineering.

13 **Q. PLEASE SUMMARIZE YOUR ELECTRIC AND GAS REGULATORY**
14 **EXPERIENCE.**

15 For most of my career I have performed analyses and submitted testimony regarding
16 electric and gas utility least-cost planning, reliability, cost of service, rate design, and
17 weather-emergency response. Specifically, regarding electric utilities, I have testified on:
18 (a) integrated resource planning, (b) class cost of service and rate design, (c) the
19 restructuring of wholesale and retail markets in the Eastern Interconnection, and (d)
20 various infrastructure operating expense and investment recovery mechanisms.

21 **I. PURPOSE AND ORGANIZATION**

22 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

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1 A. I have been asked by the Commission's Advocacy Staff to address Northern States Power
2 (NSP) assertions and proposals in this proceeding regarding (1) the prudence of production
3 resource decisions, (2) wind repowering projects, (3) jurisdictional allocation of
4 transmission plant and operating expenses, (4) class cost of service study, (5) class revenue
5 distribution, and (6) class revenue responsibility distribution, and (6) tariff rate design.

6 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

7 A. My testimony is organized into six sections. In Section III.A I address the prudence of
8 production resource decisions that NSP has included in this proceeding. In Section III.B
9 I address the wind repower projects that NSP has included in this proceeding. In Section
10 III.C I address the jurisdictional transmission demand allocator NSP uses in its
11 jurisdictional cost study. In Section III.C I address NSP's proposed weather
12 normalization Topside Adjustment. In Section III D I address NSP's proposed class cost
13 study. In Section III.E I address NSP's proposed North Dakot class revenue distribution.
14 In Section III.F I address NSP's proposed North Dakota rate design.

15 **Q. HAVE YOU PREPARED ANY EXHIBITS IN SUPPORT OF YOUR**
16 **RECOMMENDATIONS?**

17 A. Yes. I have included the following exhibit:

18 Exhibit No. KRP-1: Qualifications
19

20 **II. SUMMARY OF TESTIMONY AND CONCLUSIONS**

21 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

22 A. My testimony finds and recommends the following:

- 1 • that the early retirements of Sherco 3 and King are not prudent on the basis of cost
- 2 and depreciation rates and expenses be maintained at their current level;
- 3 • that the portfolio of resource decisions for which NSP seeks prudence
- 4 determinations are not prudent on the basis of cost and depreciation rates and
- 5 expenses be maintained at their current level;
- 6 • that NSP provide the impact on the revenue requirement of the wind repower
- 7 projects;
- 8 • that the Commission direct NSP to use 1 CP transmission demand allocator in the
- 9 jurisdictional cost study;
- 10 • that the Commission direct NSP to use 1 CP demand allocation of transmission costs
- 11 in the class cost of service study;
- 12 • that the Commission direct NSP to adjust its proposed class revenue distribution
- 13 consistent with the transmission cost allocation; and
- 14 • that the Commission direct NSP to adjust its proposed tariff rates consistent with the
- 15 adjusted class revenue distribution.

16

17 **III. DISCUSSION**

18 **A. PRUDENCE OF PRODUCTION RESOURCES**

19 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

20 A. The purpose of this section of my testimony is to address the direct testimony of Cristopher

21 J. Shaw supporting the prudence of certain resource addition and retirement decisions that

22 impact NSP's test year.

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1 **Q. FOR WHAT RESOURCES IS NSP REQUESTING THE COMMISSION MAKE A**
2 **PRUDENCE DETERMINATION?**

3 A. Witness Shaw's testimony sets forth NSP's request for determinations of prudence for
4 following production resource decisions.

- 5 • Sherco Units 1, 2 and 3 and Allen S. King Plant¹ – retirement – replaced by
6 renewable capacity
- 7 • Monticello Plant² – life extension – reliable carbon-free baseload capacity
- 8 • Sherco Solar 1 and 2³ – addition – capacity replacement for PPAs and Sherco
- 9 • Sherco Battery Storage Pilot⁴ - firm dispatchable renewable capacity
- 10 • Mankato Energy Center⁵ – MEC II PPA – capacity required by retirement of
11 baseload
- 12 • Manitoba Hydro PPA⁶ - life extension – summer/winter capacity diversification
- 13 • French Island 1-2⁷ - life extension – reliable power for renewable energy goals
- 14 • Red Wing⁸ - life extension – reliable power for renewable energy goals
- 15 • Wilmarth⁹ - life extension – reliable power for renewable energy goals
- 16 • Cannon Falls PPA¹⁰ - life extension - capacity
- 17 • Blue Lake Units 9-11¹¹ - addition – black start capacity

18

¹ Direct Testimony of Christopher J. Shaw (Shaw Direct) pages 11-46

² Shaw Direct, pages 46-60.

³ Shaw Direct, pages 60-71.

⁴ Shaw Direct, pages 72-80.

⁵ Shaw Direct, pages 80-89.

⁶ Shaw Direct, pages 90-91.

⁷ Shaw Direct, page 92.

⁸ Shaw Direct, page 92.

⁹ Shaw Direct, page 92.

¹⁰ Shaw Direct, pages 93-94.

¹¹ Shaw Direct, pages 92.

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1 **Q. WHAT STANDARDS FOR DETERMINATION OF PRUDENCE DO YOU USE IN**
2 **YOUR TESTIMONY?**

3 A. In analyzing NSP's prudence requests, I use the standards articulated in witness Shaw's
4 testimony.¹² For a resource retirement, addition or life extension decision to be deemed
5 prudent, it must be shown that the decision was reasonable in light of the information that
6 was available at the time the decision was made. In North Dakota prudence is assessed on
7 (a) qualitative factors in the form of costs to customers without environment externalities
8 and (b) qualitative factors of regulatory risk and reliability.

9 **Q. ON WHAT BASIS DOES WITNESS SHAW PROPOSE THAT THE COMMISSION**
10 **DETERMINE THE PRUDENCE OF THE LISTED DECISIONS?**

11 A. Witness Shaw states that the Commission "holistically consider[s] quantitative cost factors
12 and qualitative and qualitative factors such as energy reliability, cost reliability, regulatory
13 risks, resource availability risks, and more," concluding that "the Company's resource
14 decisions should be found prudent in light of the factors the Company must consider and
15 balance to arrive at its resource decisions."¹³ I take this to mean that the Company and the
16 Commission rely on PVRR and PVSC results from the NSP's Strategist and Encompass
17 models.

18 **Q. WERE YOU ABLE TO DETERMINE THE DATE ON WHICH THE RESOURCE**
19 **DECISIONS LISTED ABOVE WERE MADE?**

20 A. Strictly speaking I was not. I specifically requested that NSP provide the dates of the listed
21 decisions and in response NSP simply referred back to witness Shaw's testimony, which
22 does not specify decision dates. Based on witness Shaw's constant and ubiquitous

¹² Shaw Direct, page2 line 20 to page 3 line 6.

¹³ Shaw Direct, page 4 line 21 to page 5 line 7.

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1 references to NSP's 2019 IRP and a June 2020 update, I conclude that 2019/2020 is the
2 range within which the decision dates fall – no further specificity is possible.

3 **Q. WHAT CONTEMPORANEOUS INFORMATION DOES WITNESS SHAW**
4 **PROVIDE?**

5 A. Besides numerous references to decisions by the Minnesota Commission, which are not
6 relevant to the issue here, witness Shaw presents PVRR and PVSC results from the 2019
7 IRP¹⁴ and PVRR and PVSC Strategist¹⁵ and EnCompass¹⁶ model results from the 2020
8 update.¹⁷

9 **Q. WHAT APPROACH DO YOU TAKE IN ASSESSING THE LISTED RESOURCE**
10 **DECISIONS FOR PRUDENCE?**

11 A. First, I note that all of the decisions for meeting future capacity and energy needs as
12 presented in witness Shaw's testimony are largely the result of the accelerated retirements of
13 Sherco Units 1-3 and King. Prudent or not, they were a result of the imprudent accelerated
14 retirements of the Sherco units and King. Second, I assessed the prudence of Sherco 3 and
15 King retirements and the other listed resource decisions using the 2020 PVRR results in
16 Figure 3 (which were all optimized using a carbon tax) of witness Shaw's testimony.
17 Notably, the Commission does not consider environmental externalities in determining
18 prudence, but the projects are not even supported with NSP's inclusion of a carbon tax.¹⁸

19 **Q. WHAT DO YOU FIND REGARDING THE PRUDENCE OF THE PROPOSED**
20 **RETIREMENTS OF SHERCO 3 AND KING?**

¹⁴ Shaw Direct, page 34, Tables 1(PVRR) and 2(PVSC).

