PJM Interconnection, L.L.C. (“PJM”) appreciates the opportunity to provide these written comments in response to the United States Environmental Protection Agency (“EPA”) Notice of Proposed Rulemaking on the National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines.\(^1\) In the Proposed Rule, EPA recognizes the potential role played by reciprocating internal combustion engines (“RICE”) to facilitate participation in emergency demand response programs that help ensure resource adequacy reliability RTO-wide and on a locational basis.\(^2\) PJM asks for clarification regarding when RICE may be used for emergency demand response programs, as discussed herein.

PJM previously provided written comments on February 14, 2011\(^3\) and testified at EPA’s Raleigh, North Carolina hearing in this docket on January 13, 2011. As with our previously submitted comments, PJM will limit its response to the interrelationship of the Proposed Rule and PJM’s own rules for qualification of demand response resources as capacity resources available to be called upon during an emergency condition.

PJM takes no position on the environmental impact of the Proposed Rule nor the equity issues associated with whether the latitude provided to RICE resources is inconsistent with the level of environmental regulation of larger generation resources. PJM believes these environmental and equity issues raise larger policy questions associated with the scope of environmental regulation as between large generation units and small RICE units. These policy issues are uniquely within the province of the EPA to address.


\(^2\) Resource adequacy reliability refers to ensuring there are sufficient resources available to meet the expected system peak load plus an installed reserve margin to account weather variability, load forecast error, and generation outages. In PJM the resource adequacy construct also recognizes the locational value of resources to account for likely transmission constraints on the system during peak conditions.

\(^3\) Letter of C. Glazer to M. King, Docket ID No. EPA-HQ-OAR-2008-0708 (Feb. 14, 2011).
I. BACKGROUND

PJM is the Federal Energy Regulatory Commission ("FERC") approved Regional Transmission Organization ("RTO") serving all or parts of the states of Illinois, Indiana, Michigan, Kentucky, Tennessee, Ohio, West Virginia, North Carolina, Virginia, Maryland, Delaware, Pennsylvania, New Jersey and the District of Columbia. PJM serves over 62 million people and manages over 185,000 MW of generation which collectively serves a peak demand of over 158,000 MW. Approximately 21% of the U.S. Gross Domestic Product is produced in the region served by PJM.

PJM operates the largest competitive wholesale market in the nation. PJM’s role includes reliable operation of the region’s bulk power system, transparent administration of the competitive markets that comprise wholesale electricity service, and transmission planning. PJM’s markets recognize the important service demand response resources can provide as a tool to ensure resource adequacy reliability and manage in real-time operations potential emergency conditions on the grid. Demand response resources can serve as capacity resources which PJM can call upon to manage grid conditions (known as Demand Response Capacity Resources), and can also participate in the PJM Energy Market to provide load reductions in response to energy prices that allow their owners to manage overall energy market expenditures (known as Economic Demand Response Resources).

In the Proposed Rule, EPA proposes to amend the national emission standards for RICE resources under section 112 of the Clean Air Act. As is relevant to the comments herein, the EPA proposes to increase the hours that stationary emergency engines may be used for emergency demand response from 15 hours to 100 hours.4

II. COMMENTS

PJM appreciates EPA recognizing that “emergency demand response programs across the country are important programs that protect the reliability and stability of the national electric service grid.”5 PJM further acknowledges that EPA tailored the Proposed Rule to specifically allow RICE resources to be able to qualify and participate in demand response programs in order to “prevent grid failure and possible blackouts.”6

A. Demand Response in PJM

PJM offers demand response resources three options by which they can participate in its capacity market, known as the Reliability Pricing Model (“RPM”): (1) limited demand response; (2) summer extended demand response; and (3) annual demand response. A limited demand response resource must be available for a

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6 Id.
minimum of 10 calls during the months of June – September for a maximum duration of 6 hours per call, which equates to 60 hours per year. The summer extended resource must be available at any time during the months of May through October for a maximum duration of 10 hours each time it is called. The annual demand response resources must be available at any time during the year for a maximum duration of 10 hours each time it is called.  

All demand response that participates in the RPM capacity market must be available for PJM emergencies. For example, during the mid-July heat wave, on July 18, 2012\(^8\) emergency demand response resources were called on in New Jersey, Pennsylvania, Maryland, and Delaware for an approximate total of 2,098 MW.\(^9\) The use of emergency demand response helped to reduce load on the grid, ensuring adequate resources were available to meet demand and maintain reliable real-time operations.

