AMERICA’S QUASI FEED-IN TARIFFS: LEVERAGING RECENT FERC ORDERS TO KICKSTART A RENEWABLE ENERGY REVOLUTION

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By Evan Oxhorn, Georgetown University Law Center, class of 2012

INTRODUCTION

Germany has pioneered a new tool for renewable energy growth that has resulted in a 76% increase in solar photovoltaic installations in 2010 at the average cost of $3 dollars per month per person.¹ Unfortunately, federal legislation has prevented the United States from using this tool. Two recent orders (Orders) by the Federal Energy Regulatory Commission (FERC or Commission) change that.²

With these Orders, FERC gave state public utility commissions (PUCs) additional leeway to set wholesale electricity rates for certain facilities. The Commission interpreted the Federal Power Act (FPA) and the Public Utility Regulatory Policies Act (PURPA)³ to allow states to adopt quasi feed-in tariffs (FITs), a tool similar to Germany’s proven method of incentivizing new renewable energy projects. This article discusses how states and green companies can benefit from the Orders. Part 1 of this article discusses renewable technologies and markets. Part 2 discusses federal energy politics and legislation. Part 3 explains the Orders and their consequences. Part 4 examines the Orders’ subsequent history. Finally, Part 5 explores the challenges and opportunities presented by these Orders.

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1) **Because Structural Changes to the Electric Power Industry Are Challenging, Distributed Renewable Generation Offers the Best Path Forward**

Improving energy infrastructure is vital for America’s economic and environmental health. Increasing renewable energy and building new transmission resources are two essential improvements. But developers face tremendous roadblocks in siting projects and transmission. Distributed generation (DG) simultaneously addresses both problems by placing renewable projects where they are wanted without requiring new transmission lines. Despite DG bypassing these structural challenges, investors require proper financial incentives to pursue such projects. FITs are successfully providing this incentive across the world, but have been illegal in America due to outdated, gridlocked federal energy legislation.

a) **Renewable Energy Offers Myriad Benefits**

The benefits of shifting America’s energy portfolio toward renewable sources are legion. Increased use of renewable electricity: 1) minimizes price fluctuations by diversifying fuel sources; 2) enhances reliability of electric service; 3) meets new demand for electricity; 4) spurs job creation through construction, maintenance, and research; and 5) helps the environment. Properly incentivized renewable DG substantially increases renewable generation, securing these benefits. Many states are promoting renewable energy growth within their borders.

i) **DG Bypasses the Structural Constraints of Traditional Generation**

Substantially increasing renewable energy requires a diverse generation portfolio. Solar and wind farms will contribute, but large-scale projects are hindered by significant up-front costs, a sluggish regulatory process, and barriers to constructing new transmission lines. Large projects are frequently delayed by legal challenges related to developing wilderness areas or areas of cultural significance.
DG solves all these problems while offering additional benefits. DG bypasses the siting, transmission, regulatory, and environmental problems affecting large-scale projects. With DG, site-specific permits are rarely required where the property is already developed. DG turns the “not in my backyard” mentality that constrains most energy development on its head. Instead, property owners affirm: “Yes, in my backyard. And on my roof.” DG also offers unique benefits: increasing the resilience of the grid to damage at centralized plants or transmission lines; mitigating environmental justice concerns by facilitating citizen participation in electricity markets; distributing revenues among citizens from the sale of electricity; and reducing the costs of building new transmission lines. Moreover, diversifying the types of renewable plants speeds the deployment of renewable energy.

ii) **Feed-In Tariffs are the Best Way to Incentivize Distributed Generation**

Encouraging significant deployment of DG also requires financial incentives. Even where DG is profitable, adoption must be convenient. Americans currently pursue renewable DG because of environmental – not monetary – concerns. This limits the DG market to wealthy environmentalists.

FITs address both issues. FITs are standardized long-term contracts within a given jurisdiction applicable to all electric facilities of a certain size and to all investor-owned electric utilities (IOUs). FITs require IOUs to pay preset rates for a generator’s total output. The certainty provided by a specified rate and a guaranteed market facilitates project financing by reducing investor risk. Standardized contracts minimize transaction costs allowing convenient, inexpensive deployment.

