

# Generation Attribute Tracking System (GATS) Operating Rules

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# 1. Introduction

Generators and load serving entities (LSEs), among others, have a developing and evolving need for a system that collects and tracks information regarding the attributes of generation supplied and sold within the regional wholesale market. Attributes include such characteristics as fuel mix, emissions profile and state renewable program qualification. The need for information about Generation Attributes is driven by state statutes or other state policies as well as customer preference in voluntary green markets. The market need for a system that collects and tracks generation attribute data fits into four general categories:

- Information Disclosure by LSEs to retail customers
  Information disclosure requires an electricity supplier to periodically (quarterly, semiannually, or annually) inform its customers of the fuel source, emissions and other
  characteristics of the electricity resources supplied to the customer.
- Clean Energy Portfolio Standard (CEPS) also known as renewable portfolio standards (RPS) obligations of electricity suppliers.

A CEPS requires an electricity supplier to include a minimum percentage of renewable or environmentally preferable resources in its mix of electricity resources supplied to retail customers.

 Emissions/Generation Performance Standard (EPS or GPS) obligations of electricity suppliers

An EPS or GPS requires an electricity supplier not to exceed a maximum threshold of specific pollutants in its mix of electricity resources supplied to customers.

#### Voluntary Green Power Markets

State policies generally require suppliers to provide documentation that supports and substantiates claims that suppliers may make when selling renewable electricity to customers through voluntary green power markets.

The functional design of the GATS has been developed through considerable deliberation of a stakeholder group that included representatives from various state agencies (state public utility commissions, state environmental protection offices, state Energy offices and consumer advocates), market participants, environmental advocates, and PJM staff. The design of the GATS is an "unbundled," certificates-based tracking system. This means that the attributes or characteristics of the generation are separated from the megawatt hour (MWh) of Energy and recorded onto a Certificate after the MWh of Energy is produced. There is one Certificate, with a unique serial number representing the attributes of the generation for each MWh produced. The Certificate's value is that it can be traded separately from the actual MWh of Energy in a voluntary bilateral market.



A certificates approach provides an efficient process for LSEs to develop specific products for retail consumers with a high degree of certainty that their product claims can be verified. For owners of generation, a certificates approach provides a means to precisely measure the value to the retail consumer of particular attributes of each Generating Unit. For state agencies seeking effective ways to implement policies and regulations, a certificates approach and central database provides a means to monitor, verify and document compliance.

The GATS is designed to be policy neutral to the greatest extent possible, and it will support a variety of state policies and voluntary green markets. The system will track the Attributes of generation produced and sold into/out of retail Energy markets.

#### The GATS is designed to:

- ensure accurate accounting and reporting of Attributes;
- facilitate bilateral transactions of the Attributes via Certificates between market participants;
- support the current requirements of various state agencies and have the flexibility to accommodate varied and evolving state policies or programs;
- mitigate seams issues with adjoining markets to allow the potentially of trading Certificates across regions; and,
- promote a robust renewable market.



# 2. Definition of Terms

**Account Holder**: An Account Holder is a party that has registered with the GATS and has established an Account within the GATS.

**Accumulation/Accumulator**: The act of summing kWh generation data over multiple months from a single Generating Unit until one MWh has been accumulated and a Certificate can be issued. Accumulation will be used primarily by small generators that do not generate one MWh in a month. It may also be used by Generating Units whose generation is reported to the GATS by control areas in kWh, so that trailing kWh or MWh decimals may be rolled over into the next month. Accumulation is the responsibility of the Account Holder of the Generating Unit.

**Active Certificates**: An Active Certificate is a Certificate that is held in a GATS Active Subaccount. Such Active Certificates may be traded, transferred, exported, retired etc. at the discretion of the holder of the Active Subaccount or its agent.

**Active Subaccount**: The Active Subaccount is the holding place for all active Certificates. If the Account Holder is a Registered Generator, or is the designated representative of a Registered Generator, their Active Subaccount will be the first point of deposit for any Certificates created that are associated with their PJM and Import Generating Unit ID number (Certificate associated with Pumped Storage, BTM and External Generating Units are placed in the CEPS Subaccount). An Active Subaccount may be associated with one or more Generating Units.

**Administrator's Account**: The account that holds Certificates that are not associated with a specific Account Holder, i.e., Certificates for emergency Energy imports. The Certificates in this Subaccount are used in the Residual Mix.

Alternative Energy Portfolio Standard (AEPS): A legislative or administrative requirement on electrical utilities or load-serving entities in a jurisdiction to procure a designated percentage of their generation/retail portfolio from renewable and environmentally beneficial resources. An AEPS is similar to a Renewable Portfolio Standard except some of the resources may not be considered renewable.

Annual Settlement: Once each year at the conclusion of the Trading Period there will be an Annual Settlement upon which (i) all trading of Certificates for that Trading Period shall cease, (ii) Residual Mix Certificates will be created based on Unsettled Certificates, and (iii) the GATS Administrator will issue any required reports. Unsettled Certificates used in the calculation of the Residual Mix will be retired and cease to exist for the purposes of the GATS. The Annual Settlement date will be at the end of February, for Certificates created for the previous calendar year. Clean Energy Portfolio Standards (CEPS) eligible certificates will be banked.

**Attribute**: A characteristic of a generator, such as location, vintage, emissions output, fuel, state RPS program eligibility, etc.



**Behind The Meter (BTM) Generators** – refers to Generating Units located with load at a single electrical location such that no transmission or distribution facilities owned by any transmission owner or distributor are used to deliver Energy from the Generating Units to the load. BTM Generators are one type of Non-PJM Generator, whose dynamic data is not reported to the GATS via the PJM Market Settlement System.

**Billable State** – When a Retail LSE registers for a GATS account, the Retail LSE will need to specify the state(s) for which the Retail LSE will use the GATS. The states selected will be considered Billable States. The Retail LSE will be charged for using the GATS based on load in these Billable States. The Retail LSE will only be able to create Retail LSE Subaccounts for Billable States. The load for all other states in which the LSE operates will not be visible to the Account Holder. All reports that are associated with the Retail LSE's load will only display information for the Billable State.

Clean Energy Portfolio Standard (CEPS) Subaccount: CEPS Subaccounts can be used to hold unsold, unused, CEPS-eligible Certificates. States will determine CEPS eligibility (i.e., RPS resources, resources identified as environmentally preferred, etc.). If a generating resource qualifies for a portfolio standard, Certificates from that generator will be eligible to be deposited in an Account Holder's CEPS Subaccount to be used in future trading periods. States will also determine the lifespan of the Certificates in these Subaccounts. CEPS Certificates can be accumulated in these accounts and/or transferred. Certificates in CEPS Subaccounts are excluded from any load serving entity's Disclosure Label.

**CEPS-Eligible Certificates**: Certificates from generating resources which are eligible by state policy (i.e., laws, regulations, etc.) for a state's portfolio standard (see RPS and AEPS). When a Certificate is CEPS-eligible it can be deposited into a CEPS Subaccount – this does not imply across-the-board state compliance eligibility.

Certificate(s): The term "Certificate," as used in this document, refers to a GATS electronic record of generation data representing all of the attributes from one MWh of electricity generation from a Generating Unit registered with the GATS tracking system or a Certificate imported from a Compatible Certificate Tracking System. Blocks of related Certificates may be grouped together to simplify Certificate transactions and for reporting purposes. The GATS will create exactly one Certificate per MWh of generation. Additionally, the GATS will create one Certificate for each MWh related to Certificates that are imported from a Compatible Certificate Tracking System based on the conversion rules established by the GATS Administrator. See also definition of "Whole Certificate."

**Certificate Obligation**: See Retail LSE Certificate Obligation.

Compatible Certificate Tracking System: A Compatible Certificate Tracking System is a tracking system that has an operating agreement with EIS regarding the Conversion and transfer of generation attribute certificates between tracking systems. This can not occur until a protocol has been developed by the GATS Administrator and the administrator of the other tracking system for converting generation attribute certificates from another tracking system into Certificates.



**Control Area**: An electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation. For the purposes of this document, a Control Area is defined in broad terms to include transmission system operations, market, and load-serving functions within a single organization. A Control Area operator may be a system operator, a transmission grid operator, or a utility.

**Conversion**: A process by which Certificates from a Compatible Certificate Tracking System are made available for import into the GATS. The process involves designating the certificate as exported from the Compatible Certificate Tracking System according to the protocol agreed upon jointly by the Administrator of the Compatible Certificate Tracking System and the GATS Administrator. After such designation is made, the GATS Administrator will issue corresponding Certificates that are placed in the purchasing Account Holder's CEPS Subaccount and can be used within the GATS.

**Creation Date**: The date that Certificates are created. Certificates are created monthly, on the last business day of the month following the month of generation.

**Customer-Sited Distributed Generation**: Generation interconnected behind a retail customer meter and therefore not directly interconnected with either the distribution system or transmission system (including net metered facilities).

**Date of First Operation:** The month and year a Generating Unit first began commercial operation or for non-commercial facilities, the date approved by the licensing or permitting agency. This is also referred to as **Vintage**.

**Directory of Account Holders**: The Directory of Account Holders is a listing of all Account Holders registered with the GATS that includes limited information for contacting the Account Holder and additional information.

**Disclosure Label:** A state mandated report on the fuel source, emissions, and other characteristics of the electricity resources supplied to retail customers.

**Dispute Resolution Process**: Administrative process managed by the GATS Administrator to resolve disputes regarding the GATS functionality and actions, including but not limited to disputes related to the number of Certificates in an account/sub account, static data, Account Holder requests to reverse permanent transactions (such as retirements), and Certificate creation.

**Dynamic Data**: Dynamic data is variable information that is associated with a specific MWh from a registered Generating Unit, such as Certificate serial number or date of generation. Dynamic data is contrasted with static data; see definition below.

**Emission Factor**: The emission factor of a Generating Unit indicates the amount of emissions released in terms of mass of emitted substance per MWh.



**Emission Free Energy:** Electric power output from a generating unit that does not directly produce any air emissions (sulfur dioxide, nitrogen oxide, or carbon dioxide) as reported in the GATS system. Eligible fuel types include new and existing: Solar Photovoltaic, Solar Thermal, Wind, Hydro, Nuclear, Tidal Energy and Wave Energy.

**Emission Free Energy Certificate:** A Certificate from a generating unit that produces Emission-Free Energy.

**Emissions Protocol**: A methodology for attributing specific emissions to each fuel used by a Multi-fuel Generating Unit. The methodology must be approved by the state Environmental Regulatory Agency for the state in which a Multi-fuel Generating Unit is located. In the absence of an approved Emissions Protocol, each Certificate issued for the applicable Multi-fuel Generating Unit for a month will reflect the average actual emissions for that unit for the month based on all of the fuels used by that unit during that month.

**Energy:** The physical electricity commodity of the electrons transmitted through the power grid.

**External Generators:** Generating Units external to PJM that are <u>not</u> scheduled and delivered into PJM through unit-specific Energy transactions and whose dynamic data is not reported to the GATS via the PJM Market Settlement System.

**Facility**: One or more Generating Units at a single physical location.

**First Point of Interconnection**: The first point of interconnection to PJM is defined as the substation where radial lines from a given power plant interconnect to the PJM-controlled transmission system.

**GATS Administrator**: The GATS Administrator is the entity with the authority to administer or oversee the administration and implementation of the GATS Operating Rules.

Generation Attribute Tracking System (GATS): The GATS is a software application program that (i) creates Certificates to uniquely define Generation Attributes, and (b) tracks said Certificates.

**Generation Reporting System**: A system that will serve as a front-end to the GATS for collecting dynamic MWH production data for Non-PJM Generators that do not exist in the PJM Market Settlement System. Also called Non-PJM Generation Reporting System.

**Generator Broker**: An Account Holder designated by a Generator Owner or Offtaker who registers and represents specific Generating Units with the GATS. A Generator Broker will be vested with the authority to manage Certificates, approve transfers, imports, retirement or any other action taken with regard to Certificates deposited into or transferred out of the Generator Broker's accounts for its Registered Generators. A Generator Broker may also be called an aggregator if it represents more than one distinct Generating Unit.



**Generator ID**: A unique identifier associated with a Registered Generating Unit. For PJM Generators the Generator ID is pre-defined in the PJM Market Settlement System. For BTM and External Generators, the GATS assigns a Generator ID.

**Generator Owner**: The person or entity holding legal title to a particular Generating Unit.

**Imported Generators:** Generating Units external to PJM that are scheduled and delivered into PJM through unit-specific Energy transactions. Dynamic generation data for these generators is provided to the GATS Administrator from the PJM Market Settlement System on a unit-specific basis.

**Imported System Energy:** Energy imported into the PJM Control Area that is a Non-Unit Specific Import from a Registered Generator. For fuel mix and emission disclosure purposes, System Mix Certificates in the amount of such Energy are created and placed in the Active Subaccount of the Account Holder that imported the Energy. Each System Mix Certificate associated with Imported System Energy will reflect the most recently available overall mix of fuel sources and emissions of the source Control Area.

**Interface Control Document**: An Interface Control Document contains the protocol for collecting and transferring generation data from participating control areas and other reporting entities to the GATS Administrator for the purposes of creating Certificates. The Interface Control Document will identify the Registered Generators to be reported for that interface, as well as the collection of information such as meter IDs, data format, communication protocols, timing, and security requirements for data collection.

**Monthly Meter Adjustments (MMA):** Reconciliation of generator MWh data to correct for errors in previously reported figures.

**Multi-fuel Generating Unit**: A Generating Unit (i) capable of producing Energy from more than one non-renewable fuel, renewable fuels, or non-fuel Energy sources, either simultaneously or as alternatives; and (ii) for which the relative quantities of electricity production can be measured or calculated, and verified.

Nameplate Capacity/Maximum Generator Nameplate Capacity: The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer.

**Non-PJM Generator**: A Non-PJM Generator is a generator whose MWh production data is not reported through the PJM Market Settlement System. External Generators and BTM Generators are both types of Non-PJM Generators.

**Non-PJM Generation Reporting System**: A system that will serve as a front-end to the GATS for collecting dynamic MWH production data for Non-PJM Generators that do not exist in the PJM Market Settlement System. Also called Generation Reporting System.



**Non-Unit Specific Imports**: Imported System Energy that cannot be tied to a Generator via the Generator ID.

**Obligation**: See Retail LSE Certificate Obligation.

**Offtaker**: The person or entity holding legal title to the generation output of the Generating Unit pursuant to an agreement with the Generator Owner.

**PJM Environmental Information Services, Inc. (EIS)**: PJM Environmental Information Services, Inc. (EIS) is the entity that owns and operates the GATS.

**PJM Generators**: Generators whose dynamic data is provided to the GATS Administrator from the PJM Market Settlement System on a unit-specific basis.

**PJM Interconnection (or PJM)**: The Regional Transmission Organization (RTO) that coordinates the movement of wholesale electricity in the PJM Control Area.

**PJM Market**: The wholesale electricity market in the PJM Control Area.

**PJM Market Settlement System (MSET)**: The system used to perform monthly billing and settlements for the wholesale electricity market in the PJM Control Area.

**Pumped Storage Account:** An account owned by the GATS Administrator into which Certificate Obligations are placed in an amount equal to the excess of (x) Energy used for pumping at pumped storage facilities in the Control Area over (y) Energy generated by such pumped storage facilities. At the end of each Trading Period, Residual Mix Certificates are assigned to each MWh of Certificate Obligations in the Administrator's account.

**Qualified Independent Party**: Any entity not affiliated with the generation owner. These may include the interconnecting utility, scheduling coordinator, independent third-party meter reader, or Generator Broker, so long as such entity has an agreement with the GATS Administrator.

Qualifying Facilities: A cogeneration facility or a small power production facility which is a qualifying facility under the Public Utility Regulatory Policies Act of 1978 (PURPA) and the Federal Energy Regulatory Commission's Regulations. A Qualifying Facility is permitted to sell electric energy and capacity to the host utility at the host utility's avoided cost rate; is not owned by an entity primarily engaged in the generation or sale of electric power; and in the case of cogeneration facilities, and small power production facilities under 30 megawatts in size (80 megawatts for geothermal facilities), is largely exempt from the provisions of the Federal Power Act and the Public Utility Holding Company Act.

**Registered Generator**: An Energy source, known as **Generating Unit**, which has registered its Facility with the GATS Administrator.



**Registration**: The act of completing an on-line registration form and filling out the forms necessary to establish an account in the GATS. Such forms may be obtained on-line or from the GATS Administrator.

**Renewable Portfolio Standard (RPS)**: Generally, a Renewable Portfolio Standard is a legislative or administrative requirement on electrical utilities or load-serving entities in a jurisdiction to procure a designated percentage of renewable electricity in their generation/retail portfolio. See also Alternative Energy Portfolio Standard (AEPS).

**Reporting Entities**: A Reporting Entity is an entity reporting meter reading and other generation data to the GATS Administrator.

**Reporting Period**: For the purposes of the GATS a Reporting Period is a calendar year, January 1<sup>st</sup> to December 31<sup>st</sup>. Certificates for generation produced during the Reporting Period can be transferred during the associated Trading Period.

