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Commission, In re: Virginia Electric and Power Company's 2024 Integrated Resource Plan filing

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Testimony

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WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: Maria F. Scheller

<u>Title</u>: Vice President & Director, Energy Advisory Division of ICF Resources, LLC

Company Witness Maria F. Scheller responds to comments and recommendations of Staff and Appalachian Voices regarding the forecasts for capacity prices and renewable energy certificates ("RECs").

Ms. Scheller notes that generally Staff's testimony is consistent with the analysis provided by ICF. The largest differences between the Company's and Enverus's forecasts are in the capacity and peak energy price forecasts; however, the ICF and Enverus forecasts are highly aligned.

Regarding the capacity price forecast, Company Witness Scheller explains the difference between the Company's and Enverus's forecasts. First, the Enverus forecast did not rely on the official PJM load forecast, so it is improper to compare the resulting capacity and energy prices. Additionally, she explains that Enverus's position of declining capacity prices to levels which appear to be under \$50/MW-day into the long-term do not reflect a rational economic market.

Company Witness Scheller also addresses Appalachian Voices' recommendation to dynamically model capacity market prices based on the marginal net cost of new entry of resources and use a PJM-wide capacity supply curve to model the impact of the Company's purchases up to the import limit on capacity prices. She explains that she is unaware of any utility that models capacity prices in this manner and methodological changes are not necessary.

Finally, Company Witness Scheller explains the differences between the Company's and Enverus's REC price forecasts, noting that ICF's forecast is informed by alternative compliance prices for policies driving the REC demand.

REBUTTAL TESTIMONY OF MARIA F. SCHELLER ON BEHALF OF VIRGINIA ELECTRIC AND POWER COMPANY BEFORE THE STATE CORPORATION COMMISSION OF VIRGINIA CASE NO. PUR-2024-00184

1 (O.	Please	state	vour	name	and	business	address
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- 2 A. My name is Maria F. Scheller and I am employed by ICF Resources, LLC ("ICF"). My
- 3 business address is 1902 Reston Metro Plaza, Reston, VA 20190.

4 Q. Please describe your background as it relates to this proceeding.

- 5 A. I am a Vice President and Director in the Energy Advisory business area of ICF. Since
- 6 joining ICF in 1994, I have had extensive experience in electric sector resource planning.
- 7 including preparing assessments of generation resources and wholesale power markets,
- 8 such as preparing forward-looking analysis using modeling techniques to assist in the
- 9 projection of commodity prices including renewable energy credit price projections. I
- regularly support forward-looking analytical exercises in the power markets ranging from
- policy impact to resource valuation including analysis focused on electric sector energy
- transition. For additional details, please see my resume, which is attached as Appendix
- 13 A.
- 14 Q. Have you previously submitted testimony with the State Corporation Commission of
- Virginia (the "Commission") in this proceeding?
- 16 A. No.

1	Q.	On whose behalf are you testifying in this proceeding?
2	A.	I am testifying on behalf of Virginia Electric and Power Company ("Dominion Energy
3		Virginia" or the "Company") in support of the Company's 2024 system-wide Integrated
4		Resource Plan (the "2024 IRP").
5	Q.	Have you testified before, or made presentations to other regulators or legislators?
6	A.	Yes. I have testified before or made presentations to state regulators or legislators in
7		Virginia, Kentucky, Vermont, South Carolina, Delaware, Maine, and Maryland.
8		Specifically, as to the State Corporation Commission of Virginia (the "Commission"), I
9		filed rebuttal testimony on behalf of Dominion Energy Virginia in the following
10		proceedings:
11 12 13 14		 Case No. PUE-2008-00014: Application for a certificate to operate a generating facility; for certificates of public convenience and necessity for a transmission line: Bear Garden Generating Station and Bear Garden-Bremo 230 kV Transmission Line;
15		• Case No. PUE-2009-00096: 2009 Integrated Resource Plan;
16 17 18 19 20		 Case No. PUE-2011-00073: Application for approval and certification of the proposed biomass conversions of the Altavista, Hopewell, and Southampton Power Stations under §§ 56-580 D and 56.46.1 of the Code of Virginia and for approval of a rate adjustment clause, designated Rider B, under § 56-585.1 A 6 of the Code of Virginia;
21		• Case No. PUE-2011-00092: 2011 Integrated Resource Plan;
22 23 24		 Case No. PUE-2012-00128: Application for approval and certification of the proposed Brunswick County Power Station electric generation and related transmission;
25		• Case No. PUE-2013-00088: 2013 Integrated Resource Plan;
26		• Case No. PUE-2015-00035: 2015 Integrated Resource Plan;
27		• Case No. PUE-2016-00049: 2016 Integrated Resource Plan;
28		• Case No. PUE-2017-00051: 2017 Integrated Resource Plan;

