

August 9, 2012

Air and Radiation Docket and Information Center
Environmental Protection Agency, Mailcode: 6102T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Docket ID No. EPA-HQ-OAR-2008-0708
NOPR for RICE NESHAP and NSPS

Dear Administrator Jackson:

On December 19, 2011, EnergyConnect, Inc., EnerNOC, Inc., and Innoventive Power, LLC (collectively the “Co-litigants”) reached a settlement agreement (the “Settlement Agreement”) with the U.S. Environmental Protection Agency (the “EPA”), intending to resolve the Co-litigants’ Petition for Judicial Review of the EPA’s National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (the “RICE NESHAP”) in the United States Court of Appeals for the District of Columbia Circuit: *EnerNOC, et al v. EPA*, No. 10-1090 (DC Cir.) and *EnerNOC, et al v. EPA*, No. 10-1336 (DC Cir.). As required by Section 113(g) of the Clean Air Act, the EPA solicited public comment on the Settlement Agreement by notice in the Federal Register on January 4, 2012. Forty-two entities submitted comments on the Settlement Agreement. Thirty-one of these supported the Settlement Agreement, with many commenters asking for more flexibility than what was in the Settlement Agreement.

Under the terms of the Settlement Agreement, EPA signed a notice of proposed rulemaking (“NOPR”) on May 22, 2012, which was published in the Federal Register on June 7, 2012, to revise the RICE NESHAP and the stationary Internal Combustion Engine New Source Performance Standards (“ICE NSPS”) 77 Fed. Reg. 33812 (the “Proposed Rule”).

The comments below represent the views of Converge, Inc., EnergyConnect, Inc. a Johnson Controls Company, Energy Curtailment Specialists, Inc., Energy Spectrum, Inc., EnerNOC, Inc., and Innoventive Power LLC (collectively the “DR Companies”).

The DR Companies would like to thank and praise the EPA staff for taking the time and effort to understand this issue. For over two years now, the EPA has held hearings, taken written comments and done extensive research on its own. The portion of the Proposed Rule that pertains to Demand Response (“DR”) is a reasonable compromise based on the EPA’s diligent effort. The DR Companies fully support the Proposed Rule regarding DR and recommend that

the EPA proceeds to issue a Final Rule as proposed in the NOPR. This letter both supports the Proposed Rule and responds to the questions EPA posed in the NOPR regarding DR.

1. **Emergency DR Dispatch is Rare and Would Not be Increased by the Proposed Rule**

Emergency DR Has Been Rarely Used

Emergency DR has been rarely dispatched. In fact, as noted by the comment letter submitted by PJM Interconnection, L.L.C. (“PJM”) to the EPA in February 2011 (EPA-HQ-OAR-2008-0708-0813) (see Attachment 1):

PJM planners model contingency conditions when developing the mandatory Load Management requirements in order to ensure compliance with the loss of load probability planning standard of 1 day in 10 years. As a result, the number of such emergency calls has been limited. Load Management resources (formerly known as Active Load Management or ALM) have only been called by PJM 35 times since the inception of ALM in 1991. It is important to note that many of these Load Management calls involved only a part of the PJM region and/or lasted for fewer than 6 hours. As a result, should EPA tie the definition of emergency to the system operator protocols, based on a large number of historical data it should not be concerned that the occurrences will be frequent or long-lasting.

In Texas, there have only been two emergency DR events under the Emergency Interruptible Load Service (“EILS”) Program, now called 10-minute Emergency Response Service (“10 minute ERS”), since its inception in 2008. However, on one event on February 2nd, 2011, when there was a wide-spread failure of wholesale generators during an unexpected cold snap, the EILS resources were dispatched for a continuous 28 hours.

In New England, since the emergency DR Program has been implemented, the use of emergency engines in emergency DR has only been called three times. The only system-wide call was on August 2, 2006 for a total of 3.75 hours.¹

In addition, no national restrictions limiting the hourly use of emergency engines in emergency DR currently exist. Accordingly, the implementation of new hourly restrictions contained in the Proposed Rule represents a reduction in permissible hours compared to the *status quo ante*. As PSEG notes in its filing on this matter, the RICE NESHAP amendments develop emission standards on several classes of emergency engines that had previously been unregulated at the federal level (EPA-HQ-OAR-2008-0708-0961). As the DR Companies have repeatedly demonstrated, diesel-generator-based emergency DR has been rarely utilized in the past when there were no federal limitations on hourly usage. There is no reason to assume that

¹ http://www.iso-ne.com/sys_ops/op4_action_archiv/2006/index.html

placing *new restrictions* on annual operations will lead to *increased* development or dispatch of emergency DR.

The 100 Hours for Emergency Engines in Emergency DR is an Upper Limit and Will Not Lead to an Increase in Dispatch Hours

Implementing an upper limit of 100 hours per year as the maximum number of hours an emergency engine can run in an emergency DR program will enable emergency engines to continue to participate in important reliability programs and will not lead to an unrestrained increase in the number of hours these programs are dispatched.