FITs create powerful incentives for DG. A draft European Parliament report found well-designed FITs to be the most efficient and effective method of deploying renewable energy. In 2010, Germany’s FIT increased solar power deployment by 76%. The average cost has been $3 per month per German. Individuals and businesses that elect to install DG actually earn money. The program has also proved
incredibly popular among Germans: 94% want to see renewable energy use expanded, and nearly 80% believe that the added costs have been appropriate.22

**iii) Criticisms of Feed-in Tariffs Are Largely Misguided**

Some critics contend that FITs distort electricity markets through preset prices.23 This criticism is misleading, as it presumes FITs corrupt a laissez-faire market. In truth, electricity markets are characterized by market failures, including: inelastic demand, barriers to entry, transmission constraints, the inability to store electricity, and strong government regulation. FITs may change the electricity markets, but they will not affect the markets’ underlying efficiency.

FITs have distorted the market for manufacturing renewable generation systems.24 A rapid shift to DG could cause price spikes undercutting state renewable goals. In the long run, though, new investment should drive down prices and improve performance through competition.

A recent study of Germany’s FIT suggests that it successfully lead to the deployment of significant new amounts of renewables, but that it was not an efficient allocation of resources.25 This finding probably arises from Germany initially setting its FIT too high.26 Now that Germany’s FIT has come down, it is reasonable to believe that future studies will show the increasing cost-effectiveness of Germany’s FIT.

Critics argue that FITs subsidize foreign manufacturers.27 This criticism is especially weak. First, FITs create an opportunity for domestic manufacturers to produce new products and offer a non-outsourcable market for installation and repair.28 Second, unlike imported fossil fuels (which must be reimported upon consumption), an initial DG investment continues providing power for over twenty years. DG reduces net imports, especially if increased electric vehicle use decreases oil imports.29 Third, many American companies profit from foreign manufacturing by contributing components and intellectual
property.\textsuperscript{30} Finally, the United States can offset trade imbalances by exporting fossil fuels displaced by DG.\textsuperscript{31}

\textit{iv) States Have Ambitious Plans to Encourage Renewable Energy}\n
Many states want to increase renewable energy use within their borders. States offer a wide variety of subsidies and loans to promote renewable energy.\textsuperscript{32} Under the FPA, states retain authority over the composition of electricity sources used within their jurisdiction.\textsuperscript{33} Over thirty states, including Michigan, have used this authority to create Renewable Portfolio Standards (RPS).\textsuperscript{34} RPS programs vary by state, but require IOUs to deliver specified amounts of electricity from renewable sources by a certain date. Michigan requires IOUs to generate 10\% of their electricity from renewable sources by 2015.\textsuperscript{35} New Jersey requires 22.5\% from renewable sources by 2020, with carveouts requiring specific amounts of solar and offshore wind.\textsuperscript{36} However, RPS programs are not as effective as FITs.\textsuperscript{37}

\textbf{b) Federal Energy Politics and Legislation}\n
Federal energy politics have hindered the growth of renewable energy and prevented state-level solutions. This has kept America from responding to serious energy and environmental challenges. Moreover, America has been prevented from garnering the benefits of DG and FITs.

\textit{i) Federal Energy Politics Hinder State-Level Progress on Renewables}\n
Despite the benefits of FITs, federal authority, which extends to all interstate transmissions of electricity and wholesale electricity rates, hinders this solution.\textsuperscript{38} States lack unilateral authority to set wholesale electricity rates without FERC approval. State FITs are illegal absent Congressional action.
Federal interstate commerce jurisdiction covers the electricity market, with authority largely delegated to FERC. FERC regulates wholesale rates in interstate commerce and all electrical transmission. FERC authority extends to agreements between independent generators and IOUs.

Federal law requires all rates to be just and reasonable. Modern federal energy regulation presumes the outcome of competitive electricity markets to be the discovery of just and reasonable rates. FERC regulates wholesale rates under the filed rate doctrine. This requires generators to file tariffs with FERC showing that they lack influence in a local market sufficient to distort competitive forces. Thus, where market power is absent, the market is presumed to be functioning properly, and any resulting rate is consequently just and reasonable. States retain the authority to set retail rates.

There are only two ways to create a true FIT: Congress can either create a FIT or prevent FERC from interfering with state FITs. Unfortunately, federal energy legislation remains gridlocked. Congress has not passed major energy legislation in six years, despite overwhelming evidence that traditional generation contributes to climate change, China’s growing renewable industry, huge market shifts from the plummeting price of natural gas, the Gulf oil spill, and Japan’s nuclear crisis.

