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October 27, 2008

VIA OVERNIGHT MAIL

Ms. Renne Vance
North Carolina Utility Commission
4325 Mail Service Center
Raleigh, NC 27699-4325

FILED
OCT 28 2008
Clerk's Office
N.C. Utilities Commission

Re: Docket E-100, Sub 121

Dear Ms. Vance:

Enclosed please find 14 copies of the following documents:

- PJM EIS Responses to NC Stakeholder Questions; and
- PJM Environmental Information Services and the Generation Attribute Tracking System PowerPoint Presentation.

Should you have any questions or concerns, please do not hesitate to call me at (610) 666-4619.

Yours very truly,

A handwritten signature in cursive script that reads "Jennifer Cianci".

Jennifer Cianci
Legal Secretary to
Jennifer Bellwoar, Esquire

PJM EIS Responses to NC Stakeholder Questions

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OCT 23 2008

Questions We'd Like Tracking System Vendors to Address

Clerk's Office
N.C. Utilities Commission

1. Describe the process and data format that utilities use to feed control area check-out generator MWh data into systems that your organization has administered or designed.

Response: The Generation Attribute Tracking System is also used for fuel mix and emissions disclosures purposes within the PJM region, so data required from the PJM Market Settlement System for the PJM Control Area is much more extensive than that which is required from external utilities. PJM-EIS runs a script on a monthly basis to create six text files containing data extracted from the PJM Market Settlements System. These files are the following:

1. Participants
2. Generators
3. Generation
4. Load
5. Imports/Exports
6. Emergency Power

The data is based on the billing data from the previous month. The system recognizes the text files based on the file formats. The Generation file is the file that contains MWh production data for the previous month for all generators that sell power into the PJM wholesale market. Certificates (i.e., renewable energy credits) for generation from a given month are created on the last business day of the following month.

Generation data for other generators that are 1) external to PJM or 2) located within PJM but not selling power into the PJM Market (i.e., "behind the meter" or a "load reducer") can similarly be uploaded into the GATS system. Below is the data that is needed in order to be loaded into the system.

Field Name	Data Type	Description
GATS_GEN_ID	Integer	unique identifier for the unit assigned by the GATS System
GENERATION	Float	Total MWhs for the Month
GEN_TIME_ID	Char (6)	Month and year of generation, formatted at MMYYYY, for any month in the current Reporting Period

Generation data for external or behind the meter generators can be submitted on a monthly basis, but it is not required to be submitted monthly. As long as generation data was not loaded and certificates already created for that date,

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they can choose when to input the data. Some generator owners have been submitting generation data monthly, while others have opted to do it quarterly or annually. However, all of the generation data for a calendar year must be submitted before the last certificate creation date for the year which occurs on the last business day in January.

2. Similarly, describe the process and data format for metering data to be inputted for small generators in the systems that your organization administers or has designed. (In situations where the meter is read once a month during a retail billing cycle, rather than at month-end.)

Response: Generation data for small generators (other than solar photovoltaic facilities) can be submitted to GATS in either of two ways. A file using the same format as described above can be sent electronically to the GATS Administrator to upload, or the generator owner can manually enter the generation data into GATS using an online screen. As above, generation data can be submitted on a monthly basis, but it is not required to be submitted monthly.

Solar facilities have some additional options in GATS because PJM-EIS recently implemented new enhancements to accommodate the expanding solar market. Solar systems can have RECs created using data provided in one of three ways, subject to state eligibility requirements.

1. *Production Estimates* – RECs can be created based on solar production estimates for that facility calculated either by the state agency or by the GATS Administrator. The GATS Administrator will be using PVWatts (Version 2) to develop production estimates. Production estimates for the solar facility are entered by the GATS Administrator, and only the GATS Administrator can change the production estimates.
2. *Actual Production (in kWh)* – RECs can be created based on the actual kWh production.
3. *Actual Production (meter reading)* – REC can be created based on meter readings entered. If meter reads are entered the system will calculate the kWh production since the last meter read.

A file upload section was also implemented that will allow the GATS Account Holder to perform bulk uploads of the kWh production or the meter readings, depending on which approach was selected when the system was registered. Alternatively, the generator owner can manually enter the solar production data into GATS using an online screen.

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3. Describe the process and data format for estimating MWh output for non-metered generators, such as small solar, in the systems that your organization administers or has designed.

