



August 22, 2016

Federal Trade Commission
Office of the Secretary
600 Pennsylvania Ave, N.W., Suite CC-5610 (Annex B)
Washington, DC 20580

Re: Solar Electricity Project No. P161200

Introduction

SolarCity Corporation, America's leading full-service solar provider, appreciates the opportunity to submit comments on the above-captioned Federal Trade Commission ("FTC" or the "Commission") workshop – "Something New Under the Sun – Competition & Consumer Protection Issues in Solar Energy." In offering this comment, SolarCity seeks to expand upon and raise a number of competitive issues within the distributed generation ("DG") solar space that are of concern to solar providers, consumers of energy, antitrust enforcers and competition advocates, and proponents of clean renewable energy.

In particular, SolarCity seeks to illuminate ongoing conduct that threatens the viability of a growing and highly competitive solar industry.¹ We believe the FTC can play a constructive role in addressing this conduct by injecting antitrust principles and antitrust law into the debate, either at the legislative or regulatory level, or where applicable, through targeted antitrust enforcement. The challenges the DG solar industry faces will require vigorous attention by the FTC and other antitrust enforcement agencies as the threats continue to evolve in the coming years.

The utility model of growth has long been predicated on either growing the rate base, sometimes through over-investment, or by increasing the number of customers consuming electricity. As a result, monopoly utilities are not financially motivated to improve services and operate more efficiently.² Utilities' incentives to enlarge the rate base remain unchanged despite improvements in technology, many of which have been created through discoveries made by corporations that are reducing American energy consumption. Moreover, utilities are facing heightened competition from rooftop solar providers, like SolarCity.

In the face of this emerging competition and changing energy landscape, some incumbent utilities have resorted to conduct that has the design and effect of barring competition from DG solar and other distributed energy resources ("DER"). In some instances, these actions have resulted in the complete or near-complete elimination of DG solar generation from the marketplace. In others, they have made it increasingly difficult for emerging DG solar providers to compete and have stymied growth.

¹ At the June 21, 2016 workshop, the undersigned, Jon Wellinghoff, Chief Policy Officer of SolarCity, participated in the "Net-Metering: Pricing Solar DG at Retail" panel. SolarCity greatly appreciated the invitation and ability to participate on such a vital panel. The comment submitted today expands upon Mr. Wellinghoff's statements on the panel as well as providing additional information regarding other competition issues within the industry.

² See Mark A. Jamison, *Regulation: Rate of Return*, ENCYCLOPEDIA OF ENERGY AND TECHNOLOGY, VOL 3, ED., available at http://warrington.ufl.edu/centers/purc/purcdocs/papers/0528_Jamison_Rate_of_Return.pdf.

Although DG solar companies have achieved tremendous growth as a whole and continue to offer consumers access to clean energy generation, SolarCity is increasingly concerned that some incumbent monopolist utilities will, if left unchecked by antitrust considerations, significantly diminish or eliminate competition from DG solar providers. This conduct could seriously jeopardize the recent hard-fought gains in the adoption of solar and the unprecedented introduction of competition in the provision of electricity all over the United States.

We base our recommendations on recognition of the multi-faceted relationship between incumbent utilities and DG solar providers. On the one hand, there is an increasingly horizontal competitive relationship between the two, and it is essential that utility exclusionary conduct to prevent the development of this extremely important and unprecedented competition be curbed. On the other hand, DG solar serves as an increasingly important supply input to incumbent utilities. With respect to that vertical relationship, SolarCity has a strong preference to work with regulators, enforcement officials, and utilities to improve recognition of the benefits DG solar can provide to the grid and further develop efficient approaches to grid resiliency, security, and utilization, all in the interest of solar and non-solar consumers alike. SolarCity has been able to collaborate with regulators and utilities in this fashion in a number of jurisdictions, including most recently New York, and consumers in those jurisdictions are already seeing the benefits of such cooperation.

Against this backdrop, SolarCity wholeheartedly agrees with Chairwoman Ramirez's opening statement in this proceeding that there is a need to "ensure that rooftop solar – no differently from any other new technology or product – develops in an environment of vigorous competition and responsiveness to consumer demand."³ Indeed, sound antitrust policy reflects the United States' deeply rooted belief that vigorous competition is always the best way to spur innovation and the development of technologies and products that benefit consumers. Antitrust law, as the "Magna Carta of free enterprise," should have a material role in the development of rules that will govern the interaction of the rooftop solar industry with investor-owned utilities. Because the utilities' conduct threatens the desired competitive market outlined by Chairwoman Ramirez, a more rigorous application of antitrust principles is warranted going forward.

This comment focuses on competition issues within the solar industry. We start with a background discussion of the DG solar industry. We then address the various tactics that harm competition in DG solar, including the attempt by some utilities to extend their monopoly power into the competitive and vibrant solar segment. Lastly, we demarcate antitrust law's potential role in policing this conduct to ensure the continued emergence of a competitive DG solar industry that will benefit consumers and the environment.

³ Edith Ramirez, Chairwoman, Fed. Trade Comm'n, Opening Remarks at Something New Under the Sun: Competition and Consumer Protection Issues in Solar Energy (June 21, 2016).

I. The DG Solar Industry

Founded in 2006, SolarCity's goal is to offer all consumers the ability to self-generate clean energy. Over the last ten years, SolarCity has completed DG installations in 27 states as well as Washington, D.C., providing services to hundreds of thousands of homeowners, over 400 schools and universities, government agencies, and corporate clients. To assist our customers in their switch to cleaner energy, SolarCity facilitates the entire process – from seeking permits for installation with the utility to physical installation of the photovoltaic (“PV”) panels on an individual's home or business. Post-installation, SolarCity continues to offer services including monitoring and repairs of the physical assets.

For decades prior to DG solar and DER entry into generation, consumers relied on utilities to generate all of their electricity needs. Without other reliable options, consumers accepted utility offerings, regardless of their cost or overall efficiency. DG solar, for virtually the first time, provides significant competition in the provision of electricity on a retail basis, allowing consumers and businesses the ability to self-generate electricity through PV solar panels, while at the same time offering benefits to utilities and their customers at the macro-grid system level.

Self-generation of electricity through DG solar makes consumers more actively engaged in their energy consumption, enabling them to both manage and – most importantly – reduce consumption from non-renewable sources in ways that benefit society.⁴ DG solar also enables consumers to save money on their energy bills, and has done so increasingly as costs have declined. One aspect of the economic proposition offered by rooftop solar is that when customers use their solar panels to generate electricity they do not need, they can provide it back to the grid and obtain credit for that electricity, a process known as net energy metering (“NEM”). The Energy Policy Act of 2005 made NEM “available upon request” for consumers, thereby mandating that consumers be allowed to offset, in whole or in part, the electric energy provide by the utility.⁵ Currently, over 40 states and Washington, D.C. have authorized NEM.⁶

NEM is a simple mechanism under which DG solar users are treated like other generators of electricity, with the benefits of solar-generated power to the grid, including transmission and other savings for the utility, which warrants compensation at or above the retail rate. In short, DG solar saves the grid, and by extension non-DG solar customers, money by making the grid more efficient and avoiding costs in traditional utility investments that are obviated by DG

⁴ See *The New Energy Consumer, Architecting for the Future*, ACCENTURE (2014), available at https://www.accenture.com/_acnmedia/Accenture/next-gen/insight-unlocking-value-of-digital-consumer/PDF/Accenture-2014-The-New-Energy-Consumer-Architecting-for-the-Future.pdf (in analyzing energy consumption, 62 percent of consumers care about factors other than cost including control over their own usage and how much impact the consumer has on the environment).

⁵ Clean Energy Policy Act of 2005, Pub. L. No. 109-58, § 1254, 119 Stat. 594.