The Proposed Rule defines emergency DR as events when:

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 (“NERC”) Standard EOP-002-3, Capacity and Energy Emergency and during periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

Pursuant to the EEA Level 2 Standard, only transmission system operators (e.g. PJM, ERCOT, ISO-NE, *et al*) and utilities with responsibility for maintaining the grid (also known as “Balancing Authorities”), may dispatch emergency DR, under the EEA 2 standard. EEA Alert 2 includes demand-side management along with public appeals to reduce demand, voltage reductions, interruption of non-firm end-use loads in accordance with applicable contracts, and utility load conservation measures. Emergency DR is only called when a Balancing Authority determines that projected energy from generation is, or is expected to be, insufficient to meet demand plus prudent operating reserves resulting in the potential for voltage reductions and rotating blackouts. The key fact here is that neither the emergency engine owner, nor its agents, can decide when to operate emergency DR. Only the entity responsible for maintaining system reliability can make that decision and that entity must go through a strict sequence of actions prior to declaring each emergency level and must report such actions to NERC. For example, Figure 1 below from the PJM Manual 13 Emergency Operations; shows graphically the emergency operations sequence.

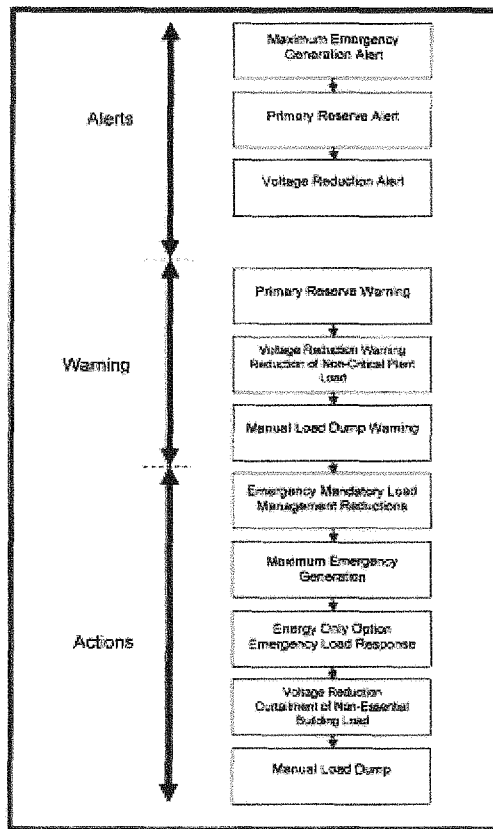


Exhibit 1: Emergency Levels

Exiting emergency procedures are achieved in a controlled, deliberate manner so as to not adversely affect system reliability, while minimizing the impact of these emergency actions on the LSE's customers. PJM members are expected to implement all emergency

Figure 1.

The first and most important responsibility of a Balancing Authority, to which all other considerations must defer, is the continuing reliability of the electric system. The notion that any Balancing Authority is going to allow emergencies to become more frequent, in effect, abdicating its responsibility to maintain reliability, is entirely inconsistent with their essential mandate.

Emergency events may increase due to factors outside the control of Balancing Authorities, such as excessive, unplanned generator outages and failures like those that imperiled the Texas grid last year, but far from worsening the situation, the Proposed Rule would assure that system operators will have more resources to help correct the system during emergencies thereby better protecting human health, the environment and the economy.

In addition, emergency engines have to be routinely tested each month. When emergency events are dispatched, those event hours can be substituted for testing hours. The owners of these engines have a distinct financial incentive to skip the testing when actual event hours have occurred because they can both avoid the diesel fuel expense and reduce the total number of run hours on the engine by doing so.

Prior EPA Policy Already Allowed for 100 Hours of Non-Emergency Operation and the Proposed Rule Does Not Change That

The Proposed Rule is not a departure from EPA policy. The existing EPA rule allows the following flexibility for emergency engines:

- there is no time limit on the use of emergency engines in emergency situations;
- emergency engines may be used for up to 100 hours per year for maintenance checks and readiness testing and other non-emergency activities².

The EPA is not proposing to increase the 100-hour limit for non-emergency use. Rather, it is proposing that the operation of emergency engines in *emergency* DR be contained within the existing 100-hour limit.

In addition, the Proposed Rule would make the RICE NESHAP and ICE NSPS consistent with the EPA's Mandatory Reporting of Greenhouse Gases; Final Rule that allows for the use of emergency engines in emergency DR programs. The Greenhouse Gas reporting rule defines emergency generation as:

[a]n emergency generator operates only during emergency situations, for training of personnel under simulated emergency conditions, *as part of emergency DR procedures*, or for standard performance testing procedures as required by law or by the generator manufacturer.³ (emphasis added)

In addition, the GHG Reporting rule does not restrict the number of hours that emergency generators can participate in emergency DR programs as the Proposed Rule does.

2. The Proposed Rule Promotes Reliability

² In the proposed rule, EPA proposes to add "regional transmission authority or equivalent balancing authority and transmission operator" to 63.6640(f)(2) and the NSPS regarding maintenance checks and readiness testing.

³ 40 CFR § 98.6, published in the Federal Register at 74 Fed. Reg. 56,387 October 30, 2009.

ISOs and Utilities Responsible for Grid Reliability Support the Proposed Rule and Demonstrate that the Previously Approved 15-Hour Per Year Limit Is Not Sufficient

The EPA is correct in acknowledging that the originally proposed 15-hour limit for emergency DR in the NESHAP is insufficient for purposes of maintaining grid reliability. That conclusion is supported by ISOs and utilities that are responsible for maintaining grid reliability.

