

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**TECHNICAL CONFERENCE ON ) DOCKET NO. AD-16-16-000  
IMPLEMENTATION ISSUES UNDER )  
THE PUBLIC UTILITY REGULATORY )  
POLICIES ACT OF 1978 )**

**STATEMENT OF MICHAEL WISE, SENIOR VICE PRESIDENT OF COMMERCIAL  
OPERATIONS AND TRANSMISSION, ON BEHALF OF  
OF GOLDEN SPREAD ELECTRIC COOPERATIVE, INC.**

**I. INTRODUCTION**

**A. Golden Spread Electric Cooperative, Inc. (“Golden Spread”)**

Golden Spread is a non-profit electric generation and transmission (“G&T”) cooperative with its principal place of business in Amarillo, Texas. Golden Spread’s main purpose is to supply reliable wholesale electric power at the lowest optimal rate to its 16-member non-profit distribution cooperatives (“Members”) while complying with all applicable regulatory requirements. Golden Spread’s Members serve approximately 230,000 retail electric meters serving their Member-Consumers located over an expansive area in West Texas, including the Panhandle, (covering 24 percent of the state), the Oklahoma Panhandle, and small portions of Southwestern Kansas and Southeastern Colorado.

Golden Spread Members’ service territories cover a large area that includes a “sweet spot” for solar and wind renewable energy. Average wind speeds in Golden Spread’s area consistently reach speeds of over 80 mph<sup>1</sup> coupled with some of the most optimum photovoltaic activity in the United States.<sup>2</sup> This “sweet spot” today contains approximately 14,446 MW of wind generation and is projected to have 15,180 MW of additional wind generation and 2,228 MW of solar generation to connect to the grid by the end of 2018.<sup>3</sup> With such great potential for

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<sup>1</sup> Wind resource estimates developed by AWS Truepower, LLC for windNavigator ®. Web: <http://www.windnavigator.com>  
<http://www.awstruepower.com>.

<sup>2</sup> Map produced by the National Renewable Energy Laboratory for the U.S. Department of Energy. Billy J. Roberts 19 September 2012.

<sup>3</sup> Sources: [https://studies.spp.org/SPPGeneration/GI\\_ActiveRequests.cfm](https://studies.spp.org/SPPGeneration/GI_ActiveRequests.cfm) and <http://www.ercot.com/gridinfo/resource/index.html>  
from ERCOT GIS REPORT March 2016. (2016, April 01).

renewable generation, the area of Golden Spread Members' service territories is a likely location for the development of additional sites for qualifying facilities ("QF" or "QFs") renewable generation. Extended tax credits and changes in environmental laws such as the Clean Power Plan ("CPP") increase this likelihood, while also supporting the development of these resources without the need for PURPA incentives.

**B. Golden Spread Wholesale Electricity Markets - The Southwest Power Pool and Electric Reliability Council of Texas**

Golden Spread operates principally in Texas in both the Southwest Power Pool ("SPP") and the Electric Reliability Council of Texas ("ERCOT"). Five Members serve retail loads solely in the SPP, four Members serve retail loads solely in ERCOT, while the remaining seven Members serve retail loads in both the SPP and ERCOT.

ERCOT is strictly an energy only competitive wholesale electricity market with no capacity market or capacity requirement applicable to load serving entities. ERCOT implemented retail competition over a decade ago; however, rural electric cooperatives can elect to opt-in to competition or maintain their exclusive service territories. While none of Golden Spread's Members have opted-in at this time, some are subject to competition in certain portions of their territories that are "dually certified" and all confront the constant comparison of rates under the two different regimes.

SPP is also an energy only market with no capacity market. SPP, however, does impose a capacity and reserve margin requirement on its load serving entities. Nevertheless, there is no separate product or resulting revenue stream for capacity in the SPP market. The SPP portion of Texas is not subject to retail competition at this time.

