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BEFORE THE
TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TN

In the Matter of Kingsport Power Company's	*	
d/b/a AEP Appalachian Power Petition for	*	TRA Docket No.: 12-00012
Approval of Demand Response Programs	*	
and Associated Demand Response Tariffs	*	

DIRECT TESTIMONY OF
KENNETH D. SCHISLER
ON BEHALF OF
ENERNOC, INC.

Filed on June 11, 2012

I. Background

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Kenneth D. Schisler. I am employed by EnerNOC, Inc. as the Vice President of Regulatory Affairs. My business address is 101 Federal Street, Suite 1100, Boston, MA 02110.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL QUALIFICATIONS.

A. I earned a Bachelor of Science in Biology from Salisbury University, Salisbury, Maryland. I earned a Juris Doctorate with Honor from the University of Maryland School of Law. From 1991-2003, I served as an elected member of the Maryland House of Delegates, and served my entire tenure on the committee with jurisdiction over energy, environment, and public utility matters. When the legislature was not in session, I held private employment. From the beginning of my career until 1999, I worked as a commercial waterman on the Chesapeake Bay and wholesale grocery broker. Beginning in 1999 until 2003, I was engaged in the private practice of law in Maryland. In 2003, I resigned from the Maryland House of Delegates to assume the chairmanship of the Maryland Public Service Commission. In 2007, I resigned from the Maryland Public Service Commission. In 2007, I was employed by EnerNOC, Inc. as Senior Director of Regulatory Affairs, and in 2010, I was promoted to Vice President of Regulatory Affairs. While employed at EnerNOC, I have worked extensively (and almost exclusively) on DR, energy efficiency, and smart grid policy matters at the Federal Energy Regulatory Commission (“FERC”), approximately 26 state commissions, 2 Canadian provincial commissions, and several wholesale electric power markets around the world, including the PJM

Interconnection ("PJM"), Independent System Operator of New England ("ISO-NE"), New York Independent System Operator ("NYISO"), Midwest Independent System Operator ("MISO"), the Electric Reliability Council of Texas ("ERCOT"), California Independent System Operator ("CAISO") the Independent Electric System Operator of Ontario, Canada ("IESO"), Southwest Power Pool ("SPP"), the Alberta Electric System Operator ("AESO") in Alberta, Canada, the National Grid wholesale electric power market in the United Kingdom, the Independent Market Operator of Western Australia, and Australia Electric Market Operator and Commission (Eastern Australia).

Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS VICE PRESIDENT OF REGULATORY AFFAIRS.

A. My responsibilities include managing state, federal, and wholesale markets (e.g. Regional Transmission Organizations ("RTOs"), and Independent System Operators ("ISOs"), and ERCOT) and all other regulatory matters throughout North America and internationally on behalf of EnerNOC, Inc. ("EnerNOC").

Q. WHAT IS ENERNOC'S BUSINESS?

A. EnerNOC is a provider of demand response ("DR") and energy efficiency ("EE") services. EnerNOC enables and supports customers who want the opportunity to manage energy costs and participate in demand side management activities. As of March 31, 2012, EnerNOC had over 8,000 MW of DR resources under management across the United States, Canada, United Kingdom, Australia, and New Zealand. Among other things, EnerNOC works with customers to participate in wholesale market demand side opportunities such as those available through the

PJM Interconnection, LLC ("PJM"). In PJM, EnerNOC and companies like EnerNOC, are members of PJM and are known as Curtailment Service Providers ("CSPs") or Aggregators of Retail Customers ("ARCs") and act as the wholesale market interface for its customers with respect to their participation in PJM's DR programs. EnerNOC contracts with commercial, industrial, and institutional customers who are willing and able to curtail their electric consumption in accordance with PJM's DR program requirements. To be clear, EnerNOC is not a load serving entity or utility. EnerNOC does not purchase or sell energy to retail customers.

EnerNOC installs metering and control equipment to enable the customer to curtail consumption, works with customers throughout the process, and aggregates customers' loads to meet DR obligations to PJM. EnerNOC also submits the verification information to PJM for its customers and receives – and distributes -- payments from PJM on behalf of customers.

Q. DOES ENERNOC CURRENTLY PROVIDE DEMAND SIDE MANAGEMENT SERVICES IN TENNESSEE?

A. Yes. EnerNOC currently has a 10 year, 560 MW DR contract with the Tennessee Valley Authority ("TVA"). The original contract was for 160 MW but was increased by 400 MW in June 2010 as a result of the success of the initial program offering. EnerNOC also currently has a contract with a large Tennessee industrial customer that is in the Kingsport Power Company's ("KgPCo") territory that was enrolled in the PJM DR program for the 2010-2011 delivery year and is currently enrolled for the 2012-2013 delivery year. EnerNOC also provides energy efficiency services in Tennessee, including an innovative partnership with the Memphis City Schools system.

