

UNITED STATES OF AMERICA
BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

New York State Public Service)	
Commission and the New York)	
State Energy Research and Development)	
Authority)	
)	
Complainants,)	
)	
v.)	Docket No. EL19-86-000
)	
New York Independent System)	
Operator, Inc.,)	
)	
Respondent.)	

AFFIDAVIT OF ROB GRAMLICH
IN SUPPORT OF COMMENTS BY KEY CAPTURE ENERGY, LLC

I Rob Gramlich, hereby declare as follows:

I. INTRODUCTION

1. I am providing this affidavit in support of the comments of Key Capture Energy, LLC.
2. I am Founder and President of Grid Strategies, LLC and work as an independent consultant specializing in wholesale electricity markets and transmission policy. I have served as a Senior Economist at PJM Interconnection LLC responsible for monitoring its capacity markets, Economic Advisor to a FERC Chairman, and as Senior Vice President

of the American Wind Energy Association. My background can be found at:
<https://gridstrategiesllc.com/about/>.

3. My business address is 9207 Kirkdale Rd, Bethesda MD, 20817.
4. I have been asked to review the complaint and the economic impacts of buyer-side mitigation and an exemption for storage units requested by the complainants.

II. MARKET DISTORTIONS CREATED BY BUYER-SIDE MITIGATION

5. I evaluated the economic impacts of Buyer-Side Mitigation (“BSM”) by reviewing its effects on the price signal to locate batteries in the most efficient locations. This is important because the value of storage depends on its location on the grid. Storage developers can choose to locate their facilities anywhere on the system controlled by the New York Independent System Operator, Inc. (“NYISO”). This is true for those that receive state incentives as well as those that do not. NYISO price signals are important for influencing those location decisions; indeed that is one of the main purposes of locational energy and capacity prices, a critical component of NYISO markets.
6. The analysis compares the higher cost associated with building storage resources in NYISO Zones G-J (Lower Hudson Valley and New York City) versus NYISO Zone A (the western part of the state) against the higher capacity market revenues available in New York City under current policy. This analysis reveals that higher capacity market revenues in New York City offset around 60-80% of the cost premium associated with deploying batteries there relative to the western part of the state. Specifically, it finds that higher capacity market prices in Zone J offset about 59.5% of the New York City cost premium in 2018, while the higher Zone J capacity market prices in 2017 offset about

82.5% of the cost premium.¹ 2019 capacity market prices appear to be more like those in 2017, implying that again this year higher capacity market revenues in New York City will cover about 80% of the New York City cost premium.

7. These capacity market revenues provide a critical price signal for efficiently deploying capacity resources where they are needed. When combined with the higher revenues available in Zones G-J relative to Zone A for energy market arbitrage and transmission and distribution system upgrade deferral, capacity market revenues make it economically feasible to build battery storage projects in the Lower Hudson Valley and New York City area and other capacity-constrained parts of the grid. The fact that capacity market revenues alone cover around 60-80% of the Zones G-J cost premium indicates that they are the most important price signal driving the incentive to deploy batteries there.
8. BSM replaces owners' bids with higher administratively determined bids for state-supported resources in the down-state zones. By raising their bids, BSM increases the likelihood the resources will not be accepted in the capacity auction and receive no capacity payment. As a result, BSM tends to remove or reduce the price signal to locate storage resources in capacity-constrained parts of the grid where they provide the most reliability value. BSM therefore mostly eliminates the price signal of NYISO capacity

¹ Based on information from an experienced battery developer, the capital expenditure premium for deploying a 20 MW, 80 MWh battery in NYISO Zone J relative to NYISO Zone A is \$11.3 million, or a cost premium of \$1.13 million per year at a 10% Weighted Average Cost of Capital or Annual Revenue Requirement, while the operating expenditure premium in Zone J for this battery is \$420,000 per year, for a total annualized New York City cost premium of \$1,550,000. In 2018, capacity market prices averaged \$5.76/kW-month in Zone J versus \$1.92/kW-month in Zone A, which for a battery with a 20 MW unforced capacity rating translates to \$921,600 per year in higher capacity market revenues in Zone J relative to Zone A, or 59.5% of the New York City cost premium. In 2017, capacity market prices averaged \$6.62/kW-month in Zone J versus \$1.30/kW-month in Zone A, which translates to \$1,278,400 per year in higher capacity market revenues in Zone J relative to Zone A, or 82.5% of the New York City cost premium.

markets for these resources and encourages less efficient location decisions. In this way, BSM reduces efficiency and distorts markets.

