

State of Rhode Island Public Utilities Commission

**In Re: Petition of the Episcopal Diocese of Rhode Island for Declaratory Judgment
on Transmission System Costs and Related “Affected System Operator” Studies**

Docket No. 4981

Pre-Filed Testimony of

Karl R. Rábago & John Farrell

May 25, 2021

I. Introduction and Qualifications

1 **Q. Please state your names and business addresses.**

2 A. This testimony is jointly presented as testimony by a panel of witness composed
3 of John Farrell and Karl R. Rábago. Karl Rábago's business address is 2025 East
4 24th Avenue, Denver, Colorado. John Farrell's business address is 2720 E. 22nd
5 St., Minneapolis, MN 55406.

6 **Q. By whom are you employed and in what capacity?**

7 A. Mr. Rábago is the Principal of Rábago Energy, LLC, a Colorado limited liability
8 company. Mr. Farrell is a co-director of the Institute for Local Self-Reliance and
9 directs the organization's Energy Democracy Initiative.

10 **Q. What is your expertise on the matters that are before the Commission?**

11 A. Mr. Rábago has worked for more than thirty years in the electricity industry and
12 related fields. He is actively involved in a wide range of electric utility issues
13 across the United States. His previous employment experience includes
14 Commissioner with the Public Utility Commission of Texas, Deputy Assistant
15 Secretary with the U.S. Department of Energy, Vice President with Austin
16 Energy, Executive Director of the Pace Energy and Climate Center, Managing
17 Director with the Rocky Mountain Institute, and Director with AES Corporation,
18 among others. He has earned a bachelor's degree in management, a law degree,
19 and two post-doctoral law degrees in military and environmental law. A detailed
20 resume is attached as Exhibit A.

1 Mr. Farrell has 15 years of experience in energy policy and electricity
2 market structure with the Institute for Local Self-Reliance. He has a Masters in
3 Public Policy from the University of Minnesota. An expanded resume is attached
4 in Exhibit B.

5 **Q. Do Mr. Rábago and Mr. Farrell have specific experience relating to**
6 **distributed energy resources, including distributed solar generation?**

7 A. Yes. Mr. Rábago has extensive experience working in the field of distributed
8 energy resources, a category of energy resources that includes distributed solar
9 generation, energy efficiency, energy management, energy storage, and other
10 technologies and related services. That experience includes regulation of electric
11 utilities in Texas, including review and approval of rates, tariffs, plans, and
12 programs proposed by electric utilities. He co-authored the seminal treatise on
13 distributed energy resource value, entitled “Small Is Profitable,”¹ when he was a
14 managing director at the Rocky Mountain Institute. He has also published several
15 articles and essays relating to the topic, as detailed in his attached resume. As a
16 vice president for Distributed Energy Services for Austin Energy, Mr. Rábago had
17 responsibility for all of the utility’s customer-facing programs relating to
18 distributed solar generation, energy efficiency, demand management, low-income
19 weatherization, energy storage, electric transportation, building energy ratings and

¹ Amory B. Lovins, et al., “*Small is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*,” Rocky Mountain Institute (2003). Witness Rábago was a co-author of the book.

1 codes, and the utility’s electric vehicle initiatives. While with Austin Energy, one
2 of the largest municipal electric utilities in the nation, Mr. Rábago developed and
3 implemented the nation’s first distributed solar tariff based on objective and
4 comprehensive valuation of solar generation and avoided system energy costs,
5 often referred to as the “Value of Solar Tariff.” At the U.S. Department of
6 Energy, Mr. Rábago was the federal executive responsible for the nation’s
7 research, development, and deployment programs relating to renewable energy,
8 energy efficiency, energy storage, and other advanced energy technologies in the
9 Department’s Office of Utility Technologies. In his position with the Pace Energy
10 and Climate Center, based at the Pace University Elisabeth Haub School of Law
11 in White Plains, New York, he led a team actively engaged as a public interest
12 intervenor in the ground-breaking “Reforming the Energy Vision” process
13 administered by the New York Public Service Commission. Mr. Rábago has
14 engaged as an advisor and expert witness in more than 120 regulatory proceedings
15 across the country, including many relating to distributed energy resources of all
16 kinds, rates and tariffs, low-income energy issues, grid modernization, return on
17 equity, and other issues. He served as a contributing author and advisor in the
18 writing and publication of the National Standard Practice Manual for Benefit-Cost
19 Analysis of Distributed Energy Resources (“NSPM-DER”), published by the
20 National Energy Screening Project.² He also plays a leading role in the Local

² T. Woolf, et al, *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources*, National Energy Screening Project (Aug. 2020). Available at:

1 Solar for All coalition,³ on behalf of the Coalition for Community Solar Access, a
2 trade association for providers and developers of community solar services and
3 facilities across the U.S. Local Solar for All has members from solar businesses
4 and advocacy organizations. Most notably, Local Solar for All published the
5 “Local Solar Roadmap” in December of 2020.⁴ The Roadmap study relied upon a
6 modern, high-resolution analysis of the electric grid in the continental United
7 States. The study, conducted by Vibrant Clean Energy using its powerful
8 WIS:dom-P® model, found that by coordinating and optimizing DERs in
9 production cost and capacity expansion analysis, the added deployment of 273
10 GW of local solar and storage could yield nearly \$500 billion in savings and
11 create more than two million incremental jobs over the kind of business-as-usual
12 approaches typically favored by monopoly utilities, all while eliminating 95% of
13 carbon emissions from the grid by 2050. Mr. Rábago is a frequent speaker,
14 author, and commentator on issues relating to electric utility regulation,
15 distributed energy resource markets and technologies, and electricity sector
16 market reform.

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<https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/>. While the NSPM-
DER was published recently, it reflects best practices articulated in a prior NSPM for efficiency
resources and generally recognized in the industry. Witness Rábago was a co-author of the manual.

³ Local Solar for All. More information at <https://www.localsolarforall.org>.

⁴ Local Solar for All, Local Solar Roadmap (Dec. 2020), available at:
<https://www.localsolarforall.org/roadmap>.

1 Mr. Farrell has written several reports on the economics and policy of
2 distributed energy and distributed solar, and particularly the relationship between
3 utilities and customers, including:

4 *Utility Distributed Energy Forecasts (2020); Community Choice Energy*
5 *(2020); Reverse Power Flow: How Solar+Batteries Shift Electric Grid Decision*
6 *Making from Utilities to Consumers (2018); Mergers and Monopoly: How*
7 *Concentration Changes the Electricity Business (2017); Choosing the Electric*
8 *Avenue (2017); Is Bigger Best in Renewable Energy? (2016); Beyond Sharing –*
9 *How Communities Can Take Ownership of Renewable Power (2016); Beyond*
10 *Utility 2.0 to Energy Democracy (2014); Minnesota’s Value of Solar (2014);*
11 *Energy Storage – The Next Charge for Distributed Energy (2014); Rooftop*
12 *Revolution (2012); Democratizing the Electricity System – A Vision for the 21st*
13 *Century Grid (2011).*

14 **Q. Have you previously testified before the Rhode Island Public Utility**
15 **Commission (“Commission”) or other regulatory agencies?**

16 A. Mr. Rábago appeared as a witness or stakeholder representative in Commission
17 Dockets 4568, 4600, 4770, and 4780, on behalf of Wind Energy Development,
18 Inc. and New Energy Rhode Island (“NERI”). In the past nine years, Mr. Rábago
19 has submitted testimony, comments, or presentations in proceedings in Alabama,
20 Arkansas, Arizona, California, Colorado, Connecticut, District of Columbia,
21 Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky,
22 Louisiana, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New

1 Hampshire, New York, North Carolina, Ohio, Pennsylvania, Puerto Rico, Rhode
2 Island, Vermont, Virginia, Washington, and Wisconsin. He has also testified
3 before the U.S. Congress and have been a participant in comments and briefs filed
4 at several federal agencies and courts. A listing of his previous testimony is
5 attached as Exhibit C.

6 Mr. Farrell has testified in person or writing before utility commissions in
7 Minnesota, New York, Connecticut, and Michigan.

8 **Q. Please state the purpose of your testimony.**

9 A. This testimony presents an argument for an evidentiary hearing to address the
10 ways in which the Division represents the public interest in its advocacy as a party
11 in RI PUC cases based on: (1) recent and significant demonstrations of the
12 ongoing challenges to maintaining integrity in utility policy development and
13 decision making, (2) the real and redressable challenges of “regulatory capture”
14 under conditions of monopoly regulation, and (3) the special problems associated
15 with addressing utility actions relating to competitive non-utility customer
16 generators.