Q. HAVE YOU TESTIFIED BEFORE THE TENNESSEE REGULATORY AUTHORITY BEFORE?

A. No.

II. Purpose

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address components of KgPCo's February 7, 2012 filing (re: Petition for Approval of DR Programs and Associated DR Tariffs) before the Tennessee Regulatory Authority ("TRA") that will diminish the opportunities for customers to participate in PJM's DR market. I am specifically referring to the section of the pre-filed testimony provided by Mr. James Martin that requests the TRA to ban customers from enrolling in PJM DR Programs either directly or through a CSP. Such a request is not in the best interest of any KgPCo customer, whether or not they participate in DR, and should be rejected by the TRA.

First, I will briefly summarize the PSDR and PSEDR programs. Next, I will clarify why I believe certain provisions in the tariff will likely be unattractive to customers, will pose significant risks to customers, and will discourage customer participation in DR. I will then explain why the TRA should reject KgPCo's proposal to ban customers from enrolling in PJM DR and should instead adopt the position taken by nearly every other State Commission in the PJM footprint and allow customers to enroll directly or through a CSP.

III. <u>Summary of the PSDR and PSEDR Programs</u>

Q. PLEASE BRIEFLY SUMMARIZE THE PSDR TARIFF?

A. The PSDR tariff would grant KgPCo the right to call upon participating customers to curtail their loads in an attempt to reduce the KgPCo system peak. Customers could be dispatched for up to ten (10) events for no longer than six (6) hours each time between December and March. Participating customers would receive a monthly credit for participating and a monthly credit for any reductions in load during events. Although the number of events and duration of events is limited, KgPCo will have exclusive control over the dates and hours of dispatch as well as the frequency and duration of dispatch. Customers must commit to reduce load 24 hours a day, seven days per week in the winter months. While not completely clear from the language of the proposal, it appears that the intent of the proposal is to give customers at least 90 minutes advance notice of a dispatch for which they would be subject to penalties for failing to achieve full load reductions.

Customers who cannot reduce load when called upon to do so by KgPCo will be subject to a penalty rate of 110% of the amount of the annualized Curtailment Demand Credit based upon average non-compliance across all events. The non-compliance penalty is unilateral: under the language of the proposal, over performance will not be netted against any underperformance. Customers whose performance exceeds committed volumes will not receive any additional Curtailment Demand Credit, and such over performance will not be netted against underperformance in another event. If there are two events from December to March, and a customer performs at 120% of its commitment in one event and 80% of its commitment during the other event, the customer will be subject to a penalty that is equal to 11% of its annual

Curtailment Demand Credit, despite average overall performance that is equal to its commitment.[1]

Q. PLEASE BRIEFLY SUMMARIZE THE PSEDR TARIFF?

A. The PSEDR Tariff would allow KgPCo to request customers to curtail for both peak-shaving reasons and for emergencies. Customers could be dispatched for peak shaving, non-emergency situations for up to ten (10) events per year and up to six (6) hours per dispatch. Customers are subject to dispatch for peak shaving load management at the sole discretion of KgPCo, and may be called and must be available to reduce (or be subject to significant penalties) 24 hours per day, 7 days per week, and 365 days per year.

Customers must also be available for dispatch for ten (10) additional curtailments of not more than six (6) hours duration for "emergencies." The tariff does not explicitly limit an emergency dispatch to a PJM-declared emergency (which are objectively based upon North American Electric Reliability Council criteria), and there is no explicit definition of what would constitute an emergency to KgPCo, leaving the interpretation entirely at the discretion of KgPCo. Regardless of what constitutes an emergency, customers participating in PSEDR would be subject to a total of 20 load management (non-emergency) and "emergency" events.

The dispatch window for emergency events is proposed to be noon-8pm during the summer months (May-September) and 2pm-10pm during the non-summer months. Although the methodology to calculate the non-compliance charge is similar to the PSDR methodology, by virtue of PSEDR being a 12-month program compared to the PSDR four-month

[1] The PSDR tariff states: "The Non-Compliance Charge shall be equal to the average Non-Compliance Demand during all curtailment event hours times 110% of the Curtailment Demand Credit times 4." Since over performance is not accounted for when calculating the non-compliance charge, the average performance over the two events would be 90% and the non-compliance would be 10%. Multiplying this times 110% yields a penalty of 11%.

program, penalties can be more severe under the PSEDR program. For example, if there was only one event called in the PSDR program from December 2012-March 2013 and a 10 MW factory couldn't curtail their load because they were unable to interrupt a production run, their net payment from participation in PSDR would be negative $35, 270.[2] In other words, the customer's bill would be increased by $35, 270 as a result of their participation in the PSDR program. Under the same example for the PSEDR program, the customer's bill would increase by $70,536 as a result of their participation in the program.[3]

Q. IS PSEDR COMPARABLE TO THE PJM LIMITED DR PROGRAM?

A. No. Because of both the peak-shaving element of the PSEDR program as well as some major inconsistencies in the timing of emergency dispatch under the PSEDR tariff and the PJM limited DR program they are not comparable. Due to the peak-shaving element under the PSEDR tariff, customers could face dispatch up to 120 hours per year, compared to 60 hours per year under the PJM Limited DR Program. Furthermore, under PJM Limited DR, customers must be available to respond to PJM declared emergencies only during the summer months during the 12PM-8PM dispatch window during non-holiday weekdays. The PJM Limited DR Program is, by definition, a summer DR program. The PJM Limited DR Program is structured this way because there are some customers that can only participate in DR in the summer months, such as ones that can