**Reserve Subaccount:** A Reserve Subaccount is used as a repository for Certificates that the Account Holder wants to withdraw from circulation within the GATS. When a Certificate is transferred into a Reserve Subaccount the Account Holder must specify the reason the Certificate is being reserved. Reserve Subaccounts are not restricted to "renewable" resources. Once Certificates are in the Reserve Subaccount, they are excluded from the residual mix calculation at the end of the Trading Period and will not appear on a Retail LSEs fuel mix and emissions Disclosure Label.

**Residual Mix Certificates**: A Type of Certificate that is created at the end of the Trading Period with Attributes equal to the average of all unsold/unused Certificates and Certificates in the GATS Administrator's Account (such as emergency imports), i.e., Certificates that have not been transferred to any of the following Subaccounts: CEPS, Reserve, or Retail LSE. Residual Mix Certificates will then be allocated proportionately to all LSEs who have fewer Certificates than the load they served (i.e., do not have a one-to-one match with the MWh of load they served).

**Retail Load Serving Entity**: Shall mean any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer, serving end-users that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric Energy to end-users. Also called Load Serving Entity (LSE).

**Retail LSE Certificate Obligation**: The amount of retail load served by the Account Holder in MWh. An equal number of Certificates must be acquired by the Retail LSE for fuel mix and emission disclosure reporting. Also called a Certificate Obligation, or simply Obligation.

**Retail LSE Subaccount**: The Retail LSE Subaccounts are used by Retail Load Serving Entities to designate Certificates to be used for Disclosure Label purposes. A default Retail LSE Subaccount is created for each selected Billable State. Certificates can be transferred into and out of a Retail LSE Subaccount up until the end of the Trading Period, at which point the Retail LSE Subaccounts are locked and no further transfers are permitted.



**Retirement of Certificates**: Certificate retirement 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.

**Revenue-Quality Meter Output**: The Energy delivered into the transmission grid at the high side of the transformer. The data must be electronically collected by a meter data acquisition system, such as a MV-90 system, or pulse accumulator readings collected by the control area's Energy Management System, and verified through a control area checkout/Energy accounting or settlements process that occurs at the end of each month. Metering standards for Generating Units not reported by Control Areas are further described in Section 6.

**Small Wholesale Generation**: Generators interconnected to the transmission or distribution system but not reportable by the Control Area to the GATS on a unit-specific basis. This category covers generation in wholesale commerce that (i) is typically either reported by a utility or scheduling coordinator to the Control Area Operator aggregated with similar generators, or (ii) is distributed generation metered by a distribution utility but netted from the load reported to the Control Area Operator (sometimes referred to as load modifiers, generation netted from load, etc.). This category also includes Qualifying Facilities under PURPA, i.e., generating facilities located in the control area whose Energy may be sold to the local utility but whose output is netted from load reported to the Control Area Operator.

**Standard Certificates:** The type of Certificate created for PJM Generators, BTM Generators, External Generators, Pumped Storage Generators and Imports that are associated with a registered the GATS Generator. These Certificates do not have any special Certificate Attributes.

**Standing Orders**: A reoccurring, automatic transfer of Certificates for a given Generating Unit from the Account Holder's Active Subaccount to the Active Subaccount held by a different Account Holder.

**State Certification Number**: A unique identifier issued by a state agency certifying that a Generating Unit is eligible for one of its State Programs.

**State Program**: State rules and regulations that define parameters that are used to classify the generation of certain generators as a renewable or advanced Energy source.

**Static Data**: Static data describes the attributes of the Generating Unit. Static information generally includes information related to the characteristics of the generation facility such as technology type, ownership or location. See Appendix B for a list of generator static data fields.

**Station Service:** The electric supply for the ancillary equipment used to operate a generating station or substation.



**Subscriber Agent:** An agent of Subscriber who shall be designated on Schedule D – Declaration of Agency.

**System Mix Certificates:** A type of Certificate that is based on the emissions for a given control area. These Certificates are created for Emergency Imports and Imports that are not associated with a Generating Unit registered in the GATS. The emissions for the source control area of the import are used on the System Mix Certificate.

**Third Party Reporter (TPR):** A Third Party Reporter is an entity that gathers metered data for generators and reports those readings to the GATS. The Third Party Reporter will need to register with GATS as a Third Party Reporter account. In their Third Party Reporter account they will be able to see which generators have elected to have them load generation for the generator and to view the generation after it has been loaded. A Third Party Reporter cannot hold certificates.

**Trader**: An Account Holder that participates in the buying, selling and trading of Certificates.

**Trading Period:** The period of time defined when Certificates for a given Reporting Period can be traded. In the GATS the Reporting Period is a calendar year, and the Trading Period is approximately one year in duration starting in February of the calendar year and ending in the February of the next calendar year.

**Unfulfilled Obligations:** All Obligations in a Retail LSE Subaccount that do not have corresponding Certificates as of the Annual Settlement Date. These Unfilled Obligations are assigned Residual Mix Certificates for fuel mix and emissions disclosure purposes.

**Unit Specific Imports**: The Import Generation that can be tied to a generator via the Generator ID.

**Unsettled Certificates:** All Certificates remaining the Account Holder's Active Subaccount when the Trading Period is closed. The Unsettled Certificate becomes part of the Residual Mix.

**Voluntary Market**: Voluntary specific purchases of Certificates by end-use customers located within the PJM Market, for consumption within the PJM Market, at levels above the mandatory RPS percentages in states with RPS regulation, or within the PJM Market in states without RPS, any voluntary purchase of Certificates by end-use customers, for their own consumption.

Whole Certificate: A "Whole Certificate" is one where none of the renewable Attributes have been separately sold, given, or otherwise transferred to another party by a deliberate act of the Certificate owner. Renewable Attributes shall include the environmental Attributes which are defined as any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly Attributable to the generation from the Generating Unit(s). Individual states may create different definitions of renewable Certificates. The GATS Administrator may consider revision of the definition of a Certificate in the future if needed to better meet the needs of state programs.



Wholesale Generation Also Serving On-Site Loads: Generators interconnected to the transmission systems, but with on-site loads other than station-service drawing service from the generator before the Control Area's revenue metering point. Such generators either (i) have the net generation supplied to the grid reportable by the control area to the GATS, or (ii) are not reportable by the Control Area to the GATS on a unit-specific basis.



# 3. System Functionality Overview

The design of the GATS is an "unbundled," certificates-based tracking system. This means that the Attributes, or characteristics of the generation, are separated from the megawatt-hour (MWh) of Energy and recorded onto a Certificate after the MWh of Energy is produced. There is one Certificate, with a unique serial number, representing the Attributes of the generation for each MWh produced.

The GATS database will contain MWh or kWh generation information for each individual PJM Generating Unit, and it will create generator specific electronic Certificates that identify the relevant Generation Attributes necessary for electricity suppliers to satisfy state policies and to support voluntary green markets. The major data that would be included in the database of the GATS are:

- Meter information from the PJM Market Settlement System,
- Emissions data (primarily sourced from the EPA and supplemented by data from other sources, as available, to improve accuracy and/or timeliness),
- Static data input by the GATS Administrator and/or the generator (such as fuel source, location, state program qualification, etc.).

The value of the Certificate is that it can be traded separately from the actual MWh of Energy in a voluntary bilateral market. In other words, an LSE may:

- choose to buy MWh to cover its load from one generator but then buy Certificates without the associated MWh from another generator, or
- purchase both the MWh and the Attributes from the same generator.

The system will collect information on all generation resources, all MWh and kWh produced, and all load served within the PJM Control Area. The system will be designed to collect information and track ownership of imports of Certificates to the system in the same manner, whether from other control areas or from behind the meter resources (such as solar). All Certificate transfers will be recorded in the GATS.

A certificates approach, therefore, will provide an efficient process for LSEs to develop specific products for retail consumers with a high degree of certainty that their product claims can be verified. For owners of generation, a certificates approach will provide a means to precisely measure the value to the retail consumer of particular Attributes of each Generating Unit. For state agencies seeking effective ways to implement policies and regulations, a certificates approach and central database will provide a means to monitor, verify and document compliance.

The GATS is designed to be policy neutral to the greatest extent possible, and it will support a variety of state policies and voluntary green markets. The system will allow LSEs to model their supply portfolio for the load in each state in which they do business separately in order to better track compliance with state policies, and the GATS will issue reports for time periods required to satisfy state requirements.



# 4. GATS Administration

# 4.1. GATS Administrator

The GATS Administrator is responsible for the day-to-day operations of the GATS, acting as the primary contact for the GATS support, assisting Account Holders, and technical operations. The GATS Administrator will also ensure that security and confidentiality are maintained. The GATS Administrator will:

- be the primary interface for all Account Holders. The Administrator will review and manage all customer activity.
- manage the operation of the GATS database in accordance with the publicize Operational Timeline, illustrated herein.
- support the Account Holders in the GATS registration process, support the Account Holders in their monthly Attribute entry required before Certificates can be created, and in researching any discrepancy with the data, and in providing the required data for claiming import and export unit contracts.
- approve protocol agreements for the import/export of Certificates to Compatible Certificate Tracking Systems.
- create the Certificates and obligations on a monthly basis at the specified time defined by the GATS Operating Rules. The Administrator will open the Trading Period at the specified time defined by the GATS Operating Rules.
- support the Account Holders in Certificate and Obligation transfers and Subaccount management.
- close the Trading Period at the specified time defined by the GATS Operating Rules. The
  Administrator will adjust the closing time as necessary if the GATS is not available for
  periods defined in the GATS Operating Rules.
- publish all GATS Reports once the Trading Period is closed and before the required time specified in the GATS Operating Rules.
- support the Regulators in obtaining their login ID's, accessing the GATS, viewing Regulator reports, and accessing and changing the GATS Generator RPS program eligibility.
- maintain databases and records in connection with the GATS, and ensure that the GATS database is backed up on a daily basis and will prepare and utilize a GATS disaster recovery process.



#### 4.2. GATS Terms of Use

Subscribers of the GATS must agree to the Terms of Use to obtain access and use of the system. The Terms of Use will define the terms and cost structure for use of the system. The Terms of Use will control in defining all rights and obligations between EIS and the Subscribers. Paying Signatories to the Terms of Use will be able to participate in the GATS Subscriber Group.

# 4.3. **GATS Subscribers**

Changes to the GATS may be required from time to time to accommodate changes in state policies, LLC market expansion and evolving Attribute markets. EIS and the GATS Administrator will use a two-pronged approach for establishing lines of communication and providing feedback between EIS and the GATS Subscribers. First, a GATS Subscriber Group, open to all paying Account Holders, will be established to advise the GATS Administrator on Subscribers' suggestions as to implementation of the GATS and the administration thereof. Second, a State Agency Advisory Committee, consisting of representatives of the state agencies whose policies are being effectuated through the system, will be established for the purpose of providing feedback and suggestions of state agencies on implementation of the GATS and the administration thereof. It is EIS's and the GATS Administrator's intent to work cooperatively with both the GATS Subscriber Group and the State Agency Advisory Committee to establish a working relationship through which the Subscribers and state agencies are given the opportunity to provide input to EIS for its consideration in making improvements to the GATS processes and system.

### 4.3.1. GATS Subscriber Group

Participation in the GATS Subscriber Group is open to all signatories to the GATS Terms of Use who are subject to the Annual Fees.

- (i) Objectives The Subscriber Group will:
  - a. Provide input into the development and maintenance of the GATS Operating Rules and the need for future system additions and modifications.
  - b. Have access to information and training pertaining to the GATS provided by the GATS Administrator.
  - c. Serve as a vehicle for sharing information created for Subscribers by Subscribers.
  - d. Provide opportunities for networking and establishing business contacts with other GATS Subscribers.
- (ii) Composition The Subscriber Group is open to all organizations that are signatories to the GATS Terms of Use who are subject to the Annual Fees.
- (iii)Authority The Subscriber Group may be consulted for both policy and technical advice on issues before the GATS Administrator.



- (iv)Schedule of Meetings Meetings will be scheduled at least annually and will be noticed at least 15 working days in advance at a time and place determined by the GATS Administrator. Additional meetings will be scheduled as needed.
- (v) Scope The Subscriber Group may take up such topics, as it deems appropriate and relevant to the operation of the GATS.

#### 4.3.2. State Agency Advisory Committee

A State Agency Advisory Committee will be formed, with participation therein being limited to representatives of the state agencies whose policies are being effectuated through the system. The primary purpose of this Committee is to provide input into the development and maintenance of the GATS Operating Rules and the need for future system additions and modifications from the GATS Subscriber Regulator's perspective. Meetings will be scheduled as needed, or will be held in conjunction with the larger Subscriber Group meetings.



# 5. Account Holder Registration

#### 5.1. Establishing a GATS Account

Any party that registers with the GATS and agrees to the Terms of Use may establish an account in the system. Upon registration, the subscriber will be asked to accept the Terms of Use electronically.

#### 5.2. Account Registration Process

Any person or entity that wants to transact business through the GATS must register with the GATS to establish an account. All Account Holders will fill out the basic account registration information, such as Account Holder name, address, contact info etc. The acceptance of the GATS Terms of Use is done electronically upon submittal of the newly created GATS Account. The subscriber will be required to accept the GATS Terms of Use in order to submit the account for approval. The time and date is logged when the GATS Terms of Use are accepted. The GATS Administrator will review the registration information and ensure the appropriate data has been submitted. The GATS Administrator will then approve the Account. The Company Account Manager is the primary contact for the Account Holder and has the ability to create additional User IDs for the Account Holder. Appendix A lays out a registration process that Account Holders will follow upon receipt of the registration forms.

After the Account Holder has been given full access to their GATS account, Account Holders that have Generating Units associated with their accounts will be required to provide information related to the Generating Unit(s). Account Holders may associate one or more Generating Units with a single account. This additional information is the static data (i.e. generator characteristics) that will be carried on each Certificate that is issued for each MWh from the Generating Unit(s). See Section 6 for details on generator static data.

When a Retail LSE registers for a GATS account, the Retail LSE will need to specify the PJM state(s) for which the Retail LSE will use the GATS. The states selected will be considered Billable States. The Retail LSE will be charged for using the GATS based on load in these Billable States. The Retail LSE will only be able to create Retail LSE Subaccounts for Billable States. The GATS Administrator will add a billable state on your behalf if there is load associated with your account. The load for all other states in which the LSE operates will not be visible to the Account Holder. All reports that are associated with the Retail LSE's load will only display information for the Billable States.

The Retail LSE Account Holder can request to use the GATS for additional states any time after account registration by contacting the GATS Administrator. Once the state is activated the Account Holder will be able to view data for that state starting with the next time monthly data is loaded into the GATS and billing will occur with that month. Historical load will not be added into GATS.



Each user of the GATS system is required to have their own login. The Company Account Manager is the only user that can create additional logins for the GATS account. The Company Account Manager can also edit permissions on the logins for the GATS Account.

GATS reserves the right to deactivate accounts due to inactivity for a period of 12 months or longer. Accounts can be reactivated at the GATS Administrators discretion. Accounts that have been deactivated due to non-payment shall not be reactivated until the balanced owed is paid.

#### 5.3. Generator Brokers

- 1. All generators requiring recognition of the creation and ownership of Certificates must register with the GATS.
- 2. A generator may assign the rights to register a Generating Unit in the GATS directly to an Account Holder other than the generator via a Schedule A. This assignment of registration rights will give the assigned Account Holder, or Generator Broker, full account management and authority within the GATS over the Certificates from the Generating Unit. The GATS will require both parties to confirm an assignment of registration rights and to notify the GATS of which party(ies) can initiate a change of registration rights assignment and how long a period the GATS Administrator will wait between receiving the request for changing an assignment and implementing the request. There may be cases where the right to register a Generating Unit has been assigned to another party outside of the GATS process. In this case, the registering party must attest that it has the sole right to register the Generating Unit within the GATS.

If the registration rights assignment has been revoked, existing Certificates will remain in the account in which they reside. If the generator continues to require recognition of Certificates from that unit, the generator will be required to register the Generating Unit with the GATS or assign the registration rights again. Any future Certificates will be deposited to the generator's account associated with that unit or the account of the generator's designated agent at the time the Certificates are created by the GATS.

3. A Generator Broker may be the Account Holder for more than one Generating Unit.

# 5.4 Third Party Reporters (TPR)

- 1. All organizations requiring recognition to submit metered generation on behalf of an existing or future generator registered within the GATS, is required to establish an account with the GATS.
- 2. After filling out the online account application, but before a GATS Administrator may approve such an account, the TPR account manager is required to submit a completed Schedule G.
- 3. The Generation Owner within the GATS has the ability to select the designated TPR of their preference.