¹⁵ See Exhibit CJS-1, Schedule 3.

¹⁶ See Exhibit CJS-1, Schedule 2.

¹⁷ Shaw Direct, page 43, Figures 3(PVRR) and 4(PVSC).

¹⁸ See N.D. Cent Code § 49-02-23 and § 49-05-17; North Dakota Amin. Code § 69-09-12-03 and § 69-09-12-4.

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1 A. The 2020 Strategist analysis shows that early Sherco 3 retirement produces \$353 million in
2 additional cost relative to the reference case. The 2020 EnCompass analysis shows an
3 additional \$124 million costs relative to the reference case.¹⁹

4 The 2020 Strategist analysis shows that early King retirement produces \$105 million in
5 additional cost relative to the reference case. The 2020 EnCompass analysis shows savings
6 of \$44 million relative to the reference case.²⁰

7

8 **Q. WHAT DO YOU CONCLUDE REGARDING THE PRUDENCE OF THE SHERCO**
9 **3 AND KING RETIREMENTS?**

10 A. I conclude that based on information available at the time of the decision, i.e., the 2020
11 update, the retirements of Sherco 3 and King are not prudent on the basis of cost and I
12 recommend that Commission find them not prudent and maintain for the North Dakota
13 jurisdiction the current retirement dates and depreciation expense in the test year for the
14 North Dakota jurisdiction.

15 **Q. WHAT DO YOU FIND REGARDING THE PRUDENCE OF THE PROPOSED**
16 **RETIREMENTS OF THE REMAINING RESOURCE LIFE EXTENSIONS AND**
17 **ADDITIONS ON THE LIST?**

18 A. The 2020 Strategist analysis shows that extending the life of Monticello produces \$49
19 million in additional cost relative to the reference case (depicted as Scenario 13 in Figure 3).
20 The 2020 EnCompass analysis shows an additional \$1 million costs relative to the reference
21 case.²¹

¹⁹ Shaw Direct, page 43, Figure 3 PVRR Scenario 3.

²⁰ Shaw Direct, page 43, Figure 3 PVRR Scenario 5.

²¹ Shaw Direct, page 43, Figure 3 PVRR Scenario 13.

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1 With regard to the rest of the listed resources, there are no scenarios in Figure 3 that
2 examine those resources individually. However, Scenario 9, which is the preferred
3 scenario,²² can be taken holistically as a resource portfolio containing all the listed
4 resources. The 2020 Strategist analysis shows that the Scenario 9 portfolio produces \$272
5 million in additional cost relative to the reference case. The 2020 EnCompass analysis
6 shows an additional \$83 million costs relative to the reference case.²³

7 **Q. WHAT DO YOU CONCLUDE REGARDING THE PRUDENCE OF THE ENTIRE**
8 **SCENARIO 9 PORTFOLIO OF LISTED RESOURCE DECISIONS?**

9 A. I conclude that based on information available at the time of the decision, the entire Scenario
10 9 portfolio of resource decisions is not prudent on the basis of cost. To account for the
11 imprudent decisions to accelerate retirement of Sherco Units 1-3 and King leading to the
12 current resource mix, I recommend that the Commission maintain the current
13 retirement/extension dates and depreciation expenses in the test year for the North Dakota
14 jurisdiction to arrive at just and reasonable rates.

15 **Q. ARE YOU ABLE TO CALCULATE THE IMPACT ON THE TEST YEAR**
16 **REVENUE REQUIREMENT OF MAINTAINING THE CURRENT RETIREMENT**
17 **DATES AND DEPRECIATION EXPENSE FOR THE ENTIRE LIST OF**
18 **RESOURCES?**

19 A, No. In his testimony, witness Moeller indicates that aggregate depreciation expense for
20 production plant increases by \$7,186,414²⁴ Nowhere in witness Moeller's schedules²⁵ is
21 there a table showing the calculation of the proposed depreciation rates and expense for

²² Shaw Direct, page 40 lines

²³ Shaw Direct, page 43, Figure 3 PVRR Scenario 9.

²⁴ Direct Testimony of Mark P. Moeller (Moeller Direct), page 25, Table 2.

²⁵ Moeller Direct, Exhibit NPM-1, Schedules 5, 6 and 7.

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1 production plant or a comparison of the proposed depreciation rates and expenses to the
2 current depreciation rates and expenses. I note that there is such a table for transmission,
3 distribution and general plant accounts. Without such a table it is not possible to calculate
4 an adjustment to the \$7,186,414 increase to account for the impact of maintaining the
5 current retirement dates and depreciation expense for the listed resources. The Company
6 should apply the adjustment in its rebuttal testimony and supply excel file workpapers. If it
7 does not, I recommend that the Commission direct NSP to include a late-filed exhibit at the
8 hearing to calculate the appropriate adjustment.

9
10 **B. WIND REPOWER PORTFOLIO PROJECTS.**

11 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

12 A. The purpose of this section of my testimony is to address the supplemental direct testimony
13 of Christopher J. Shaw regarding the prudence of the actual costs of repowering certain NSP
14 wind projects.

15 **Q. WHAT IS THE ISSUE REGARDING THESE PROJECTS IN THIS**
16 **PROCEEDING?**

17 A. NSP's Border Winds, Grand Meadow, Nobles and Pleasant Valley wind projects are subject
18 to a Settlement Agreement and Joint Stipulation in Case No. PU-20-425 which found them
19 prudent subject to a so-called soft cap on recovery of expenditures for the portfolio of
20 projects.²⁶ The soft cap was set as an aggregate amount because the modeling supporting
21 the projects was done on a portfolio basis and the prudence was evaluated on a portfolio

²⁶ Supplemental Direct Testimony of Christopher J. Shaw (Shaw Supplemental Direct), page 4 line 7 to page 5 line 14.

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1 basis.²⁷ Overall, the actual expenditures for the projects exceeded the soft cap.²⁸ The issue
2 here appears to be should the overage of the projects be approved as prudent.²⁹ I say
3 “appears” because nowhere in his testimony does witness Shaw unequivocally say what the
4 Company is proposing with respect to the projects.

5 **Q. WHAT HAVE YOU BEEN ABLE TO DETERMINE ABOUT THE BORDER**
6 **WINDS, GRAND MEADOW, NOBLES AND PLEASANT VALLEY WIND**
7 **PROJECTS REGARDING PRUDENCE?**

8 A, First, the Grand Meadow and Nobles projects are in service and therefore used and useful on
9 NSP’s system.³⁰ The Grand Meadow and Nobles projects are a total of [PROTECTED
10 DATA BEGINS] [REDACTED] [PROTECTED DATA ENDS] under budget,³¹ which I
11 take to be a credit to the soft cap. Thus, there is no question that the costs of those projects
12 were prudently incurred.

13 Second, the Border Winds and Pleasant Valley projects are not yet in service and therefore
14 not used and useful on NSP’s system.³² The Border Winds and Pleasant Valley projects are
15 currently a total of [PROTECTED DATA BEGINS] [REDACTED] [PROTECTED
16 DATA ENDS] over budget,³³ which I take to be a debit to the soft cap, yielding a net
17 overrun on the soft cap of [PROTECTED DATA BEGINS] [REDACTED] [PROTECTED
18 DATA ENDS].³⁴ I note that this number is not a final overrun.

²⁷ Shaw Supplemental Direct, page 6 lines 1-5.

²⁸ Shaw Supplemental Direct, page 5 lines 7-23 CONF.

²⁹ Shaw Supplemental Direct, page 7 lines 14-24.

³⁰ Shaw Supplemental Direct, page 12, Table 2 not protected data.

³¹ Shaw Supplemental Direct, page 12, Table 2 PROTECTED DATA.

³² Shaw Supplemental Direct, page 12, Table 2 not protected data.

³³ Shaw Supplemental Direct, page 12, Table 2 PROTECTED DATA.

³⁴ Shaw Supplemental Direct, page 12, Table 2 PROTECTED DATA.

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1 Per the 2021 Settlement any overruns “create a process in which any costs above the cost
2 threshold must be recouped as part of a future rate case.”³⁵ As I pointed out above, witness
3 Shaw’s testimony nowhere articulates a specific request of the Commission. Assuming
4 without a basis in testimony that NSP is requesting the net overage of [PROTECTED
5 DATA BEGINS] [REDACTED] [PROTECTED DATA ENDS] be added to the soft cap on
6 the four projects, I recommend that the Commission decline making a prudence
7 determination on that issue until such time that the Border Winds and Pleasant Valley
8 projects are used and usefully in service on NSP’s system.