17 **Q. Please summarize your understanding of Docket 4981.**

18 A. This case involves the regulatory review by the Rhode Island Public Utility
19 Commission of a request by the monopoly electric service provider, Narragansett
20 Electric Company, a wholly owned subsidiary of National Grid to impose certain
21 significant costs associated with the interconnection of a solar photovoltaic self-
22 generation facility upon the customer seeking to install the facility—the Episcopal

1 Diocese of Rhode Island proposed interconnection charges would make such
2 investments in self-generation facilities uneconomic, and if the facilities are not
3 installed, such customers would remain full-requirements customers of the
4 monopoly. In the various proceedings before the Commission and the Courts, the
5 RI Division of Public Utilities and Carriers may act as a party. Such action is
6 governed by the law of Rhode Island, which provides:

7 **§ 39-1-1. Declaration of policy – Purposes.**

8 (a) The general assembly finds and therefore declares that:

9 (1) The businesses of distributing electrical energy [is] affected with a
10 public interest;

11 (2) Supervision and reasonable regulation by the state of the manner in
12 which the businesses construct their systems and carry on their operations
13 within the state are necessary to protect and promote the convenience,
14 health, comfort, safety, accommodation, and welfare of the people, and are
15 a proper exercise of the police power of the state; and

16 (3) Preservation of the state's resources, commerce, and industry requires
17 the assurance of adequate public transportation and communication
18 facilities, water supplies, and an abundance of energy, all supplied to the
19 people with reliability, at economical cost, and with due regard for the
20 preservation and enhancement of the environment, the conservation of
21 natural resources, including scenic, historic, and recreational assets, and
22 the strengthening of long-range, land-use planning.

1 (b) It is hereby declared to be the policy of the state to provide fair
2 regulation of public utilities and carriers in the interest of the public, to
3 promote availability of adequate, efficient, and economical energy,
4 communication, and transportation services and water supplies to the
5 inhabitants of the state, to provide just and reasonable rates and charges
6 for such services and supplies, without unjust discrimination, undue
7 preferences or advantages, or unfair or destructive competitive practices,
8 and to cooperate with other states and agencies of the federal government
9 in promoting and coordinating efforts to achieve realization of this policy.

10 (c) To this end, there is hereby vested in the public utilities commission
11 and the division of public utilities and carriers the exclusive power and
12 authority to supervise, regulate, and make orders governing the conduct of
13 companies offering to the public in intrastate commerce energy,
14 communication, and transportation services and water supplies for the
15 purpose of increasing and maintaining the efficiency of the companies,
16 according desirable safeguards and convenience to their employees and to
17 the public, and protecting them and the public against improper and
18 unreasonable rates, tolls, and charges by providing full, fair, and adequate
19 administrative procedures and remedies, and by securing a judicial review
20 to any party aggrieved by such an administrative proceeding or ruling.

21 (d) The legislature also finds and declares, as of 1996, the following:

- 1 (1) That lower retail electricity rates would promote the state's economy
2 and the health and general welfare of the citizens of Rhode Island;
- 3 (2) That current research and experience indicates that greater competition
4 in the electricity industry would result in a decrease in electricity rates
5 over time;
- 6 (3) That greater competition in the electricity industry would stimulate
7 economic growth;
- 8 (4) That it is in the public interest to promote competition in the electricity
9 industry and to establish performance-based ratemaking for regulated
10 utilities;
- 11 (5) That in connection with the transition to a more competitive electric
12 utility industry, public utilities should have a reasonable opportunity to
13 recover transitional costs associated with commitments prudently incurred
14 in the past pursuant to their legal obligations to provide reliable electric
15 service at reasonable costs;
- 16 (6) That it shall be the policy of the state to encourage, through all feasible
17 means and measures, states where fossil-fueled, electric- generating units
18 producing air emissions affecting Rhode Island air quality are located to
19 reduce such emissions over time to levels that enable cost-effective
20 attainment of environmental standards within Rhode Island; and
- 21 (7) That in a restructured electrical industry the same protections currently
22 afforded to low-income customers shall continue.

- 1 (e) The legislature further finds and declares as of 2006:
- 2 (1) That prices of energy, including especially fossil-fuels and electricity,
3 are rising faster than the cost of living and are subject to sharp
4 fluctuations, which conditions create hardships for many households,
5 institutions, organizations, and businesses in the state;
- 6 (2) That while utility restructuring has brought some benefits, notably in
7 transmission and distribution costs and more efficient use of generating
8 capacities, it has not resulted in competitive markets for residential and
9 small commercial-industrial customers, lower overall prices, or greater
10 diversification of energy resources used for electrical generation;
- 11 (3) That the state's economy and the health and general welfare of the
12 people of Rhode Island benefit when energy supplies are reliable and
13 least-cost; and
- 14 (4) That it is a necessary move beyond basic utility restructuring in order
15 to secure for Rhode Island, to the maximum extent reasonably feasible, the
16 benefits of reasonable and stable rates, least-cost procurement, and system
17 reliability that includes energy resource diversification, distributed
18 generation, and load management.

19 The General Assembly recognized that “Supervision and reasonable regulation by
20 the state of the manner in which the businesses construct their systems and carry
21 on their operations within the state are necessary to protect and promote the
22 convenience, health, comfort, safety, accommodation, and welfare of the people.”

1 The Division and the Commission bear a special duty in regard to their dealings
2 with a monopoly business providing electric service.

3 **Q. What is that duty?**

4 A. Monopoly service providers wield enormous economic and political power. The
5 regulation of monopoly electric service providers is a complex undertaking.
6 Utilities recover the costs of their regulatory activities from customers. Regulators
7 are dependent on authorized budgets and frequently cannot compete in regulatory
8 proceedings equally armed against the raw power of utility businesses. It is not
9 surprising in the world of utility regulation that deference to utility management
10 discretion can lead to the appearance of collusion and improper coalition. In some
11 cases, the appearance can become reality. Every citizen and every business in
12 Rhode Island are dependent on utility-provided services. Every citizen and every
13 business in Rhode Island have less market power and fewer regulatory resources
14 than the monopoly electric utility. In order to preserve the public interest and the
15 critical confidence of citizens and business in the justness and reasonableness of
16 rates and services, the entities charged with protecting and preserving the public
17 interest must assume the highest standards of conduct and the most transparent of
18 practices.

19 **Q. How do recent events demonstrate the risks of inadequate supervision and**
20 **lack of adequate regulation of monopoly service providers?**

21 A. We can provide examples.

- 1 (i) In California, an administrative law judge found that Pacific Gas &
2 Electric, which subsequently filed for bankruptcy protection due to
3 wildfire damage, had for years cut maintenance budgets to pad
4 shareholder returns. Over 100 people died from wildfires due to the
5 company’s negligence and property damage was initially estimated at as
6 much as \$30 billion. The company’s customers will be on the hook to
7 provide ongoing insurance from wildfire risk.
- 8 (ii) In Ohio, leaders of monopoly utility First Energy, its subsidiaries,
9 lobbyists, and the House Speaker Larry Householder have been indicted
10 on racketeering and bribery charges for payments made to secure passage
11 of bailout funds for coal and nuclear power plants in Ohio House Bill 6.
12 The utility funneled money in a variety of ways to support the speaker’s
13 election and promotion to speaker, to pass the bill, and to kill a ballot
14 initiative to repeal it. Ohio customers were on the hook for \$1 billion in
15 subsidies to the profitable FirstEnergy, as well as millions in lost energy
16 savings from the efficiency programs that were also eliminated.
- 17 (iii) In five Southern states, regulators allowed monopoly utilities to light a
18 “bonfire of risky spending” — \$40 billion — for power plants that will
19 likely never produce a single electron, including nuclear reactors, carbon
20 capture, and other power plant projects. In every case, the utilities
21 successfully lobbied for state laws allowing them to recover construction

1 costs while work was in progress, leaving customers with the failed
2 project costs.

3 (iv) In Louisiana, monopoly utility Entergy New Orleans required the
4 permission of the New Orleans city council to construct a new gas-fired
5 power plant. Through a contractor, the utility paid actors to appear at
6 council meetings to express support for the power plant, which was
7 ultimately approved at a cost of \$700 to 900 million over its lifetime.

8 *Part I: The problem of regulatory capture and the corrosive effect of failing to maintain*
9 *a scrupulously independent approach to participation as a party in public utility*
10 *regulatory proceedings.*

11 **Q. How is the public interest represented in these kinds of proceedings?**

12 A. Depending on the regulatory jurisdiction, the “public interest” case is usually
13 presented and represented by a state agency. This agency is variously the office of
14 the state attorney general, the testifying staff of a regulatory commission, or, as in
15 Rhode Island, by the Division. The public interest case is a special responsibility,
16 intended to rise above the self-interested positions of parties with a cause or an
17 objection, and to embody the outcome interests that ultimately represent the
18 broader policy of the jurisdiction.

