Federal vs. State Jurisdiction Over Net Metering Rates

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INTRODUCTION

Net energy metering ("NEM") is an important tool used by states to promote residential solar energy and accelerate the transition to a low-

* J.D., 2022, University of Colorado Law School; I would like to thank my student colleagues at Colorado Law and the *Colorado Environmental Law Journal* for their dedication and collaboration. Most importantly, thanks to my family for their unconditional support throughout law school and all my life.

carbon economy. In simple terms, NEM is an electricity billing method that credits commercial or residential photovoltaic ("PV") system owners for the electricity they provide to the grid.[1] The net metering rate is the price that residential solar customers can expect to receive for the electricity they send to the grid. NEM acts as a strong incentive to invest in residential solar (and other distributed renewable generation) because system owners can depend on a set price for the electricity they send to the grid and can "bank" electricity for later use generated while the sun still shines. Through net metering programs, customers are only charged for their "net" use of electricity.[2]

NEM has been used by states to promote renewable energy at the residential scale, but a recurring jurisdictional dispute has left the solar industry in a state of uncertainty. A recent petition submitted to the Federal Energy Regulatory Commission ("FERC") asked it to assert exclusive jurisdiction over the rates at which NEM customers are compensated for the electricity they provide to the grid. In effect, this would apply a one-size-fits-all approach for residential solar customers throughout the entire nation. Solar advocates claim this move would cripple the residential solar industry, while utilities insist it is necessary to avoid a "death spiral"[3] caused by customers abandoning the electric grid.

But debates over NEM rates and policies throughout the country are far from settled. In particular, the question of whether NEM rates should be subject to FERC or a state's Public Utilities Commission ("PUC") jurisdiction has been discussed periodically over the years. The 2020 petition by the New England Ratepayers Association ("NERA") for FERC to claim exclusive jurisdiction over NEM rates illustrates the uncertainty that states have had to contend with when crafting net metering policies.[4] Even though NERA's petition failed, FERC declined to address the jurisdictional dispute in its order dismissing the petition. Net metering rates were left within state jurisdiction, but the issue is likely to be litigated again on a case-by-case basis as individual state net metering policies are

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1 *Net Metering Facts*, SOLAR ENERGY INDUS. ASS'N, https://www.seia.org/sites/default/files/resources/Net%20Metering%20Facts_Feb17.pdf (last visited Oct. 11, 2020).

2 *Id.*

3 Kenneth W. Costello & Ross C. Hemphill, *Electric Utilities' 'Death Spiral': Hyperbole or Reality?*, 27 ELEC. J. 7, 7 (2014).

4 Petition for Declaratory Order of New England Ratepayers Association Concerning Unlawful Pricing of Certain Wholesale Sales, New England Ratepayers Association, 172 FERC ¶ 61,042 (2020) (No. EL20-42-000), https://www.federalregister.gov/documents/2019/01/31/2019-00461/notice-of-citation-change-for-commision-rulemakings [hereinafter Petition].

challenged.[5]

No matter which regulatory body ultimately claims jurisdiction permanently, there are issues with net metering that need to be addressed. NERA's petition for FERC jurisdiction outlined many of these problems, most of which stem from public utilities' concern with their bottom lines.[6] Utility companies argue that NEM will result in higher electricity rates for customers without residential solar, creating a cost-shift that poorer utility customers would have to cover. Utilities are also concerned with the prospect of lower revenue as more customers decide to install residential solar systems. NEM rates could also act as a subsidy favoring residential solar over potentially more efficient renewable sources like utility-scale solar. Whichever regulatory authority has jurisdiction over NEM rates will determine the future viability of residential solar and play an important role in crafting a successor to NEM that balances solar development with the business concerns of public utilities.

This Note argues that FERC should disclaim jurisdiction over NEM rates and allow states to develop NEM programs that best fit their specific situations. States have the flexibility to adjust rates and policies to appropriately reflect the value of residential solar electricity in their electricity market. In addition, FERC's own orders give precedent for state administration of NEM programs.[7] As long as FERC refuses to resolve the jurisdictional dispute over NEM rates, stakeholders at all levels will be kept in the dark and states will be unable to fully employ the use of a valuable tool in their renewable energy transitions. This Note will focus on the jurisdictional dispute over net metering rates in the residential solar industry because it is the most common type of NEM.

FERC should definitively and permanently disclaim NEM rates from its jurisdiction to allow state PUCs to develop solutions to their NEM issues. Ending the jurisdictional uncertainty over NEM would give states the flexibility to create policies that allow them to reach different goals. While a preservation of the status quo would allow states to develop their own policies and NEM programs, greater jurisdictional certainty over the future of net metering would likely increase investment in residential solar and help states plan their transitions to lower carbon power sectors. Part I of this Note will discuss the background of NEM and residential solar, as well as the policy successes and failures of NEM. Part II will describe the

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5 *See* Catherine Morehouse, *FERC shuts down petition to upend net metering, McNamee signals issue could return*, UTIL. DIVE (July 17, 2020), https://www.utilitydive.com/news/ferc-shuts-down-petition-to-upend-net-metering-mcnamee-signals-issue-could/581797/.

6 Petition, *supra* note 4.

7 MidAmerican Energy Co., 94 FERC ¶ 61,340 (2001); SunEdison LLC, 129 FERC ¶ 61,146 (2009).

existing regulatory landscape NEM fits into and analyze the validity of NERA's argument for FERC jurisdiction. Part III will argue that FERC should disclaim NEM jurisdiction, and Part IV will briefly discuss the potential successors to NEM at the state level.