1		• Case No. PUE-2018-00065: 2018 Integrated Resource Plan;
2		• Case No. PUR-2020-00035: 2020 Integrated Resource Plan; and
3		• Case No. PUR-2023-00066: 2023 Integrated Resource Plan.
4	Q.	What is the purpose of your rebuttal testimony?
5	A.	My rebuttal testimony responds to certain comments and recommendations offered by
6		Kenneth Curtis on behalf of Commission Staff ("Staff"), and Michael Goggin on behalf
7		of Appalachian Voices ("APV").
8	Q.	Please summarize your testimony.
9	A.	My testimony addresses Staff's and Appalachian Voices' critiques of the forecasts for
10		capacity prices and renewable energy certificates ("RECs"). In my testimony, I highlight
11		the basis of the projections relied on in the 2024 IRP for these energy-related
12		commodities, as well as the application of the forecasts by the Company in developing its
13		2024 IRP. My testimony demonstrates that the Company correctly considered the pricing
14		risk for these products.
15		Additionally, I provide background on electric capacity price projections in support of the
16		ICF forecasts used by the Company in its 2024 IRP.
17	Q.	Before you discuss specific commodity forecasts, do you have a response to Staff's
18		testimony?
19	A.	Yes. Witness Curtis provides testimony in review of the Company's 2024 IRP and the
20		underlying ICF commodity price forecasts. Generally, Staff's testimony is consistent
21		with the analysis provided by ICF and our recommendations for applying the forecasts in
22		the 2024 Plan analysis. In general, the commodity prices and REC prices presented by

Enverus are similar to those of ICF. Staff Witness Curtis notes that Enverus's and the Company's forecasts "across the various commodities considered are similar and both represent reasonably likely outcomes." (Curtis, Enverus Report at 5.) Mr. Curtis asserts "[a]ny differences are likely attributable to the difference in timing of when the forecasts were generated as well as methodological differences," but "both Enverus and the Company employ methodologies that are commonly used by market participants." (Curtis, Enverus Report at 5.) The largest differences are in the capacity and peak energy price forecasts. With these two exceptions, which are at least in part driven by different assumptions about load growth, the ICF price forecasts and the Enverus forecasts are highly aligned. As I will discuss in more detail below, the differences in capacity price forecasts, while at least in part resulting from differing load forecasts, appear to result from a fundamental difference in understanding of market drivers, with the Enverus forecasts appearing to assume a minimum price level for the long-term forecast, and ICF forecasts presenting the full value of capacity assuming efficient markets.

CAPACITY AND ENERGY PRICE FORECASTS

Q. Witness Curtis indicates that Enverus sees weaker capacity prices than the Company. (Curtis, Enverus Report at 25.) Can you please explain the difference? Differences appear to be multi-fold. First, the demand growth forecast assumed by A. Witness Curtis is below that of PJM Interconnection, LLC's ("PJM"). Witness Curtis indicates that "Enverus is less optimistic on data center load growth as compared to Dominion, after 2030." (Curtis at Summary.) Given that Enverus did not rely on the official load forecast produced by PJM, it is misleading to imply that the resulting energy and capacity prices should be consistent to the forecasts prepared by ICF used by the

Company. Energy and capacity pricing are intimately tied to the demand projections, as well as the supply projections determined to meet that demand. Due to this fundamental difference, it is improper to compare the resulting prices.