19 **Q. What is the issue of “regulatory capture” and how does it impact the**
20 **presentation of the public interest case?**

21 A. The concept of regulatory capture is as old as the so-called “regulatory compact”
22 and constitutes an unfortunate side-effect of comprehensive regulation, especially

1 regulation of monopoly service providers, when the regulatory authority identifies
2 itself and its preferred outcomes with those of the regulated industry or entity. In
3 the electric utility sphere, regulatory capture is about the tendency of regulators
4 and other state agencies to assign superior weight to the arguments and positions
5 of regulated entities in the conduct of regulatory affairs or the adjudication of
6 regulatory matters. The online encyclopedia, Wikipedia defines regulatory capture
7 as:

8 In politics, regulatory capture (also client politics) is a corruption of
9 authority that occurs when a political entity, policymaker, or regulatory
10 agency is co-opted to serve the commercial, ideological, or political
11 interests of a minor constituency, such as a particular geographic area,
12 industry, profession, or ideological group. When regulatory capture
13 occurs, a special interest is prioritized over the general interests of the
14 public, leading to a net loss for society. Government agencies suffering
15 regulatory capture are called “captured agencies.” The theory of client
16 politics is related to that of rent-seeking and political failure; client politics
17 “occurs when most or all of the benefits of a program go to some single,
18 reasonably small interest (e.g., industry, profession, or locality) but most
19 or all of the costs will be borne by a large number of people (for example,
20 all taxpayers).”⁵

⁵ Wikipedia, Regulatory Capture, last accessed on May 23, 2021. Available at:
https://en.wikipedia.org/wiki/Regulatory_capture#cite_note-2.

1 **Q. How does the problem of regulatory capture impact the agency responsible**
2 **with putting on the public interest case?**

3 A. The problem of regulatory capture is more serious and insidious with the agency
4 than even the regulatory decision maker for several reasons.

5 **Q. Please explain.**

6 A. There are two major aspects to the problem. First, it is important to understand
7 that utility regulation is an arcane and complicated hybrid creature of law and
8 economics, finance and public welfare, self- and public-interest. Regulated
9 utilities maintain large regulatory and legal staffs, and have access to expert
10 resources far in excess to those available to any other party and even the
11 regulatory decision makers and public interest advocates. The regulated are vested
12 with a large measure of managerial discretion, as a matter of administrative
13 efficiency as well as transferred accountability for consequences. Regulated
14 entities act as validators of regulatory action—if the utility does well, the
15 regulators are deemed to have done well. And regulated entities are where many
16 public servants go to work to realize the higher earnings and financial security
17 most desirable among regulatory experts. In many conversations between
18 regulated entities and the public interest staff, the public interest staff is the more-
19 poorly resourced party, and many members of the public interest staff aspire to
20 one day sit on the other side of the table.

21 Second, adjudication of public regulatory matters occurs in public by quasi-judicial
22 commissions beholding to both public decision making and judicial review. As

1 members of the executive branch, public utility commissioners are subject to a
2 degree of public and political accountability for the justification and implications
3 of their decisions. The public interest case is presented, on the other hand, by an
4 agency that can assert the full range of rights of any biased and self-interested
5 party to the proceeding, as the Division has done in this case. The public interest
6 party is allowed, as in Rhode Island, to engage in one-on-one *ex parte*
7 conversations with an interested and biased party, and even to adopt the positions
8 of that party as ostensibly congruent with the public interest itself. The decision-
9 making process by which the public interest advocated reaches its litigation
10 position is closed to the public eye and represents an ideal venue for the workings
11 of the forces of regulatory capture. Simply stated, when the public interest
12 advocate sides with the regulated entity in a litigated proceeding without public
13 accountability, there is no simply no way to tell if the public interest advocate is
14 taking a position based on the interests of the public or the regulated entity.

15 **Q. What is the best way to address the problems of regulatory capture as it**
16 **impacts the agency charged with presenting the public interest case.**

17 A. The best remedy is sunshine. The regulator must demand scrupulous
18 independence and accountability from the public interest advocate, demonstrated
19 on the record and in a public proceeding. The regulator must demand that the
20 public interest advocate, like the Division in this case, fully document its
21 reasoning and rational, its decision-making processes and the factors that it
22 evaluated, as well as the weight accorded to various positions and elements of its

1 decisions. Just as the Commission must deliberate in public, the Division must
2 publicly justify its positions, eschewing the closed comfort of private party
3 negotiations. There is otherwise simply no way for the Commission to determine
4 whether the Division is truly advocating on behalf of the interests of the public.

5 **Q. What does this mean in a practical sense?**

6 A. Very simply stated, the Division must explain, in a public proceeding and subject
7 to cross examination, why it is taking the position it is taking and why it believes
8 that its position is in the public interest. If the Commission finds the Division's
9 position credible, it may assign it appropriate weight. It means that where the
10 evidence suggests, as in this case, that the Division has not adequately accounted
11 for the basis of its position on the issues in the proceeding, a public hearing must
12 be conducted in which the parties may seek and obtain record evidence on that
13 position.

14 **Q. Is it reasonable to require the Division to disclose its thinking and rationale**
15 **as you suggest?**

16 A. Yes. In fact, it is necessary. Because of the pernicious risk and effects of
17 regulatory capture, the public interest advocate—the Division—must document
18 its litigation decision-making process as no other party would be required. Only in
19 that way can the Commission assure itself that the proffered position of the
20 Division is truly the result of a search for an outcome consistent with the broader
21 public interest and not just a convenient alignment with the interests of the most
22 powerful party in the proceeding—the utility.

1 **Q. Does the public interest require even more of the public interest advocate?**

2 A. I believe so. The process by which the Division or any other public interest
3 reaches its litigation position is just as important as the position itself. A public
4 interest party that conducts secret discussions and negotiations with the regulated
5 entity is putting itself at grave risk of regulatory capture and creates an
6 unavoidable impression that it values the opinions and potentially, the interests, of
7 one party above those of the people at large. When there is only one party
8 statutorily charged with representing the public interest in advocacy before the
9 Commission, the appearance of bias must be scrupulously avoided through
10 adherence to course of conduct that is beyond reproach or suspicion.

11 **Q. Does the Commission have any reason to demand that the Division account
12 for its behavior and decision-making processes in this case in particular?**

13 A. Yes. The nearly identical litigation postures of the Division and the utility in this
14 case suggests an uncomfortably close level of cooperation that must be examined
15 in the sunshine of a regulatory hearing.

16 *Part II: The Special Problem of Customer Self-Generation*

17 Q. This case is about the imposition of charges on the Diocese in its effort to develop
18 and operate a self-generation facility. How does the nature of this proceeding
19 impact the scope and nature of the Commission's inquiry?

20 A. The rapidly improving economics and technical capabilities of self-generation
21 facilities, especially solar generation have created a new dynamic in the
22 traditional electric utility monopoly industry. Instead of being wholly dependent

1 on the monopoly utility for the delivery and provision of electric service,
2 customers have access to self-service options. While this is a good thing for the
3 economy of Rhode Island, for the environment, and for the economics of electric
4 utility service, it is a decidedly bad thing for the monopoly utility. Customers that
5 self-generate reduce the monopoly rents that flow to the utility and the economic
6 hegemony that the utility enjoys. In a word, the customer becomes a competitor to
7 the utility.

8 **Q. Isn't competition a nominally good thing in the U.S.?**

9 A. Competition and markets are core concepts in the political economy of the U.S.
10 Indeed, outside of the government, competition is supposed to be norm and
11 monopolies are adverse to the public interest. For decades an exception has been
12 made for utility services in most of the U.S., simply because it was neither
13 practical nor efficient to rely on competition for such services.

14 **Q. So what is the problem with self-generation as proposed by the Diocese?**

15 A. The Diocese seeks to advance its mission of creation care and to manage its
16 electric bills by investing in self-generation. This is a good thing. But this
17 initiative will reduce revenues to the utility, an outcome that is averse to the
18 utility's financial interests, and those its shareholders. Sorting out this tension is
19 the subject of debate across the country and even around the world. But
20 fundamental to the debate must be the recognition that the utility has market
21 power—economic clout and nearly bottomless litigation and regulatory advocacy
22 resources with which to advance its self-interested position.

1 **Q. What then is the special problem of customer self-generation?**

2 A. The special problem of customer self-generation is that the interests of the
3 monopoly utility in opposing or imposing charges on customer self-generators
4 may not align with the public interest. As a result, careful scrutiny of the utility
5 position is necessary to ensure that in its proposals for rates and charges or
6 limitations to be imposed on putative customer generators it is not simply
7 advancing selfish economic interests.

8 **Q. What is the role of the public interest advocate—the Division—under these**
9 **circumstances?**

10 A. It is even more important that the Division impartially and independent approach
11 such cases, because disputes about customer self-generation proposals are the
12 cases where regulatory capture can have its most corrosive effects.

13 **Q. Please explain.**

14 A. Across the U.S., utilities have responded to customer self-generation with a wide
15 range of dubious assertions about the negative impacts of customers generating
16 some of their own electricity with solar technologies. These assertions include an
17 increase in technical grid problems, cross-subsidies, and cost-shifting, to name a
18 few. In the vast majority of cases, utilities invoke the broader public interest as an
19 argument against competitive self-generation, even while failing to adequately
20 document their assertions. These are the cases where the public interest
21 advocate—the Division in this case—must be most independent, objective,
22 unbiased, and free of the effects of regulatory capture. And these are the situations

1 where the Commission must demand evidence that the Division is truly
2 advocating on behalf of the broader public interest.

