

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF PUBLIC SERVICE)
COMPANY OF NEW MEXICO'S)
ABANDONMENT OF SAN JUAN) Case No. 19-00018-UT
GENERATING STATION UNITS 1 AND 4)**

REBUTTAL TESTIMONY

OF

LAUREN AZAR

November 15, 2019

**NMPRC CASE NO. 19-00018-UT
INDEX TO THE REBUTTAL TESTIMONY OF
LAUREN AZAR**

**WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO**

I.	INTRODUCTION	1
II.	RESPONSE TO NEE WITNESSES FETTER AND GRUBB REGARDING THE NMPRC ANDTHE ENERGY TRANSITION ACT	6
III.	SHOULD PNM ABANDON THE SAN JUAN COAL PLANT?	9
IV.	RETURN ON AND OF PNM’S INVESTMENT IN SAN JUAN COAL PLANT IF THE ETA DOES NOT APPLY	13
V.	ENVIRONMENTAL CONCERNS ABOUT THE SAN JUAN COAL PLANT.....	23
VI.	CONCLUSION.....	25

PNM Exhibit LA-1 (Rebuttal)

Resume of Lauren Azar

AFFIDAVIT

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1

I. INTRODUCTION

2 **Q. PLEASE STATE YOUR NAME, POSITION, BUSINESS ADDRESS AND**
3 **THE PARTY ON WHOSE BEHALF YOU ARE TESTIFYING.**

4 **A.** Lauren Azar, attorney and advisor of Azar Law LLC, 809 Spaight Street
5 Madison, Wisconsin 53703. I am testifying on behalf of Public Service Company
6 of New Mexico (“PNM”).

7

8 **Q. PLEASE PROVIDE A BRIEF SUMMARY OF YOUR BACKGROUND.**

9 **A.** After practicing environmental and energy law for 13 years, I served as a
10 Commissioner at the Public Service Commission of Wisconsin from 2007 to
11 2011. In 2011, Secretary Steven Chu, of the U.S. Department of Energy
12 (“DOE”), asked me to be his senior advisor. He tasked me with helping to
13 eliminate barriers to electric infrastructure development to facilitate the
14 development of low- and no- carbon resources.

15

16 I served in President Obama’s Administration until 2013 when I opened my own
17 law firm and consulting firm. As a private attorney, I have represented utility
18 customers, utilities and a renewable-trade association. As a consultant, I have
19 advised a variety of non-governmental organizations on utility policy including
20 the Clean Power Plan and the development of renewable energy. I have testified
21 before the U.S. House of Representatives numerous times. I have attached my
22 resume as PNM Exhibit LA-1 (Rebuttal).

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

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

2 **A.** I address how the proposed retirement of the San Juan coal plant comports with
3 both the principles of sound and prudent regulatory practice as well as public
4 policy as expressed through the Energy Transition Act. Specifically, I respond to
5 direct testimony about the following topics:

6 a. If the Energy Transition Act is applicable, whether it usurps the power of
7 the NMPRC. Some of my testimony is applicable regardless of whether
8 the Energy Transition Act applies, while other portions are pertinent only
9 if the New Mexico Public Regulation Commission (“NMPRC” or
10 “Commission”) evaluates PNM’s applications outside of the Energy
11 Transition Act framework.

12 b. If the Energy Transition Act is for some reason determined by the
13 Commission as not applicable, whether the San Juan coal plant should be
14 abandoned and replaced with lower-carbon emitting resources.

15 c. If the Energy Transition Act is for some reason determined by the
16 NMPRC as not applicable, whether PNM should receive a return on and a
17 return of¹ its original investment in the San Juan coal plant, and, if so, how
18 much.

19 d. How the NMPRC should approach costs related to potentially
20 contaminated property.

21

¹ The return “of” the investment means allowing PNM to recover its original investment in the San Juan coal plant. A return “on” the investment means allowing PNM to receive a reasonable return, or profit, on that investment.

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 **Q. BASED ON YOUR EXPERIENCE AS A STATE COMMISSIONER AND**
2 **SENIOR ADVISOR TO THE DOE SECRETARY, WHAT ARE YOUR**
3 **CONCLUSIONS?**

4 **A.** My conclusions are as follows:

5 a. State legislatures throughout the United States are recognizing the need for
6 transformative change in their electric infrastructure. In response, many are
7 passing laws establishing frameworks and providing tools for addressing this new
8 reality. The New Mexico Legislature has joined those states and gave the
9 NMPRC tools to cost-effectively facilitate this transformation towards a lower-
10 and no-carbon future. The Energy Transition Act provides the Commission with
11 tools to benefit customers by replacing traditional debt-and-equity financing of
12 the unrecovered investment in the coal plant with debt-only financing through
13 securitization. The Act further gives the Commission powers to assist affected
14 communities in transitioning to a cleaner energy future.

15 b. To protect PNM's customers and in recognition of the New Mexico
16 Legislature's mandates on carbon emissions, the Commission should authorize
17 PNM to abandon the San Juan coal plant and replace it with resources that are
18 consistent with the emerging policies of the State of New Mexico to move to
19 lower-cost and lower-carbon sources of generation.

20 c. In recognition of the regulatory compact and sound regulatory policy, the
21 Commission should allow PNM to receive 100% of its prudent, prior investments
22 in the San Juan coal plant.

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 d. Based on the record in this case, the NMPRC should follow traditional
2 regulatory practice and provide PNM with a full return on those investments.
3 However, the most beneficial approach for customers is to securitize the
4 unrecovered investment in the San Juan coal plant as enabled by the Energy
5 Transition Act.

6 e. Because our nation's environmental laws have evolved over time, if
7 contamination were to be found at the San Juan coal plant site, that does not
8 necessarily mean PNM acted inappropriately.

9
10 **Q. WHAT BACKGROUND INFORMATION DID YOU RELY ON TO**
11 **REACH THESE CONCLUSIONS?**

12 **A.** Pursuant to the NMPRC issuing a Certificate of Public Need and Necessity
13 ("CNN"), Unit 1 of the San Juan coal plant came on line in 1973 and Unit 4 in
14 1982. (Application, p. 9.) Over the last nearly five decades, the NMPRC has
15 included PNM's investments in San Juan coal plant in PNM's rate base. Through
16 a series of NMPRC orders, PNM's investments in the coal plant were to be
17 depreciated until 2053. (Monroy Direct 49:9-10.) Over the last 45 years, PNM's
18 customers have been receiving the benefit of electricity being produced by the
19 coal plant and, subject to certain exceptions, PNM has been receiving a return on
20 and of its investment in the coal plant. As of June 2022, approximately \$283
21 million would remain undepreciated and in ratebase ("Undepreciated

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 Investment”).² PNM’s abandonment application is not unlike challenges other
2 states have faced; namely, generation resources that have served capably and cost-
3 effectively for decades are no longer needed and can be replaced with lower-cost,
4 cleaner generation resources.

