UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C.	**Docket No. AD17-11-000**

NRG Energy, Inc. ("NRG") welcomes the opportunity to provide comments in response to the May 1st and 2nd Technical Conference on the interaction between state policy objectives and the Eastern wholesale markets, particularly on the five 'paths' suggested by Staff at the Technical Conference and in the Notice Requesting Comments.[1]

I. Introduction

Competitive markets are an essential part of an affordable and sustainable electricity system. History has demonstrated time and time again that consumers benefit when vibrant competitive markets promote the injection of private shareholder capital into the energy sector. Private capital promotes job growth, insulates end-use consumers from technology and performance risk, and avoids the massive cost over-runs that increased the delivered cost of energy for consumers prior to restructuring in the early 2000s. The lack of effective competition in large parts of the country continues to raise prices for consumers for generation services and leave captive customers on the hook for any cost overruns.[2]

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[1] The Five Paths articulated by Commission Staff include: Path 1 – Limited or No Minimum Offer Price Rule; Path 2 – Accommodation of State Actions; Path 3 – Status Quo; Path 4 – Pricing State Policy Choices; and Path 5 – Expanded Minimum Offer Price Rule. *See* Notice Inviting Post-Technical Conference Comments in AD17-11-000.

[2] The same is true for non-competitive portions of the energy sector, such as transmission and distribution costs, which have grown tremendously over the past decade, undisciplined by competitive forces.

Today, the competitive markets that have provided such significant benefits are under siege. Market participants unable to compete in today's low natural gas environment are increasingly abandoning markets in favor of corporate welfare requests to state and federal regulators. Ironically, many of these entities seeking bailouts profited handsomely from the competitive markets when prices were higher.[3] The Commission should comprehensively reject efforts by these generation owners to profit from markets when times are good and then go on the dole when times are lean. Such toggling is anathema to the competitive market and contrary to policies championed by the Commission under the Chairmanship of commissioners of both political parties.

Indeed, the vast majority of stakeholders testifying at the May 1st and 2nd Technical Conference – including representatives of numerous State commissions[4] – agree that competitive

[3] An expert report concluded that Millstone facility was so profitable that "[w]ithin five years, the original purchase price was repaid. The subsequent run-up in natural gas and electricity prices through 2008 created additional profits for Millstone equity holders due to: i) high capacity factors . . . and ii) relatively low costs of production." *See* Financial Assessment Millstone Nuclear Power Plant," by Tanya Bodell, Executive Director, Energyzt, *available at https://epsa.org/wp-content/uploads/2017/05/4250100000005.filename.ENERGYZT_Assessment_of_Millstone_201704_FINAL.pdf*

[4] *See, e.g.*, Transcript of the May 1 and 2 Technical Conference: Testimony of **Joseph Bowring**, President, Monitoring Analytics, LLC p. 250-251, ("And the point of markets after all -- and they have been doing this, is to provide power to customers at the lowest possible cost. That's what markets do and they have been doing it very successfully."); **Sarah Hofmann,** Vermont Public Service Board, on behalf of the National Council on Electricity Policy, p. 27-28 ("… there still is going to be a role for other wholesale purchases because I think we all would generally agree that states have benefitted from the wholesale market -- or consumers have benefitted from the wholesale market."); **John Hughes**, President and Chief Executive Officer, Electricity Consumers Resource Council, p. 406 ("Again quickly if it preserves competition and results in the lowest possible rates to customers do it."); **Robert Klee**, Commissioner, Connecticut Department of Energy and Environmental Protection, p. 29 ("That said we still are a fan of markets. We believe in markets. We believe that they bring with them that ability to drive down prices and get low cost options and that's why we are here."); **Lisa McAlister**, General Counsel for Regulatory Affairs, American Municipal Power, Inc., p. 413 ("And I do want to be clear that we are in favor of competitive markets. We are better off since Order 888 and I think it is legitimate for customers to want what they want and the market should accommodate that."); **Angela O'Connor**, Commissioner, Massachusetts Department of Public Utility, at p. 43 ("…the Commission has the responsibility of representing rate payers here so we have to do -- we have to make these procurements and do this at the least cost to rate payers which is a tremendous benefit that the markets provided with

markets are a necessary part of our Nation's energy future. This near-unanimous support for competitive market structures should give the Commission a clear mandate to decisively defend and protect the legacy of competition.