For purposes of my statement, it is very important to understand that both ERCOT and the SPP operate to "pool" resources and loads in a competitive marketplace. That is, when operating efficiently, each is a competitive marketplace where loads and resources meet in response to market price signals. Also, in both markets, there is a robust bilateral market where willing buyers and sellers also meet to enter into power transactions.

The thrust of my testimony today is that these open and competitive markets are best suited to determine the type and quantity of resources needed to serve consumers with optimal economic efficiency. QFs have unfettered access to these markets and should be required to

participate in them along with all other utilities and suppliers on an equal playing field. Otherwise, the competitive outcome is distorted. So long as the current Public Utility Regulatory Policies Act (“PURPA”) QF rules and requirements allow QFs to force utilities to purchase and financially underwrite certain projects, these market risks are inappropriately shifted to the utilities required to purchase from QFs and their consumers. Also, the otherwise efficient outcomes produced by the competitive marketplace are distorted. These unfortunate consequences are not necessary, since the reasons underlying PURPA’s creation do not exist today in the SPP or ERCOT.

### **C. QF Precedent in Texas**

Because the vast majority of Golden Spread’s Members’ service territories are located in the State of Texas, a basic understanding of Texas precedent on avoided cost and the legally enforceable obligation is important context for my statement. The Public Utility Commission of Texas (“PUCT”) and the U.S. Circuit Court of Appeals for the Fifth Circuit, upon review of the PUCT, have established two fundamental principles applicable to avoided costs and the legally enforceable obligation in Texas.

#### **1. The *Exelon* Ruling and the Legally Enforceable Obligation**

Under PURPA, QFs have two ways to “put” power to utilities: (1) on an “as-available” basis with the price of power determined at the time of delivery; or (2) pursuant to a “legally enforceable obligation,” where a QF can elect to either calculate the price at the time of delivery or fix the price at the time the obligation is incurred. The United States Court of Appeals for the Fifth Circuit’s opinion in *Exelon Wind vs. Nelson* confirmed that QFs that generate non-firm power (including wind energy facilities) are not entitled to enter into a legally enforceable obligation (“LEO”); instead, such QFs must sell their output on an “as available” basis.

The Fifth’s Circuit’s opinion in *Exelon Wind vs. Nelson* confirms that QFs that generate non-firm power are not entitled to enter into a legally enforceable obligation (“LEO”). The case points out the variable nature of wind generation, a “notoriously fickle energy source” that is

intermittent and difficult to store.<sup>4</sup> The facts in the case pointed out that had an LEO been enforced, it would have caused the utility to purchase at a rate much higher than the market's as available pricing.<sup>5</sup> The Court does point out that future technology may allow variable resources to one day qualify for an LEO, that is, provide firm power, but at the present time it is not available.<sup>6</sup>

## **2. PUCT Rules and Precedent Establish that Energy Avoided Cost Equals the Market Locational Marginal Price (LMP)**

The PUCT has also established in precedent the straightforward and unimpeachable principle, as it applies to the SPP and ERCOT, that a utility's avoided cost for energy is the cost for energy it would otherwise pay for energy from the market at the time of the delivery of the QF power. This avoided cost is reflected in the respective market's real-time locational marginal price ("LMP") for energy.<sup>7</sup>

## **II. PURPA OF REFORMS ARE NEEDED.**

Given the successful implementation of competitive wholesale electricity markets in the SPP and ERCOT, continuation of PURPA's mandatory purchase obligation as currently implemented in Commission rules and decisions distorts efficient market outcomes and could impose significant and unnecessary costs on load serving entities and their consumers.

When PURPA was enacted in 1978, the energy environment was drastically different than the present day. High dependence on foreign oil, embargos, a desire to reduce fossil fuel usage, and the hopes of a future of energy independence were all factors that drove Congress to enact PURPA. Now, 38 years later, the United States has a much lower dependence on foreign oil, new technologies have made cleaner burning natural gas a viable option for many power plants versus coal, and cheaper renewable technology has allowed many individuals and small

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<sup>4</sup> See *Exelon Wind v. Nelson*, 766 F. 3d 380 at 386 (5<sup>th</sup> Cir. U.S.C.A. 2014).