III. THE TARIFF WILL OVER-MITIGATE IF THERE IS NO EXEMPTION

9. The Commission must balance over- and under-mitigation.² BSM is intended to protect against the exercise of market power. However, over-application of BSM can result in market distortion or disruption as discussed above. Sound economic analysis would dictate that market power be carefully evaluated and mitigation measures be tailored specifically to remedy any market power identified. That is how FERC has traditionally implanted market power mitigation measures to electric power markets.³

10. I am not aware of any analysis showing that any entity in New York has the incentive and ability to exercise buyer-side market power by procuring storage resources. It is unlikely that an entity could exercise buyer-side market power with a storage resource, given the small size of battery storage resources, the small share of total capacity owned by storage developers, and the declining capacity value of short-duration battery storage resources at higher storage penetrations. A demonstration of buyer-side (monopsony) market power would need to show that a demand-side entity is withholding purchases in order to lower prices.

² *Edison Mission Energy v. FERC*, 394 F.3d 964 (D.C. Cir. 2005) (“[Mitigation] may well do some good by protecting consumers and utilities against... the exercise of market power. But the Commission gave no reason to suppose that it does not also wreak substantial harm.”)

³ Rob Gramlich, “The Role of Energy Regulation in Addressing Generation Market Power,” *Environmental & Energy & Law & Policy Journal*, Volume 1, No. 1, March 31, 2006. <https://gridprogress.files.wordpress.com/2019/07/the-role-of-energy-regulation-in-addressing-generation-market-power.pdf> .

11. The tariff applies mitigation indiscriminately; it does not specifically tailor mitigation to the entities or the market power behavior. It applies to all state-supported resources in certain zones, rather than those that are found to be associated with any market power behavior. Typically, storage developers are unaffiliated with other entities on the supply or demand side, and are small new entrants lacking any market power.

IV. RATES WILL BE UNJUST AND UNREASONABLE IF THE EXEMPTION IS NOT GRANTED

12. Application of BSM to energy storage resources will cause rates to be unjust and unreasonable by forcing consumers to pay for redundant capacity. BSM, or Minimum Offer Price Rule (MOPR) raises the bids of state-supported resources, which may cause them to not clear in the capacity market as described above. One effect of raising bids of certain resources is that alternative resources, new or existing, must be procured in their place. This capacity is redundant because the need could be served by the state-supported resources which will exist and sit unused for the capacity service at that location.

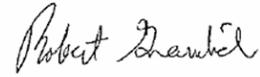
V. BSM RULES HINDER STATE POLICY UNLESS AN EXEMPTION IS PROVIDED

13. BSM prevents the state from pursuing its environmental and reliability objectives. Far from “accommodating” or “implementing” state policy as the Commission has considered,⁴ this particular provision hinders state policy by raising the costs to consumers and reducing the effectiveness of the storage resources. It encourages the

⁴ See FERC Technical Conference “State Policies in Wholesale Markets Operated by ISO New England, NYISO, and PJM” Available at: <https://www.ferc.gov/EventCalendar/EventDetails.aspx?ID=8663&CalType=%20&CalendarID=116&Date=05/01/2017&View=Listview>

resources to locate in up-state areas where they have less reliability value as described above. These up-state areas also have less environmental value as described in the NYPSC/NYSERDA complaint. It is not the case that state policies are being allowed and the ISO and Commission are merely setting the just and reasonable wholesale rate given the state action. Rather, the ISO and Commission are hindering and undermining the state policy.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and accurate.



Dated: August 19, 2019

Rob Gramlich

CERTIFICATE OF SERVICE

I hereby certify that I have served the forgoing document on the persons listed on the official service list compiled by the Secretary of the Federal Energy Regulatory Commission in this proceeding.

Dated in Washington, D.C. this 19th day of August, 2019.

/s/ Toks Arowojolu