A clear national policy would be the best way to signal markets, leading to increased renewable investment. Congress remains unable to address these modern challenges and opportunities, while preventing state-level solutions. This results in three problems: 1) states are limited in the actions they can take; 2) economies of scale from nationwide action are nonexistent; and 3) federal financial support for state policies is diluted. This is the worst of both worlds: Congress will not act, and states cannot act.

However, FERC has recently exercised its authority over electricity markets to craft rules encouraging integration and fair competition between renewables and conventional generation sources.
Although FERC lacks authority to unilaterally institute new laws,\textsuperscript{51} it quietly opened a backdoor to state-by-state deployment of quasi-FITs through new interpretations of energy legislation in two recent Orders.

\textbf{ii) Federal Energy Legislation May Undermine FERC’s Orders}

The 1978 Public Utility Regulatory Policies Act (PURPA), codified at 16 U.S.C. § 824a-3, requires FERC to promote small, independently-operated plants, called Qualifying Facilities (QFs).\textsuperscript{52} QFs are either: (1) facilities that generate electricity and harness useful heat or steam, or (2) facilities that produce electricity from renewable sources but generate less than 80 mW.\textsuperscript{53} PURPA authorized states to regulate QFs which sell all of their power in-state,\textsuperscript{54} including the authority to set wholesale rates.\textsuperscript{55}

Between 1978 and 1992, nearly 146 gW of QF power was constructed.\textsuperscript{56} PURPA requires IOUs to purchase all of a QF’s electrical output before purchasing from traditional generators or supplying electricity from their own generation units.\textsuperscript{57} PURPA was intended to promote new investment in renewable energy through guaranteed market access by breaking IOUs’ monopoly.\textsuperscript{58}

FERC delegated responsibility to ensure non-discriminatory rates to state PUCs\textsuperscript{59} under the “avoided cost” doctrine.\textsuperscript{60} This doctrine prohibits rates that exceed the difference between an IOU’s cost of purchasing from QFs and the IOU’s cost of generating its own electricity.\textsuperscript{61} Still, some PUCs promote QFs through higher rates.\textsuperscript{62}

However, the Energy Policy Act of 2005 (EPAct 2005), codified at 16 U.S.C. § 824a-3(m)(3), may undermine QFs larger than 20 mW by authorizing IOUs to petition FERC to relieve their mandatory purchase obligation in a particular market.\textsuperscript{63} FERC must grant a petition if a QF possesses non-discriminatory access to either:

(1) an independently administered, auction-based day ahead and real time wholesale market for the sale of electric energy; and wholesale markets for long-term sales of capacity and electric energy; or (2) transmission and interconnection services provided by a Commission-approved regional transmission entity and administered pursuant to an
open access transmission tariff that affords nondiscriminatory treatment to all customers with competitive wholesale markets that provide a meaningful opportunity to sell capacity to buyers other than the utility to which the qualifying facility is interconnected.\textsuperscript{64}

In most of the country, QFs larger than 20 mW face a rebuttable presumption that these market conditions exist.\textsuperscript{65} A QF possesses two defenses against this presumption: (1) unique characteristics that prevent it from gaining open market access or (2) an overall transmission constriction preventing open market access.\textsuperscript{66} In contrast, there is a rebuttable presumption that QFs smaller than 20 mW face discriminatory access to open markets, regardless of the QF’s location or unique characteristics.\textsuperscript{67}

2) FERC’S EXPANSIVE ORDERS WILL BRING FEED-IN TARIFFS TO AMERICA

FERC’s recent Orders give states flexibility to include a variety of tangible expenses when setting QF rates. FERC could not create true FITs, because rates must be tied to avoided costs. But FERC broadened its definition of avoided costs and used the multi-tiered doctrine to allow higher rates of compensation for renewables which, in conjunction with the mandatory purchase requirement, approximate the benefits of FITs. These new interpretations combined with state subsidies should incentivize renewables, especially DG.

a) BACKGROUND AND PROCEDURAL HISTORY OF THE ORDERS

California adopted legislation requiring it to reduce greenhouse gas emissions to 1990 levels by 2020.\textsuperscript{68} To reach this goal, California’s RPS requires that 33\% of electricity come from renewable sources by 2020.\textsuperscript{69} In 2007, California adopted the Waste Heat and Carbon Emissions Reduction Act (WHCERA) to reduce carbon emissions and drive efficiency through sub-20 mW combined heat and power (CHP) systems.\textsuperscript{70} WHCERA allowed end-users to deploy CHP systems and sell excess capacity to IOUs.\textsuperscript{71} These
CHP systems had to file ten-year rate tariffs with the California Public Utilities Commission (CPUC) at a price set by CPUC. CPUC intended to include compensation for the heat benefits of CHP in these rates. These rates had to be just and reasonable, but would exceed the value of electrical output alone by including compensation for the benefits of using heat.