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In addition to this fundamental point, I do not believe that Enverus's position of declining capacity prices to levels which appear to be under \$50/megawatt ("MW")-day into the long-term reflect a rational economic market. Enverus does refer to supply and demand fundamentals in its analysis related to capacity prices as it states: "Bottom line is that in PJM, it is a supply/demand calculation; as units retire, supply is decreasing, and as data centers are being built, demand is increasing. This lends itself to higher prices in the capacity market to ensure grid stability." (Curtis, Enverus Report at 25.) However, given the rapid drop in capacity prices by 2028. Enverus seems to deviate from this statement in their long-term view where they indicate that "Enverus foresees weaker capacity prices beyond 2030 as compared to the Company. More thermal generation may be incentivized to come online within the RTO due to the record-breaking price signals in prior delivery years. Enverus does acknowledge risk to its forecast and therefore provides an alternative more bullish scenario which captures a tightening supply/demand balance if the new dispatchable or intermittent generation cannot keep up with anticipated thermal retirements." (Curtis, Enverus Report at 25.) Based on this, it does not appear that Enverus recognizes the difficulty of adding significant thermal capacity to the grid given both supply chain concerns and order backlogs at equipment manufacturers such as GE and Mitsubishi, nor any further constraints such as permitting and interconnection of renewables to support the generation requirements, and the development of transmission to enable delivery of generation to load. Further, Enverus's statements indicating that

1		thermal generation would be incented due to record breaking prices in "prior" delivery
2		years, also seem to indicate that there is not a continuing need to incentivize new
3		additions through capacity markets beyond 2028. It is difficult to align the motivation for
4		new generation resources beyond 2028 with the low capacity price signals predicted in
5		the Enverus forecast.
6	Q.	Please describe how Staff's energy price forecasts compare to those of ICF. (See
7		Curtis, Enverus Report at 23-24.)
8	A.	Energy price forecasts are driven by a number of fundamental factors including hourly
9		demand, fuel prices, and other operational costs. Enverus's forecast appears to be more
10		bullish on thermal resource additions in the very near term which results in lower
11		capacity prices and higher energy prices.
12	Q.	Could the higher energy prices in the Enverus forecast support lower capacity
12 13	Q.	Could the higher energy prices in the Enverus forecast support lower capacity prices?
	Q. A.	
13		prices?
13 14		prices? Yes, the Enverus forecast post 2030 is significantly higher than the ICF forecast. This
13 14 15		prices? Yes, the Enverus forecast post 2030 is significantly higher than the ICF forecast. This may imply that the capacity price is suppressed in comparison to the ICF forecast due to
13 14 15 16		prices? Yes, the Enverus forecast post 2030 is significantly higher than the ICF forecast. This may imply that the capacity price is suppressed in comparison to the ICF forecast due to much higher energy market revenues for units operating consistently in peak hours.
13 14 15 16 17		prices? Yes, the Enverus forecast post 2030 is significantly higher than the ICF forecast. This may imply that the capacity price is suppressed in comparison to the ICF forecast due to much higher energy market revenues for units operating consistently in peak hours. Prices appear to be on average \$15-20/megawatt-hour ("MWh") higher in the Enverus
13 14 15 16 17		Prices? Yes, the Enverus forecast post 2030 is significantly higher than the ICF forecast. This may imply that the capacity price is suppressed in comparison to the ICF forecast due to much higher energy market revenues for units operating consistently in peak hours. Prices appear to be on average \$15-20/megawatt-hour ("MWh") higher in the Enverus forecast, which would, if not available, increase the net CONE by several hundred dollars.
13 14 15 16 17 18		Prices? Yes, the Enverus forecast post 2030 is significantly higher than the ICF forecast. This may imply that the capacity price is suppressed in comparison to the ICF forecast due to much higher energy market revenues for units operating consistently in peak hours. Prices appear to be on average \$15-20/megawatt-hour ("MWh") higher in the Enverus forecast, which would, if not available, increase the net CONE by several hundred dollars per MW-day. This higher energy price, combined with Enverus's more bullish position

Q.	Is a	price	of \$50/N	IW-day	sustainable?
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A. Absent significant changes in the broader markets, no. At \$50/MW-day as a price, it would be difficult to continuously incentivize investors to expand the resource mix in PJM to meet growing demand. Investors are generally seeking more stability in markets and revenue streams, and while the price forecasts appear stable, they reflect a very low level that would be less attractive to investors than what could be received on other markets.