3 *Part III: The special problem of competitive non-utility generation. The potential abuse*
4 *of market power to stifle competition and preserve monopoly rents.*

5 **Q. Please summarize why this issue is such a big concern here?**

6 A. There are real and logical reasons for concern about the efforts by monopoly
7 utilities to economically suppress competition from its customers through the
8 imposition and collection of interconnection charges from proposed customer
9 generation facilities, and through other actions. The Division when acting as a
10 party, and the Commission when acting as a regulator must manifest the highest
11 ideals in public interest regulation in every representation and decision. The
12 Division is never just another party and must not be allowed act as one.
13 Transparent and public processes that maximize inquiry and accountability for
14 utilities and the Division should be the norm. For these reasons, a full evidentiary
15 hearing and inquiry by the PUC into the way in which and reasons for the
16 Division's positions in this case should be the baseline for the Commission's
17 decision making. It is unreasonable to burden customers with the burden of
18 demonstrating how the Division has failed in protecting the public interest when
19 the Division itself has failed to demonstrate how its litigation positions are in
20 accord with the public interest. The public interest does not support a presumption
21 in favor of the Division's litigation position, and as experience in many other
22 jurisdictions demonstrates, the dangers of such a presumption are great.

1 **Q. Does that conclude your testimony?**

2 **A. Yes.**

Exhibit A

Karl R. Rábago

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Nationally recognized leader and innovator in electricity and energy law, policy, and regulation. Experienced as a regulatory expert, utility executive, research and development manager, sustainability leader, senior government official, educator, and advocate. Successful track record of working with U.S. Congress, state legislatures, governors, regulators, city councils, business leaders, researchers, academia, and community groups. Nationally recognized speaker on energy, environment, and sustainable development matters. Managed staff as large as 250; responsible for operations of research facilities with staff in excess of 600. Developed and managed budgets in excess of \$300 million. Law teaching experience at Pace University Elisabeth Haub School of Law, University of Houston Law Center, and U.S. Military Academy at West Point. Military veteran.

Employment

RÁBAGO ENERGY LLC

Principal: July 2012—Present. Consulting practice dedicated to providing business sustainability, expert witness, and regulatory advice and services to organizations in the clean and advanced energy sectors. Prepared and submitted testimony in more than 30 states and 100 electricity and gas regulatory proceedings. Recognized national leader in development and implementation of award-winning “Value of Solar” alternative to traditional net metering. Additional information at www.rabagoenergy.com.

- Chairman of the Board, Center for Resource Solutions (1997-present). CRS is a not-for-profit organization based at the Presidio in California. CRS developed and manages the Green-e Renewable Electricity Brand, a nationally and internationally recognized branding program for green power and green pricing products and programs. Past chair of the Green-e Governance Board.
- Director, Solar United Neighbors (2018-present).

PACE ENERGY AND CLIMATE CENTER, PACE UNIVERSITY ELISABETH HAUB SCHOOL OF LAW

Senior Policy Advisor: September 2019—September 2020. Part-time advisor and staff member. Provide expert witness, project management, and business development support on electric and gas regulatory and policy issues and activities.

Executive Director: May 2014—August 2019. Leader of a team of professional and technical experts and law students in energy and climate law, policy, and regulation. Secured funding for and managed execution of regulatory intervention, research, market development support, and advisory services. Taught Energy Law. Provided learning and development opportunities for law students. Additional activities:

- Former Director, Alliance for Clean Energy – New York (2018-2019).
- Former Director, Interstate Renewable Energy Council (IREC) (2012-2018).
- Former Co-Director and Principal Investigator, Northeast Solar Energy Market Coalition (2015-2017). The NESEMC was a US Department of Energy’s SunShot Initiative Solar Market Pathways project. Funded under a cooperative agreement between the US DOE and Pace University, the NESEMC worked to harmonize solar market policy and advance supportive policy and regulatory practices in the northeast United States.

Karl R. Rábago

AUSTIN ENERGY – THE CITY OF AUSTIN, TEXAS

Vice President, Distributed Energy Services: April 2009—June 2012. Executive in 8th largest public power electric utility serving more than one million people in central Texas. Responsible for management and oversight of energy efficiency, demand response, and conservation programs; low-income weatherization; distributed solar and other renewable energy technologies; green buildings program; key accounts relationships; electric vehicle infrastructure; and market research and product development. Executive sponsor of Austin Energy’s participation in an innovative federally-funded smart grid demonstration project led by the Pecan Street Project. Led teams that successfully secured over \$39 million in federal stimulus funds for energy efficiency, smart grid, and advanced electric transportation initiatives. Additional activities included:

- Director, Renewable Energy Markets Association. REMA is a trade association dedicated to maintaining and strengthening renewable energy markets in the United States.
- Membership on Pedernales Electric Cooperative Member Advisory Board. Invited by the Board of Directors to sit on first-ever board to provide formal input and guidance on energy efficiency and renewable energy issues for the nation’s largest electric cooperative.

THE AES CORPORATION

Director, Government & Regulatory Affairs: June 2006—December 2008. Director, Global Regulatory Affairs, provided regulatory support and group management to AES’s international electric utility operations on five continents. Managing Director, Standards and Practices, for Greenhouse Gas Services, LLC, a GE and AES venture committed to generating and marketing greenhouse gas credits to the U.S. voluntary market. Government and regulatory affairs manager for AES Wind Generation. Managed a portfolio of regulatory and legislative initiatives to support wind energy market development in Texas, across the United States, and in many international markets.

JICARILLA APACHE NATION UTILITY AUTHORITY

Director: 1998—2008. Located in New Mexico, the JANUA was an independent utility developing profitable and autonomous utility services that provide natural gas, water utility services, low income housing, and energy planning for the Nation. Authored “First Steps” renewable energy and energy efficiency strategic plan with support from U.S. Department of Energy.

HOUSTON ADVANCED RESEARCH CENTER

Group Director, Energy and Buildings Solutions: December 2003—May 2006. Leader of energy and building science staff at a mission-driven not-for-profit contract research organization based in The Woodlands, Texas. Responsible for developing, maintaining and expanding upon technology development, application, and commercialization support programmatic activities, including the Center for Fuel Cell Research and Applications; the Gulf Coast Combined Heat and Power Application Center; and the High-Performance Green Buildings Practice. Secured funding for major new initiative in carbon nanotechnology applications in the energy sector.

- President, Texas Renewable Energy Industries Association. As elected president of the statewide business association, led and managed successful efforts to secure and implement significant expansion of the state’s renewable portfolio standard as well as other policy, regulatory, and market development activities.
- Director, Southwest Biofuels Initiative. Established the Initiative as an umbrella structure for a number of biofuels related projects.

Karl R. Rábago

- Member, Committee to Study the Environmental Impacts of Windpower, National Academies of Science National Research Council. The Committee was chartered by Congress and the Council on Environmental Quality to assess the impacts of wind power on the environment.
- Advisory Board Member, Environmental & Energy Law & Policy Journal, University of Houston Law Center.

CARGILL DOW LLC (NOW NATUREWORKS, LLC)

Sustainability Alliances Leader: April 2002—December 2003. Integrated sustainability principles into all aspects of a ground-breaking bio-based polymer manufacturing venture. Responsible for maintaining, enhancing and building relationships with stakeholders in the worldwide sustainability community, as well as managing corporate and external sustainability initiatives.

- Successfully completed Minnesota Management Institute at University of Minnesota Carlson School of Management, an alternative to an executive MBA program that surveyed fundamentals and new developments in finance, accounting, operations management, strategic planning, and human resource management.

ROCKY MOUNTAIN INSTITUTE

Managing Director/Principal: October 1999—April 2002. Co-authored “Small Is Profitable,” a comprehensive analysis of the benefits of distributed energy resources. Provided consulting and advisory services to help business and government clients achieve sustainability through application and incorporation of Natural Capitalism principles.

- President of the Board, Texas Ratepayers Organization to Save Energy. Texas R.O.S.E. is a non-profit organization advocating low-income consumer issues and energy efficiency programs.
- Co-Founder and Chair of the Advisory Board, Renewable Energy Policy Project-Center for Renewable Energy and Sustainable Technology. REPP-CREST was a national non-profit research and internet services organization.

CH2M HILL

Vice President, Energy, Environment and Systems Group: July 1998—August 1999. Responsible for providing consulting services to a wide range of energy-related businesses and organizations, and for creating new business opportunities in the energy industry for an established engineering and consulting firm. Completed comprehensive electric utility restructuring studies for the states of Colorado and Alaska.

PLANERGY

Vice President, New Energy Markets: January 1998—July 1998. Responsible for developing and managing new business opportunities for the energy services market. Provided consulting and advisory services to utility and energy service companies.

ENVIRONMENTAL DEFENSE FUND

Energy Program Manager: March 1996—January 1998. Managed renewable energy, energy efficiency, and electric utility restructuring programs. Led regulatory intervention activities in Texas and California. In Texas, played a key role in crafting Deliberative Polling processes. Participated in national environmental and energy advocacy networks, including the Energy Advocates Network, the National Wind Coordinating Committee, the NCSL Advisory Committee on Energy, and the PV-COMPACT Coordinating Council. Frequently appeared before the Texas Legislature, Austin City Council, and regulatory commissions on electric restructuring issues.

