FILED December 19, 2024 INDIANA UTILITY REGULATORY COMMISSION

## STATE OF INDIANA

#### INDIANA UTILITY REGULATORY COMMISSION

PETITION OF NORTHERN INDIANA PUBLIC SERVICE ) COMPANY LLC PURSUANT TO IND. CODE §§8-1-2-42.7, ) 8-1-2-61 AND 8-1-2.5-6 FOR (1) AUTHORITY TO MODIFY ) **ITS RETAIL RATES AND CHARGES FOR ELECTRIC** OFFICIAL **UTILITY SERVICE THROUGH A PHASE IN OF RATES:** ) (2) APPROVAL OF NEW SCHEDULES OF RATES AND EXHIBITS CHARGES, GENERAL RULES AND REGULATIONS. AND RIDERS (BOTH EXISTING AND NEW); (3) APPROVAL OF REVISED COMMON AND ELECTRIC **DEPRECIATION RATES APPLICABLE TO ITS ELECTRIC PLANT IN SERVICE; (4) APPROVAL OF NECESSARY AND APPROPRIATE ACCOUNTING RELIEF, INCLUDING, BUT LIMITED TO, AUTHORITY CAUSE NO. 46120** TO CAPITALIZE AS RATE BASE ALL EXPENDITURES FOR IMPROVEMENTS TO PETITIONER'S **INFORMATION TECHNOLOGY SYSTEMS THROUGH** INTERVENOR'S-LaPorte THE DESIGN, DEVELOPMENT, AND **IMPLEMENTATION OF A WORK AND ASSET MANAGEMENT ("WAM") PROGRAM, TO THE EXTENT** EXHIBIT NO. 13-25-25 **NECESSARY; AND (5) APPROVAL OF ALTERNATIVE** PATE **REGULATORY PLANS FOR THE PARTIAL WAIVER OF** 170 IAC 4-1-16(f) AND PROPOSED REMOTE DISCONNECTION AND RECONNECTION PROCESS AND, TO THE EXTENT NECESSARY, **IMPLEMENTATION OF A LOW INCOME PROGRAM** )

#### **MELISSA WHITED**

#### VICE PRESIDENT AT SYNAPSE ENERGY ECONOMICS

#### TESTIMONY OFFERED ON BEHALF OF LA PORTE COUNTY BOARD OF COMMISSIONERS

**Intervenor's Exhibit 3** 

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# 2

1

I.

## Q. Please state your name, title, and employer.

**INTRODUCTION AND QUALIFICATIONS** 

A. My name is Melissa Whited. I am a Vice President at Synapse Energy Economics
(Synapse), located at 485 Massachusetts Avenue, Cambridge, MA 02139.

#### 5 Q. Please describe Synapse Energy Economics.

6 Synapse is a research and consulting firm specializing in electricity and gas industry A. 7 regulation, planning, and analysis. Our work covers a range of issues, including 8 economic and technical assessments of demand-side and supply-side energy resources; 9 energy efficiency policies and programs; integrated resource planning; electricity market 10 modeling and assessment; renewable resource technologies and policies; and climate 11 change strategies. Synapse works for a wide range of clients, including state attorneys 12 general, offices of consumer advocates, trade associations, public utility commissions, environmental advocates, the U.S. Environmental Protection Agency, U.S. Department of 13 14 Energy, U.S. Department of Justice, the Federal Trade Commission, and the National 15 Association of Regulatory Utility Commissioners. Synapse has over 40 professional staff with extensive experience in the electricity industry. 16

#### 17 Q. Please summarize your professional and educational experience.

A. I have 13 years of experience in economic research and consulting. At Synapse, I have
 worked extensively on issues related to utility regulatory models and rate design. I have
 been an invited speaker in numerous industry conferences, including as a panelist for the
 National Association of Regulatory Utility Commissioners (NARUC) Subcommittee on

1	Rate Design at the 2021 Winter Policy Summit and the 2018 Annual Meeting. In 2023, I	
2	was a panelist at the New England Electricity Restructuring Roundtable on	
3	Electrification, Rate Design, and Equity where I presented case studies for supporting	
4	electrification in a manner that reduces grid costs and promotes equity.	
5	I have sponsored testimony before the Massachusetts Department of Public Utilities	
6	(Department or DPU), the Illinois Commerce Commission, the New Hampshire Public	
7	Utilities Commission, the Georgia Public Service Commission, the Rhode Island Public	
8	Utilities Commission, the Maine Public Utilities Commission, the California Public	
9	Utilities Commission, the Hawaii Public Utilities Commission, the Public Service	
10	Commission of Utah, the Public Utility Commission of Texas, the Virginia State	
11	Corporation Commission, the Newfoundland and Labrador Board of Commissioners of	
12	Public Utilities, and the Federal Energy Regulatory Commission. I hold a Master of Arts	
13	in Agricultural and Applied Economics and a Master of Science in Environment and	
14	Resources, both from the University of Wisconsin-Madison. My resume is attached as	
15	Exhibit MW-1.	

16

## Q. On whose behalf are you testifying in this case?

17 A. I am testifying on behalf of the Board of County Commissioners of LaPorte County,
18 Indiana ("LaPorte County").

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1	Q.	What is the purpose of your testimony?			
2	A.	The purpose of my testimony is to address the appropriate return on equity (ROE) for			
3		Northern Indiana Public Service Company in light of its high rates and recent dismal			
4		performance related to customer satisfaction and reliability.			
5		Summary of Conclusions and Recommendations			
6	Q.	Please summarize your conclusions.			
7	A.	My conclusions are as follows:			
8		• NIPSCO's rate increase would undermine customer affordability, as its rates are			
9		already among the highest in Indiana. If NIPSCO's rate increase is granted, a			
10		typical residential customer's bill would be between 32 percent and 78 percent			
11		higher than customers of other Indiana IOUs.			
12		• Despite NIPSCO's skyrocketing rates, the Company performs poorly in customer			
13		satisfaction and service reliability. Based on data from 2021-2024, NIPSCO ranks			
14		last in business customer satisfaction and trails behind other Midwestern utilities			
15		in residential satisfaction. Its reliability performance is no better—NIPSCO's			
16		interruption duration is the worst of all Indiana IOUs.			
17		• NIPSCO's proposed ROE of 10.6 percent is unreasonable given its failure to			
18		adequately address customer affordability and service quality.			