NRG thus recommends that Path 1, 'Limited or No Minimum Offer Price Rule,' be rejected as the free entry of subsidized resources to enter the markets at prices below their actual cost is precisely the root of the price suppression problem. Path 1 is likewise inconsistent with the Commission's enabling statutes. In the Federal Power Act, Congress gave the Commission exclusive jurisdiction over sales of electric energy for resale, as well as programs "affecting" or "in connection with" those sales. As the *EPSA* Court explained, the Commission's statutory commandment to ensure just and reasonable rates is not optional:

> If FERC sees a violation of [the just and reasonable] standard, it must take remedial action. . . . That means FERC has the authority—and, indeed, the duty—to ensure that rules or practices affecting wholesale rates are just and reasonable.

Where State programs conflict with the Commission's authority under the Federal Power Act, the Supreme Court has made clear that the State programs must give way "if it interferes with the methods" prescribed by federal law.[5] Likewise, in *Miss. Power & Light Co. v. Miss. ex rel. Moore*, 487 U.S. 354, 374 (1988), the Court likewise held that "States may not regulate in areas where FERC has properly exercised its jurisdiction to determine just and reasonable wholesale

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an economic dispatch [market] et cetera."); **Andrew Place,** Vice Chairman, Pennsylvania Public Utility Commission, p. 401 ("And just ensure that we have mechanisms whether it is MOPR or whether it is the two-tiered market price signal you can get there, you have to get there. I think we can do it and it is -- we can do it in a way that doesn't crush the market."); **Robert Scott**, Commissioner, New Hampshire Public Utilities Commission p. 66 ("So that's my interest if that makes sense if there is an impact, how do we mitigate that and how do we maintain the benefits of a competitive market which I know FERC shares also."); **Susan Tierney**, Senior Advisor, Analysis Group, p.486 ("And I thoroughly believe that the principal of allowing efficient price formation in the markets where there are market participants without a state backed contract or a state ordered contract is really important for various reasons.").

[5] *See Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 494 (1987).

rates or to insure that agreements affecting wholesale rates are reasonable." While the Commission under the prior Administration appeared reluctant to grapple with the impact of State programs on wholesale markets, this reluctance has led to the artificial decrease in revenues that has threatened many otherwise competitive baseload resources over the past several years.

The Commission should reject Path 3, essentially the 'do nothing' status quo approach, which would leave it to market participants to resolve these issues on a piecemeal basis in complaint proceedings. Much like Path 1, that is a recipe for almost certain disintegration of the markets and a decrease in system reliability. The current gaps and exceptions in the Minimum Offer Price Rules ("MOPR") that allow subsidized resources to participate in the markets without a review of their actual costs provides a ready path for states to continue to pursue market-distorting resource subsidies. Along the way, defenders of the markets will be forced to litigate each intrusion into market price formation. Never ending litigation is a poor substitute for competitive markets, and one that few stakeholders supported at the May 1st and 2nd Technical Conference.

Notably, competitive market principles are equally effective at decarbonizing our energy economy, which should be the primary goal of a Path 4 strategy. There is no question that competition disciplines the costs of low- or no-carbon resources as effectively as it does the costs of traditional generation resources, demand response resources, energy storage or other generation resources. The key to an effective market structure is to first define the attributes that we need to purchase (*e.g.*, capacity, fuel security, emissions-free, etc.) and then allow *all* resources to *compete* to provide the desired attributes at the lowest possible price, consistent with the reliability needs of the system.

II. The Benefits of Competition are at Risk of Disappearing.

Over the past several years, multiple entities have begun a concerted assault on the competitive markets by seeking ratepayer-funded bailouts of aging coal and nuclear facilities that are no longer cost effective. When market prices were relatively high, these entities were happy to reap the associated profits. However, now that wholesale market prices are relatively low, these same entities are seeking ratepayer-funded bailouts of their timeworn and non-competitive generation. The result is that competitive generators, including gas, coal, and renewable generation, are competing against resources that are receiving substantial non-market payments that inefficiently bolster their competitive position. Such behavior unquestionably distorts the wholesale markets overseen by this Commission and irreparably harms other market participants who are relying on competitive market outcomes to drive investment in the sector.