5
6 In its Final Order in Case No. 13-00390-UT, the NMPRC required that PNM
7 evaluate whether to continue to operate Units 1 and 4 after June 30, 2022, when
8 the current coal supply and operating agreements would expire. (Application, p.
9 10.) PNM’s 2017 Integrated Resource Plan (“2017 IRP”) and subsequent
10 analyses show it benefits customers to replace the coal plant with alternative
11 resources. (Application, p. 10.) Indeed, studies show that PNM’s revenue
12 requirement – and hence costs to customers -- could decrease in the first year after
13 removing the San Juan coal plant from PNM’s ratebase. (Phillips Direct 14:12-
14 16.) Conservatively, the savings to customers has been estimated to be in the
15 hundreds of millions with securitization and tens of millions without
16 securitization. All of the cost studies conducted by PNM that demonstrate these
17 significant net benefits assumed that PNM would receive a 100% return on and of
18 PNM’s Undepreciated Investment. (Monroy Direct 48:10-13.) Moreover, none
19 of the current owners of Units 1 and 4 have entered into new operating
20 agreements, and all owners but one do not intend to rely on the plant beyond June

² The following PNM investments in the San Juan coal plant are not included in the \$283 million of Undepreciated Investment: investment in the balanced draft technology for units 1 and 4, investments associated with 132 MW and 65 MW in Unit 4, and the net book value of the San Juan switchyard. (Monroy Direct 8:16-18, 12:12-13:2.)

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 30, 2022. Based on years of study, PNM concluded it was prudent to abandon the
2 San Juan coal plant and replace it with lower- and no-carbon emitting resources.

3
4 During the 2019 legislative session, the New Mexico Legislature passed the
5 Energy Transition Act. Recognizing the rapidly changing environment in the
6 electric industry, the Legislature set forth a number of ambitious goals to
7 decarbonize New Mexico’s electric industry.³ The Legislature gave the NMPRC
8 the tools and framework on how the State and Commission would abandon and
9 decommission existing generators that would not meet these new goals. In
10 response to the Energy Transition Act, PNM testified that it has been working
11 hard to achieve zero emission goals by 2040. (Darnell Direct, 4:4-5.)

12
13 **II. RESPONSE TO NEE WITNESSES FETTER AND GRUBB REGARDING**
14 **THE NMPRC AND THE ENERGY TRANSITION ACT**

15 **Q. AS A FELLOW FORMER REGULATOR, HOW WOULD YOU RESPOND**
16 **TO NEE WITNESS AND FORMER COMMISSIONER FETTER’S**
17 **CRITIQUE OF THE ENERGY TRANSITION ACT?**

18 **A. While NEE Witness Commissioner Fetter may not like the balance struck by**
19 certain provisions in the Energy Transition Act, but it is the law that the New

³ “ETA’s new statewide renewable energy standards set forth the milestones that are to be achieved in the transition from carbon-emitting generation sources to zero-carbon generation by 2045. The Act provides for intermediate steps, with a goal of 50 percent renewable energy production by 2030 for New Mexico investor-owned utilities, 80 percent renewable energy by 2040, and zero-carbon resources for investor-owned utilities by 2045. Section 36 of the ETA provides for stricter new limits on carbon dioxide emissions by January 1, 2023 for generating facilities that would include the SJGS.” (Crane Direct 15:9-16:2.)

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 Mexico Legislature passed and New Mexico Governor Lujan Grisham signed. It
2 sets the energy policy course for New Mexico. This case is about the San Juan
3 coal plant and the tools available to the Commission to close and replace that
4 plant in a way that benefits customers and helps affected communities.

5
6 **Q. DOES THE ENERGY TRANSITION ACT INAPPROPRIATELY**
7 **CONSTRAIN THE NMPRC AS ALLEGED BY NEE WITNESSES GRUBB**
8 **AND FETTER? (GRUBB DIRECT 9:2-4,11:6-7; FETTER DIRECT 6:17-**
9 **21.)**

10 **A.** No. The New Mexico Constitution sets forth the framework for evaluating this
11 question:

12 The public regulation commission shall have responsibility for
13 regulating public utilities, including electric, natural gas and water
14 companies; transportation companies, including common and
15 contract carriers; transmission and pipeline companies, including
16 telephone, telegraph and information transmission companies;
17 insurance companies and others engaged in risk assumption; and
18 other public service companies in such manner as the legislature
19 shall provide.

20 N.M. Const. Article XI, Section 2 (Emphasis added). Regulatory commissions
21 throughout the United States successfully work within the constitutional and
22 statutory frameworks created by other governmental branches including state
23 legislatures. When I was a Commissioner, there were some Wisconsin laws
24 enacted that I did not particularly agree with. But, my job as a Commissioner was
25 to render decisions under the existing statutes regardless of whether I agreed with

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 them or not. Indeed, there were decisions I made that complied with the law, but
2 with which I personally did not agree.

3
4 More and more, legislatures are providing guidance and tools to their
5 commissions to speed the transition to a lower-carbon economy. This is a
6 positive development: providing utilities with clear direction on the type of
7 generation needed over the next ten, twenty and thirty years will facilitate a more
8 cost-effective, environmentally-friendly and orderly transition in the utilities'
9 generation portfolios. The Energy Transition Act provides this clear direction to
10 New Mexico's utilities.

11
12 Many states have been following a path similar to New Mexico, where cost-
13 effective, lower- and no-carbon resource planning is driven by the combined
14 action of the legislative and executive branches. Examples include California,
15 Colorado, Illinois, Hawaii, Maine, Maryland, Massachusetts, Minnesota, Nevada,
16 New Jersey, New York, Oregon, Vermont, Washington and Washington D.C.⁴

⁴ The following are citations to relevant legislation in other states: California (SB100, 100% by 2045); Colorado (House Bill 19-1261; House Bill 19-1314, 100% by 2040); Illinois (Clean Energy Jobs Act, 100% by 2050); Hawaii (HB 623,100% by 2045); Maine 129 LR 2478, LD 1679, SP 550, 80% renewables by 2030); Maryland (Clean Energy Jobs Act, 50% by 2030); Massachusetts (H 4857, Clean Energy Bill); Minnesota (Next Generation Energy Act, 25% by 2025 and 80% by 2050 with new bills pending); Nevada (SB 358, 50 % by 2030, 100% by 2050); New Jersey (Clean Energy Act, 50% by 2030); New York (70% by 2030, 100% by 2040); Oregon (Clean Electricity and Coal Transition Act); Vermont 75% by 2032; Washington (SB 5116, 100% by 2045); Washington D.C. (CEDC Act, 100% by 2032).

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 **Q. WHAT ARE SOME EXAMPLES OF THE TOOLS THAT THE ENERGY**
2 **TRANSITION ACT PROVIDES TO THE NMPRC?**

3 **A.** First, the NMPRC can minimize the economic impacts of transitioning from coal
4 to lower- and no-carbon resources through securitization under the Energy
5 Transition Act. Many other states are successfully encouraging retirements of
6 high-carbon generators while minimizing the impacts to customers through
7 securitizing the Undepreciated Investment. The Energy Transition Act mandates
8 that this cost-saving tool be available to utilities in New Mexico. Second, through
9 the Energy Transition Act, the NMPRC will also be able to compensate those
10 communities and workforces that would be hardest hit by the plant retirements.
11 The statute enables the NMPRC to require PNM to pay for costs not directly
12 related to utility services, when securitized financing is used.