<sup>5</sup> *Id.*

<sup>6</sup> *Id.* at 396.

<sup>7</sup> See e.g., PUCT Substantive Rule 25.242(i)(4); PUCT Order in Docket No. 42180, *Application of Southwestern Public Service Company for Authority to Revise Its Tariff for Purchase of Non-Firm Energy from Qualifying Facilities*, Findings of Fact 21 and 22 and Conclusion of Law 10 (January 21, 2015); 2015 WL 307153 (Tex. P.U.C.).

enterprises to install their own generation. But most importantly from my perspective, the wholesale electricity markets have undergone drastic changes even since the last PURPA reforms legislated in 2005. All these factors justify additional PURPA reforms.

The following reforms should be considered by the Commission. Some may be accomplished through the Commission's rulemaking and decision making authority, while other changes may require Congressional action. But, in any event, the Commission should seriously consider adopting or supporting the reforms I discuss below.

**A. Eliminate the QF Purchase Obligation Where QFs Have Nondiscriminatory Access To Qualified Organized Wholesale Markets**

Golden Spread agrees with Berkshire Hathaway's assessment: "Since 1978, substantial changes in the electric industry have removed the structural barriers to entry and opened up opportunities for new entrants, including QFs to supply wholesale energy."<sup>8</sup> The utility purchase obligation is not necessary in the markets in which Golden Spread operates because QFs have nondiscriminatory access to competitive wholesale energy markets. PURPA was created in a time before the implementation of mandatory interconnection and open transmission access and the creation of organized competitive wholesale electricity markets. Now there are strict rules allowing interconnection and in the SPP and ERCOT, the markets are open and integrated, with independent market operators and market prices dictating the resources that are actually dispatched to serve loads based on economics and reliability. Since 2004, SPP has committed to more than \$9.7 billion in upgrades to its transmission network.<sup>9</sup> Since 2008, pursuant to a 2005 Texas legislative initiative to build transmission in "competitive renewable energy zones," ERCOT has completed approximately \$7 billion dollars of transmission upgrades to extend the ERCOT 345 kV grid into the Texas Panhandle.<sup>10</sup>

Today, with the creation of FERC-mandated standardized interconnection rules and streamlined procedures tailored for smaller facilities, open-access transmission and market

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<sup>8</sup> Statement of Jonathan M. Weisgall Vice President, Legislative and Regulatory Affairs Berkshire Hathaway Energy Before the Senate and Natural Resources Committee May 14, 2015.

<sup>9</sup> SPP 2015 Annual Report at page 9.

<sup>10</sup> See Potomac Economics, ERCOT 2014 State of the Market Report at p. 43, which can be found at [http://potomaceconomics.com/uploads/ercot\\_documents/2014\\_ERCOT\\_State\\_of\\_the\\_Market\\_Report.pdf](http://potomaceconomics.com/uploads/ercot_documents/2014_ERCOT_State_of_the_Market_Report.pdf).

access is available to all generators, including small and large QFs, on a non-discriminatory basis. These rules and developments make FERC's current regime of segregating QFs based on size unwarranted. Golden Spread urges the Commission to consider elimination of the utility QF purchase obligation and requiring instead that QFs participate directly in organized wholesale electricity markets where they are available.

Updating FERC rules and orders would recognize the ability of QFs of all sizes to sell capacity and energy, including long-term and short-term sales, and electric energy, including long-term and short-term sales, to buyers other than their interconnecting electric utility. Significantly, the Commission – the entity also charged with market development – has been given the ability to make these kinds of adjustments to QF related requirements. These changes are particularly warranted in the regional transmission organizations regulated by the Commission or the PUCT. Both the SPP and ERCOT operate as “pools,” where loads and resources in each are able to meet in a single marketplace. This pooling of resources and loads is made possible in large part because of the billions of dollars of investment in regional transmission that has been funded by market participants and ultimately their retail customers.