9 **Q. ARE THERE SCHEDULES OR WORKPAPERS THAT SHOW THE IMPACT ON**
10 **THE REVENUE REQUIREMENT?**

11 A. No. In fact, witness Shaw states that “the Company does not calculate the revenue
12 requirement on individual projects in the context of a rate filing.”³⁶ Thus, it is not even
13 possible to divine from quantitative workpapers what NSP is proposing with respect to the
14 wind repowering projects.

15 **Q. WHAT IS YOUR RECOMMENDATION REGARDING THE WIND REPOWER**
16 **PORTFOLIO?**

17 A. In light of the total absence of any specificity regarding the wind repowering projects, I
18 recommend the Company identify the specific adjustment related to the overages in its
19 rebuttal testimony and supply excel file workpapers. If it does not, I recommend that the
20 Commission direct NSP to include a late-filed exhibit at the hearing showing the
21 quantitative impact on the revenue requirement of the wind repowering projects referenced
22 in witness Shaw’s supplemental direct testimony.

³⁵ Shaw Supplemental Direct, page 4 lines 18-22.

³⁶ Shaw Supplemental Direct, page 12 lines 24-25.

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C. JURISDICTIONAL TRANSMISSION ALLOCATOR

Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

A. The purpose of this section of my testimony is to address the direct testimony of Steven W. Wishart supporting NSP’s jurisdictional 12 CP demand allocator for transmission costs.

Q. WHAT IS THE ISSUE REGARDING NSP’S JURISDICTIONAL TRANSMISSION ALLOCATOR?

A. NSP uses a 12 Coincident Peak (12CP) demand metric to allocate its transmission plant and operating expenses to its North Dakota, South Dakota and Minnesota jurisdictions.³⁷ In past proceedings Advocacy Staff has presented testimony supporting the use of the system coincident peak (1CP) demand allocator for jurisdictional transmission costs. In this proceeding NSP has proactively provided testimony in support of the continued use of the 12CP demand allocation of transmission costs to North Dakota and its other jurisdictions.³⁸

Q. PLEASE SUMMARIZE WITNESS WISHART’S POSITION ON JURISDICTIONAL ALLOCATION OF TRANSMISSION.

A. Witness Wishart begins by citing a Commission order stating that the standards for determination of an appropriate allocation factor are (1) fair cost apportionment, (2) consistency among jurisdictions and (3) administrative ease.³⁹ He then presents five arguments for continuing 12 CP jurisdictional transmission allocation.

³⁷ Direct Testimony and Schedule of Steven W. Wishart (Wishart Direct)., page 6 line 20 to page 7 line 18 and Figure 1.

³⁸ Wishart Direct, pages 9 – 26.

³⁹ Wishart Direct, page 6, lines 14-18.

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- 1 1. 12 CP is reflective of how customers use existing production and transmission
2 resources.⁴⁰
- 3 2. 12 CP is reflective of how new production resources are planned.⁴¹
- 4 3. 12 CP is reflective of how MISO charges utilities for regional transmission
5 services.⁴²
- 6 4. 12 CP is required for consistency among NSP's jurisdictions.⁴³
- 7 5. 12 CP is easy to administer.⁴⁴

8 **Q. WHAT IS YOUR RESPONSE TO WITNESS WISHART?**

9 A. Regarding arguments 1-3, as I explain below, (1) 12 CP is not reflective of customer
10 causation of NSP's transmission system, (2) production resource planning is not a cost
11 causative factor for NSP's transmission system, and (3) how MISO charges for transmission
12 is not a cost causative factor for NSP's transmission system.

13 Regarding argument 4, consistency of transmission allocation jurisdictional methodology is
14 desirable but not required.

15 Regarding argument 5, 1 CP represents marginally greater administrative ease over 12 CP as
16 1 CP requires the recording and calculation of only the annual coincident peak demand on
17 the system rather than 12 monthly peak demands.

18 **Q. WHAT IS THE COST CAUSATIVE FACTOR FOR NSP'S TRANSMISSION**
19 **SYSTEM?**

⁴⁰ Wishart Direct, pages 9 – 11.

⁴¹ Wishart Direct, pages 12 – 21.

⁴² Wishart Direct, pages 21 – 23.

⁴³ Wishart Direct, pages 23 – 25.

⁴⁴ Wishart Direct, pages 25 – 26.

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1 A. The cost causative factor for NSP's transmission system is coincident peak demand. In fact,
2 any electric utility providing **firm** electric service to customers must plan and construct its
3 transmission system to meet aggregate customer maximum peak demand; otherwise, it will
4 be unable to provide firm service when customer demand exceeds the capacity of the
5 transmission system. The table below illustrates this point. Lines 1-12 are NSP's 2024
6 monthly total and jurisdictional coincident peak demands. Notice that the annual system
7 coincident peak demand occurred in August at 6,968 MW. Lines 13 and 14 sum and
8 average the total and jurisdictional demands, i.e., calculate the 12 CP demands for 2024 –
9 system demand at 5,101 MW. If NSP planned and constructed its transmission system to
10 reflect 12 CP demand (5,101MW), its transmission system would have been unable to meet
11 NSP's August peak demand of 6,969 MW.

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1 Table 1⁴⁵

Line No.	Coincident Peak Demand	MN	ND	SD	NSPM Total
1	1/1/2024	4,140	380	368	4,888
2	2/1/2024	3,659	332	316	4,306
3	3/1/2024	3,706	309	303	4,317
4	4/1/2024	3,511	257	275	4,042
5	5/1/2024	3,934	296	388	4,619
6	6/1/2024	4,894	376	506	5,776
7	7/1/2024	5,758	335	497	6,590
8	8/1/2024	6,125	321	523	6,969
9	9/1/2024	5,217	382	435	6,034
10	10/1/2024	3,979	269	328	4,576
11	11/1/2024	3,619	301	302	4,222
12	12/1/2024	4,167	365	340	4,872
13	2024 12CP	52,708	3,923	4,581	61,212
14	Average	4,392	327	382	5,101
15	2024 12CP	86.1%	6.4%	7.5%	100.0%
16	2024 1CP	87.9%	4.6%	7.5%	100.0%

2

3 Lines 15 and 16 illustrate the allocation impact of 12 CP vs 1 CP. Using 12 CP demand
4 over allocates transmission costs to North Dakota (6.4% vs 4.6%) and under allocates
5 transmission cost to Minnesota (86.1% vs 87.9%).

6 **Q, WHAT DO YOU CONCLUDE REGARDING NSP'S 12 CP DEMAND**
7 **ALLOCATOR?**

8 A. I conclude that NSP's 12 CP demand allocator does not accurately and fairly apportion its
9 jurisdictional transmission costs. I recommend that the Commission direct NSP to use a 1
10 CP demand allocator for jurisdictional allocation of transmission costs.

11

⁴⁵ Source: NDPS 11-004 Attachment A.

1 **D. NORTH DAKOTA ELECTRIC CLASS COST STUDY**

2 **Q. HAVE YOU EXAMINED NSP'S NORTH DAKOTA CLASS COST OF SERVICE**
3 **STUDY (CCOSS)?**

4 A. Yes. NSP's electric CCOSS is a spreadsheet model⁴⁶ that follows the standard class cost
5 of service procedure of first functionalizing costs,⁴⁷ second classifying the functionalized
6 costs as directly assignable to certain classes or as demand-related, customer-related or
7 energy-related,⁴⁸ and third allocating to customer classes those functionalized costs that
8 are classified as demand-, customer-, or energy-related using allocation metrics derived
9 from the driver(s) of the classified costs.⁴⁹ Finally, class rates of return under present
10 rates are calculated.⁵⁰

11 **Q. HAVE YOU FOUND ANY ERRORS IN THE FUNCTIONALIZATION OF NSP'S**
12 **ELECTRIC COSTS?**

13 A. No. The CCOSS properly functionalizes NSP's electric costs using the FERC electric
14 Uniform System of Accounts (USoA). However, as discussed above the jurisdictional
15 transmission cost is likely overallocated to North Dakota and as also discussed above,
16 NSP's schedules and workpapers do not provide the information to calculate an
17 adjustment to the transmission costs in the class cost of service study. I recommend that
18 the Commission direct NSP to calculate the adjustment, apply the adjustment to the
19 transmission costs in the class cost of service study and provide excel files for the
20 adjustment.

⁴⁶ Exhibit CJB-1, Schedule 4; PU-24-376 NDPSC-3-002_Attachment A TRADE SECRET IN ENTIRETY.xlsx; see also Exhibit CJB-1, Schedule 2 – Guide to the Electric Class cost of Service Study (CCOSS) Northern States Power.