As prime examples, New York and Illinois have implemented subsidy mechanisms for old and uneconomic nuclear plants. The damage to the wholesale market is enormous, both in terms of investor confidence and in revenues. Initial estimates are that the Illinois program will suppress energy and capacity market revenues by approximately $500 million annually in the ComEd Zone of PJM alone, and hundreds of millions more across the entirety of the PJM footprint.[6] The impact on generators in New York is of similar magnitude, and the nuclear bailouts are expected to cost consumers in New York $7.6 billion over twelve years. Similarly, Ohio is currently considering bailing out long-past their prime, inefficient coal and nuclear facilities, and pro-market forces recently beat back efforts to subsidize the Millstone nuclear generator in Connecticut as well. For facilities located near the subsidized resources, the only answer is either to defer additional capital expenditures, shrink staff, or close the plant entirely.

[6] *See* DeRamus Declaration to Plaintiffs' Motion for Preliminary Injunction at ¶ 6, Electric Power Supply Association, et al. v. Anthony M. Star, et al., 17-cv-1165, (N.D. Ill. filed March 31, 2017).

These out-of-market initiatives are happening now and are having a chilling effect on NRG's ability to competitively deploy capital into these markets. The fact that additional states are considering similar interventions in the competitive markets only adds to the cloud of uncertainty. Lest there be any doubt, unless the Commission enacts strong policies preserving competitive markets, there is a real possibility that years of progress will be reversed and large swaths of the electricity sector will replace competition backed by shareholders with corporate welfare programs backed by captive ratepayers.

III. The Commission Should Embark Upon an Aggressive Six-Part Strategy within its First 100 Days Post-Quorum.

Within its first one hundred days in office after the re-establishment of a quorum, NRG strongly urges the Commission to take six steps designed to defend the integrity and efficacy of the wholesale markets.

1. Issue a Pro-Competition Policy Statement Charting the Commission's Approach to Competitive Markets.

Currently, there is considerable anxiety in the financial markets that the Commission may not act to preserve the integrity of wholesale markets in the three Eastern RTOs. This uncertainty is undermining the ability of companies, such as NRG, to invest in new generation and causing distress across the independent power sector. A clear acknowledgement that the Commission intends to address efforts to undermine its jurisdictional capacity and energy markets would go far in restoring confidence that the competitive markets, with their myriad benefits to consumers, will continue to exist as a means of driving private investment into energy infrastructure projects.

In terms of content, NRG recommends that a pro-competition policy statement should affirm the following principles:

1. Resources that have a historic business model of competing in the wholesale energy markets will not be permitted to saddle captive customers with the costs of anti-market bailouts;

2. State efforts to upend wholesale market outcomes by retaining and subsidizing failing units are unambiguously preempted by the Federal Power Act;

3. Just and reasonable capacity market results require that ISOs/RTOs screen out the impacts of uneconomic retention or subsidized new entry;

4. Reforms to price formation in the energy markets should be expedited and designed to screen out the impacts of uneconomic retention or subsidized new entry; and

5. Principles of cooperative federalism require that States have a means of "achieving" environmental or other policy goals *through* the wholesale market, instead of forcing States to accomplish such goals *around* the market.

Such a pro-markets approach appears to have wide support from across the stakeholder community, would be consistent with most of the realistic paths forward (including Paths 2, 4, or 5), and would help restore confidence in the continuing efficacy and basic fairness of wholesale market competition in the United States energy sector.

More generally, the Commission should continue to hew to the advice and counsel of the 'genius bar,' notably Drs. Hogan and Bowring, in affirming that the 'right' answer is to apply rigorous economic principles to market design, and to resist compromises that introduce or perpetuate distortions in the formation of just and reasonable prices.

2. The Commission Should Actively Participate in the Ongoing Preemption Litigation in Illinois and New York.

In conjunction with this pro-competition policy statement, NRG respectfully requests that the Commission file a friend-of-the-court brief in the Illinois and New York cases challenging the constitutionality of the nuclear bailouts in New York and Illinois. The Commission should explain that it clearly has jurisdiction over State programs that "affect" or are "in connection with" the wholesale markets, and that these specific State programs are preempted to the extent

that they allow otherwise uneconomic units to continue participating in and influencing the outcomes of the FERC-jurisdictional energy and capacity markets. The Commission's active participation in this litigation would go a long way towards re-establishing the principle that cost-effective generation units should not be required to compete against resources on corporate welfare. *It is NRG's view that the Commission affirming that the Illinois and New York bailouts are preempted would do more to support base-load units that are not receiving State subsidies than any other short-term action that the Commission may contemplate.*

These problematic subsidy programs are clearly distinguishable from State-led efforts to incent investment in renewables, energy storage or other new technologies, despite protestations to the contrary. While renewable subsidies create their own market distortions, the Commission has ample justification to treat them differently than the State programs propping up nuclear and coal units. *First*, the owners of the problematic units voluntarily entered into a market construct where they agreed to accept the ups and downs of the wholesale market. Renewable development has traditionally been financed outside of the wholesale market.