13
14 **III. SHOULD PNM ABANDON THE SAN JUAN COAL PLANT?**

15 **Q. NUMEROUS WITNESSES HAVE IDENTIFIED THE REGULATORY**
16 **COMPACT AS A KEY COMPONENT IN THIS DOCKET. (SISNEROS**
17 **DIRECT 6:15-19, 9:7-11; ESCHBERGER DIRECT 13:1-18; FETTER**
18 **DIRECT 7:20-8:16.) WHAT IS THE REGULATORY COMPACT?**

19 **A.** When electric utilities were first emerging in the early 1900s, the states agreed to
20 provide them with protection from competitors if the utilities agreed to provide
21 safe and reliable service at a reasonable cost to all customers within a specified

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 service territory. In return, the utilities agreed that the states could regulate them.
2 This agreement was called the regulatory compact.

3
4 Under the compact, regulators ensure that the utilities do not abuse their market
5 power as a monopoly. “The essence of regulation is the explicit replacement of
6 competition with governmental orders as the principal institutional device for
7 assuring good performance.” Alfred Kahn *The Economics of Regulation:
8 Principals and Institutions*, Vol. I. p. 20 (1970). The regulatory compact balances
9 the public interest of customers with the business interests of the utility through,
10 among other things, the following:

- 11 • ensuring that the utility’s service and rates are just, reasonable and non-
12 discriminatory; and
- 13 • providing the utilities an opportunity to recover prudently expended costs
14 plus a reasonable return on their investments.

15 The regulatory compact protects both customers and the utilities.

16
17 **Q. WHY IS THE REGULATORY COMPACT IMPORTANT IN**
18 **DETERMINING WHETHER THE SAN JUAN COAL PLANT SHOULD**
19 **BE RETIRED AND REPLACED WITH NEW RESOURCES?**

20 **A.** Under the regulatory compact, utilities are required to properly manage their
21 businesses. This includes evaluating, among other things, whether they should
22 continue to maintain their assets or whether it is better to retire and replace them.
23 In a competitive environment, well-run businesses do this all of the time: they

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 determine if it would be more cost-effective and better for their business to
2 abandon older (but still functional) equipment for new equipment. PNM had been
3 evaluating the cost-effectiveness of continuing to operate San Juan coal plant
4 Units 1 and 4 for many years. (Phillips Direct 4:5-8.) In its 2017 IRP, PNM
5 concluded it would be best if PNM retired the San Juan coal plant and replaced it
6 with new resources. (Fenton Direct 2:14-16.)

7
8 PNM Witness Phillips' testimony establishes that operating the San Juan coal
9 plant beyond 2022 would not be cost-effective. (Phillips Direct 3:22-4:6.) NM
10 AREA Witness Dauphinais conducted additional analysis and confirmed that
11 abandonment of San Juan coal plant Units 1 and 4 in 2022 would have a lower
12 revenue requirement than continuing to operate the units. (Dauphinais Direct
13 15:13-17.) PNM Witness Graves conducted an independent review of PNM's
14 analysis and concluded that it is reasonable. (Graves Rebuttal.)

15
16 **Q. IF PNM WERE FUNCTIONING IN A COMPETITIVE ENVIRONMENT,**
17 **WOULD ABANDONING THE SAN JUAN COAL PLANT IN 2022 BE**
18 **APPROPRIATE?**

19 **A.** Absolutely. With the exception of Staff Witness Solomon, all intervenor
20 witnesses who addressed the issue believe there is sufficient justification to
21 approve PNM's request for abandonment. (Begaye Direct 2:28-30; Crane Direct
22 8:14-16; Dauphinais Direct 13:7-14; Grubb 3:16-17; Howe Direct 2:15-16;
23 O'Donnell Direct 3:11-13; Schwartz Direct 48:5-9.)

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 Staff Witness Solomon’s reticence is based on a pre-feasibility study for carbon
2 capture, utilization, and sequestration (“CCUS”) at the San Juan coal plant;
3 Witness Solomon believes more study is required before a decision can be made.
4 (Solomon Direct 20:9-12.) However, if the San Juan coal plant is ultimately
5 retired in 2022, PNM must take action now to replace that capacity or risk having
6 insufficient resource adequacy, *i.e.*, or risk violating PNM’s statutory duties.
7 (Darnell Direct 16:1-7; Fallgren Direct 18:14-19:6.) Given these time constraints,
8 it would not be prudent for PNM to delay obtaining replacement resources based
9 on questions raised by a pre-feasibility study of an expensive and immature
10 technology. (Graves Rebuttal.)

11
12 In contrast to Staff Witness Solomon, who merely asked for more analysis, PNM
13 Witness Graves analyzed the economics of CCUS and concluded that relative to
14 the cost of continuing to operate the San Juan coal plant as-is, the cost of carbon
15 capture under all but the most optimistic hypotheses would be significantly more
16 expensive on a net present value basis. (Graves Rebuttal.) Moreover, PNM
17 conducted its own analysis and confirmed that CCUS would increase costs to
18 consumers over the proposed abandonment and resource replacement. (Phillips
19 Rebuttal.)

20
21 The Commission should grant PNM’s application to abandon the San Juan coal
22 plant and approve suitable replacement resources for the lost capacity so they are
23 available by 2022.

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 The regulatory compact provides considerations that can be used in determining
2 just and reasonable rates when facing the retirement of Undepreciated Investment.

3 Such considerations include the following:

- 4 • whether the Undepreciated Investment was prudently incurred;
- 5 • what incentives would be created for allowing recovery of the
6 Undepreciated Investment;
- 7 • whether risk has been appropriately allocated when allocating the recovery
8 of the Undepreciated Investment;
- 9 • how the used-and-useful theory should apply to the recovery of the
10 Undepreciated Investment; and
- 11 • whether the interests of customers and the utilities are appropriately
12 balanced when allocating the recovery of the Undepreciated Investment.

13 Below, I apply each of these considerations to the return on and of PNM's
14 Undepreciated Investment.

15
16 **Q. WAS PNM'S UNDEPRECIATED INVESTMENT PRUDENTLY**
17 **INCURRED?**

18 **A.** Yes. One of the tests the Commission should apply to the Undepreciated
19 Investment is whether it was prudently incurred. New Mexico Statutes Chapter
20 62 repeatedly refers to "prudent and reasonable costs" but does not define it.
21 However, the New Mexico Supreme Court has defined prudence as follows:

22 Prudence is that standard of care which a reasonable person
23 would be expected to exercise under the same circumstances

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 encountered by utility management at the time decisions had to
2 be made. In determining whether a judgment was prudently
3 made, only those facts available at the time judgment was
4 exercised can be considered. Hindsight review is impermissible.

5 Imprudence cannot be sustained by substituting one's judgment
6 for that of another. The prudence standard recognizes that
7 reasonable persons can have honest differences of opinion
8 without one or the other necessarily being imprudent.

9 *Public Serv. Co. v. N.M. Public Regulation Comm'n*, 444 P.3d 460, ¶ 29 (N.M.
10 2019).