I. NET METERING BACKGROUND AND BENEFITS OF RESIDENTIAL SOLAR

This Part will discuss the background of NEM as a state-level policy to promote rooftop solar energy. In 2020, the International Energy Agency declared that solar power is the cheapest electricity in history.[8] Residential rooftop solar will continue to play an important part in the U.S. energy supply. Small-scale solar PV installations are forecasted to increase by four gigawatts in 2021 with an additional three gigawatts the year after.[9] In 2021, small-scale solar is projected to make up about ten percent of new electricity generating capacity.[10] Because solar energy is set to play a major role in the U.S. electricity supply, states will have to continue developing policies and programs to meet their renewable energy goals.[11] If net metering fails to survive the jurisdictional challenges that are being raised by its opponents, states will lose the ability to craft a foundational policy for renewable energy.[12]

Net metering initially gained popularity as a simple program to encourage investment in renewable energy.[13] When the first residential solar systems were installed and connected to the grid, net metering ensured that solar customers could sell their excess electricity back to the grid at the same rate that they purchased electricity. Ideally, net metering programs democratize the electricity sector by allowing customers to sell their

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8 Simon Evans, *Solar is now 'cheapest electricity in history' confirms IEA*, CARBON BRIEF (Oct. 13, 2020), https://www.carbonbrief.org/solar-is-now-cheapest-electricity-in-history-confirms-iea.

9 *Short-Term Energy Outlook*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/outlooks/steo/report/electricity.php (last visited Jan. 12, 2021).

10 *Renewables account for most new U.S. electricity generating capacity in 2021*, U.S. ENERGY INFO. ADMIN. (Jan. 11, 2021), https://www.eia.gov/todayinenergy/detail.php?id=46416.

11 *Renewable & Clean Energy Standards*, DSIRE (Sept. 2020), https://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2020/09/RPS-CES-Sept2020.pdf.

12 Steven Ferrey, *Virtual "Nets" and Law: Power Navigates the Supremacy Clause*, 24 GEO. INT'L ENV'T L. REV. 267, 268 (2012).

13 YIH-HUEI WAN, NREL/SP-460-21651: NET METERING PROGRAMS 4 (1996).

excess energy, which encourages lower energy use.[14] Net metering has proved integral to the development of residential solar in the US; rooftop solar made up ninety-seven percent of the generation capacity participating in net metering in 2018.[15] The number of utility customers participating in net metering quadrupled between 2013 and 2018 as residential solar installations experienced rapid growth.[16]

While residential solar has grown at a slower rate than utility scale solar over the last decade, there are still several reasons why the expansion of residential solar is a worthy policy goal for states. Residential solar saves customers money while also contributing to state level renewable portfolio standards and clean energy goals.[17] Net metering makes solar more attractive to customers for economic reasons, which leads solar companies to invest in their business operations. The certainty provided by locked-in NEM rates allows customers to make informed decisions about the true costs of installing residential solar. At both the individual homeowner level and the national level, residential solar makes sense and will continue to play a significant role in renewable electricity production.

A. NEM as State Policy to Promote Residential Solar Growth

The impact of state-level NEM on solar adoption has been significant. NEM advocates argue that the reduction in utility revenue is a fair tradeoff because utilities do not have to generate the electricity that customers are generating for themselves.[18] The widespread success of NEM at the state level has even sparked support at the federal level, illustrated by a letter from twenty senators and four House representatives that called on FERC's chairman to reject NERA's petition for FERC jurisdiction over NEM rates.[19]

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14 *Issue Brief: Retail Net Metering*, CITIZENS FOR RESPONSIBLE ENERGY SOLUTIONS FORUM (July 2018), https://cresforum.org/issues/issue-brief-retail-net-metering/#nz-content.

15 ASHLEY J. LAWSON, CONG. RSCH. SERV., R46010, NET METERING: IN BRIEF 1 (2019).

16 *Id.*; *Solar Industry Research Data*, SOLAR ENERGY INDUS. ASS'N, https://www.seia.org/solar-industry-research-data (last visited Jan. 15, 2021).

17 *See* SOLAR ENERGY INDUS. ASS'N, *supra* note 16.

18 THE NAT'L ASS'N OF REGUL. UTIL. COMM'RS, NARUC MANUAL ON DISTRIBUTED ENERGY RESOURCES RATE DESIGN AND COMPENSATION 128 (2016).

19 Letter from Twenty-Four Members of Congress to Neil Chatterjee, FERC Chairman (May 26, 2020), https://www.hassan.senate.gov/imo/media/doc/Letter%20to%20FERC%20re%20NERA%20Net%20Metering%20Petition-5.26.20-FINAL.pdf?utm_campaign=chelsea-clean%20energy%20.

But as NEM has grown more popular, utilities and other opponents have raised legitimate concerns over its future. The main argument against net metering is that it creates a cost-shift from net metered customers to ordinary customers.[20] Because net metered customers with residential solar pay less for electricity but are still connected to the grid, utilities maintain that under NEM, conventional customers will have to pay more than their fair share to maintain the electric grid. Through the compensation they receive for their generated electricity, net metered customers avoid paying costs that are used to operate and maintain the grid. These grid maintenance and operation costs are then shifted to non-net metered customers who will pay higher electricity bills.[21]

Utilities argue that NEM was an incentive for early adopters. Now that residential solar has grown in certain markets, continuing the policy will only subsidize net metered customers unnecessarily at the expense of other utility customers.[22] Utilities are concerned that if customers continue to install residential solar, they may not be able to recover on the investments to the electricity infrastructure necessary to serve all customers on the electric grid.[23] While the "death spiral" warned of by utilities may be exaggerated in many cases, it will be important for utilities and states to balance the competing needs of residential solar companies, customers, and electric utilities.[24]

Residential solar will likely remain a significant portion of the nation's renewable energy mix. The direct benefits for residential solar consumers include lower electricity costs and independence from electric utilities, especially when solar power is paired with a battery backup system.[25] Larger scale commercial and community solar farms will also provide clean energy as a distributed resource. Falling prices and impressive growth rates since 2000 have set up the residential solar industry as a major developer of renewable energy capacity.[26] While the total amount of

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20 Ferrey, *supra* note 12, at 299.