# 6. Source of Static and Dynamic Data for Generating Units

# 6.1. Classes of Generation Units

Generators will be classified in the following categories:

- 1. **PJM Generators** Generators whose dynamic data is provided to the GATS Administrator from the PJM Market Settlement System on a unit-specific basis.
- 2. **Behind the Meter (BTM) Generators** Generators located in PJM but whose Energy is not sold into the PJM market. BTM Generators fall into the following subcategories:
  - a. *Small Wholesale Generation*. Generators interconnected to the transmission or distribution system but not reportable by the Control Area to the GATS on a unit-specific basis. This category covers generation in wholesale commerce that (i) is typically either reported by a utility or scheduling coordinator to the Control Area Operator aggregated with similar generators, or (ii) is distributed generation metered by a distribution utility but netted from the load reported to the Control Area Operator (sometimes referred to as load modifiers, generation netted from load, etc.).
  - b. Wholesale Generation Also Serving On-Site Loads. Generators interconnected to the transmission systems, but with on-site loads other than station-service drawing service from the generator before the Control Area's revenue metering point. Such generators either (i) have the net generation supplied to the grid reportable by the control area to the GATS, or (ii) are not reportable by the control area to the GATS on a unit-specific basis. This category also includes Qualifying Facilities under PURPA, i.e., generating facilities located in the Control Area whose Energy may be sold to the local utility but whose output is netted from load reported to the Control Area Operator.
  - c. Customer-Sited Distributed Generation: Generation interconnected behind a retail customer meter and therefore not directly interconnected with either the distribution system or transmission system (including net metered facilities). Solar Systems would be included in this classification.
- 3. **External Generators** Generators external to PJM that are not scheduled and delivered into PJM through unit-specific Energy transactions.
- 4. Generators whose dynamic data is not reported to the GATS via the PJM Market Settlement System (i.e., BTM Generators and External Generators) are collectively referred to as Non-PJM Generators.



Figure 1: Classes of Generators

Type of Generator	PJM Control Area?	MSET Generator?	Generator Data Source	Generation Data Source	Primary Emission Source
PJM Generator	Yes	Yes	PJM DBs/User Entered	MSET	EPA
Imported Generator	No	Yes	User Entered	MSET	EPA
BTM Generator – Non Solar	Yes	No	User Entered	User Entered or Generation Reporting System	User Entered
BTM Generator – Solar	Yes	No	GATS Administrator or User Entered	<ul> <li>Production Estimates (PVWatts)</li> <li>Actual kWh (User Entered)</li> <li>Monthly Meter Readings (User Entered)</li> </ul>	EPA
External Generator	No	No	User Entered	User Entered or Generation Reporting System	User Entered

#### 6.2. Static Data

Static data describe the Attributes of the Generating Unit. The GATS Administrator is to develop and maintain the database of registered Generating Units and their Attributes. See Appendix B for a list of the GATS static data fields.

- 1. Static data is to be self-provided by Account Holders (the Generator Owners, or their designated representatives), as input to the GATS. This input will be provided as part of the initial Registration and subsequent update processes. The data will be entered through a secured web portal interface with password protection.
- 2. PJM EIS will accept data from the Midwest ISO for the generating facilities that are located within the MISO Control Area. Those generating facilities are required to submit a request to PJM EIS that will enable PJM EIS to retrieve the data from MISO.
- 3. For static data to be included in the GATS, it must be verified. Mandatory data fields must be completed and verified prior to a Generating Unit being approved and added to a GATS account. Voluntary data fields, if used, may be completed by the Account Holder at the time of initial Generating Unit Registration and verified or updated by the GATS Administrator after the unit is approved.



- 4. The GATS shall perform a validation rule check on all Registration or modified existing account entries for completeness. Mandatory fields that are not completed by the registrant will be flagged to the submitter through an error message. The Registration or update process will not be completed until all data entered, both mandatory and voluntary, have successfully passed data entry validation checks and met the GATS verification criteria.
- 5. The following verification process shall be used to ensure the integrity of the GATS account information.
  - a. For PJM Generators with a nameplate capacity of one megawatt or above, Account Holders will be required to submit, at the request of the GATS Administrator, a copy of the most recently filed EIA Form 860 for each Generating Unit. Plant latitude and longitude and heat rate, data which are considered by EIA to be confidential, may be blacked out. If a Generating Unit is new and therefore has not yet filed EIA Form 860, then the static data must be confirmed by a site visit by a Qualified Independent Party.
  - b. For PJM Generators with a nameplate capacity of less than one megawatt, and therefore not required to file EIA Form 860, Account Holders shall, at the request of the GATS Administrator, either (1) provide to the GATS Administrator materials that verify required information about each Generating Unit, such as copies of a bill of sale, equipment specifications, building permits or inspections, utility interconnection agreement, utility net metering agreement, or receipt of utility rebate, or (2) confirm static data through a site visit by a Qualified Independent Party, including a utility or designated Generator Broker.
  - c. For Non-PJM Generators, the same documentation described in a) and b) is required, but it must be provided to the relevant state agency for verification rather than the GATS Administrator.
  - d. For all Registered Generators, verification of generator eligibility for state or private certification programs is the responsibility of the relevant state or organization. Generators must be pre-certified as eligible for state programs, and the Account Holder must enter a state certification number when the generator is registered. The GATS Subscriber Regulator can modify these generator Attributes at any time. Each such agency or organization shall provide to the GATS Administrator a list of generators eligible for programs under their jurisdiction, accompanied by generator descriptors for identification, if they wish this information to be included with the Certificate.
  - e. As a part of the Registration process, the Account Holder must sign and submit to the GATS Administrator an affidavit declaration that the information being provided is true and correct. (Online acceptance of Schedule C-1 of the GATS Terms of Use)
- 6. After the initial registration with the GATS, static data for each Generating Unit shall be reviewed and updated by the Account Holder annually.



- 7. The GATS shall prompt each Account Holder to review and update static data by a date to be determined by the GATS Administrator, except that:
  - a. Account Holders must notify the GATS Administrator of a change in fuel type at a Generating Unit, and the date on which the change occurred, within 30 calendar days from when the change is implemented.
  - b. Account Holders must notify the GATS Administrator of a change in EIA plant code or unit code, or emissions per MWH due to operational or equipment modifications at a Generating Unit, and the date on which the change occurred, within 90 calendar days from when the change is implemented.
  - c. Account Holders must notify the GATS Administrator of a change in Generating Unit ownership, and the date on which the change occurred, within 30 calendar days after the sale closes. A change in ownership must be confirmed by a Change Form signed by both the seller and the buyer of the Generating Unit and Agreement of Sale if requested by the GATS Administrator. Agreements between EIS and Account Holders shall state that EIS will not be liable for depositing Certificates into an account that no longer represents a Generating Unit if the incorrect deposit occurs as a result of a lack of notification by the buyer and seller of the Generating Unit.
  - e. Changes to generator eligibility for state or other programs must be communicated by the state or independent certifier, and confirmed by the Account Holder, within 30 calendar days after the change occurs.
  - f. Account Holders must notify the GATS Administrator of a change in the Generating Unit capacity by submitting a Change Form within 30 calendar days of the capacity increase or decrease.
- 8. After initial Generating Unit Registration and account activation with the GATS, each Account Holder shall provide annually to the GATS Administrator a copy of the most recent year's EIA Form 860 for each Generating Unit in its account that is required to file EIA Form 860. The GATS Administrator may revise this requirement if it determines that it is more efficient to obtain directly from EIA an electronic file of the most recent year's EIA Form 860 submissions.
- 9. The GATS Administrator will verify the accuracy of Generating Unit Registrations and annual updates using data from EIA Form 860, from other government agencies or independent organizations, and from other documentation provided by the Account Holder, as described above. In so doing, the GATS Administrator may audit data using a statistical sample of registered Generating Units.
- 10. The GATS shall be designed to provide an audit trail to track account modifications. This audit trail is to include the date and time of the change, who has made the change along with type of change.



- 11. Generators can be removed from the GATS for cause, including willful misrepresentation of static data. The GATS dispute resolution process can be used to address such situations, and the GATS will accept no liability for generator misrepresentations. The GATS reserves the right to withhold issuing Certificates or to withhold participation in the GATS for Generating Units that have willfully misrepresented static data.
- 12. The GATS Administrators shall notify the State with disputes and misrepresentation of static data. Final rulings by the State will be followed by the GATS Administrator and recorded in GATS.
- 13. GATS reserves the right to deactivate generating systems that have not had generation reported for 2 years or longer. Generating systems can be reactivated if the GATS Administrator is provided with a current reading. Generating systems shall be reactivated at the GATS Administrators discretion.

### 6.3. **Dynamic Data- Generator MWh**

This Section describes the reporting requirements for electricity production data from Generating Units participating in the GATS. This section is organized into 6 subsections. Subsection 1 presents the reporting requirements that apply to all generators. Specific additional reporting requirements for each class of Generation Unit are presented in Subsections 2-6. General requirements for generation resources that are reportable to the GATS through the PJM Market Settlement System (PJM and Imported Generators) are described in Subsection 2. General requirements for generation resources not reportable to the GATS through the PJM Market Settlement System (Non-PJM Generators) are described in Subsection 3 below. Specific additional requirements for the types of generators that fall under this category are described in Subsections 4-6. The subsections are organized as follows.

- 1. All Generating Units
- 2. Generation Resources Reported through the PJM Market Settlement System
- 3. Generation Resources not Reported though the PJM Market Settlement System (Non-PJM Generators)
- 4. Small Wholesale Generation
- 5. Wholesale Generation also Serving On-Site Loads
- 6. Customer-Sited Distributed Generation

#### 6.3.1. All Generating Units

The following rules specify metering, verification, and data transmittal requirements that apply to all Generating Units:

a. Certificate creation shall occur on the last business day following the reporting month. Generation cannot be entered in after midnight the day before certificate creation. The GATS will be unavailable on the last business day from 6am to 10am to allow for certification creation processing.



- b. If adjustments to the monthly MWh or kWh generation are required due to meter or data reporting errors, and such adjustments are made to the data after it is reported to the GATS, the adjustments must be submitted to the GATS by the reporting entity. If the Certificate creation has already occurred, the Account Holder will be informed of the credit or debit adjustment reflecting the reported correction as soon as the adjustment has been posted within the GATS. Adjustments will be evaluated based on the State(s) the system is certified in and no adjustments will be made for a prior Reporting Year without approval of the affected State(s).
- c. The Account Holder shall verify the posting of the applicable monthly MWh or kWh data to the GATS. If the Account Holder does not register a dispute with the GATS Administrator prior to Certificate creation, the Certificate(s) will be created. If there is a dispute registered, Certificate(s) will be created with any necessary adjustments to be made on the next Certificate Creation Date following resolution of the dispute.
- d. The GATS Administrator reserves the right to audit the MWh or kWh data totals. The audit would consist of requesting additional documentation that is deemed sufficient to prove the generation entry is accurate.
- e. To ensure that double counting does not occur, Generating Units participating in the GATS must have 100% of their output tracked in the GATS.
- f. No Certificate will be created for a partial MWh. All Certificates will represent a whole MWh.
- g. All Certificates shall contain a field for the month and year in which the generation occurred. For a Certificate that is based on kWh data accumulated over multiple months, this field shall be the month of the last meter read in which a MWh is accumulated.



#### 6.3.2. Generation Resources Reported via the PJM Market Settlement System

The following set of operating rules specifies the metering, verification, and data transmittal requirements that apply only to Energy resources whose dynamic data is reported to the GATS Administrator through the PJM Market Settlement System.

- a. Monthly Energy generation production data used in the development of Certificates shall be obtained from the PJM Market Settlement System on an end-of-month basis.
- b. Generation data received from the PJM Market Settlement System will be rounded to whole MWh amounts, with 0.5 MWh or more being counted as 1 MWh and less than 0.5 MWh being counted as 0 MWh.
- c. The original data source for reporting must be from a revenue-quality meter output measuring, or adjusted to reflect, the Energy delivered into the transmission grid at the high side of the transformer. For this class of generators, a revenue-quality meter is any meter that satisfies PJM requirements for market settlement purposes.
- d. Energy resources that settle in the PJM Market have an option to convert their monthly certificates into more granular certificates based on the hourly generation if the Energy resource is registered within their own GATS Account or they receive the certificates via a Standing Order.

#### 6.3.3.Non-PJM Generators

The following set of operating rules specify the metering, verification, and data transmittal requirements that apply only to renewable Energy generators whose dynamic data is not reportable to the GATS Administrator through the PJM Market Settlement System. Generators in this category are collectively referred to as Non-PJM Generators.

- a. Non-PJM Generators that wish to have Certificates created within the GATS for the first time must meet the requirements applicable to Generating Units located within PJM as described in this Section 6. Non-PJM Generators must also be pre-qualified for a state program in at least one state in the PJM Control Area that is certifying generating units. Documentation of pre-qualification (e.g., a state certification number) must be submitted upon Registration. Verification of generator eligibility for state programs is the responsibility of the relevant state.
- b. Generation data (MWh) for BTM and External Generators can be either 1) manually entered by the Account Holder for the registered Generating Unit or 2) submitted electronically to the Generation Reporting System by the state agency that has prequalified the generator, or by a Qualified Independent Party authorized by the state agency. Verification of MWh generation data for Non-PJM generators is the

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<sup>&</sup>lt;sup>1</sup> Losses occurring on the bulk transmission system after the metering point are not reflected in the number of Certificates created.



responsibility of the state agency that pre-qualified the generator, and as such the methodology for submitting the data is subject to its approval. The GATS Administrator is not responsible for verifying MWh generation for Non-PJM Generators.

- c. Generation data (MWh) for Non-PJM (non-Solar) Generators must be submitted for whole MWh of generation (without any rounding). The Generator Owner is responsible for tracking sub-MWh quantities for such generator until sufficient generation is accumulated for creation of a Certificate.
- d. Generation data (kWh) for Non-PJM Solar Generators can be entered as 1) the actual kWh that was generated through the month, 2) the monthly meter readings taken from the system inverter or meter depending on the State(s) requirements with whom they are certified or 3) the production estimates that were generated by an approved calculation system if production estimates are allowed by the State(s) in which they are certified. The approval of the calculation system is done by the state agency's for those states certifying generating system in GATS. For systems that chose to switch off of production estimates to either actual or meter reading will not be eligible to switch back to production estimates at a later date. Systems are not eligible to switch to production estimates if they begin on meter readings or actual input.
- e. Generation data (MWh) manually entered by the Account Holder can be entered for more than the month being processed. Generation can be entered retroactively for any month in the reporting year based on the rules of the state(s) the facility is certified in. Once Certificates are created for the month, the generation cannot be changed.
- f. Generation data (kWh) manually entered by the Account Holder can be entered for more than the month being processed. Generation can be entered retroactively for any month in the reporting year based on the rules of the state(s) the facility is certified in. Generation Data will be extrapolated back to any missing months upon entry based on the estimates for the system. Once Certificates are created for the month generation data cannot be entered for any months prior to that month and the data cannot be changed.
- g. For generation (MWh) submitted via the Generation Reporting System, the file submitted will contain the fields outlined in the table below. Generation data can be submitted for more than the month being processed. Generation can be submitted retroactively for any month in the reporting year based on the rules of the state(s) the facility is certified in, but once Certificates are created for the month, the generation cannot be changed. Any record that violates one of the validation checks is not loaded and the violations are logged and reported to the GATS Administrator. The Account Holder can review the data loaded but cannot change this data. Only the GATS Administrator can modify this generation data.(NOTE: This file is not used for solar systems)



Figure 2: Generation Reporting System Input Data Fields

Field	Validation Checks
Generator ID	Corresponds to a GATS generated ID that
	corresponds to a BTM or External
	Generator.
Generation	Whole Positive Number
Month and Year of	Formatted as MMYYYY
Generation	Any month in the current Reporting
	Year
	Certificates must not already have been
	created for this Generator and Month.

h. The GATS provides an upload capability for solar systems. The table below contains the fields and the validations for the data being uploaded. Generation data can be submitted for more than the month being processed. Generation can be entered retroactively for any month in the reporting year. Data submitted via a file upload cannot contain missing months. Once Certificates are created for the month generation data cannot be entered for any months prior to that month and the data cannot be changed.

Figure 2a: Solar Upload Input Data Fields

Field	Validation Checks
Facility ID	Corresponds to a GATS generated ID that
	corresponds to a BTM or External
	Generator.
Meter Reading	kWh
Generation for the	kWh
month	
Meter Reading Date	mm/dd/yyyy
Month/year of	mm/yyyy
Generation	

i. So long as a generator in this category meets the requirements of this section for metering, communication and verification of dynamic data, Certificates may be created for any renewable Energy production serving a load that would have been served by the grid if not for the generator. Certificates will not be created for generation supplying Station Service. Off-grid generation is not eligible for creation of Certificates at this time.



- j. For each renewable Energy resource, total MWh of generation as defined in the previous paragraph shall be measured at the point of interconnection to the transmission or distribution company's facility, or adjusted to reflect the Energy delivered into either the transmission or distribution grid at the high side of the transformer.<sup>2</sup>
- k. The original data source for MWh or kWh reporting must meet the requirements of the state agency that pre-qualified the generator. EIS recommends that the original data source must be from the output of a revenue-quality meter. For this class of generators, a revenue-quality meter and its installation must at a minimum meet the applicable ANSI C-12 standard or its equivalent. If a renewable generation resource does not have metering that meets the ANSI C-12 or equivalent standard, recognition of such generation for creation of Certificates will only be at the direction of GATS Regulators.