11 Because the NMPRC approved the majority of PNM's Undepreciated Investment,
12 and because the costs have remained within PNM's ratebase over the last 45
13 years, one can presume that the Undepreciated Investment is prudent. Many
14 believe that once costs are deemed "prudent" then the analysis is complete and the
15 utility should be allowed to recover those costs. Indeed, even NEE Witness
16 Commissioner Fetter believes that "every utility is entitled to recover all of its
17 prudently-incurred costs." (Fetter Direct 19:1-2.)

18
19 **Q. STAFF WITNESS SISNEROS TESTIFIED THAT ALLOWING PNM TO**
20 **RECOVER 100% OF ITS INVESTMENT WOULD GIVE PNM "A**
21 **PERVERSE INCENTIVE TO VENTURE INTO MORE RISKY**
22 **INVESTMENTS." (SISNEROS DIRECT 8:8-14.) DO YOU AGREE?**

23 **A.** No. On the contrary, disallowing full recovery of the Undepreciated Investment
24 would incentivize utilities to run their generation plants until the absolute end of
25 their accounting lives, regardless of the impacts on customers. Such an incentive
26 would be particularly damaging right now as the industry is rapidly changing. As

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 noted above, as a surrogate for the competitive business world, the Commission
2 should be encouraging the evaluation and possible abandonment of older, more
3 expensive and carbon-heavy technologies. Indeed, the State of New Mexico’s
4 new energy policy in the Energy Transition Act mandates it.

5
6 PNM Witness Graves’ testimony demonstrates that abandonment and replacement
7 are best for the customers and allowing PNM to recover 100% of the
8 Undepreciated Investment is an appropriate outcome. (Graves Rebuttal.)

9
10 Also, Staff Witness Sisneros testifies that building the San Juan coal plant was a
11 “risky investment” and the Commission should not incentivize “more” such
12 investments by returning 100% of the Undepreciated Investment to PNM.
13 (Sisneros Direct 8:8-14.) But Staff Witness Sisneros does not provide evidence
14 that the Undepreciated Investment was a “risky investment.” As I understand the
15 facts, the Commission approved the construction of the San Juan coal plant and
16 has approved most of its capital improvements and its operation and maintenance
17 budgets over the last 45 years through numerous PNM rate and other regulatory
18 cases. Hence, the Commission’s prior actions demonstrate that PNM
19 appropriately incurred the Undepreciated Investment and there is no evidence in
20 the record suggesting otherwise. Furthermore, the San Juan coal plant was
21 approved and built during the era of the late-1970s and early-1980s when coal-
22 fired technology was low cost, state-of-the-art and beneficial as compared to
23 alternatives. Throughout the western U.S. and the nation at that time, utilities

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 built coal-generating stations that served their customers cost-effectively. Now
2 that time is coming to an end, but it does not mean decisions made over 40 years
3 ago were imprudent, or that ongoing improvements to those coal stations did not
4 make financial and regulatory sense at the time.

5
6 Finally, the arbitrary disallowance of prudently incurred costs could incentivize a
7 utility to manage risk differently when dealing with long-lived capital assets such
8 as a generation plant. Specifically, a utility that fears its commission may
9 disallow recovery of Undepreciated Investments is more likely to avoid long-term
10 capital investment and/or could seek to shorten the depreciation life of any asset.
11 This would mean a higher rate impact for customers and a stronger aversion by
12 the utility for long-term investments.

13
14 **Q. NMAG WITNESS CRANE TESTIFIED THAT ALLOWING PNM TO**
15 **RECOVER 100% OF ITS INVESTMENT WOULD INAPPROPRIATELY**
16 **SHIFT THE RISK OF THE ORIGINAL INVESTMENT FROM**
17 **SHAREHOLDERS TO RATEPAYERS. DO YOU AGREE? (CRANE**
18 **DIRECT 24:20-25:3.)**

19 **A.** No. First, it is unclear to what risk NMAG Witness Crane is referring. “The
20 ‘risk’ with which regulators are mainly concerned these days are prudent
21 investments that are made in the normal course of utility business to provide
22 service to customers, and that then either fail, yield poor results (*e.g.*, capacity
23 underutilization), or produce long-delayed benefits and returns.” Hoecker, *Used*

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 *and Useful: Autopsy of a Ratemaking Policy*, Energy Law Journal, Vol. 8:303 p.
2 321 (1987). PNM has been holding the risk of San Juan coal plant for the last 45
3 years, all while providing benefits to the customers.

4
5 Second, choosing to abandon the plant prior to the end of its life is also a benefit
6 to customers and eliminates further operational risk from the plant. Once the
7 plant is abandoned and the site decommissioned, there is no longer an ongoing
8 risk to consumers or shareholders. Allowing PNM to recover 100% of its
9 Undepreciated Investment, therefore, does not inappropriately shift risk.

10
11 Finally, as noted in my response to Staff Witness Sisneros's critique, arbitrarily
12 disallowing undepreciated investments creates new risks for utilities and their
13 shareholders that could result in the following unintended consequences: less
14 investment by utilities in long-term assets and a request for shorter depreciation
15 lives of assets leading to higher rates. Also, shareholders could demand higher
16 returns to compensate for the increased risk of regulatory hindsight disallowing
17 investment. None of these consequences is good for customers.

18
19 **Q. STAFF WITNESS ESCHBERGER AND NMAG WITNESS CRANE**
20 **TESTIFIED THAT BECAUSE THE SAN JUAN COAL PLANT WILL NO**
21 **LONGER BE USED AND USEFUL THAT PNM IS NOT ENTITLED TO**
22 **RECOVER THEIR UNDEPRECIATED INVESTMENT. DO YOU**

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 **AGREE? (ESCHBERGER DIRECT 12:4-7; 12:14-18; CRANE DIRECT**
2 **54:1-3.)**

3 **A.** No. The used and useful standard is commonly applied in deciding what electric
4 assets should be placed or remain within ratebase—*i.e.* upon what assets a utility
5 should receive a profit.⁵ However, Staff Witness Eschberger and NMAG Witness
6 Crane propose that the standard be used to deny recovery of the initial investment
7 itself. The customers have benefitted from the San Juan coal plant over last 45
8 years, *i.e.* it was used and useful for 45 years. Because the depreciation period is
9 through 2053, those past customers did not pay for the whole investment even
10 though they were benefitting from the San Juan coal plant. Additionally, future
11 customers will financially benefit from the replacement of the San Juan coal plant
12 with the proposed new resources and they will benefit environmentally from
13 replacing a coal plant with new lower- and no-carbon resources. (Fallgren Direct:
14 8:20-11:2; Phillips Rebuttal.) Based on my experience, it would be inequitable to
15 disallow recovery of prudently incurred costs that have benefitted customers for
16 45 years without full replacement of costs and to penalize a utility for saving
17 future customers money by retiring an older generator before it is fully
18 depreciated. The Commission should try to align customers’ benefits and
19 investors’ costs over the long-term.