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1	Q.	Please summarize your recommendations.
2	A.	Because NIPSCO has shown poor management efficiency in meeting its customers' needs
3		for reliable utility service at fair and reasonable rates, I recommend that the Commission
4		set NIPSCO's return on equity at the lower end of the range of reasonableness. As
5		discussed in LaPorte County witness Michael R. O'Connell's direct testimony, the lower
6		end of the range of reasonableness is 9 percent.

## 7 II. NIPSCO'S REQUESTED RATE INCREASE

## 8 Q. Please describe NIPSCO's requested rate increase.

9 A. NIPSCO has requested a system-wide revenue increase of 20.1 percent, which is based

10 on a 10.6 percent return on equity.<sup>1</sup> This revenue request follows close on the heels of

11 NIPSCO's last case, decided in 2023, in which the Company was awarded a rate increase

12 of approximately 19 percent.<sup>2</sup>

## 13 Q. How would NIPSCO's requested rate increase impact customers?

- 14 A. NIPSCO's requested rate increase raises serious affordability concerns. In recent years,
- 15 NIPSCO's rates have skyrocketed, as have customer bills. NIPSCO's residential
- 16 customers already pay the highest electric bills of any investor-owned utility (IOU) in
- 17 Indiana, and this would only be exacerbated by NIPSCO's requested rate increase.

<sup>&</sup>lt;sup>1</sup> Cause No. 46120. Petitioner's Exhibit No. 2. September 12, 2024. Pages 22-23.

<sup>&</sup>lt;sup>2</sup> According to the order approving the settlement, NIPSCO originally proposed a revenue increase of \$395 million, equal to an increase of 25.85%. The settlement approved an increase of \$291.8 million, or approximately a 19% increase in rates. Indiana Utility Regulatory Commission. Cause No. 45772. Order of the Commission. August 2, 2023, at 7-10.

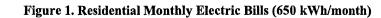
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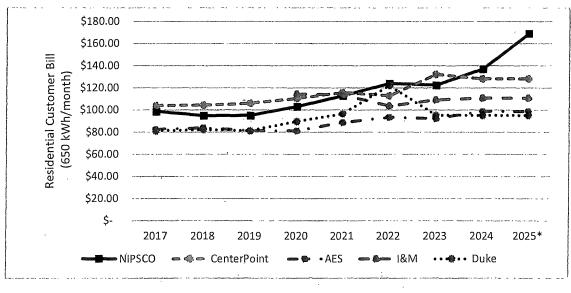
- 1 Currently, a residential customer averaging 650 kWh per month pays a bill of
- 2 approximately \$137. If NIPSCO's rate increase is granted, this customer's bill would

3 jump to \$169/month—a 72 percent increase from 2017.<sup>3</sup>

## 4 Q. Are NIPSCO's rates in line with other Indiana electric utilities?

A. No. If NIPSCO's rate increase is granted, an average residential customer's bill would be
32 percent higher than at any other Indiana IOUs, and 78 percent higher than at Duke
Indiana.<sup>4</sup> The degree to which NIPSCO's rates exceed its peers is illustrated in the figure
below, with the residential bill for a NIPSCO customer shown by the red solid line.





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Note: 2025 assumes that NIPSCO's requested rate increase is granted. It does not assume any rate increase for other utilities.

<sup>&</sup>lt;sup>3</sup> Synapse analysis based on RateAcuity historical utility rate database.

<sup>&</sup>lt;sup>4</sup> Synapse analysis based on RateAcuity historical utility rate database.

## 1 III. NIPSCO'S RELIABILITY AND CUSTOMER SATISFACTION PERFORMANCE

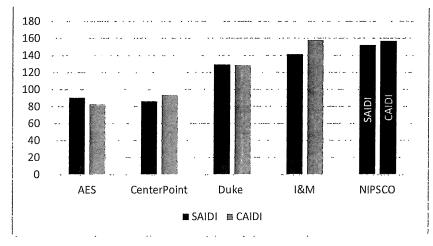
#### 2 Q. Please describe NIPSCO's reliability performance relative to its peers.

- 3 A. Based on the 2023 IURC Electric Utility Reliability Report, NIPSCO's reliability
- 4 performance has been among the worst in Indiana in recent years. For example, for the
- 5 period of 2019-2023, the average duration of NIPSCO's service outages (excluding major
- 6 event days) was longer than any other Indiana electric IOU.<sup>5</sup> NIPSCO's average SAIDI
- 7 (System Average Interruption Duration Index) performance relative to other Indiana
- 8 utilities is shown in Figure 2 below.
- 9 Further, the average outage time experienced by NIPSCO customers was nearly the
- 10 highest of all of the Indiana electric investor-owned utilities. This is shown by CAIDI

11 (Customer Average Interruption Duration Index) in the figure below.

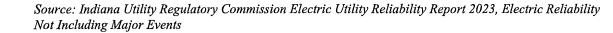
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#### Figure 2. 2019-2023 Reliability Statistics for Indiana IOUs



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<sup>&</sup>lt;sup>5</sup> Indiana Utility Regulatory Commission Electric Utility Reliability Report 2023, Electric Reliability Not Including Major Events, p. 5. Available at <u>https://www.in.gov/iurc/files/Electric-Utility-Reliability-Report-2023.pdf</u>.