21 EDISON ELEC. INST., SOLAR ENERGY AND NET METERING (2016), https://www.eei.org/issuesandpolicy/generation/NetMetering/Documents/Straight%20Talk%20About%20Net%20Metering.pdf.

22 *Id.*

23 RICHARD J. CAMPBELL, CONG. RSCH. SERV., THE FEDERAL POWER ACT (FPA) AND ELECTRICITY MARKETS 16 (Mar. 10, 2017).

24 *Net Metering: What Is It and Why Is It Becoming Controversial*?, ENGIE IMPACT, https://www.engieimpact.com/insights/net-metering-becoming-controversial (last visited Sept. 18, 2020).

25 *Road to Resilience with Rooftop Solar*, OFF. OF ENERGY EFFICIENCY & RENEWABLE ENERGY (June 30, 2020), https://www.energy.gov/eere/articles/road-resilience-rooftop-solar.

26 SOLAR ENERGY INDUS. ASS'N, *supra* note 16.

residential solar will likely be dwarfed in the future by utility-scale solar and wind farms, it is probable that homeowners will continue to recognize the benefits that rooftop solar provides.

More developed residential solar markets, like California, have illustrated that the most important criterion for considering NEM alternatives is the solar penetration level.[27] Solar penetration, or the percentage of solar generation in a particular market, can illustrate the magnitude of the problems with NEM in a given market. At low penetration levels, NEM acts as an incentive for customers to install residential solar and for solar businesses to invest in operations. At higher penetration levels, the cost-shift and utility investment problems that NEM presents become more pronounced.[28] Because different states are at different levels of solar penetration, they will need to develop successors to NEM at different times as residential solar market penetration increases. It is also important to note that the cost-shift associated with NEM is not the only cross-subsidy in the electricity industry: multi-family customers subsidize single-family customers, overhead electric customers subsidize underground customers, and urban customers subsidize suburban customers.[29]

When utilities hit a certain level of solar penetration, the states they operate in will have to develop a more efficient, practical, and politically acceptable system that accounts for both distributed generation and fixed utility grid costs.[30] This successor to NEM must balance residential solar generation with the need to bill customers equitably and distribute the costs of grid maintenance and operations fairly.[31] While most electricity markets are far from the level of solar penetration that requires an alternative to NEM, some states and utilities have already begun to craft "successor tariffs" to NEM that meet the needs of both net metering customers and their electric utilities.[32]

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27 SOLAR ENERGY INDUS. ASS'N, PRINCIPLES FOR THE EVOLUTION OF NET ENERGY METERING AND RATE DESIGN 3 (May 2017), https://www.seia.org/sites/default/files/NEM%20Future%20Principles_Final_6-7-17.pdf.

28 *Id.* at 1–2.

29 SOLAR ENERGY INDUS. ASS'N, *supra* note 1.

30 MASS. INST. OF TECH. ENERGY INITIATIVE, THE FUTURE OF SOLAR ENERGY 226 (2015).

31 ENGIE IMPACT, *supra* note 24.

32 Herman K. Trabish, *Renewables: As rooftop solar expands, states grapple with successors to net metering*, UTILITY DIVE (Sept. 13, 2018), https://www.utilitydive.com/news/as-rooftop-solar-expands-states-grapple-with-successors-to-net-metering/531888/.

B. State Opposition to FERC Jurisdiction over NEM Rates

Many states have been vocal in their support for NEM and wary of federal interference in setting rates that have long been left to state PUCs. FERC jurisdiction over NEM rates could place additional regulatory burdens and increased costs on the solar industry, and even reduce customer incentives to install residential PV systems.[33] If FERC were to claim jurisdiction over NEM, customers would be compensated at a lower rate for the electricity they send to the grid rather than the retail rates they currently get in many states. Because wholesale rates of electricity are much lower than retail rates, the economic outlook for investing in residential solar would be less enticing for potential customers. Current net metering customers would be compensated less for the electricity they send back to the grid if FERC were to impose a wholesale rate, interfering with their expected return on investment of installing a residential solar system.

The administrative challenges of FERC setting a federal net metering rate are also significant. If FERC were to claim jurisdiction over net metering, it would be assuming responsibility for the pricing of hundreds of thousands of retail electricity transactions, an unprecedented national regulatory burden.[34] Many states worry that a blanket federal NEM rate would be detrimental to their efforts to balance specific state renewable energy goals with utility concerns.[35]

In some cases, states that abandoned NEM at the urging of local utilities have readopted their previous NEM policies. Nevada and Maine both repealed net metering policies at the state level, only to reinstate them after public outcry.[36] Strong public support for net metering policies means that until solar penetration has reached a critical point, NEM can be used to promote residential solar and assist states in meeting their renewable energy goals. Even though some states have abandoned NEM programs, the overarching trend is that states oppose FERC jurisdiction because they would rather have control over implementation of their own programs.

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33 Ewelina Czapla, *Federal Jurisdiction of Net Metering*, AM. ACTION FORUM (June 17, 2020), https://www.americanactionforum.org/insight/federal-jurisdiction-of-net-metering/.