At such low prices, more volatility would likely be introduced to the market as resource interest would move elsewhere until price signals sufficiently increase again attract new resources to the marketplace. As such, the price does not appear to be sustainable as an average into the long-term, particularly given the decline expected in the electric load carrying capabilities of renewable and battery resources.

- Q. How would investors respond to a sustained collapse in capacity prices as predicted
 by Enverus?
- 15 A. The PJM capacity market design has been highly subject to change over the last several
 16 years and remains so today. As such, investor and developer confidence is already weak.
 17 A collapse in capacity prices as projected by Enverus over the next few auction periods
 18 could have significant negative implications for investor behavior in PJM:
 - Reduced Revenue Expectations: Lower capacity prices would signal reduced
 revenue potential for new and existing generation resources. This could
 discourage investment in new projects as the financial returns may not justify the
 risks.

1		Market Uncertainty: A sustained expected drop in prices can create uncertainty
2		about the stability and predictability of the market. Investors typically seek stable
3		and predictable revenue streams, and prolonged price collapses can undermine
4		confidence in the market's reliability.
5		• Risk Aversion: Investors may become more risk-averse, preferring to invest in
6		markets with more stable and higher capacity prices. This could lead to a
7		slowdown in the development of new generation resources within PJM.
8		This could lead to capacity shortfalls impacting the reliability of the grid and potentially
9		leading to higher prices in the future as supply becomes constrained. If capacity prices
10		collapse and investment slows, PJM may face challenges in maintaining adequate
11		capacity. This could result in increased costs for consumers in the long run as emergency
12		measures or higher-priced capacity resources are needed to ensure reliability.
13		In summary, a collapse in capacity prices over several auction periods could deter
14		investment and lead to capacity shortfalls, impacting grid reliability and consumer costs.
15	Q.	Could you summarize your view on the Enverus on-peak energy and capacity price
16		projections.
17	A.	The Enverus on-peak energy price forecasts, while above those of ICF, are within a
18		reasonable range for such expectations. Energy price forecasts are driven by a large
19		number of factors including assumptions regarding load, renewable resource availability,
20		storage availability, congestion costs, and thermal unit operating cost and dispatch.
21		Minor differences in any combination of the assumptions underlying the forecasts could

explain the differences. In contrast, I do not find the long-term price projections for

1		capacity prices to be a reasonable characterization of the market value for capacity
2		necessary to maintain new and existing capacity resources in the market.
3	Q.	APV Witness Goggin agrees with the Company that over the long-term, capacity
4		market prices should converge to the net cost of new entry ("CONE"). However, he
5		expresses certain methodological concerns with the capacity price forecasts used by
6		the Company and recommends that "in future modeling, [the Company]
7		dynamically model capacity market prices based on the marginal net CONE of
8		resources and use a PJM-wide capacity supply curve to model the impact of
9		Dominion capacity market purchases up to the import limit on capacity prices,
10		instead of imposing an arbitrary cap on purchases." (Goggin at 27-29, 31.) Please
11		respond.
12	A.	I am not aware of any utility IRP analysis that models capacity prices in that manner.
13		Furthermore, the I do not believe that methodological changes are necessary for the
14		reasons outlined below.
15		First, employing a dynamic model based on the IRP modeling would be unnecessarily
16		cumbersome. The Company already uses a third-party forecast provided by ICF for PJM
17		capacity prices, which reflects a co-optimization of energy, capacity, and REC markets
18		and maintains the integrity and interdependence of the entire commodity complex
19		pricing, as further explained in the 2024 IRP, Appendix 5B.III.
20		Mr. Goggin suggests the administrative approach to a supply curve methodology, which
21		assumes a specific revenue for the energy and ancillary supply. If applied, this
22		methodology would result in an iterative approach requiring examination of the energy