⁶ Jocelyn Durkay, *Net Metering: Policy Overview and State Legislature Updates*, NATIONAL CONFERENCE OF STATE LEGISLATURES (Dec. 18, 2014), <http://www.ncsl.org/research/energy/net-metering-policy-overview-and-state-legislative-updates.aspx>.

solar.⁷ A 2007 study by The Department of Energy found that DG solar increases electric system reliability, reduces peak power requirements, enhances grid security, and provides ancillary services, including reactive power.⁸ Moreover, the increased implementation of DG solar and other DER has reduced American energy consumption of utility-generated power.⁹ DG solar also allows utilities to avoid unnecessary long-term commitments to generation, transmission, and distribution, creating significant savings. For example, in California, the California Independent System Operator, with support from the investor-owned utility Pacific Gas & Electric, terminated \$192 million in transmission projects due to “lower load forecasts levels” thanks in large part to “energy efficiency and rooftop solar.”¹⁰

Against this backdrop, it is no wonder that DG solar is a robust and highly competitive segment. This is readily apparent from the innovative service offerings available, as well as the decreasing prices in the industry. Competition has led to improved services, including fully-integrated service packages, allowing consumers to receive a suite of new services, including financing for DG solar projects. SolarCity, for example, now offers a collection of products that integrate (and will increasingly integrate in the future) rooftop solar, battery storage, and energy management services for individual customers.¹¹

As a result of increased competition, improved manufacturing efficiency, scale, and other factors, costs to install solar have dropped by over 70 percent since 2006, with new competitors and investors seeking to offer DG solar and financing services.¹² In 2015, solar PV developments reached 7,260 megawatts of direct current, a record high in the United States. Residential PV was the fastest-growing sector for U.S. solar, with over two gigawatts installed and a growth rate of 66 percent from 2014. Utilities are also expanding their PV footprint, with expectations of tripling the number of 2015 installations across the United States.¹³ Despite this

⁷ See Chris Meehan, *New Research Shows Rooftop Solar Saves Everyone Money*, SOLARREVIEWS (June 10, 2016), <https://www.solarreviews.com/news/research-shows-rooftop-solar-saves-everyone-money-061016/> (A study by Robert Kaufmann found that all Massachusetts residents saved \$184 million between 2010 and 2012 due to DG solar investments).

⁸ See U.S. DEP’T OF ENERGY, A STUDY PURSUANT TO SECTION 1817 OF THE ENERGY POLICY ACT OF 2005: THE POTENTIAL BENEFITS OF DISTRIBUTED GENERATION AND RATE-RELATED ISSUES THAT MAY IMPEDED THEIR EXPANSION (Feb. 2007) at i, available at <https://www.ferc.gov/legal/fed-sta/exp-study.pdf>.

⁹ See SolarCity, *A Pathway to the Distributed Grid*, available at http://www.solarcity.com/sites/default/files/SolarCity_Distributed_Grid-021016.pdf (noting that in California, there has been growth in the rate base for California investor-owned utilities while consumption by consumers has been flat).

¹⁰ Julia Pyper, *Californians Just Saved \$192 Million Thanks to Efficiency and Rooftop Solar*, GREENTECH MARKET (May 31, 2016), <http://www.greentechmedia.com/articles/read/Californians-Just-Saved-192-Million-Thanks-to-Efficiency-and-Rooftop-Solar>.

¹¹ Eric Wesoff, *SolarCity’s System for Self-Supply in Hawaii Includes PV, Storage, Water Heater and Nest Thermostat*, GREENTECH MEDIA (Feb. 24, 2016), <http://www.greentechmedia.com/articles/read/SolarCitys-System-For-Self-Supply-in-Hawaii-Includes-PV-Storage-Water-He>.

¹² See *Solar Industry Data*, SOLAR ENERGY INDUSTRIES ASSOCIATION, <http://www.seia.org/research-resources/solar-industry-data> (last visited Aug 19, 2016).

¹³ *Id.*

impressive growth, in 2015, solar represented less than one percent of electricity generation nationwide.¹⁴

II. Some Monopolist Utilities Seek to Quash Competition from DG Solar

As DG solar has emerged as a competitor to traditional utility services, incumbent utility monopolies have sought, in various ways, to address the new competitive threat. As noted by the American Antitrust Institute (“AAI”) in 2010, utilities have “incentives both to favor their own generation at the expense of rivals and to sell as much power as possible.”¹⁵ The AAI predicted that these incentives might lead utilities to “discourage demand [of DG solar] through a variety of mechanisms” that will serve to drive up “costs, creat[e] barriers to entry, and hamper[] the transition to a low-carbon, efficient industry.”¹⁶

The AAI’s 2010 prediction of some utilities’ reaction to rooftop solar competition was prescient. Many utilities have developed what appears to be a coordinated response designed to upend existing DG competition. In a 2013 report noting the challenges to the “centralized utility model,” the Edison Electric Institute (“EEI”), the trade association for investor-owned utilities, labeled DG solar as a “viable disruptive threat to [utilities’] service offering.”¹⁷ EEI described its view of the challenge: “when customers have the opportunity to reduce their use of a product or find another provider of such service, utility earnings growth is threatened.”¹⁸ As part of the initial 2013 report, EEI advocated “immediate” and “longer-term” actions to prevent DG solar’s ability to “slice away” at the utilities’ regulated monopoly in electricity generation. EEI urged utilities to act to weaken or eliminate state net-metering policies,¹⁹ levy increasing fees and charges on DG solar,²⁰ and influence policymakers and stakeholders to enable utilities to offer DG solar services as regulated monopolists.²¹

Some utilities have followed the EEI playbook. Over the last few years, DG solar has repeatedly defended against utility-backed policies that were designed to diminish DG solar’s ability to

¹⁴ *What is U.S. electricity generation by energy sources?*, U.S. ENERGY INFORMATION ADMINISTRATION, <https://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3> (last visited Aug. 19, 2016).

¹⁵ Diana L. Moss and John E. Kwoka, *Competition Policy and Transition to a Low-Carbon, Efficient Electricity Industry*, AMERICAN ANTITRUST INSTITUTE (May 2010).

¹⁶ *Id.*

¹⁷ Peter Kind, *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business*, EDISON ELECTRIC INSTITUTE (Jan. 2013), available at <http://www.eei.org/issuesandpolicy/finance/Documents/disruptivechallenges.pdf>.

¹⁸ *Id.*

¹⁹ See *Solar Energy and Net Metering*, EDISON ELECTRIC INSTITUTE (Jan. 2016), available at <http://www.eei.org/issuesandpolicy/generation/NetMetering/Documents/Straight%20Talk%20About%20Net%20Metering.pdf>.

²⁰ See *Primer on Rate Design for Residential Distribution Generation*, EDISON ELECTRIC INSTITUTE (Feb. 2016), available at <http://www.eei.org/issuesandpolicy/generation/NetMetering/Documents/2016%20Feb%20NARUC%20Primer%20on%20Rate%20Design.pdf>.

²¹ *2016 EEI Corporate Goals*, EDISON ELECTRIC INSTITUTE (2016), available at <http://big.assets.huffingtonpost.com/eeigoal.pdf>.

compete. We list below some of the more significant attempts to blunt or eliminate competition from DG solar.

A. Anticompetitive Discrimination in Rate Structure and Design

Rate design, often a state-by-state public utility commission-regulated process, encompasses all factors that affect the ultimate price paid by the energy consumer. Rate design includes setting the amount and structure of the rate and terms under which customers pay for the electricity they buy from the utility and are credited for excess energy returned to the grid. Each aspect of the utility rate design directly affects the economic case for consumers to invest in solar, and therefore, the long-term viability of DG solar. Increasingly, some utilities are turning to rate design to target and discriminate against DG solar customers, with the effect of diminishing DG's viability.

i. *Net Metering*

Based on the EEI playbook, utilities often claim that net metering creates an alleged "cost shift" from ratepayers that install DG solar to less-affluent, non-solar ratepayers, to the extent DG solar generation is compensated at the prevailing retail rates. In some instances, utilities have relied on this argument as the basis for discriminatory rates. And, in other instances, some utilities have attempted to rescind the economic foundations of net metering by proposing to drastically reduce the compensation for DG solar generation.