⁵ “[T]he used and useful case law of regulatory agencies is largely concerned with assets eligible for rate base, *i.e.*, the investment in physical plant upon which utilities may earn a return.” Hoecker, *Used and Useful*, p. 312; *N.M. Industrial Energy Consumers v. N.M. Public Regulation Comm’n*, 104 N.M. 565, 725 P.2d 244 (1986) (“[o]ur caselaw confirms that the ‘used and useful’ concept is but one factor among many to be considered by the Commission in its rate base analysis.”; *see also Alto Village Services v. New Mexico Public Serv. Comm’n*, 92 N.M. 323, 587 P.2d 1334 (1978) (whether utility property is “used and useful” and therefore to be included in rate base is a factual determination).

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 **Q. STAFF WITNESSES SISNEROS AND ESCHBERGER TESTIFIED THAT**
2 **THE REGULATORY COMPACT REQUIRES THAT THE**
3 **UNDEPRECIATED INVESTMENT BE SPLIT BETWEEN THE**
4 **SHAREHOLDERS AND RATEPAYERS. (SISNEROS DIRECT 6:15-19;**
5 **9:7-11. ESCHBERGER DIRECT 12:5-9.) DO YOU AGREE?**

6 **A.** No. While the regulatory compact requires a balancing of interests between the
7 shareholders and customers, “balancing” does not equate to splitting. When
8 determining how best to balance the interests between shareholders and
9 customers, one should incorporate the other considerations within the regulatory
10 compact including prudence, risk, and incentives. As noted above, the NMPRC
11 has already found the Undepreciated Investment to be prudent and the
12 shareholders have been holding risk of the plant for 45 years. Moreover, with
13 abandonment, PNM will be eliminating the operating risk from that plant, and
14 PNM should be incentivized to retire and replace plants when it is cost-effective,
15 benefits customers and comports with New Mexico’s new carbon policy.
16 Ordering that PNM recover anything less than 100% of PNM’s Undepreciated
17 Investment would, among other things, send the wrong signal to PNM about
18 whether it should invest in long-term capital assets.

19

20 **Q. STAFF WITNESS ESCHBERGER, STAFF WITNESS TUPLER, AND**
21 **NMAG WITNESS CRANE ADVOCATE FOR FOLLOWING THE SAME**
22 **FRAMEWORK USED IN THE ABANDONMENT OF SAN JUAN UNITS 2**
23 **AND 3 AND APPLYING A 50/50 SPLIT BETWEEN SHAREHOLDERS**

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 **AND RATEPAYERS. (ESCHBERGER DIRECT 6:5-11, 8:16-9:4; TUPLER**
2 **DIRECT 5:6-9; CRANE DIRECT 24:14 – 25:17, 57:12-18.) DO YOU**
3 **AGREE?**

4 **A.** No. Staff conceded that the framework used for Units 2 and 3 has no precedential
5 effect on this case. (Eschberger Direct 4:11-12.) Because of the many facets and
6 compromises that went into the Stipulation for the abandonment of Units 2 and 3,
7 that Stipulation and the subsequent NMPRC decision should have no influence on
8 the Commission’s evaluation of Units 1 and 4 because there are material
9 differences between the two cases. For example: (1) the State of New Mexico did
10 not have an aggressive carbon policy in place during the last case; (2) the
11 retirement of Units 2 and 3 was prompted by the need to address the federal
12 mandate regarding regional haze (Phillips Direct 4:10-13); (3) PNM was granted
13 a CCN to include Unit 3 of the Palo Verde Nuclear coal plant for this resource to
14 be included in PNM’s rate base; and (4) in this case, with the exception of
15 Farmington, all other owners of San Juan coal plant intend to exit participation in
16 the San Juan coal plant. (Phillips Direct 6:9-11; Darnell Rebuttal.)

17
18 Rather than arbitrarily plucking one component from that Stipulation that does not
19 reflect other tradeoffs and benefits, the Commission should look at the totality of
20 the circumstances in determining what is just and reasonable.

21

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 **Q. WHAT ABOUT THE RETURN ON UNDEPRECIATED INVESTMENT?**

2 **A.** The testimony above demonstrated that the retirement of the San Juan coal plant
3 prior to the end of its useful life is prudent, that the Undepreciated Investment was
4 prudently incurred and that PNM, therefore, should receive a 100% return “of” its
5 Undepreciated Investment. Traditional ratemaking allows a utility to receive, not
6 only a return “of”, but also a return “on” all prudently incurred costs. (Fetter
7 Direct 19:1-2; FERC Order No. 888 at 490 (1996); Darnell Rebuttal). While
8 there are exceptions, there is nothing in the record of this case that I reviewed that
9 would require a deviation from this traditional rule.

10

11 Most importantly, the record shows that consumers will economically benefit
12 from PNM’s proposal where PNM receives 100% return of and return on its
13 Undepreciated Investment. While economic benefits will accrue without
14 securitization, the least costly way to handle the return on the Undepreciated
15 Investment is to utilize the securitization tool provided by the Energy Transition
16 Act. (Howe Direct 5: 10-11.)

17

18 In addition to benefitting customers, awarding a 100% return on the
19 Undepreciated Investment would also incentivize shareholders to continue to
20 invest in PNM’s long-term infrastructure development. Hence a 100% recovery
21 for the Undepreciated Investment would benefit both customers and shareholders.

22

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

**V. ENVIRONMENTAL CONCERNS ABOUT THE SAN JUAN COAL
PLANT**

**Q. WHY ARE YOU ADDRESSING ENVIRONMENTAL CONCERNS AT
THE SAN JUAN COAL PLANT?**

A. NEE Witnesses Norvelle, Grogan and Hutson testify about the environmental conditions at the San Juan coal plant, including past alleged discharges early in the plant's operation. (Norvelle Direct 1:9-10, 2:12-14, 3:1-2, 3:12-14, 4:15-18; Grogan Direct 2:18-20, 3:3-5; Hutson Direct 5:1-3, 7:5-7.) During my first 13 years of private law practice, I represented numerous individuals and companies who owned contaminated properties and were remediating them, ranging from mom-and-pop gas station owners to companies involved in Superfund sites. I learned a lot about contamination that helped inform my work as a Commissioner when faced with impacted utility property.

**Q. AS A COMMISSIONER, HOW DID YOU APPROACH IMPACTED
UTILITY PROPERTY?**

A. The mere existence of impacted property does not mean that the utility acted inappropriately at the time of the spill or discharge. Environmental laws have changed dramatically since the 1970s when the San Juan Coal Plant came on line. Over time, what was once perfectly legal – such as discharging materials into soil or water bodies – became impermissible or regulated.

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 NEE Witness Hutson discusses his conclusions about possible existing or future
2 contamination at San Juan. As explained by PNM Witnesses Cowin and Hale,
3 these conclusions are not well-founded. (Cowin Rebuttal; Hale Rebuttal.)
4 Moreover, the San Juan coal plant is subject to strict oversight by the New
5 Mexico Environment Department and the U.S. Environmental Protection Agency.

6
7 Resolving disputes about environmental compliance and impacts is within the
8 purview of these environmental agencies and not utility commissions.

9
10 **Q. IS THE FACT THAT THERE MAY HAVE BEEN IMPACTS TO THE**
11 **ENVIRONMENT FROM PLANT OPERATIONS EVIDENCE OF**
12 **IMPRUDENT OPERATIONS?**

13 **A.** No. A coal-fired power plant is an industrial operation and there will be impacts
14 to the environment. The mere existence of environmental impacts is not
15 indicative of imprudent operations.