As stated by PJM in its February 2011 letter to the NESHAP docket (see Attachment 1 for EPA-HQ-OAR-2008-0708-813):

The proposed EPA 15-hour limit on RICE units runs contrary to the minimum PJM requirement that demand response resources must be available to reduce load a minimum of 60 hours per year. The 60 hour minimum, which is incorporated into the PJM tariff, recognizes that for a resource to be useful to PJM in emergency conditions over a year, a minimum of 60 hours of availability is essential.

In addition, Craig Glazer, Vice President – Federal Government Policy for PJM – testified at the EPA Public Meeting on the RICE NESHAP reconsideration (see Attachment 2 for EPA-HQ-OAR-2008-0708-0699). EPA summarized his comments as follows:

The 15-hour limit is insufficient and precludes engines from being considered emergency generators under PJM, which requires a unit to be available to operate for at least 60 hours; and regarding what role these RICE units play in emergency demand response from PJM’s perspective, Mr. Glazer explained that these units are “behind the meter” and that the RTO simply expects that the system can deliver a certain voltage. As such, the RICE units should remain in the system’s demand response portfolio.

According to Mr. Glazer, the 15-hours limit in the rule knocks out engines to be able to be used because 60 hours per year is the minimum number of hours required to be considered an emergency resource for purposes of PJM. According to Mr. Glazer, if any engine is restricted to operate for a maximum of 15 hours, PJM would not even recognize the engines as having any value, because planning and dispatch is complicated and time-consuming, and it is not worth counting an engine as an emergency resource unless that engine can operate for a certain number of hours. The engine could not be utilized and furthermore the 15 hours does not match with the Independent System Operator-New England (ISO-NE) requirements or PJM requirements. Thus

the engine could not qualify for an emergency and Mr. Glazer underscored that the allowed number of hours is too short. Mr. Glazer pointed out, however, that the number of times emergencies are declared is very few.

The Midwest Independent Transmission System Operator, Inc. (“MISO”) also agreed that 15 hours is insufficient to maintain reliability (see Attachment 3 for EPA-HQ-OGC-2011-1030-012). MISO stated:

MISO respectfully requests that EPA also recognize the importance of balancing environmental concerns with the need to maintain electric grid system reliability during emergency conditions by using appropriate and consistent reliability standards for emergency stationary internal combustion engines.

Opponents of the increase in hours for emergency engines have argued that even with an allowance of 15 hours per year, that emergency generators could still participate in emergency DR programs by aggregating their output. So, for example, in PJM four generators each limited to 15 hours per year could be aggregated to provide 60 hours of firm capacity for the PJM limited product.

PJM itself acknowledges that this is a theoretical possibility but not practical in the real world:

The 60 hour minimum, which is incorporated into the PJM tariff, recognizes that for a resource to be useful to PJM in emergency conditions over a year, a minimum of 60 hours of availability is essential. This does not mean that a CSP could not put together a combination of RICE units to meet the 60 hour requirement. That alternative, however, creates management and administrative challenges for the CSP and complicates compliance for the CSP and measurement and verification for both PJM and the EPA. This outcome in turn frustrates the intent of the EPA’s regulation, which is to recognize that running such units in emergencies is justified as an exception to the emissions control requirements otherwise directed by the RICE rules.⁴

In addition to those practical problems cited by PJM, the DR Companies would also like to point out that in the above example, if all the owners of emergency engines stayed in the program, the amount of emergency DR available to PJM would drop by 75% as it would take 4 MWs aggregated to provide 1 MW of firm load shed. Also, it is extremely likely that many engine owners would drop out of the program because the amount of compensation available to them would drop by 75% as well. The net result is that aggregation in no way can compensate for the 15-hour limitation that is in the 2010 Final Rule.

⁴ PJM in its February 2011 letter to the NESHAP docket (see Attachment 1 for EPA-HQ-OAR-2008-0708-813)

In regions of the country that are not covered by organized wholesale markets, vertically integrated utilities have the responsibility for maintaining voltage, frequency and preventing outages. Two such utilities, Progress Energy and Florida Power & Light (“FPL”) both commented in this docket

FPL stated previously in this docket (EPA-HQ-OAR-2008-0807):

It is critical that utilities be permitted to use emergency DR resources to maintain grid reliability under any conditions.⁵

Under this NOPR, FPL stated in its comment letter dated August 9, 2012 (EPA-HQ-OAR-2008-0956):

FPL understands that amendments to the rules are currently targeted for publication in late 2012, after which time utility customers participating in FPL’s demand response programs will require adequate time to determine a course of action related to the new regulations based on the economic and technical feasibility of their options. If additional costs and operational burdens are imposed on these participants, a significant portion may not wish to continue participating in FPL’s DR programs. Under that scenario, the potential DR market for these specific customers will lessen, thereby diminishing FPL’s capability to use this important resource option to maintain system reliability. Any near-term loss of existing participants would create an immediate resource “gap” that cannot quickly and cost-effectively be filled by new utility generation resources, further creating system reliability issues.