The cost-shift argument is incorrect because it is based on the erroneous assertion that the only costs that DG solar enables the utility and its rate base to avoid are the actual costs of purchasing the power generated by DG solar. This assertion ignores the numerous benefits DG solar provides to the grid, for which it is in the utility's self-interest (but for the elimination of competition) to properly compensate the DG solar customer. In fact, when such benefits are properly taken into account, the retail rate arguably under-compensates DG solar generation for the services and benefits it provides to the grid. According to studies analyzing NEM and self-generation, consumers and businesses utilizing DG solar create benefits to both the grid and society at large. The former provide an economic interest to the utility in compensating DG solar customers for excess electricity well above the avoided energy cost rate; the latter provide a compelling policy reason – grounded in both the benefits of competition and the social importance of removing the externalization of important costs of carbon-based energy production – to ensure such compensation.

A recent report by the Frontier Group analyzing 11 different studies – three conducted or sponsored by utilities, two sponsored by regulators, and six sponsored by third parties – found that, after taking into account the utility cost of integrating DG solar into the grid, the average median value of rooftop solar is 16.90 cents per kilowatt hour, counting both avoided utility and

avoided social costs – nearly 30 percent higher than the average residential rate of electricity.²² As a result, the cost-shift argument to reduce NEM rates lacks merit. Indeed, although utility-sponsored analyses of the value of solar are predictably at the low end, even they generally assess the value – even excluding societal benefits – above the avoided wholesale energy cost, and consistently take into account other utility benefits such as avoided operation and maintenance costs, avoided generation capacity costs, avoided transmission costs, and avoided distribution costs. Similarly, the regulatory agency-commissioned studies consistently recognize both these and other benefits. The Nevada Public Utility Commission recently recognized *eleven* distinct DG solar benefits, ten of which are direct benefits to utilities, the other of which is the avoidance of environmental externalities.²³

Nonetheless, an increasing number of utilities, as EEI has suggested, have initiated NEM and other rate reviews before state public utility commissions (“PUCs”). Because these utilities are monopolists, and PUCs often have limited technical resources, these utilities can attempt to affect the NEM and rate review process through the selected data they submit. For example, a utility could request a significant reduction in the net metering credit for excess energy generated by a rooftop system, and cite incomplete data in support, such as by omitting data that reflects the value solar adds to the grid, to contend that NEM rates do not account for fixed costs of the power grid, and therefore impose a “cost shift” on ratepayers that do not purchase DG solar.²⁴

This kind of analysis ignores the Frontier Group paper and other studies finding that DG solar adds monetary value and grid benefits for both solar and non-solar customers.²⁵ Such attacks on NEM before state regulators can have devastating consequences for the viability of rooftop solar. The most powerful example of anticompetitive NEM policies comes from Nevada.

In December 2015, at the urging of the utilities, the Nevada PUC eliminated retail NEM for all solar customers, also applying these changes retroactively to customers that had already signed up for rooftop solar.²⁶ For Nevada’s nearly 18,000 existing DG solar customers, the NEM changes erased potential savings, resulting in consumers paying higher electricity bills for the right to self-generate.²⁷ Furthermore, as of early 2016, that change has forced out nearly all DG solar competitors in Nevada, with 2016 DG solar installations falling by 92 percent from 2015.²⁸

²² Lindsey Hallock & Rob Sargent, *Shining Rewards – The Value of Rooftop Solar Power for Consumers and Society*, FRONTIER GROUP (2015), available at

http://www.environmentamerica.org/sites/environment/files/reports/EA_shiningrewards_print.pdf.

²³ See Nevada Public Utilities Commission Procedural Order, Docket No. 16-07001 (April 8, 2016).

²⁴ *Solar Energy and Net Metering*, *supra* note 19.

²⁵ See Snuller Price et al., *Nevada Net Energy Metering Impacts Evaluation*, ENERGY AND ENVIRONMENTAL ECONOMICS, INC., (July 2014) (A study for the Nevada PUC found that the benefits of DG solar would outweigh total costs, including grid costs, by more than \$36 million through 2016).

²⁶ Julia Pyper, *Does Nevada’s Controversial Net Metering Decision Set a Precedent for the Nation?*, GREENTECH MEDIA (Feb. 4, 2016), <http://www.greentechmedia.com/articles/read/nevada-net-metering-decision>.

²⁷ *Id.*

²⁸ Mark Muro & Davashree Saha, *Rooftop solar: Net metering is a net benefit*, BROOKINGS INSTITUTE (May 23, 2016), <https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit/>.

That competition in this once-vibrant segment has been eliminated in one of the sunniest states in the nation highlights the anticompetitive potential of such challenges to net metering.

In contrast to Arizona and Nevada, some states have tried to assign proper value to the benefits of DG solar. In Minnesota, in lieu of NEM, the state offers a value-of-solar tariff, designed to credit solar customers for electricity generated by the PV system, not an arbitrary rate set by the utility.²⁹ By taking into account utility variable and fixed costs, distribution system and transmission line losses, ancillary services, and environmental impact, the value-of-solar tariff attempts to capture the benefit of a customer's PV generation.³⁰

The efforts of the New York Public Service Commission ("PSC") provide another notable contrast to problematic utility challenges to NEM. Animated by New York's 2014 Reforming the Energy Vision plan ("REV"), the PSC is overseeing a comprehensive electric utilities reform effort. REV's stated goal is to create a cleaner, more affordable, more efficient, and more resilient energy system in New York, including through the increased development of DERs. In May 2016, the PSC directed the development of rates that would provide more efficient value signals, both in the rates paid by customers, and in compensation paid to customers for the value that energy management and DG can provide to the system.³¹ The PSC's initiatives are aimed at creating a diversified distributed model that engages customers and third-parties in controlling energy consumption and costs. They also seek to ensure that electric delivery at reasonable prices remains a function of regulated utilities. The New York and Minnesota examples demonstrate that rate design that more accurately reflects the value of DG solar is possible, with the assistance of strong regulatory participation and/or, in the case of New York, a legislative mandate.

Currently, twenty-four states are considering or in the process of enacting changes to net metering policies, including fifteen states and Washington, D.C. examining the costs and benefits of net metering.³² At least ten different states are approving or considering NEM measures designed to undermine the economic viability of DG solar.³³ Whether and to what degree some utilities will succeed in removing NEM for solar adopters remains to be seen. But even a mere proposal to substantially restructure NEM rates can have a "chilling effect" on the growth of

²⁹ See John Farrell, *Minnesota's Value of Solar – Can a Northern State's New Solar Policy Defuse Distributed Generation Battles?*, INSTITUTE FOR LOCAL SELF RELIANCE (April 2014), available at <http://ilsr.org/wp-content/uploads/2014/04/MN-Value-of-Solar-from-ILSR.pdf>.

³⁰ National Renewable Energy Laboratory, *Value of Solar Tariff*, http://www.nrel.gov/tech_deployment/state_local_governments/basics_value-of-solar_tariffs.html (last visited Aug. 19, 2016).

³¹ See New York Public Serv. Comm'n, Case 14-M-0101; Order Adopting a Ratemaking and Utility Revenue Model Policy Framework at 9 (May 19, 2016).

³² Ethan Case et al., *50 State of Solar – Q2 2016 Quarterly Report*, NC CLEAN ENERGY TECHNOLOGY CENTER (Aug. 2016), available at <https://nccleantech.ncsu.edu/n-c-clean-energy-technology-center-releases-q2-solar-policy-update-to-the-50-states-of-solar-report/>.