[2] The PSDR tariff states: "The Non-Compliance Charge shall be equal to the average Non-Compliance Demand during all curtailment event hours times 110% of the Curtailment Demand Credit times 4." According to the PSDR tariff, a customer receives receive $35.27/kw for the four month period, or $8.818/kw-month, which for a 10 MW customer would equate to a $352,700 credit ($35.27/kw *10,000 kw = $352,700). If the customer completely failed to perform, they would receive a non-compliance charge of $387,970 ($35.27/kw * 10,000 kw *110% = $387,970), which would result in a net credit of negative $35,270, increasing the customer's bill by that amount.

[3] The PSEDR tariff states: "The Annual Non-Compliance Charge shall be equal to the average Non-Compliance Demand during all curtailment event hours times 110% of the Curtailment Demand Credit times 12." According to the PSEDR tariff, a customer receives $5.878/kw-month, which for a 10 MW customer would equate to an annual payment of $705,360 ($5.878/kw-month *12 months *10,000 kw = $705,360). If the customer completely failed to perform, they would receive a non-compliance charge of $775,896 ($5.878/kw-month * 12 months * 10,000 kw * 110% = $775, 896), which would result in a net payment of negative $70,536.

only curtail HVAC. There are higher valued DR capacity products available from PJM known as Extended Summer DR and Annual DR for customers that can participate more than summer only. However, under the PSEDR tariff, customers must agree to be subject to emergency PSEDR curtailments throughout the entire year, rendering the PSEDR tariff and the PJM Limited DR Program incomparable in key regards. It is doubtful certain customers such as ones that can only curtail HVAC would be able to participate throughout the year in the PSEDR program.

IV. Aspects of the Proposed PSDR and PSEDR Program Tariffs That Pose Significant Risk to Customers

Q. DOES ENERNOC OBJECT TO KGPCO OFFERING DR PROGRAMS TO THEIR CUSTOMERS?

A. No, EnerNOC has no objection to KgPCo offering DR programs to its customers. EnerNOC's objections are limited to KgPCo offering risky and generally unattractive DR programs, thus likely limiting participation, while also prohibiting all customers from participating in DR under more favorable terms with a CSP. Unlike electric distribution service, DR participation is not a natural monopoly service. It is unreasonable to restrict customers' ability to select a DR participation option that is suitable to their needs. It is also unreasonable to foreclose customers' ability to participate in other avenues of delivering DR that allow customers to earn revenue and reduce overall system costs.

EnerNOC does not object to KgPCo making these tariffs available to customers and allowing customers the option of participating in DR under the utility tariff. In that event however, it seems probable that few customers would prefer to subject themselves to the unfavorable terms required under the KgPCo proposal.

Q. GIVEN YOUR EXPERIENCE, PLEASE SHARE YOUR OPINION ON WHAT CONSTITUTES SOME OF THE BIGGEST RISKS?

A. I'll begin with the "Term" section of the PSEDR tariff that requires customers to provide three years written notice if they wish to discontinue participation in the program. For example, if a customer signed a four-year contract with KgPCo, as required by the tariff, beginning in June 2013, and realized after the first full-year of participating that it no longer could or wanted to participate in the program, they would still be obligated to remain in the program through at least May of 2018.

This term requirement will be problematic for many, perhaps even most customers. Many customers cannot predict what their load or curtailment capabilities are three years into the future. Many customers do not even know if they will be in business four years from now, or if business will be booming or in decline.

This is an example of KgPCo placing all of the risk on the customer. This is not a criticism of KgPCo. As a regulated utility, KgPCo's rates are not structured to incentivize them to assume additional risks, and consequently they cannot be expected to do so. KgPCo's parent company, American Electric Power ("AEP"), must obtain approval of a plan for meeting its capacity obligations on a three-year forward basis. Presumably, this is the basis for KgPCo seeking to impose a four-year contract on the customer. The risk to KgPCo is if the customer discontinues participation and KgPCo does nothing to mitigate its risk, KgPCo will fall short of its obligation to PJM and suffer financial penalties. Of course, this risk can be managed. This is precisely what CSPs do, and what KgPCo is apparently unwilling to do. The risk can be managed by signing up another customer to take the place of the customer no longer willing to participate. The risk can also be managed by obtaining rights to another capacity resource in PJM (which could be DR, generation or energy efficiency).

Customers, unlike KgPCo or a CSP, are not well-positioned to manage this risk. CSPs and utilities (if they are willing) are much better suited to manage this risk. But Rider PSEDR nevertheless places the entirety of this risk on the customer. Further, Rider PSEDR subjects the customer to a penalty for non-compliance that is 110% of the amount of demand credit.