Progress Energy stated previously in this docket (EPA-HQ-OAR-2008-0708-0770):

The Standby Generator Program (SBG) is activated to reduce the load on the bulk electric system to a level that can be safely maintained until either system load diminishes or additional resources can be made available. The program supports our compliance with the North American Reliability Corporation’s (NERC) Emergency Operations Planning standards (EOP) (NERC Standard EOP-002).⁶

Although FPL and Progress Energy own and operate fleets of large, central station power plants, unlike the independent power producers, these utilities also have responsibility for maintaining system reliability and recognize that emergency engines are a critical resource for doing so. In summary, grid operators are unified in the view

⁵ FPL comments, p. 1 (EPA-HQ-OAR-2008-0807)

⁶ Progress Energy comments, p. 1 (EPA-HQ-OAR-2008-0708-0770)

that emergency DR at levels significantly higher than 15 hours per year is necessary to support reliability, and the EPA should reject the claims that 15 hours is sufficient made by others who lack responsibility for grid reliability.

In summary, grid operators are unified in the view that emergency DR at levels significantly higher than 15 hours per year is necessary to support reliability, and EPA should reject the claims that 15 hours is sufficient made by others who lack responsibility for grid reliability.

3. The Use of Emergency Engines in Emergency DR Programs Does Not Harm the Environment

There Is No Correlation Between High Ozone Days and Emergency DR

Opponents of the use of emergency engines in emergency DR programs have consistently alleged that emergency DR is dispatched by the ISOs on days of high ozone, thereby implying that the use of emergency engines will increase the number of ozone exceedance days.⁷ However, in comments submitted to EPA in February 2011, the Co-litigants submitted a detailed analysis entitled “Analysis of Emergency DR and Ozone Concentrations,” which demonstrates that **there is no correlation between emergency DR and ozone exceedance days**. Although some emergency DR events are called during high ozone days, many DR events occur on non-ozone exceedance days and many more days have ozone exceedances but no DR events. The data does not show that the use of emergency engines during the DR events causes high ozone, particularly since in many instances the ozone concentrations are as high or higher on the days preceding a DR event. For the 2010 PJM ozone analysis, preliminary ozone data were used from monitoring stations in Maryland. That data base has now been finalized so an addendum to the original analysis is attached (see Attachment 4 for both the original analysis and the addendum). In addition, corrections to some of the 2010 PJM emergency DR dates have been made. The results have not changed from the original analysis. No data has been introduced into the record that refutes this analysis.

Delaware in its previous comments referenced a technical paper entitled “Using Backup Generators for Meeting Peak Electricity Demand: A Sensitivity Analysis for Emission Controls, Location and Health Endpoints” (Gilmore, Adams & Lave, 2010) to support its position that DR is correlated with ozone exceedance.⁸ Unfortunately, Delaware once again does not differentiate between *emergency* and *non-emergency* DR. The referenced paper analyzes the use of generators for *non-emergency* DR (e.g., price-responsive DR).

⁷ American Lung Association, p. 4 (EPA-HQ-OGC-2011-031); American Lung Association Mid Atlantic, p. 1 (EPA-HQ-OGC-2011-032)

⁸ Delaware Comments, p. 8-9 (EPA-HQ-OGC-2011-1030-036)

A recent report by the Northeast States for Coordinated Air Use Management (“NESCAUM”) entitled “Air Quality, Electricity, and Back-up Stationary Diesel Engines in the Northeast” dated August 1, 2012, alleges that the use of DR correlates with high ozone days. However the NESCAUM report only looks at emergency DR events on two days (July 21-22, 2011). The analysis submitted by the DR Companies, on the other hand, reviews 34 events spread over many years in many different parts of the country. For a fuller critique of the NESCAUM methodology please see the comments in this docket by Blue Sky Environmental LLC.

States Support the Use of Engines for Emergency DR Primarily Because Occasional Use of Emergency DR Is Superior to Having All Emergency Engines Run in the Event of a Blackout

Delaware and its supporters claim that emergency DR is bad for the environment. Numerous states disagree with this assertion. The following states currently allow emergency engines to participate in emergency DR programs or allow such use under existing air regulations:

- Connecticut*
- Florida
- Illinois
- Indiana
- Maine
- Maryland*
- Massachusetts*
- New Hampshire*
- New York
- Ohio*
- Pennsylvania
- Texas
- Vermont*
- Virginia*
- West Virginia

States with an asterisk have changed their own regulations to allow the use of emergency engines in emergency DR programs. These states understand the importance of having a subset of emergency engines available to grid operators and utilities for a short time to avoid losing the electric grid rather than waiting for the electric grid to be lost, thereby causing enormous economic, environmental and health and safety damage.

The Maryland Department of the Environment (“MDE”) summarized this position in its comment letter to the settlement docket (see Attachment 5 EPA-HQ-OGC-2011-1030-0020):

The Department supports the emergency demand response restriction increase to 60 hours per year contained in the Proposed Settlement Agreement. This is a welcome change to the 15-hour restriction in the current Final Rule, which may prevent emergency engines from participating in emergency demand response (DR) programs. Specifically, the Department believes that emergency DR programs protect public health and safety by calling into action emergency generators to help meet energy demands when the main electrical grid is disrupted or when brown outs are imminent.

The Florida Department of Environmental Protection (“FDEP”) in its comments to EPA filed in the NESHAP docket dated February 9, 2011 (see Attachment 6 EPA-HQ-OAR-2008-0708.0719) fully supports the increase of hours for emergency DR:

[t]he FDEP feels that the use of emergency RICE under the oversight of a demand response program is a beneficial use that should be allowed without additional constraints.