⁴⁷ Exhibit CJB-1, Schedule 2, pages 2-3.

⁴⁸ Exhibit CJB-1, Schedule 2, pages 4-6.

⁴⁹ Exhibit CJB-1, Schedule 2, page 7.

⁵⁰ Exhibit CJB-1, Schedule 4, page 1.

1 **Q. HAVE YOU FOUND ANY ERRORS IN THE CCOSS CLASSIFICATION OF**
2 **NSP'S FUNCTIONALIZED ELECTRIC COSTS?**

3 A. No. It is my understanding that the CCOSS classifications are consistent with
4 Commission precedent,

5 **Q. HAVE YOU FOUND ANY ERRORS IN THE CCOSS ALLOCATION OF NSP'S**
6 **CLASSIFIED AND FUNCTIONALIZED ELECTRIC COSTS?**

7 A. No. It is my understanding that the CCOSS allocations are consistent with Commission
8 precedent.

9 **Q. WHAT DO YOU CONCLUDE AND RECOMMEND REGARDING NSP'S**
10 **CCOSS?**

11 A. I conclude that NSP's CCOSSs produces results consistent with Commission precedent,
12 but as noted above the transmission costs are likely overstated.

13

14 **D. NORTH DAKOTA CLASS REVENUE DISTRIBUTION**

15

16 **Q. WHAT IS NSP'S PROPOSAL REGARDING CLASS REVENUE DISTRIBUTION?**

17 A. NSP's proposed class revenue distribution is presented in the testimony and schedules of
18 NSP witness Paluck.⁵¹ Witness Paluck bases the proposed revenue distribution on NSP's
19 CCOSS results, calculating for each CCOSS customer class a range between the percent
20 cost increase from the CCOSS and the overall revenue increase, selecting the midpoint
21 percent increase within that range, and then applying the midpoint percent increase to the
22 class revenue under current rates to calculate the class revenue distribution under the

⁵¹ Direct Testimony and Schedules of Nicholas N Paluck (Paluck Direct) and Schedule NNP-1, Schedule 2.

1 proposed rates.⁵² The results of the process are presented in Table 2 of witness Paluck's
2 testimony which I reproduce below.

Table 2
2025 Test Year Rate Revenue and Cost by CCOSS Class (\$1,000s)

Class	Present Revenue	Cost of Service	Cost Increase %	Proposed Revenue	Proposed Increase %
Residential	\$92,694	\$119,604	29.03%	\$115,090	24.17%
Non-Demand	12,098	13,859	14.56%	14,145	16.93%
C&I Demand	123,554	138,912	12.43%	143,150	15.86%
Lighting	2,028	2,442	20.43%	2,431	19.86%
Total Retail	\$230,375	\$274,817	19.29%	\$274,817	19.29%
Other Rev		114		114	
Total	\$230,375	\$274,931	19.34%	\$274,931	19.34%

3
4 Witness Paluck states his revenue distribution balances NSP's pricing objective of moving
5 customer classes towards cost with NSP's pricing objective of rate continuity.⁵³

6 **Q. WHAT IS YOUR ASSESSMENT OF THE PROPOSED CLASS REVENUE**
7 **DISTRIBUTION?**

8 A. I agree that movement towards cost is the appropriate approach and find no errors in the
9 proposed class revenue distribution.

10
11 **E. NORTH DAKOTA TARIFF RATE DESIGN**

12 **Q. HAVE YOU EXAMINED NSP'S TARIFF RATE PROPOSALS?**

⁵² Paluck Direct, page 4 line 10 to page 5 line 25 and Table 2.

⁵³ Paluck Direct, page 6 lines 10-13.

PUBLIC DOCUMENT
TRADE SECRET INFORMATION REDACTED

1 A. NSP's proposed tariff rate proposals are also presented in the testimony and schedules of
2 NSP witness Paluck.⁵⁴ NSP has many more tariff rate schedules than the CCOSS has
3 customer classes. Consequently, Witness Paluck spreads the proposed customer class
4 revenues in Schedules 3 and 4 when setting proposed tariff rates.

5 **Q. DO YOU HAVE ANY CRITICISMS OF THE PROPOSED TARIFF RATES?**

6 A. No.

7 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

8 A. Yes. I reserve the right to file supplemental testimony in the event that further
9 information becomes available.

⁵⁴ Paluck Direct, pages 6 line 15 to page 15 line 10 and Exhibit NNP-1, Schedules 3-4.

KARL RICHARD PAVLOVIC, Ph.D.

Education

Purdue University – MA and Ph.D. in Philosophy

Karl-Ruprecht Universität, Heidelberg, Germany – graduate study

Yale University – BA in Philosophy

Positions

Senior Consultant – PCMG and Associates	2015-Present
Senior Consultant – Snively King Majoros and Associates	2010-2014
Director – FTI Consulting	2008-2010
President – DOXA, Inc	1994-2008
Partner – Snively King and Associates	1983-1994
Assistant Professor – University of Florida-Gainesville	1978-1983

Professional Experience

Dr. Pavlovic provides clients with economic and policy analyses of commercial operations and expert testimony in support of litigation, negotiation and strategic planning. His analyses and testimony are distinguished by systematic articulation and testing of assumptions, thorough evaluation of data, innovative application of statistical tools and economic principles, and clarity and precision of presentation. Dr. Pavlovic has provided expert testimony on the operations, costs and revenues of gas and electric utilities, the impacts of restructuring wholesale and retail electric markets, effects of mergers, the operation and competitiveness of petroleum and electric markets, the market valuation of crude oil, electric and gas reliability, and the performance of energy efficiency, renewable energy, and peak reduction programs.

Major projects directed by Dr. Pavlovic have included: analytical assistance to counsel and testimony on all aspects of the restructuring of wholesale and retail electric markets in the Eastern Interconnection; technical representation of the District of Columbia People’s Counsel on the DC PSC’s Pepco Productivity Improvement Working Group and various PJM working groups; impact evaluation study of pilot energy efficiency and renewable energy programs in the District of Columbia; analysis of petroleum markets, expert testimony, and coordination of technical testimony in the Trans-Alaska Pipeline quality bank litigation; Independent Technical Review of the economic models used by the US Army Corps of Engineers for the Ohio River System Investment Plan; assistance to a major independent telephone company in the formulation and implementation of corporate strategic plans, applications for long-distance authority, and settlement negotiations with major domestic and foreign carriers.

By education and professional experience Dr. Pavlovic has expertise in formal and mathematical logic, statistics, economics, financial analysis, econometrics, and computer modeling. With 33 years’ experience as a consultant and expert witness, Dr. Pavlovic has in-depth knowledge of

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commercial and industrial operations in the energy, transportation, and telecommunications industries and is familiar with a wide range of experimental and investigative methods in science and engineering.

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Regulatory Projects and Appearances

1. In re: Pike County Light & Power Company 2024 General Base Rate Increase Filings – (Appearance: gas and electric cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2024-3052359 and R-2024-3052357
2. In re: Application of Young Brothers LLC for Review and Approval of 2025 Test Year Rate Increases; Revised Rate Schedules; and Changes to its Tariff (2024) – (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2024-0255
3. In re: Application of Hawaii Electric Companies for Review and Approval of Depreciation Rates (2024) – (Appearance: depreciation on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2024-0199
4. In re: Application of Hawaii American Water Company, Inc. for Review and Approval of Rate Increases; Revised Rate Schedules; and Changes to its Tariff (2024) – (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2024-0038
5. In re: Application of Young Brothers LLC for an WICI Inflation Adjustment Mechanism (2024) – (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2024-0092
6. In re: Petition of Elisabeth Natural Gas, Inc. for an Increase in Rates for Gas Service and Other Tariff Changes (2024) - (Appearance: cost of service and rate design on behalf of the New Jersey Rate Counsel)
NJ BPU Docket No. GR24020158
7. In re: FirstEnergy Pennsylvania Electric Company General Base Rate Increase Filing (2024) – (Appearance: cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2024-3047068
8. In re: Petition of New Jersey Natural Gas, Inc. for an Increase in Rates for Gas Service and Other Tariff Changes (2024) - (Appearance: cost of service and rate design on behalf of the New Jersey Rate Counsel)
NJ BPU Docket No. GR24010071