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- 1Q.Please describe NIPSCO's customer service performance relative to its peers.2A.NIPSCO's customer satisfaction scores, as reported by J.D. Power, fluctuate yearly but3are generally poor. Satisfaction among business customers is especially dismal, with4NIPSCO ranking last out of all electric utilities in the Midwest surveyed by J.D. Power5based on the average of its scores for the period 2021-2024.6 NIPSCO's average score6relative to these other utilities is shown in the figure below.
  - Figure 3. Average J.D. Power Customer Satisfaction Score for Midwestern Utilities Business Customers Based on Average of 2021-2024

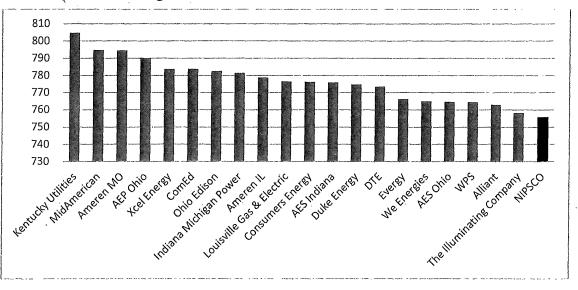
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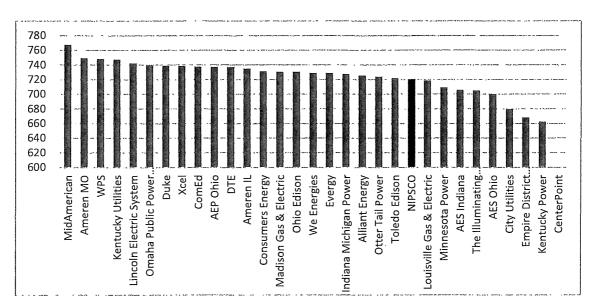
Customer satisfaction has been higher among residential customers than business

customers for the period 2021-2024, but NIPSCO still trails most other utilities in the

<sup>&</sup>lt;sup>6</sup> J.D. Power electric utility satisfaction data for business customers from 2021-2024 available at: <u>https://www.jdpower.com/business/press-releases/2021-electric-utility-business-customer-satisfaction-study,</u> <u>https://www.jdpower.com/business/press-releases/2022-electric-utility-business-customer-satisfaction-study,</u> <u>https://www.jdpower.com/business/press-releases/2023-electric-utility-business-customer-satisfaction-study,</u> <u>https://www.jdpower.com/business/press-releases/2023-electric-utility-business-customer-satisfaction-study,</u> <u>and https://www.jdpower.com/business/press-releases/2024-electric-utility-business-customer-satisfaction-study,</u> and <u>https://www.jdpower.com/business/press-releases/2024-electric-utility-business-customer-satisfaction-study.</u>

- 1 Midwest. The Company's average score places it 22<sup>nd</sup> out of 31 utilities, as shown in the
- 2 figure below.<sup>7</sup>

## Figure 4. Average J.D. Power Customer Satisfaction Score for Midwestern Utilities - Residential Customers Based on Average of 2021-2024



## 6 Q. Has NIPSCO's customer satisfaction performance improved in recent years?

- A. After falling to its lowest point in 2022, NIPSCO posted improvements in business
  customer satisfaction performance for 2023 and 2024. However, at the same time, its
  residential customer satisfaction has fallen steadily since 2021. Thus, there are no clear
  indications that NIPSCO is making meaningful improvements in terms of customer
- 11 satisfaction.

<sup>&</sup>lt;sup>7</sup> J.D. Power electric utility satisfaction data for residential customers from 2021-2024 available at: <u>https://www.jdpower.com/business/press-releases/2021-electric-utility-business-customer-satisfaction-study,</u> <u>https://www.jdpower.com/business/press-releases/2022-electric-utility-residential-customer-satisfaction-study,</u> <u>https://www.jdpower.com/business/press-releases/2023-electric-utility-residential-customer-satisfaction-study,</u> <u>and https://www.jdpower.com/business/press-releases/2024-us-electric-utility-residential-customer-satisfaction-study,</u> <u>study.</u>

1	IV.	ADJUSTMENTS TO UTILITY EARNINGS BASED ON PERFORMANCE	
2 3	Q.	Is it reasonable for the Commission to consider NIPSCO's performance when setting its ROE?	
4	А.	Yes. In the absence of competition, the Commission serves as a substitute for market	
5		forces to ensure that utilities furnish reasonably adequate service and facilities, that the	
6		rates charged are just and reasonable, and that utilities generally act in the public interest.	
7 8	Q.	Has the Commission previously considered utilities' performance when setting the allowed ROE?	
9	A.	Yes. For example, in Cause No. 42359, the Commission recognized that a utility's	
10		performance is an appropriate consideration in determining a utility's cost of equity, and	
11		that both a utility's reliability and the quality of its customer service deserve	
12		consideration in the Commission's cost of equity determination. <sup>8</sup>	
13		With respect to NIPSCO specifically, in the Company's 2008 rate case, the Commission	
14		pointed to NIPSCO's three-year trend of poor customer satisfaction and stated that the	
15		Commission sometimes needs to "send a clear and direct message to utility management	
16		concerning the need for improvement in the provision of its utility service." <sup>9</sup> The	
17		Commission noted that its determination of the authorized cost of equity can be a direct	
18		way to incentivize improved utility service. Given these considerations, the Commission	
19		approved an ROE that it recognized as reflecting the low end of the reasonable range.	

<sup>8</sup> Commission Order in Cause No. 42359. May 18, 2004. Page 53.

<sup>9</sup> Commission Order in Cause No. 43526. August 25, 2010. Page 32.

Finally, the Commission noted that improved performance could justify a higher return in
 the next rate case.<sup>10</sup>

3	0.	How should the Commission consider NIPSCO's performance	e in this proceeding	g?
-	ו	How should the commission constant for second performance	e m emp proceeding	ο.

- 4 A. I urge the Commission to consider NIPSCO's performance in terms of affordability,
- 5 customer satisfaction, and reliability. NIPSCO's skyrocketing rates indicate poor
- 6 management efficiency, particularly when viewed in light of its dismal customer
- 7 satisfaction ratings and reliability. Because NIPSCO has failed to meet its customers'
- 8 needs for reliable utility service at fair and reasonable rates, I recommend that the
- 9 Commission set NIPSCO's return on equity at or near the lowest level of the range of
- 10 reasonableness. As discussed in LaPorte County witness Michael R. O'Connell's direct
- 11 testimony, the lower end of the range of reasonableness is 9 percent.
- 12

Q.