RICE units, which participate in PJM’s demand response programs, are largely considered “behind the meter” generation by PJM. A “behind the meter” generator differs from a generator directly interconnected to the bulk electric system in that it does not receive dispatch signals directly from PJM. Although PJM does not have the same level of operational visibility or control of these “behind the meter” RICE units, as is the case with generation connected directly to the bulk power system, they can be a component of an overall demand response capacity portfolio offered into the capacity market. That is, an end user or curtailment service provider can aggregate a number of RICE units at different locations in order to meet its commitment to PJM. Those capacity offers, if cleared in the market, represent binding performance commitments for resources to be available to PJM system dispatchers to manage the real-time operational reliability of the grid under emergency conditions.

During emergency conditions it is the curtailment service provider that receives the dispatch instruction from PJM and it is the curtailment service provider that determines what resources it deploys, or actions it takes to meet the demand response performance obligation. A curtailment service provider retains the ability to aggregate a number of such RICE units in order to simultaneously meet the requisite run hour limits, regardless of the number of hours defined by the RICE rule under consideration, and their demand response performance obligation. As a result, the environmental limitations on individual RICE units, although an important input into how demand response resources are deployed, are not necessarily dispositive of the ability of demand response resources to participate in PJM’s markets or to maintain bulk power system reliability.

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\(^9\) Actual reductions achieved will be known after all individual customer meter data is provided for compliance and settlements – the deadline for compliance data submission is 45 days after the end of the month of the event and the submission deadline for emergency energy settlements is 60 days following the event.
B. Clarifying when Emergency RICE may be used for Emergency Demand Response Programs under the Rule

PJM understands EPA’s intent with respect to the emergency demand response proposal in the Proposed Rule primarily is to allow RICE resources to operate during emergencies in order to ensure reliability can be maintained during emergency conditions. Again, while PJM takes no position as to the appropriateness of the Proposed Rule, if EPA finalizes the rule as proposed or with slight modifications, PJM requests EPA clarify the definition of “emergency” in its Final Rule so as to remove any uncertainty regarding the conditions under which RTOs could call upon demand response resources supported by RICE.

PJM’s emergency procedures are documented in PJM Manual 13, “Emergency Operations.” Manual 13 specifies the phases of an emergency (alert, warning, and action), and includes the obligations of each market participant, including PJM, during each phase of the Emergency. In accordance with PJM’s manuals, PJM will issue a NERC Energy Emergency Alert Level 2 in situations including (1) public appeals to reduce demand, (2) voltage reduction, (3) interruption of non-firm load in accordance with applicable contracts, (4) demand side management/active load management, or (5) utility load conservation measures.

The Proposed Rule states emergency RICE may be used for emergency demand response programs during periods in which the regional transmission authority has declared an EEA Level 2 as defined by the North American Electric Reliability Corporation standard for Capacity and Energy Emergency, and during periods where there is a deviation of voltage or frequency of 5 percent or more below standard voltage or frequency. PJM supports EPA’s use of EEA Level 2 plus frequency or voltage deviations to define what should be considered as emergency demand response for purposes of allowing RICE to participate in emergency demand response programs for up to 100 hours per year; however, we believe the following definition -- with new language underlined -- would provide greater clarity:

“owners and operators of stationary emergency engines can operate for emergency demand response during periods in which the regional transmission authority or equivalent balancing authority and transmission operator has declared an EEA Level 2 as defined in the North American Electric Reliability Corporation Reliability Standard EOP–002–3, Capacity and Energy Emergency (and emergency demand response is required) and during periods when the regional transmission authority or equivalent balancing authority and

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10 The Proposed Rule also would allow a limited, temporary, exemption for RICE resources to participate in economic demand response programs as well. 77 Fed. Reg. 33818.
11 PJM Manual 13 at Section 2.3.1-2.3.2.
12 PJM Manual 13 at Section 2.3.2 Note 5.
transmission operator have determined there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency (and emergency demand response is required)."

PJM believes the additional language will ensure the appropriate entity responsible for maintaining reliability is determining when there is an emergency, as well as limiting the operation of stationary emergency engines during emergency demand response to only those times the resource is called in response to emergency conditions. The additional language PJM proposes would ensure the conditions coincide with the manner in which emergency procedures are implemented in real-time operation, and would provide certainty to RICE resources they would be operating in a manner that is in compliance with the proposed rule if finalized.

III. CONCLUSION

PJM respectfully requests that, should the EPA issue a Final Rule in this proceeding, EPA clarify when emergency RICE may be used for emergency demand response programs, as provided for by PJM herein.

Respectfully submitted,

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Dated: August 8, 2012