Q. **DO ENERNOC CONTRACTS HAVE A SIMILAR PROVISION TO THE ONE IN THE PSEDR TARIFF REQUIRING THREE-YEAR WRITTEN NOTICE IF A CUSTOMER WISHES TO STOP PARTICIPATING IN A PROGRAM?**

A. No. EnerNOC's customer contracts may very well last for three years or longer. However, EnerNOC also manages customer's performance risk by guaranteeing that customers will not have to pay out-of-pocket penalties as a result of poor performance. EnerNOC is also willing to adjust the amounts of capacity a customer is contracted to deliver if it suits a customer's needs. If customers decide they no longer wish to participate, customers are not put in a position of having to pay out-of- pocket penalties in excess of the compensation available. Instead, EnerNOC either finds a new customer to meet the obligation or obtains a replacement capacity credit to offset the obligation from the customer.

Q. **IS IT YOUR OPINION THAT THE KGPCO "TERM" SECTION OF THE CONTRACT WILL DISCOURAGE CUSTOMER PARTICIPATION IN THE PSEDR PROGRAM? PLEASE EXPLAIN.**

A. Yes. While DR can provide an important source of revenue for participating customers, DR is never their primary source of revenue. Therefore, customers will not sign up for DR if significant risk is involved or if it jeopardizes their core business. As alluded to earlier, DR customers have businesses to run and there are already major risks associated with running those businesses, most notably of which is that business cycles are subject to tremendous fluctuation. Customers are often amenable to committing to curtail load for the immediate term when they have insight into the direction of their business, but those same customers can be very hesitant to commit to interrupting regularly three years down the road when no such insight exists. At a minimum, customers need to be guaranteed they will not face severe penalties if they wish to cease participation in DR. As detailed above, as a regulated utility, KgPCo does not have this flexibility and thus must require three-year written notice with no escape clause.

To take this point a step further, imagine if a business had to alter its operations or downsize (as many did during the most recent economic downtown) after signing this type of provision. A three-year hand-cuff and potential on-going penalties, to be detailed later, could exacerbate the demise of the company.

Q. IN YOUR OPINION, ARE THERE OTHER SECTIONS OF THE TARIFFS THAT POSE SIGNIFICANT RISKS TO POTENTIAL DR CUSTOMERS?

A. Yes, there are other restrictions in the tariffs that transfer significant risks of participation to the customer. For example, under the PSDR and PSEDR tariff customers would face the risk of out-of-pocket penalties if they fail to meet their commitment. As explained in the PSEDR tariff, "The Annual Non-Compliance Charge shall be equal to the average Non-Compliance Demand during all curtailment event hours times <u>110%</u> of the Curtailment Demand Credit times 12."

As described in an earlier example, under a worst case scenario in which a customer was unable to deliver on any of the obligations it had contracted for, a customer would actually have to pay money out-of-pocket, which is an untenable risk for many customers. This is compounded by the fact that customers must provide three-year written notice if they no longer wish to participate in a program. Customers might not be able to curtail for a variety of reasons, such as a factory that needs to finish a production run and can't interrupt, or an industrial site who downsizes their operations and no longer has load that can be curtailed. Customers will be reluctant to participate in a program if they could potentially be worse off financially than if they had never participated.

Q. DO DR CUSTOMERS THAT PARTICIPATE THROUGH A CSP TYPICALLY HAVE TO PAY PENALTIES IF THEY ARE UNABLE TO CURTAIL LOAD AND MEET THEIR OBLIGATION? PLEASE EXPLAIN.

A. No. EnerNOC and most CSPs completely shield their customers from performance risk, so the customer will never have to take money out of their pocket as a result of not performing during a DR event. CSPs are generally able to manage performance risk by aggregating a large a pool of customers into a single pool – over performance by some customers are netted against underperformance by others to ensure that the pool of customers can perform at committed levels. If a customer absolutely cannot reduce its load for one reason or another, the CSP can typically still meet its overall obligation. Though PJM imposes penalties upon CSPs if its pool of customers fails to reduce as expected, EnerNOC and many other CSPs do not pass the PJM penalty risk to customers.

There is no reason that EnerNOC or CSPs could not pass the PJM penalty risk to customers in the manner that KgPCo proposes to do. The fact that we and other CSPs do not is because the marketplace has spoken. Providing the value added service of mitigating customer performance risk is critical in order to recruiting customers to participate. If a CSP does not offer this value, customers will choose not to participate or will sign with another CSP. KgPCo seeks through Rider PSEDR to pass this risk to the customer <u>AND</u> prohibit all other CSPs from competing to serve customers. Accordingly, for the customer, the choice is to assume the penalty risk or not participate at all – and many will choose the latter.

Q. ARE THERE ANY OTHER SECTIONS OF THE TARIFF THAT YOU THINK POSE SIGNIFICANT RISK TO POTENTIAL DR CUSTOMERS?

A. Yes.

Q.CAN YOU PROVIDE US WITH ANOTHER SECTION THAT YOU THINK POSES SIGNIFICANT RISK TO POTENTIAL DR CUSTOMERS?