## Does this conclude your testimony?

13 A. Yes, it does.

<sup>&</sup>lt;sup>10</sup> Commission Order in Cause No. 43526. August 25, 2010. Pages 31-33.



#### Melissa Whited, Vice President, Consulting

Synapse Energy Economics | 485 Massachusetts Avenue, Suite 3 | Cambridge, MA 02139 | 617-453-7024 mwhited@synapse-energy.com

#### **PROFESSIONAL EXPERIENCE**

Synapse Energy Economics, Cambridge MA. Vice President, April 2023 – Present; Senior Principal, May 2022 – April 2023, Principal Associate, 2017 – May 2022, Senior Associate, 2015 – 2017, Associate, 2012 – 2015

Consult and provide analysis of rate design proposals, alternative regulation, and other topics including distributed energy resources and electric vehicles. Develop expert witness testimony in public utility commission proceedings. Author reports on topics at the intersection of utility regulation, customer protection, and environmental impacts.

**University of Wisconsin - Madison**, Department of Agricultural and Applied Economics, Madison, WI. *Teaching Assistant – Environmental Economics*, 2011 – 2012

Developed teaching materials and led discussions on cost-benefit analysis, carbon taxes and cap-and-trade programs, management of renewable and non-renewable resources, and other topics.

**Public Service Commission of Wisconsin, Water Division**, Madison, WI. *Program and Policy Analyst -Intern*, Summer 2009

Researched water conservation programs nationwide to develop a proposal for Wisconsin's state conservation program. Developed spreadsheet model to calculate avoided costs of water conservation in terms of energy savings and avoided emissions.

Synapse Energy Economics, Cambridge, MA. Communications Manager, 2005 - 2008

Developed technical proposals for state and federal agencies, environmental and public interest groups, and businesses. Edited reports on energy efficiency, integrated resource planning, greenhouse gas regulations, renewable resources, and other topics.

#### **EDUCATION**

University of Wisconsin, Madison, WI Master of Arts in Agricultural and Applied Economics, 2012 Certificate in Energy Analysis and Policy National Science Foundation Fellow

**University of Wisconsin,** Madison, WI Master of Science in Environment and Resources, 2010 Certificate in Humans and the Global Environment Nelson Distinguished Fellowship

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#### » EXHIBIT

MW-1

Southwestern University, Georgetown, TX

Bachelor of Arts in International Studies, Magna cum laude, 2003.

## ADDITIONAL SKILLS

- Econometric Modeling Linear and nonlinear modeling including time-series, panel data, logit, probit, and discrete choice regression analysis
- Nonmarket Valuation Methods for Environmental Goods Hedonic valuation, travel cost method, and contingent valuation
- Cost-Benefit Analysis
- Input-Output Modeling for Regional Economic Analysis

## **FELLOWSHIPS AND AWARDS**

- Winner, M. Jarvin Emerson Student Paper Competition, Journal of Regional Analysis and Policy, 2010
- Fellowship, National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT), University of Wisconsin Madison, 2009
- Nelson Distinguished Fellowship, University of Wisconsin Madison, 2008

## PUBLICATIONS

Whited, M., P. Knight, S. Kwok, P. Silva. 2024. *Charting the Wind: Quantifying the Ratepayer, Climate, and Public Health Benefits of Offshore Wind in New England*. Synapse Energy Economics for Sierra Club.

Shenstone-Harris, S., A. Zeng, L. Metz, M. Whited. 2024. On the Road to Fleet Electrification: A Framework for Estimating Distribution System Impacts of Medium- and Heavy-Duty Vehicle Electrification. Synapse Energy Economics for Advanced Energy United.

Borden, E., B. Havumaki, A. Lawton, M. Whited. 2023. *Establishing Income Based Fixed Charged in California.* Synapse Energy Economics for The Utility Reform Network and Natural Resources Defense Council.

Metz, L., M. Whited, P. Rhodes, E. Carlson. 2023. *Distribution System Investments to Enable Mediumand Heavy-Duty Vehicle Electrification*. Synapse Energy Economics for the Environmental Defense Fund.

Whited, M. 2021. *Implementing PBR with Customer Protections in North Carolina: Docket E-100, Sub 178*. Synapse Energy Economics for the Carolina Utility Customers Association.

Kallay, J., A. Napoleon, J. Hall, B. Havumaki, A. Hopkins, M. Whited, T. Woolf, J. Stevenson, R. Broderick, R. Jeffers, B. Garcia. 2021. *Regulatory Mechanisms to Enable Investments in Electric Utility Resilience.* Synapse Energy Economics for Sandia National Laboratories. Kallay, J., A. Napoleon, B. Havumaki, J. Hall, C. Odom, A. Hopkins, M. Whited, T. Woolf, M. Chang, R. Broderick, R. Jeffers, B. Garcia. 2021. *Performance Metrics to Evaluate Utility Resilience Investments.* Synapse Energy Economics for Sandia National Laboratories.

Kallay, J., A. Hopkins, A. Napoleon, B. Havumaki, J. Hall, M. Whited, M. Chang., R. Broderick, R. Jeffers, K. Jones, M. DeMenno. 2021. *The Resilience Planning Landscape for Communities and Electric Utilities.* Synapse Energy Economics for Sandia National Laboratories.

Woolf, T., L. Schwartz, B. Havumaki, D. Bhandari, M. Whited. 2021. *Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends, Challenges, and Considerations*. Prepared by Lawrence Berkeley National Laboratory and Synapse Energy Economics for the Grid Modernization Laboratory Consortium of the U.S. Department of Energy.