Under the demand response program, these emergency RICE are only allowed to be called upon when the regional transmission organization or equivalent balancing authority and transmission operator have determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. If the grid fails, every emergency generator in the area will likely operate for many hours or days until the electric grid is restored, while those without an emergency generator are left completely without power. Allowing some of these emergency RICE to be called upon in order to stabilize the grid and prevent a massive outage would result in much less environmental impact than if all emergency engines were operated in response to the loss of the grid.

The Texas Commission on Environmental Quality (“TCEQ”) proposed unlimited hours for emergency DR in its comments to EPA filed in the NESHAP docket (see Attachment 7 EPA-HQ-OAR-2008-0708.0764):

The TCEQ also agrees with the petitioners’ assertion that emergency demand response programs provide an environmental benefit. Selected and limited

operation of emergency generators to avert a blackout is preferable to the possible operation of thousands of generators if a blackout occurs.

The TCEQ considers the operation of engines in response to an officially declared emergency by the regional transmission authority to be emergency operation. While the 60 hours proposed by the petitioners may appear reasonable based on historical operation, future demand operation for emergency purposes may not be reliably predicted. Therefore, TCEQ suggests that the EPA revise the rule to specify that operation of an engine under an emergency demand response program is considered emergency operation and not subject to hourly limitations as provided by 40 CFR §63.6640(f)(1)(i) provided that the operation is in direct response to an official energy emergency declared by the regional transmission or balancing authority.

This concern shown by Maryland, Florida and Texas regarding the benefits of preventing wide-scale blackouts is justified on the basis of the potential health risk posed by such blackouts. A study published in Public Health Reports looked at the health impacts of the 2003 blackout in New York city by comparing health outcomes on August 12th and 13th, 2003 with health outcomes on similar summer days in the 15 years prior to the blackout. This is what they concluded:

We found that mortality and respiratory hospital admissions in NYC increased significantly (two- to eightfold) during the blackout, but cardiovascular and renal hospitalizations did not. The most striking increases occurred among elderly, female, and chronic bronchitis admissions. We identified stronger effects during the blackout than on comparably hot days.⁹

In response to the Proposed Rule, the Kansas Department of Health & Environment (“KDHE”) (EPA-HQ-OAR-2008-0708-1002) comments:

The KDHE supports EPA’s proposal to allow emergency generators 100 hours for testing and maintenance, emergency demand response, and voltage support and 50 of the 100 hours for non-emergency use and peak shaving for units at area sources of HAPs.

Emergency Engines Can Have Environmental Benefits Compared to Central Station Generation

⁹ “Health Impact in New York City During the Northeastern Blackout of 2003”, Public Health Rep. 2011 May-Jun; 126(3): 384–393; <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3072860/>

In an EPA sponsored study entitled “Modeling Demand Response and Air Emissions in New England” prepared by Synapse Energy Economics, Inc. (the “EPA DR Study”), the authors found that by having available quick-start capacity to handle emergency conditions on the electric grid, there would be less reliance on old, high-GHG-emitting power plants that have to run at 50% load or higher all the time so that they can be available when needed (these are called spinning reserves in New England). The EPA DR Study found that even if one assumes that all DR is from diesel-fired generators, there is a net benefit in air quality from having quick start resources available, such as emergency DR, whether or not those resources are ever called, because of reduced reliance on spinning reserves. Put simply, relying solely on spinning reserves is like having a taxi running outside one’s house 24/7 for the occasional times it is needed.

Emergency engines have other environmental and economic benefits that are not available to central station power plants. They already exist and so have no environmental impacts associated with construction. Virtually all generators that participate in emergency DR previously existed because their owners needed a way to ensure electric supply in the event of a grid emergency. In the experience of the DR Companies, commercial and industrial customers do not go out and install generators so they can participate in emergency DR. Instead, they participate in emergency DR and allow the balancing authority to call upon them as needed to support the reliability of the grid if they already have an emergency generator. The alternative of building new central station power plants raises siting problems, habitat disruption and environmental impacts from major construction.

Finally, from the DR Companies’ vast experience, participation in emergency DR with emergency engines is often a first step for some commercial and industrial organizations. This first step often leads to a significant amount of additional DR at their sites in the form of energy reductions, not to mention energy efficiency, once these organizations are made aware of such opportunities and become more familiar with program requirements. These additional measures not only have zero emissions, but in the aggregate, eliminate and defer the need for additional central-plant generation.

Emergency DR Has Not Prevented the Growth of Renewable Energy

Many factors have the potential to drive or inhibit the growth of renewable energy, including, but not limited to, state renewable portfolio standards, investment and production tax credits, and natural gas prices. The claim that emergency DR engines will somehow stunt the growth of renewable resources is entirely unfounded.

For example, in PJM, where DR has grown faster than anywhere else, renewable energy resources are growing at an equally fast pace. Figure 2 below illustrates the amount of MW of DR and renewable capacity that has cleared in the last three Base Residual Auctions for the PJM Capacity Market. While the DR Companies are not arguing causation between the two, judging by this graph and these numbers, it is difficult to conclude that renewable energy growth in PJM has been slowed by DR, as both have grown at approximately the same rate.