34 Jim Rossi, *Federalism and the net metering alternative*, 29 ELEC. J. 13, 16 (2016).

35 Catherine Morehouse, *Utilities stay silent on proposal to federalize net metering as states call it a 'threat' to solar policy*, UTIL. DIVE (June 4, 2020), https://www.utilitydive.com/news/utilities-stay-silent-on-proposal-to-federalize-net-metering-as-states-call/579171/.

36 Christian Roselund, *It's official: Gross metering will end in Maine*, PV MAGAZINE (Apr. 3, 2019), https://pv-magazine-usa.com/2019/04/03/its-official-gross-metering-is-over-in-maine/.

II. NERA PETITION FOR FERC JURISDICTION OVER NEM RATES

This Part will discuss the petition to FERC that, if granted, would have harmed the states, residential solar customers, and the renewable energy industry. In April 2020, NERA petitioned FERC for a declaratory order concerning unlawful pricing of certain wholesale energy sales.[37] NERA was requesting that FERC:

> [(1)] declare that there is exclusive federal jurisdiction over wholesale energy sales from generation sources located on the customer side of the retail meter, and (2) order that the rates for such sales be priced in accordance with the Public Utility Regulatory Policies Act of 1978 ("PURPA") or the Federal Power Act ("FPA"), as applicable.[38]

Essentially, NERA's petition asked FERC to assert jurisdiction over all net metering rates in the country and establish the rates according to federal law. FERC ultimately declined to assert jurisdiction on procedural grounds and did not actually address the arguments included in the petition.[39] The petition was dismissed on procedural grounds because it "does not identify a specific controversy or harm that the Commission should address in a declaratory order to terminate a controversy or to remove uncertainty," but the arguments were not fully analyzed in FERC's order of dismissal.[40]

NERA petitioned FERC to regulate customers with residential solar the same way FERC regulates other small-scale electricity generators under PURPA.[41] NERA argues that net metering customers are the equivalent of Qualifying Facilities and should be compensated for the electricity they produce at the utility's avoided cost of energy under PURPA. Because many NEM programs compensate customers with residential solar at the retail rate—the rate that customers actually pay to utilities for electricity—NERA argues that PURPA is being violated. The retail rate of electricity can be several times higher than the avoided cost of energy or even the wholesale rate.[42] NERA's petition requests that FERC establish

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37 Petition, *supra* note 4.

38 *Id.* at 1.

39 Morehouse, *supra* note 5.

40 *Id.*

41 ASHLEY J. LAWSON, CONG. RSCH. SERV., IN11468, FEDERAL ENERGY REGULATORY COMMISSION DECLINES TO REGULATE NET METERING 1 (2020).

42 J. Porter Wiseman, *Challenge to FERC Disclaimer of Jurisdiction over Net Metering Riles Small-Scale Solar Community*, AKIN GUMP (May 26, 2020),

a federal NEM rate at either the PURPA utility avoided-cost rate or a wholesale rate pursuant to the FPA.[43] The adoption of a federal NEM rate at the avoided-cost or wholesale rate of electricity would make residential solar less appealing to customers and create significant challenges for the solar industry.

NERA also addressed a number of public policy arguments against NEM. NERA argued NEM "harms consumers, impairs the efficient development of renewable resources, and undermines market efficiency and system reliability."[44] According to NERA, even if FERC could decline to exercise its jurisdiction of NEM rates, that "discretion would be inappropriate because of the multiple adverse public policy implications."[45]

The petition was NERA's second attempt in three years to obtain a declaratory order from FERC asserting jurisdiction over net metering rates, and it is likely the jurisdictional dispute will be litigated again.[46] Although FERC declined to address the issues brought up in the petition, the commission left open the possibility to hear issues related to residential solar and net metering in the future.[47] Because NERA's petition was dismissed on procedural grounds, the legal and public policy arguments included in the petition are likely to return in future challenges to state jurisdiction over NEM rates. In order to predict the next challenge to NEM from NERA or a similar group, it is helpful to analyze the arguments laid out in the petition in the context of FERC precedent and the regulatory framework of distributed generation in the electricity industry.

A. Regulatory Framework Likely Leaves Jurisdiction over NEM Rates to the States

The federal legislation that forms the foundation of energy regulation in the US shows a congressional intent for net metering to be within state jurisdiction.[48] The FPA, PURPA, and the Energy Policy Act of 2005

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https://www.akingump.com/en/experience/industries/energy/speaking-energy/challenge-to-ferc-disclaimer-of-jurisdiction-over-net-metering-riles-small-scale-solar-community.html.

43 Robert F. Young, *FERC Maintains the Status Quo in Net Metering for the Time Being*, LAW.COM (July 21, 2020), https://www.law.com/thelegalintelligencer/2020/07/21/a-declaratory-order-seeks-to-change-the-status-quo-on-net-metering/?slreturn=20210314173135.

44 Petition, *supra* note 4, at 44.

45 *Id.*

46 Young, *supra* note 43.

47 LAWSON, *supra* note 41, at 1.

48 Rossi, *supra* note 34, at 14.

("EPAct05") provide the basis for net metering policies to be developed by states, and FERC precedent clearly gives states the authority to craft their own NEM policies. The two major FERC decisions on the issue of net metering also affirmed the authority of states to permit net billing over a reasonable netting period and validated the argument that net metering does not involve a sale of wholesale energy under the FPA and is therefore outside the jurisdiction of FERC.[49]

The FPA is the major federal statute governing the wholesale transmission and sale of electricity.[50] Under the FPA, FERC has jurisdiction over "the transmission of electric energy in interstate commerce and the sale of electric energy at wholesale in interstate commerce."[51] Historically, a bright line test has divided federal and state jurisdiction over electricity regulation: federal regulators had exclusive authority over wholesale electricity sales in interstate commerce, while intrastate retail sales were left to state regulators.[52] Recent developments in the electricity sector, including the rise of renewable energy and distributed generation, have made this traditional division less practical.[53] In the early 20th century, homes and businesses were the only consumers of electricity, and their electricity rates were clearly within the jurisdiction of state regulation. But the advent of distributed generation resulted in a bidirectional flow of power, which the original jurisdictional division did not contemplate. The jurisdictional conflict between FERC and the states stems from this issue, and it remains to be seen how FERC and the states will ultimately decide to permanently regulate NEM customers with distributed generation systems.