Camp, E., B. Havumaki, T. Vitolo, M. Whited. 2020. *Future of Solar PV in the District of Columbia: Feasibility, Projections, and Rate Impacts of the District's Expanded RPS.* Synapse Energy Economics for the District of Columbia Office of the People's Counsel.

National Energy Screening Project. 2020. *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources*. E4TheFuture, Synapse Energy Economics, Energy Futures Group, ICF, Pace Energy and Climate Center, Schiller Consulting, Smart Electric Power Alliance.

Whited, M., J. Frost, B. Havumaki. 2020. *Best Practices for Commercial and Industrial EV Rates*. A guide prepared by Synapse Energy Economics for Natural Resources Defense Council.

Knight, P., E. Camp, D. Bhandari, J. Hall, M. Whited, B. Havumaki, A. Allison, N. Peluso, T. Woolf. 2019. *Making Electric Vehicles Work for Utility Customers: A Policy Handbook for Consumer Advocates.* Synapse Energy Economics for the Energy Foundation.

White, D., K. Takahashi, M. Whited, S. Kwok, D. Bhandari. 2019. *Memphis and Tennessee Valley Authority: Risk Analysis of Future TVA Rates for Memphis.* Synapse Energy Economics for Friends of the Earth.

Whited, M., B. Havumaki. 2019. *GD2019 04 M: DC DOEE Comments Responding to Notice of Inquiry.* Synapse Energy Economics for the District of Columbia Department of Energy and Environment.

Whited, Melissa. 2019. *DCG Comments on Technical Conference III Regarding F.C. 1156.* Synapse Energy Economics for the District of Columbia Department of Energy and Environment.

Whited, M., C. Roberto. 2019. *Multi-Year Rate Plans: Core Elements and Case Studies*. Synapse Energy Economics for Maryland PC51 and Case 9618.

Knight, P., E. Camp, C. Odom, E. Malone, M. Whited, J. Hall. 2019. *Exploring Equity in Residential Solar: A preliminary examination of who is installing solar in the Commonwealth of Massachusetts*. Synapse Energy Economics.

Hopkins, A. S., K. Takahashi, D. Glick, M. Whited. 2018. *Decarbonization of Heating Energy Use in California Buildings: Technology, Markets, Impacts, and Policy Solutions*. Synapse Energy Economics for the Natural Resources Defense Council.

Whited, M., J. Kallay, D. Bhandari, B. Havumaki. 2018. *Driving Transportation Electrification Forward in Pennsylvania: Considerations for Effective Transportation Electrification Ratemaking*. Synapse Energy Economics for Natural Resources Defense Council.

Hall, J., J. Kallay, A. Napoleon, K. Takahashi, M. Whited. 2018. *Locational and Temporal Values of Energy Efficiency and other DERs to Transmission and Distribution Systems*. Synapse Energy Economics.

Woolf, T., J. Hall, M. Whited. 2018. *Earnings Adjustment Mechanisms to Support New York REV Goals: Outcome-Based, Program-Based, and Action-Based Options*. Synapse Energy Economics for Advanced Energy Economy Institute.

Whited, M., A. Allison, R. Wilson. 2018. *Driving Transportation Electrification Forward in New York: Considerations for Effective Transportation Electrification Rate Design*. Synapse Energy Economics on behalf of the Natural Resources Defense Council.

Allison, A. and M. Whited. 2018. "Electric Vehicles Still Not Crashing the Grid: Updates from California." Synapse Energy Economics on behalf of the Natural Resources Defense Council.

Fisher, J., M. Whited, T. Woolf, D. Goldberg. 2018. *Utility Investments for Market Transformation: How Utilities Can Help Achieve Energy Policy Goals.* Synapse Energy Economics for Energy Foundation.

Whited, M., T. Woolf. 2018. *Electricity Prices in the Tennessee Valley: Are customers being treated fairly?* Synapse Energy Economics for the Southern Alliance for Clean Energy.

Woolf, T., A. Hopkins, M. Whited, K. Takahashi, A. Napoleon. 2018. *Review of New Brunswick Power's 2018/2019 Rate Case Application*. In the Matter of the New Brunswick Power Corporation and Section. 103(1) of the Electricity Act Matter No. 375. Synapse Energy Economics for the New Brunswick Energy and Utilities Board Staff.

Whited, M., T. Vitolo. 2017. Reply comments in District of Columbia Public Service Commission Formal Case No. 1130: *Reply Comments of the Office of the People's Counsel for the District of Columbia Regarding Pepco's Comments on the Office of the People's Counsel's Value of Solar Study*. Synapse Energy Economics. July 24, 2017.

Whited, M., A. Horowitz, T. Vitolo, W. Ong, T. Woolf. 2017. *Distributed Solar in the District of Columbia: Policy Options, Potential, Value of Solar, and Cost-Shifting*. Synapse Energy Economics for the Office of the People's Counsel for the District of Columbia.

Whited, M., E. Malone, T. Vitolo. 2016. *Rate Impacts on Customers of Maryland's Electric Cooperatives: Impacts on SMECO and Choptank Customers*. Synapse Energy Economics for Maryland Public Service Commission.

Woolf, T., M. Whited, P. Knight, T. Vitolo, K. Takahashi. 2016. *Show Me the Numbers: A Framework for Balanced Distributed Solar Policies.* Synapse Energy Economics for Consumers Union.

Whited, M., T. Woolf, J. Daniel. 2016. *Caught in a Fix: The Problem with Fixed Charges for Electricity*. Synapse Energy Economics for Consumers Union.

Lowry, M. N., T. Woolf, M. Whited, M. Makos. 2016. *Performance-Based Regulation in a High Distributed Energy Resources Future*. Pacific Economics Group Research and Synapse Energy Economics for Lawrence Berkley National Laboratory.

Woolf, T., M. Whited, A. Napoleon. 2015-2016. *Comments and Reply Comments in the New York Public Service Commission Case 14-M-0101: Reforming the Energy Vision*. Comments related to Staff's (a) a benefit-costs analysis framework white paper, (b) ratemaking and utility business models white paper, and (c) Distributed System Implementation Plan guide. Synapse Energy Economics on behalf of Natural Resources Defense Council and Pace Energy and Climate Center.