economics of all generation resource types individually to determine the energy revenues available. This analysis sets the supply curve for each period and continues that mechanical iteration over time. In contrast, the current co-optimization approach that ICF relies upon allows for energy revenue determination simultaneously in a nonmechanical manner. The ICF co-optimization mimics an efficient market structure in a direct and reasonable manner. Second, the methodology suggested by APV Witness Goggin appears to presume that the Company's decisions would be marginal and drive pricing changes in the PJM market, which is unlikely to be true. The initial prices consider resources needed on a PJM-wide basis to maintain resource adequacy. Therefore, the ICF forecasts already address the expected actions of market participants, including the market price movements based on the Company's 2024 IRP. Finally, the approach suggested by Mr. Goggin appears to rely on arbitrary assumptions that there would be no change to capacity market design going forward. Based on recent market history, market rules have shifted in several auctions, causing wide swings in capacity pricing. This is likely to continue in the future. For instance, the variance in capacity price forecasts for the 2026/2027 PJM Base Residual Auction fluctuated from \$695 to \$325 for capacity price cap based on the utilization of combustion turbine versus combined cycle as the reference unit for setting the CONE and PJM cap/floor recommendation. Staff appeared to agree that capacity price volatility will increase, at least in the near-term. (See Curtis at 4.)

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REC PRICE FORECAST

2	Q.	Are the Enverus and ICF REC market forecas	ts aligned?
	-		-

3 In the short-term, Enverus indicates its forecast is above the Company's. The difference 4 appears to be limited with the largest difference being about \$2-3/MWh in about 2030. 5 The ICF near-term forecast is informed by alternative compliance prices for policies 6 driving the REC demand. While it is possible for REC markets to exceed the price caps 7 due to voluntary and speculative purchases, the purchase price for load 8 serving/compliance entities are typically back-stopped through mechanisms to cap the 9 price exposures to customers. For example, the Virginia Clean Economy Act established a backstop through use of deficiency payments set at \$45 per MWh. 1 ICF relies on these 10 11 backstops to determine prices to load-serving entities in periods of potential short supply. 12 Hence, in the near term, the ICF price forecast is generally near these alternative 13 compliance prices to meet the requirements for the Virginia renewable portfolio standard 14 program.

15 In the longer term, the Enverus and ICF forecasts follow very similar trends.

16 Q. Does this conclude your testimony.

17 A. Yes, it does.

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¹ The deficiency payment for obtaining RECs from resources 1 MW or less is set to \$75/MWh. The deficiency payment increases by 1% annually after 2021.

Maria Fusco Scheller Vice President, ICF

Ms. Scheller has nearly 30 years of experience advising clients on power and fuel market issues. She is an expert in electric market fundamentals including long-term planning, valuation, policy analysis and competitive procurement. Ms. Scheller has testified in multiple jurisdictions on power related issues including renewable power development and potential for renewables and other resources to provide net load reductions. Ms. Scheller has testified related to contracting and certification of need for land-based wind, off-shore wind, solar PV, biomass and fuel cell resources. Additionally, Ms. Scheller has provided expert testimony in multiple jurisdictions on issues affecting all aspects of power markets.

Years of Experience

Professional start date: 08/1991 ICF start date: 07/1994

Education

BS, Economics, Pennsylvania State University, 1992 Coursework towards Masters in Economics, Virginia Polytechnic University (all except thesis)

REGULATORY PRESENTATIONS AND TESTIMONY

- Pre-filed report and oral testimony on behalf of the Maryland Public Service Commission, Case
 No. 9666, 2024. Search Results Maryland Public Service Commission (state.md.us)
- Pre-filed and oral rebuttal on behalf of Virginia Electric Power Company, SCC Case No. PUR-2023-00066: 2023 Integrated Resource Plan ("2023 Plan").
- Testimony on behalf of Southern California Edison, SAND CANYON OF TEHACHAPI V.
 SOUTHERN CALIFORNIA EDISON, APRIL 28, 2022
- Pre-filed report and oral testimony on behalf of the Maryland Public Service Commission, Case No. 9666, SKIPJACK OFFSHORE ENERGY, LLC AND US WIND, INC.'s OFFSHORE WIND APPLICATIONS UNDER THE CLEAN ENERGY JOBS ACT OF 2019, 2021. Search Results -Maryland Public Service Commission (state.md.us)
- Pre-filed and oral rebuttal testimony on behalf of Virginia Electric Power Company, SCC Case
 No. PUR-2020-00035, Virginia Electric and Power Company's Integrated Resource Plan, 2020.
 4q4s01!.PDF (virginia.gov) and 4q4t01!.PDF (virginia.gov)
- Pre-filed and oral rebuttal testimony on behalf of Virginia Electric Power Company, SCC Case No. PUE-2018-00065.
- Pre-filed and oral rebuttal on behalf of Virginia Electric Power Company, SCC Case No. PUE-2017-00051.
- Oral Rebuttal Testimony of Maria F. Scheller on behalf of Virginia Electric Power Company, October 2016, SCC Case No. PUE-2016-00049.
- Rebuttal Testimony of Maria F. Scheller on behalf of Virginia Electric Power Company before the State Corporation Commission of Virginia Case NO. PUE-2016-00049. September 14, 2016. http://www.scc.virginia.gov/docketsearch/DOCS/3%40%25f01!.PDF