#### 6.3.4. Small Wholesale Generation

The following operating rules specify metering requirements that apply only to renewable Energy generators meeting the definition of Small Wholesale Generation. These rules are in addition to those specified above in Section 6.3.3.

a. Measurement of dynamic data. Monthly renewable Energy generation production data used in the development of Certificates from Small Wholesale Generation shall be obtained on an end-of-month basis, except that Qualifying Facilities with nameplate capacity of no greater than 125 kW may be read and reported no less frequently than quarterly if their pre-existing contracts with the interconnecting utility provide for meter reading and reporting less frequently than monthly. For each such renewable Energy resource, the original data source for reporting total MWh for the month must be from revenue-quality meter output, adjusted according to Section 6.3.3.j. Unit-specific metered generation must be read on a month-end basis and communicated to the GATS Administrator by a single entity.

#### 6.3.5. Wholesale Generation Also Serving On-Site Loads

<sup>&</sup>lt;sup>2</sup> Losses occurring on the bulk transmission system after the metering point are not reflected in the number of Certificates created.



a. The following operating rules specify metering requirements that apply to renewable or Emission Free Energy resources meeting the definition of Wholesale Generation Also Serving On-Site Loads. These rules are in addition to those specified above in Section 6.3.3. Measurement of dynamic data: Monthly Energy generation production data used in the development of Certificates from Wholesale Generation Also Serving On-Site Loads shall be obtained on an end-of-month basis, except that Qualifying Facilities with nameplate capacity of no greater than 125 kW may be read and reported no less frequently than quarterly if their pre-existing contracts with the interconnecting utility provide for meter reading and reporting less frequently than monthly. For such generators, there are two components of generation for which the GATS may create Certificates: that which flows to the grid<sup>2</sup>, and that which is consumed on-site. For each Energy resource to receive Certificates for generation consumed on-site, such generation must be measurable and verifiable, and the original data source for reporting total MWh for the month must be from the output of revenue-quality meter or meters measuring total Energy net of station service<sup>3</sup> (if applicable) adjusted according to Section 6.3.3.j. Metered generation must be read on a month-end basis and communicated to the GATS Administrator by a single entity.

#### 6.3.6. Customer-Sited Distributed Generation

The following operating rules specify metering requirements that apply only to renewable Energy generators meeting the definition of Customer-Sited Distributed Generation. These rules are in addition to those specified above in Section 6.3.3.

a. *Measurement of dynamic data*: Renewable Energy generation production data used in the development of Certificates from generators shall be obtained subject to the following requirements. For each renewable Energy resource, the original data source for reporting total Energy production must be from revenue-quality metering at the AC output of an inverter or generator<sup>4</sup>, adjusted according to Section 6.3.3.j. In the absence of a meter measuring production as described in this Section (i.e. if there is no meter at the inverter) the original data source for reporting total Energy production must be from revenue-quality metering placed to measure only the hourly positive generation flowing to the distribution system, adjusted according to Section 6.3.3.j. Unit-specific metered generation must be read on a month-end basis and communicated to the GATS Administrator by a single entity.

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<sup>&</sup>lt;sup>2</sup> Such generation is measurable in a manner analogous to either (i) generators whose dynamic data is to be reported to the GATS Administrator by a Control Area Operator on a unit-specific basis, or (ii) Small Wholesale Generation.

<sup>&</sup>lt;sup>3</sup> When registering, such generators must provide evidence to the GATS Administrator that metering is in place capable of distinguishing between on-site load and station service. The GATS Administrator will either make an administrative determination that metering can distinguish between on-site load and station service, or if such a determination cannot be made, a conservative default fraction of total generation will be deemed to be station service unless/until it can be proved otherwise.

<sup>&</sup>lt;sup>4</sup> For example, the AC output from the inverter measures the total renewable production from a customer-sited solar photovoltaic facility. This measurement will capture both the Energy used to serve on-site loads as well as any net metered generation that flows back to the grid.



# 6.3.7. Third Party Reporters (TPR)

The following operating rules specify metering, verification, and data transmittal requirements that apply only to Third Party Reporting (TPR) entities who report generation data on behalf of generators that are otherwise not reportable to the GATS Administrator through the PJM Market Settlement System. These rules are in addition to those specified above in Section 6.3.3.

- a. TPRs wishing to report generation data on behalf of Generation Owners in the GATS must have an approved and active account in the GATS that is consistent with the process laid out in section 5.4.
- b. In order to report generation data on behalf of specific generators, the GATS account-holding TPR must first be actively elected by each Generation Owner to report said data. This selection is done within the Generation Owner's account in the GATS. The Generator Owner must specify the TPR for each generator it wishes to have the TPR load generation for.
- c. The elected TPR will remain constant for the applicable Generation Owner's generators unless otherwise acted upon by the Generation Owner in their GATS account.
- d. Barring external agreements outside of the GATS' purview, the Generation Owner may elect to switch a TPR reporting relationship; electing either a new TPR entity to report data, or, for the Generation Owner to self-report data.
- e. There are no fees associated with opening a TPR account within the GATS.
- f. Existing generation data uploading rules prevail (e.g., Data must be in whole-number values, etc.).
- g. TPRs have a three (3) week window, beginning the first day after the preceding period's certificate creation date, to load data for previous month(s) generation. This allows the Generation Owner at the least one (1) week for a review of loaded data.
- h. Multiple months of generation can be included in a single load. This might especially occur when a generator is first registered. If multiple months of generation for a single generator are sent at one time, the data must be sorted by generator and month/year of generation. Generation can be entered retroactively for any month in the reporting year based on the rules of the state(s) the facility is certified in. Once Certificates are created for the month, generation data cannot be entered for any months prior to that month and the data cannot be changed.
- i. TPRs are able to update generation data multiple times on unprocessed generation data. Once generation data has been processed, it is unable to be updated.



j. If a Generation Owner has already updated generation data for a given month, the TPR is unable to upload data. The generation owner may either elect to wait one (1) month, or may delete generation data uploaded for the given month.

**Field** Validation Checks Account ID The GATS Account Holder ID Generation ID Corresponds to a GATS generated ID that corresponds to a BTM or External Generator. The unit of measure generation is tracked. Generation Level K = kWhM = MWhPrevious Meter The meter reading value from the previous Reading month's data. Current Meter The meter reading for the current month's Reading Current Meter The date in which the current meter reading Reading Date was taken (MM/DD/YYYY). Net Generation The difference between the previous meter reading and the current meter reading. Month/Year of The month and year of generation for the Generation generation data being loaded (MMYYYY).

**Figure 3: TPR Generation Input Data Fields** 

# 6.4. **Dynamic Data- Emissions**

Certificates will be created using default emission rates based on the latest data available from the EPA at the time of Certificate creation. The Account Holder can review the Default Emissions and elect to change this during the Account Holder Review Period.

The EPA will supply emissions data at the generator level on an annual basis. The emissions data is supplied as soon possible. For Multi-fuel Generating Units, the emissions data reflects the percentage of generation for each fuel type. The following emissions are supplied in LBS/MWH:

- Carbon dioxide
- Nitrogen oxides
- Sulfur dioxide

These other types of emissions will not be included initially but will be considered for incorporation into the GATS at a future date based on customer requirements and data availability:

• Carbon monoxide



- Volatile organic compounds
- Mercury
- Particulate matter
- Particulate matter 10 microns or less

The EPA will also supply the Default Emissions by Fuel Type and System Mix Emissions by Control Area.

The system assigns Default Emissions to all GATS Generators. If the Generator has EPA data, this is used. Otherwise, the Fuel Type Default is assigned. Certificates for imports that are not associated with Registered Generators are assigned the System Mix Emissions for the source control area.

## 6.5. Multi-Fuel Generating Units

- 1. Any Generating Unit must register with the GATS as a Multi-fuel Generating Unit that is (i) capable of producing Energy from more than one non-renewable fuel, renewable fuels, or non-fuel Energy sources, either simultaneously or as alternatives; and (ii) the relative quantities of electricity production can be measured or calculated, and verified. Multi-fuel Generating Units include those that can generate electricity from (a) biomass fuels (including landfill methane and biodiesel) as well as fossil fuels, or that use fossil fuels for startup or supplemental firing; (b) solar thermal Energy co-fired with fossil fuels or using fossil fuels for startup or supplemental firing; or (c) hydrogen created by renewable Energy sources, converted to electricity through a combustion or fuel cell technology. Facilities that use a single renewable fuel type and no more than 2% fossil fuel annually on a total heat input basis are not required to register as Multi-fuel Generating Units
- 2. The GATS will create Certificates for all electricity generated at plants registered with the GATS as Multi-fuel Generating Units, subject to the provisions of Section 6.3. Separate Certificates will be created for each fuel type, including both renewable and non-renewable fuel types. Each Certificate issued for a Multi-fuel Generating Unit will reflect only one fuel source, with the fuel source for all of the Certificates for such Generating Unit for a month reflecting the overall output per fuel type for that month, with any sub-MWh remainder carried as a balance forward. All Certificates from Multi-fuel Generating Units will designate in a data field created for this purpose that the Certificate is from a multi-fuel facility. The GATS Administrator may designate generation from Multi-fuel Generating Units as eligible for a specified state purpose upon receipt of evidence of certification by the applicable state, subject to specific conditions associated with that certification.
- 3. For purposes of creating Certificates reflecting the fuel source mix of Multi-fuel Generating Units, the proportion of Certificates attributable to each fuel source shall be determined by the Account Holder consistent with the following rules:



- a. For biomass co-fired with fossil fuels or using fossil fuels for startup or supplemental firing: In each month, the Certificates for each fuel in such Multi-Fuel Generating Unit will be created in proportion to the ratio of the net heat content of each fuel consumed to the net heat content of all fuel consumed in that month, adjusted to reflect differential heat rates for different fuels, if applicable.
- b. For solar thermal Energy co-fired with fossil fuels, or using fossil fuels for startup or supplemental firing: In each month, the fraction of Certificates for each fossil fuel used in such a facility will be calculated as the ratio of (i) the net heat content of the fuel divided by the plant's heat rate operating on that fuel, to (ii) the total net electricity production of the Generating Unit during that month. The fraction of Certificates designated as solar thermal will be imputed as the remaining fraction of production not attributed to fossils fuel(s) consumed in the plant during that month.
- 4. Other: Multi-fuel Generating Units not fitting the descriptions in Sections 6.5.3(a) or 6.5.3(b), when they arise, may request from the GATS Administrator an advisory ruling, such advisory ruling to set precedent for similarly situated generators. The GATS Administrator will consider Generating Units whose fuel source is hydrogen as Multi-fuel Generating Units for purposes of creation of Certificates from such Generating Units. Certificates for hydrogen created from renewable Energy sources, stored, and later converted to electricity through a combustion or fuel cell technology may be created reflecting the renewable Energy sources used to create the hydrogen. Facilities of this type may seek an advisory ruling provided by this paragraph from the GATS Administrator, once the GATS is operational.
- 5. During the Account Holder Review Period, each Account Holder that has registered a Multifuel Generating Unit and whose methodology for allocating production by fuel type has been approved by the GATS Administrator must report to the GATS the proportion of electric output per fuel type, by MWh, generated by the unit during that month, calculated according to the applicable provisions of Section 6.5.3. Such information shall be used to allocate Certificates for such Multi-fuel Generating Units for each month for which it was supplied. The generator or its Account Holder must maintain supporting documentation as described in Appendix C, and copies of the derivation of the proportion of electric output per fuel type for each month, at the generation facility for a minimum of two years from the date of submission to the GATS. The GATS Administrator may require copies of such calculations, and supporting documentation will be subject to audit by the GATS Administrator, GATS Subscriber Regulators, or their agents. Data submitted to or audited by the GATS Administrator subject to the requirements of this paragraph that is not contained in reports available to the public will be treated as confidential information by the GATS Administrator.



- 6. Each Certificate issued for the applicable Multi-fuel Generating Unit for a month will reflect the average actual emissions for that unit for the month based on all of the fuels used by that unit during that month, unless the state Environmental Regulatory Agency identified in Appendix H for the state in which a Multi-fuel Generating Unit is located approves a methodology for that Generating Unit to attribute specific emissions to each fuel type used by that unit (an "Approved Emissions Protocol"). Once an Account Holder's Multi-fuel Generating Unit has an Approved Emissions Protocol, the Account Holder may provide emissions data to the GATS by specific fuel type according to its Approved Emissions Protocol, and each Certificate issued for that unit thereafter shall reflect the emissions associated with the fuel type on such Certificate, as reported by such Account Holder.
- 7. If a Multi-fuel Generating Unit does not provide the GATS Administrator with the requisite information for determining the creation of Certificates prior to the Certificate Creation Date, all of the Certificates created for said Generating Unit shall be deemed to have the fuel type used by it that has been designated by the Account Holder as the primary fuel type, and none of the Certificates will be considered eligible for any state programs.



## 7. GATS Account Structure

The account structure for an Account Holder contains four types of Subaccounts:

- 1) Active Subaccount,
- 2) CEPS Subaccount,
- 3) Retail LSE Subaccounts (this type of Subaccount is only applicable to LSE Account Holders who must have at least one Retail LSE Subaccount for each state in which they serve load), and
- 4) Reserve Subaccount.

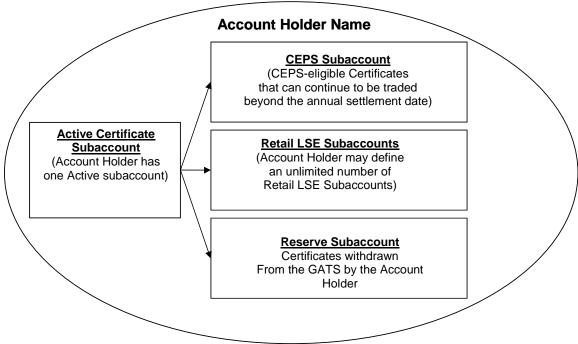
Certificates are originally deposited either the Active or CEPS Subaccount based on the source of generation. Account Holders can then transfer Certificates to the other Subaccounts, as described in this document.

The Account Holder will be able to view a listing of Certificates in each Subaccount, including the generation characteristics associated with each Certificate or block of Certificates. The Account Holder will also be able to generate reports on their Subaccounts.

Account Holders will be able to perform various functions and transactions within each Subaccount type, as described below. The GATS Administrator will develop a dispute resolution process whereby Account Holders who mistakenly perform a transaction that cannot be reversed (such as a transfer to a Reserve Subaccount) can request that a specific transaction be reversed by the Administrator.

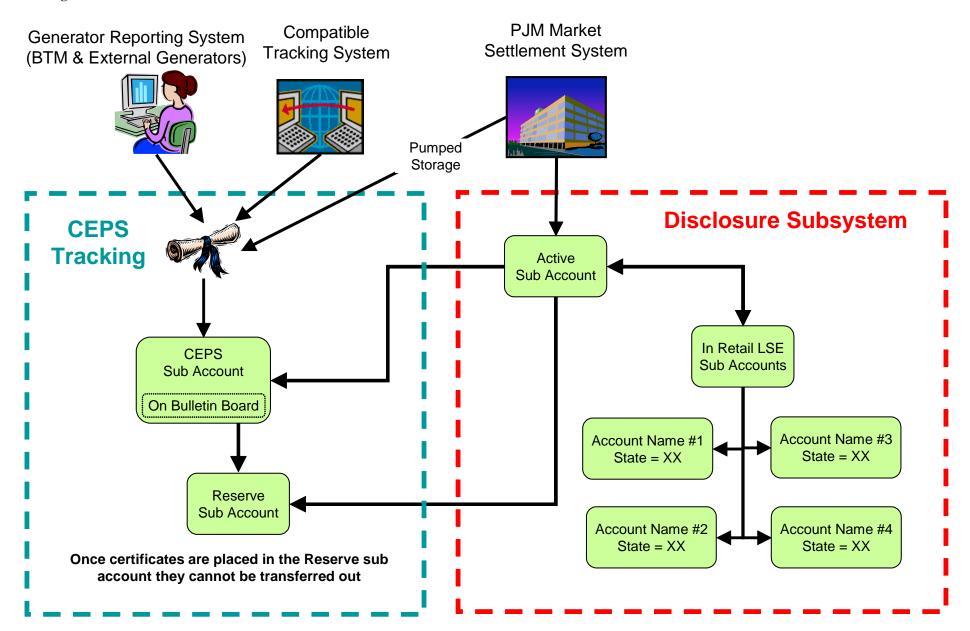
See Figure 3 for a graphical depiction of the basic account structure, and Figure 4 for an overview of Certificate flows.

Figure 3: Basic Account Structure





**Figure 4: Certificate Flows** 





## 7.1. Active Subaccount

The Active Subaccount is the holding place for all active Certificates that originate from PJM Generators. The Active Subaccount is like a cash checking account. The Certificates in it are liquid and can be transferred at the discretion of the Account Holder.<sup>6</sup>

The Active Subaccount is the first point of deposit for any Certificates associated with PJM. The Active Subaccount may be associated with one or more PJM Generating Units.