In May 2010, CPUC asked FERC for a declaratory judgment finding that CPUC’s CHP rates did not violate 16 U.S.C. §§ 824(d)-(e) of the FPA and 16 U.S.C. § 824a-3 of PURPA; in response, California’s IOUs asked FERC to find the rates in violation. On July 15, 2010, in 123 FERC ¶ 61,047, FERC held that CPUC could set rates through its authority to regulate wholesale QF rates under the avoided cost doctrine. Although WHCERA was not originally implemented under PURPA, FERC found that such rate setting would not conflict with federal statutes if facilities were QFs. Due to gaps in the record, FERC did not rule on the specific rates proposed by CPUC.

b) FERC GRANTED MOST OF CPUC’S REQUESTS REGARDING AVOIDED COST

CPUC subsequently filed a request for clarification or rehearing to bypass case-by-case rate litigation and to determine CPUC’s latitude to set avoided costs. In reviewing CPUC’s request, FERC went beyond the scope of 123 FERC ¶ 61,047 with its subsequent Order, 133 FERC ¶ 61,059. CPUC initially requested clarification of (1) what factors CPUC could include in determining rates; and (2) whether the avoided cost must equal the lowest cost of acquiring electricity.

In requesting a clarified definition of avoided costs, CPUC sought authority to consider three factors: contract length; CHP system efficiency; and project location. CPUC argued that FERC regulations already allowed PUCs to determine avoided costs based on: state requirements for specific technology deployments; the time of delivery; and the effect on peak load. CPUC also requested the
right to include avoided tangible expenses, such as new transmission lines and reduced electrical congestion.\(^8^3\) Finally, CPUC argued for including intangible environmental benefits in avoided costs.\(^8^4\)

FERC granted most of CPUC’s requests and agreed with CPUC’s interpretation of existing regulations. FERC held that in determining an IOU’s avoided cost, CPUC can include: the utility’s system cost data; the benefits of the contract terms, including duration; the effect of the QF on electricity supply, including on peak demand hours; the relationship between the QF’s output and the IOU’s ability to avoid concrete costs; and compensation for electricity that would be lost in transmission from more distant sources.\(^8^5\) FERC did not allow CPUC to include intangible benefits in avoided cost rates.\(^8^6\)

c) The Multi-Tiered Doctrine Is Likely to Encourage More Renewable Power Through Revisions to State RPS Requirements

The Orders will expand states’ use of their pre-existing power to prefer certain power sources through the multi-tiered rate doctrine.\(^8^7\) In the Orders, FERC held that PUCs can set different avoided costs for different generation sources based on supply characteristics, allowing different rates for different types of generation.\(^8^8\) Instead of the avoided cost being the lowest average cost of an additional watt, PUCs can now calculate separate avoided costs for each generation source required under an RPS. Thus, if a state requires 3% of electricity from rooftop solar, the rate for rooftop solar equals an IOU’s avoided cost for a unit of rooftop solar. Rooftop solar is incentivized because such rates are higher than the average rate paid for traditional generation. DG developers benefit where they can build and operate DG plants below this average rate.

Under the multi-tiered doctrine, DG receives a smaller boost in states with RPS programs lacking carveouts for specific renewable technologies. In such states, a unit of rooftop solar’s rate is the average cost of a unit from all renewable sources. Where low-cost wind power drives down the average cost of renewable generation, relatively expensive alternatives, like rooftop solar, are less competitive. In states
without an RPS, there would be no incentive to develop DG under the multi-tiered doctrine, because the avoided cost equals the average cost of all generation, including inexpensive sources like large coal plants.