- Oral Rebuttal Testimony of Maria F. Scheller on behalf of NSTAR Electric Company, Western Massachusetts Electric Company, Eversource Energy, D.P.U. 15-181, August 16, 2016.
- Rebuttal Testimony of Maria F. Scheller on behalf of NSTAR Electric Company Western Massachusetts Electric Company, Eversource Energy, D.P.U. 15-181, July 5, 2016. http://170.63.40.34/DPU/FileRoomAPI/api/Attachments/Get/?path=15-181%2fExh EVERMFSRebuttal1.pdf
- Rebuttal Testimony of Maria F. Scheller on behalf of DTE Electric Power Case No. U-17920
 Supply Cost Recovery Plan in its Rate Schedules for 2016 Metered Jurisdictional Sales of Electricity, April 19, 2016. https://efile.mpsc.state.mi.us/efile/docs/17920/0072.pdf
- Direct Testimony of Maria F. Scheller on behalf of DTE Electric Power Case No. U-17920 Supply Cost Recovery Plan in its Rate Schedules for 2016 Metered Jurisdictional Sales of Electricity, November 23, 2015. https://efile.mpsc.state.mi.us/efile/docs/17920/0024.pdf
- Oral Rebuttal Testimony of Maria F. Scheller on behalf of Virginia Electric Power Company,
 October 22, 2015, SCC Case No. PUE-2015-00035.
- Rebuttal Testimony of Maria F. Scheller on behalf of Virginia Electric Power Company before the State Corporation Commission of Virginia Case NO. PUE-2015-00035. October 9, 2015. http://www.scc.virginia.gov/docketsearch/DOCS/34%25g01!.PDF
- Oral Rebuttal Testimony of Maria F. Scheller on behalf of applicants Centerpoint Energy Houston Electric LLC and Cross Texas transmission, LLC, August 27, 2015, P.U.C. Docket Nos. 44547 & 44649
- Rebuttal Testimony of Maria F. Scheller on behalf of applicants Centerpoint Energy Houston Electric LLC and Cross Texas transmission, LLC, August 21, 2015, P.U.C. Docket Nos. 44547 & 44649. Docket 44547:
 - http://interchange.puc.state.tx.us/WebApp/Interchange/Documents/44547_1107_863586.PDF Docket 44649:
 - http://interchange.puc.state.tx.us/WebApp/Interchange/Documents/44649_765_863587.PDF
- Joint Direct Oral Testimony Kenneth Collison and Maria Fusco Scheller Concerning Non-Transmission System Alternatives related to Emera Maine Request for Approval of Certificate of Finding of public Convenience & Necessity, Case No. 2014-00048, December 18, 2014.
- Rebuttal Testimony of Maria F. Scheller on the Integrated Resource plan of Virginia Electric and Power Company before the State Corporation Commission of Virginia Case No. PUE-2013-00088, April 4, 2014. http://www.scc.virginia.gov/docketsearch/DOCS/2wxy01!.PDF
- Direct Testimony of Maria Scheller, In the Matter of POSEIDON TRANSMISSION 1, LLC
 Application of Poseidon Transmission 1, LLC for a Certificate of Environmental Compatibility and
 Public Need Pursuant to Article VII of the Public Service Law, Case 13-T-0391, 2013.
 http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={70A1DA25-89D5-403A-A7B3-9899EC4AF6C6};