There are two ways that Certificates are **deposited** in the Active Subaccount:

- 1) Certificate created by the GATS for generation from PJM Generators.
- 2) Certificate transferred from another Account Holder's Active Subaccount. Both Account Holders must agree to the transfer.

There are five ways to **withdraw or remove** Certificates from the Active Subaccount:

- 1) Certificates transferred to another Account Holder's Active Subaccount based on both Account Holders agreeing to the transfer.
- 2) Certificates transferred to one of the Account Holder's own Retail LSE Subaccount.
- 3) Certificates transferred to the Account Holder's own CEPS Subaccount.
- 4) Certificates transferred to the Account Holder's own Reserve Subaccount.
- 5) Certificate included in the Residual Mix calculation at the end of the Trading Period. This includes any unsold Certificates that remain in the Active Subaccount. These are used for Disclosure Label purposes (see Section 11(a)).

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<sup>&</sup>lt;sup>6</sup> Active Certificates are distinguished from reserved Certificates, which have been reserved for a specific purpose and are no longer available for trading.



## 7.2. Clean Energy Portfolio Standard (CEPS) Subaccount

A Clean Energy Portfolio Standard (CEPS) Subaccount holds unsold, unused, CEPS-Eligible Certificates. The CEPS Subaccount will enable Certificates eligible for state CEPS/RPS requirements to continue to be active (i.e., banked) beyond the Trading Period. States will determine CEPS eligibility (i.e., RPS resources, resources identified as environmentally preferred, etc.). If a generating resource qualifies for a portfolio standard in any state in the PJM region, Certificates from that generator will be eligible to be deposited in the Account Holder's CEPS Subaccount. States will also determine the lifespan of the Certificates in these accounts. CEPS Certificates can be accumulated in these accounts and/or transferred. Certificates in CEPS Subaccounts are excluded from any load serving entity's Disclosure Label.

The CEPS Subaccount is the first point of deposit for any Certificates associated with BTM, External or Pumped Storage Import Generators. The CEPS Subaccount may be associated with one or more PJM Generating Unit. CEPS-eligible Certificates are Certificates from generating resources which are eligible by state policy (i.e., laws, regulations, etc.) for a portfolio standard (see RPS and AEPS) in a PJM state. When a Certificate is CEPS-eligible it can be deposited into a CEPS Subaccount – this does not imply across-the-board state compliance eligibility.

There are four ways that Certificates are **deposited** in the CEPS Subaccount:

- 1) Certificate created by the GATS for BTM Generators, External Generators or Pumped Storage Generators.
- 2) Certificate transferred from another Account Holder's CEPS Subaccount. Both Account Holders must agree to the transfer.
- 3) Certificate imported from a Compatible Certificate Tracking System at the request of the Account Holder with the approval of the GATS Administrator.
- 4) Certificate transferred from the Holder's Active Subaccount. Only CEPS-Eligible Certificates can be deposited into a CEPS Subaccount. CEPS-Eligible Certificates that remain in the Active Subaccount at the end of the Trading Period will be automatically moved into the CEPS Subaccount.

There are two ways to **withdraw or remove** Certificates from the CEPS Subaccount:

- 1) Certificates transferred to another Account Holder's CEPS Subaccount based on both Account Holders agreeing to the transfer.
- 2) Certificates transferred to the Account Holder's own Reserve Subaccount.



#### 7.3. Retail LSE Subaccount

A Retail LSE Subaccount is used by Retail Load Serving Entities to designate Certificates to be used for fuel mix and emissions disclosure purposes. Unlike the CEPS and Reserve Subaccounts, a Certificate in a Retail LSE Subaccount can be transferred back to the Active Subaccount again. Each Retail LSE must obtain Certificates equal to all of its retail LSE Certificate Obligation. Account Holders that do not have retail load obligations would not be required to obtain Certificates. Account Holders who serve retail load but have only minimal or no interest in the Certificates associated with the power they provide will be assigned Residual Mix Certificates on a pro rata basis at the end of the transfer period.

There are two ways for Certificates to be **deposited** in a Retail LSE Subaccount:

- 1) Certificate transferred from the Account Holder's Active Subaccount. The Retail LSE can indicate if these Certificates are for RPS compliance and then record the RPS period and value of the Certificate.
- 2) Certificate included in the Residual Mix calculation at the end of the Trading Period. This includes any unsold Certificates that remain in the Active Subaccount. These are used for Disclosure Label purposes (see Section 11(a)).

There is one way to **withdraw or remove** Certificate from a Retail LSE Subaccount:

Certificate transferred to the Account Holder's Active Subaccount. Certificates used for RPS compliance can not be transferred to the Active Subaccount. Certificates can be transferred from the Retail LSE Subaccount until the Trading Period ends. Once the Trading Period ends, environmental Disclosure Labels will be generated and the Certificates cannot be transferred. Certificates that were reported on environmental Disclosure Labels in previous years can be archived periodically so they do not occupy space in the database and in the Subaccount.



#### 7.4. Reserve Subaccount

The Reserve Subaccount is established to track Certificates that are reserved by the Account Holder, exported from the GATS, or retired. For example, the Reserve Subaccount can be used as a repository for Certificates that the Account Holder wishes to designate as:

- Sold to a third party which is not a Account Holder and is not an Account Holder in a Compatible Certificate Tracking System. In this case the Account Holder could reserve the Certificates within the GATS, and then transfer them to the third party through a bilateral agreement outside of the GATS. Certificate fee would apply.
- 2) Retired, and claim ultimate ownership of the Certificate (e.g., for RPS compliance). Certificate fee would apply.
- 3) Exported for conversion to a Compatible Certificate Tracking System (see Section 12 on Imports and Exports). Certificate fee would apply

There is one way for Certificates to be **deposited** in a Reserve Subaccount:

1) Certificate transferred from the Account Holder's Active Subaccount or CEPS Subaccount. The Account Holder must indicate for what purpose the Certificate was reserved. Indicating the reason for placing a Certificate in the Reserve Subaccount is a mandatory field. Once an Account Holder indicates the reason for retirement, this cannot be changed later.<sup>7</sup> To indicate the reason for retirement, the GATS will have a pull-down menu of options that the Account Holder can select. The options will be consistent with regulatory programs and any voluntary programs or voluntary market activities that are added by the GATS Administrator.<sup>8</sup>

There is no method for Certificates to be **withdrawn or removed** from a Reserve Subaccount.

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<sup>&</sup>lt;sup>7</sup> This is to prevent someone from using the same retired Certificate for multiple purposes.

<sup>&</sup>lt;sup>8</sup> The GATS Administrator will develop a process to evaluate and determine which voluntary programs are included as GATS fields after GATS is operational.



#### 7.5. Bulletin Board

The GATS will include a posting system or bulletin board where Account Holders can voluntarily post Certificates for purchase and where the Attributes of posted Certificates can be viewed. This bulletin board can be viewed by all Account Holders. Interested Account Holders can contact the seller directly using the contact information supplied on the bulletin board. The system will not initially include a trading platform or provide a market clearing function, but it will not preclude the development of this function if the need for more price transparency arises in the future.

The Bulletin Board will also allow for potential buyers to post purchase requests to allow for sellers to reach out to the buyers.



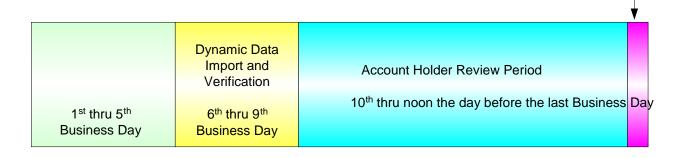
## 8. Creation of Certificates

A Certificate created and tracked within the GATS will represent all of the Attributes from one MWh of generation. Certificates are "Whole Certificates." Once a Certificate is created, the Certificate cannot be retroactively withdrawn or deleted by the GATS Administrator, except under certain conditions. The GATS Administrator shall have the right, but not the duty, to change, retire, or delete Certificates once they are created if the Generating Unit, or its associated Account Holder, has submitted inaccurate data that resulted in faulty creation of Certificate for the Generating Unit. The GATS does not define the life time or expiration date for Certificates. States may do so outside of the GATS to meet their own requirements.

Certificates are created each month according to the following timeline (See also Appendix D):



**Figure 4: Monthly Certificate Creation Timeline** 



## 8.1. Frequency of Certificate Creation

The GATS will create Certificates each month with the revenue meter data that has been provided via the PJM Market Settlement System, entered by the Account Holder, or provided by the Generation Reporting System. The process of posting Certificates to accounts will



include an Account Holder review period to allow for review of the data and a dispute resolution process.<sup>9</sup>

## 8.2. **Dynamic Data Import and Verification**

The PJM Market Settlement System billing process is completed by the 5<sup>th</sup> business day of the month. Upon completion of the billing process, the dynamic data import and verification process will start, continuing for five business days. This process imports all the needed data, updates the data in the GATS and allows the GATS Administrator to review and accept the changes. The following data is imported:

- 1. **Account Holders** Based on the data in MSET, the Account Holder data is updated and new Account Holders are created.
- 2. **Generator** Based on the data in the source systems, the generator data is updated.
- 3. **Generation** Generation data is loaded from MSET or the Generation Reporting System.
- 4. **Imported Energy** Generation is loaded from MSET for Imported Energy.
- 5. **Obligations** Create Obligations based on the load served by the LSE and the split of this load by state.
- 6. **Process Default Emissions** Pull in the emission data from the EPA and the Fuel Type Defaults.

#### 8.2.1. Account Holders

- 1. Each Account Holder in MSET is checked against the Account Holders in the GATS.
- 2. If the Account Holder does not exist in the GATS, a new "Placeholder" Account Holder entry and all associated generators are pulled into the GATS. The status for these generators is set to "Extract Only". If this Account Holder subsequently registers in the GATS, this Placeholder" Account Holder entry is converted to a real Account Holder entry.
- 3. If the Account Holder does exist in the GATS, the existing Account Holder entry is checked in the GATS for differences from MSET. The difference is identified and must be approved by the GATS Administrator. The following fields are checked:
  - Company Name
  - Status

#### 8.2.2. Generators

- 1. Each generator in MSET is checked against the generators in the GATS.
- 2. If the generator does not exist in the GATS, a new generator is created with a status of "Needs Info." Imported Generators are an exception to this rule and do not have a new generator created. All new generators are reviewed by the GATS Administrator and further defined by the Account Holder. The new generators has the following characteristics pre-populated:
  - Plant Name

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<sup>&</sup>lt;sup>9</sup> The dispute resolution process will address all concerns in which Account Holders dispute actions taken by the GATS Administrator.



- Unit Name
- Owner
- Capacity
- State
- Control Area
- 3. New or changed generators are forwarded by the GATS Administrator to the EPA in order that emissions data can be received for these generators.
- 4. If the generator does exist in the GATS, the existing generator is checked in the GATS for differences from the source systems.
- 5. The GATS Administrator has two options to implement a change in generator ownership. When this event occurs it indicates that the PJM Market Settlement System has received a change in ownership for the generator but the GATS Administrator must work with the appropriate Account Holders to determine whether this change in ownership will cause the generator to change its Account Holder. Listed below are the actions the GATS Administrator can perform to implement this change.
  - a. Alter both the Generator Owner (participant id) and Account Holder to match its new ownership information. This option will change the Generator Owner and move the generator from one Account Holder to the new Account Holder. The new Account Holder will now have full responsibility for this generator asset information and Certificates.
  - b. Alter the Generator Owner (participant id) only. This change will assign the generator to a new owner but the current Account Holder in the GATS will continue to control the generator asset and its Certificates.

#### 8.2.3. Generation

- 1. The generation data that is loaded includes the following:
  - Generation for previous month created inside the PJM Control Area. For example: if the dynamic data import is occurring in May, the generation data for April is imported. The timeframe of the import should be flexible such that it can be changed in the future.
  - Generation for BTM and External Generators that are supplying their generation data in flat files via the Generation Reporting System. This generation is not loaded from MSET.
  - Monthly Meter Adjustments (MMA) for past months that are applied to the current month. The GATS prevents processing of the adjustments more than once (i.e. adjustments will not be double counted). Adjustments are only processed back to the start of the GATS or a maximum of 2 years whichever is shorter.
- 2. For Generation for BTM and External Generators, the flat file will contain the fields outlined in the table below. Generation data for BTM and External Generators can be entered for more than the month being processed. Generation can be submitted retroactively for any month in the reporting year, but once Certificates are created for the month, the generation cannot be changed. Any record that violates one of the



validation checks is not loaded and the violations are logged and reported to the GATS Administrator.

Figure 5: Generation Reporting System Validation Checks

Field	Validation Checks
Generator ID	Corresponds to a GATS generated ID that
	corresponds to a BTM or External
	Generator.
Generation	Whole Positive Number
Month and Year of	Formatted as MMYYYY
Generation	Any month in the current Reporting
	Year
	Certificates are not already created for
	this Generator and Month

- 3. For Multi-fuel Generating Units, the generation is assigned to the primary fuel type identified when the Generating Unit was entered. The Account Holder can then manually split the generation among the various fuel types.
- 4. Generation for co-owned generators is assigned to a single, default owner.
- 5. Pumped Storage Generation is any generation created by a generator with a Fuel Type of "Pumped Storage". This Generation is loaded to the GATS and receives special Pumped Storage Certificates.
- 6. PV Watt Estimates will be used for small solar systems in accordance with the State Regulations that are using the GATS System.

## 8.2.4. <u>Imported Energy</u>

- 1. The imported Energy data that is loaded includes the following:
  - Data for previous month for Energy imported into the PJM Control Area. For example: if the dynamic data import is occurring in May, the imported Energy data for April is loaded.
  - Unit Specific Imports from outside the PJM Control Area
  - Non-unit Specific imports from outside the PJM Control Area
  - Emergency Energy imported from outside the PJM Control Area
  - Monthly Meter Adjustments (MMA) for past months that are applied to the current month. The GATS prevents processing of the adjustments more than once (i.e. adjustments will not be double counted). Adjustments are only processed back to the start of the GATS or a maximum of 2 years whichever is shorter.
- 2. Unit Specific Imports (i.e. the Import Generation that can be tied to a GATS Generator via the Generator ID) are assigned to the Account Holder that registers the Imported Generator. If the Imported Generator was not registered, the associated Certificates are assigned to the Account Holder that imported the Energy, similar to Non-Unit Specific Imports.
- 3. Non-Unit Specific Imports (i.e. the Import Generation that cannot be tied to a GATS Generator via the Generator ID) are assigned to the Account Holder that imported the



Energy. This includes two distinct situations. First, import generation not tied to any Generating Unit but instead just associated with the Control Area. Second, import generation tied to a specific Generating Unit in MSET but this generator is not a Registered Generator.

4. Emergency Energy Imports – Certificates are created for emergency Energy imported into the PJM Control Area. These Certificates are deposited into the GATS Administrator's account and only displayed to the GATS Administrator. At the end of the Trading Period they are included in the Residual Mix calculation for fuel mix and environmental disclosure purposes.

## 8.2.5. Obligations

1. The Total Obligations for each LSE is calculated from MSET data as follows:

Total Obligations = Load Served + Exports

Note: The load served does not include adjustments or transmission losses but does include distribution losses.

- 2. Pumping load is excluded from the load served and therefore does not get assigned any obligation.
- 3. The Total Obligations are rounded to the nearest MWh.
- 4. The Obligations by State for each LSE is calculated using the steps outlined below.
  - a. Assign MSET Subaccounts automatically to a state based on percentages
  - b. Map the LSE to all its buses (MSET)
  - c. Determine bus ownership percentage for each of these buses (MSET)
  - d. Determine the load for each of these buses (MSET)
  - e. Calculate load served by the LSE on each bus (b\*c for each bus)
  - f. Determine bus-to-state mapping for each of these buses
  - g. Calculate Obligations by state for each state (based on d & e)
- 5. Obligations obtained from the PJM Market Settlements group are at a zonal level, which might require the GATS Administrator to make assumptions about the state in which the load is served. It is the responsibility of the Subscriber to notify the GATS Administrator to establish overrides in the system to force the zonal load into a particular state where a zone might cross state boundaries.
- 6. The Obligations by state is placed in the default Retail LSE Subaccount for that Billable State. If a default Retail LSE Subaccount does not exist for the Billable State, the system creates one.
- 7. Obligations may be transferred between Retail LSE Subaccounts for the same zone but may not be transferred to a different zone.
- 8. Exports are assigned to the special Retail LSE Subaccount called "My Exports". Non-LSEs will also have a "My Exports" Subaccount if they export.
- 9. Pumped storage Obligations are created based on the difference between the pumping load and the generation from the pumped storage Generating Units (filtered out of the generation file). The Pumped storage Obligations are assigned to the GATS Administrator's Pumped Storage Account and not to a specific Account Holder.