³³ *Id.* (the ten states are Arizona, California, Florida, Louisiana, Maine, Nevada, North Carolina, Oklahoma, Texas, and Vermont).

rooftop solar.³⁴ A single, misleading disclosure to utility rate-base customers on the potential elimination or reduction of NEM rates can drastically alter the competitive balance and dissuade future consumers from even considering DG solar. For existing customers who have invested in DG solar, an attack on NEM rates threatens to undermine the savings that incented their adoption of solar, as in Nevada.

ii. Discriminatory Utility Charges

Along with reducing or eliminating NEM for current and future DG customers, some utilities are implementing discriminatory pricing practices that either target solar customers outright or disproportionately penalize them. These practices take a number of forms, with one form often layered on top of another. The overall result is unjustifiable exclusion of competition. As with NEM, SolarCity does not advocate any one particular approach to pricing. But when a utility adopts plainly discriminatory pricing policies that exclude, without clear correlation to any procompetitive justification, antitrust law and enforcers must take notice.

a. Fixed Charges

In an effort to undercut the competitive viability of DG solar, some utilities have turned to fixed charges that solely target DG customers. As the utilities have acknowledged, fixed charges are a “blunt instrument,” ignoring consumption and consumer energy efficiency.³⁵ Typically, utilities collect revenue from consumers through rates multiplied by total usage. A fixed charge, regardless of utility nomenclature, is applied in addition to consumption charges, usually through a fixed monthly fee.³⁶

Discriminatory fixed charges undermine competition by undermining the economic case for consumers to invest in DG solar. Moreover, because no action a consumer may take can reduce a fixed charge, moving from usage-based charges to fixed charges reduces consumer incentives to become more energy efficient or reduce their demand for utility-supplied electricity at times when peak demand increases utility costs. For this reason, increased use of fixed charges can lead to increased costs to the electricity system as a whole, making them very difficult to justify based on utility desire to reduce costs or eliminate a “cost-shift.”³⁷

³⁴See Diane Cardwell, *Why Home Solar Panels No Longer Pay in Some States*, N.Y. TIMES (July 26, 2016), http://www.nytimes.com/2016/07/27/business/energy-environment/why-home-solar-panels-no-longer-pay-in-some-states.html?_r=0.

³⁵ Julia Pyper, *APS Director: Fixed Charges ‘Not the Cleanest and Best Price Signal’*, GREENTECH MEDIA (Sept. 16, 2015), available at <http://www.greentechmedia.com/articles/read/aps-director-fixed-charges-not-the-cleanest-and-best-price-signal>.

³⁶ Melissa Whited et al., *Caught in a Fix: The Problem with Fixed Charges for Electricity*, SYNAPSE ENERGY ECONOMICS, INC. (Feb. 2016), available at <http://consumersunion.org/wp-content/uploads/2016/02/Caught-in-a-Fix-FINAL-REPORT-20160208-2.pdf>.

³⁷ *Id.*

DG-specific fixed charges come in a variety of different forms. For example, some utilities have simply applied a fixed fee to a DG solar customer's bill.³⁸ In 2014, Oklahoma introduced the "sun tax" – a tariff levied on customers using DG from on-site wind or solar, ostensibly because those customers were somehow "subsidized" by non-DG customers.³⁹ But given the evidence of the benefits and value DG solar provides to both the grid and non-DG customers, the sun tax is merely a fixed charge used to blunt competition.

In 2013, Arizona Public Service ("APS") sought approval from the Arizona Corporation Commission ("ACC") for a "lost fixed cost recovery" ("LFCR") charge. APS's proposed LFCR fee was a \$50 to \$100 monthly charge targeting only DG solar customers.⁴⁰ After public outcry, the ACC reduced the proposed LFCR fee and instead set the charge at 70 cents per kilowatt, a roughly \$5 per month charge for DG solar customers.⁴¹ APS continues to seek to increase this discriminatory fixed charge; in 2015, APS sought approval from the ACC of a \$3 per kilowatt LFCR charge, which would raise DG solar bills by \$21 per month.⁴² Much like the Oklahoma sun tax, the APS LFCR fee is an inequitable fixed charge on self-generation, serving to dissuade customers from DG.

Another type of fixed charge is the "standby charge." In theory, the standby charge applies to self-generation customers whenever they must rely on the utility to generate and provide backup energy.⁴³ In application, some utilities use standby charges to only target "their NEM customers."⁴⁴ Instead of charges based on generation needs during a loss of DG solar power, the charges are often "fixed monthly customer charges" offering little to no relation to the supposed utility service provided.⁴⁵ According to the North Carolina Clean Energy Technology Center ("NCCETC"), based on their targeting and application, such standby rates and charges are

³⁸ See Herman K. Trabish, *The fight over solar moves from net metering to rate design*, UTILITY DIVE (Nov. 3, 2014), <http://www.utilitydive.com/news/the-fight-over-solar-moves-from-net-metering-to-rate-design/327742/> (citing DG-specific fixed charges proposed in Hawaii, Idaho, and Utah).

³⁹ Randy Krehbiel, *Oklahoma's 'sun tax' law sparks debate after signing*, TULSA WORLD (Apr. 23, 2014, 12:00 AM), http://www.tulsaworld.com/news/government/oklahoma-s-sun-tax-law-sparks-debate-after-its-signing/article_4fc68fc1-ea3c-5ef7-b75e-185b95474def.html.

⁴⁰ Matthew Wheeland, *Op-Ed: Why Arizona's Net Metering Decision is a Victory for Solar Rights*, PURE ENERGIES (Nov. 15, 2013), <https://pureenergies.com/us/blog/op-ed-why-arizonas-net-metering-decision-is-a-victory-for-solar-rights/>.

⁴¹ *Id.*

⁴² See *Arizona's Bright Energy Future – Grid Access Charge*, APS, available at https://www.azenergyfuture.com/getmedia/1ecf50f3-4c42-4d4b-947d-671fa806317a/Grid-Access-Charge_Summary-What-They-Said_040215.pdf/.

⁴³ See Jill K. Cliburn and Joe Bourg, *Ratemaking, Solar Value and Solar Net Energy Metering – A Primer*, SOLAR ELECTRIC POWER ASSOCIATION (2013), available at <http://www.solarelectricpower.org/media/51299/sepa-nem-report-0713-print.pdf>.

⁴⁴ Jim Kennerly et al., *Rethinking Standby & Fixed Cost Charges: Regulatory & Rate Design Pathways to Deeper Solar PV Cost Reductions*, NC CLEAN ENERGY TECHNOLOGY CENTER (Aug. 2014), available at https://nccleantech.ncsu.edu/wp-content/uploads/Rethinking-Standby-and-Fixed-Cost-Charges_V2.pdf (the list of utilities targeting DG solar with standby charges includes Dominion Virginia Power, Duke Energy, and Florida Power and Light).

⁴⁵ *Id.*

“unduly discriminatory” against DG solar. Like other fixed charges, they fail to take into account any benefits DG solar provides.⁴⁶

b. Demand Charges

While demand charges traditionally have been imposed on industrial and commercial customers, some utilities are now seeking to impose such charges upon residential customers who choose DG solar.⁴⁷ Such charges are typically calculated “based on the interval with the highest [kilowatt] usage within a billing period.”⁴⁸ Whereas commercial electricity users often have the ability to monitor and or control their demand, residential consumers are far less equipped and have less elastic demand.⁴⁹ Along with creating consumer confusion, once set, demand charges, much like fixed charges, eliminate the incentives that encourage consumer energy efficiency.⁵⁰

Moreover, much like fixed charges, demand charges may disproportionately harm DG solar customers. The demand charge is often calculated on sub-hourly intervals, typically fifteen to thirty minutes. When demand charges are based on maximum demand during supposed “peak” periods that, in fact, do not coincide with true system peak, then the charges are likely intended to discriminate against DG solar. In that circumstance, the demand charge ignores the benefits of self-generation and only seeks to capture a moment where the DG solar customer is using the most energy from the utility, typically in the evening. According to a study by the National Renewable Energy Laboratory, three of the five utilities’ demand charges increased DG customers’ bills by 35 percent.⁵¹

Demand charges can also dissuade consumers from participating in DG solar. In 2015, Salt River Project (“SRP”), one of the nation’s largest non-investor-owned utilities, imposed a three-part rate structure for new DG customers that, in addition to a higher fixed charge and substantially reduced energy charges and credits, included a poorly-designed demand charge that penalizes DG solar customers. SRP itself estimated the three-part structure would increase a new DG solar customer’s bill by an average of \$50 per month.⁵² The inclusion of a demand charge made the structure particularly anti-consumer by making it extremely difficult for any particular consumer to model or predict that amount of savings or costs she is likely to incur by going solar. As a result of SRP’s new rate structure, new applications for DG solar in SRP’s

⁴⁶ *Id.*

⁴⁷ See Kari Lydersen, *Move over, fixed fees – utilities see demand charges as revenue cure*, MIDWEST ENERGY NEWS (Dec. 2, 2015), <http://midwestenergynews.com/2015/12/02/move-over-fixed-fees-utilities-see-demand-charges-as-revenue-cure/>.