A strict reading of the FPA's jurisdictional bright line—passed in 1935 before distributed generation was even considered—provides little help in resolving the dispute posed by net metering.[54] Net metering allows retail customers to both purchase and supply electricity through distributed generation. The bright line between wholesale and retail sales becomes fuzzier; under the FPA, net metering customers could seemingly become subject to state jurisdiction as retail customers and federal regulation as

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49 MidAmerican Energy Co., 94 FERC ¶ 61,340 (2001); SunEdison LLC, 129 FERC ¶ 61,146 (2009).

50 ADAM VANN, CONG. RSCH. SERV., IF11411, THE LEGAL FRAMEWORK OF THE FEDERAL POWER ACT 1 (Jan. 22, 2020).

51 16 U.S.C. § 824(b) (2018).

52 Robert R. Nordhaus, *The Hazy "Bright Line": Defining Federal and State Regulation of Today's Electric Grid*, 36 ENERGY L. J. 203, 203 (2015).

53 *Id.* at 207.

54 Giovanni S. Saarman González, *Evolving Jurisdiction under the Federal Power Act: Promoting Clean Energy Policy*, 63 UCLA L. REV. 1422, 1422 (2016).

wholesale generators.[55] Modern developments in the electricity sector have made the FPA's traditional jurisdictional distinction between wholesale and retail sales impractical.[56] The FPA is unclear on whether FERC or the states have jurisdiction over electricity generated by a retail customer and sent to the utility through the distribution grid.[57] The root of the jurisdictional dispute over net metering rates is the ambiguity in the FPA over what is considered "wholesale" and what is considered "retail" for ratemaking purposes.

The FPA defines "wholesale" as a sale for resale.[58] FERC is granted jurisdiction to regulate interstate transmission and wholesale power rates under Sections 205 and 206 of the FPA.[59] Section 206 empowers FERC to initiate a proceeding to address any rate within its jurisdiction that the agency determines is "unjust, unreasonable, unduly discriminatory or preferential."[60] If net metered electricity is seen as "wholesale" by FERC, the commission would have the authority to set NEM rates that are currently determined by state policy. "Retail" electricity is sold to consumers at the site of its use.

PURPA was enacted in 1978, in large part as a response to the energy crisis of the 1970s. PURPA established an alternative class of electricity generators called Qualifying Facilities ("QFs") that utilities were required to purchase electricity from at the utility's avoided cost.[61] PURPA is the only federal legislation requiring utilities to purchase renewable energy.[62]

PURPA's main goals were to encourage renewable electricity generation and promote competition following the energy crisis.[63] PURPA achieved that goal by requiring utilities to purchase power from QFs at their avoided cost, or the price that the utility would have paid to generate the power itself. The purchase of energy from QFs by electric utilities is governed by Section 210 of PURPA.[64] If FERC were to assert jurisdiction over net metering rates, it would be obligated to set rates in line with those

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55 *Id.* at 1426.

56 *Id.* at 1441.

57 Rossi, *supra* note 34, at 14.

58 16 U.S.C § 824(d) (2018).

59 VANN, *supra* note 50, at 1.

60 16 U.S.C. § 824e(a) (2018).

61 CAMPBELL, *supra* note 23, at 3.

62 Ari Peskoe, *Regulatory Tracker: Public Utility Regulatory Policies Act of 1978 (PURPA)*, HARV. ENV'T & ENERGY L. PROGRAM (Sept. 21, 2019), https://eelp.law.harvard.edu/2019/09/public-utility-regulatory-policies-act-of-1978-purpa/.

63 AM. PUB. POWER ASS'N, THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978: ISSUE BRIEF 1 (2020).

64 16 U.S.C. § 824a–3.

paid to QFs at the avoided cost, at a much lower price than the retail rate currently used by many state programs.

The EPAct05 included amendments to PURPA that required utilities to offer net metering to customers who request it. Section 1251 states: "[e]ach electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves."[65] In the EPAct05, net metering was defined as the following:

> the term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.[66]

The EPAct05 encouraged states to consider net metering but did not specify the rate at which net metering customers should be compensated for the electricity they generate and send to the grid.[67] The fact that the statute clearly leaves net metering rates to the states gives a powerful argument that when Congress passed the EPAct05, it did not consider FERC to have jurisdiction in this area.

B. FERC Precedent has Consistently Disclaimed Jurisdiction over NEM Rates

FERC precedent includes two decisions in which the agency appears to have disclaimed jurisdiction over NEM rates.[68] These decisions explain that the relevant factor in determining jurisdiction under the FPA is whether a net wholesale sale occurs over the netting period, not whether energy is sent from a consumer back to the grid or whether a customer receives credits for excess generation.[69] FERC has repeatedly refused to claim jurisdiction over regulation of NEM rates, as illustrated by the *MidAmerican* and *SunEdison* decisions.[70]

In *MidAmerican,* decided in 2001, a utility company challenged the net billing arrangements offered by the Iowa Utilities Board.[71] FERC ruled

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65 16 U.S.C. § 2621(d)(11).

66 *Id.*

67 LAWSON, *supra* note 15, at 6.

68 Young, *supra* note 43.

69 Rossi, *supra* note 34, at 15.

70 *Id.* at 14–15.