Over the last two auctions in PJM, 1,341 MW of renewable resources were offered into the auction, and all 1,341 MW cleared the auction.¹⁰ It is not our intent to scrutinize the specifics of PJM auction rules or results, but clearly neither DR nor any other resource has prevented renewable energy from securing a commitment in the PJM Capacity Market. If states or utilities wished to build renewable energy as part of their Renewable Portfolio Standard (“RPS”) goals, as several states have, it would clear the auction regardless of DR participation. Also, as long as it is available, renewable energy will always be dispatched by system operators before emergency DR engines.

Nationally, the trend is the same. According to the EIA, renewable energy production increased from 5 Billion BTUs in 2001 to 8 billion BTUs in 2010, a 56% increase over the same time period in which DR has also dramatically increased.¹¹ Again, no causation can be argued, but there is certainly no evidence of DR suppressing the growth of renewable generation outside of PJM either.

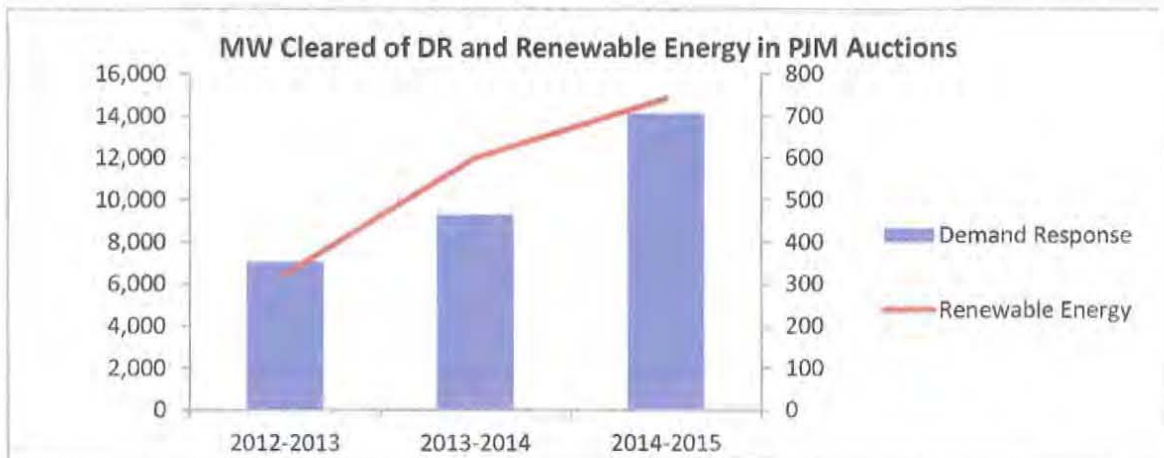


Figure 2.

¹⁰ PJM Base Residual Auction Results: 2012-2015

¹¹ http://www.eia.gov/energy_in_brief/renewable_energy.cfm

4. Many Arguments from Opponents of the Proposed Rule Are About Market Structure Issues in PJM, and Are Thus in the Jurisdiction of PJM and FERC – EPA Should Disregard Them

Various parties will make claims that by implementing this Proposed Rule, EPA will distort both energy and capacity markets and thereby stifle the construction of new, cleaner generation. However, upon closer examination, most of these claims stem from policy disagreements with the *structure* of those markets, policy determinations that are within the purview of the organized wholesale markets (i.e. the ISO/RTOs that cover a portion of the country) and the Federal Energy Regulatory Commission (“FERC”) which regulates the ISO/RTOs. These disagreements range from how DR resources should be compensated for providing *energy* (the subject of FERC Order 745), the types of *capacity* products that one can bid in PJM (the subject of PJM tariffs approved by FERC¹²) and what terms and requirements demand-side resources generally must be able to meet in order to participate in such organized markets.

A clear example of this attempt to re-litigate settled issues is contained in the comments of the PJM Independent Market Monitor (“IMM”) on the proposed settlement between the Co-litigants and the EPA. The IMM states:

The result of the increased role played by limited DR product is to suppress the price in the PJM capacity markets below the competitive level, which, among other things, reduces the ability of other generating units to pay for environmental upgrades based on EPA requirements. The limited DR product would also displace generating units that are required to be available every day of the year. The Market Monitor has recommended that the limited DR product be eliminated from the capacity market.¹³

The “limited DR product” referenced by the IMM is just one part of a new market structure that PJM created and FERC approved. Instead of having only one capacity product in their market they have created three. The limited DR product is much like the traditional DR product in the past that requires a resource to be available for up to 60 hours during the summer months. PJM also created an Annual DR product that is available year-round, as the name suggests, and presumably will be priced higher because of its wider availability.¹⁴ This new product structure will provide higher pricing signals than would otherwise be the case to incentivize generators to

¹² ER11-2288, 134 FERC ¶ 61,066

¹³ PJM IMM Comments, p. 3 (EPA-HQ-OGC-1030-050)

¹⁴ In between the “Annual” and “Limited” products is the “Summer Extended” product which, as the name suggests, applies only during the summer, but for more hours and an unlimited number of events. Depending upon myriad factors prices between the three products may separate with the less limited product(s) clearing at a higher price than the more limited. Annual DR, energy efficiency and wholesale generation are all considered “Annual” resources and valued equally.

enter the market. Despite this shift in PJM toward differential incentives for generators, the IMM had recommended that the limited DR product be eliminated altogether, as stated in its comments above. PJM and FERC did not agree with the IMM and instead kept the limited DR product, presumably because they concluded it had value in reliability and/or market structure. The point is not to debate the wisdom of these policies but rather to point out that the IMM lost in its attempt to get PJM and FERC to accept its view. Now the IMM is trying to get EPA to overturn those other agencies in a matter that is rightly within the purview of those agencies.