- http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={8048FC49-A53C-4696-97D7-C0454767ED12}
- Oral Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State Corporation Commission of Virginia Case No., PUE-2012-00128 regarding the Certificate or Public Need and Convenience Application for the Brunswick Power Facility, April 2013.
- Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State
 Corporation Commission of Virginia Case No. PUE-2012-00128 regarding the Certificate or
 Public Need and Convenience Application for the Brunswick Power Facility, March 2013.
 http://www.scc.virginia.gov/docketsearch/DOCS/2rpz01!.PDF
- Joint Direct Oral Testimony of Judah Rose, Kenneth Collison, and Maria Fusco Scheller Concerning Non-Transmission System Alternatives, State of Connecticut Siting Council, August 2, 2012.
- Joint Direct Testimony of Judah Rose, Kenneth Collison, and Maria Fusco Scheller Concerning Non-Transmission System Alternatives, State of Connecticut Siting Council, July 17, 2012.
 http://www.ct.gov/csc/lib/csc/pendingproceeds/docket_424/pre_filed_submissions/applicant/424-20120717-exh30_testimonyrose_col_scheller.pdf
- Oral Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State Corporation Commission of Virginia Case No. PUE-2011-00092, March 2012 in regards to Virginia Electric and Power Company's Integrated Resource Plan.
- Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State
 Corporation Commission of Virginia Case No. PUE-2011-00092, April 2012 in regards to Virginia
 Electric and Power Company's Integrated Resource Plan.
 http://www.scc.virginia.gov/docketsearch/DOCS/2mxk01!.PDF
- Oral Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State Corporation Commission of Virginia Case No. PUE-2011-00073, January 2012.
- Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State Corporation Commission of Virginia Case No. PUE-2011-00073, December 2011. http://www.scc.virginia.gov/docketsearch/DOCS/2l8101!.PDF
- Oral Direct Testimony of Maria F. Scheller on behalf of Delmarva Power & Light Company before
 the Delaware Public Service Commission concerning New Tariffs for Qualified Fuel Cell Providers

 Renewable Capable, Docket No. 11-362, October 18, 2011.
- Direct Testimony of Maria F. Scheller on behalf of Delmarva Power & Light Company before the
 Delaware Public Service Commission concerning New Tariffs for Qualified Fuel Cell Providers –
 Renewable Capable, Docket No. 11-362, August 19, 2011.
 http://depsc.delaware.gov/wp-content/uploads/sites/54/2017/03/DPLFuelCellFiling1.pdf
- Oral Direct Testimony of Maria Fusco Scheller on Behalf of Western Massachusetts Electric
 Company concerning Non-Transmission Alternatives (related to the Greater Springfield Reliability

- Project), before the Commonwealth of Massachusetts Energy Facilities Siting Board, Docket No. EFSB 08-2/DPU 08-105/DPU 08-106, November 17, 2009.
- Direct Testimony of Maria Fusco Scheller on Behalf of Western Massachusetts Electric Company concerning Non-Transmission Alternatives (related to the Greater Springfield Reliability Project), before the Commonwealth of Massachusetts Energy Facilities Siting Board, Docket No. EFSB 08-2/DPU 08-105/DPU 08-106, July 17, 2009.
- Direct Testimony of Maria Fusco Scheller on Behalf of Connecticut Light and Power concerning Non-Transmission Alternatives (related to the Greater Springfield Reliability Project), Before the State of Connecticut Siting Council, Docket No. 370, July 7, 2009.
 http://www.ct.gov/csc/lib/csc/pendingproceeds/docket_370a/prefiled/do370a-20070707clptestimony4.pdf
- Panel Testimony before the Maryland Public Service Commission Concerning Delmarva Power and Light's Integrated Resource Plan, with Jack Barrar representing PEPCO and Frank Graves of the Brattle Group, December 2008.
- Rebuttal Testimony on behalf of Virginia Electric and Power Company before the State Corporation Commission of Virginia Case No. PUE-2008-00014, September 2008. http://www.scc.virginia.gov/docketsearch/DOCS/1s2q01!.PDF
- Direct Testimony on behalf of Delmarva Power and Light before the Delaware Public Service Commission Concerning an Approval of Land-Based Wind Contracts, PSC Docket No. 08-205 July 2008.
- Testimony on behalf of Delmarva Power and Light in the matter of Integrated Resource Planning for the Provision of Standard Offer Service by Delmarva Power and Light, PSC DOCKET NO. 06-241, 2007.
- Testimony on behalf of Delmarva Power and Light to the Delaware Senate Energy and Transit Committee related to Delaware House Bill 6, March 7, 2007.
- Rebuttal Testimony on behalf of Excelsior Energy, Inc, MPUC Docket No. E-6472-/M-05-1993, in support of approval of the Proposed Mesaba Energy Facility Power Purchase Agreement.
 October 10, 2006 and November 10, 2006.
 - https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId=%7B8FC5E92E-E05C-4DF8-8BB0-697AA2F53FF2%7D&documentTitle=3571232
- Presentation of findings of the 2005 Avoided Energy Supply Costs, Vermont Public Service Commission, August 25, 2006, with Leonard Crook.
- Prepared intervener testimony on behalf of Excelsior Energy in the NSP IRP proceedings for submission to the Minnesota Public Utilities Commission, 2005.
- Oral Testimony regarding Certificate of Need for the Warren County Transmission Expansion,
 Kentucky Public Service Commission, September 21, 2005.