#### 8.2.6. Assign Default Emissions



- 1. The system assigns default emissions to all GATS Generators based on the following hierarchy:
  - 1st EPA generator emission factors
  - 2nd EPA fuel type default
- 2. Non-Unit Specific Imported Generators are always assigned the System Mix Certificate emissions for the source Control Area.
- 3. Pumped Storage Generators are not assigned emissions



## 8.3. Account Holder Review Period

Prior to the GATS Administrator creating Certificates, the Account Holder will be provided a review period from the 10th day of each month to noon the second to last business day of each month. BTM Generators will have the ability to enter in data beginning with the first of the month until noon the second to last business day of each month. During this period, the Account Holder can:

- Review Generating Units, Obligation and generation
- Review Default Emission assigned by the system and make updates as needed
- Split the generation for each fuel type in Multi-fuel Generating Units. For a PJM Generator with multiple fuel types, if the Account Holder did not split the generation for each fuel type, then for all Certificates from that generator the primary fuel type will be used and the State Program qualification will be set to 'No'.
- Enter generation for Non-PJM Generators (e.g., BTM and External Generators) whose generation data is not submitted via the Generation Reporting System. The Account Holder can enter generation data retroactively for more than the month being processed. Generation can be entered for any month in the reporting year, but once Certificates are created for the month, the generation cannot be changed.

Certificates are issued based on revenue meter data. Occasionally there may be debits and credits in the current period as prior period settlement quality data is finalized. The Account Holder will be able to review the Monthly Meter Adjustments during the Account Holder review period and must inform the GATS Administrator if the adjustment is disputed. Adjustments, either the creation of additional Certificates or the subtraction of Certificates, shall take place in the account/sub account to which the Generating Unit is assigned. If new Certificates are created, the vintage of the Certificates shall be the next month and year that Certificates are issued for that Generating Unit. Two years after the creation of a Certificate, there can be no further adjustments by the GATS Administrator.

When emissions are entered by the Account Holder, the following rules are applied:

- The Default Emissions are saved for auditing purposes (i.e. the values entered do not overwrite the default emissions).
- The GATS Administrator can review and compare the changed values.
- For Multi-fuel Generating Units where the GATS Administrator has approved the Emissions Protocol, the emissions can be recorded for each fuel type. Otherwise, the Account Holder will enter averages for all fuel types that are applied to all fuel types.
- For BTM and Imported Generators, the emissions can be entered for any month in the reporting year. Once Certificates are created for the month, the emissions cannot be changed.

During the Certificate creation process the following hierarchy is used for emissions data:

- 1st Account Holder-entered emissions data
- 2nd EPA generator emission factors
- 3rd EPA fuel type default.



#### 8.4. Certificate Creation

The GATS Administrator will create an electronic Certificate for each MWh of Energy that is generated by those Generating Units that are registered with the GATS and fall into the following categories:

- 1. PJM Generators Generators whose dynamic data is provided to the GATS Administrator from the PJM Market Settlement System on a unit-specific basis.
- 2. Behind the Meter (BTM) Generators Generators located in PJM but whose Energy is not sold into the PJM market.
- 3. External Generators Generators external to PJM that are <u>not</u> scheduled and delivered into PJM through unit-specific Energy transactions.

In each case, the Certificates will be based on generation data reported to the GATS. All generation data must meet the minimum standards for quality that are laid out in Section 6. One Certificate will be issued per MWh of generation. Each Certificate is given a unique number identified by the generator, fuel type and month.

Certificates are created for Pumped Storage units and placed in the Account Holder's CEPS Subaccount. These Certificates have emissions set to 'n/a' and have eligibility set only for those states that consider pumped storage to be renewable.

Certificates are also created for Emergency and Non-Unit Specific Energy imports into the PJM Control Area. These Certificates are not tied to a Generating Unit nor are they associated with a Account Holder. These Certificates are deposited into the GATS Administrator's account and are used in the Residual Mix calculation at the end of the Trading Period.

#### 8.5. Certificate Creation for Accumulated Generation

Generation data from generators not reported to the GATS by a reporting entity on a monthly basis (generally, small generators), may be accumulated by the generator or by a Generator Broker over one or more months prior to submittal to the GATS for Certificate issuance. Certificate creation shall occur on the same schedule as for non-accumulated generation. The vintage on the issued Certificate will be the month in which a MWh is accumulated.

## 8.6. Data Fields Carried on Each Certificate

Each Certificate and/or block of Certificates displays the characteristics below. If the characteristic does not apply for a given Certificate, that characteristic is listed as 'NA'.

Figure 6: Data Fields on a Certificate

#### **Certificate Information**

Plant – Unit Name: Month and year of generation : Certificate Serial Numbers: Type of Certificate:



#### **Total Certificates:**

## Part 1 - Fuel Sources

Fuel Type Mix

**Short Description** 

Description

Fuel Type Attributes

## Part 2 - Renewable Portfolio Standard ("RPS") Eligibility

#### **New Jersey**

New Jersey:

Certification Number:

Eligibility End Date:

## Maryland

Maryland:

Certification Number:

Eligibility End Date:

#### **District of Columbia**

District of Columbia:

Certification Number:

Eligibility End Date:

## Pennsylvania

Pennsylvania:

Certification Number:

Eligibility End Date:

#### Delaware

Delaware:

Certification Number:

Eligibility End Date:

#### Illinois

Illinois:

Certification Number:

Eligibility End Date:

#### Ohio

Ohio:

Certification Number:

Eligibility End Date:

#### Part 3 - Emissions

**CEM Reporting:** 

ORIS PL:

Emissions Unit ID(s):

Peer unit name and address (if not reporting actual generator emissions):

Normalized emission (pounds per MWh), by pollutant

EFEC Eligible:

EFEC ID:

## Part 4 - Vintage

Vintage (month and year of commercial operation):



Repowering/derate date:

Capacity addition/subtraction:

FERC hydroelectric license relicensing date:

#### Part 5 - Asset identification

Asset identification:

Asset owner:

Status:

Capacity:

#### Part 6 - Location of GATS Generator

Location of Generating Unit:

**NERC** Region:

County:

State:

#### Part 7 - Green-e Energy Eligibility

Green-e Energy Eligible:

Green-e Energy Eligible Registration Number:

### Part 8 – Import Characteristics (if applicable)

For Imported Energy:

Imported to PJM?

Contract ID:

**NERC** Tag

For Certificate-Only Imports:

Date Imported

Compatible Tracking System Name

Account Holder

### 8.7. <u>Initial Deposit of Certificates in GATS Accounts</u>

The Certificates will be first deposited into the Active or CEPS Subaccount associated with the Registered Generator (see table below for details), without prejudice to which entity is the owner of such Certificates for other purposes. The Account Holder associated with the Registered Generator shall be the (i) Generator Owner, (ii) Offtaker under a power purchase and sale, tolling or similar such agreement, or (iii) Generator Broker/Aggregator. If the Account Holder is not the Generator Owner or its agent then the consent of the Generation Owner, in accordance with the Generator Owner's Consent set forth in Schedule A (signed and dated within 6 months of submitting to GATS) of the Terms of Use, will be required before EIS will deposit Certificates in the account of an Offtaker or Generator Broker. Disputes between parties will be resolved outside of the GATS.

In cases of multi-party ownership, the parties must designate which person/entity is going to manage the GATS Active Subaccount associated with the Generating Unit. Transfers of Certificates to another party are the responsibility of the entity that is responsible for the Active Subaccount associated with the Generating Unit. Standing Order transfer functionality can be used to automatically transfer the Certificates of PJM Generators to the other owners. Standing Order transfers are implemented after the Certificates have been created. For each Generator with a standing order defined, the system transfers the Certificates to each identified transferee based on the defined percentages. All Certificates are placed in the transferee's Active Subaccount.



Whether a Certificate is initially deposited into an Account Holder's Active or CEPS Subaccount is determined by the generation source and type of Certificate in accordance with the table below:

**Figure 7: Initial Assignment of Certificates** 

Generation	Type of	Destination	Special Certificate
Source	Certificate	Subaccount	Characteristics
PJM Generator	Standard	Account Holder's Active Subaccount	
BTM Generator	Standard	Account Holder's CEPS Subaccount	
External Generator	Standard	Account Holder's CEPS Subaccount	
Pumped Storage Generator	Standard	Account Holder's CEPS Subaccount	<ul> <li>Emissions fields always contain NA</li> <li>Eligibility is automatically set to Yes for states that consider pumped storage to be renewable</li> </ul>
Unit Specific Import where the Unit is registered in the GATS	Imported Generation	Active Subaccount of the Account Holder that registered the generator	Display Part 8 – Import Characteristics that contains 3 fields:  Imported to PJM set to Yes Contract ID NERC Tag
Unit Specific Import where Unit is <b>not</b> registered in the GATS	Imported Generation	The Active Subaccount for the Account Holder that imported the power	Display Part 8 – Import Characteristics
Emergency Energy	System Mix	Administrator's Account	Emission are set to the average for the Source Control Area
Non Unit Specific Import	System Mix	Active Subaccount of the Account Holder that imported the Energy	Display Part 8 – Import Characteristics and set the Emission to the average for the Source Control Area



Generation	Type of	Destination	Special Certificate
Source	Certificate	Subaccount	Characteristics
Imported	Imported	Account Holder's	• Display Compatible Tracking
Certificate	Certificate	CEPS Subaccount	System Certificate Serial
			Numbers in the Certificate
(Note these			Information Section
Certificates are			• Display Part 8 - Import
not created during			Characteristics Section with:
the monthly			1. Date Imported
Certificate			2. Compatible System
creation process,			Imported From
but are in this			3. Account Holder
table for			
completeness)			

# 9. My Event Log

Each Account Holder registered in the GATS will have associated with it an Account Holder activity log. The Account Holder activity log will include, at minimum, the following entries (i) MWh reported and saved to the GATS (via Control Area, Qualified Independent Party, or self-reported) during the current month; (ii) adjustments made by the GATS Administrators; (iii) Certificate transactions including transfers, standing order initiation/acceptance.

## 10. Transfers of Certificates

## 10.1. Transferring Certificates between Account Holders

Account Holders may transfer Active Certificates to other Account Holders who have an account type of "Trader" or "LSE" at any time.

- 1. Account Holders transferring such Certificates shall effectuate the transfer in the GATS by indicating in the GATS that a specified Certificate or block of Certificates (as indicated by their serial numbers) is designated for transfer. The Account Holder will also select the recipient from a pull-down list of Account Holders. The GATS will provide a pop-up "ok to transfer" screen after the transfer has been requested that lists the details of the proposed transfer and ask for confirmation by the transferring Account Holder. After the request to transfer has been confirmed, the GATS will send an electronic confirmation to the Account Holder that requested the transfer notifying them that a request to transfer Certificates has been entered into the GATS.
- 2. The GATS will also send an electronic confirmation to the proposed recipient notifying them of the request to transfer Certificates. The Certificate recipient shall confirm the transfer in the GATS. The confirmation screen shall include a pop-up "ok to transfer" screen which lists the details of the proposed transfer and asks the proposed recipient to confirm the transfer. Once the recipient has confirmed the



transfer, the GATS will send an automatic electronic communication to the recipient notifying them that they have confirmed the Certificate transfer.

- 3. The transferring Account Holder may cancel any transfer before such transfer has been confirmed by the recipient by withdrawing the transfer in the GATS. The GATS will notify the recipient that the transfer was canceled.
- 4. The transfer of any Certificate or block of Certificates shall only be registered in the GATS upon the electronic confirmation by both the transferring Account Holder and the recipient.
- 5. Once the GATS has completed the transfer of Certificates from one account to another, the GATS will send an electronic confirmation to both Account Holders confirming that the transfer has been completed.
- 6. Account Holders may designate one or more representatives or agents for purposes of transfers and acceptances of transfers of Certificates by creating logins for them.

## 10.2. **Standing Orders**

The GATS will provide the capability to have a "Standing Order" for transferring Certificates between Account Holders for a given Generating Unit. The Account Holder will be able to indicate for that Generator the percentage of the Certificates to be automatically transferred each month to the identified transferee Account Holders. The Account Holder will be able to indicate that a Standing Order Certificate transfer 1) continues indefinitely, until cancelled by the transferor, or 2) or occurs for a fixed period of time. If the latter, the transferor will be able to indicate that the Standing Order Certificate transfer is irrevocable and cannot be cancelled by the transferor.

- 1. The transferor requests a new Standing Order Certificate transfer. The generator that the Standing Order applies to is selected by the transferor. The transferor selects the Account Holders that should be included on the standing order and the percentage for each Account Holder. The transferor can enter a period of time for which the Standing Order applies, and if the Standing Order transfer is irrevocable by the transferor. The transferor indicates the Standing Order should be saved. The system displays the details of the transfer and issues a confirmation message. The transferor confirms the transfer. The system informs each transferee of the Standing Order transfer. A Standing Order is not activated until the transferor confirms and each transferee accepts the Standing Order transfer and notifies the transferor and transferee that the Standing Order transfer has been accepted.
- 2. The transferor can cancel Standing Order transfers unless a transfer was defined as irrevocable. The system cancels the Standing Order and notifies all the transferees.



## 11. Retirement of Certificates

Certificate retirement can be initiated by the Account Holder by 1) transfers to the Reserve Subaccount or 2) designating a Certificate as retired in the Retail LSE Subaccount.

Certificate retirement can also occur automatically at the end of the Trading Period as part of the Residual Mix Calculation (see Section 14, End of Trading Period Processing).

## 11.1. Transfer to a Reserve Subaccount

When an Account Holder wishes to retire from the GATS a Certificate or block of Certificates they will select the Certificates and indicate that such Certificates should be placed in the Reserve Subaccount. When a Certificate is transferred into a Reserve Subaccount the Account Holder must specify the reason the Certificate is being reserved (see table below). The Reserve Subaccount will show the serial numbers of the Certificates, the date transferred to the Reserve Subaccount, and the reason.

Figure 8: Reasons for Transfers to Reserve Subaccount

Reason for Transfer to Reserve Subaccount	Additional Questions Required
Used by the Account Holder for compliance with a PJM-state Renewable Portfolio Standard.	Select the PJM state (for Retail LSEs the state selected must be one of the Billable States). Select the RPS compliance Reporting Period. Enter the price paid per Certificate (this field will be mandatory only if the state requires price disclosure). Enter the Retail LSE Subaccount with which the certificate is associated.
Used by the Account Holder to make environmental claims or to take out of circulation for environmental benefits reasons.	Specify environmental claim (optional).
Sold as a part of a retail Certificate-only product to an end-use customer in PJM that does not have a GATS account. For example: Sold to residential or commercial customers making voluntary purchases. Sold to event organizers so that events can offset their electricity or make environmental claims.	Confirm that the Certificate was sold to a third party in a good faith, arm's length transaction for reasonable value. Enter the name of the party purchasing the Certificate.  Is this being retired for Green-e



Reason for Transfer to Reserve	Additional Questions Required
Subaccount	
Exported (sold) off-system to a third party	Confirm that the Certificate was sold to
in a region that does not have a compatible	a third party in a good faith, arm's length
tracking system.	transaction for reasonable value.
	Enter the name of the party purchasing
	the Certificate.
Exported to a compatible tracking system.	Select the Compatible Certificate
	Tracking System.
	Enter the name of the Account Holder
	receiving the Certificate in the
	Compatible Certificate Tracking
	System.
Other	Enter reason Certificate was reserved.
Expired RECS removed from circulation	Enter comments as reason why the
	RECs are expired.
Used by Account Holder for compliance	Enter State and Reporting Period for
with a State Zero Emission Standard	ZES retirement.

Examples of how Account Holders might use this functionality include the following.

- If an Account Holder desired to transfer Active Certificates to a third party who did
  not have a GATS account (i.e., a retail customer), the Account Holder could transfer
  the Certificates to the Account Holder's Reserve Subaccount, and then conduct the
  transfer of the Certificates to the third party outside of the GATS through a bilateral
  contract.
- 2) If an Account Holder desired to disaggregate (separate) some of the renewable Attributes contained in a Certificate, the Account Holder could transfer the Certificate to their Reserve Subaccount, and then conduct transactions outside of the GATS for the distinct renewable Attributes.

Reserve Subaccounts are not restricted to "renewable" resources. Once Certificates are in the Reserve Subaccount, they are excluded from the residual mix calculation at the end of the Trading Period and will not appear on a Retail LSEs fuel mix and emissions Disclosure Label.

Certificate fees are applied for certain transfers to the Reserve Subaccount. Transfers to the Reserve Subaccount for RPS Reasons are not charged if the load for the state that the certificate is being retired for is being tracked in GATS. In the case that the load is not being tracked a certificate fee would apply. Retirements for all other reasons will be charged a certificate fee.



## 11.2. Designating Certificates in a Retail LSE Subaccount as Retired

For Certificates in a Retail LSE Subaccount, the Account Holder must indicate if these Certificates are being used for RPS compliance. This functionality is useful for a Retail LSE if the RPS compliance reporting deadline for a state is in the middle of a Trading Period and the state wants assurance that the Certificates in the Retail LSEs account will not be traded or used for some other purpose.

