UNITED STATES OF AMERICA
BEFORE THE
ENVIRONMENTAL PROTECTION AGENCY

Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations	} } } } }	Docket No. EPA-HQ-OAR-2015-0199

COMMENTS OF PJM ENVIRONMENTAL INFORMATION SERVICES, INC.

I. BACKGROUND AND INTRODUCTION

PJM Environmental Information Services, Inc. (PJM EIS) is a wholly-owned subsidiary of PJM Technologies, Inc. PJM EIS was formed to provide environmental and emissions attributes reporting and tracking services to its subscribers in support of renewable portfolio standards and other information disclosure requirements that may be implemented by government agencies. PJM EIS owns and administers the Generation Attribute Tracking System (GATS). The GATS tracks generation attributes and the ownership of the attributes as they are traded or used to meet government standards.

The functional design of the GATS was developed through considerable deliberation of the PJM GATS Working Group. This stakeholder group began meeting in late 2001. It comprised representatives from various state agencies in the PJM region (such as state public utility commissions, state environmental protection offices, state energy offices and consumer advocates) as well as PJM market participants, environmental advocates, other PJM stakeholders and PJM staff.

The PJM EIS GATS system could be used to help the compliance entity in demonstrating they are in compliance with Section 111(d) of the EPA Clean Power Plan, as well as help states address certain administrative aspects of the Clean Power Plan. The comments below provide some background as to how tracking systems can be a useful tool for compliance with the Clean Power Plan.

II. COMMENTS

A. GATS as an EPA-designated Tracking System

> The state plan must use an EPA administered tracking system (we are also requesting comment on expanding this to include a state plan that uses an EPA-designated tracking system that is interoperable with an EPA-administered system, as detailed below). (Section III,A,1; PDF Page 13; CFR Page 64977)

The Generation Attribute Tracking System (GATS) is an independent, centralized generation registry and tracking service for both emissions data and renewable energy credits. The system enables states to implement and verify compliance with energy policies such as renewable energy or emission reporting requirements, and provides a framework for a growing market for electricity from renewable sources. A Certificate refers to an electronic record of generation data representing all of the attributes from one MWh

of electricity generation from a Generating Unit registered in the GATS tracking system. A Renewable Energy Credit (REC) is a certificate from a renewable energy source and is typically certified by at least one State.

PJM EIS's GATS exists to help states and Load Serving Entities (LSEs) comply with both renewable portfolio standard (RPS) obligations as well as emissions and fuel mix disclosure requirements, both often imposed by the jurisdictional state agencies. Additionally, as part of this process, the GATS provides a central venue for renewable generators and distributed generators, such as homeowners with solar panels, to track their electricity output through the issuance of certificates. Certificates are created for every 1 MWh, or every 1,000 kilowatt-hours (kWh), of electric generation. Every specific MWh of electric generation is individually certified with a unique serial number. This serial number is the finger print to that particular MWh of generation that has occurred and is owned only by that particular generator for that particular MWh.

The GATS provides reporting functionality to supplement the administration of the renewable energy credit markets in various states. Both specific account-holder level information, as well as state, regional and market-wide data are aggregated and displayed in various reports available to account holders and state agencies within the GATS.

The system maintains a database of all certificates. Each certificate, with the environmental attributes it represents, can be bought, sold or transferred by electricity market participants and other parties, such as environmental groups. The system tracks the transfer of each renewable energy credit from owner to owner, from the time the credit is created until its retirement by the final purchaser. Retirement of Certificates can occur 1) automatically at the end of the Trading Period as part of the Residual Mix calculation or 2) as initiated by the Account Holder. Retirement removes a Certificate from circulation within the GATS. Retirement initiated by the Account Holder is effectuated for Certificates in its own account(s) by transferring Certificates into a Reserve Subaccount.

In addition to technical functionality, GATS users benefit from the regional structure of the system. The system tracks all generation within the PJM Region covering all or part of thirteen (13) states and the District of Columbia. Eight (8) states and the District of Columbia utilize GATS to verify compliance with their renewable energy mandates, providing GATS users with the capability to seamlessly and cost-effectively transfer renewable energy credits across state borders.

GATS has proven to be cost effective and flexible for evolving state rules, and can be modified to accommodate compliance with 111(d), particularly with regard to a Rate-Based state plan and the creation of the Emission Reduction Credits (ERCs).