States wishing to promote DG should add specific carveouts for economically viable types of DG to their RPS programs. Cutting-edge technologies should receive special carveouts to promote their development. Low-cost, mature renewable technologies, like large wind, should compete on price under a general RPS without the assistance of carved-out rates. However, as more carveouts are created, states, rather than the marketplace, will increasingly be picking technological winners and losers, potentially causing an inefficient allocation of resources in sub-optimal technologies.

d) STATES STILL MAINTAIN SOVEREIGNTY OVER A WIDE VARIETY OF INCENTIVES

While the Orders prohibit PUCs from directly including environmental benefits in avoided costs, the Orders clarify that states retain full authority to encourage renewable energy through tools other than wholesale rate setting. The Orders clarify that Renewable Energy Credits (RECs) are outside FERC’s regulatory jurisdiction.\(^\text{89}\) RECs are commodities regulated by state law tied to each unit of renewable electricity.\(^\text{90}\) Some states allow IOUs to meet their RPS requirements by offsetting conventional generation with RECs.\(^\text{91}\) Selling RECs makes renewable QF’s more attractive to investors by giving them two marketable products – electricity and RECs. States also retain authority to provide additional incentives for renewable projects, such as subsidies, loans, and tax credits.\(^\text{92}\) Where all incentives – quasi-FITs, well-designed RPS carveouts, mandatory purchase requirements, RECs, and subsidies - work in harmony, states now possess a variety of tools to incentivize significant renewable growth. Such incentives are particularly effective when applied to DG because it bypasses the traditional roadblocks to renewable energy development.
e) **FERC’S DEFINITION OF AVOIDED COSTS ALLOWS PUCs TO CRAFT MORE EFFECTIVE ENERGY POLICY**

In evaluating CPUC’s proposal, FERC required that avoided costs be: “(1) just and reasonable to electric consumers and in the public interest; (2) not discriminatory against QFs; and (3) not in excess of ‘the incremental cost to the electric utility of alternative electric energy.’” PUCs can use these principles to establish avoided costs that achieve their energy goals.

PUCs should have little difficulty setting just and reasonable rates that are in the public interest. The Court has repeatedly held that there is no single “just and reasonable” rate, providing great deference to PUC rate decisions. Because the Orders do not define “public interest,” FERC will defer to PUC decisions establishing higher rates for tangible public benefit.

Higher rates for renewable QFs do not discriminate against non-renewable QFs. Where the mandatory purchase requirement exists, discrimination is absent because all QFs are guaranteed to sell all of their output. Where this requirement is absent, renewable QFs’ higher rates actually favor purchases from less expensive non-renewable QFs above 20mW.

The FPA implicitly allows states a degree of discrimination among generators by allowing them to prefer certain generation sources. The multi-tiered doctrine makes IOUs indifferent to higher rates where an RPS includes carveouts, because IOUs would otherwise be obligated to pay similar amounts for their own projects or to purchase RECs. This doctrine benefits renewable QFs without crowding out other industry participants.

Despite these gains, the Orders do not allow true FITs. PUCs remain constrained by the avoided cost doctrine; unlike German regulators, they cannot set rates for the sole purpose of promoting renewable energy. Still, the Orders enable PUCs to implement a FIT’s key incentivizing features: clear price signals and a guaranteed market.
3) Subsequent History

The Orders have already survived an internal FERC appeal by the IOUs. Courts are likely to defer to FERC’s decision. With federal energy legislation frozen, the Orders will be in effect for years.

With so much at stake, the Orders may be appealed to the courts, though no complaint is pending. Any appeal is likely to fail because the courts will defer to FERC’s decisions. Under U.S. v. Mead Corp., 533 U.S. 218 (2001), courts afford agencies great deference when reviewing formal agency decisions. In Mead, the Court considered an agency decision to be informal because it was made in an advisory letter; was intended to apply only to the instant party; was issued by a rank-and-file employee of the agency; and was one of thousands of such decisions each year. The Court granted the agency little deference for this decision because it was informal. In contrast, here FERC published these Orders; they were intended to have precedential value; the Orders were issued by FERC’s Commissioners; and they were part of a relatively small number of such orders made in a year. Because this was a formal decision, courts will give FERC strong deference.

Under Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984), courts first ask whether a statute is clear on its face. Courts have found the FPA’s definitions of “avoided cost” and “just and reasonable” to lack sufficient clarity to substitute a judicial decision for FERC’s expert interpretation. Consequently, the courts would proceed to Chevron’s second step, and ask whether FERC’s interpretation is reasonable, while affording FERC’s expertise a great deal of deference because the decision was formally made. As FERC clearly explains in its Orders, its interpretation is consistent with the FPA and PURPA. Moreover, the interpretations are reasonable because the Orders support PURPA’s statutory purpose of promoting independently owned renewable
Because of the high level of deference courts accord in these situations, a reviewing court is almost certain to uphold the Orders.