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9. In re: Petition of Aqua New Jersey, Inc. for an Increase in Rates for Water Service and Other Tariff Changes (2024) - (Appearance: cost of service and rate design on behalf of the New Jersey Rate Counsel)
NJ BPU Docket No. WR24010057
10. In re: Petition of New Jersey American Water, Inc. for an Increase in Rates for Water Service and Other Tariff Changes (2024) - (Appearance: cost of service and rate design on behalf of the New Jersey Rate Counsel)
NJ BPU Docket No. WR24010056
11. In re: the Application of Northern States Power Company for Authority to Increase Rates for Gas Service in North Dakota (2024) - (Appearance: cost of service and rate design on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-23-367
12. In re: Montana-Dakota Utilities Co., Application to Increase Natural Gas Rates (2024) - (Appearance: cost of service and rate design on behalf of the North Dakota Public Service Commission Staff)
ND Public Service Commission Case No. PU-23-341
13. In re: the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Utility Service in North Dakota (2024) - (Appearance: cost of service and rate design on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-23-342
14. In re: 2023 Gas System Enhancement Program Plan Filings for the Commonwealth's Natural Gas Distribution Companies (2024) - (Appearance: cost and project compliance with tariff on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket Nos. D.P.U. 23-GSEP-01 to 23-GSEP-06
15. In re: the Application of Northern States Power Company for Advance Determination of Prudence – 345kV Big Stone to Sherburne (2024) - (Appearance: need, necessity and conformance with North Dakota Statutes and Regulation on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-23-329
16. Pennsylvania Office of Consumer Advocate: Monitor, Review and Report on Electric and Natural Gas Filings to the FERC (2024)
Federal Energy Regulatory Agency Dockets
17. In re: Petition of Veolia Water New Jersey, Inc. for an Increase in Rates for Water Service and Other Tariff Changes (2023) - (Appearance: cost of service and rate design on behalf of the New Jersey Rate Counsel)
NJ BPU Docket No. WR23110790

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18. In re: the Application of Northern States Power Company for Advance Determination of Prudence – Brookings County to Lyon County and Helena to Hampton 345 kV Second Circuit (2023) - (Appearance: need, necessity and conformance with North Dakota Statutes and Regulation on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-23-295
19. In re: the Application of Northern States Power Company for Advance Determination of Prudence - Sherburne County 345 kV Transmission Line (2023) - (Appearance: need, necessity and conformance with North Dakota Statutes and Regulation on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-23-142
20. In re: Petition of Middlesex Water Company for an Increase in Rates for Water Service and Other Tariff Changes (2023) - (Appearance: cost of service and rate design on behalf of the Township of East Brunswick, New Jersey)
NJ BPU Docket No. WR23050292
21. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2022 Gas System Enhancement Plan Reconciliation Filing (2023) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 23-GREC-06
22. In re: Petition of Eversource Gas Company of Massachusetts d/b/a Eversource Energy for Approval of its 2022 Gas System Enhancement Plan Reconciliation Filing (2023) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 23-GREC-05
23. In re: Petition of Berkshire Gas Company for Approval of its 2022 Gas System Enhancement Plan Reconciliation Filing (2023) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 23-GREC-02
24. In re: Pittsburgh Water and Sewer Authority General Base Rate Increase Filing (2023) – (Appearance: gas and electric cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2023-3039920 et al
25. In re: UGI Electric Company General Base Rate Increase Filing (2023) – (Appearance: electric cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2022-3037368

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26. In re: Application of Hawaii Water Service Company, Inc. for Approval of a General Rate Increase for its Pukalani Wastewater Division and Certain Tariff Changes (2023) – (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2022-0186
27. In re: Application of Lanai Water Company, Inc. for Review and Approval of Rate Increases; Revised Rate Schedules; and Changes to its Tariff (2023) – (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2022-0233
28. In re: Application of Southern Maryland Electric Cooperative, Inc., for Authority to Revise Its Rates and Charges for Electric Service and Certain Rate Design Changes (2023) – (Appearance: cost of service and rate design on behalf of the Maryland Office of the People’s Counsel)
MD PSC Case No. 9688
29. In re: Application of San Diego Gas & Electric Company for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2023 (2022) – (Appearance: business risk and cost of equity on behalf of Utility Consumers’ Action Network)
CA Public Utilities Commission Application 22-04-012
30. In re: Valley Energy, Inc. General Base Rate Increase Filing (2022) – (Appearance: gas cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2022-3032300
31. In re: Citizens’ Electric Company General Base Rate Increase Filing (2022) – (Appearance: electric cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2022-3032369
32. In re: PECO Energy Company (Gas Division) General Base Rate Increase Filing (2022) – (Appearance: gas and electric cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2022-3031113
33. In re: Petition of Eversource Gas Company of Massachusetts d/b/a Eversource Energy for Approval of its 2021 Gas System Enhancement Plan Reconciliation Filing (2022) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 22-GREC-05

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34. In re: Petition of Liberty Utilities (New England Natural Gas Company Corp.) d/b/a Liberty for Approval of its 2021 Gas System Enhancement Plan Reconciliation Filing (2022) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 22-GREC-04
35. In re: Petition of Berkshire Gas Company for Approval of its 2021 Gas System Enhancement Plan Reconciliation Filing (2022) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 22-GREC-02
36. In re: Nova Scotia Power 2022-2024 General Rate Application (2022) - (Appearance: cost of service on behalf of the Nova Scotia Utility and Review Board)
NS UARB M10431
37. In re: the Application of Northern States Power Company for Authority to Increase Rates for Natural Gas Service in North Dakota (2021) - (Appearance: cost of service and rate design on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-21-381
38. In re: Application of San Diego Gas & Electric Company for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2022 and to Reset the Annual Cost of Capital Mechanism (2021) – (Appearance: wildfire risk accounting and ratemaking on behalf of Utility Consumers’ Action Network)
CA Public Utilities Commission Application 21-08-014
39. In re: Petition of HPBS, Inc. for review and approval of Central Scheduling System (CSS) charge increase and revised CSS schedule (2021) – (Appearance: rate design on behalf of the Hawaii Department of Commerce and Consumer Affairs)
HI DCCA Docket No. PTP-2021-001
40. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2020 Gas System Enhancement Plan Reconciliation Filing (2021) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 21-GREC-06

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41. In re: Petition of Eversource Gas Company of Massachusetts d/b/a Eversource Energy for Approval of its 2020 Gas System Enhancement Plan Reconciliation Filing (2021) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 21-GREC-05
42. In re: Petition of Berkshire Gas Company for Approval of its 2020 Gas System Enhancement Plan Reconciliation Filing (2021) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 20-GREC-02
43. In re: the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in North Dakota (2021) - (Appearance: cost of service and rate design on behalf of the North Dakota Public Service Commission Advocacy Staff)
ND PSC Case No. PU-20-441
44. In re: Pike County Light & Power Company 2020 General Base Rate Increase Filing – (Appearance: gas and electric cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2020-3022134 and R-2020-3022135
45. In re: Young Brothers LLC’s Application for Approval of a New Cost of Service Model (2020) – (Appearance: cost of service on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2020-0135
46. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2019 Gas System Enhancement Plan Reconciliation Filing (2020) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 20-GREC-06
47. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2019 Gas System Enhancement Plan Reconciliation Filing (2020) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 20-GREC-05

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48. In re: Petition of Berkshire Gas Company for Approval of its 2019 Gas System Enhancement Plan Reconciliation Filing (2020) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 20-GREC-02
49. In re: Pittsburgh Water and Sewer Authority 2020 General Base Rate Increases 2020 – (Appearance: multi-year rate plan and performance-based ratemaking on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket Nos. R-2020-3017970 and R-2020-3017951
50. In re: Commonwealth Edison Company Petition for approval of a Revision to Integrated Distribution Company Implementation Plan Creation of Rate Residential Time of Use Pricing Pilot (“Rate RTOUP”) – On Rehearing (2020) – (Appearance: price signal and customer response on behalf of the Illinois Attorney General)
IL Commerce Commission Docket Nos. 18-1725/18-1824
51. In re: Hawaii Electric Company, Inc. Application for Approval of a General Rate Increase and Revised Rate Schedules and Rules (2019) - (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2019-0085
52. In re: Application of San Diego Gas & Electric Company for Authority to: (i) Adjust its Authorized Return on Common Equity, (ii) Adjust its Authorized Embedded Costs of Debt and Preferred Stock, (iii) Adjust its Authorized Capital Structure; (iv) Increase its Overall Rate of Return, (v) Modify its Adopted Cost of Capital Mechanism Structure, and (vi) Revise its Electric Distribution and Gas Rates Accordingly, and for Related Substantive and Procedural Relief (2019) – (Appearance: wildfire risk accounting and ratemaking on behalf of Utility Consumers’ Action Network)
CA Public Utilities Commission Application 19-04-017
53. In re: Proposed Amendments to N.J.A.C. 14:9 Adoption of Water and Sewer Uniform System of Accounts (2019) – (Assistance to counsel: water and sewer accounting on behalf of the Division of Rate Counsel)
NJ Board of Public Utilities Docket Nos. WX19050612 and WX19050613
54. In re: Petition of Public Service Electric and Gas Company for Approval of Gas Base Rate Adjustments Pursuant to its Gas System Modernization Program (2019) – (Assistance to Counsel: infrastructure replacement accounting)
NJ Board of Public Utilities Docket No. GE19040522
55. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2018 Gas System Enhancement Plan Reconciliation Filing (2019) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 19-GREC-06