Karl R. Rábago

UNITED STATES DEPARTMENT OF ENERGY

Deputy Assistant Secretary, Utility Technologies: January 1995–March 1996. Manager of the Department's programs in renewable energy technologies and systems, electric energy systems, energy efficiency, and integrated resource planning. Supervised technology research, development and deployment activities in photovoltaics, wind energy, geothermal energy, solar thermal energy, biomass energy, high-temperature superconductivity, transmission and distribution, hydrogen, and electric and magnetic fields. Managed, coordinated, and developed international agreements. Supervised development and deployment support activities at national laboratories. Developed, advocated, and managed a Congressional budget appropriation of approximately \$300 million.

STATE OF TEXAS

Commissioner, Public Utility Commission of Texas. May 1992–December 1994. Appointed by Governor Ann W. Richards. Regulated electric and telephone utilities in Texas. Co-chair and organizer of the Texas Sustainable Energy Development Council. Vice-Chair of the National Association of Regulatory Utility Commissioners (NARUC) Committee on Energy Conservation. Member and co-creator of the Photovoltaic Collaborative Market Project to Accelerate Commercial Technology (PV-COMPACT).

LAW TEACHING

Professor for a Designated Service: Pace University Elisabeth Haub School of Law, 2014-2019. Non-tenured member of faculty. Taught Energy Law. Supervised a student intern practice.

Associate Professor of Law: University of Houston Law Center, 1990–1992. Full time, tenure track member of faculty. Courses taught: Criminal Law, Environmental Law, Criminal Procedure, Environmental Crimes Seminar, Wildlife Protection Law.

Assistant Professor: United States Military Academy, West Point, New York, 1988–1990. Member of the faculty in the Department of Law. Honorably discharged in August 1990, as Major in the Regular Army. Courses taught: Constitutional Law, Military Law, and Environmental Law Seminar.

LITIGATION

Trial Defense Attorney and Prosecutor, U.S. Army Judge Advocate General's Corps, Fort Polk, Louisiana, January 1985–July 1987. Assigned to Trial Defense Service and Office of the Staff Judge Advocate.

NON-LEGAL MILITARY SERVICE

Armored Cavalry Officer, 2d Squadron 9th Armored Cavalry, Fort Stewart, Georgia, May 1978–August 1981. Served as Logistics Staff Officer (S-4). Managed budget, supplies, fuel, ammunition, and other support for an Armored Cavalry Squadron. Served as Support Platoon Leader for the Squadron (logistical support), and as line Platoon Leader in an Armored Cavalry Troop. Graduate of Airborne and Ranger Schools. Special training in Air Mobilization Planning and Nuclear, Biological and Chemical Warfare.

Karl R. Rábago

Formal Education

LL.M., Environmental Law, Pace University School of Law, 1990: Curriculum designed to provide breadth and depth in study of theoretical and practical aspects of environmental law. Courses included: International and Comparative Environmental Law, Conservation Law, Land Use Law, Seminar in Electric Utility Regulation, Scientific and Technical Issues Affecting Environmental Law, Environmental Regulation of Real Estate, Hazardous Wastes Law. Individual research with Hudson Riverkeeper Fund, Garrison, New York.

LL.M., Military Law, U.S. Army Judge Advocate General's School, 1988: Curriculum designed to prepare Judge Advocates for senior level staff service. Courses included: Administrative Law, Defensive Federal Litigation, Government Information Practices, Advanced Federal Litigation, Federal Tort Claims Act Seminar, Legal Writing and Communications, Comparative International Law.

J.D. with Honors, University of Texas School of Law, 1984: Attended law school under the U.S. Army Funded Legal Education Program, a fully funded scholarship awarded to 25 or fewer officers each year. Served as Editor-in-Chief (1983–84); Articles Editor (1982–83); Member (1982) of the Review of Litigation. Moot Court, Mock Trial, Board of Advocates. Summer internship at Staff Judge Advocate's offices. Prosecuted first cases prior to entering law school.

B.B.A., Business Management, Texas A&M University, 1977: ROTC Scholarship (3–yr). Member: Corps of Cadets, Parson's Mounted Cavalry, Wings & Sabers Scholarship Society, Rudder's Rangers, Town Hall Society, Freshman Honor Society, Alpha Phi Omega service fraternity.

Karl R. Rábago

Selected Publications

- “Distributed Generation Law,” contributing author, American Bar Association Environment, Energy, and Resources Section (August 2020)
- “National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources,” contributing author, National Energy Screening Project (August 2020)
- “Achieving 100% Renewables: Supply-Shaping through Curtailment,” with Richard Perez, Marc Perez, and Morgan Putnam, PV Tech Power, Vol. 19 (May 2019).
- “A Radical Idea to Get a High-Renewable Electric Grid: Build Way More Solar and Wind than Needed,” with Richard Perez, The Conversation, online at <http://bit.ly/2YjnM15> (May 29, 2019).
- “Reversing Energy System Inequity: Urgency and Opportunity During the Clean Energy Transition,” with John Howat, John Colgan, Wendy Gerlitz, and Melanie Santiago-Mosier, National Consumer Law Center, online at www.nclc.org (Feb. 26, 2019).
- “Revisiting Bonbright’s Principles of Public Utility Rates in a DER World,” with Radina Valova, The Electricity Journal, Vol. 31, Issue 8, pp. 9-13 (Oct. 2018).
- “Achieving very high PV penetration – The need for an effective electricity remuneration framework and a central role for grid operators,” Richard Perez (corresponding author), Energy Policy, Vol. 96, pp. 27-35 (2016).
- “The Net Metering Riddle,” Electricity Policy.com, April 2016.
- “The Clean Power Plan,” Power Engineering Magazine (invited editorial), Vol. 119, Issue 12 (Dec. 2, 2015)
- “The ‘Sharing Utility:’ Enabling & Rewarding Utility Performance, Service & Value in a Distributed Energy Age,” co-author, 51st State Initiative, Solar Electric Power Association (Feb. 27, 2015)
- “Rethinking the Grid: Encouraging Distributed Generation,” Building Energy Magazine, Vol. 33, No. 1 Northeast Sustainable Energy Association (Spring 2015)
- “The Value of Solar Tariff: Net Metering 2.0,” The ICER Chronicle, Ed. 1, p. 46 [International Confederation of Energy Regulators] (December 2013)
- “A Regulator’s Guidebook: Calculating the Benefits and Costs of Distributed Solar Generation,” co-author, Interstate Renewable Energy Council (October 2013)
- “The ‘Value of Solar’ Rate: Designing an Improved Residential Solar Tariff,” Solar Industry, Vol. 6, No. 1 (Feb. 2013)
- “Jicarilla Apache Nation Utility Authority Strategic Plan for Energy Efficiency and Renewable Energy Development,” lead author & project manager, U.S. Department of Energy First Steps Toward Developing Renewable Energy and Energy Efficiency on Tribal Lands Program (2008)
- “A Review of Barriers to Biofuels Market Development in the United States,” 2 Environmental & Energy Law & Policy Journal 179 (2008)
- “A Strategy for Developing Stationary Biodiesel Generation,” Cumberland Law Review, Vol. 36, p.461 (2006)
- “Evaluating Fuel Cell Performance through Industry Collaboration,” co-author, Fuel Cell Magazine (2005)
- “Applications of Life Cycle Assessment to NatureWorks™ Polylactide (PLA) Production,” co-author, Polymer Degradation and Stability 80, 403-19 (2003)

Karl R. Rábago

“An Energy Resource Investment Strategy for the City of San Francisco: Scenario Analysis of Alternative Electric Resource Options,” contributing author, Prepared for the San Francisco Public Utilities Commission, Rocky Mountain Institute (2002)

“Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size,” co-author, Rocky Mountain Institute (2002)

“Socio-Economic and Legal Issues Related to an Evaluation of the Regulatory Structure of the Retail Electric Industry in the State of Colorado,” with Thomas E. Feiler, Colorado Public Utilities Commission and Colorado Electricity Advisory Panel (April 1, 1999)

“Study of Electric Utility Restructuring in Alaska,” with Thomas E. Feiler, Legislative Joint Committee on electric Restructuring and the Alaska Public Utilities Commission (April 1, 1999)

“New Markets and New Opportunities: Competition in the Electric Industry Opens the Way for Renewables and Empowers Customers,” EEBA Excellence (Journal of the Energy Efficient Building Association) (Summer 1998)

“Building a Better Future: Why Public Support for Renewable Energy Makes Sense,” Spectrum: The Journal of State Government (Spring 1998)

“The Green-e Program: An Opportunity for Customers,” with Ryan Wisner and Jan Hamrin, Electricity Journal, Vol. 11, No. 1 (January/February 1998)

“Being Virtual: Beyond Restructuring and How We Get There,” Proceedings of the First Symposium on the Virtual Utility, Kluwer Press (1997)

“Information Technology,” Public Utilities Fortnightly (March 15, 1996)

“Better Decisions with Better Information: The Promise of GIS,” with James P. Spiers, Public Utilities Fortnightly (November 1, 1993)

“The Regulatory Environment for Utility Energy Efficiency Programs,” Proceedings of the Meeting on the Efficient Use of Electric Energy, Inter-American Development Bank (May 1993)

“An Alternative Framework for Low-Income Electric Ratepayer Services,” with Danielle Jaussaud and Stephen Benenson, Proceedings of the Fourth National Conference on Integrated Resource Planning, National Association of Regulatory Utility Commissioners (September 1992)

“What Comes Out Must Go In: The Federal Non-Regulation of Cooling Water Intakes Under Section 316 of the Clean Water Act,” Harvard Environmental Law Review, Vol. 16, p. 429 (1992)

“Least Cost Electricity for Texas,” State Bar of Texas Environmental Law Journal, Vol. 22, p. 93 (1992)

“Environmental Costs of Electricity,” Pace University School of Law, Contributor–Impingement and Entrainment Impacts, Oceana Publications, Inc. (1990)

Exhibit B

John Farrell

jfarrell@ilsr.org
612-808-0888

SPECIALTIES

Distributed renewable energy, scale economies, economic benefits, value of (solar) energy, regulatory policy, market structure.