Second, the Commission has ample justification to treat competitive solicitations or environmental credits (such as Renewable Energy Credits, or "RECs") that are available to all generators of a particular technology type on a non-discriminatory basis differently from State efforts to funnel billions to a single pre-ordained corporate winner. In both New York and Illinois, Exelon-owned nuclear units were awarded Zero Emission Credit, or "ZEC," bailouts outside of any competitive process. Indeed, other zero-emitting resources were specifically barred from competing to receive ZECs in the New York program. And while the Illinois statute nominally includes a competitive solicitation process, the statute is structured so that only Exelon's Illinois resources will ever be awarded ZECs. As evidenced by the statements of the

Governor of Illinois and Exelon itself, the Illinois "procurement" of ZECs is a sham, with the Quad Cities and Clinton nuclear stations being ordained as the winners immediately upon passage of the statute.

Finally, proponents of the nuclear program have frightened many stakeholders into believing that if the Commission declares that ZECs are subject to the Commission's jurisdiction because these contracts "affect" wholesale market outcomes (which they undoubtedly do), that the Commission must likewise assert jurisdiction over all State programs that touch on wholesale markets, such as Renewable Energy Credit programs or other means of incenting forms of clean generation. Nothing is further from the truth. As Mr. Silverman noted in his pre-Technical Conference comments:

> The Supreme Court once famously posited that the Commission may have jurisdiction under the transmission prong of its jurisdiction "down to the toaster." *Conn. Light & Power Co. v. FPC*, 324 U.S. 515, 529-530 (1945). The Commission has wisely never asserted its jurisdiction that far, instead relying on rule-of-reason tests . . . to determine whether specific grid edge facilities should fall under FERC jurisdiction.

The Commission thus has a long history of carefully evaluating specific programs and narrowly tailoring its assertion of jurisdiction to those programs that "target" its jurisdictional markets. Thus, there is no reason to conclude that any assertion by the Commission over ZECs necessitates a finding that programs promoting renewable generation would be affected.

3. Act on Pending MOPR Cases to Stanch the Bleeding Caused by State Bailouts.

Contemporaneously with setting forth its intent to prioritize competitive market principles, the new Commission should also grant the pending complaints in Docket Nos. EL13-62-000 and EL16-49-001, addressing how units receiving subsidies should participate in the capacity markets run by two of the Eastern ISOs. The subsidies paid to existing resources that

are no longer competitive (absent the subsidies) keep these facilities in operation and add to the surplus that currently exists across the Eastern RTOs. Such subsidies thus unambiguously suppress capacity market prices and make it more difficult, or impossible, for non-subsidized units to remain in operation. Specifically, these cases request that the Commission direct the units receiving corporate welfare payments to bid into the FERC-jurisdictional capacity market at their actual operating costs, and not their net operating costs after they account for the subsidy.[7]

Granting these complaints will ensure that the tens of thousands of megawatts of generation, demand response and energy efficiency resources that have played by the rules of the competitive market receive the "correct" capacity market price, *i.e.*, the price that would have occurred absent the States' decision to interfere in the wholesale market. While the corporate welfare programs may save a relatively small number of jobs at the facilities receiving the bailouts, those jobs come at the direct expense of other jobs at the vast majority of generation facilities that are not seeking or receiving subsidies. Further, these bailouts decrease the appetite of private capital to invest in new infrastructure projects and harm the competitiveness of American businesses by needlessly increasing rates for businesses (as well as residents) in the affected jurisdictions.

Notably, the New York case has been pending since 2013, while the PJM case has been pending since 2016. The lack of speedy resolution of these cases has created substantial uncertainty in the markets and called into question whether the prior Commission was prepared to defend competition. Ensuring that all resources receiving targeted and discriminatory

[7] In keeping with economic principles, the MOPR for existing resources would consider only avoidable going-forward costs and replace the subsidy revenues with an estimate of the resources' actual market-based revenues, as determined by the Independent Market Monitor for the relevant ISO or RTO.

subsidies that affect investment or retirement decisions are subject to market monitor review will restore competitive balance to the markets. It will also ensure that competition survives while FERC works on longer-term price formation and other measures to efficiently value all forms of generation, including additional attributes beyond reliability.