A. Yes. Under the Peak Shaving Emergency DR (PSEDR) Program that Kingsport Power is proposing, customers would be mandated to curtail up to 120 hours per year, and be subject to dispatch 24 hours a day, 365 days per year, at the complete discretion of the utility. EnerNOC participates in both emergency and peak shaving programs across the country, and is unaware of any wholesale programs where customers could be dispatched so frequently and face the risk of out-of-pocket penalties. Many customers can simply not participate on a year round basis at any hour of the day. In fact, a customer who is only able to curtail their HVAC consumption (which tends to be highest in warmer months) would not be able to participate in the PSEDR program given its year-round nature. Also, many customers cannot interrupt their business operations so frequently, but could take advantage of an opportunity to participate in a program that requires less frequent dispatches. In fact, if a KgPCo customer enrolled through a CSP in PJMs Limited DR Program they would only required to be dispatched at 60 hours per year, at most, and only in the event of an emergency occurring in the summer months between the hours of noon and 8pm during the week. While the PSDR Program that KgPCo is proposing only requires 60 hours of dispatch, it is 60 hours across a four month period (December-March), which could lead to significant disruption in business operations over what is typically a busy four month period.

Q. GIVEN YOUR EXPERIENCE, IN YOUR OPINION WHAT IMPACT WILL THE RISKS YOU HAVE IDENTIFIED HAVE ON CUSTOMER PARTICIPATION IN THE PSDR OR PSEDR PROGRAMS?

A. In EnerNOC's experience, the largest single barrier and deterrent to customers' willingness to participate in DR are the risks associated with participation. CSPs work to manage risk through aggregation, discussed in more detail below, as a means to insulate customers from certain risks and garner greater participation. As discussed above, the KgPCo proposed riders place all of the participation risk on the customer, without any meaningful risk management on the part of the utility.

Q. **DO YOU BELIEVE THE TRA SHOULD REJECT BOTH TARIFFS AS A RESULT OF THE PROVISIONS THAT WILL LIMIT CUSTOMER PARTICIPATION?**

A. No. I have no objection to KgPCo offering DR to customers and the TRA approving these two tariffs, provided that the TRA rejects KgPCo's request to ban customers from enrolling in PJM DR programs either directly or through a CSP. Tennessee businesses have to compete in a global economy, and the restrictive tariffs to be offered exclusively by KgPCo will not serve to allow them to remain competitive and innovative with regard to energy management.

Q. **DO YOU HAVE EVIDENCE TO SUPPORT YOUR PREDICTION REGARDING A LACK OF CUSTOMER INTEREST IN THE PSDR AND PSEDR PROGRAMS?**

A. Yes, AEP, KgPCo's parent company, has offered very similar tariffs in other states in the PJM region, including in Indiana and Virginia, through subsidiaries in those states. In Indiana, the Indiana Utility Regulatory Commission ("IURC") approved Indiana Michigan Power Company's ("I&M") DR tariff, including their request to ban customers from enrolling in PJM programs either directly or through a CSP. According to a March 15, 2012 I&M filing at the IURC, only six medium-sized commercial & industrial customers and a total of 4.95 MW have enrolled in I&M's DR program.[4] I&M has over 450,000[5] customers in Indiana alone with a system peak that likely tops 3,000-3,500 MW.[6] At best, this means current PJM DR penetration as a percentage of system peak in the I&M territory is between .1% and .2%. Considering that this figure throughout PJM is closer to 10%,[7] or 50-100 times what it is in the I&M territory, this is a dismal number for DR penetration. It is my conclusion that customers are discouraged by the I&M's DR tariffs and have been unwilling to participate in I&M's program.

Furthermore, as detailed in KgPCo's submission to the TRA on March 14, 2012 ("Responses of Appalachian Power Company to Staff's Data Request No. 1"), in Appalachian

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[4] Indiana Michigan Power Company. 2011 Annual DR Report before the Indiana Utility Regulatory Commission. March 15, 2012. Page5. Cause No. 43566.

[5] Indiana Michigan Power Company. "I&M Fact Sheet." https://www.indianamichiganpower.com/global/utilities/lib/docs/factsheets/IMFactSheet2011.pdf. Page 1.

[6] Indiana Michigan Power Company. "Indiana Michigan Power Facts." https://www.indianamichiganpower.com/info/facts/Facts.aspx.

[7] PJM 2014-2015 Base Residual Auction Results, Page 2: http://www.pjm.com/markets-and-operations/rpm/~/media/markets-ops/rpm/rpm-auction-info/20110513-2014-15-base-residual-auction-report.ashx. Over 14,100 MW of DR cleared in the auction, with an all-time system peak of nearly 145,000 MW.

Power Company's ("APCO") territory in Virginia, no customers have enrolled in the PSEDR program that is identical to the tariff being offered by KgPCo. Only eight customers have enrolled in the PSDR program, despite APCo having close to 70,000 commercial & industrial customers in Virginia.[8] This is in stark contrast to the hundreds of commercial & industrial customers in Virginia who have chosen to enroll in the PJM DR Program through a CSP.