71 MidAmerican Energy Co. 94 FERC ¶ 61,340, 62,261 (2001).

in favor of the Iowa Utilities Board, rejecting MidAmerican's argument that "every flow of power constitutes a sale, and in particular, that every flow of power from a homeowner or farmer to MidAmerican must be priced consistent with the requirements of either PURPA or the FPA."[72] Specifically, FERC found that "no sale occurs when an individual homeowner or farmer (or similar entity such as a business) installs generation and accounts for its dealings with the utility through the practice of netting."[73] *MidAmerican* also established a normal monthly billing cycle as a reasonable period for net metering.[74]

MidAmerican affirmed a state's authority to establish a net metering program, but it has been criticized as precedent to support a policy decision that would be better accomplished with other methods.[75] FERC is relying on a single case decision to defend an important national policy impacting the future of renewable energy. While its decision still has precedent, FERC may be better off making that policy decision with public participation through notice and comment rulemaking under the Administrative Procedure Act.[76]

In its *MidAmerican* decision, FERC moved beyond obvious precedent to develop a new policy on net metering. A rulemaking would have been a less opaque approach if FERC had clarified its choice to adopt a new policy or interpret existing metering policies differently.[77] Even though FERC made its *MidAmerican* decision to allow states to develop their own net metering programs in 2001, it is clear from NERA's recent petition that NEM policy would benefit from the clarity a rulemaking would bring to the discussion.

SunEdison concerned a solar company seeking a declaratory order confirming that its solar energy retail sales to customers do not constitute the sale of electric energy at wholesale in interstate commerce or the transmission of electric energy in interstate commerce for purposes of the FPA.[78] FERC found that because the residential solar systems never reach the customers' full electric demand, no sale of electric energy at wholesale in interstate commerce under Section 201 of the FPA occurred, and the

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72 *Id.* at 62,263.

73 *Id.*

74 *Id.* at 62,264.

75 *See* Steven Ferrey, *Net Zero: Distributed Generation and FERC's MidAmerican Decision*, 17 ELEC. J. 33 (2004).

76 *Id.* at 42.

77 *Id.* at 41.

78 SunEdison LLC, 129 FERC ¶ 61,146, 61,618 (2009).

SunEdison solar electricity sales are outside of FERC's jurisdiction under the FPA.[79] FERC stated,

> [w]here there is no net sale over the billing period, the Commission has not viewed its jurisdiction as being implicated; that is, the Commission does not assert jurisdiction when the end-use customer that is also the owner of the generator receives a credit against its retail power purchases from the selling utility.[80]

Once again, when it came to net metering rates, FERC found that they did not have jurisdiction under the FPA.

MidAmerican and *SunEdison* both indicate that net metering under state regulation is not a wholesale transaction.[81] This determination would seem to suggest that net metering rates are outside of FERCs jurisdiction.[82] Because FERC has so far refused to institute a rulemaking, its policy towards state net metering policies has been based on two individual adjudications. These adjudications have allowed state net metering policies to develop and operate, but questions remain because *MidAmerican* and *SunEdison* can both be read as being confined to their specific facts. *SunEdison* brings up the critical concern that state net metering programs that allow a net transfer of electricity to the utility over a period could be in violation of the FPA.[83]

C. Recent Cases Impacting Net Metering

Some recent FERC decisions have given NEM detractors an opportunity to call this precedent into question. Specifically, some NEM opponents claim that the D.C. Circuit has rejected netting on a monthly basis with its decisions in *Southern California Edison v. FERC* [84] and *Calpine Corp. v. FERC*.[85] Although they do provide guidance on netting periods and the FERC and state jurisdictional line, it is likely that these cases can be confined to their specific facts and have limited relevance to the state level net metering discussion. *Southern California Edison* and *Calpine Corp.* both dealt with the legal issue of how the authority to set netting intervals for different purposes meshes with the FPA's division of

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79 *Id.*

80 *Id.* at 61,620.

81 Ferrey, *supra* note 12, at 306.

82 *See* 16 U.S.C. § 824(b)(1).

83 Ferrey, *supra* note 12, at 310.

84 S. Cal. Edison v. FERC, 603 F.3d 996, 999 (D.C. Cir. 2010).

85 Calpine Corp. v. FERC, 702 F.3d 41, 44–47 (D.C. Cir. 2012).

jurisdiction between federal and state authorities.[86] Both cases involved independent electricity generators and the netting period and compensation rate for "station power" that the electricity generation facility actually consumed from the grid.[87] The facilities produced more electricity than they consumed, but in certain situations where the facilities were off or were connected to the grid they still drew electricity from the utility.[88] While the decisions found that FERC lacked jurisdictional authority to set a netting period, these cases apply more directly to station power netting than a utility customer enrolled in a net metering program. FERC still found it was appropriate to adopt the billing cycle used by the state to determine FERC jurisdiction over the sale.[89] Additionally, Congressional intent makes it clear that individual electricity customers were not meant to be regulated in the same category as utilities.[90]

Possibly more influential on FERC's potential jurisdiction over NEM rates was *FERC v. Electric Power Supply Association*, which was decided by the U.S. Supreme Court in 2016 and upheld FERC's authority to regulate demand response transactions.[91] Demand response involves paying electricity consumers to lower electricity consumption at times of peak demand, and it also calls into question the FPA's jurisdictional "bright line" between federal jurisdiction over interstate electricity and state jurisdiction over intrastate electricity.[92] FERC issued Order 745, requiring demand response in wholesale markets to be compensated at the same rate as electricity generation.[93] FERC chose to practice a functionalist approach to its jurisdiction in both Order 745 and its *MidAmerican* and *SunEdison* decisions to interpret the FPA to only apply to net producers of electricity.[94] By separating jurisdictionally questionable cases from those clearly within its jurisdiction, FERC is applying similar strategies to the questions of net metering and demand response.[95] FERC may be able to frame its functionalist reading of the FPA as it applies to net metering in

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86 S. Cal Edison, 603 F.3d at 999; Calpine Corp., 702 F.3d at 44–47.