SUMMARY

Called the “guru of distributed energy” and the “swami of solar,” John Farrell provides expert advice in commonplace language on the economics, policy, and deployment of distributed renewable energy resources. He has helped author energy legislation and been quoted in a variety of media from the New York Times to Utility Dive

EXPERIENCE

Institute for Local Self-Reliance Director of Energy Democracy	10 / 2006 - Present
Community Power President	01 / 2014 - Present
Sustainable Economies Law Center Advisory Board Member	05 / 2015 - Present
Community Power Network Board Member	01 / 2014 - Present

John has helped design and write distributed energy policy including Minnesota’s solar energy and community solar laws; contributed to dozens of comments to public utilities commissions; and provided expert assistance to elected officials and regulators on renewable energy policy issues.

John has written hundreds of articles and over two dozen reports on the economics and policy to enable more distributed power, including the seminal work on Minnesota’s value of solar policy and a series of reports on the opportunity of approaching solar grid parity.

John has translated these challenging policy and economics concepts into plain language presentations delivered from Maui to Maine and available in an online archive.

Exhibit C

Testimony Submitted by Karl R. Rábago

(as of 24 March 2021)

Date	Proceeding	Case/Docket #	On Behalf Of:
Dec. 21, 2012	VA Electric & Power Special Solar Power Tariff	Virginia SCC Case # PUE-2012-00064	Southern Environmental Law Center
May 10, 2013	Georgia Power Company 2013 IRP	Georgia PSC Docket # 36498	Georgia Solar Energy Industries Association
Jun. 23, 2013	Louisiana Public Service Commission Re-examination of Net Metering Rules	Louisiana PSC Docket # R-31417	Gulf States Solar Energy Industries Association
Aug. 29, 2013	DTE (Detroit Edison) 2013 Renewable Energy Plan Review (Michigan)	Michigan PUC Case # U-17302	Environmental Law and Policy Center
Sep. 5, 2013	CE (Consumers Energy) 2013 Renewable Energy Plan Review (Michigan)	Michigan PUC Case # U-17301	Environmental Law and Policy Center
Sep. 27, 2013	North Carolina Utilities Commission 2012 Avoided Cost Case	North Carolina Utilities Commission Docket # E-100, Sub. 136	North Carolina Sustainable Energy Association
Oct. 18, 2013	Georgia Power Company 2013 Rate Case	Georgia PSC Docket # 36989	Georgia Solar Energy Industries Association
Nov. 4, 2013	PEPCO Rate Case (District of Columbia)	District of Columbia PSC Formal Case # 1103	Grid 2.0 Working Group & Sierra Club of Washington, D.C.
Apr. 24, 2014	Dominion Virginia Electric Power 2013 IRP	Virginia SCC Case # PUE-2013-00088	Environmental Respondents
Apr. 25, 2014	North Carolina Utilities Commission 2014 Avoided Cost Case - Direct	North Carolina Utilities Commission Docket # E-100, Sub. 140	Southern Alliance for Clean Energy
May 7, 2014	Arizona Corporation Commission Investigation on the Value and Cost of Distributed Generation	Arizona Corporation Commission Docket # E-00000J-14-0023	Rábago Energy LLC (invited presentation and workshop participation)
Jun. 2, 2014	North Carolina Utilities Commission 2014 Avoided Cost Case – Response (Corrected)	North Carolina Utilities Commission Docket # E-100, Sub. 140	Southern Alliance for Clean Energy
Jun. 20, 2014	North Carolina Utilities Commission 2014 Avoided Cost Case – Rebuttal	North Carolina Utilities Commission Docket # E-100, Sub. 140	Southern Alliance for Clean Energy
Jul. 23, 2014	Florida Energy Efficiency and Conservation Act, Goal Setting – FPL, Duke, TECO, Gulf	Florida PSC Docket # 130199-EI, 130200-EI, 130201-EI, 130202-EI	Southern Alliance for Clean Energy

Testimony Submitted by Karl R. Rábago

(as of 24 March 2021)

Sep. 19, 2014	Ameren Missouri's Application for Authorization to Suspend Payment of Solar Rebates	Missouri PSC File No. ET-2014-0350, Tariff # YE-2014-0494	Missouri Solar Energy Industries Association
Aug. 6, 2014	Appalachian Power Company 2014 Biennial Rate Review	Virginia SCC Case # PUE-2014-00026	Southern Environmental Law Center (Environmental Respondents)
Aug. 13, 2014	Wisconsin Public Service Corp. 2014 Rate Application	Wisconsin PSC Docket # 6690-UR-123	RENEW Wisconsin and Environmental Law & Policy Center
Aug. 28, 2014	WE Energies 2014 Rate Application	Wisconsin PSC Docket # 05-UR-107	RENEW Wisconsin and Environmental Law & Policy Center
Sep. 18, 2014	Madison Gas & Electric Company 2014 Rate Application	Wisconsin PSC Docket # 3720-UR-120	RENEW Wisconsin and Environmental Law & Policy Center
Sep. 29, 2014	SOLAR, LLC v. Missouri Public Service Commission	Missouri District Court Case # 14AC-CC00316	SOLAR, LLC
Jan. 28, 2016 (date of CPUC order)	Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs, etc.	California PUC Rulemaking 14-07-002	The Utility Reform Network (TURN)
Mar. 20, 2015	Orange and Rockland Utilities 2015 Rate Application	New York PSC Case # 14-E-0493	Pace Energy and Climate Center
May 22, 2015	DTE Electric Company Rate Application	Michigan PSC Case # U-17767	Michigan Environmental Council, NRDC, Sierra Club, and ELPC
Jul. 20, 2015	Hawaiian Electric Company and NextEra Application for Change of Control	Hawai'i PUC Docket # 2015-0022	Hawai'i Department of Business, Economic Development, and Tourism
Sep. 2, 2015	Wisc. PSCo Rate Application	Wisconsin PSC Case # 6690-UR-124	ELPC
Sep. 15, 2015	Dominion Virginia Electric Power 2015 IRP	Virginia SCC Case # PUE-2015-00035	Environmental Respondents
Sep. 16, 2015	NYSEG & RGE Rate Cases	New York PSC Cases 15-E-0283, -0285	Pace Energy and Climate Center
Oct. 14, 2015	Florida Power & Light Application for CCPN for Lake Okeechobee Plant	Florida PSC Case 150196-EI	Environmental Confederation of Southwest Florida
Oct. 27, 2015	Appalachian Power Company 2015 IRP	Virginia SCC Case # PUE-2015-00036	Environmental Respondents

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(as of 24 March 2021)

Nov. 23, 2015	Narragansett Electric Power/National Grid Rate Design Application	Rhode Island PUC Docket No. 4568	Wind Energy Development, LLC
Dec. 8, 2015	State of West Virginia, et al., v. U.S. EPA, et al.	U.S. Court of Appeals for the District of Columbia Circuit Case No. 15-1363 and Consolidated Cases	Declaration in Support of Environmental and Public Health Intervenors in Support of Movant Respondent-Intervenors' Responses in Opposition to Motions for Stay
Dec. 28, 2015	Ohio Power/AEP Affiliate PPA Application	PUC of Ohio Case No. 14-1693-EL-RDR	Environmental Law and Policy Center
Jan. 19, 2016	Ohio Edison Company, Cleveland Electric Illuminating Company, and Toledo Edison Company Application for Electric Security Plan (FirstEnergy Affiliate PPA)	PUC of Ohio Case No. 14-1297-EL-SSO	Environmental Law and Policy Center
Jan. 22, 2016	Northern Indiana Public Service Company (NIPSCO) Rate Case	Indiana Utility Regulatory Commission Cause No. 44688	Citizens Action Coalition and Environmental Law and Policy Center
Mar. 18, 2016	Northern Indiana Public Service Company (NIPSCO) Rate Case – Settlement Testimony	Indiana Utility Regulatory Commission Cause No. 44688	Joint Intervenors – Citizens Action Coalition and Environmental Law and Policy Center
Mar. 18, 2016	Comments on Pilot Rate Proposals by MidAmerican and Alliant	Iowa Utility Board NOI-2014-0001	Environmental Law and Policy Center
May 27, 2016	Consolidated Edison of New York Rate Case	New York PSC Case No. 16-E-0060	Pace Energy and Climate Center
June 21, 2016	Federal Trade Commission: Workshop on Competition and Consumer Protection Issues in Solar Energy	Invited workshop presentation	Pace Energy and Climate Center
Aug. 17, 2016	Dominion Virginia Electric Power 2016 IRP	Virginia SCC Case # PUE-2016-00049	Environmental Respondents
Sep. 13, 2016	Appalachian Power Company 2016 IRP	Virginia SCC Case # PUE-2016-00050	Environmental Respondents
Oct. 27, 2016	Consumers Energy PURPA Compliance Filing	Michigan PSC Case No. U-18090	Environmental Law & Policy Center, "Joint Intervenors"