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56. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2018 Gas System Enhancement Plan Reconciliation Filing (2019) - (Assistance to Counsel: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 19-GREC-05
57. In re: The Application of Potomac Electric Power Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2019) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9602
58. In re: PECO Energy Company Non-Bypassable Transmission Service Charge (NBT) Semiannual Adjustment (2019) - (Appearance: accounting, cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
PA Public Utility Commission Docket No. M-2018-3005860
59. In re: PECO Energy Company Transmission Formula Rate Application (2018) - (Appearance: accounting, cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
Federal Energy Regulatory Commission Docket ER17-1519-000
60. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2017 Gas System Enhancement Plan Reconciliation Filing (2018) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 18-GREC-06
61. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2017 Gas System Enhancement Plan Reconciliation Filing (2018) - (Appearance: prudence/used and useful, accounting, cost of service and rate design on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 18-GREC-05
62. In re: The Application of the Potomac Edison Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2018) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9490
63. In re: Rate Applications of Kansas City Power & Light – Missouri and Kansas City Power & Light – Greater Missouri Operations (2018) – (Appearance: consolidated operations, cost of service and rate design on behalf of the Missouri Office of Public Counsel)
MO Public Service Commission Case Nos. ER-2018-0145 and ER-2018-0146

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64. In re: The Application of Potomac Electric Power Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2018) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9472
65. In re: Mid-Atlantic Interstate Transmission, L.L.C. 2018 Transmission Formula Rate Protocol Filings (2018) - (Analysis and Advice to Counsel: accounting)
Federal Energy Regulatory Commission Docket ER17-211-000
66. In re: The Gas Company d/b/a Hawaii Gas Application for Approval of Rate Increases and Revised Rate Schedules and Rules (2017) - (Appearance: cost of service and rate design on behalf of the Hawaii Division of Consumer Advocacy)
HI Public Utilities Commission Docket No. 2017-0105
67. In re: Montana-Dakota Utilities Co., Application to Increase Natural Gas Rates (2017) - (Appearance: cost of service and rate design on behalf of the North Dakota Public Service Commission Staff)
ND Public Service Commission Case No. PU-17-295
68. In re: The Application of Delmarva Power and Light Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2017) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9455
69. In re: Petition of NSTAR Gas Company d/b/a Eversource Energy for Approval of its 2016 Gas System Enhancement Plan Reconciliation Filing (2017) - (Appearance: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 17-GREC-06
70. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2016 Gas System Enhancement Plan Reconciliation Filing (2017) - (Appearance: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 17-GREC-05
71. In re: In the matter of the application of Columbia Gas of Maryland, Inc. for Authority to Increase Rates and Charges (2017) - (Appearance: cost of service and rate design on behalf of the Maryland Office of People’s Counsel)
MD Public Service Commission Case No. 9447
72. In re: PJM Interconnection, L.L.C. - PECO Energy Company Transmission Formula Rate Application (2017) - (Analysis and Advice to Counsel: accounting, cost of service and rate design)
Federal Energy Regulatory Commission Docket ER17-1519-000

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73. In re: Northern Illinois Gas Company d/b/a Nicor Gas Company Proposed General Increase in Gas Rates (2017) - (Appearance: prudence/used and useful and plant accounting re. accelerated asset replacement program on behalf of the Illinois Citizens Utility Board)
IL Commerce Commission Docket No. 17-0124
74. In re: The Application of Potomac Electric Power Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2017) - (Appearance: cost of service and rate design on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9443
75. In re: PJM Interconnection, L.L.C. - Rockland Electric Company Transmission Rate Application (2017) (Analysis and Advice to Counsel: accounting, cost of service and rate design on behalf of the New Jersey Division of Rate Counsel)
Federal Energy Regulatory Commission Docket ER17-856-000
76. In re: PJM Interconnection, L.L.C. - Mid-Atlantic Interstate Transmission, L.L.C. Transmission Formula Rate Application (2016) - (Analysis and Advice to Counsel: accounting, cost of service and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
Federal Energy Regulatory Commission Docket ER17-211-000
77. In re: The Application of Delmarva Power and Light Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2016) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9424
78. In re: The Application of Potomac Electric Power Company for Adjustments to Its Retail Rates for the Distribution of Electric Energy (2016) – (Appearance: cost of service and rate design on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9418
79. In re: Petition of Fitchburg Gas and Electric Light Company d/b/a Unitil for Approval of its 2015 Gas System Enhancement Plan Reconciliation Filing (2016) - (Analysis and Advice to Counsel: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-01
80. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of its 2015 Gas System Enhancement Plan Reconciliation Filing (2016) - (Appearance: prudence/used and useful and plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 16-GREC-05

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81. In re: Petition for Approval of Gas Infrastructure Contract Between Public Service Company of New Hampshire d/b/a Eversource Energy and Algonquin Gas Transmission, LLC (2016) - (Appearance: compliance with statutes and regulations, prudence, cost/benefit, and ratemaking on behalf of the New Hampshire Office of Consumer Advocate)
NH Public Utilities Commission Docket No. DE 16-241
82. In re: Central Maine Power Company, Annual Compliance Filing and Price Change (2016) - (Analysis and Advice to Counsel: tax normalization regulatory asset on behalf of the Maine Office of the Public Advocate)
ME Public Service Commission Docket No. 2016-00035
83. In re: Bulletin 2015-10 Generic Proceeding to Establish Parameters for the Next Generation PBR Plans (2016) - (Appearance: productivity adjustments/performance based ratemaking on behalf of the Alberta Utilities Consumer Advocate)
Alberta Utilities Commission Proceeding 20414
84. In re: Emera Maine, Proposed Rate Increase in Rates (2016) - (Analysis and Advice to Counsel: evaluation of management audit of implementation of Customer Information System on behalf of the Maine Office of the Public Advocate)
ME Public Service Commission Docket No. 2015-00360
85. In re: The Merger of the Southern Company and AGL Resources Inc.- Joint Application of the Southern Company, AGL Resources Inc., and Pivotal Utility Holdings, Inc., d/b/a Elkton Gas (2015-2016) - (Appearance: earnings, synergy savings, rates, operations, supply procurement, safety, and reliability on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9404
86. In re: Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval of Firm Transportation Agreements with Millennium Pipeline Company, LLC (2015-2016) - (Analysis, Advice to Counsel, and Assistance on Brief: compliance with gas supply plan, rates, and reliability on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 15-142
87. In re: Petition of Boston Gas Company and Colonial Gas Company d/b/a National Grid for Approval of Precedent Agreements with Millennium Pipeline Company, LLC (2015-2016)
- (Analysis, Advice to Counsel, and Assistance on Brief: compliance with gas supply plan, rates, and reliability on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 15-130

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88. In re: Petition of Boston Gas Company and Colonial Gas Company d/b/a National Grid for Approval of Agreements for LNG or Liquefaction Services with GDF Suez Gas NA, LLC; Northeast Energy Center, LLC; Gaz Metro LNG, L.P.; and National Grid LNG (2015- 2016) - (Analysis and Advice to Counsel: compliance with gas supply plan, rates, and reliability on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 15-129
89. In re: Columbia Gas of Massachusetts CY2014 Targeted Infrastructure Reinvestment Factor Compliance Filing (2015) - (Appearance: PBR tracker design/rates, prudence/used and useful, plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 15-55
90. ENMAX Energy Corporation (EEC) 2015-2016 Regulated Rate Option Non-Energy Tariff Application (2015-2016) - (Appearance: cost allocation, rate design, non-energy risk on behalf of the Alberta Utilities Consumer Advocate)
Alberta Utilities Commission Proceeding 20480
91. In the Matter of the Merger of Exelon Corporation and Pepco Holdings, Inc. (2014) - (Advice to Counsel: impact on customers on behalf of the New Jersey Division of Rate Counsel)
NJ Board of Public Utilities BPU Docket No. EM1406
92. In re: Application of Baltimore Gas and Electric Company For Adjustments To Its Electric and Gas Base Rates (2014) (Analysis and Advice to Counsel in Settlement: earnings, investment tracker, cost allocation and rate design on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9355
93. In re: Columbia Gas of Massachusetts CY2013 Targeted Infrastructure Reinvestment Factor Compliance Filing (2014) - (Appearance: PBR tracker design/rates, prudence/used and useful, plant accounting on behalf of the Massachusetts Attorney General Office of Ratepayer Advocacy)
MA Department of Public Utilities Docket No. D.P.U. 14-83
94. In re: Potential Business Combination of Entergy Louisiana, LLC and Entergy Gulf States Louisiana, L.L.C. (2014-2015) - (Analysis and Advice to Counsel: impact on rates and consolidation of rates on behalf of the Louisiana Public Service Commission Staff)
LA Public Service Commission Docket No.U-33244
95. In the Matter of the Application of Ohio Power Company to Adopt a Final Implementation Plan for the Retail Stability Rider (2014) - (Analysis and Advice to Counsel: rate design)
OH Public Utilities Commission Case No. 14-1186-EL-RDR