87 *Id.*

88 *Id.*

89 *Net Metering Policies Challenged at FERC*, CROWELL & MORING (Apr. 23, 2020), https://www.crowell.com/NewsEvents/AlertsNewsletters/all/Net-Metering-Policies-Challenged-At-FERC.

90 Frank R. Lindh & Thomas W. Bone Jr., *State Jurisdiction over Distributed Generators*, 34 ENERGY L. J. 499, 539 (2013).

91 FERC v. Elec. Power Supply Ass'n, 577 U.S. 260, 295–96 (2016).

92 Matthew R. Christiansen, FERC v. EPSA: *Functionalism and the Electricity Industry of the Future*, 68 STAN. L. REV. ONLINE 100, 101 (2016).

93 *Id.* at 103.

94 *Id.* at 108.

95 *Id.*

the same way it was able to defend its regulation of wholesale demand response.[96]

D. NERA Petition and the Remaining Jurisdictional Dispute

Because NERA or a similar group is likely to challenge state jurisdiction over NEM rates in the future, other potential arguments that may be raised should be discussed. The possibility exists that state public utilities commissions will be subject to pressure from utility companies that seek to weaken NEM in their state. FERC involvement could theoretically be beneficial if the commission considered policies and rate structures that adequately compensate consumers that generate their own electricity.[97]

In light of the regulatory framework and FERC's own precedent regarding jurisdiction over NEM rates, NERA's petition ran into significant problems. FERC's regulations and precedent establish that net metering is not a wholesale sale of energy, and as a result, FERC does not have the regulatory jurisdiction under Section 205 of the FPA.[98] The FPA requires FERC to regulate wholesale sales of energy, or "sales for resale."[99] But when it comes to net metering, FERC's previous decisions consistently proclaim that there is no wholesale sale of electricity unless customers generate so much electricity that they become net sellers instead of net purchasers.[100] Despite NERA's legal and public policy arguments, there is nothing in federal law that requires FERC to exercise jurisdiction over NEM rates.[101]

It has also been suggested that FERC's disclaiming of jurisdiction over NEM rates may not survive analysis under the Subdelegation Doctrine. Under the Subdelegation Doctrine, a delegation of substantive statutory authority by an agency to an outside party is impermissible.[102] The argument follows that by letting states set their own NEM rates, FERC allows states to pursue their own specific policies to the detriment of national policy goals.[103] PURPA requires FERC to maintain a national vision

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96 *Id.*

97 Nicole Rodriguez-Fierro, *Should the Federal Energy Regulatory Commission Intervene: With Varying State Policies on Net Energy Metering, What is the Future of Solar Distributed Generation in the United States?*, 29 TUL. ENV'T L. J. 323, 344 (2017).

98 Rossi, *supra* note 34, at 15.

99 16 U.S.C § 824 (2018); Rossi, *supra* note 34, at 14.

100 Rossi, *supra* note 34, at 17.

101 *Id.* at 13.

102 Linda L. Walsh, *Can FERC's Policy Disclaiming Jurisdiction over Net Meter Sales of Distributed Generation Survive Analysis Under the Subdelegation Doctrine?*, 28 ELEC. J. 11, 15 (2015).

103 *Id.* at 16–17.

and perspective.[104] If subdelegations to outside parties are assumed to be improper without an affirmative congressional authorization, FERC's refusal to claim exclusive jurisdiction over net metering may be in violation of the Subdelegation Doctrine.[105]

Because NERA's petition was dismissed on procedural grounds, the jurisdictional dispute over NEM rates remains in question. While the future of net metering remains uncertain, the status quo retained after the petition's dismissal ensures that an important policy tool to promote renewable energy remains available to states.[106] The Order dismissing the petition indicated that FERC may consider the arguments introduced in the petition at a different time or through a different avenue.[107] One commissioner suggested that the issue could be brought up again through a formal Section 206 complaint aimed directly at a specific state net metering law or through a FERC rulemaking.[108] The jurisdictional dispute will likely continue to be litigated until FERC definitively and permanently decides whether its jurisdiction includes net metering rates.

III. WHY FERC SHOULD DISCLAIM JURISDICTION

This Part discusses why FERC should permanently disclaim jurisdiction over net metering rates and allow states to craft NEM policies as they see fit. Clearly, FERC is not obligated to assert exclusive jurisdiction over NEM rates under the FPA, PURPA, or the EPAct05.[109] FERC was right to disclaim jurisdiction over net metering rates, and it should continue to leave net metering policy decisions to the states. The main reason FERC jurisdiction would be inappropriate is that residential solar customers are not seeking to enter the electricity market as generators.[110] When homeowners install solar panels on their roofs, they are simply trying to reduce the amount of electricity that they take from the grid. Whether their reasons are financial or environmental, residential solar customers are not trying to supply power to the grid; they are only trying to offset their own electricity consumption with solar electricity. As long as NEM customers remain net purchasers of electricity, they should not be treated as generators.

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104 *Id.* at 15–17.

105 *Id.* at 15–16.

106 Young, *supra* note 43.

107 Morehouse, *supra* note 5.

108 *Id.*

109 *See* ARI PESKOE, THE CASE AGAINST DIRECT FERC REGULATION OF DISTRIBUTED ENERGY RESOURCES, HARV. ENV'T & ENERGY L. PROGRAM (Sept. 20, 2018).