EPA should let the ISO/RTOs and FERC make the determinations as to what is needed both for reliability and for economic efficiency in their markets and not let parties re-litigate those issues here. In addition, the Proposed Rule would affect emergency engines throughout the country, not just in the organized wholesale markets, so EPA needs to consider the bigger picture, not just the views of certain market participants in the organized markets.

While it is true that, if calculated on a per-unit basis, the emissions from emergency engines are typically higher than those of the new and existing large power plants, it is relatively easy to differentiate between larger wholesale generators and emergency engines. **Emergency engines providing *capacity* as emergency DR resources can be expected to operate for a handful of hours per year while large wholesale generators are likely to run for *thousands* of hours per year, often at low efficiency levels so that they are available to respond to emergencies when needed.**

5. Emergency DR Has Contributed to Lower Prices in Capacity Markets But that Is a Benefit to Consumers and Should Not Prevent EPA from Adopting the Proposed Rule

The Electric Power Supply Association (“EPSA”) claims that the Proposed Rule will distort the “Nation’s Energy Markets” but cites only PJM’s capacity market. EPSA expresses concern that the Proposed Rule would “allow BTM (behind the meter) generators to squeeze traditional generators out of the market, and could also result in suppressed prices.”¹⁵ This statement shows clearly that the generators and their trade associations are primarily interested in higher capacity prices at the expense of consumers. Whether capacity prices resulting from emergency engines participating in PJM capacity auctions are “suppressed” or simply “reasonable” is, of course, a matter of perspective. The PJM Capacity Market model, and similar mechanisms elsewhere, were designed to encourage reliability from a number of sources, including emergency DR. It cannot be concluded that DR participation, even through use of emergency engines, somehow “distorts the market” merely by participating. Capacity prices are unquestionably lower than would have been the case without such participation, but it is unclear why anyone would term this a “distortion.”

¹⁵ EPA Comments, page 3 (EPA-HQ-OGC-2011-1030-0016)

The final arbiter on that question is the FERC, and it has repeatedly supported greater participation of DR in capacity markets in different proceedings precisely because of this benefit to consumers. And, if the balance swings too far in one direction or the other, FERC also has the authority to redress that imbalance.

Going forward in PJM, “Limited DR” will no longer compete with generation in capacity markets because, as noted above, PJM has created three capacity products. Limited DR will only be able to bid into the Limited Capacity product while generation can bid into the Annual Capacity product. So, going forward Limited DR will not compete against generation in the PJM capacity markets and therefore will not be reducing the price for generation capacity. Furthermore, as noted by PSEG, the saturation limit for Limited DR has already been hit, further undermining opponents’ claims that the Proposed Rule will cause unconstrained growth of this resource.¹⁶

Also, it is important to remember that the Proposed Rule represents a *reduction* in allowed hours of operation in emergency operation from the *status quo ante* of unlimited hours to 100 hours per year or far less in most circumstances. Therefore, **this Proposed Rule by itself will not lead to an increase of DR in capacity markets.**

6. Comments on Questions Posed by EPA in the NOPR

In the NOPR, EPA solicited comments about DR. The EPA solicited comments are summarized below in italics with our response immediately following each.

EPA requests comments on the scope of the new language that identifies emergency conditions in 40 CFR 63.6640(f) along with the preexisting language in the definition of emergency engine describing non-demand response emergency situations that it addresses all emergency events including all those that would be recognized solely by the local system operators, such as local weather events.

In 63.6640(f)(i), EPA is proposing that emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by a number of different entities including the “regional transmission authority or equivalent balancing authority and transmission operator.” This added language will make clear that the audits required for DR programs are approved under this section in both the NESHAP and NSPS and are allowed under the 100-hour per calendar year limit. The DR Companies strongly endorse this proposed language.

¹⁶ PSEG Comments, page 5 (EPA-HQ-OAR-0708-0961)

In 63.6640(f)(ii), EPA is proposing that emergency stationary RICE may be operated for emergency DR once an Energy Emergency Alert Level 2 (“EEA Level 2”) as defined in the NERC Reliability Standard EOP-002-3, Capacity and Energy Emergencies, has been declared. NERC EEA-Level 2 procedures are taken very seriously by RTOs and transmission operators. Whenever EEA-Level 2 procedures are used, the RTO or transmission operator must report back to NERC on what happened, why it happened, and what steps were taken to mitigate the situation. EEA-Level 2 procedures are very rarely called. The DR Companies endorse this proposed change in both the NESHAP and NSPS that describes the emergency DR trigger that is used by RTOs and transmission operators.

In 63.6640(f)(iii), EPA is proposing language regarding voltage or frequency changes that are followed during emergency DR events that are not controlled by RTOs or transmission operators. The DR Companies defer to and endorse the proposed comments regarding this section as provided by the American Public Power Association (“APPA”).