Response: The GATS Administrator will be using the PVWatts (Version 2) Calculator for estimating small solar system production. The output is a 12-month production estimate profile in kWh. A state agency can also develop a production estimate and submit that estimate to the GATS Administrator, if desired. The GATS Administrator then loads the estimates into the system. Once loaded the Account Holder cannot adjust them.

4. Describe the process for REC transfers in systems your organization administers or has designed. Have any transfers between tracking systems actually occurred? If no, why not?

Response: For transfers between two GATS Account Holders, one party initiates the transfer and the counterparty must confirm the transfer before it is completed and moved into the counterparty's account. An email is sent to both the initiator of the transfer as well as the counterparty once the transfer is initiated as well as when it is confirmed.

If an Account Holder is transferring a REC to a party that does not have a GATS Account, or to a party in another region that does not have a tracking system, then the Account Holder would make an intra-account transfer to their Reserve subaccount, and indicate that the REC has been retired on the other party's behalf.

The GATS Operating Rules contain provisions for REC transfers between GATS and a Compatible Tracking System. REC imports will be accommodated as long as the REC to be imported is approved for use in any of the state RPS programs defined in GATS. This hasn't happened to date because none of the PJM states will certify RECs from other tracking systems, either because of geographic constraints or energy delivery rules in the RPS statutes. Note that there are currently 36 generators external to PJM that are registered in GATS and are able to have certificates created in GATS because they have been approved by one or more PJM-state agencies. Six of these are located in the non-PJM portion of North Carolina. However, none of these 36 generators are located in regions with a tracking system.

If any of the states that were using GATS decided that they would like to accept certificates from other compatible tracking system we would be able to import those certificates into GATS with their approval. The Account Holder would need

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to contact the state(s) to obtain a certification number for the import prior to submitting to the GATS Administrator. An agreement between PJM-EIS and the other tracking system would need to put in place. Once that is done we could determine what data is needed to import RECs into the GATS system. The Account Holder would need to designate the RECs as exported in the tracking system in which they reside and input the data into the GATS certificate-only import screen based on the data from the compatible tracking system. They would submit it to the GATS Administrator for approval. The GATS Administrator would then contact the other tracking system administrator to confirm that the REC was in fact retired as well as to verify the data that was entered by the Account Holder. The GATS Administrator would then approve or reject the certificate-only import.

5. Describe how generation data from multi-fuel generators is handled in systems your organization administers or has designed? Who inputs the monthly fuel information? Does the system calculate the RECs?

Response: Generators defined as PJM Multi-Fuel Generators in GATS are required to log into their GATS Account during the Account Holder Review Period to specify how many MWh's of generation came from each fuel type. If they do not split out their generation by fuel type in a given month, certificates will be created assuming the primary fuel type was used for all MWh's (for state fuel mix disclosure purposes), but none of the certificates that are created will be indicated as eligible for state RPS programs, even if the primary fuel type might otherwise have been considered eligible.

6. Comment on the advantages and disadvantages of REC serial numbers having "meaning," i.e. where certain digits are assigned meaning, such as year and month of creation, fuel type, etc, versus serial numbers that are merely sequential and all information is contained in other fields / tables.

Response: One advantage to having the serial numbers mean something is that some information about the certificates and the generator could be made available in one single field. A few disadvantages were identified with this approach:

- There would be redundant information in the database because the information that would be stored in the serial number is available in other places therefore would increase the size of the database.

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- It could potentially impact system performance when searching on a serial number if the field that stores the serial number needs to be a text field (e.g., to include the fuel type).
- There might be issues if there is a change or correction to the generator itself that would impact the way the serial number is derived in that the older certificates would misrepresent the current information.
- There could also be a potential inconsistency in the serial numbers if additional information is required in the serial number after some certificates were created.

7. Discuss any experience your organization has with systems that track RECs associated with energy efficiency and / or demand-side management. How is that data inputted and managed?

Response: Energy efficiency and demand side management programs are treated similar to behind the meter or external generators as far the processes for submitting the MWh data to GATS. The Account Holder is required to have the program pre-approved by the state prior to registering with GATS. Once they receive the State Certification Number they can register and select either EE or DSM as a fuel type in the registration process. They will enter in the MWh that was agreed upon by the state that certified them and that is the number of RECs that will be created.