V. <u>KgPCo's Request to Ban Customers from Enrolling in PJM DR Programs either Directly or through a CSP</u>

Q. **YOU MENTIONED THAT YOU HAVE OTHER CONCERNS ABOUT MR. MARTIN'S TESTIMONY, PLEASE DESCRIBE YOUR OTHER CONCERNS WITH THE TESTIMONY PROVIDED BY MR. JAMES MARTIN IN KGPCO'S FEBRUARY 7 FILING?**

A. The most disconcerting section was on Page 11 of the testimony, where Mr. Martin stated "The Company proposes that it should the only party allowed to enroll its customers in PJM DR programs." The Company refers to KgPCo.

Q. **PLEASE EXPLAIN YOUR CONCERN WITH THIS STATEMENT?**

A. This forces KgPCo customers to choose between not participating in DR and participating in DR but only being allowed to do so in either the PSDR or PSEDR programs. As I detailed in the

[8] AEP Appalachian Power. "Fact Sheet." https://www.appalachianpower.com/global/utilities/lib/docs/factsheets/APCOFactSheet8.9.11(VA,%20WV,%20TN).pdf. Page 1.

previous section, these programs have many unattractive elements for customers, and therefore I believe participation in DR programs will be extremely limited or non-existent.

Such an outcome is also discriminatory toward KgPCo customers, as other end-use commercial, institutional, and industrial customers in AEP territories throughout Virginia, West Virginia, and Ohio, are able to enroll in PJM DR Programs either directly or through a CSP. Customers will also be prevented from participating by virtue of their existing partnerships with CSPs in other parts of the country. Many customers that have multiple sites throughout the country that participate in DR prefer to be served by one CSP. This is because customers responsible for multiple facilities in many regions may not have the time to read, understand, and sign contracts with multiple providers, and will simply not participate if they are required to do so. There are also likely customers located in the KgPCo territory that have sites that also participate in the TVA program and it would be unreasonable to force KgPCo customers to bear risks for their participation in DR programs that customers in the TVA program do not have to bear.

Q. DO YOU HAVE A RECOMMENDATION?

A. Yes, I recommend that the TRA reject KgPCo's proposal to ban customers from enrolling in PJM programs either directly or through a CSP. This approach is similar to the approach that AEP Ohio has adopted for its customers.

Q. I WILL COME BACK TO YOUR COMMENTS ABOUT THE APPROACH IN OHIO IN A LITTLE BIT. TENNESSEE IS A REGULATED STATE AND CUSTOMERS DO NOT HAVE A CHOICE WHEN IT COMES TO THEIR RETAIL ELECTRIC

SUPPLIER. IS IT INCONGROUS FOR CUSTOMERS TO HAVE A CHOICE WHEN IT COMES TO DR PROVIDERS, BUT NOT WITH RESPECT TO RETAIL ELECTRIC SUPPLIERS?

A. No. CSPs are not electric suppliers and are not providing any competition to KgPCo when it comes to electric supply or distribution services. To be clear, EnerNOC is not a load serving entity or utility and does not purchase or sell energy to retail customers. As noted previously, CSPs in fact serve end-use customers in other regulated states in the PJM region, including Virginia and West Virginia.

The PJM DR programs are designed to work regardless of the retail regulatory regime. Within PJM there are both retail regulated states as well as retail competition states, there are rural electric cooperatives and municipal systems that allow retail supply competition, and there are those that do not. There are FRR entities who self-certify capacity obligations to PJM, and there are entities who acquire capacity through the RPM auction. PJM has DR participants in its programs under all of these retail regulatory models.

Q. HOW WOULD KGPCO CUSTOMERS BENEFIT FROM BEING ABLE TO ENROLL IN PJM PROGRAMS EITHER DIRECTLY OR THROUGH A CSP?

A. Such an outcome would provide KgPCo customers with DR options beyond the PSDR and PSEDR programs that pose less stringent requirements and less risk. As a result, DR participation would increase, bringing benefits to both participants and non-participants.

Q. PLEASE DESCRIBE THE BENEFITS TO CUSTOMERS WHO ENROLL IN A PJM DR PROGRAM THROUGH A CSP?

A. Customers who enrolled through a CSP would not face any of the risk that they face under the PSDR and PSEDR programs. If a customer fails to perform, they would not be in any jeopardy of out-of-pocket penalties. If they repeatedly failed to curtail, their participation in the program would likely be terminated, but they would be no worse off financially as a result of their participation. Customers who signed up for the PJM Limited DR Program through a CSP would only have to curtail for a maximum of 60 hours per summer, as opposed to the 120 hours per year required by the PSEDR tariff. This could enable customers who are only able to participate during the summer to participate. Furthermore, customers would receive a revenue stream from a CSP for their participation in the PJM program, and depending on the CSP, have real-time access to their energy usage data which would enable them to manage consumption and energy spend more efficiently. EnerNOC has placed over $500 million dollars back in the hands of its DR customers either through direct payments or savings.

Q. PLEASE DESCRIBE THE BENEFITS TO NON-PARTICIPANTS IF KGPCO CUSTOMERS ARE ALLOWED TO ENROLL IN PJM PROGRAMS EITHER DIRECTLY OR THROUGH A CSP?