16
17 **Q. IS PNM SEEKING ANY COSTS IN THIS CASE FOR ADDRESSING ANY**
18 **POTENTIAL FUTURE ENVIRONMENTAL ISSUES THAT MAY BE**
19 **FOUND AT THE SAN JUAN COAL PLANT?**

20 **A.** No. (Fallgren Rebuttal.) Accordingly, the discussion of any potential
21 environmental concerns at the San Juan coal plant is not germane to this docket.
22 If such future potential costs were to arise, I would expect those costs to be

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 presented in a future rate case or other appropriate proceeding for review by the
2 Commission prior to any allowed recovery by PNM.

3
4 **VI. CONCLUSION**

5 **Q. DO YOU HAVE CONCLUDING REMARKS?**

6 **A.** At least 14 state legislatures, including New Mexico are requiring their electric
7 utilities to transition to cost-effective, low- and no-carbon resources. The Energy
8 Transition Act provides the NMPRC with tools to minimize the costs of this
9 transformation through securitization and to assist the communities and workers
10 adversely affected by the changes.

11
12 Whether the Energy Transition Act applies or not, PNM's proposed abandonment
13 and replacement of the San Juan coal plant both will save customers money and
14 will provide environmentally better generation. The record clearly demonstrates
15 that the NMPRC should approve the abandonment of the San Juan coal plant.

16
17 Over the last 45 years, customers have received reliable power from the San Juan
18 coal plant but have only paid for part of it. Because of unforeseen events, the
19 useful life of the San Juan coal plant has been cut short and before the end of its
20 accounting life. Nevertheless, PNM made a prudent decision to construct and
21 operate the San Juan coal plant over the last 45 years. PNM is also making a
22 prudent decision to retire and replace that unit before the end of its useful and

**REBUTTAL TESTIMONY
OF LAUREN AZAR
NMPRC CASE NO. 19-00018-UT**

1 accounting lives. The NMPRC should provide 100% return of the Undepreciated
2 Investment and, based on the record in this case, should provide a full return “on”
3 that investment. The most cost-effective manner of dealing with the return on the
4 Undepreciated Investment is to utilize the securitization tool enabled by the
5 Energy Transition Act.

6

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

8 **A. Yes it does.**

GCG#526361

Resume of Lauren Azar

PNM Exhibit LA-1 (Rebuttal)

Is contained in the following 10 pages.



Lauren L. Azar
Azar Law LLC
Azar Consulting LLC
 Madison, Wisconsin
 Cell: 608-332-9691
 Lauren@AzarLawLLC
 Lauren@AzarConsultingLLC

Education

J.D. University of Wisconsin – Madison, 1994, *cum laude*, Order of the Coif, Business Editor of *Wisconsin Women's Law Journal*

M.S. University of Wisconsin – Madison, 1994, Water Resources Management

M.A. Northwestern University, 1987, Philosophy

B.A. Rutgers College, 1984, High Honors

Employment Summary

Azar Law LLC, Owner
Azar Consulting LLC, Owner
 September 2013 - Present

U.S. Department of Energy (DOE), Senior Advisor to the Secretary
 June 2011 – September 2013

Public Service Commission of Wisconsin (PSCW), Commissioner
 March 2007 – June 2011

Michael Best & Friedrich LLP (a corporate law firm)

2001-2007 Partner
 1994-2001 Associate
 1992-1994 Clerk

Dane County Housing Authority

1989-1990 Assistant to the Director
 1988-1989 Housing Counseling Specialist

Lawyer and Advisor

Through Azar Law LLC and Azar Consulting LLC, Lauren is providing a variety of services in the energy field both for the private and public sectors. Her work includes business, regulatory and policy advice as well as traditional legal services--such as project development, permitting, and siting. Topical areas have included: renewables, resilience, transmission, climate change, new utility business models, new technologies, energy security, and utility mergers and acquisitions.

Senior Advisor to the Secretary

As Secretary Steven Chu's Senior Advisor, Azar advised the Secretary on the electric industry and on the institutional barriers to developing the Nation's electric infrastructure. Among other things, Ms. Azar co-led the negotiations among nine federal agencies to overhaul their evaluation of transmission

projects of regional and national significance. She represented the DOE in President Obama's initiative to streamline federal permitting, which resulted in federal legislation. Secretary Chu also tapped Ms. Azar to spearhead an initiative with the DOE's power marketing administrations to ensure they are leaders in the development of a modern, secure and reliable transmission grid. She oversaw an immediate staff of up to seven.

With top-secret clearance, Ms. Azar became familiar with cyber security vulnerabilities and threats. She had frequent contacts with Congressional members, Federal Energy Regulatory Commissioners, and their staffers on issues relating to electric infrastructure. Ms. Azar regularly engaged with state public utility commissioners on issues of mutual interest.

**Accomplishments
as Utility
Commissioner**

Ms. Azar served as one of three Commissioners at the Public Service Commission of Wisconsin (Commission), which is an independent governmental agency overseeing the electric, natural gas, water and telecommunications industries in the State of Wisconsin. Commissioners have both legislative and adjudicatory powers. Among other things, the Commission sets the rates and approves construction applications for electric and water public utilities, oversees natural gas supply plans for Wisconsin utilities and administers the telecommunications' Universal Service Fund.

Commissioner Azar organized the 39 states, Washington D.C. and eight Canadian provinces and territories within the eastern transmission interconnection to participate in interconnection-wide planning studies. As co-founder and first President of the Eastern Interconnection States Planning Council (EISPC), she sought and received \$14 million dollars from the United States Department of Energy (DOE). In its inaugural year, Commissioner Azar led the Council through this unprecedented joint planning effort. In October 2010, Commissioner Azar was sent to Berlin Germany to meet with the energy regulators in the European Union about EISPC's objective and its successes.

Secretary Chu appointed Commissioner Azar as Vice Chair of the DOE's Electricity Advisory Council in 2010, which provides guidance to the DOE on its electricity initiatives.

From 2008 to 2010, Commissioner Azar served as the Commission's representative to the Organization of MISO States (OMS), a non-profit organization that represents the state interests within the Midwest Independent System Operator (MISO). At the time, MISO was the regional electric transmission operator over a 13-state region plus one Canadian province.

In 2009, Commissioner Azar was elected as the President of OMS and through her leadership, OMS developed a regional transmission plan over its footprint along with an attendant cost-allocation methodology. In 2009 and 2010, she chaired a stakeholder task force at MISO to develop a new cost allocation for new transmission lines. In December 2010, the Federal Energy Regulatory Commission adopted a new cost allocation tariff that considered both of the processes led by Commissioner Azar.

Commissioner Azar led the Commission's efforts on investigating the development of wind generation on Lakes Michigan and Superior and completed a report *Harnessing Wisconsin's Energy Resources: An Initial Investigation into Great Lakes Wind Development*.

**Areas of Legal
Concentration at
Michael Best &
Friedrich LLP**

While at Michael Best & Friedrich LLP, Ms. Azar practiced in the areas of public utilities, environmental, land use, government relations and administrative law, each of which is described in more detail below.