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(as of 24 March 2021)

Oct. 28, 2016	Delmarva, PEPCO (PHI) Utility Transformation Filing – Review of Filing & Utilities of the Future Whitepaper	Maryland PSC Case PC 44	Public Interest Advocates
Dec. 1, 2016	DTE Electric Company PURPA Compliance Filing	Michigan PSC Case No. U-18091	Environmental Law & Policy Center, “Joint Intervenors”
Dec. 16, 2016	Rebuttal of Unutil Testimony in Net Energy Metering Docket	New Hampshire Docket No. DE 16-576	New Hampshire Sustainable Energy Association (“NHSEA”)
Jan. 13, 2017	Gulf Power Company Rate Case	Florida Docket No. 160186-EI	Earthjustice, Southern Alliance for Clean Energy, League of Women Voters-Florida
Jan. 13, 2017	Alpena Power Company PURPA Compliance Filing	Michigan PSC Case No. U-18089	Environmental Law & Policy Center, “Joint Intervenors”
Jan. 13, 2017	Indiana Michigan Power Company PURPA Compliance Filing	Michigan PSC Case No. U-18092	Environmental Law & Policy Center, “Joint Intervenors”
Jan. 13, 2017	Northern States Power Company PURPA Compliance Filing	Michigan PSC Case No. U-18093	Environmental Law & Policy Center, “Joint Intervenors”
Jan. 13, 2017	Upper Peninsula Power Company PURPA Compliance Filing	Michigan PSC Case No. U-18094	Environmental Law & Policy Center, “Joint Intervenors”
Mar. 10, 2017	Eversource Energy Grid Modernization Plan	Massachusetts DPU Case No. 15-122/15-123	Cape Light Compact
Apr. 27, 2017	Eversource Rate Case & Grid Modernization Investments	Massachusetts DPU Case No. 17-05	Cape Light Compact
May 2, 2017	AEP Ohio Power Electric Security Plan	PUC of Ohio Case No. 16-1852-EL-SSO	Environmental Law & Policy Center
Jun. 2, 2017	Vectren Energy TDSIC Plan	Indiana URC Cause No. 44910	Citizens Action Coalition & Valley Watch
Jul. 28, 2017	Vectren Energy 2016-2017 Energy Efficiency Plan	Indiana URC Cause No. 44645	Citizens Action Coalition
Jul. 28, 2017	Vectren Energy 2018-2020 Energy Efficiency Plan	Indiana URC Cause No. 44927	Citizens Action Coalition
Aug. 1, 2017	Interstate Power & Light (Alliant) 2017 Rate Application	Iowa Utilities Board Docket No. RPU-2017-0001	Environmental Law & Policy Center, Iowa Environmental Council, Natural Resources Defense Council, and Solar Energy Industries Assoc.

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(as of 24 March 2021)

Aug. 11, 2017	Dominion Virginia Electric Power 2017 IRP	Virginia SCC Case # PUR-2017-00051	Environmental Respondents
Aug. 18, 2017	Appalachian Power Company 2017 IRP	Virginia SCC Case # PUR-2017-00045	Environmental Respondents
Aug. 23, 2017	Pennsylvania Solar Future Project	PA Dept. of Environmental Protection - Alternative Ratemaking Webinar	Pace Energy and Climate Center
Aug. 25, 2017	Niagara Mohawk Power Co. d/b/a National Grid Rate Case	New York PSC Case # 17-E-0238, 17-G-0239	Pace Energy and Climate Center
Sep. 15, 2017	Niagara Mohawk Power Co. d/b/a National Grid Rate Case	New York PSC Case # 17-E-0238, 17-G-0239	Pace Energy and Climate Center
Oct. 20, 2017	Missouri PSC Working Case to Explore Emerging Issues in Utility Regulation	Missouri PSC File No. EW-2017-0245	Renew Missouri
Nov. 21, 2017	Central Hudson Gas & Electric Co. Electric and Gas Rates Cases	New York PSC Case # 17-E-0459, -0460	Pace Energy and Climate Center
Jan. 16, 2018	Great Plains Energy, Inc. Merger with Westar Energy, Inc.	Missouri PSC Case # EM-2018-0012	Renew Missouri Advocates
Jan. 19, 2018	U.S. House of Representatives, Energy and Commerce Committee	Hearing on "The PURPA Modernization Act of 2017," H.R. 4476	Rábago Energy LLC
Jan. 29, 2018	Joint Petition of Electric Distribution Companies for Approval of a Model SMART Tariff	Massachusetts D.P.U. Case No. 17-140	Boston Community Capital Solar Energy Advantage Inc. (Jointly authored with Sheryl Musgrove)
Feb. 21, 2018	Joint Petition of Electric Distribution Companies for Approval of a Model SMART Tariff	Massachusetts D.P.U. Case No. 17-140 - Surrebuttal	Boston Community Capital Solar Energy Advantage Inc. (Jointly authored with Sheryl Musgrove)
Apr. 6, 2018	Narragansett Electric Co., d/b/a National Grid Rate Case Filing	RI PUC Docket No. 4770	New Energy Rhode Island ("NERI")
Apr. 25, 2018	Narragansett Electric Co., d/b/a National Grid Power Sector Transformation Plan	Rhode Island PUC Docket No. 4780	New Energy Rhode Island ("NERI")

Testimony Submitted by Karl R. Rábago

(as of 24 March 2021)

Apr. 26, 2018	U.S. EPA Proposed Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035 (Oct. 16, 2017) – “Clean Power Plan”	U.S. EPA Docket No. EPA-HQ-OAR-2016-0592	Karl R. Rábago
May 25, 2018	Orange & Rockland Utilities, Inc. Rate Case Filing	New York PSC Case Nos. 18-E-0067, 18-G-0068	Pace Energy and Climate Center
Jun. 15, 2018	Orange & Rockland Utilities, Inc. Rate Case Filing	New York PSC Case Nos. 18-E-0067, 18-G-0068 – Rebuttal Testimony	Pace Energy and Climate Center
Aug. 10, 2018	Dominion Virginia Electric Power 2018 IRP	Virginia SCC Case # PUR-2018-00065	Environmental Respondents
Sep. 20, 2018	Consumers Energy Company Rate Case	Michigan PSC Case No. U-20134	Environmental Law & Policy Center
Sep. 27, 2018	Potomac Electric Power Co. Notice to Construct Two 230 kV Underground Circuits	District of Columbia Public Service Commission Formal Case No. 1144	Solar United Neighbors of D.C.
Sep. 28, 2019	Arkansas Public Service Commission Investigation of Policies Related to Distributed Energy Resources	Arkansas PSC Docket No. 16-028-U	Arkansas Audubon Society & Arkansas Advanced Energy Association
Nov. 7, 2018	DTE Detroit Edison Rate Case	Michigan PSC Case No. U-20162	Natural Resources Defense Council, Michigan Environmental Council, Sierra Club
Mar. 26, 2019	Guam Power Authority Petition to Modify Net Metering	Guam PUC Docket GPA 19-04	Micronesia Renewable Energy, Inc.
Apr. 4, 2019	Community Power Network & League of Women Voters of Florida v. JEA	Circuit Court Duval County of Florida Case No. 2018-CA-002497 Div: CV-D	Earthjustice
Apr. 16, 2019	Dominion Virginia Electric Power 2018 IRP – Compliance Filing	Virginia SCC Case # PUR-2018-00065	Environmental Respondents
Apr. 25, 2019	Georgia Power 2019 IRP	Georgia PSC Docket No. 42310	GSEA & GSEIA
May 10, 2019	NV Energy NV GreenEnergy 2.0 Rider	Nevada PUC Docket Nos. 18-11015, 18-11016	Vote Solar