The GATS provides a single, integrated regional system for state regulatory agencies and market participants that supports the emissions-disclosure requirements and renewable portfolio standards of the states in the PJM region. It not only ensures accurate accounting and reporting of generation attributes but, through the use of renewable energy credits, provides the basis for a robust market for electricity from renewable sources.

Over the years PJM EIS has implemented many enhancements and changes to accommodate the evolving needs of the States and can also accommodate the changes needed to support 111(d) compliance. All of the enhancements are done internally by PJM EIS developers and are tested and verified prior to implementation.

The GATS tracks all generation within the PJM region to support Fuel Mix and Emissions Disclosure for the PJM states. The GATS provides accurate System Mix reports with emission rates for SO_2, NO_x, and CO_2. Emissions rates are calculated annually for each generator with the use of publicly available EPA data. Account holders have the ability to enter actual generator emissions on a monthly basis if desired. Where a unit-specific emission rate is not available, the GATS will use a plant emission rate calculated by the EPA, or a fuel-type default emission rate.

Each Certificate associated with Imported System Energy will reflect the most recently available overall mix of fuel sources and emissions of the source Control Area. Certificate fields for each adjacent Control Area shall be based on the average of the emissions and fuel source data for such Control Area as included in the most recent year's data in the EPA's EGRID software.

At the end of the GATS Trading Period the residual mix is calculated by taking the average emission rate of any unused certificates. Residual mix certificates are then applied to any load for which certificates have not been allocated.

Since GATS tracks all generation PJM EIS was able to create reports to support the Regional Greenhouse Gas Initiative (RGGI). RGGI reports have been created to display:

- RGGI Region System Mix
- Non-RGGI Region System Mix
- CO2 Emissions for Generation Serving Load in PJM RGGI Region
- PJM RGGI Region Report (showing total load, generation, and imports for the RGGI Region and each RGGI state in PJM)
- Total CO2 Emissions in Tons

The last of these reports is used by the RGGI states to determine if there is CO2 leakage from the Non-RGGI Region into the RGGI Region of PJM. Currently, Maryland and Delaware are the two states within the PJM region who participate in the RGGI program. The reports are adaptable to provide information if additional states were to participate in the RGGI program as well.

The GATS has the capability to interact with other EPA-Administered tracking systems to allow for flexibility in how the states develop their compliance plan. ERCs can be transferred between tracking systems and the transfer capability would be determined by the state rules on the eligibility of ERCs.

Existing REC tracking systems have advantages over an EPA administered system, and states should be given the option to use the existing systems. Those advantages include:

- EPA tracking is for ERCs and/or allowance only, not for RECs, so states with a Renewable Portfolio Standard (or electricity labeling policies that rely on certificate tracking) will still need REC tracking, which is a duplicate effort. States can use the same system for tracking both ERCs and RECs, if the existing tracking systems are used;

- Generation data need only be submitted and verified to one tracking system, the same system that will be issuing RECs;

- Maintaining and managing accounts in two systems will impose an extra cost on generators and market participant such as utilities and LSEs that want both ERCs and RECs, not to mention voluntary RE purchasers.

Minor changes will be needed to be made within the existing tracking systems to create ERCs. The existing systems would have to accommodate affected EGU plant efficiencies, gas-shift ERCs, incremental nuclear, energy efficiency, and any other ERC-eligible technologies. Additional modifications would be needed to allow for the transfer of ERCs to and from other EPA approved ERC tracking systems, including an EPA administered ERC tracking system used to administer a federal plan. PJM EIS can easily make these changes within GATS.

B. Interstate Trading

The EPA also requests comment on expanding the scope of interstate trading to include linking states covered by the rate-based trading federal plan with any state that has an approved rate-based trading state plan meeting the proposed conditions for linkages and that uses an EPA designated ERC tracking system that is interoperable with an EPA-administered ERC tracking system. The EPA also requests comment on allowing a state that has an approved rate-based trading state plan meeting the proposed conditions for linkages and that uses an EPA-designated ERC tracking system to register with the EPA, and after registration, to link with states covered by the rate-based trading federal plan. (Section III,A,1; PDF Page 13; CFR Page 64977)

Enhancements can be made to the existing tracking systems to handle interstate trading to include linking states employing a rate-based plan as well as those that have a mass-based plan. The GATS has the capability to interact with other EPA-Administered tracking systems to allow for flexibility in how the states develop their compliance plan. GATS can also interact with the registry for states that are on a federal plan and can even be the registry for those states on a federal plan within the PJM Region. ERCs can be transferred between tracking systems and the transfer capability would be determined by state and federal rules on the eligibility of ERCs. Importantly, GATS can establish rules to permit the exchange of credits/allowances with states outside of PJM just as it does with RECs.