Luckow, P., B. Fagan, S. Fields, M. Whited. 2015. *Technical and Institutional Barriers to the Expansion of Wind and Solar Energy*. Synapse Energy Economics for Citizens' Climate Lobby.

Wilson, R., M. Whited, S. Jackson, B. Biewald, E. A. Stanton. 2015. *Best Practices in Planning for Clean Power Plan Compliance*. Synapse Energy Economics for the National Association of State Utility Consumer Advocates.

Whited, M., T. Woolf, A. Napoleon. 2015. *Utility Performance Incentive Mechanisms: A Handbook for Regulators*. Synapse Energy Economics for the Western Interstate Energy Board.

Stanton, E. A., S. Jackson, B. Biewald, M. Whited. 2014. *Final Report: Implications of EPA's Proposed "Clean Power Plan."* Synapse Energy Economics for the National Association of State Utility Consumer Advocates.

Peterson, P., S. Fields, M. Whited. 2014. *Balancing Market Opportunities in the West: How participation in an expanded balancing market could save customers hundreds of millions of dollars.* Synapse Energy Economics for the Western Grid Group.

Woolf, T., M. Whited, E. Malone, T. Vitolo, R. Hornby. 2014. *Benefit-Cost Analysis for Distributed Energy Resources: A Framework for Accounting for All Relevant Costs and Benefits*. Synapse Energy Economics for the Advanced Energy Economy Institute.

Peterson, P., M. Whited, S. Fields. 2014. *Synapse Comments on FAST Proposals in ERCOT*. Synapse Energy Economics for Sierra Club.

Hornby, R., N. Brockway, M. Whited, S. Fields. 2014. *Time-Varying Rates in the District of Columbia*. Synapse Energy Economics for the Office of the People's Counsel for the District of Columbia, submitted to Public Service Commission of the District of Columbia in Formal Case No. 1114. Peterson, P., M. Whited, S. Fields. 2014. *Demonstrating Resource Adequacy in ERCOT: Revisiting the ERCOT Capacity, Demand and Reserves Forecasts*. Synapse Energy Economics for Sierra Club – Lone Star Chapter.

Stanton, E. A., M. Whited, F. Ackerman. 2014. *Estimating the Cost of Saved Energy in Utility Efficiency Programs*. Synapse Energy Economics for the U.S Environmental Protection Agency.

Ackerman, F., M. Whited, P. Knight. 2014. "Would banning atrazine benefit farmers?" International Journal of Occupational and Environmental Health 20 (1): 61–70.

Ackerman, F., M. Whited, P. Knight. 2013. *Atrazine: Consider the Alternatives*. Synapse Energy Economics for Natural Resources Defense Council (NRDC).

Whited, M., F. Ackerman, S. Jackson. 2013. *Water Constraints on Energy Production: Altering our Current Collision Course*. Synapse Energy Economics for Civil Society Institute.

Whited, M. 2013. *Water Constraints on Energy Production: Altering our Current Collision Course – Policy Brief.* Synapse Energy Economics for Civil Society Institute.

Hurley, D., P. Peterson, M. Whited. 2013. *Demand Response as a Power System Resource: Program Designs, Performance, and Lessons Learned in the United States*. Synapse Energy Economics for Regulatory Assistance Project.

Whited, M., D. White, S. Jackson, P. Knight, E.A. Stanton. 2013. *Declining Markets for Montana Coal*. Synapse Energy Economics for Northern Plains Resource Council.

Woolf, T., M. Whited, T. Vitolo, K. Takahashi, D. White. 2012. *Indian Point Energy Center Replacement Analysis: A Plan for Replacing the Nuclear Plant with Clean, Sustainable, Energy Resources.* Synapse Energy Economics for National Resources Defense Council and Riverkeeper.

Whited, M., K. Charipar, G. Brown. *Demand Response Potential in Wisconsin*. Nelson Institute for Environmental Studies, Energy Analysis & Policy Capstone for the Wisconsin Public Service Commission.

Whited, M. 2010. "Economic Impacts of Irrigation Water Transfers in Uvalde County, Texas." *Journal of Regional Analysis and Policy* 40 (2): 160–170.

Grabow, M., M. Hahn and M. Whited. 2010. *Valuing Bicycling's Economic and Health Impacts in Wisconsin*. Nelson Institute for Environmental Studies, Center for Sustainability and the Global Environment (SAGE) for State Representative Spencer Black.

Whited, M., D. Bernhardt, R. Deitchman, C. Fuchsteiner, M. Kirby, M. Krueger, S. Locke, M. Mcmillen, H. Moussavi, T. Robinson, E. Schmitz, Z. Schuster, R. Smail, E. Stone, S. Van Egeren, H. Yoshida, Z. Zopp. 2009. *Implementing the Great Lakes Compact: Wisconsin Conservation and Efficiency Measures Report*. Department of Urban and Regional Planning, University of Wisconsin-Madison, Extension Report 2009-01.

Whited, M. 2009. 2009 Wisconsin Water Fact Sheet. Public Service Commission of Wisconsin.

Whited, M. 2003. Gender, Water, and Trade. International Gender and Trade Network Washington, DC.

#### **TESTIMONY AND COMMENTS**

**Nova Scotia Utility and Review Board (Matter No. M10832):** Direct Testimony of Melissa Whited regarding the Town of Mahone Bay Electric Utility's application for approval of amendments to its schedule of rates and charges for the provision of electric supply and services to its customers and its schedule of rules and regulations. On behalf of Counsel to Nova Scotia Utility and Review Board. January 11, 2023.

**Nova Scotia Utility and Review Board (Matter No. M10810):** Direct Testimony of Melissa Whited regarding Riverport Electric Light Commission's application for approval of amendments to its schedule of rates and charges for the provision of electric supply and services to its customers and its schedule of rules and regulations. On behalf of Counsel to Nova Scotia Utility and Review Board. December 23, 2022.