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May 24, 2019	Consolidated Edison of New York Electric and Gas Rate Cases – Misc. Issues	New York PSC Case Nos. 19-E-0065, 19-G-0066	Pace Energy and Climate Center
May 24, 2019	Consolidated Edison of New York Electric and Gas Rate Cases – Low- and Moderate-Income Panel	New York PSC Case Nos. 19-E-0065, 19-G-0066	Pace Energy and Climate Center
May 30, 2019	Connecticut DEEP Shared Clean Energy Facility Program Proposal	Connecticut Department of Energy and Environmental Protection Docket No. 19-07-01	Connecticut Fund for the Environment
Jun. 3, 2019	New Orleans City Council Rulemaking to Establish Renewable Portfolio Standards	New Orleans City Council Docket No. UD-19-01	National Audubon Society and Audubon Louisiana
Jun. 14, 2019	Consolidated Edison of New York Electric and Gas Rate Cases – Rebuttal Testimony	New York PSC Case Nos. 19-E-0065, 19-G-0066	Pace Energy and Climate Center
Jun. 24, 2019	Program to Encourage Clean Energy in Westchester County Pursuant to Public Service law Section 74-a; Staff Investigation into a Moratorium on New Natural Gas Services in the Consolidated Edison Company of New York, Inc. Service Territory	New York PSC Case Nos. 19-M-0265, 19-G-0080	Earthjustice and Pace Energy and Climate Center
Jul. 12, 2019	Application of Virginia Electric and Power Company for the Determination of the Fair Rate of Return on Common Equity	Virginia SCC Case # PUR-2019-00050	Virginia Poverty Law Center
Jul. 15, 2019	New Orleans City Council Rulemaking to Establish Renewable Portfolio Standards – Reply Comments	New Orleans City Council Docket No. UD-19-01	National Audubon Society and Audubon Louisiana
Aug. 1, 2019	Interstate Power and Light Company – General Rate Case	Iowa Utilities Board Docket No. RPU-2019-0001	Environmental Law & Policy Center and Iowa Environmental Council
Aug. 19, 2019	Consolidated Edison of New York Electric and Gas Rate Cases – Surrebuttal	New York PSC Case Nos. 19-E-0065, 19-G-0066	Pace Energy and Climate Center
Aug. 21, 2019	Connecticut Department of Energy and Environmental Protection and Public Utility Regulatory Authority Joint Proceeding on the Value of Distributed Energy Resources - Comments	Connecticut DEEP/PURA Docket No. 19-06-29	Connecticut Fund for the Environment and Save Our Sound

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Sep. 10, 2019	Interstate Power and Light Company – General Rate Case - Rebuttal	Iowa Utilities Board Docket No. RPU-2019-0001	Environmental Law & Policy Center and Iowa Environmental Council
Sep. 18, 2019	Connecticut Department of Energy and Environmental Protection and Public Utility Regulatory Authority Joint Proceeding on the Value of Distributed Energy Resources – Comments and Response to Draft Study Outline	Connecticut DEEP/PURA Docket No. 19-06-29	Connecticut Fund for the Environment, Save Our Sound, E4theFuture, NE Clean Energy Council, NE Energy Efficiency Partnership, and Acadia Center
Sep. 20, 2019	Connecticut Department of Energy and Environmental Protection and Public Utility Regulatory Authority Joint Proceeding on the Value of Distributed Energy Resources – Participation in Technical Workshop 1	Connecticut DEEP/PURA Docket No. 19-06-29 http://www.ctn.state.ct.us/ctnplayer.asp?odID=16715	Connecticut Fund for the Environment and Save Our Sound
Oct. 4, 2019	Connecticut Department of Energy and Environmental Protection and Public Utility Regulatory Authority Joint Proceeding on the Value of Distributed Energy Resources – Participation in Technical Workshop 2	Connecticut DEEP/PURA Docket No. 19-06-29 http://www.ctn.state.ct.us/ctnplayer.asp?odID=16766	Connecticut Fund for the Environment and Save Our Sound
Oct. 15, 2019	Electronic Consideration of the Implementation of the Net Metering Act (KY SB 100)	Kentucky Public Service Commission Case No. 2019-00256	Kentuckians for the Commonwealth & Mountain Association for Community Economic Development
Oct. 15, 2019	New Orleans City Council Rulemaking to Establish Renewable Portfolio Standards – Comments on City Council Utility Advisors’ Report	New Orleans City Council Docket No. UD-19-01	National Audubon Society and Audubon Louisiana, Vote Solar, 350 New Orleans, Alliance for Clean Energy, PosiGen, and Sierra Club
Oct. 17, 2019	Indiana Michigan Power Co. General Rate Case	Michigan Public Service Company Case No. U-20359	Environmental Law & Policy Center, The Ecology Center, the Solar Energy Industries Association, and Vote Solar
Dec. 4, 2019	Alabama Power Company Petition for Certificate of Convenience and Necessity	Alabama Public Service Commission Docket No. 32953	Energy Alabama and Gasp, Inc.
Dec. 5, 2019	In the Matter of Net Metering and the Implementation of Act 827 of 2015	Arkansas Public Service Commission Docket No. 16-027-R	National Audubon Society and Arkansas Advanced Energy Association

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Dec. 6, 2019	Proposed Revisions to Vermont Public Utility Commission Rule 5.100	Vermont Public Utility Commission Case No. 19-0855-RULE	Renewable Energy Vermont ("REV")
Jan. 15, 2020	General Rate Case	Washington Utilities and Transportation Commission Docket Nos. UE-190529 & UG-190530	Puget Sound Energy
Feb. 11, 2020	Application of Entergy Arkansas, LLC for a Proposed Tariff Amendment: Solar Energy Purchase Option – Direct Testimony	Arkansas Public Service Commission Docket No. 19-042-TF	Arkansas Advanced Energy Association
Mar. 17, 2020	Application of Entergy Arkansas, LLC for a Proposed Tariff Amendment: Solar Energy Purchase Option – Surrebuttal Testimony	Arkansas Public Service Commission Docket No. 19-042-TF	Arkansas Advanced Energy Association
Jun. 16, 2020	PECO Energy Default Supply Plan V – Direct Testimony	Pennsylvania Public Utility Commission Docket No. P-2020-3019290	Environmental Respondents / Earthjustice
Jun. 24, 2020	Consumers Energy Company General Rate Case – Direct Testimony	Michigan Public Service Commission Case No. U-20697	Joint Clean Energy Organizations / Environmental Law & Policy Center
Jul. 14, 2020	Consumers Energy Company General Rate Case – Rebuttal Testimony	Michigan Public Service Commission Case No. U-20697	Joint Clean Energy Organizations / Environmental Law & Policy Center
July 23, 2020	PECO Energy Default Supply Plan V – Surrebuttal Testimony	Pennsylvania Public Utility Commission Docket No. P-2020-3019290	Environmental Respondents / Earthjustice
Sept. 15, 2020	Dominion Virginia Electric Power 2020 IRP – Direct Testimony	Virginia SCC Case # PUR-2020-00035	Environmental Respondents
Sept. 18, 2020	Avoided Cost Proceeding for Georgia Power – Direct Testimony	Georgia Public Service Commission Docket No. 4822	Georgia Solar Energy Industries Association, Inc.
Sept. 29, 2020	Madison Gas and Electric – General Rate Case – Affidavit in Opposition to Electric Rates Settlement	Wisconsin Public Service Commission Docket No. 3270-UR-123	Sierra Club
Sept. 30, 2020	Madison Gas and Electric – General Rate Case – Gas Rates	Wisconsin Public Service Commission Docket No. 3270-UR-123	Sierra Club
Oct. 2, 2020	Duke Energy Florida Petition for Approval of Clean Energy Connect Program	Florida Public Service Commission Docket No. 20200176-EI	League of United Latin American Citizens of Florida

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Sept. 30, 2020	Madison Gas and Electric – General Rate Case – Gas Rates	Wisconsin Public Service Commission Docket No. 3270-UR-123	Sierra Club
Oct. 2, 2020	Duke Energy Florida Petition for Approval of Clean Energy Connect Program	Florida Public Service Commission Docket No. 20200176-EI	League of United Latin American Citizens of Florida
Oct. 2, 2020	Ameren Illinois – Investigation re: Calculation of Distributed Generation Rebates	Illinois Commerce Commission Docket No. 20-0389	Joint Solar Parties
Dec. 9, 2020	Arkansas – In the Matter of a Rulemaking to Adopt an Evaluation, Measurement, and Verification Protocol and Propose M&V Amendments to the Commission’s Rules for Conservation and Energy Efficiency Programs; In the Matter of the Continuation, Expansion, and Enhancement of Public Utility Energy Efficiency Programs in Arkansas	Arkansas Public Service Commission Docket Nos. 10-100-R, 13-002-U	Arkansas Advanced Energy Association
Dec. 22, 2020	Appalachian Power Company 2020 Virginia Clean Economy Act Compliance Plan	Virginia SCC Case No. PUR-2020-00135	Environmental Respondent
Jan. 4, 2021	Dominion Virginia Electric Power Company Clean Economy Compliance Plan	Virginia SCC Case No. PUR-2020-00134	Environmental Respondent
Feb. 5, 2021	Ameren Illinois – Investigation re: Calculation of Distributed Generation Rebates - Rebuttal	Illinois Commerce Commission Docket No. 20-0389	Joint Solar Parties
Feb. 15, 2021	Kentucky Power Company General Rate Case	Kentucky Public Service Commission Case No. 2020-00174	Joint Intervenors – Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy Society
Mar. 2, 2021	Dominion Virginia Electric Power Company Rider RGGI Proposal	Virginia SCC Case No. PUR-2020-00169	Environmental Respondent
Mar. 5, 2021	Kentucky Utilities Company and Louisville Gas and Electric Company General Rate Cases	Kentucky Public Service Commission Case Nos. 2020-00349, 2020-00350	Joint Intervenors – Mountain Association, Kentuckians for the Commonwealth, Kentucky Solar Energy Society