The price signals sent by these markets should determine the types and quantities of resources that are needed to economically serve consumers' loads. Asset owners, in fact, have little to no control over the resources that are actually utilized or dispatched to serve load. The regional market operators determine the resources utilized to serve load using “security constrained economic dispatch,” which relies on the most economically efficient resources first. QFs should be treated no differently and participate in the market along with all other resources, competing on the basis of providing the most economical resources to serve consumers. Consumers should not subsidize any generation that the competitive market cannot support.

QFs that participate in the market will receive compensation just as all other resources do, based on the economics of the market. To the extent there is a risk of not recovering QF investment costs in the market, Golden Spread's Members and their Member Consumers should not be forced into power purchase agreements where that risk is shifted from the QF to them. To do so distorts the open market. To the extent direct participation by smaller, less sophisticated QFs is thought to be impeded by a market's administrative requirements for direct participation, Golden Spread is willing to provide those administrative services necessary to support a QF's direct participation in the market for a reasonable cost-based fee that eliminates any disadvantage for a smaller QF. Also, there are other third-parties offering similar services to small market

participants. But it should be noted that all market participants that bring resources to the markets today incur some administrative cost, and QFs should be no different..

For all these reasons, today even the smallest QF is able to participate directly in the wholesale energy markets in which Golden Spread operates. Eliminating the utility purchase obligation would leave QFs with ample access to these markets and produce the most economically efficient outcome for consumers.

1. **Reduce the 20 MW Threshold Applicable to the Rebuttable Presumption of QF Nondiscriminatory Access to Qualified Markets**

The Commission's regulations establish a rebuttable presumption that QFs larger than 20 MW have nondiscriminatory access to the certain organized markets (including ERCOT, for instance). This presumption should apply for QF with a capacity of substantially less than 20 MW.<sup>11</sup> Substantially reducing the 20-MW size threshold as much as possible would benefit utility customers, as they are harmed by unnecessary purchases of uneconomic QF power regardless of whether those purchases are from multiple smaller QFs or a single larger QF. At a minimum I recommend a 1 MW threshold and a lower threshold can be justified. In the case of ERCOT and the Texas portion of the SPP, QFs selling directly into these markets receive for energy the equivalent of Golden Spread's avoided energy cost, which is the applicable market LMP. Thus, there is no economic advantage for a QF to instead sell directly to a utility under avoided cost precedent in Texas, unless it can offer capacity (addressed below), since it will receive the same price for energy whether it sells to the utility or directly into the market. A QF participating in these energy markets could also participate in the ancillary service markets and receive an additional revenue stream, to the extent they are capable of offering ancillary service products.

A 20 MW threshold does not make sense in the organized wholesale marketplaces in which Golden Spread operates where interconnection, transmission and direct participation in the markets are readily available. FERC's interconnection and open access transmission requirements do not allow unjust discrimination or discrimination that is not cost-based against smaller facilities. Owners of facilities, whether QF or not, should be responsible for the actual costs they incur to participate in the market and not be subsidized by others. For example, if the

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<sup>11</sup> The 20 MW threshold was implemented in FERC Order No. 688 issued in 2006, a decade ago. Significant market changes have occurred since that time.

administrative charge or metering charge is the same regardless of the size of the facility, the smaller facility should pay the full cost according to the respective market rules, and not pay a prorated share. If actual costs are not justified in the marketplace, then the market will sort it out and more economic choices will be made for the consumer.

In addition, with the potential growth in solar capacity, the 20 MW threshold is rife with opportunities for gaming. Solar facilities readily can be sized to avoid the 20 MW threshold, and with the ability to size by panel, could be sized to avoid thresholds lower than 250 Watts. A sophisticated QF owner can construct single facilities more than a mile apart, which in the aggregate have output capability of 20 MWs or greater, but considered separately do not meet the current threshold. For such a QF owner, there are not even any perceived administrative or transaction-cost related impediments to direct participation in the markets. The Commission also needs to consider affiliate rules that prevent this artifice to undermine any size threshold that is now or later implemented.