4) **CHALLENGES AND OPPORTUNITIES**

The Orders will interact with existing regulations to increase the appeal of sub-20 mW DG. They will spur RPS modifications which add statutory carveouts for maturing renewable technologies. However, states will also face large challenges. First, they must change regulations for connecting new generation to the distribution grid. Second, they must find the proper levels for FITs.

a) **THE ENERGY POLICY ACT OF 2005 ENDANGERS MID-SIZE QFS, BUT WILL AID DG**

The Orders’ impact is tied to FERC Order No. 688-A’s (688-A) implementation of EPAct. Order 688-A creates a rebuttable presumption which allows IOUs in many regions to submit market-wide petitions to FERC to withdraw from PURPA’s mandatory purchase requirement. The mandatory purchase requirement has been essential to the development of the independent power industry because it guarantees a market for projects not owned by IOUs, while preventing the exercise of IOU monopsony power. This guarantee greatly aids project finance. Several IOUs have successfully petitioned against QFs producing more than 20 mW. The Orders may create an IOU exodus from PURPA. In June 2011, as part of a larger settlement related to the CHP program, FERC approved market wide petitions by every major California IOU to withdraw from their mandatory purchase obligations. FERC granted these petitions relying on the rebuttable presumption.

IOUs’ ability to petition FERC to withdraw from the mandatory purchase requirement is a check on FITs for larger QFs. PUCs must set low FITs for QFs larger than 20 mW. Otherwise, the cost of expensive FITs encourages IOUs to file a withdrawal petition. This may destabilize PUCs by dismantling
the QF structure. Without the mandatory purchase requirement, relatively expensive mid-size renewable QFs may be uncompetitive where the state lacks RPS carveouts for mid-size QFs. In that case, IOUs must still obtain such electricity on their own or through the open market to meet their RPS obligations.

b) THESE REGULATIONS WILL INTERACT TO ENCOURAGE DG

IOUs’ ability to petition for relief from the mandatory purchase requirement favors sub-20 mW QFs. Small QFs become more attractive because of 688-A’s rebuttable presumption against withdrawal for purchases from QFs smaller than 20 mW. FERC has refused to allow IOUs to withdraw from mandatory purchase requirements for sub-20 mW QFs.110 Instead of allowing market-wide petitions like those used for larger QFs, IOU petitions against sub-20 mW QFs must be based on particularized facts on a QF-by-QF basis.111 Such petitions are significantly more difficult and expensive. At the least, an IOU must prove as - a matter of fact - that a specific QF actively participates in the local market or is owned by a company with nondiscriminatory market access.112 FERC’s ruling in Public Serv. Co., 131 FERC ¶ 61,027 (2010) suggests that an IOU may be required to show more than this.113 The cost of petitioning against hundreds of small QFs probably outweighs the benefits of success.

FERC draws this bright line solely on QF capacity; FERC appears indifferent to QF developers leveraging this rule to obtain the rebuttable presumption.114 This may encourage plants now producing marginally more than 20 mW to shut down portions of their plants and recertify as sub-20 mW QFs in markets where IOUs have successfully petitioned against larger QFs.115 It will also lead to more new sub-20 mW QFs, because such financing will be less risky with the mandatory purchase requirement securely in place.

Instead of serving as a check on PUC’s avoided cost calculations, Order 688-A, as applied to sub-20 mW QFs, supports PUCs wishing to incentivize DG. In states with RPS requirements, the Orders allow PUCs to use the multi-tiered doctrine to create very specific avoided cost segments.116 For example,
states could require 1% of electricity from sub-20 mW rooftop solar, with rates reflecting only the cost of that unit tier. These carveouts will attract investors to such projects because they offer higher than rates for investing in traditional projects. The guaranteed market for small plants makes the investment safer, spurring growth. To be profitable, each QF must still be competitive within its own tier, which should prevent consumer rates from rising excessively. States can incentivize renewable DG investment by revising RPS portfolios to include well-designed carveouts, creating additional pathways to the achievement of renewable goals.

c) QF PERMITS COULD OVERWHELM LOCAL AUTHORITIES AND CREATE GRIDLOCK
FITs are likely to create significant amounts of new DG through financial incentives and by bypassing the siting and transmission challenges faced by large projects. Nonetheless, DG growth will encounter its own problems. While DG is generally praised for not requiring new transmission, California DG projects are already experiencing bottlenecks in connecting to local distribution grids. Interconnection regulations and the agencies that oversee them were not designed for a DG revolution. These regulations must be streamlined for DG and staffing must increase. The future of DG, FITs, and the new energy revolution will hinge on the success of these reforms.