110 Czapla, *supra* note 33.

FERC correctly decided in *MidAmerican* and *SunEdison* that net metering rates are not within their jurisdiction under federal law. While NERA petitioned FERC to treat net metering customers as QFs who would be compensated for their electricity at the wholesale rate, that designation is inappropriate for a residential solar customer who is still a net purchaser of electricity. FERC maintained that states had jurisdiction to establish net metering programs and that a monthly billing period was a reasonable length of time for the netting.

FERC made these decisions on net metering after a clear legislative intent in the EPAct05 that states should provide net metering programs to customers who request it and that states should be able to develop net metering programs that best fit their specific requirements. Keeping NEM rates within state jurisdiction was beneficial to promote growth in the solar industry. State jurisdiction will remain important as states reach different levels of solar penetration and decide what their successor to net metering will look like. FERC lacks the regulatory flexibility to adapt policies for each state, let alone the hundreds of thousands of households that it would be responsible for regulating if it asserted exclusive jurisdiction over net metering rates.

In order to resolve the jurisdictional uncertainty clouding the future of NEM, FERC should institute a rulemaking or proceeding definitively and permanently disclaiming jurisdiction over NEM rates and leaving that authority to the states.[111] Utility customers, renewable energy companies, and even utility companies will benefit from increased certainty as they balance their needs in crafting a successor to net metering that promotes renewable energy and protects utility investment in the electric grid.

IV. POTENTIAL FOR RESOLUTION OF JURISDICTIONAL DISPUTE

A practical successor to NEM will recognize the benefits to the electric grid and the competing requirements of distributed generators and utilities.[112] A well-designed compensation mechanism for distributed generators can maximize the value of distributed generation for all stakeholders, including the system owner, utilities, and other utility customers.[113] Many

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111 *See* Ferrey, *supra* note 75, at 41.

112 *See* Richard L. Revesz & Burcin Unel, *Managing the Future of the Electricity Grid: Distributed Generation and Net Metering*, 41 HARV. ENV'T L. REV. 43 (2017).

113 OWEN ZINAMAN ET AL., NAT'L RENEWABLE ENERGY LAB'Y, GRID CONNECTED DISTRIBUTED GENERATION: COMPENSATION MECHANISM BASICS (2017).

states have moved away from NEM rates that pay residential solar customers the full retail rate, instead attempting to determine the "true value" of solar generation to the electrical grid.[114] While net metering may be an imperfect way of determining the benefit of residential solar, "value of solar" rates are being developed that capture the true value that solar generation provides to the electric grid.[115]

These new compensation rates for electricity sent back to the grid may fall somewhere between the utility's avoided cost and the retail price of electricity.[116] The challenge to overcome is compensating solar customers fairly for their generation without shifting grid costs onto non-solar utility customers.[117] Setting the compensation rate is difficult because of disagreements over the value of solar to the grid.[118]

Congress could allow the status quo to remain and keep NEM rates within state jurisdiction, or it could enact legislation giving FERC policy direction regarding net metering.[119] Another potential resolution to the jurisdictional dispute is a regional interstate electric power compact with an interstate regulatory entity that determines net metering rates on a regional level.[120] While the compact would be subject to the approval of Congress, the interstate regulatory entity could assert jurisdiction over the states in the compact excluding both state and federal regulators.[121]

Regardless of the challenge, developing a successor tariff to NEM will be a crucial step in creating an equitable, low-carbon electricity sector in areas with high residential solar penetration.[122]

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114 Dan Gearino, *As Rooftop Solar Grows, What Should the Future of Net Metering Look Like?*, INSIDECLIMATE NEWS (June 11, 2019), https://insideclimatenews.org/news/11062019/rooftop-solar-net-metering-rates-renewable-energy-homeowners-utility-state-law-changes-map/.

115 John V. Barraco, *Distributed Energy and Net Metering: Adopting Rules to Promote a Bright Future*, 29 J. LAND USE & ENV'T L. 365, 390–91 (2014); *State Net Metering Policies,* NAT'L CONF. OF STATE LEGISLATURES (Nov. 20, 2017), https://www.ncsl.org/research/energy/net-metering-policy-overview-and-state-legislative-updates.aspx.

116 Herman K. Trabish, *Renewables: As Rooftop Solar Expands, States Grapple with Successors to Net Metering*, UTILITY DIVE (Sept. 13, 2018), https://www.utilitydive.com/news/as-rooftop-solar-expands-states-grapple-with-successors-to-net-metering/531888/.

117 *Id.*

118 *Id.*

119 LAWSON, *supra* note 41, at 2.

120 Nordhaus, *supra* note 52, at 325.

121 *Id.*

122 Gearino, *supra* note 114.

CONCLUSION

NEM is a valuable tool that states have used to promote the growth of residential solar and move toward renewable energy goals. While NERA's legal and policy arguments for FERC to assert exclusive jurisdiction over NEM rates have significant shortcomings, it is important to recognize the negative impacts of NEM on utilities and non-solar customers, as well as the subsidy NEM creates for a less efficient renewable resource. Residential solar and NEM are both still important factors in the electricity industry, even as states with higher residential solar penetrations are beginning to craft successor tariffs that balance the competing needs of residential solar customers, renewable energy companies, utilities, and non-solar customers. The next step that FERC should take in promoting renewable energy throughout the country is instituting a rulemaking that gives exclusive jurisdiction over NEM rates to the states. When states have that regulatory certainty, they can move past NEM by crafting successor tariffs that act as a compromise between utilities, utility ratepayers, and renewable energy developers as solar markets continue to mature.