Finally, NRG notes that there is another MOPR case currently pending before the D.C. Circuit Court of Appeals that may warrant additional Commission action. This case involves whether the prior Commission acted appropriately when it exempted up to 200 MW annually of renewable resources from the application of ISO-New England's MOPR rule. Importantly, all other new resources (whether conventional, demand reduction, or renewable) are required to undergo pricing review. The arbitrary exemption of renewable resources significantly harms price formation in New England and could take up to $361 million out of the market annually.[8] These dollars should be funding new and existing capacity resources, but instead are being artificially removed from the market. The reconstituted Commission should explore requesting remand of this case and elimination of this economically unwarranted treatment of one technology class.

4. The Commission Should Support Longer-Term Actions to "Accommodate" State Actions.

Once the Commission has acted to restore the integrity of wholesale markets in the short term by addressing the direct subsidization efforts discussed above, NRG recommends that the Commission next launch a more comprehensive effort to incorporate renewable and other

[8] As a rough approximation of the impact of 200 MW of new generation coming into the market can be calculated as follows: 35,000 MW (approximate quantity procured in recent years) x 12 months x $0.86/kW-mo (based on 200 MW and the slope of the linear demand curve of 43 cents/100 MW).

subsidy programs into the wholesale markets in a sustainable manner. We refer to this as the "accommodate" goal and it tracks with Path 2, as laid out by Commission Staff.[9]

The goal of the "accommodate" effort is not to dissuade States from pursuing environmental objectives; to the contrary, NRG is one of the largest developers of renewable projects in the country, many of which are backed by State programs, and we see expansion of these programs as driven by important State efforts to value environmental externalities and respond to customer demand for renewable generation. Instead, the "accommodate" effort allows States to move forward with direct renewables procurement without undermining the wholesale markets and the Commission's statutory obligation to ensure just and reasonable rates for those resources dependent on wholesale market revenues.

The "accommodate" process can take on many flavors. NRG has proposed a mechanism for two-tier pricing and capacity obligation pro-rating[10] that could be applicable in each of the Eastern RTOs, which would ensure that wholesale prices are just and reasonable and prevent inefficient displacement of economic resources with subsidized uneconomic resources. Indeed, both PJM and ISO-NE have already launched formal stakeholder initiatives considering various "flavors" of two-tier pricing. Specifically, ISO-NE has begun a process to evaluate its proposal for a Capacity Auction with Subsidized Policy Resources ("CASPR")[11] and other proposals, and has committed to filing market rule changes by the end of 2017 for implementation in the 13th

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[9] In his pre-filed testimony, Mr. Peter Fuller summarized NRG's philosophy as follows:

> '***Accommodate***' state actions to advance clean energy objectives, '***Achieve***' state clean energy objectives via ISO markets, and '***Adapt***' wholesale markets to high penetration of renewables. We believe the Commission and the RTO/ISOs must embrace this 'triple-A' approach to enable competitive wholesale markets to help facilitate the transition to this dramatically new resource mix, and to continue to support efficient competitive operations and investment decisions.

[10] *See* http://www.nepool.com/uploads/IMAPP_20160830_Presentation_Two-Tier_Pricing.pdf.

[11] *See* https://www.iso-ne.com/static-assets/documents/2017/06/a5_presentation_competitive_auctions_with_subsidized_policy_resources.pptx

Forward Capacity Auction. Likewise, PJM has released a proposal for a two-tier pricing mechanism with displacement of marginal resources[12] and has suggested that it will seek to make its filing by the end of 2017, in time to implement before the next Base Residual Auction in May, 2018. By contrast, NYISO does not have any active discussions regarding mechanisms to protect market pricing in the face of nuclear subsidies and anticipated state contracts for significant new renewable resources.[13]

Both the ISO-NE and PJM efforts hold great promise, and would allow the Commission to ensure just and reasonable rates for existing resources, while also allowing States to pursue their own policy objectives. To ensure that these initiatives move forward, NRG recommends that the Commission direct each of the ISO/RTOs to develop and file, by the end of 2017, market rules that will protect capacity market prices from suppression while enabling participation in the market by State-selected resources to the maximum extent possible.