Once approved in a state plan, an ERC tracking system may transfer ERCs to and from another EPA-approved ERC tracking system, including an EPA-administered ERC tracking system used to administer a federal plan.

C. Issuance of ERCs

The EPA requests comment on each component of the trading system that is proposed in the preamble and the associated model rule, the trading program as a whole, and specifically requests comment on means to expedite the process of issuing ERCs, any minimum and maximum periods for which ERCs should be issued (e.g., monthly, quarterly, annually), and any means to ensure that the ERCs issued meet the requirements of the EGs and these proposed rules. (Section IV, D; PDF Page 33; CFR Page 64997)

GATS issues certificates on a monthly cycle based on the generation that was generated the prior month. ERCs should be issued as frequently as the certificates due to the fact that the ERCs are also created based on what the system generated. Monthly creation of ERCs provides users with access to their ERCs in a timelier manner. If it was determined that the ERCs should be created on a different schedule, the GATS can support that schedule with monthly being the shortest period for which ERCs could be created.

Existing tracking systems have expertise in creating RECs; therefore, they could easily support the creation of ERCs on the approved timeframe from the EPA.

D. Verification and Double Counting

The EPA requests comment on how existing reporting systems can play a role in meeting EM&V requirements under the federal plan and model rule, particularly, in assuring that each MWh of RE generation is uniquely identified and recorded to avoid double counting. (Section IV, D, 8, b; PDF Page 40; CFR Page 65004)

Certificates identify pedigree characteristics of the particular generator such as: location; the emissions output of the generator; the fuel the generator uses to produce electricity; and, the date the generator went online, also known as it's *vintage*.

This certificate becomes a commodity the generation owner can now sell to an interested buyer. Buyers can vary from electric utilities to middle-people, such as brokers or aggregators, to environmental firms or to non-industry companies looking to neutralize their carbon footprint.

A certificate represents the environmental and other non-power attributes created when renewable energy is generated. Certificates can be associated with a variety of generation resources such as wind or solar energy and are measured in single megawatt-hour increments. In order to qualify for renewable energy credits, your system must qualify for at least one of the Portfolio Standards within the PJM Footprint.

As each megawatt-hour of electricity is generated, the system collects data on the generation source and links it to data on that source's owner, location, fuel source, air emissions rate, eligibility for state environmental programs and other information. From this data, the system creates an electronic certificate with a unique serial number for each MWh generated.

ERCs can be generated in a similar way in that they would each have a unique serial number as well as capture the necessary characteristics of the generation source. They would be a tradeable commodity that can be bundled or unbundled from the certificate created based on the generation.

The GATS has validations built into the tracking system to prevent double counting from system registration through retirement of the certificates. Publicly available reports as well as communication with Administrators of other tracking systems ensure double counting is not occurring between the tracking systems.

Because states will be developing implementation plans independently, EPA must identify acceptable methodologies for avoiding double-counting emission reductions between states. Renewable Energy Credits are already the currency of state RPS programs and the voluntary market. Renewable energy credits are critical to 111(d) compliance because a mechanism is needed to track and allocate renewable generation and its emissions benefits so that there is no double counting within and between states or the voluntary certificate market. Where states use their clean power programs like renewables and end-use efficiency, their characterization for state purposes and then for EPA compliance purposes is not double counting.

III. CONCLUSION

Established generator attribute tracking systems, such as GATS, may readily play an important role in implementation of the Clean Power Plan. As described above, current processes in place can be used to demonstrate that no certificate double counting has occurred. As part of its demonstration to EPA, states could use existing tracking systems to substantiate reaching RPS goals. The final rule for the Clean Power plan should recognize that GATS and the other certificate tracking systems are reliable and trusted entities that can help states meet the emissions reduction goals by ensuring that the resources are accounted for and not double counted. GATS, along with other established tracking systems, can ensure the proper accounting of renewable energy generation. EPA should explicitly support the usage of current certificate tracking systems like GATS to reduce the redundancy and additional cost that would be imposed by an additional tracking system.

Respectfully submitted,

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Dated: January 21, 2016