Public Utilities Law: Ms. Azar worked extensively in the area of electric and water utilities. Her public utility practice included creating the nation's first stand-alone transmission company, siting a 210-mile extra-high voltage line in Wisconsin and Minnesota, purchasing a nuclear power plant, and extending both water and electric service into new areas. Ms. Azar also represented ratepayers in a variety of roles including negotiating power purchase agreements and resolving disputes with utilities. She also represented independent power producers seeking to expand into Wisconsin. Her public utility practice brought her before the Public Service Commission of Wisconsin regularly.

Environmental Law: Ms. Azar participated in a full array of environmental projects, including the following: environmental cleanups, transactions involving insurance coverage for contaminated properties, wastewater permits, stormwater permits, and permits for developments involving wetlands. Ms. Azar's Master's Degree in Water Resources Management provides her with a sound technical background with which she approaches all environmental problems. In 2007, she co-edited and co-authored the *Wisconsin Environmental Law Handbook 4th Edition*, Government Institutes, Inc.

Land Use Law: Ms. Azar has a broad range of land use experience through representation of developers, individual property owners and municipalities. Such representation included the following: surface water disputes, cooperative boundary agreements, privately-owned wastewater treatment system ordinance drafting, adverse possession cases, dam disputes, brownfield development, regulatory takings, inter-municipal contracts, special use areas such as sanitary districts, permitting for non-metallic mining operations, and permitting for commercial developments. In addition to her legal experience, Ms. Azar also received front-line experience as a former member of the City of Madison Plan Commission.

Governmental Relations: Ms. Azar's practice regularly brought her before numerous state administrative agencies, including the Public Service Commission, the Department of Natural Resources and the Department of Commerce. For land use matters, she appeared before numerous municipalities at the staff level and before their legislative and adjudicative bodies. Ms. Azar's regulatory activities included permitting for a multitude of projects and obtaining funding for those projects. Ms. Azar has been involved in numerous political activities at the local and national levels.

Administrative Law: Combining litigation skills with a regulatory practice, Ms. Azar seamlessly moved from a proactive regulatory proceeding to, if

necessary, a contested-case hearing or civil litigation. With a Master's Degree in Water Resources Management, Ms. Azar brought technical skills to contested proceedings before local governments and state agencies.

**Boards:
Energy Related**

Governor-Elect Evers' Agriculture, Energy and Natural Resources Policy Advisory Council, December 2018.

Dane County Climate Change Council Member, July 2017 to present.

U.S. DOE Brain Trust for the Advanced Research Projects Agency - Energy (ARPA-E)

- 2012-2013.

Eastern Interconnection States' Planning Council

- President, 2010-2011
- Executive Committee Member, 2010-2011.

Eastern Interconnection Planning Collaborative

- Stakeholder Steering Committee Member, 2010-2011.

U.S. DOE, Electricity Advisory Council

- Vice Chair, 2010-2011.

Organization of MISO States

- President, 2009
- Vice President, 2008
- Board Member, 2010.

MISO Stakeholder Task Force on Cost Allocation (RECB)

- Chair, 2009-2010.

Member, Advisory Council of the Wisconsin Initiative on Climate Change Impacts, 2009 to 2011.

Testimony

FERC's Technical Conference on Environmental Regulations and Electric Reliability, Wholesale Electricity Markets, and Energy Infrastructure for the Central Region, Docket No. AD15-4-000, St. Louis, Missouri, March 2015.

Secretary Chu's Initiative to Modernize the Power Marketing Administration's Transmission Infrastructure, U.S. House of Representatives, Committee on Natural Resources, Oversight Hearing, September 2012.

DOE's Power Marketing Administrations, U.S. House of Representatives, Committee on Natural Resources, Oversight Hearing, April 2012.

The "American Energy Initiative" on electric transmission issues, U.S. House of Representatives, Committee on Energy and Commerce, Hearing, October 2011.

Western Area Power Administration's Transmission Infrastructure Program, U.S. House of Representatives, Committee of Natural Resources, Subcommittee on Water and Power, Legislative Hearing, September 2011.

Transmission Planning Processes under Order 890 in the Northeast, Federal Energy Regulatory Commission Technical Conference, Docket No. AD09-8-000, September 2009.

The Future of the Grid: Proposals for Reforming National Transmission Policy, U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Energy and the Environment, June 2009.

Integrating Renewable Resources Into the Wholesale Transmission Grid, Federal Energy Regulatory Commission Technical Conference, Docket No. AD09-4-000, March 2009.

Energy Congestion Study Workshop, United States Department of Energy, Oklahoma City, June 2008.

Publications Related to Energy

Co-Author on behalf of the Organization of MISO States: *Utility Investments in Resilience of Electricity Systems*, Lawrence Berkeley National Laboratory's Future of Electric Utility Regulation, Report No. 11.

Co-Author: *Preparing for the Inevitable: New Approach to Recovery from Catastrophic Losses of Grid Facilities*, Public Utilities Fortnightly, August 2016.

Author: *The Electric Grid 2030: How the EPA's Power Plant Rule Will Affect the U.S. Transmission Grid*, September 2015.

Co-Author and Chair of Study Group: *Harnessing Wisconsin's Energy Resources: An Initial Investigation into Great Lakes Wind Development*, Wisconsin Public Service Commission, Docket No. 05-EI-144, November 2008.

Legal Ratings

Her Martindale Hubbell Rating is AV: "AV Peer Review Rating — shows that a lawyer has reached the height of professional excellence. He or she has usually practiced law for many years, and is recognized for the highest levels of skill and integrity."

Admissions

Top-secret security clearance with SCI access, U.S. Government, 2011-2013.

Wisconsin Bar, 1994.

U.S. District Court for the Western District of Wisconsin, 1994.

Professional Associations

Member, Wisconsin State Bar Association.

**Speeches Related
to Energy**

State Regulator Perspectives on Utility Investments in Resilience, Lawrence Berkeley National Laboratory Webinar, April 2019.

Distributed Energy Resources, Organization of MISO States, Madison, WI, August 2017.

Issues in Regional Resource Planning, Wisconsin Public Utilities Institute, Madison, WI, March 2017.

Regulation of U.S. Electric Industry: Obvious Barriers, Energy Infrastructure Security Council (EISC), Pocantico, NY, November 2016.

Black Sky Conference, EISC, Harrisburg, Pennsylvania, June 2016.

Project Development: Promoting Bankability, Middle East and North Africa Renewable Energy Conference, Kuwait City, Kuwait, February 2016.

New Wires: What is Working and What is Not, Transmission in the Northeast Conference, Boston, MA, February 2016.

Regulatory Reforms: Reactions to New Technologies, Wisconsin Public Utilities Institute, Madison, WI, February 2015.

Electricity Planning of Yesteryear and Tomorrow, Wisconsin Energy Institute, Madison, WI, October 2014.

How National Trends will Influence Transmission Development, TransForum West, San Diego, CA, May 2014.

Safe and Reliable at a Reasonable Cost, Maui Conference on Electric Utilities, Maui, HI, March 2014.

The Potential Transformation of the Transmission Business Model, Transmission Summit 2014, Washington D.C., March 2014.