**Public Utilities Commission of Maine (Docket No. 2022-00152):** Direct Testimony of Melissa Whited and Eric Borden regarding Central Maine Power Company's request for rate design increase and changes. On behalf of the Maine Office of the Public Advocate. December 2, 2022.

**Illinois Commerce Commission (Docket No. 22-0067):** Direct Testimony of Melissa Whited and Ben Havumaki regarding the performance incentive mechanisms and tracking metrics proposed by Commonwealth Edison Company and Ameren Illinois Company. April 6, 2022.

**Maryland Public Service Commission (Case No. 9670):** Direct testimony of Melissa Whited regarding Delmarva Power and Light's proposed rate designs. On behalf of Maryland Office of People's Counsel. December 2, 2021.

**Nova Scotia Utility and Review Board (Matter No. M10176):** Direct testimony of Melissa Whited regarding Nova Scotia Power Inc.'s proposed Smart Grid Nova Scotia Solar Garden Rider. On behalf of Counsel to the Nova Scotia Utility and Review Board. August 18, 2021.

**Public Service Commission of Florida (Docket No. 20210015-EI):** Direct Testimony of Melissa Whited regarding Florida Power and Light's petition for rate increase. On behalf of Vote Solar. June 21, 2021.

**Colorado Public Utilities Commission (Proceeding No. 20AL-0432E):** Answer testimony of Melissa Whited regarding inclining block rates. On behalf of Energy Outreach Colorado. March 8, 2021.

**Maryland Public Service Commission (Case No. 9655):** Direct and surrebuttal testimony of Melissa Whited regarding Pepco's proposed multi-year plan and performance incentive mechanisms. On behalf of Maryland Office of People's Counsel. March 3, 2021.

**Nova Scotia Utility and Review Board (Matter No. M09777):** Direct testimony of Melissa Whited regarding Nova Scotia Power Inc.'s proposed time-varying pricing tariff application. On behalf of Counsel to the Nova Scotia Utility and Review Board. February 24, 2021.

**Georgia Public Service Commission (Docket No. 42516):** Direct testimony of Melissa Whited and Ben Havumaki regarding Georgia Power's proposal to increase the customer charge for residential customers. On behalf of the Sierra Club. October 17, 2019.

Maine Public Utilities Commission (Docket No. 2018-00171): Direct testimony of Melissa Whited regarding utility incentives for non-wires alternatives. On behalf of Maine Office of the Public Advocate. December 17, 2018.

**Rhode Island Public Utilities Commission (Docket No. 4780):** Direct testimony of Tim Woolf and Melissa Whited regarding National Grid's Power Sector Transformation proposals. On behalf of the Rhode Island Division of Public Utilities and Carriers. April 28, 2018.

**Rhode Island Public Utilities Commission (Docket No. 4770):** Direct testimony of Tim Woolf and Melissa Whited regarding National Grid's proposed performance incentive mechanisms, benefit-cost analyses, and request for recovery of costs for its Advanced Metering Functionality study and distributed energy resources enablement investments. On behalf of the Rhode Island Division of Public Utilities and Carriers. April 6, 2018.

**Rhode Island Public Utilities Commission (Docket No. 4783):** Direct testimony of Tim Woolf and Melissa Whited regarding National Grid's Advanced Metering Functionality Pilot. On behalf of the Rhode Island Division of Public Utilities and Carriers. February 22, 2018.

Virginia State Corporation Commission (Case No. PUR-2017-00044): Direct testimony of Melissa Whited regarding Rappahannock Electric Cooperative's proposed increases to fixed charges for residential customers and small business customers. On behalf of Sierra Club. September 19, 2017.

**California Public Utilities Commission (Application 17-01-020, 17-01-021, and 17-01-022):** Joint opening testimony with Max Baumhefner and Katherine Stainken on fast charging infrastructure and rates; joint opening testimony with Max Baumhefner and Joel Espino on medium and heavy-duty and fleet charging infrastructure and commercial EV rates; joint opening testimony with Max Baumhefner and Chris King on residential charging infrastructure and rates. Rebuttal testimony on public fast charging rate design, commercial EV rate design, and residential EV rate design. On behalf of Natural Resources Defense Council, the Greenlining Institute, Plug In America, the Coalition of California Utility Employees, Sierra Club, and the Environmental Defense Fund. July 25, August 1, August 7, and September 5, 2017.

**New York Public Service Commission (Case 17-E-0238)**: Direct and rebuttal testimony of Tim Woolf and Melissa Whited regarding Earnings Adjustment Mechanisms proposed by National Grid. On behalf of Advanced Energy Economy Institute. August 25 and September 15, 2017.

**Utah Public Service Commission (Docket No. 14-035-114)**: Direct testimony of Melissa Whited regarding Pacificorp's proposed rates for customers with distributed generation. On behalf of Utah Clean Energy. June 8, 2017.

**Texas Public Utilities Commission (SOAH Docket No. 473-17-1764, PUC Docket No. 46449):** Crossrebuttal testimony evaluating Southwestern Electric Power Company's proposed revisions to its Distributed Renewable Generation tariff. On behalf of Sierra Club and Dr. Lawrence Brough. May 19, 2017.

**Massachusetts Department of Public Utilities (Docket No. 17-05)**: Direct and surrebuttal testimony of Tim Woolf and Melissa Whited regarding performance-based regulation, the monthly minimum reliability contribution, storage pilots, and rate design in Eversource's petition for approval of rate increases and a performance-based ratemaking mechanism. On behalf of Sunrun and the Energy Freedom Coalition of America, LLC. April 28, 2017 and May 26, 2017.

**Public Utilities Commission of Hawaii (Docket No. 2015-0170)**: Direct testimony regarding Hawaiian Electric Light Company's proposed performance incentive mechanisms. On behalf of the Division of Consumer Advocacy. April 28, 2017.