#### **B. Eliminate the Capacity Purchase Obligation**

Golden Spread is concerned that the obligation to purchase capacity and the manner in which capacity avoided cost is currently calculated does not reflect current market realities or the realities of prudent utility resource planning in today's market environment. In the current environment, the capacity purchase obligation imposes risks on the load serving utility and its consumers that should be borne by the QF. As a rural electric cooperative, Golden Spread finds this particularly troubling, since its Members and their Member Consumers are a "closed loop." That is, any unnecessary or inefficient costs are passed on directly to our distribution cooperative and ultimately to their member consumers in the rural, often economically challenged areas they serve. There are no private investors or shareholders to bear even a portion of these costs.

As I have already summarized, Texas precedent appropriately establishes that solar and wind renewable energy resources do not offer sufficiently firm energy to qualify for a LEO that obligates a purchasing utility to provide a capacity payment and fixes the price for the purchase over a number of years. When the wind does not blow or the sun does not shine, other resources must be available to replace the lost power output to ensure continuous service. This can stress the systems, particularly during peak periods. The Commission should consider supporting

reform that eliminates the capacity purchase obligation even where a QF can supply firm energy or capacity.

Capacity is treated differently in different markets and the value of capacity varies greatly between markets, by year, and by the type of generation resource. Forcing a utility to purchase capacity at a fixed price over a term of several years from a specific type of resource imposes significant risk upon the utility and the consumers that rely on that utility to serve their load. This is particularly true for Golden Spread, because it operates in two markets. ERCOT has no capacity requirement and our Members face pressures from retail competition. SPP has a capacity requirement for load serving entities, but like ERCOT and unlike the eastern RTOs there is no explicit compensation for a capacity product in the market. Under current market conditions, the variable margins provided by the market do not alone support the capital cost associated with most resources, so forcing purchases that include a capacity cost, which is not directly recoverable in the market, forces the investment and market risk associated with capacity on Golden Spread Members' consumers and biases Golden Spread's and other utilities' ability to compete. Both of which can result in higher costs to our Members' consumers.

Wind is rapidly increasing such that amount of wind output potential in both SPP and ERCOT may exceed the amount of minimum load. This will inevitably result in wind curtailments. The amount of wind in Golden Spread's area is expected to double in the next 2 years and, due to the favorable conditions, solar build in ERCOT and the SPP will also increase significantly. With this abundance of renewable energy available in Golden Spread's area, market prices will remain low, perhaps even negative in many hours. This substantially increases the risk of new long term capacity construction decisions, even with low natural gas prices. For resources that do provide firm capacity, capacity should be considered separate from energy. The risk of long term capacity commitments should be on the entity that made the capacity decision rather than forced by QFs on the utility.

### **1. At a Minimum, Shorten the Term of LEOs**

One reform the Commission may be able to implement through rulemaking, short of elimination of the capacity purchase obligation, is to shorten the maximum term of an LEO. Golden Spread creates a long term forecast annually for each of its 16 Members. In that process, we have found that behavior due to energy efficiency options, the volatility of energy prices, and,

particular to Golden Spread's area, the availability and regulation of water usage, is changing quickly over time. While we do consider these effects in our load forecast, there is substantial business risk of procuring long-term capacity and not having the load to support the capacity purchase. Moreover, in both ERCOT and the SPP there is a thriving bilateral market, including for short-term sales. In addition, reforms adopted by the SPP that will soon be filed at the Commission will increase the availability of bilateral transactions for short term capacity. For all these reasons, Golden Spread now believes that procurement of long term capacity becomes particularly risky in light of the dynamics of the markets.

In light of these market realities and prudent resource planning, if the LEO is not eliminated, a shorter maximum term for LEOs at a minimum is justified. A shorter term, as short as one-year or three years at most, recognizes that there are short term capacity options available in the marketplace and that the longer term planning horizon is too speculative to justify imposing a fixed price obligation over a ten or even a five-year term. LEOs should not be used as a means of imposing the risks of a long term fixed price for capacity on a load serving entity to the detriment of its consumers.

Thank you for this opportunity to present at today's conference.