

April 12, 2019

Mr. Will Lauwers  
Director of Emerging Technology  
Massachusetts Department of Energy Resources  
100 Cambridge Street, 10<sup>th</sup> Floor  
Boston, MA

Subject: Next Grid Markets / Ictec Energy Services Comments on Clean Peak Standard

Dear Mr. Lauwers,

Next Grid Markets (Next Grid), together with our affiliate company, Ictec Energy Services (Ictec), would like to commend the Massachusetts Department of Energy Resources (DOER) on developing a first in the nation policy aimed at reducing emissions and costs associated with peak power demand. The “Straw Proposal” released on April 2, 2019 serves as a great start to the process. The purpose of this letter is for Next Grid and Ictec to provide comments on that Proposal.

#### **BACKGROUND**

Next Grid is a Massachusetts-based company focused on developing and optimizing distributed generation assets, predominately in Massachusetts. Ictec is the majority owner of Next Grid and has developed a cutting-edge software that dispatches distributed generation in ISO markets. Together, we are working with energy storage and demand response resources to optimize these assets in ISO New England markets, and to minimize greenhouse gas emissions from the electric grid.

#### **COMMENTS**

##### **Comment #1 – Definition of baseline for Demand Response resources**

The Straw proposal states: “Must be able to measure and verify the reduction in load or energy delivered to a load or the grid for CPC generation.” It is not clear the baseline off which a reduction or energy delivered will be calculated.

Ictec has extensive experience managing baselines for Demand Response resources, including and particularly CHP assets. It is our recommendation that the DOER leverage the ISO’s efforts to develop a statistically sound approach as much as possible rather than “recreate the wheel.” By adopting the methodology used by the ISO to set the baseline, this program would allow for more dynamic participation to provide the resources when they are needed rather than a static definition or a dated usage profile. The ISO baseline for Demand Resources, whether facilitated by load reduction or distributed generation, is an average load shape based on recent history with an adjustment to account for actual conditions observed during a performance period. One benefit of this approach compared to a static baseline is that

it automatically adjusts performance as underlying peak conditions change over time, reducing the need for extensive periodic evaluation as the energy usage profile of the state evolves.

In terms of measuring and reporting on this, Demand Resources registered with the ISO should be able to report out on the incremental load reduction / energy delivered during a given time period. This could be done in a way that is similar to how RECs or AECs are reported. In this case, the Demand Resource or Aggregator would provide data detailing any generation and/or load reduction over the baseline, as well as estimating Clean Peak Credits generated during the relevant window. As described in Comment #2 below, if there are other requirements, such as an efficiency or GHG thresholds, this could be captured in this data set, as well.

This information would be provided to the Independent Verifier, which would have the ability to validate the accuracy of this information via Electrical Distribution Company provided meter data, resource specific documentation obtainable from ISO Systems, customer owned electric meter verification or some combination therein.

#### **Comment #2 – Combined Heat and Power should be an eligible Demand Response Resource**

Dynamically dispatched CHP has been utilized as a Demand Response resource in the past to shave peak loads and we would encourage the DOER to include CHP in the Clean Peak Standard, so long as it can demonstrate a measurable and verifiable reduction to load or energy delivered to the grid. Again, we recommend in Comment #1 that DOER should rely on the ISO baseline methodology to measure reductions and/or deliveries to the grid.

We believe CHP offers unique benefits to the system when operated efficiently as well as a tool for Carbon management when operated dynamically and, therefore, we would support an efficiency standard to qualify. If the DOER were to require an efficiency standard, we would recommend 60%, which is the IRS' requirement for CHP to qualify for the Investment Tax Credit.

We would also support a requirement that demonstrates that the carbon intensity of the grid was higher than the carbon intensity of the CHP unit during the Clean Peak windows. This could be in place of, or addition to, an efficiency requirement. Ictec is currently doing this for a number of sites now and it would ensure that the power provided by the CHP system is in fact helping to lower the overall carbon intensity of the grid.

**Comment #3 – Requirement that Energy Storage Systems “primarily” store/discharge renewable energy**  
“Primarily” is not defined. We would recommend that the DOER establish a carbon intensity threshold for each qualified system that considers the impact of grid charging and, further, that this threshold incrementally decreases on an annual basis.

**Comment #4 – Liquid Biofuels should qualify as energy storage if they are displacing natural gas for heating**

Liquid Biofuels which are stored and used for heating to displace natural gas during peak times would free up capacity-constrained natural gas in the winter time. Even though the Liquid Biofuels would not be generating electricity, it would have the effect of freeing up natural gas to be used for electricity, rather than using oil or other dirty and/or inefficient resources.

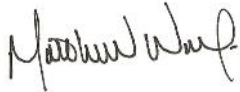
**QUESTIONS**

**Question #1**

Does an energy storage system behind the meter participating as Demand Response have to comply with all of the provisions of the “energy storage system” definition? In other words, would a 4-hour duration, 25% nameplate, primarily charged by renewable source, etc. be required?

We appreciate the opportunity to provide these comments and are available should you have any questions.

Best regards,

A handwritten signature in black ink, appearing to read "Matthew Wolfe".

Matthew Wolfe  
Managing Partner, Next Grid Markets, LLC

cc Mike Webster, Icetec Energy Services  
cc John Webster, Icetec Energy Services