EPA requests comments regarding whether special consideration should be given to engines regarding the May 3 and October 19, 2013 compliance deadlines if, in the final rule, the EPA does not finalize the reduced requirements as proposed.

If EPA does not make the proposed changes as outlined in the NOPR for both emergency and non-emergency DR use, sources will be at an extreme disadvantage in meeting the May 3 and October 19, 2013 compliance deadlines. Given the uncertainty remaining in the current rulemaking, most affected companies are awaiting final agency action before investing the resources necessary to comply with a particular outcome. Extension requests are required 120 days prior to the compliance deadline and must be approved prior to the compliance deadline. This leaves very little time, especially for the May 3, 2013 deadline, from when EPA issues the final rule to when engines must comply. The Companies urge EPA to provide a blanket extension for compliance if the proposed changes are not finalized.

The EPA is seeking specific comment on the proposal to temporarily allow stationary emergency engines located at area sources to apply the 50 hours per year that is currently allowed under §63.6640(f) for non-emergency operation towards any type of non-emergency operation, including peak shaving and non-emergency demand response if the peak shaving is done as part of a peak shaving (load management) program with the local distribution system operator.

The Companies support the EPA’s proposed revision to temporarily allow stationary emergency engines located at areas sources to apply the 50 hours per year of non-emergency operation that is currently allowed for non-emergency operation, including peak saving with the local distribution system operator. As EPA points out in its explanation of this provision, allowing such use will help local distribution system operators to transition to EPA compliant

central generation while saving consumers money because presumably the utilities that run such programs do so because it is less expensive than the alternative. This should be equally true for both small and large utilities although the relative impact may be larger for smaller utilities.

In addition, this revision provides utilities with a phase-out period to be able to better manage their transition while facilities are coming into compliance with the NESHAP for Coal- and Oil-Fired Electric Utility Steam Generating Units.

EPA seeks comment on how investments¹⁷ in using less energy in homes, buildings, and industry during times of peak electricity demand may affect the number of hours in which emergency RICE are needed in the future to address electricity peak shaving and grid stability.

The utility industry is investing billions of dollars in improvements to the system that allow greater situational awareness and finer control of the system. These investments are myriad and occur at the transmission and distribution levels. They are often categorized under the umbrella term of “smart grid” upgrades. These upgrades are likely to result in a reduction of the need for emergency RICE hours in the future and geographically more narrowly targeted use of those hours.

One example is the real-time monitoring of loading on transmission lines. Traditional practice was to rate the lines for a maximum amount of power during extreme conditions and then never exceed that maximum. However, the same lines may be able to transmit more power under less extreme conditions, thereby increasing the ability to move power around to where it is needed most. By monitoring variables such as ambient temperature, wind speeds and line sag along transmission lines and bringing that data back to the transmission operator in a useable format, more power can be transmitted through the exact same lines most of the time when conditions on the transmission lines are not extreme. In addition, newer transmission line materials can transmit more power with less resistance and can be substituted for older materials, albeit at a cost.

Another example is that ISOs and utilities are getting a much more granular knowledge of their systems so that in an emergency they do not have to dispatch all the DR resources at their disposal but only those in the affected zones, thereby minimizing the amount of hours that emergency DR has to be dispatched. ISO-NE has gone from having 8 zones to 19 zones. PJM currently dispatches over 19 zones and can dispatch at the sub-zonal level as well. California currently dispatches its DR on a utility-wide basis but all new DR contracts will be required to be dispatched at a more granular zone level so as to get the right amount of DR in the right places. This increase in precision will eventually extend down to the distribution level as well.

¹⁷ The NOPR identifies alternative approaches as reductions or shifts in energy use, electricity storage, distribution automation, microgrids, natural gas-fired combustion turbines, and grid-connected distributed generation.

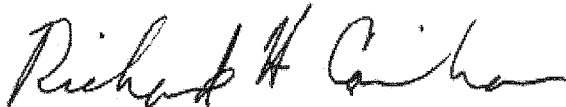
The potential for blackouts will not be eliminated. There will always be significant failures like the generation outages on a particularly cold Texas morning on February 2, 2011 or the fires that periodically burn under transmission lines in Southern California and so there will continue to be a need for emergency generation to help maintain grid reliability in an emergency. However, the application of sensors, low-cost communications and computing power will allow the utilities of the future to identify problems sooner, take a wider range of actions faster and to pinpoint the remedy to those areas that need it.

Conclusion

The Proposed Rule will help maintain electric reliability in the U.S., will not increase the use of emergency engines in emergency DR programs and will not harm the environment. For these reasons the DR Companies urge you to finalize the Proposed Rule without modification.

Thank you for allowing us to provide comments. Additional detailed backup for the DR Companies' position may be found in the original Petition for Reconsideration submitted to EPA on May 10, 2010 by the Co-litigants. The petition and all attachments are found in this docket under EPA-HQ-OAR-2008-0708. The DR Companies urge EPA to finalize the proposed changes to the NESHAP and NSPS as specified in the proposed rule as soon as possible.

Respectfully submitted,



Richard H. Counihan,
V.P. Government Affairs
EnerNOC Inc., on behalf of

Comverge, Inc.
EnergyConnect, Inc., a Johnson Controls Company
Energy Curtailment Specialists, Inc.
Energy Spectrum, Inc.
EnerNOC, Inc.
Innoventive Power, LLC

cc Melanie King