Generation, Transmission, Distribution: the Distinctions of Yesteryear, Wisconsin Federation of Cooperatives, Madison, WI, February 2014.

Capturing Economies of Large-Scale Renewables, Great Plains Clean Energy Transmission Summit, St. Paul, MN, October 2013.

Modernizing the Grid – Federal Plans, Programs and Initiatives, Transmission Summit West, San Diego, CA, September 2013.

Visualizing the Future: Public Utilities 2020, Financial Research Institute, Columbia, Missouri, September 2013.

The Utility of the Future: The Big Issues that Could Affect the Utility Business Model, Wisconsin Public Power Inc., Middleton, WI, September 2013.

Generation, Transmission, Distribution: the Distinctions of Yesteryear, Western Conference of Public Service Commissioners, Santa Fe, NM, June 2013.

MISO and FERC Order 1000, Wisconsin Public Utility Institute, Madison, WI, May 2013.

The U.S. Grid: Researchers' Roles in its Transformation, Power Systems Engineering Research Center (PSERC); Madison, WI, May 2013.

The Administration's Policies on Energy; Customers First! Coalition, Madison, WI, April 2013.

Decision-Makers for Solar Deployment; DOE's Sunshot Program, Washington D.C., March 2013.

What Matters on the Grid: Risk and Money, ARPA-E GENI Conference, Washington D.C., February 2013.

Breaking through the 'Grid'-Lock, ARPA-E Annual Summit, Washington D.C., February 2013.

Transmission: Institutional Barriers, TransForum East, Arlington, VA, December 2012.

Grid Modernization, Edison Electric Institute and the National Rural Electric Cooperative Association, Madison, WI, October 2012.

Transmission: Its Role in the New Economy, Midwest Governors Association, St. Paul, MN, October 2012.

A Smarter U.S. Electric Delivery System, Electric Power Research Institute (EPRI), Washington D.C., October 2012.

Federal Roles in Transmission Planning and Siting, Edison Electric Institute, Madison, WI, August 2012.

21st Century Electric Infrastructure, National Lieutenant Governors Association, Washington D.C., March 2012.

Visioning the 21st Century Electric Industry: Outcomes and Strategies, Energy Future Coalition, Washington D.C., March 2012.

Grid Modernization, University of Colorado Law School, Boulder, CO, March 2012.

Strategies and Outcomes for America, National Electricity Forum, Washington D.C., February 2012.

DOE's Federal Power Act § 202 Authorities, National Association for Regulatory Utility Commissioners (NARUC) and FERC Forum on Reliability and the Environment, Washington D.C., February 2012.

Transmission Issues and Activities, National Academy of Science's Board on Energy & Environmental Systems, Washington D.C., January 2012.

Rapid Response Team for Transmission, Western Governors Association, Palm Springs, CA, December 2011.

The Engines of Change, Grid Interop 2011, Phoenix, December 2011.

The Green Economy, Platts Global Energy Outlook, New York City, December 2011.

DOE Electricity Initiatives, NARUC, St. Louis, November 2011.

Transmission Grid...Lock, National Association for State Utility Consumer Advocates, St. Louis, November 2011.

How Markets for Electricity Will Evolve in the Future, Western Wind and Transmission Leadership Summit, Big Sky, MT, October 2011.

Federal Policy Initiatives, 2011 National Summit on Renewable Portfolio Standards, Washington D.C., October 2011.

Game Changers, California Independent System Operator, Sacramento, September 2011.

The Engines of Change, Solar Summit, Arizona State University, Phoenix, August 2011.

Transmission Technologies Workshop, NARUC, Denver, April 2011.

13th Annual Transmission Summit, Washington D.C. March 2011.

Large-Scale Wind & Solar Integration Summit, Phoenix, January 2011.

Eastern Interconnect States' Planning Council: Formation and Future, European Union and United States Regulators Roundtable, Berlin Germany, October 2010.

Challenges created by RTO Structure, Women in Power, Washington D.C., October 2010.

Eastern Transmission Interconnection: Planning and the RTO's, The Energy Daily Transmission Siting Summit, Washington D.C., October 2010.

Risk Analysis for Climate Change, Wisconsin Public Utilities Institute, Madison, WI, September 2010.

Electric Transmission Development: Integrating New Resources, American Public Power Association, Indianapolis September 2010.

Transmission Siting, Planning and Cost Allocation, Edison Electric Institute

Transmission Business School, Madison, WI, August 2010.

Eastern Interconnection States' Planning Council: Current Issues, National Association of Regulatory Commissioners, Sacramento, July 2010.

Electric Transmission Development in a Changing Energy World, National Conference of State Legislators, Transmission Policy Institute, Denver, May 2010.

Electric Transmission Issues: A Regulator's Perspective, American Wind Energy Association, Annual Convention, Dallas, May 2010.

Fundamental Changes in Generation and Transmission Planning, Wisconsin State Bar Annual Convention, Madison, WI, May 2010.

Transmission Planning, Siting and Cost Allocation, American Wind Energy Association, Denver, March 2010.

Building New Electricity Infrastructure: Balancing the Roles of Coordinated Planning and Market-Based Processes, National Electricity Forum, Washington D.C., February 2010.

Regional Transmission Planning: Current Issues, High Plains Regional Transmission Summit, Lawrence, KS, November 2009.

Climate Change Impacts in Wisconsin, Gaylord Nelson Institute for Environmental Studies, Madison, WI, November 2009.

The Energy Daily Transmission Siting Summit, Philadelphia, September 2009.

Connecticut Dept. of Public Utility Control v. FERC, National Regulatory Research Inc. Teleconference, July 2009.

The Great Lakes Potential for Off-Shore Wind Power, American Wind Energy Association, Windpower 09, Chicago, May 2009.

Transforming the Transmission Grid, 12th Annual Midwest Energy Conference, Midwest Energy Bar Association, Chicago, March 2009.

Strategic Long-Term Planning for Electric Utilities, NARUC, New Orleans, November 2008.

Supply & Demand Response to the Energy Challenge, Emerging Issues Policy Forum, Amelia Island, FL, September 2008.

Cost of Capital Game, Society of Utility Regulatory Financial Analysts Conference, Washington D.C., April 2008.

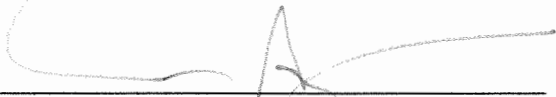
Energy Basics: Regulation Overview, Wisconsin Public Utility Institute, October 2006.

Energy Basics: Regulation Overview, Wisconsin Public Utility Institute,
October 2005.

History of Utility Regulation, Wisconsin Public Utility Institute, October 2003.

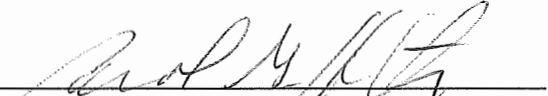
Updated: November 2019.

SIGNED this 13TH day of November, 2019.



LAUREN AZAR

SUBSCRIBED AND SWORN to before me this 13 day of November, 2019.



NOTARY PUBLIC IN AND FOR
THE STATE OF NORTH CAROLINA

My Commission Expires:

12-19-19