- Presentation "Analysis of an IGCC Coal Power Plant" to Minnesota state house of representative committees, January 22, 2002, with Judah Rose.
- Presentation "Analysis of an IGCC Coal Power Plant" to Minnesota state house of representative committees, January 15, 2002, with Judah Rose.
- Presentation "Analysis Related to Merchant Plant Siting in South Carolina, Public Utilities Commission of South Carolina", Summer 2002, with Judah Rose and Kojo Ofori-Atta.

SELECTED PUBLICATIONS AND PRESENTATIONS

- "California's blackout signals a need for enhanced reliability planning", September 17, 2020, with Manfei Wu and Judah Rose.
- "Financial Issues in Determining the Disposition of Fossil Power Plants", Managing the Power Plant Decommissioning, Decontamination, and Demolition Process, May 15, 2014.
- "Environmental Regulation Compliance Planning" Presentation to S.E.E. Integrated Resource Task Force. September 20, 2011.
- "Cost-Benefit Study of the Proposed GridFlorida RTO." December 2005, with Ofori-Atta K., J. Rose, C. McCarthy, H. Parmar, K. Collison, E. Roseman, and S. Muthiah.
- "Transmission and Capacity Pricing Constraints" Presentation at ENERDAT's GasFair & PowerMart, Toronto, Ontario. April 20, 1999.
- "GenCo Opportunities- Developing A Successful GenCo," presentation at conference: IBC's Developing a Successful GenCo, Atlanta, Georgia, and December 7, 1998.
- "Using Modeling Tools for Market Price Forecasting," presentation at conference: IBC's Market Price Forecasting Conference, Baltimore, Maryland, August 26, 1998.
- "Wholesale Power Markets Model," presentation at conference: Infocast's Market Price Forecasting Conference, New York, New York, August 6, 1998.
- "Introduction to Short-Term Power Price Forecasting"; WPMM Advanced User Training; WPMM Introductory Session; WPMM User Group Houston, Texas, 1996.
- "Using Price Forecasting Tools"; WPMM User Training; WPMM User Group, Fairfax, Virginia, 1996.
- Financial Engineering in the Power Sector, Public Utilities Fortnightly: January 1, 1997, with Judah Rose and Shanthi Muthiah.
- "Lack of Competition in the Wholesale Marketplace for Power Generation: Does it Make a Difference", The Electricity Journal: Jan/Feb 1997, with Judah Rose and Shanthi Muthiah.

Employment History

ICF. Vice President; Principal; Senior Project Manager; Project Manager; Senior Associate; Associate; Analyst. Fairfax, Virginia. 1994–present.

Nathan Associates. Research Assistant. Arlington, Virginia. 1992–1994.

The Pennsylvania State University. Teaching Assistant. University Park, Pennsylvania. 1991–1992.