⁴⁸ Lori Bird et al., *Impact of Rate Design Alternatives on Residential Solar Customer Bills: Increased Fixed Charges, Minimum Bills and Demand-Based Rates*, NATIONAL RENEWABLE ENERGY LABORATORY (Sept. 2015), available at <http://www.nrel.gov/docs/fy15osti/64850.pdf>.

⁴⁹ *Id.*

⁵⁰ Abe Scarr, *Consumer Letter Opposing ConEd’s Demand Rate Proposal*, ILLINOIS PIRG (May 4, 2016), <http://illinoispirg.org/blogs/blog/ilp/consumer-lettter-opposing-comeds-demand-rate-proposal>.

⁵¹ See Bird et al., *supra* note 48, at 24.

⁵² *Id.*

service territory have all but evaporated, declining by about 95% after the new structure's imposition.^{53,54}

iii. Rate Design Summary

The number of actions by some utilities to rescind net metering, impose unjustified discriminatory pricing on DG solar customers, or some combination thereof is suggestive of conduct by monopolists to maintain their monopoly power through exclusionary means. It also might be suggestive of a coordinated response, based on the EEI playbook, to suppress a common competitive threat from DG solar. According to the NCCETC's report on solar policy, there are numerous actions by utilities to restrict DG solar's ability to compete. In particular, the report finds that:

- Forty-two utilities in 25 states plus D.C. had pending or decided requests to increase monthly fixed charges on all residential customers by at least 10 percent.
- Six utilities sought to add demand charges.
- Eight utilities in six states proposed adding new or increasing existing charges specific to rooftop solar customers.⁵⁵

Even where antitrust enforcement actions are not available (as may be the case as to state legislative action), the FTC can and should play an important role as these proceedings play out across the country.

First, the FTC can intervene in state regulatory proceedings to reinforce the importance of antitrust policy in advancing consumer welfare in this industry.⁵⁶ Such submissions could emphasize that state action immunity does not apply where the state has not clearly articulated a policy in favor of displacing competition, and no state has articulated such a policy with respect to competition from DG solar. Moreover, submissions could stress that discriminatory charges imposed on DG solar customers can supply evidence of exclusionary intent. Lastly, the Commission could emphasize that, without a complete evaluation of the value solar provides to the grid, challenges to NEM run the risk of harming competition from DG solar, while permitting the utilities to free ride (at least in some parts of the country) on the valuable contributions solar makes to the grid. Neither outcome is in the best interests of consumer welfare.

⁵³ Data from ArizonaGoesSolar.org; see also Bobby Magill, *New Fees May Weaken Demand for Rooftop Solar*, SCIENTIFIC AMERICAN (Nov. 11, 2015), <http://www.scientificamerican.com/article/new-fees-may-weaken-demand-for-rooftop-solar/>.

⁵⁴ In 2015, SolarCity sued Salt River Project alleging violations of the antitrust laws concerning the new rate structure and its effects demand charges as well as other unlawful pricing plans. The case remains pending in both the district court and Ninth Circuit in an attempted interlocutory appeal by SRP. Due to the pending litigation, SolarCity's comments on the facts and issues in that case are limited.

⁵⁵ Case et al., *supra* note 32.

⁵⁶ Under 15 U.S.C. § 46(a), the FTC is empowered to intervene and off competition advocacy to states and their regulator bodies when a given state policy or regulation would not be in the public's interest.

Second, in the enforcement context, the FTC can police any instances where state regulators are not actively or effectively supervising a utility's exploitation of pending ratemaking cases outside the ratemaking context. For example, some utilities are using deceptive or misleading disclosures about the potential outcome of pending rate cases involving net metering to chill consumers' willingness to install DG solar. Such deception is anticompetitive, and could be actionable where the effects otherwise satisfy Section 2 of the Sherman Act.⁵⁷

B. Barriers to Interconnection

DG solar and other forms of DER require connection to the utility-owned and -operated grid. Without this connection, rooftop generation via solar generally cannot function as grid-tied resources, which is necessary for virtually all customers continuing to receive service from utilities for part of their electricity service. The connection between DG solar generation and the grid is called "interconnection." To obtain interconnection to the grid, the DG solar provider or customer must seek and be granted "permission to operate" ("PTO") by the utility company.

The PTO and interconnection process is governed by rules and regulations promoted by the utilities. With the increase of rooftop solar, in many cases, the interconnection process at some utilities has become overly burdensome, with arbitrary requirements that raise DG solar's effective costs either by slowing or preventing DG connections, or by charging fees for expensive upgrades to the utility system as conditions of interconnection.⁵⁸ As a starting point, some utilities have erected barriers to interconnection by refusing to grant DG solar and DER critical access to data concerning the grid's capacity. Without access to this utility data, DG solar and other DER must play an expensive and difficult "guessing game" regarding what parts of the grid can support rooftop solar generation and thus should be prioritized for investment. This is but one example of how the utilities' control of the grid can provide them a considerable competitive advantage over the DG solar segment in delivering cost-effective electricity.

Another competitive challenge for DG solar providers is interconnection delay. Some utilities' interconnection processes do not promote "current best practices for distributed generation," creating substantial interconnection delays.⁵⁹ This has led experts to argue that states and utilities need to update their interconnection policies to improve procedures for DG solar.⁶⁰

⁵⁷ See *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 303 (3d Cir. 2007) (reversing dismissal of a Section 2 claim based on a deception of an industry standard-setting organization); see also *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 174 (1965) (finding that a patent procured by a fraud on the Patent Office may violate Section 2).

⁵⁸ See *Integrated Distribution Planning*, SOLARCITY (2015), available at http://www.solarcity.com/sites/default/files/SolarCity%20White%20Paper%20-%20Integrated%20Distribution%20Planning_final.pdf.

⁵⁹ Clean Energy Policy Act of 2005 §1254, 16 U.S.C. § 2621.

⁶⁰ See generally Paul Sheaffer, *Interconnection of Distributed Generation to Utility Systems*, REGULATORY ASSISTANCE PROJECT (Sept. 2011), <http://www.raponline.org/wp-content/uploads/2016/05/rap-sheaffer-interconnectionofdistributedgeneration-2011-09.pdf>.

Input by DG and other DER providers in this process is critical to improving interconnection and achieving better DER access to the grid.⁶¹

Along with delays, some utilities are finding other ways to limit DER interconnection to the grid. For example, interconnection typically requires a technical screen that analyzes the penetration threshold of DG to a circuit on the grid. Each of these circuits is unique, allowing for different levels of PV penetration and therefore different levels of DG solar that can be safely interconnected to the grid at various junctures.⁶² In response, some utilities create a “universal” technical screen for all circuits, lowballing the vast majority of circuits and denying interconnections for DER in a manner that is not actively or effectively reviewed by state PUCs.⁶³ As with the withholding of data, it is difficult or impossible to ascribe any procompetitive or cost-based justification to such blunderbuss practices.

C. Overbuilding the Grid

Regulated electric utilities make money by earning a regulated rate of return on a rate base that includes utilities’ investments in the electric grid. This revenue model creates a dual incentive for utilities. First, the model encourages utilities to own the grid assets they operate instead of relying on DG solar or DER capacity, which are excluded from the rate base and therefore do not generate revenue for utilities.