If the Certificates are to be used for RPS compliance, the Account Holder must indicate the RPS Reporting Period to which they apply. The price paid per Certificate must be entered if the state associated with the Subaccount requires price disclosure. Once Certificates in a Retail LSE Subaccount have been designated as being used for RPS compliance, they can only be transferred between the Account Holder's Retail LSE Subaccounts associated with the same state.

 $\label{prop:continuous} \textbf{Figure 9: Retiring Certificates in a Retail LSE Subaccount}$ 

Reason for Retirement	Additional Questions Required
Used by the Account Holder for compliance	Select the RPS compliance Reporting
with a state Renewable Portfolio Standard.	Period.
	Enter the price paid per Certificate (this
	field will be mandatory only if the state
	requires price disclosure).

## 11.3. Reserved Certificate Information

The GATS will provide a listing/database of Reserved Certificates that can be searched by Certificate field categories and can also generate reports by date and Certificate field categories.



# 12. Imports and Exports

The GATS can issue Certificates for Generating Units located outside of PJM whether or not all or a portion of the Energy generated is delivered into PJM. The Energy must be delivered into PJM for the Certificate to be counted on a Retail LSE's environmental Disclosure Label. Energy delivery might also be required for a Certificate to be RPS-eligible in some PJM states. For a generator located outside of PJM whose Energy was not delivered into PJM, Certificates will only be created if 1) the generator has been pre-qualified by one of the PJM states for its RPS program, and 2) the state has approved the creation of Certificates.

Any Generating Unit or its authorized agent located outside of PJM that requests that Certificates be created by the GATS must sign an affidavit that the GATS is the only tracking system in which that Generating Unit's Certificates will be created, and that the Generating Unit's Certificates have not been previously used or claimed by another entity/program.

The table below summarizes how Certificates are created for different types of imports:

Figure 10: Certificates Created for Different Types of Imports

Generation	Type of	Destination	Special Certificate
Source	Certificate	Subaccount	Characteristics
Unit Specific	Imported	Active Subaccount	Display Part 8 – Import
Import where the	Generation	of the Account	<b>Characteristics</b> that contains 3
Unit is registered		Holder that	fields:
in the GATS		registered the	<ul> <li>Imported to PJM set to Yes</li> </ul>
		generator	Contract ID
			NERC Tag
Unit Specific	Imported	The Active	Display Part 8 – Import
Import where Unit	Generation	Subaccount for the	Characteristics
is <b>not</b> registered in		Account Holder	
the GATS		that imported the	
		power	
Non Unit Specific	System	Active Subaccount	Display Part 8 – Import
Import	Mix	of the Account	Characteristics and set the
		Holder that	emissions to the average for the
		imported the	source Control Area
		Energy	
Emergency	System	Administrator's	Emissions are set to
Energy	Mix	Account	the average for the source Control
			Area
External Generator	Standard	Account Holder's	
		CEPS Subaccount	



Generation	Type of	Destination	Special Certificate
Source	Certificate	Subaccount	Characteristics
Imported	Imported	Account Holder's	<ul> <li>Display Compatible         Certificate Tracking System         serial numbers in the         Certificate Information Section</li> <li>Display Part 8 - Import         Characteristics Section with:         <ol> <li>Date Imported</li> <li>Compatible System</li></ol></li></ul>
Certificate	Certificate	CEPS Subaccount	

## 12.1. Imported Generators

Imported Generators are generators external to PJM that are scheduled and delivered into PJM through unit-specific Energy transactions. Dynamic data for these generators is provided to the GATS Administrator from the PJM Market Settlement System on a unit-specific basis.

Unit-specific Energy transactions associated with Imported Generators can be either 1) block-loaded (for external installed capacity generators, or 2) dynamically scheduled into the PJM Control Area. For either type of unit-specific Energy transaction a transmission system reservation and NERC tag are required. For unit-specific Energy transactions that are not dynamically scheduled into the PJM Control Area, the Account Holder for the Imported Generator must provide meter data to the GATS Administrator demonstrating that the generator produced the scheduled number of MWh during the month. If this information is not provided, System Mix Certificates are created for these imports and placed in the Active Subaccount of the Account Holder that imported the Energy.

If the Imported Generator is registered in the GATS, Imported Generation Certificates are created for these imports and placed in the Active Subaccount of the Account Holder that registered the Generating Unit. If the Imported Generator is **not** registered in the GATS, System Mix Certificates are created for these imports and placed in the Active Subaccount of the Account Holder that imported the Energy.



#### 12.2. Imported System Energy

For fuel mix and emission disclosure purposes, all Energy imported into the PJM Control Area must be accounted for through the creation of Certificates for the amount of such imported Energy. The vast majority of imported Energy is not unit-specific. For these Non-unit Specific Imports, System Mix Certificates are created and placed in the Active Subaccount of the Account Holder that imported the Energy. If the generation import is an emergency import, System Mix Certificates are created for these imports and placed in the Administrator's Account.

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 E-GRID software. The Certificate fields for each adjacent Control Area that are in effect from time to time shall be posted on EIS's website, <a href="www.pjm-eis.com">www.pjm-eis.com</a> (the "GATS Site"). Certificate field for location will also be completed for Certificates associated with Imported System Energy. All Certificate fields for Certificates associated with Imported System Energy other than fuel source, emissions and location shall state "not applicable."

## 12.3. External Generators

External Generators are generators external to PJM that are not scheduled and delivered into PJM through unit-specific Energy transactions. Generation MWh data for External Generators is not reported to the GATS via the PJM Market Settlement System. The GATS will accommodate External Generators that qualify under state renewable Energy laws/programs in at least one PJM state.

External Generators that wish to have Certificates created within the GATS for the first time must meet the requirements applicable to Generating Units located within PJM as described in Section 6.

External Generators must be pre-qualified for a state program in at least one PJM state. Documentation of pre-qualification (e.g., a state certification number) must be submitted upon registration. Verification of generator eligibility for state programs is the responsibility of the relevant state.

Verification of MWh generation data for External Generators is the responsibility of the state agency that pre-qualified the generator, and as such the methodology for submitting the data is subject to its approval. The GATS Administrator is not responsible for verifying MWh generation for External Generators.

The generator, or its designated agent, must hold a GATS account. The Certificates for these Generators are deposited with this Account Holder.



#### 12.4 Certificate Imports from a Compatible Tracking System

Certificates may be imported into the GATS from a Compatible Certificate Tracking System by a process of Conversion. Certificates imported from a Compatible Certificate Tracking System must meet equivalent standards to the GATS. Conversion entails designating the Certificate as exported from the exporting tracking system and the creation of a corresponding Certificate. One overarching requirement for all Certificates imported from another tracking system is that the Certificates must meet the Clean Energy Portfolio Standard definition of one of the PJM states (i.e., it must be CEPS-Eligible). Also, prior to any imports, the GATS Administrator will have to develop a protocol for converting Certificates between the GATS and the other Certificate tracking system(s). The importing of Certificates may be subject to state restrictions. After agreements have been reached with other tracking systems, the GATS will post a list of Compatible Certificate Tracking Systems on its website. As other tracking systems develop, the GATS will strive for compatibility. This compatibility will be based on minimum standards to ensure the security and integrity of the Certificate information and reciprocity of Conversion.

To import certificates into the GATS, the Account Holder that wishes to import the certificates must notify the GATS Administrator of the desire to import certificates. The Account Holder must identify the name and account information of the party that is exporting the Certificates from one of the Compatible Systems. The GATS Administrator will communicate with the Administrator of the Compatible System and arrange for a conversion of Certificates. Such a conversion will involve the export of the Certificate from the exporting System, and the issuance of a new Certificate by the GATS. The converted Certificate will designate the system of origin and GATS will maintain a record of the serial number that was assigned in the exporting system.

The GATS Administrator will ensure the export of the Certificates from the Compatible System by establishing a protocol for such exports with the System Administrator of the Compatible System.

Exports from the GATS to another Compatible Certificate Tracking System will work in the same fashion.

The GATS shall provide Account Holder notification when export and import transactions are completed.

#### 12.4. Export of Certificates

Export of Certificates out of the GATS can occur without associated Energy deliveries out of PJM. Certificates can only be exported out of the GATS to a Compatible Certificate Tracking System using the Reserve Subaccount. Account Holder's accounts shall include one Reserve Subaccount. The Reserve Subaccount will include all the data related to each export, including the name of the Compatible Certificate Tracking System to which the Certificate was exported.



Certificates that are exported from the GATS may be imported back into the GATS only if they are imported from a Compatible Certificate Tracking System.

## 12.5. Preventing Double Counting of Imported/Exported Certificates

For Certificates that are being imported/exported from another tracking system, the problem of double-counting will be handled through the cooperative agreements between the two tracking systems.

For Certificates that are created within the GATS from generators located outside of PJM, this should not be a problem since the Certificates are created from revenue meter quality data and the generator has signed an affidavit that its Certificates are created only in the GATS.



# 13. Retail LSE Obligations and Accounts

## 13.1. Retail LSE Obligations, Accounts and Subaccounts

Each Retail LSE in PJM shall register for an account with the GATS Administrator and for at least one Retail LSE Subaccount for each Billable State and for any external sales of Energy. Only Retail LSEs shall have Retail LSE Subaccounts within their accounts. Also, each Retail LSE shall have one default Retail LSE Subaccount for each Billable State.

A Retail LSE will have a Certificate obligation calculated as described below ("Certificates Obligation"). Each Account Holder's Certificates Obligation will be rounded to whole MWh amounts, with 0.5 MWh or more being counted as 1 MWh and less than 0.5 MWh being counted as 0 MWh.

Each Retail LSE's Certificates Obligation shall initially be assigned to the default subaccount for the state in which the load was served. A Retail LSE's Certificates Obligation in any state may be further disaggregated into separate Retail LSE Subaccounts for each product offered by such Retail LSE in a particular state, at the Retail LSE's discretion and as designated by the Retail LSE.

The Certificates on deposit in any Retail LSE's Retail LSE Subaccounts in any Trading Period may not at any time exceed its Certificates Obligation for that Trading Period. Retail LSEs may hold Certificates in their Default Subaccounts for the State without assigning them to any other Retail LSE Subaccount.

### 13.2. <u>Calculation of Certificates Obligation</u>

During the Certificate creation process, the GATS will calculate the Certificates Obligation of each Retail LSE for the month based on electrical load data from the PJM Market Settlement System.

Certificates Obligations for load serving obligations during a calendar year may only be satisfied with Certificates associated with Energy generated during such calendar year.



## 13.3. <u>Transfer of Certificates Obligations</u>

A Retail LSE may transfer any part of its Certificates Obligation to any Retail LSE Subaccount held by such Retail LSE or another Account Holder. If such transfer is to or between any Subaccounts held by the same Account Holder, the state on the both Subaccounts must be the same. If such transfer is to another Account Holder, the transferring Retail LSE shall reflect such transfer in the GATS by indicating in the GATS that such Certificates Obligation has been transferred and selecting the transferee. In turn and in a similar fashion, the transferee of the Certificates Obligation shall confirm the transfer in the GATS. The transferring Account Holder may cancel any Certificates Obligation transfer before such transfer has been confirmed by the transferee by withdrawing the transfer in the GATS. The transfer of any Certificates Obligation shall only be registered in the GATS upon the electronic notification by both the transferor and the transferee. The transferred Obligations are placed in the transferee's default Retail LSE Subaccount for the state to which the obligations applied in the transferee's account. If a default Retail LSE Subaccount for the state does not exist in the transferee's account the transfer is rejected.

## 13.4. Energy Used for Pumped Storage

For pumped storage Generating Units, the Account Holder that owns this unit is not assigned any obligations. Instead Obligations are placed in the Administrator's Subaccount for the excess of (x) Energy used for pumping at pumped storage Facilities in the Control Area over (y) Energy generated by such pumped storage Facilities. At the end of each Trading Period, Residual Mix Certificates are assigned to each MWh of Certificate Obligations in the Administrator's Subaccount.



# 14. End of Trading Period Processing

#### 14.1. Creation of Residual Mix Certificates

At the end of each Trading Period, (i) all trading of Certificates for that Reporting Period shall cease, (ii) Residual Mix Certificates will be created based on Unsettled Certificates, and (iii) the GATS Administrator will issue any required reports. Unsettled Certificates used in the calculation of the Residual Mix will be retired and cease to exist for the purposes of the GATS.

Unsettled Certificates include all Certificates in the Administrator's Subaccount and all Certificates issued for that Reporting Period that have not been transferred to one of these other Subaccounts:

- 1. CEPS Subaccount.
- 2. Retail LSE Subaccounts, and
- 3. Reserve Subaccount.

The Attributes contained on any Unsettled Certificate at the end of the Trading Period shall become part of the pool of Attributes upon which the Residual Mix Certificates shall be based. Residual Mix Certificates created by the GATS will reflect Certificate fields that are per MWh averages of the aggregate characteristics of the remaining Unsettled Certificates for that Reporting Period. Each Residual Mix Certificate will be designated as such on its face.

## 14.2. Allocation of Residual Mix Certificates

After the close of each Trading Period, the GATS shall assign Residual Mix Certificates to each MWh of Certificates Obligations in each Retail LSE Subaccount that does not have a Certificate already associated with it.

#### 14.3. Determine LSE's Disclosure Label

The LSE's Disclosure Label is based on the Certificates in their Retail LSE Subaccounts. Certificates in the Active, CEPS and Reserve Subaccounts are excluded from the Disclosure Label. The Retail LSE Subaccounts are cleared out once this Disclosure Label is created in preparation for the next Trading Period. Information about Certificates that were in the Retail LSE Subaccounts for a previous Reporting Period can be accessed via reports.

Retail LSEs can create their Disclosure Label in the GATS for various timeframes and by state (selected when Disclosure Label is generated). If the Disclosure Label is generated for a Reporting Period for which Residual Mix Certificates have not yet been created, the system calculates an estimated Residual Mix and applies this to the Unfulfilled Obligations. This estimated Residual Mix may be generated during the monthly Certificate creation process if processing on demand is a performance issue.

The system displays the following on the Disclosure Label:



Figure 11: Information on a Disclosure Label

Field	Rules	
Account Holder	The name of the LSE	
Period	<ul> <li>The Start Month and End Month is entered by the Account Holder.</li> <li>Start month must be before the End Month.</li> <li>End Month must have Certificate generated (i.e. the Disclosure Label cannot be created for a month until that month is processed by the GATS).</li> </ul>	
State	The state selected.	
Fuel Mix	<ul> <li>Each fuel type used and the percentage for that fuel type.</li> <li>Renewable fuel type are highlighted.</li> </ul>	
Percentage of Renewable	Percentage of Certificates that are CEPS-	
Energy	eligible in that state.	
Emissions by pollutant (in lbs/MWh)	Calculated for the selected period and state.	

The LSE or the GATS Subscriber Regulator can create a Disclosure Label. The GATS Subscriber Regulator can only see the state they are responsible for. The Disclosure Label can be printed and exported.



# 15. Reporting and Confidentiality

#### 15.1. GATS Reports

There will be four general types of reports available through the GATS:

- 1. Administrator,
- 2. Account Holder.
- 3. State Agency (i.e., Regulators of Subscribers), and
- 4. Public.

All reports will have some sorting, print, export and customization options, so that the viewer can create a report that meets their specific needs within some limited parameters. Publicly available reports will be available on the GATS Site. All other types of reports will be available to authorized Account Holders through a password protected area of the GATS Site.

Each of the agencies listed on Appendix E (the "GATS Subscriber Regulators") shall have access, via a secure, password restricted internet portal, to quarterly and annual State Agency reports generated by the GATS Administrator. Quarterly and annual reports shall be provided in accordance with the timeline in Appendix D. Notwithstanding the availability of such reports to the state agencies, each entity subject to any state requirement is responsible for demonstrating compliance with that state requirement, and neither the GATS Administrator nor PJM has any responsibility for ensuring an entity's demonstration of compliance with state requirements.

## 15.2. Confidentiality: Access to Private Account Holder Information

Access to accounts will be limited through a password protected portal, accessible through the GATS Site. Only the Account Holder or its representative or agent will be given user ids and passwords. The GATS Administrator will set a default password that must be changed and adhere to EIS Security Standards.

The GATS Administrator will have access to all Account Holder information, though this information will be held strictly confidential and will not be shared with other parties, except in system aggregate or as indicated in the reporting section above. Besides the GATS Administrator, no other party will have access to an individual Account Holder's information, other than the Account Holder him/herself. The GATS Administrator can change the Account Holder's data but these changes are audited and the Account Holder is notified of the changes.



# 16. Availability & Reliability

The GATS is not a real-time system. The GATS will deliver 99% availability during normal Business Hours (Monday through Friday, excluding holidays, between the hours of 8 AM to 4 PM EST). This conservative figure allows for 23.5 hours/year of downtime during Business Hours. Microsoft suggests 20 minutes per incident as a typical recovery time. Hence, 99% availability allows for some 70 incidents during Business Hours per year. To further insure high availability during Business Hours, all scheduled maintenance shall be deferred until after Business Hours shall be deferred. Availability outside Business Hours is undefined. However, excluding periods reserved for maintenance, it is expected that the system will be available to Account Holders twenty-four hours a day, seven days a week.