5. "Achieving" State Priorities through Wholesale Markets Holds Enormous Promise of Savings.

The next phase of the challenge is to integrate the objectives of the States into the ISO/RTO-administered markets, which we refer to as the "achieve" metric, which is similar (in some ways) to the Commission's Path 4. Competitive markets are incredibly effective at driving innovation and finding the least-cost solutions and creating an investment climate where shareholders are willing to put capital at risk. The current challenge has arisen because States have no way of incorporating environmental externalities (or other policy objectives) into the wholesale market structure, and as a result are not seeing the resource mix that they desire.

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[12] *See* http://pjm.com/~/media/library/reports-notices/special-reports/20170502-capacity-market-repricing-proposal.ashx.

[13] Despite an ambitious "50% renewables by 2030" target set by the State of New York, the NYISO has yet to propose any comprehensive plan for how its energy and capacity markets will continue to operate effectively in the face of this much new subsidized (and low or zero marginal cost) generation.

There is no inherent tension between State policy goals and utilizing competitive market principles to "achieve" State policy mandates. A centralized competitive market, open to all parties, with attributes selected by States, would ensure that consumers receive the maximum benefits at the lowest possible price. However, today's wholesale markets clearly must evolve to encourage States to utilize the wholesale markets to achieve their objectives, instead of today's process, where the States are effectively forced to go "around" the market in order to meet policy mandates that go beyond pure least-cost. NRG recommends that the Commission pursue a system where States set procurement targets for resource attributes, and then the wholesale market procures the least-cost suite of resources necessary to meet those attribute goals, consistent with reliability needs. Such a program is the ultimate expression of cooperative federalism, and is clearly where wholesale markets must evolve. Indeed, accomplishing legitimate State goals (at just and reasonable prices) should be a core component of the cooperative federalism enshrined in the Federal Power Act. *See FERC v. EPSA*, 136 S. Ct. 760, 779-80 (2016).

These new market design ideas are described conceptually in the 'Forward Clean Attribute Market' concept, or "FCAM," advanced by NRG in the context of NEPOOL's Integrating Markets and Public Policy ("IMAPP") process,[15] would operate in a very similar manner and on a similar timeframe as the existing forward capacity markets in PJM and ISO-NE, and provide the benefits of those markets to the procurement of carbon-free energy (or other identified objective), and provide a tariff-based mechanism, through a multi-year price lock, to finance these new resources without burdening consumers with long-term contracts. One major element of any such design would be to ensure that the economics of resources procured through

[15] *See* ISO-NE's website devoted to "Wholesale Markets and State Public Policy Initiatives," *available at:* https://www.iso-ne.com/committees/participants/wholesale-markets-state-public-policy-initiative

a forward *"attributes"* capacity market, *i.e.*, an FCAM construct, do not distort the price formation in the underlying Forward Capacity Market. Using the ISO/RTO markets and procurement infrastructure, the State-prioritized attributes can be procured in the most cost-effective manner, while also respecting the ISO/RTO's broader resource adequacy and reliability constraints.

In response to many parties' concerns that fuel or technology *diversity* is a system attribute of concern, FERC should also initiate a new proceeding to determine whether capacity markets should expressly value fuel and/or technology diversity, or whether a new capacity attribute for firm deliverability or fuel-on-site should be established.

6. Energy Market Reforms are a Critical Piece of the Subsidy Puzzle.

There is no question that much of the recent State/Federal conflict has arisen because energy market margins have decreased significantly in the past several years. Despite energy markets accounting for a large portion of merchant revenues, there is great potential to improve the price signals sent by the wholesale energy markets. To this end, NRG strongly supports the existing Price Formation Notices of Proposed Rulemaking initiated in 2014 and strongly urges the Commission to finalize these long-delayed rules as quickly as possible.

NRG also urges the Commission to consider whether additional energy market reforms are needed, such as those proposed by PJM in its recent Whitepaper on price formation,[16] or whether there is a need for an additional energy market reserve product that, for example, recognizes additional value provided by generation resources with on-site fuel or firm natural gas transportation arrangements. Such a program could be patterned after New England's Locational

[16] *See* http://pjm.com/~/media/library/reports-notices/special-reports/20170615-energy-market-price-formation.ashx.

Forward Reserve Market and provide appropriate additional revenue to resources with firm fuel, on a technology-agnostic and non-discriminatory basis.