Second, the model creates an Averch-Johnson effect⁶⁴ – the tendency of firms subject to rate-of-return regulation to over-invest in capacity if the allowed return is greater than the required return on capital – in that it incents utilities to continually invest in new grid assets regardless of the need for those assets, their value to ratepayers, or their efficiency. This effect is exacerbated by the extremely low cost of capital experienced by investor-owned utilities that operate as monopolies with guaranteed rates of return.

This “build more to earn more” incentive can lead a utility to inefficiently build a distorted grid based on an outdated model, including by investing in, and building, excess capacity. The impact of this excess capacity is to foreclose DG solar by limiting its potential value and devaluing the capacity DG solar is able to provide. In addition to DG foreclosure, unchecked over-investment in the old, utility-focused infrastructure prevents investments to modernize our country’s energy infrastructure to support the adoption of DG solar and other sources of clean renewable energy.

⁶¹ *Integrated Distribution Planning*, *supra* note 58.

⁶² *Id.*

⁶³ See Michael Coddington et al., *Updating Interconnection Screens for PV System Integration*, NATIONAL RENEWABLE ENERGY LABORATORY (Feb. 2012), available at <http://www.nrel.gov/docs/fy12osti/54063.pdf> (noting that current, universal technical screens hinder the efficient interconnection of DG solar to the grid).

⁶⁴ Harvey Averch & Leland L. Johnson, *Behavior of the Firm under Regulatory Constraint*, 52 *Am. Econ. Rev.* 1052 (1962).

EEI has forecast that, between 2010 and 2030, grid investments including generation, transmission, and distribution will be in excess of \$1.5 trillion, almost three times more than comparable investments in the previous twenty-year period.⁶⁵ Moreover, such investments will be taking place in the face of a DG solar industry that is gaining the scale, and therefore the ability, to avoid many of these investments. These investments will also be taking place against the backdrop of increasing reliance placed on energy efficiency. But notwithstanding these countervailing trends, the regulated rate of return revenue model creates no incentive to contain such an exponential increase in spending on utility-owned grid infrastructure.

Grid overbuilding is also a consequence of the fact that most incumbent utilities combine their ownership of grid assets with the responsibility for grid design and planning. Due to the long lead times necessary to deploy conventional grid infrastructure and the long depreciation lifetimes allowed by regulators for those assets, grid planners make investment decisions for decades to come. With the cited goal of a more reliable and resilient grid capable of meeting demand peaks and catastrophic events, utilities may over-forecast demand for bigger and better traditional grid infrastructure. The traditional structure and incentives allow a utility to justify capital investments in its own conventional assets, based on long-term grid plans that it itself has crafted, knowing that those investments can be recouped through cost-based regulated rates.

The pattern of grid overbuilding by some U.S. electric utilities is occurring to the detriment of more flexible and efficient DERs, including DG solar. The conventional solutions rolled out by such utilities can be 15 times larger than the near-term grid need that is driving the actual deployment of the infrastructure.⁶⁶ These utilities' ratepayers are paying today for – and those utilities are profiting from – investment in large-scale conventional capacity that may not come online for several years and that is designed to meet future demand, which may or may not materialize, as opposed to verifiable present demand. Furthermore, this utility over-building undermines the purported legitimate business justifications for remedying “cost-shifts,” as noted above.

This outcome is bad for competition and ratepayers. The smaller size, lower cost, and shorter lead times of DG solar deployments compared to conventional solutions allow for more incremental and targeted investment through smaller and more continuous deployments. Moreover, the flexibility and “just-in-time” nature of those deployments reduces the risk of over-forecasting demand and therefore presents significant benefits to grid planning. As a result, when it occurs, the utility overinvestment squeezes DG solar out of the market. By excluding consideration of DG solar in their grid plans, these utilities create overcapacity by continuing to build excess conventional grid assets. The ensuing overcapacity can then be used to devalue and exclude DG solar.

⁶⁵ Marc W. Chupka et al., *Transforming America's Power Industry: The Investment Challenge 2010-2030*, THE BRATTLE GROUP, prepared for the Edison Foundation (Nov. 2008), available at http://www.edisonfoundation.net/iei/Documents/Transforming_Americas_Power_Industry.pdf.

⁶⁶ Based on calculations from 2017 General Rate Case, Pacific Gas and Electric Company (Sept. 1, 2015).

D. Market Access

Lastly, DG solar providers should be afforded the opportunity to compete throughout the United States. But given the regulatory nature of energy, DG and DER must be approved on a state-by-state basis. Some states continue to maintain an outright ban of rooftop sales of solar energy – Florida, Kentucky, Oklahoma, and North Carolina.⁶⁷ In some of these states, consumers are seeking to amend state laws to allow competition by DG solar and other DER. In response, some utilities are lobbying in outright opposition to legislation that would grant DG solar market access.⁶⁸

FTC comments to state legislatures in such situations would be particularly appropriate. For example, in Florida, the “Sunshine State,” in response to a consumer-driven amendment to open the state for rooftop solar generation, some utilities created and funded a misleading ballot initiative called “Smart Solar” that seeks to “constitutionalize the status quo,” permanently preventing rooftop solar generation within the state.⁶⁹ To ensure competition in other markets, the FTC has authored comments to state legislatures considering anticompetitive conduct or limiting the competitive capabilities of market participants.⁷⁰ Energy markets would greatly benefit from FTC insights that promote viable DG solar competition.

III. **Some Utilities’ Attempts to Extend Monopolies into DG Solar**

Some utilities are also seeking to compete directly with DG solar, exploiting barriers to entry and their advantages as monopoly utility franchises to disrupt a growing and vibrant private market

⁶⁷ See Alex Kotch, *Battle Over Solar Energy’s Future in North Carolina Heats Up As Bipartisan Bills and Civil Protest Mount Against Duke Energy’s Obstructionism*, DESMOG (March 6, 2016), <http://www.desmogblog.com/2016/03/06/battle-over-solar-energy-s-future-north-carolina-heats-bipartisan-bills-and-civil-protests-mount-against-duke-energy>.

⁶⁸ See John Downey, *Duke Energy, Electricities oppose N.C. bill to let independents sell power to their customers*, CHARLOTTE BUS. J. (Mar. 19, 2015), <http://www.bizjournals.com/charlotte/blog/energy/2015/03/duke-energy-electricities-oppose-n-c-bill-to-let.html>.

⁶⁹ Sun Sentinel Editorial Board, *Be skeptical of ‘Smart Solar’ amendment*, SUN SENTINEL (Apr. 26, 2016, 6:19 PM), <http://www.sun-sentinel.com/opinion/editorials/fl-editorial-solar-amendment-20160426-story.html> (quoting Justice Barbara Partiente of the Florida Supreme Court, which approved the Smart Solar ballot measure on a 4 to 3 vote).

⁷⁰ This is particular true within health care markets, where the FTC has authored comments to numerous state legislatures concerning bills that will displace competition and harm consumers. See FTC Staff: Proposed Health Care Legislation in Alabama Would Likely Foster and Protect Anticompetitive Arrangements that Harm Consumers, Fed. Trade Comm’n (May 4, 2016), available at <https://www.ftc.gov/news-events/press-releases/2016/05/ftc-staff-proposed-health-care-legislation-alabama-would-likely> (comments opposing proposed legislation in Alabama to immunize certain public hospitals from the antitrust laws); see also FTC Staff Comment South Carolina Representative Jenny A. Horne regarding House Bill 3508 and 3078 on Advanced Practice Registered Nurse Regulations, Fed. Trade Comm’n (Nov. 2015), available at <https://www.ftc.gov/policy/policy-actions/advocacy-filings/2015/11/ftc-staff-comment-south-carolina-representative-jenny> (finding regulatory provisions that restrict advanced practice registered nurses would greatly increase medical costs and frustrate innovation within the team-based health care approach).

segment.⁷¹ Such extensions by a monopoly utility present a significant threat to competition in the DG solar segment when undertaken in a manner that creates an inherently unlevel playing field. In this regard, it is well recognized that a competitive segment, such as DG solar, could not possibly compete with the type of cross-subsidies that a regulated monopolist could employ to distort competition. The most important example of this concern is the monopolist's ability to rate-base investments, and offload risk on the rate base, in a way that a traditional business could not match. Additional examples include some utilities' use of their land to build solar (or wind) facilities and the use of data and the utilities' established brand to distort competition. Antitrust economists have routinely concluded that permitting such monopoly extension invariably leads to the elimination of competition in the segment that previously functioned competitively.⁷²