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96. In re: Examination of Long-Term Natural Gas Hedging Proposals (2014-2015) -
(Analysis and Advice to Counsel: natural gas procurement on behalf of the Louisiana
Public Service Commission Staff)
LA Public Service Commission Docket No.R-32975-LPSC, ex parte
97. In re: 2013 Integrated Resource Planning Process for Southwestern Electric Power
Company Pursuant to General Order Dated April, 20, 2012 (2014-2015 - (Analysis
and Advice to Counsel: IRP design and evaluation on behalf of the Louisiana Public
Service Commission Staff)
LA Public Service Commission Docket No.I-33013 SWEPCO, ex parte
98. In the Matter of the Application of Columbia Gas of Maryland, Inc. for Authority to
Adopt an Infrastructure Replacement Surcharge Mechanism (2013-2014) -
(Appearance: PBR tracker design/rates, prudence/used and useful, plant accounting on
behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9332
99. In the Matter of the Application of Baltimore Gas and Electric Company for Approval
of a Gas System Strategic Infrastructure Development and Enhancement Plan and
Accompanying Cost Recovery Mechanism (2013-2014) - (Appearance: PBR tracker
design/rates, prudence/used and useful, plant accounting on behalf of the Maryland
Office of People's Counsel)
MD Public Service Commission Case No. 9331
100. In the Matter of the Application of Delmarva Power & Light Company for an
Increase in Electric Base Rates and Miscellaneous Tariff Changes (2013-2014) -
(Appearance: earnings, investment tracker design/rates, cost allocation and rate
design on behalf of the Delaware Public Service Commission Staff)
DE Public Service Commission Docket No. 13-115
101. In the Matter of the Application of Northern States Power Company for Authority to
Increase Rates for Electric Service in North Dakota (2013) - (Appearance: cost
allocation and rate design on behalf of the North Dakota Public Service Commission
Staff)
ND Public Service Commission Case No. PU-12-813
102. In the Matter of the Application of Columbia Gas of Maryland, Inc. for Authority
to Increase Rates and Charges (2013) - (Appearance: expense tracker design/rates
and evaluation on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9316

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103. In the Matter of the Application of Baltimore Gas and Electric Company for Adjustment in its Electric and Gas Base Rates (2012) - (Appearance: earnings, investment tracker design/rates, cost allocation and rate design on behalf of the Maryland Office of People's Counsel)
MD Public Service Commission Case No. 9299
104. In the Matter of the Application of Delmarva Power & Light Company for an Increase in Electric Base Rates and Miscellaneous Tariff Changes (2012) - (Appearance: earnings, investment tracker design/rates, cost allocation and rate design on behalf of the Delaware Public Service Commission Staff)
DE Public Service Commission Docket No. 11-528
105. ENMAX Energy Corporation (EEC) 2012-2014 Regulated Rate Option Non-Energy Tariff Application (2012-2013) - (Analysis and Advice to Counsel: rate design and non-energy risk on behalf of the Alberta Utilities Consumer Advocate)
Alberta Utilities Commission Application #1608745 Proceeding 2069
106. In the Matter of the Petition of Atlantic City Electric Company for Approval of Amendments to Its Tariff to Provide for an Increase in Rates and Charges for Electric Service Pursuant to *N.J.S.A.* 48:2-21 and *N.J.S.A.* 48:2-21.1 and for Other Appropriate Relief (2011) - (Analysis and Advice to Counsel: depreciation on behalf of the New Jersey Division of Rate Counsel)
NJ Board of Public Utilities Docket No. ER11080469
107. In the Matter of the Application of the Potomac Electric Power Company for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service (2011) - (Appearance: investment tracker design/rates, cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1087
108. Electric Transmission Formula Rate Annual Informational Filing of Central Maine Power Company (2011) - (Advice to Counsel: formula transmission rates, cost allocation and rate design on behalf of the Maine Attorney General)
Federal Energy Regulatory Commission Docket No. ER09-934-000 (2011)
109. Electric Transmission Formula Rate Annual Informational Filing of Bangor Hydro Electric Company (2011) - (Analysis, Report and Advice to Counsel: formula rate on behalf of the Massachusetts Attorney General)
Federal Energy Regulatory Commission Docket No. ER09-938-000
110. Pennsylvania Public Utility Commission Office of Consumer Advocate Office of Small Business Advocate v. City of Bethlehem – Bureau of Water (2011) - (Appearance: cost allocation and rate design on behalf of the Pennsylvania Office of Consumer Advocate)
Pennsylvania PUC Docket Nos. R-2011-2244756, C-2011-2246910, and C-2011-2248241

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111. Southern California Edison Company Transmission Owners Tariff (2011) - (Analysis and Advice to Counsel: depreciation on behalf of M-S-R Public Power Agency)
Federal Energy Regulatory Commission Docket No. ER11-2061-000
112. In the Matter of the Petition of Kansas City Power & Light Company for Determination of the Ratemaking Principles and Treatment that Will Apply to the Recovery in Rates of the Cost to be Incurred by KCP&L for Certain Electric Generation Facilities under K.S.A. 66- 1239 (2011) - (Appearance: advance determination of prudence on behalf of the Kansas Citizens' Utility Ratepayer Board)
Kansas Corporation Commission Docket No. 11-KCPE-581-PRE
113. Midwest Independent Transmission System Operator, Inc., and Ameren Illinois Company (2011) - (Analysis and Advice to Counsel: depreciation on behalf of the Wholesale Distribution Service Customer Group)
Federal Energy Regulatory Commission Docket No. ER11-2788-000
114. Electric Generation Plant Valuation Study (2010-2012) - (Analysis: generation plant valuation)
California Department of Water Resources
115. Tampa Electric Company Wholesale Power Tariff (2010-2011) - (Analysis and Advice to Counsel: depreciation on behalf of the Orlando Utilities Commission)
Federal Energy Regulatory Commission Docket No. ER10-2061-000
116. Pacific Gas & Electric Company, Transmission Owner Tariff (2010-2011) - (Analysis and Advice to Counsel: depreciation on behalf of the Transmission Agency of Northern California)
Federal Energy Regulatory Commission Docket No. ER10-2026-000
117. Natural Gas Price Forecast Model Consulting (2008-2010) - (line of business development) FTI Consulting
118. Impact Evaluation Study of the District of Columbia Department of the Environment's Two-Year Pilot Reliable Energy Trust Fund Programs (2007-2008) - (Appearance: evaluation of implementation and cost effectiveness of energy efficiency, renewable energy, and demand response pilot programs on behalf of the District of Columbia Department of the Environment)
D.C. Public Service Commission Formal Case No. 945
119. In the Matter of the Application of the Potomac Electric Power Company for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service (2007-2008)- Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1053