Additionally, the current Commission should also consider whether to revisit prior Commission initiatives that significantly reduced the revenues that generation resources were able to earn. As just one example, the prior Commission has significantly reduced the payments that many generators receive for providing reactive power support to the grid. Other Commission rules keep compliance costs artificially high by imposing outdated regulatory requirements on merchant generation resources.

Finally, NRG recommends that the Commission also consider the effect of subsidized resources on the long-term viability of the energy market. NRG recommends that the Commission initiate a new docket to direct each ISO to address whether *energy* markets are sending the appropriate price signals given the ever-increasing amount of zero-variable cost generation being brought online due to State policy mandates and expected to continue to expand, based on such State mandates as well as declining costs and technological improvements.

The Eastern ISO/RTOs have the benefit of seeing the extent of a changed load shape due to renewables and the extent of zero and negative pricing that are occurring in California and Texas. While those impacts are just beginning to be felt in the Eastern markets, we anticipate that we will see significantly increasing renewable penetration in this region as well, perhaps even comparable to the renewable penetration in ERCOT or California. Thus, these markets too will need to identify market designs to provide efficient and effective price signals in operational time-frames *and* an effective basis for investment in new resources as zero-marginal cost proliferate. Indeed, as noted above, PJM is already taking the lead on the next-generation of

price formation initiatives with the release of its recent Whitepapers on the topic and NRG looks forward to working on designing a long-term sustainable market structure.

IV. Following the Correct Path.

The appropriate future is clearly a combination of Paths 2, 4 and 5. As noted above, the first step the Commission should take is to affirm the validity and commitment to a strong MOPR as a means to ensure capacity markets outcomes reflect actual project economics so the markets can continue to support merchant investment. While expanding the strength of the MORP rules in the various markets is clearly a step in the right direction, long-term, relying exclusively on Path 5 would be inconsistent with the spirit of cooperative federalism, which dictates that the Commission should work with States to "achieve" their policy objectives.

Instead, the Commission should move quickly to implement Path 2, pricing mechanisms (such as NRG's two-tier pricing with pro-ration, ISO-NE's Competitive Auctions with Subsidized Policy Resources ("CASPR") or similar) to 'accommodate' the subsidized procurement actions States have already committed to. The essential elements of such solutions are that they produce a capacity auction price that reflects the actual costs of all resources, including those that are subsidized, and they provide a means to avoid either purchasing more capacity than is warranted or paying more for capacity than an unadulterated auction would produce. Such mechanisms should remain in place indefinitely to address future State actions that are not captured by the additional market design elements below.

Finally, FERC should initiate one or more proceedings to create a forum and an impetus for States, ISO/RTOs and their stakeholders to establish market structures that will "achieve" State resource attribute objectives in harmony with the RTOs' other reliability and efficiency obligations. The most promising proposals to date would mirror the forward capacity market

structures of PJM and ISO-NE, but the product to be purchased would be a zero-carbon attribute.[17] While the States across the eastern ISO/RTOs differ substantially in their attitudes toward carbon, all have some form of RPS that seeks low-carbon resources.

V. Conclusion

Competitive markets are at a crossroads. As Mr. Silverman noted in pre-filed testimony in this docket:

> The uniform American experience is that competition drives down prices, increases quality of service, and encourages technical innovation. The energy industry is not exempt from the laws of economics. Indeed, the very questions posed by today's conversation – whether consumer welfare increases more through a vibrant competitive market or through prescriptive state mandates – would be foreign to most other sectors of the economy.

Nothing discussed or presented at the May 1st and 2nd Technical Conference or any of the supporting testimony suggests that there is a better way than competitive markets to bring about the reliability we as a society demand at a price that we can afford.

We urge the Commission to reject the notion that competition is "broken" simply because today's energy markets (outside a few select areas of the country) do not currently price carbon or other environmental externalities or attributes. Instead, the Commission has the unique role of being able to promote competition as a means of ensuring that State policy mandates are met in a least cost manner, consistent with the reliability needs of the system. We look forward to working with the Commission to "accommodate" today's State policy initiatives, then utilize competitive market principles to "achieve" those goals, and then "adapt" tomorrow's energy markets to the influx of zero-marginal cost resources.

Respectfully submitted,

[17] This approach could also be implemented to procure other attributes desired by the States, such as diversity (in the form of minimum quantities of identified fuels, technologies or other attributes), or 'firm fuel.'

/s/
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