A. As stated earlier, if customers are allowed to enroll in PJM programs either directly or through a CSP, there will be an increase in DR participation in the KgPCo territory. Increased penetration of DR has proven to substantially lower costs for all customers, whether or not they participate in DR. The PJM Internal Market Monitor estimated that DR and energy efficiency saved PJM customers up to <u>$11.8 Billion</u> in capacity costs during the 2013/2014 Base Residual Auction.[9] To give you a perspective on this figure, this works out to an amount equal to $197

[9] Monitoring Analytics, the Internal Market Monitor for PJM. "Analysis of the 2013/2014 PJM Base Residual Auction Revised and Updated. September 20, 2010. Page 52.

per customer living in PJM. It should be noted that the ratio of DR to EE that cleared the auction was well over 9:1. In RTO, the region of PJM that encompasses Tennessee, annual capacity costs would have been over $120,000/MW without DR and EE, compared to $10,000/MW with DR and EE[10]. In other words, RTO customers would have paid 12 times more for capacity if there was no DR or EE in the PJM auction.

DR also saves customers significant sums on energy costs. PJM reported that in one week in 2006, DR saved customers across PJM over $650 million in energy costs, including $230 million in one day.[11] Meanwhile, the payments to CSPs during this week totaled only $5 million, an astronomical return on investment of 13000% for customers.

In addition to those very direct benefits, there are indirect benefits to consider. DR provides an important revenue stream for participating customers, whether they are the local factory, hospital, or elementary school. In these times of constrained budgets, these checks that participating customers receive might very well make the difference between a large factory keeping a worker on or a school continuing to provide an after-school program for its students.

Q. GIVEN THAT KGPCO'S PARENT COMPANY AEP DOES NOT PURCHASE CAPACITY THROUGH THE PJM AUCTION BUT INSTEAD PROCURES THROUGH A FIXED RESOURCE REQUIREMENT, DO YOU STILL BELIEVE THAT INCREASED DR PENETRATION BENEFITS KGPCO CUSTOMERS IF THE DR DOESN'T GO TOWARD MEETING AEP'S FIXED RESOURCE REQUIREMENT?

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http://www.monitoringanalytics.com/reports/Reports/2010/Analysis_of_2013_2014_RPM_Base_Residual_Auction_20090920.pdf

[10] Ibid, Pages 51 and 52.

[11] PR Newswire. "Early August DR Produces $650 Million in Savings in PJM." August 17, 2006. Source: PJM Interconnection. http://www.prnewswire.com/news-releases/early-august-demand-response-produces-650-million-savings-in-pjm-56192937.html

A. Absolutely. As noted previously, DR has reduced PJM auction prices by billions of dollars. If auction prices are high, that affects FRR too because it affects the opportunity costs of suppliers that are selling capacity to AEP, including AEP buying from itself, so that AEP can demonstrate to PJM meeting its obligation.

AEP has argued elsewhere that because it procures capacity through the FRR their customers that do not participate in DR see no benefit from DR if customers are allowed to enroll in PJM programs through a CSP. The state that actually granted AEPs request to ban customers from enrolling through CSPs, Indiana, has virtually no participation in PJM DR programs, leaving significant unrealized benefits to both participants and non-participants. This stands in stark contrast to Ohio, where participation is allowed, where participation in DR is prolific and all customers are benefiting tremendously. The fact that AEP elects to make itself an FRR entity does not affect the ability of customers to benefit from DR, including participants and customers at large. Moreover, EnerNOC and other CSPs could provide DR from customers to FRR entities instead of the RPM capacity auction if the FRR entity were willing to purchase it. There is simply nothing about the FRR entity model that restricts DR providers to a single agent.

It is also worth noting that on Page 10 Mr. Martin points out that “It is possible that some or all of the AEP Companies will elect to fulfill their PJM capacity obligation in the RPM market rather than the FRR Alternative in the future.”

Q. WILL THE PARTICIPATION IN DR PROGRAMS THROUGH A CSP RESULT IN COSTS THAT WILL NEED TO BE RECOVERED FROM KGPCO RATEPAYERS.

A. No. Allowing CSPs to register customers in the PJM DR programs would not result in costs recoverable from KGPCO ratepayers. CSPs typically provide customers the necessary interval metering capability to participate in PJM DR programs free of charge, but do not have the ability nor seek to recover that costs from ratepayers. Instead, CSPs recover all costs of participation from the revenues derived from participation by its portfolio of customers. This would include installation and metering costs, costs of operating and maintaining a network of customers, penalty costs (if any), and any other costs. KgPCo proposes to defer all of its costs of administering its DR program to a future proceeding, but nevertheless clearly expects to recover all of these costs from ratepayers.

VI. <u>Ohio</u>

Q. EARLIER IN YOUR TESTIMONY YOU SUGGESTED THAT RECENT HISTORY IN OHIO COULD BE INSTRUCTIVE IN THIS PROCEEDING. PLEASE ELABORATE.