d) SETTING THE PROPER RATES FOR FITS WILL BE DIFFICULT
The Orders did not address whether specific rates for CHPs were compatible with PURPA, addressing only the process that CPUC used to calculate such rates. Ratemaking procedures are underway, with interested parties currently petitioning CPUC in light of the Orders. No rates have been challenged yet, but future challenges from all sides are likely. QFs and environmental groups will try to leverage FERC’s Orders into higher rates, while IOUs and ratepayer advocacy groups will seek lower rates. Absent improper procedures, FERC will uphold CPUC’s initial determinations because it defers to PUCs in such fact-specific proceedings.
Setting FITs is a crucial legal issue for states. Starting cautiously with low rates allows states to build up favorable rate decisions. But, as the Orders demonstrate, the current Commissioners support FITs. PUCs should not squander the opportunity for a favorable ruling before the composition of the Commission changes.

Setting FITs is also a crucial economic problem: too low and no new DG is deployed; too high and DG gets over-deployed, increasing consumer rates. Even supporters concede that Germany’s initial FIT was too high. Nonetheless, future rates can be adjusted, and, more importantly, Germans’ electrical bills did not increase significantly. American FITs will also benefit from Germany’s experience.

Regardless of rate disputes, the overarching principle is that FERC defers to PUC rates that are based on the avoided cost framework. The upper limits of rates may be found in the congressional intent behind PURPA: to prevent efficient plants from cross-subsidizing smaller, less efficient ones. This will keep PUCs from setting rates that significantly exceed avoided costs. IOU threats to withdraw from the mandatory purchase requirement will have a similar effect.

FITs will continue to be opposed by IOUs because FITs threaten IOUs’ profits. State PUCs regulate the retail rates IOUs charge consumers. PUCs calculate these consumer rates based on several factors, including the cost of electricity to the IOU, but these rates are readjusted infrequently. IOU profitability depends on accurate forecasting. Because it is difficult to predict how many FIT-eligible projects will be constructed, FITs introduce uncertainty into electrical markets, increasing financial risk to IOUs. If QFs using FITs proliferate, poor PUC forecasting could squeeze IOU profits between relatively low retail rates and expensive FIT wholesale rates. To secure support from IOUs, PUCs that adopt FITs must adjust retail rates to account for new portfolio balances and should undertake more frequent rate adjustments during the initial years of the program. IOUs also face the prospect of stranded costs from investments in outdated generation facilities without a market for their electricity, especially where RPS
programs are significantly modified. These losses would probably be passed along to consumers through higher rates. A cap on total FIT capacity is an essential safety valve to prevent runaway costs initially.

5) CONCLUSION

Congress has not established a 21st Century energy policy. Every time Congress moves forward, politics or disasters derail negotiations. Absent federal legislation, there remain options to encourage renewable energy, although they lack the efficiency of a national FIT. These Orders, therefore, represent the biggest recent breakthrough for America’s energy future by providing PUCs with a new toolset. If PUCs embrace the opportunity, a grassroots green energy revolution could sprout through a smart combination of feed-in tariffs, renewable portfolio standards, and subsidies.

State economies and environments will benefit greatly from adopting legislation and regulations that promote investors’ best opportunity under the Orders: sub-20 mW DG systems. By providing loans and subsidies, and by creating RPS carveouts for small-scale DG, states can pioneer new markets for energy from renewable sources helping their environments and economies.

5 Distributed generation involves multiple small generation facilities located close to consumers. Distributed generation need not be renewable; an on-site diesel generator is also DG. In contrast, most electricity is currently generated in a few large, distant facilities and transmitted long distances to
consumers. Other sources of DG, such as backup diesel generators, are pursued for reliability concerns beyond the scope of this paper. DG as used in this paper refers to renewable DG unless specified otherwise.

6 This article refers to two types of FITs: “true FITs” and “quasi-FITs.” A true FIT is primarily designed to incentivize energy investment through rates that investors find attractive. Such incentivization is not the primary purpose of quasi-FITs. Quasi-FITs, as used herein, refer to preset rates constrained by broader energy policy.