Recognizing the competitive concerns associated with utility ownership of DG solar assets and competition within the market, the New York Public Service Commission opposed monopolist utilities' participating in DG solar when undertaken in a manner that results in an unlevel playing field:

Our concerns are compounded by the observation made by Staff and others that, because of *their incumbent advantages*, even the potential for utility ownership risks discouraging potential investment from competitive providers. Markets will thrive best where there is both the perception and the reality of a *level playing field*, and that is best accomplished by *restricting the ability of utilities to participate*.⁷³

Currently, certain utilities are seeking two distinct forms of anticompetitive entry into DG solar. The first is direct ownership, also known as utility-owned rooftop solar. Undermining their own complaints about supposed negative consequences from rooftop solar, numerous utilities are expanding their regulated monopolist-backed services into the DG solar space through utility-owned rooftop solar.⁷⁴ The number of utilities offering rooftop solar is likely to expand, as 65

⁷¹ SolarCity does not argue that utilities should not invest in large-scale PV or other DER generation. It has become increasingly important for power generators to invest in renewable sources of energy that are not only more cost-effective, but also better for the environment.

⁷² See Comment of David W. DeRamus, Technical Conference on Generation Market Power and Affiliate Abuse (Jan. 28, 2005), available at <http://www.ferc.gov/CalendarFiles/20050202155910-DeRamus,%20Bates%20White%201-28-05.pdf> (noting monopoly extension into competition markets allows for “discriminatory advantages” over other competitors “as a consequence of its regulated monopoly operations.”); see also Timothy J. Brennan, *Why Regulated Firms Should Be Kept out of Unregulated Markets: Understanding the Divestiture in United States v. AT&T*, 32 ANTITRUST BULLETIN 471 (1987) (noting the “predictable consequences” of allowing entry by a regulated monopolist including the monopolist cross-subsidizing subsidiaries).

⁷³ New York Public Serv. Comm'n, Case 14-M-0101; Order Adopting Regulatory Policy Framework and Implementation Plan at 67 (Feb. 26, 2015), available at http://energystorage.org/system/files/resources/0b599d87-445b-4197-9815-24c27623a6a0_2.pdf (emphasis added).

⁷⁴ See Julia Pyper, *Arizona Utilities Get Approval to Own Rooftop Solar*, GREENTECH MEDIA (Dec. 26, 2014), <http://www.greentechmedia.com/articles/read/arizona-utilities-get-the-go-ahead-to-own-rooftop-solar> (noting that the ACC granted APS and Tucson Electric Power the ability to compete directly with DG solar).

percent of utilities believe that regulated utilities should be able to own rate-based DG in all or most circumstances.⁷⁵

The second form of improper entry by some utilities is through so-called “community solar” projects.⁷⁶ Community solar is, in theory, a “shared solar” project, implemented to serve a community of people – for example, residents of apartments or condominiums, or a local church group.⁷⁷ As such, community solar projects offer a slightly larger scale than standard DG solar rooftop projects. Where a standard single home rooftop solar system carries a four to five kilowatt load, community solar installations can range from 100 kilowatts up to one megawatt.⁷⁸ Currently, there are 91 different community solar projects operated by non-utilities around the United States.⁷⁹ In contrast, utility scale solar projects are, at minimum, five megawatts in size and often involve large-scale solar PV farms.⁸⁰ Some utilities are attempting to recast utility scale solar as community solar, amplifying the competitive threat posed by these initiatives.⁸¹

We address the competitive perils associated with these forays into DG solar by monopoly utilities without adequate safeguards in more detail below.

A. Leveraging the Rate Base to Cross-Subsidize Rates

Unlike standard competitors, utilities have access to a substantial pool of captured customers. As a result, utilities seeking to enter the DG or community solar space have financial advantages over other competitors, as they can rely on payments from those customers to fund and invest in

⁷⁵ Julia Pyper, *Utilities See Distributed Generation as a Challenge – Owning It as the Solution*, GREENTECH MEDIA (Feb. 18, 2016), <https://www.greentechmedia.com/articles/read/utilities-see-distributed-generation-as-a-challenge-and-owning-it-as-the-so>.

⁷⁶ In many cases, utility companies improperly mislabel large solar farm PV projects as community solar. See Kate Sheppard, *This Message Guru Is Helping Utilities Clean Up Their Appearance*, HUFFINGTON POST (Mar. 29, 2016, 5:02 AM), http://www.huffingtonpost.com/entry/messaging-utilities-solar-power_us_56f45cd6e4b014d3fe22b572.

⁷⁷ See Chris Mooney, *Power companies may have found a new way to crack into the booming solar business*, WASH. POST (Aug. 19, 2015), https://www.washingtonpost.com/news/energy-environment/wp/2015/08/18/power-companies-may-have-found-a-new-way-to-crack-into-the-solar-business/?utm_term=.e98021074d6f.

⁷⁸ Kenneth Kramer, *Community Solar Power: A Look at the Business Models Behind Shared Solar*, ACORE (June 6, 2016), <http://www.acore.org/acore-blog/item/4249-community-solar-power-a-look-at-the-business-models-behind-shared-solar>.

⁷⁹ *Shared Renewables/Community Solar*, SOLAR ENERGY INDUSTRIES ASSOCIATION, <http://www.seia.org/policy/distributed-solar/shared-renewablescommunity-solar> (last visited Aug. 19, 2016).

⁸⁰ See generally *The Open PV Project*, NATIONAL RENEWABLE ENERGY LABORATORY, <https://openpv.nrel.gov/utility-scale> (last visited Aug. 19, 2016) (noting that there are 251 utility scale PV projects in the United States with at least a five megawatt load).

⁸¹ Marlene Motyka et al., *Unlocking the value of community solar – Utilities find opportunity in the inevitable growth of distributed energy resources*, DELOITTE (Mar. 2016) (there are now 77 community solar projects in 26 states offered by utilities).

projects. Relying on this advantage of regulation for the purpose of competing head-to-head with DG solar could stifle existing competition.⁸²

Moreover, leveraging the rate base of existing captured customers could allow a utility to offer products that have an insurmountable advantage over DG solar. For example, in its move to compete with DG, Tucson Electric Power (“TEP”) offers DG rooftop systems with electric fees that “will remain fixed for 25 years.”⁸³ Given the volatility of energy prices, TEP’s ability to ensure a 25-year fixed rate is likely based on its ability to cross-subsidize the fixed costs of TEP-rooftop solar from its captive, non-DG rate payers. At the same time, TEP has used the uncertainty created by the current rate case, which puts the future of NEM in its service territory in jeopardy, to encourage customers to purchase its fixed rate offering instead of installing rooftop solar offered by a DG solar provider. This provides a good example of two anticompetitive tactics at work, the chilling effects created by unjustified attacks on NEM, along with the cross-subsidy that enables a regulated monopolist to take on, and rate-base, risks that a traditional business could not bear.

The FTC has warned about a vertically integrated utility’s ability to cross-subsidize or cost-shift that favors the utility’s interests over competitors.⁸⁴ When unregulated or unpoliced, a utility is incentivized to use its monopoly power in one market to create such competitive advantages in another market. In contrast, no private, DG provider could undertake such risks. Private entities must grow from an existing pool of investors and customers, and cannot shift risk onto captive payers.

B. Access to Data

As monopolists with complete control over the power grid, utilities have a distinct advantage over DG solar with customer data and information. This proprietary information gives utilities a leg up on the competition – for example, a utility could select the highest value installations or rely on “established relationships” with existing non-DG clients.⁸⁵ As previously noted, DG solar has limited access to data concerning the grid or customers. This lack of data forces DG solar providers to expend significantly more resources than the regulated monopolist utility to reach their customers and install their PV systems.