A. Yes. The Public Utility Commission of Ohio ("PUCO") was faced with a very similar case pertaining to whether or not customers can enroll in PJM programs through a CSP, and I think that history is instructive here.

In the 2008-2009 time period, the PUCO reviewed a request by AEP to ban CSPs from operating in the territory of AEP's two Ohio electric subsidiaries, Columbus Southern Power Company and the Ohio Power Company (AEP Ohio).[12] After thoroughly vetting the issue the PUCO determined that the testimony was inconclusive and AEP Ohio could not ban CSPs until AEP Ohio provided more evidence to support the ban.[13]

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[12] In the Matter of the Application of Columbus Southern Power Company for Approval of an Electric Security Plan; an Amendment to its Corporate Separation Plan; and the Sale or Transfer of Certain Generating Assets, PUCO Case No. 08-917, et al. (The DR part of the case was one part of a very large case that addressed AEP Ohio's rate plan for the pricing and supply of electric generation service.)

[13] Id. Opinion and Order at 58 (March 18, 2009)

Recently, after three years of observing CSPs providing services to customers in the AEP Ohio territory, AEP Ohio has incorporated allowing retail customers to participate in the PJM DR market without a tariff in its most recent rate plan filing.[14] This demonstrates that AEP Ohio has accepted that CSP activities in the AEP Ohio territory are reliable, trustworthy, and in their customer's best interest.

It is therefore my opinion that CSP activity in the Ohio AEP territory can be very instructive in this proceeding.

VII. KgPCo's Concept of "Allowing" CSPs to Work with Customers as Consultants.

Q. MR. MARTIN NOTES IN HIS TESTIMONY THAT CUSTOMERS ARE ALLOWED TO ENTER INTO CONTRACTUAL ARRANGEMENTS WITH A CSP, AS LONG AS THE CUSTOMER ENROLLS IN THE PJM DR PROGRAM THROUGH KGPCO. IS THIS ARRANGEMENT WORKABLE?

A. No. The KgPCo filing (at ¶12) notes that its proposal in this regard is patterned after a model from its Indiana affiliate, the Indiana & Michigan ("I&M") Power Company model. I am familiar with the I&M model, and it is a failure. Although I&M's DR Tariff in Indiana allows[15] customers to work with CSPs on a more or less consultant basis, as long as the CSP does not enroll the customer in PJM programs. I am unaware of any partnerships between CSPs and

[14] In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to §4928.143, Ohio Rev. Code, in the Form of an Electric Security Plan, PUCO Case No. 11-346-EL-SSO, Ohio Power Company's Modified Electric Security Plan at 9 (March 30, 2012). (AEP Ohio proposes to allow retail customers to participate in PJM DR programs. Later, during the hearing an AEP Ohio further clarified that there is nothing in the application that would restrict the efforts of CSPs.)

[15] It is worth noting that customers could work with any consultant they wish with or without utility permission to do so. The tariff language allowing a CSP to work as a consultant does not give the customer any additional rights that it does not already possess. In fact, the utility could not prohibit a customer from working with a consultant even if it wanted to.

customers in Indiana to facilitate DR through I&M. EnerNOC looked at the I&M model, and even participated in a tele-seminar in which I&M sought to introduce the concept to CSPs after their tariff was approved. After considering the matter, EnerNOC decided that it could not in good conscience recommend that customers participate in the program because the I&M model needlessly escalated customer risks.

KgPCo suggests a similar model as that in I&M in Indiana, in which the utility enrolls the customer in PJM, as opposed to the customer enrolling directly or through the CSP. This is not in the best interest of end-use customers precisely because it completely denies customers the ability to manage risks through aggregations of multiple customers. As discussed above, CSPs do not simply help customers with strategies to reduce load, but they help them manage risk in order to facilitate greater DR participation. This concept of aggregation is the key value proposition of a CSP. If a CSP were not allowed to directly enroll a customer in the PJM program, they would be unable to aggregate that customer with other customers into an aggregation. Therefore, if a single customer under-performed, that under-performance could not be netted against over-performance from other customers. The complete inability on the part of the CSP to manage risk through aggregation across a pool of customers would make the CSP a reluctant or unwilling partner for that customer. Despite KgPCo stating that customers could consult with a CSP, it is a useless suggestion. EnerNOC, and I daresay most or all other CSPs, would not work with customers under the KgPCo proposal, and customers will suffer because of it.

VIII. <u>Conclusion</u>

Q. PLEASE BRIEFLY SUMMARIZE YOUR POSITION TO THE TRA?

A. EnerNOC is respectfully requesting that the TRA reject KgPCo's proposal to the TRA to ban customers from enrolling in PJM programs either directly or through a CSP. Rejecting KgPCo's request will result in increased economic benefits for all KgPCo customers, and a fair and equitable outcome for KgPCo customers given that AEP customers throughout PJM have the right to enroll directly in PJM programs or through a CSP, with the exception of Indiana.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

CERTIFICATE OF SERVICE

I hereby certify that, on June 11, 2012, the foregoing pleading was served via email to all parties of record at their addresses shown below.

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