13 See id.


17 Supra note 14.


19 Supra note 1.

20 Bundesministerium fur Umwelt, Naturschutz und Raktorsicherheit, Development of Renewable Energies in Germany in 2007, p. 7 (2008), http://download.inogate.org/Seminar%202007%20April%202008%20%93EE.


25 Id.


33 Id. at ¶ 61,266-67.


43 Previously, FERC directly set wholesale rates. Price discovery requires regulators to create and enforce competitive market rules. The subsequent rates are presumed to result from the efficient forces of


Supra note 12 at 112.


Supra note 12.

See supra note 12 at 115-6.

Supra note 12 at 97.

52 Qualifying facilities are facilities that qualify for PURPA’s benefits. These facilities are operated by companies independent of local IOUs. Pub. L. No. 95-617 (Lexis 2011), codified at 16 U.S.C. § 824a-3(a) (Lexis 2011).


59 Thomas J. Zimmer, 3-70 Energy Law and Transactions, § 70.16 (2010).

60 16 U.S.C. § 824a-3(b).


64 16 U.S.C. § 824a-3(d).


73 Supra note 68.
74 Cal. PUC, 133 FERC ¶ 61,059, at 61,261 (2010).
75 Id. at ¶ 61,264.
76 Id. at ¶ 61,264.
77 Id. at ¶ 61,065.
78 Id. at ¶ 61,264.
79 Id. at ¶ 61,265.
80 Id.
81 Id.
82 Id. (citing 18 C.F.R. §§ 292.304(d)(1) and (2) (2010)).
83 Id. at ¶ 61,267.
84 Id. at ¶ 61,267-68.
85 Id. at ¶ 61,268.
86 Id. at ¶ 61,268.
87 The multi-tiered doctrine allows different rates for different types of facilities. Id. at ¶ 61,266-67.
88 Id. at ¶ 61,265-66.
89 Id. at ¶ 61,268.
92 Supra note 74 at fn. 62; CGE Fulton, LLC, 70 FERC ¶ 61,290 (1995).
93 Cal. PUC, 133 FERC ¶ 61,265 (citing 16 U.S.C. § 824a-3).
95 Cal. PUC, 134 FERC ¶ 61,044 (2011).
96 As of November 4, 2011, LexisNexis contained no appellate history for the Orders.
98 Id.
99 Cal. PUC., 123 FERC ¶ 61,047 and Cal. PUC., 133 FERC ¶ 61,059.
101 For example, the Court has held there is no single definition of “just and reasonable.” E.g. FPC v. Texaco, Inc., 417 U.S. 380, 389 (1974). See generally Consolidated Edison Co. v. Public Service Com., 470 U.S. 1075 (1985).
102 See id; supra note 97 (discussing the importance of formality in determining deference).
103 Cal. PUC, 134 FERC ¶ 61,160-61.
104 See S. Cal. Edison Co. v. FERC, 195 F.3d 17 (1999) (Giving FERC strong deference where interpretation is consistent with a statute’s goals).
105 Order No. 688, FERC Stats. & Regs. ¶ 31,233.
Most modern energy markets are now presumed to be fluid enough to no longer necessitate such a requirement because no entity is allowed to gain market power. See supra notes 65 and 66.

E.g., Commonwealth Edison Co., 135 FERC ¶ 61,005 (2011).


See Public Serv. Co., 131 FERC ¶ 61,027 (2010); but see Xcel Energy Servs., 124 FERC ¶ 61,073 (2008) (rejecting a petition in a market where the rebuttable presumption was not in effect, because petitioner did not demonstrate the existence of a competitive market).


Id. at ¶ 61,185.

Id. at ¶ 61,185; Order No. 688, 119 FERC ¶ 61,305, at 62,692-94 (2007).

Public Serv. Co., 131 FERC ¶ 61,027 at n. 16.

See Detroit Edison Co., 131 FERC ¶ 61,039 at 61,252-53 (2010) (Stating FERC would not allow an IOU to withdraw against a single developer operating multiple 19 mW QFs whose net capacity in a single market exceeded 20 mW).


133 FERC ¶ 61,265.


Id. at 7-12.

Cal. PUC, 133 FERC ¶ 61,059 at nn. 46, 47.

Id. at ¶ 61,266.


18 C.F.R. § 292.304(e) (2010); see American REF-FUEL Company of Hempstead, 47 FERC ¶ 61,161, at 61,533 (1989)

Supra note 29.