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120. In the Matter of the Investigation of Interconnection Standards in the District of Columbia (2006) - (Analysis and Advice to Counsel: interconnection standards and tariff design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1050
121. In the Matter of the Investigation into the Omnibus Utility Emergency Amendment Act of 2005, Specifically Regarding the Establishment of the Natural Gas Trust Fund Programs (2006) - (Analysis and Advice to Counsel: program design on behalf of the District of Columbia Department of the Environment)
D.C. Public Service Commission Formal Case No. 1037
122. Emergency Application of the Potomac Electric Power Company For A Certificate of Public Convenience and Necessity To Construct Two 69kV Overhead Transmission Lines and Notice of The Proposed Construction of Two Underground 230kV Transmission Lines (2005-2006) - (Appearance: facilities need on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1044
123. Investigation Into Potomac Electric Power Company's Distribution Service Rates (2003- 2005) - (Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1032
124. Investigation of the Feasibility of Removing Pre-Existing Aboveground Utility Lines and Cables and Relocating Them Underground in the District of Columbia (2003) - (Analysis and Advice to Counsel: cost/benefit analysis on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1026
125. Guadalupe L. Garcia v. Ann Veneman, Secretary, US Department of Agriculture (2003- 2006) - (Appearance: statistical analysis on behalf of the Plaintiff)
U.S. District Court for the District of Columbia
126. Mirant Corporation, et al., Debtors (2003-2005) - (Analysis and Advice to Counsel: cost of service on behalf of the People's Counsel for the District of Columbia)
U.S. District Court for the Northern District of Texas
127. Complaint: Office of the People's Counsel of the District of Columbia v. Mirant Americas Energy Marketing, L.P. (2003) - (Analysis and Advice to Counsel: cost of service on behalf of the People's Counsel for the District of Columbia)
Federal Energy Regulatory Commission
128. Investigation into the Effect of the Bankruptcy of Mirant Corporation on Retail Electric Service in the District of Columbia (2003-2005) - (Appearance: customer and rate impact on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1023

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129. Development and Designation of Standard Offer Service in the District of Columbia (2003- 2007) - (Appearance: cost of service allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1017
130. Independent Review Panel, Project Management Plan, Ohio River Main Stem Study (2003- 2005) - (50 year economic simulation model evaluation)
U.S. Army Corps of Engineers
131. Investigation into Affiliated Activities, Promotional Practices, and Codes of Conduct of Regulated Gas and Electric Companies (2002-2004) - (Analysis and Advice to Counsel: cost allocation on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1009
132. Independent Review Panel, Ohio River Main Stem Study, System Investment Plan (2001) - (50 year economic simulation model evaluation)
U.S. Army Corps of Engineers
133. Joint Application of PEPCO and New RC, Inc. for Authorization and Approval of Merger Transaction (2001-2002) - (Appearance: cost allocation and affiliate transactions on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 1002
134. Investigation into Explosions Occurring in Underground Distribution Systems of PEPCO (2001-2006) - (Analysis and Advice to Counsel: electric systems operation and planning on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 991
135. Pennsylvania-New Jersey-Maryland Power Pool/PJM LLC (ISO/RTO) (2000-2005) - (Member Working Group technical representation on behalf of The People's Counsel for the District of Columbia)
136. Trans Alaska Pipeline System 1996 Quality Bank Complaint Remand (2000-2008) - (Appearance: crude oil valuation and tariff rate design on behalf of ExxonMobil)
Federal Energy Regulatory Commission
137. Ohio River Main Stem Study, Independent Technical Review (1999) - (50 year economic simulation model evaluation)
U.S. Army Corps of Engineers
138. Investigation of January 1999 Electric Service Interruption (1999-2004) - (Appearance: emergency response evaluation on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 982

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139. Trans Alaska Pipeline System 1996 Quality Bank Complaint Appeal (1998-2000) - (Analysis and Advice to Counsel: technical record below on behalf of ExxonMobil)
U.S. Court of Appeals for the District of Columbia
140. Electric Retail Competition Investigation (1997-2006) - (Appearance: electric utility restructuring, electric energy procurement, cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 945
141. Trans Alaska Pipeline System 1996 Quality Bank Complaint (1996-1998) - (Appearance: crude oil valuation and tariff rate design on behalf of ExxonMobil)
Federal Energy Regulatory Commission
142. Trans Alaska Pipeline System 1989 Quality Bank Complaint Remand (1995-1998) - (Appearance: crude oil valuation and tariff rate design on behalf of ExxonMobil)
Federal Energy Regulatory Commission
143. Prudhoe Bay Unit Operating Agreement Hearings (1995) - (Analysis and Advice to Counsel: cost of service on behalf of ExxonMobil)
Alaska Oil and Gas Conservation Commission
144. Prudhoe Bay Unit Natural Gas Liquids Hearings (1995) - (Analysis and Advice to Counsel: liquids valuation on behalf of ExxonMobil)
Alaska Department of Natural Resources/Department of Revenue (1995)
145. Potomac Electric Power Co. 3rd Integrated Least-Cost Plan (1995) - (Appearance: forecast operations and costs on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 917, Phase II
146. All American Pipeline Quality Bank Complaint (1994-1995) - (Appearance: crude oil valuation and tariff rate design on behalf of ExxonMobil)
Federal Energy Regulatory Commission
147. Trans Alaska Pipeline System 1989 Quality Bank Complaint Appeal (1994-1995) - (Analysis and Advice to Counsel: technical record below on behalf of ExxonMobil)
U.S. Court of Appeals for the District of Columbia
148. Investigation of the January 1994 Energy Crisis (1994) - (Appearance: emergency response evaluation on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 936

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149. Washington Gas Light Co. Gas Rate Case (1994) - (Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 934
150. Washington Gas Light Co. 3rd Integrated Least-Cost Plan (1994) - (Appearance: forecast operations and costs on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 921
151. Potomac Electric Power Co. Electric Rate Case (1993) - (Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 929
152. Washington Gas Light Co. Gas Rate Case (1993) - (Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 922
153. Trans Alaska Pipeline System Pumpability Complaint (1992) - (Analysis and Advice to Counsel: cost of service and rate design on behalf of ExxonMobil)
Federal Energy Regulatory Commission
154. Potomac Electric Power Co. 2nd Integrated Least-Cost Plan (1992) - (Appearance: forecast operations and costs on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 917
155. Potomac Electric Power Co. Electric Rate Case (1992) - (Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 912
156. Potomac Electric Power Co. Fuel Clause Audit and Productivity Improvement Plan (1991- 2005) (Analysis, Participation in Technical Sessions, and Advice to Counsel; electric utility plant investment and operating costs productivity and benefit/cost analysis on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 766
157. Potomac Electric Power Co. Electric Rate Case (1991) - (Appearance: cost allocation and rate design on behalf of the People's Counsel for the District of Columbia)
D.C. Public Service Commission Formal Case No. 905
158. Anchorage Telephone Utility (1991-1995) - (Analysis and Advice to Counsel: cost of service)
Federal Communications Commission

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159. Trans Alaska Pipeline System 1989 Quality Bank Complaint (1990-1993) -
(Appearance: crude oil valuation and tariff rate design on behalf of ExxonMobil)
Federal Energy Regulatory Commission
160. Telefonica Larga Distancia de Puerto Rico International Service Tariffs (1990-
1992) - (Appearance: cost of service and rate design)
Federal Communications Commission
161. Southern Bell Intrastate Depreciation Study (1989-1990) - (Analysis and
Advice to Counsel: telecommunications operation)
Florida Public Service Commission
162. Lake Erie Iron Ore Antitrust Litigation: Erie-Western Pennsylvania Port Authority v.
Penn Central et al. (1988-1989) - (Analysis and Advice to Counsel: truck operations and
damages on behalf of the Norfolk and Western Railroad)
U.S. District Court for the Eastern District of Pennsylvania
163. Unimar International Chapter 11 Reorganization (1988) - (Analysis and Advice to
Counsel: cost of service on behalf of Unsecured Creditors)
U.S. Bankruptcy Court for the Western District of Washington at Seattle
164. National Forest Road Cost Analysis System (1986) - (Analysis: cost allocation
system design)
U.S. Department of Agriculture, Forest Service
165. Puerto Rico Telephone Company Long Distance Facilities and Service Applications
(1985- 1990) - (Appearance: cost of service and rate design on behalf of the Puerto Rico
Telephone Company)
Federal Communications Commission
166. All American Cable and Radio/AT&T de Puerto Rico International Rate Complaint
(1985- 1990) - (Appearance: cost of service and rate design on behalf of the Puerto Rico
Telephone Company)
Federal Communications Commission
167. Caribbean Telecommunications Facilities Planning Docket (1984-1990) -
(Appearance: operations forecast and planning on behalf of the Puerto Rico
Telephone Company)
Federal Communications Commission

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Northern States Power Company
2025 Electric Rate Increase
Application

Case No. PU-24-376

DECLARATION OF KARL PAVLOVIC

Karl Pavlovic, under penalty of perjury, states that he has read the testimony and any exhibits submitted in the above captioned matter under his name, that they were prepared by him or under his direction, that he knows the contents thereof, and that the same are true and correct to the best of his knowledge and belief.

Signed on the 7th day of July, 2025 at Gaithersburg, Maryland.

Karl Pavlovic

Karl Pavlovic