**Massachusetts Department of Public Utilities (Docket No. 15-155)**: Joint direct and rebuttal testimony with T. Woolf regarding National Grid's rate design proposal. On behalf of Energy Freedom Coalition of America, LLC. March 18, 2016 and April 28, 2016.

**Federal Energy Regulatory Commission (Docket No. EC13-93-000)**: Affidavit regarding potential market power resulting from the acquisition of Ameren generation by Dynegy. On behalf of Sierra Club. August 16, 2013.

**Wisconsin Senate Committee on Clean Energy**: Joint testimony with M. Grabow regarding the importance of clean transportation to Wisconsin's public health and economy. February 2010.

#### **TESTIMONY ASSISTANCE**

**Colorado Public Utilities Commission (Proceeding No. 16AL-0048E)**: Answer testimony of Tim Woolf regarding Public Service Company of Colorado's rate design proposal. On behalf of Energy Outreach Colorado. June 6, 2016.

**Nevada Public Utilities Commission (Docket Nos. 15-07041 and 15-07042):** Direct testimony on NV Energy's application for approval of a cost of service study and net metering tariffs. On behalf of The Alliance for Solar Choice. October 27, 2015.

**Missouri Public Service Commission (Case No. ER-2014-0370):** Direct and surrebuttal testimony on the topic of Kansas City Power and Light's rate design proposal. On behalf of Sierra Club. April 16, 2015 and June 5, 2015.

**Wisconsin Public Service Commission (Docket No. 05-UR-107):** Direct and surrebuttal testimony of Rick Hornby regarding Wisconsin Electric Power Company rate case. On behalf of The Alliance for Solar Choice. August 28, 2014 and September 22, 2014.

Maine Public Utilities Commission (Docket No. 2013-00519): Direct testimony of Richard Hornby and Martin R. Cohen on GridSolar's smart grid coordinator petition. On behalf of the Maine Office of the Public Advocate. August 28, 2014.

**Maine Public Utilities Commission (Docket No. 2013-00168):** Direct and surrebuttal testimony of Tim Woolf regarding Central Maine Power's request for an alternative rate plan. December 12, 2013 and March 21, 2014.

**Massachusetts Department of Public Utilities (Docket No. 14-04):** Comments of Massachusetts Department of Energy Resources on investigation into time varying rates. On behalf of the Massachusetts Department of Energy Resources. March 10, 2014.

**State of Nevada, Public Utilities Commission of Nevada (Docket No. 13-07021):** Direct testimony of Frank Ackerman regarding the proposed merger of NV Energy, Inc. and MidAmerican Energy Holdings Company. On behalf of the Sierra Club. October 24, 2013.

#### PRESENTATIONS

Whited, M. 2024. "Benefits of Offshore Wind in New England" Webinar presentation sponsored by Sierra Club, June 24, 2024.

Whited, M. 2021. "Evolution of Net Metering in Hawaii." Presentation to the NARUC Winter Policy Summit. February 4.

Biewald, B., M. Whited. "Evaluating and Shaping the Impacts of EVs on Customers: Tools for Consumer Advocates." Presentation at the NASUCA Mid-Year Meeting, June 19, 2019.

Whited, M. 2019. "Performance Incentive Mechanisms." Presentation to the 2019 Pennsylvania Public Utility Law Conference, Harrisburg, PA. May 31.

Whited, M. 2018. "Smart Non-Residential Rate Design: Designing for the Future." Presentation to the NARUC Annual Meeting, Orlando, FL. November 11.

Whited, M. 2016. "Energy Policy for the Future: Trends and Overview." Presentation to the National Conference of State Legislators' Capitol Forum, Washington, DC, December 8.

Whited, M. 2016. "Ratemaking for the Future: Trends and Considerations." Presentation to the Midwest Governors' Association, St. Paul, MN, July 14.

Whited, M. 2016. "Performance Based Regulation." Presentation to the NARUC Rate Design Subcommittee. September 12.

Whited, M. 2016. "Demand Charges: Impacts and Alternatives (A Skeptic's View)." EUCI 2<sup>nd</sup> Annual Residential Demand Charges Summit, Phoenix, AZ, June 7.

Whited, M. 2016. "Performance Incentive Mechanisms." Presentation to the National Governors Association, Wisconsin Workshop, Madison WI, March 29.

Whited, M., T. Woolf. 2016. "Caught in a Fix: The Problem with Fixed Charges for Electricity." Webinar presentation sponsored by Consumers Union, February.

Whited, M. 2015. "Performance Incentive Mechanisms." Presentation to the National Governors Association, Learning Lab on New Utility Business Models & the Electricity Market Structures of the Future, Boston, MA, July 28.

Whited, M. 2015. "Rate Design: Options for Addressing NEM Impacts." Presentation to the Utah Net Energy Metering Workgroup, Workshop 4, Salt Lake City, UT, July 8.

Whited, M. 2015. "Performance Incentive Mechanisms." Presentation to the e21 Initiative, St. Paul, MN, May 29.

Whited, M., F. Ackerman. 2013. "Water Constraints on Energy Production: Altering our Current Collision Course." Webinar presentation sponsored by Civil Society Institute, September 12.

Whited, M., G. Brown, K. Charipar. 2011. "Electricity Demand Response Programs and Potential in Wisconsin." Presentation to the Wisconsin Public Service Commission, April.

Whited, M. 2010. "Economic Impact of Irrigation Water Transfers in Uvalde County, Texas." Presentation at the Mid-Continent Regional Science Association's 41st Annual Conference/IMPLAN National Úser's 8th Biennial Conference in St. Louis, MO, June

Whited, M., M. Grabow, M. Hahn.2009. "Valuing Bicycling's Economic and Health Impacts in Wisconsin." Presentation before the Governor's Coordinating Council on Bicycling, December.

Whited, M., D. Sheard. 2009. "Water Conservation Initiatives in Wisconsin." Presentation before the Waukesha County Water Conservation Coalition Municipal Water Conservation Subgroup, July.

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