⁸² See James Tong & Jon Wellinghoff, *Tong & Wellinghoff: Should utilities be allowed to rate base solar?*, UTILITY DIVE (May 11, 2015), <http://www.utilitydive.com/news/tong-wellinghoff-should-utilities-be-allowed-to-rate-base-solar/396283/>.

⁸³ *TEP Residential Solar Program*, TUCSON ELECTRIC POWER, <https://www.tep.com/renewable/home/residentialsolar/> (last visited Aug. 19, 2016).

⁸⁴ *Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform*, FED. TRADE COMM’N (July 2000), available at <https://www.ftc.gov/reports/competition-consumer-protection-perspectives-electric-power-regulatory-reform> (The cross-subsidization and cost-shifting discussion involved a utility favoring its unregulated affiliate within a competitive market. Such analysis should not change when the utility foregoes the use of an affiliate and instead enters and competes directly).

⁸⁵ See Benjamin Inskeep et al., *Utility Ownership of Rooftop Solar PV*, NC CLEAN ENERGY TECHNOLOGY CENTER (NOV. 2015), available at http://solaroutreach.org/wpcontent/uploads/2015/11/Final_UtilityOwnedRooftopSolar.pdf.

According to a NCCETC report, three states, Arizona, New Mexico, and Texas, are reviewing applications for utility-rooftop solar, and seven more are considering changes to policies in community solar programs.⁸⁶ Once approved, those utilities may utilize their intrinsic advantages to the detriment of competition. If state regulators do not take steps to curb further expansion, those utilities could become the dominant providers of DG and community solar through that unlevel playing field.

C. Competition from a Regulated Subsidiary

There are two potential responses to this competitive threat. One option is to follow New York and ban utility expansions into DG solar. In the alternative, should states see value in stimulating additional choices for DG solar by permitting utilities to compete in this space, they should require that such entry be conducted by a separate subsidiary that is subject to a strict code of conduct. To the extent it agrees with this approach, the FTC could submit such proposals when utilities apply for permission to provide such services. If utilities wish to compete in rooftop solar, they should be required to compete on equal footing, through unaffiliated subsidiaries that cannot leverage the rate base and all the advantages that accrue therefrom. Only then would competition be preserved in the still-nascent but thriving DG solar space.

Such models have been outlined in certain markets. For example, Arizona recognizes the inherent advantages of a utility or its subsidiary offering competitive services within a private market.⁸⁷ As a result, the Arizona Administrative Code lists nine different subject areas that should be covered by any agreement in which a utility's subsidiary competes within a private market:

- (1) Prevention of cross-subsidization between the utility and affiliate.
- (2) Procedures to ensure affiliates do not have access to confidential utility information.
- (3) Guidelines to limit joint employment between the utility and affiliate.
- (4) Guidelines to govern use of the utility's name or logo by the affiliate.
- (5) Procedures to ensure the utility does not offer preferential treatment to the affiliate.
- (6) The elimination of joint advertising, marketing, and sales between the utility and affiliate.
- (7) Procedures governing transactions between the utility and affiliate.
- (8) Policies preventing the utility or affiliate from representing that customers will receive better services from the affiliate as a result of the affiliation.
- (9) All complaints under the Code of Conduct are subject to an administrative hearing.⁸⁸

⁸⁶ Case et al., *supra* note 32.

⁸⁷ A.A.C. R14-2-1616(A).

⁸⁸ A.A.C. R14-2-1616(B)(1)-(9).

Regulatory structures and rules similar to Arizona's could effectively firewall the utility from its subsidiary. But enforcement is key. In Arizona, despite this guidance, one utility, TEP, has submitted a proposal with the ACC to enter DG solar without the prophylactic of a walled-off subsidiary. Such efforts to extend utilities' monopoly power into competitive markets should be prevented.

IV. FTC and Other Enforcers' Role

In the face of a seemingly coordinated strategy on the part of some investor-owned utilities to undermine the emergence of DG solar as a viable alternative to utility-delivered electricity, we urge antitrust enforcement authorities, federal and state, to take a much more active role in this industry. The FTC in particular, given its strong enforcement record on state action issues⁸⁹ and commitment to advancing competition policy in important industries, can make a real difference by injecting competition policy into the discussion in various ways. The Commission can do that by weighing in against anticompetitive draft legislation, by intervening in state regulatory proceedings to ensure that competition issues are properly taken into account in those proceedings (where possible), or otherwise using its unbiased voice to remind state decision makers that the old ways of regulating utilities can have unintended consequences that harm consumers and impede new technologies. And, perhaps most importantly, the Commission can carefully select enforcement actions against utilities that have acted to suppress competition, and their trade association representatives, to send a signal that they are not immune from the antitrust laws. With vigorous attention to all three potential channels for FTC action – legislative, regulatory, and enforcement actions – competition law and policy can begin to take its place in the discussion of how the grid and DG can coexist going forward.

Specifically, with respect to the legislative realm, we urge the FTC to submit comments in the various proceedings, largely in the Southeast states such as Florida, where pending legislation essentially barring rooftop DG solar ownership is under consideration. Such statutes will bar all competition from DG and are not justified by either competition or energy policy. The same can be said for pending legislation in Ohio,⁹⁰ which would essentially permit unfettered entry by regulated monopoly utilities into the competitive DG solar segment without regard to the likely adverse impact such entry would have on the competitive viability of that segment over time.

On the regulatory front, we urge the Commission to consider intervening in proceedings, such as those pending in Arizona and Colorado, where regulated monopolists are applying for entry into the competitive solar segment. As discussed above, the Commission could also consider intervening to comment on pending net-metering cases, particularly in situations where the rate re-design under consideration is discriminatory with respect to rooftop solar, or avoids a proper consideration of the value DG solar provides to the grid. The destruction of competition in

⁸⁹ *North Carolina State Board of Dental Examiners v. FTC*, 135 S. Ct. 1101 (2015); *FTC v. Phoebe Putney Health System, Inc.*, 133 S. Ct. 1003 (2013).

⁹⁰ See S.B. 320, 131st Leg., (Oh. 2016), available at <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-SB-320>.

Nevada should not be replicated; we believe the Commission could play a constructive role in rolling back that result and in preventing its recurrence elsewhere. With major rate cases addressing net metering at the fore in Arizona and New Mexico, among others, we urge the Commission to consider taking action expeditiously.

Lastly, on the enforcement action front, while we are mindful that various well-established doctrines can limit the application of federal antitrust law to certain conduct in this realm, such doctrines do not give utilities or their trade association representatives, carte blanche to subvert competition. Utility actions to undermine competition from DG solar through discriminatory and exclusionary conduct should, in certain circumstances, be amenable to enforcement actions under Section 2 of the Sherman Act. In this regard, when regulated monopolists enter the solar segment by offering residential rooftop or “community” solar, or when any utility not subject to effective regulation or active state supervision changes rate structures in an exclusionary manner, such actions could very well violate Section 2 when propelled by cross-subsidies from the rate base. Moreover, coordination of rate submissions outside of the rate setting context, through trade association meetings or otherwise, is not immunized under *Noerr* and should be subject to enforcement action.⁹¹ It is also worth noting the “misrepresentation exception” to *Noerr*⁹² that could subject to antitrust review a utility’s attempt to gain approval for entry into competitive solar and anticompetitive rate design based upon misrepresentations to regulatory bodies. In our view, such cases could establish appropriate limits to the application of *Noerr* or the state action doctrine to certain utility conduct.

We conclude by thanking the FTC for sponsoring this policy discussion and giving us an opportunity to be heard.

Respectfully submitted,



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⁹¹ See *United States v. Southern Motor Carriers Rate Conference Inc.*, 672 F.2d 469, 476-81 (5th Cir. 1982).

⁹² *Enforcement Perspectives on the Noerr-Pennington Doctrine*, FED TRADE COMM’N at 22-28 (2006), available at https://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-report-concerning-enforcement-perspectives-noerr-pennington-doctrine/p013518enfperspectnoerr-penningtondoctrine.pdf.