For purposes of computing availability, downtime caused by failure of PJM systems or internet routing problems shall not count against the actual availability of the GATS functions. Similarly, scheduled downtime or any downtime outside normal Business Hours shall not be included in any calculations for the GATS availability. EIS may extend the Trading Period for Certificates in accordance with the Operating Rules as necessary to compensate Account Holders for loss of opportunity to trade Certificates during periods of unavoidable loss of access to the GATS.

Operational capability should be restored within a reasonable period of time following a system failure. This implies the ability to quickly and accurately detect and diagnose a fault. The system will provide tools to monitor system status and to proactively notify the system administrator in the event of a system failure.

In the event of total system failure, data loss should be limited to less than one day's activity. EIS will restore the system to the most recent backup, and Account Holders will be required to reenter any transactions that occurred since the backup.

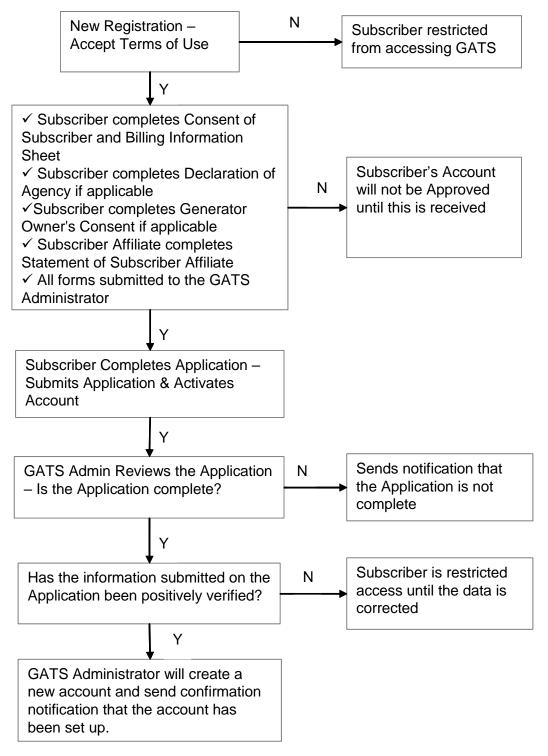


# **APPENDICES**



### Appendix A

### **Account Holder Registration Process Overview**





# **Appendix B**

# **Generator Static Data Fields**

Data Element	Required	Format	
PJM Generator	Yes	Yes or No	
MSET Gen ID	Required for PJM & Imported Generators	Entered for Imported Generators.	
GATS Gen ID	N/A	For BTM and External Generators, the system assigns a GATS Generator ID.	
Plant Name	Yes		
Unit Name	Yes		
Status	No	N/A - Read only set by system to Pending	
Name Plate Capacity	Yes	Positive Number with one decimal place in MW	
Location of unit	Yes	Defaulted to "PJM Control Area" and can be changed to one of the following:  New England (ISO New England Control Area)  New York (NY ISO control area)  Ontario  Quebec  Maritime Provinces (including portions of Maine not in Control Area)  Mid-Western States (ECAR and MAIN)  Southern States (SERC and FRCC)  Other (WECC, ERCOT, SPP and MRO)	
Street Address	Yes		
City, County	Yes		
State, Zip Code	Yes	Any state (not restricted to PJM Control Area)	
Are you the physical owner of the	Yes	Selected from the following list:	
generating system located at this address.		<ul><li>Owner</li><li>Generator Broker</li><li>Offtaker</li></ul>	
Name of Generator Owner	Yes	Y or N (not a required field)	
Vintage (date of commercial operation)	Yes	MM/YYYY	
Repowering/derate date	Yes	• MM/YYYY	
		• If not applicable enter N/A.	



Data Element	Required	Format
Capacity addition/subtraction	Yes	<ul> <li>Positive or Negative Whole Number with one decimal place in MW</li> <li>If not applicable enter N/A.</li> </ul>
FERC hydroelectric license	Yes	• MM/YYYY
relicensing date		• If not applicable enter N/A.
CEM Reporting	Yes	Yes or No
ORIS PL	Yes	<ul> <li>One to six digits</li> <li>The code associated with this plant by the Office of Regulatory Information Systems (ORIS)</li> <li>If the unit does not have an ORIS PL code then enter N/A</li> </ul>
Emission Unit Id(s)	Yes	<ul> <li>One to six characters</li> <li>The code assigned to each individual emission unit by the EPA</li> <li>A generator can have multiple IDs</li> <li>If no unit number exists then enter N/A</li> </ul>
Peer unit name and address	Yes	<ul> <li>Used if not reporting actual generator emissions</li> <li>If not applicable enter N/A.</li> </ul>
Single/Multi-fuel Indicator	Yes	Single or Multi
Fuel Type	Yes	If <i>Single</i> is selected then one fuel type is selected. If <i>Multi</i> is selected then many fuel types are selected and one is identified as the <b>Primary</b> .
Fuel Type Attributes	No	Displayed based on fuel type selected. For the initial release of the GATS, no fuel types Attributes are defined.
State Program Fields	No	See table below for details



**Fuel Type** is a required field. The GATS supports the fuel types in the table below. If the Single/Multi-fuel Indicator is set to 'Single', then one fuel type is selected. If the Single/Multi-fuel Indicator is set to 'Multi' then more than one fuel type is selected and one is identified as the Primary.

Category	Energy	Fuel Type	Fuel Type
. ·	Source Code	(Short Description)	(Description)
Captured	CMG	Captured Methane - Coal Mine Gas	Coal Mine Methane Gas
Methane	LFG	Captured Methane - Landfill Gas	Landfill Gas
	BIT	Coal - Bituminous and Anthracite	Bituminous Coal and Anthracite Coal
	LIG	Coal - Lignite	Lignite Coal
Coal	SC	Coal - Coal-based Synfuel	Coal-based Synfuel and include briquettes, pellets, or extrusions, which are formed by binding materials and processes that recycle material
	SUB	Coal - Sub-Bituminous	Sub-Bituminous Coal
	WC	Coal - Waste/Other	Anthracite Culm, Bituminous Gob, Fine Coal, Lignite Waste, Waste Coal
Energy Efficiency	EE	Energy Efficiency	Energy efficiency technologies, management practices, or strategies that reduce electrical consumption by customers
Demand Response	DSR	Demand-Side Response	Demand response technologies that shift electrical load from periods of higher demand to periods of lower demand
Energy Storage	ESR	Energy Storage Resource	Battery, Flywheel, Compressed Air, or other energy storage resource that produces electrical energy upon discharge (excluding pumped hydro)
Fuel Cell	FCN	Fuel Cell - Non- Renewable	An electrochemical device that converts a non-renewable fuel's chemical energy directly into electricity, heat and water without combustion
	FCR	Fuel Cell - Renewable	An electrochemical device that converts a renewable fuel's chemical energy directly into electricity, heat and water without combustion
Gas	BFG	Gas - Blast-Furnace Gas	Blast-Furnace Gas
Jas	NG	Gas - Natural Gas	Natural Gas



Category	Energy	Fuel Type	Fuel Type
category	Source	(Short Description)	(Description)
	Code	(521010 2 65011 P01012)	(2 3501- <b>p</b> 11012)
	CNG	Gas - Compressed	Compressed Natural Gas
		Natural Gas	
	OG	Gas - Other	Butane, Coal Processes, Coke-Oven,
			Refinery, and other processes
	PG	Gas - Propane	Propane
Geo-	GEO	Geothermal	Geothermal
thermal			
Hydro	WAT	Hydro - Conventional	Hydroelectric turbine
Nuclear	NUC	Nuclear	Uranium, Plutonium, Thorium
Ocean	OC1	Ocean	Ocean Thermal, Ocean Tidal, Ocean
Ocean			Wave
	DFO	Oil - Distillate Fuel Oil	All Diesel and No. 1, No. 2, and No. 4
			Fuel Oils
	JF	Oil - Jet Fuel	Jet Fuel
	KER	Oil - Kerosene	Kerosene
	PC	Oil - Petroleum Coke	Petroleum Coke
Oil	RFO	Oil - Residual Fuel Oil	No. 5 and No. 6 Fuel Oils and Bunker
			C Fuel Oil
	WO	Oil - Waste/Other Oil	Butane (Liquid), Crude Oil, Liquid
			Byproducts, Oil Waste, Propane
			(Liquid), Re-Refined Motor Oil,
			Sludge Oil, Tar Oil
	OTH	Other	Other (Batteries, Chemicals, Coke
Other			Breeze, Hydrogen, Pitch, Sulfur, Tar
	1.5	7	Coal, and miscellaneous technologies)
	AB	Biomass - Agriculture	Agriculture Crop
	ODG	Crops	Byproducts/Straw/Energy Crops
	OBG	Biomass - Other Biomass	Digester Gas, Methane, and other
	ODI	Gases	biomass gases
	OBL	Biomass - Other Biomass	Ethanol, Fish Oil, Liquid Acetonitrile
Othor		Liquids	Waste, Medical Waste, Tall Oil,
Other Biomass			Waste Alcohol, and other biomass liquids not specified
Diomass	OBS	Biomass - Other Biomass	Animal Manure and Waste, Solid
	ОВЗ	Solids	Byproducts, and other solid biomass
		Solids	not specified
	PW	Biomass - Poultry Waste	Biomass – Poultry Waste
	SLW	Biomass - Sludge Waste	Sludge Waste
	SW	Biomass – Swine Waste	Biomass – Swine Waste
Pumped	HPS	Pumped Storage	Pumped Storage
Storage	111.5	1 uniped Storage	1 amped storage
	SUN	Solar - Photovoltaic	Photovoltaic
Solar	STH	Solar - Thermal	Solar Thermal
	_ ~	Solul Hilling	NOTHER PROPERTY.



Category	Energy	Fuel Type	Fuel Type
	Source	(Short Description)	(Description)
	Code	•	
	MSW	Solid Waste - Municipal	Municipal Solid Waste
Solid		Solid Waste	
Waste	TDF	Solid Waste - Tire	Tire derived fuel
		Derived Fuel	
	WH	Waste Heat	Heat that is a by-product of an
Waste			industrial process and which is used in
Heat			the direct production of electricity at
			the facility of a customer
Wind	WND	Wind	Wind
	BLQ	Wood - Black Liquor	Black Liquor
	WDL	Wood - Wood Waste	Red Liquor, Sludge Wood, Spent
		Liquids	Sulfite Liquor, and other wood related
Wood			liquids not specified
	WDS	Wood - Wood/Wood	Paper Pellets, Railroad Ties, Utility
		Waste Solids	Poles, Wood Chips, and other wood
			solids



- State Program fields are entered for each fuel type selected.
- When a Generating Unit is registered, the Account Holder can select 'yes' for up to one program in each state. If a State Program eligibility field is set to 'yes' for a state, a State Certification Number (assigned by the state) must be entered for that state.
- BTM and External Generators must be eligible for a State Program in at least one PJM state.
- The Account Holder cannot edit the State Program fields after the generator has been registered and approved by the GATS Administrator.
- State regulators will review the generator's state programs for their state, and can update these fields as necessary. Changes made by the GATS Subscriber Regulator will apply to any Certificates created subsequently.
- The GATS Administrator is able to retroactively update eligibility for state programs on Certificates created during the current trading period, upon request by an authorized state agency.
- If an eligibility end date is entered, Certificates created for generation in a month and year after the eligibility end date have the eligibility status for that state set to 'No'.
- Certificate State Program qualification is not affected by emissions data source used.
- For a PJM Generator with multiple fuel types, if the Account Holder did not split the generation for each fuel type, then for all certificates from that generator the primary fuel type will be used and the State Program qualification will be set to 'No'.

State	Data Element	Format
	Solar Renewable Energy Credit (REC)	Yes or No
		Defaulted to No
	Transition Renewable Energy Credit	Yes or No
	(TREC)	Defaulted to No
	Successor Renewable Energy Credit	Yes or No
New Jersey	(SREC II)	<ul> <li>Defaulted to No</li> </ul>
	Class I renewable Energy source	Yes or No
		Defaulted to No
	Class II renewable Energy source	Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	State Certification Number	
	Eligibility End Date	• MM/YYYY
	Solar Renewable Energy Credit (REC)	• Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	Tier 1 renewable Energy source	• Yes or No
Maryland		Defaulted to No
	Tier 2 renewable Energy source	• Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	State Certification Number	
	Eligibility End Date	MM/YYYY



State	Data Element	Format
	Solar renewable Energy source	Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	Tier 1 renewable Energy source	Yes or No
District of		<ul> <li>Defaulted to No</li> </ul>
Columbia	Tier 2 renewable Energy source	Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	State Certification Number	
	Eligibility End Date	MM/YYYY
	Solar renewable Energy source	Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	Tier I renewable Energy source	Yes or No
Donnaylyania		<ul> <li>Defaulted to No</li> </ul>
Pennsylvania	Tier II renewable Energy source	Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	State Certification Number	
	Eligibility End Date	• MM/YYYY
	New Eligible Resource	• Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	Eligible Resource	• Yes or No
Delaware		<ul> <li>Defaulted to No</li> </ul>
Delaware	Solar Renewable	• Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	State Certification Number	•
	Eligibility End Date	• MM/YYYY
	Solar Renewable	• Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	Renewable	• Yes or No
Illinois		<ul> <li>Defaulted to No</li> </ul>
IIIIIOIS	Utility Only	• Yes or No
		<ul> <li>Defaulted to No</li> </ul>
	State Certification Number	
	Eligibility End Date	MM/YYYY
	Solar Renewable	• Yes or No
Ohio		Defaulted to No
	Renewable	• Yes or No
		Defaulted to No
	State Certification Number	
	Eligibility End Date	MM/YYYY
	Renewable Energy Resource	• Yes or No
Virginia		Defaulted to No
8	State Certification Number	
	Eligibility End Date	MM/YYYY



State	Data Element	Format



### **Appendix C**

### **Documentation Requirements for Multi-Fuel Generating Units**

Upon registration with the GATS as a Multi-fuel Generating Unit, each such Multi-fuel Generating Unit's account-holder must submit to the GATS Administrator a report prepared by an independent professional engineer containing documentation of a methodology for calculating the electricity production associated with each fuel used during a month, consistent with the applicable requirements of Section 6.5.3. Following the GATS Administrator's review and acceptance of such a report's methodology, the Multi-fuel Generating Unit's Account Holder may seek creation of Certificates subject to the provisions of Section 6.5.4. This requirement will be waived for Facilities that provide fuel-split information to a state or other regulatory authority.

Documentation of the following information used to calculate the proportion of electric output per fuel type, by MWh, generated by the Generating Unit during a calendar month must be maintained by Multi-fuel Generating Units seeking Certificates, using the best available sources of information. If the Generating Unit already provides documentation to regulatory entities addressing each of the items below or otherwise provides substantiation of the percentage of generation from each fuel type to regulatory entities, this documentation may substitute, upon approval of the GATS Administrator, for the requirements listed below.

- 1. Quantities of each fuel type (other than solar) must be measurable and verified by documentation provided to Control Area Operators, EPA or state air regulators, if available. If such documentation is not available, verifiable documentation of fuel quantities consumed during the month may be considered, such as: metered liquid or gaseous fuel input where the meter is read by an independent third party so long as such entity has an agreement with the GATS Administrator, or financial records of fuel supply deliveries coupled with plant reports documenting mass of each fuel consumed in each calendar month.
- 2. Documentation of net heat content for each fuel source other than solar thermal must be supported by documentation of heat content measurement by an independent laboratory.
- 3. If specification of a heat rate is required according to provisions of Section 6.5.3, the heat rate must be determined according to testing certified by an independent third party consistent with the protocol accepted for plant heat rate testing in the plant's Control Area. If different heat rates apply for different fuels, the determination for each applicable heat rate must meet the requirements of this paragraph.



## Appendix D

#### **Certificate Creation Timeline**

Certificate Creation Last Business Day

PJM Settlements Completed	Dynamic Data Import and Verification	Account Holder Review Period
1 <sup>st</sup> thru 5 <sup>th</sup> Business Day	6 <sup>th</sup> thru 9 <sup>th</sup> Business Day	10 <sup>th</sup> thru next to last Business Day

Certificate Creation Timeline - Month following month of generation)

- 1. Certificates are created monthly 10 on the last business day of the following month. Account Holders will be able to review data during the Account Holder review period from the 10th business day to the day before Certificates are created.
- 2. If an Account Holder does not enter emissions data during the Account Holder review period, Certificates will be created using default emission rates, e.g., using the EPA's eGRID data or CEMS data from the previous calendar year.
- 3. Preliminary reports are issued each quarter. These reports are cumulative and include a preliminary Residual Mix calculation. No Certificates are transferred as a result of the preliminary Residual Mix calculation.
- 4. There is an Annual Settlement in late February for the preceding calendar year.
- 5. Certificates that are CEPS eligible in any PJM state can be transferred to a CEPS Subaccount any time prior to the Annual Settlement Date so that they can continue to be traded. 11
- 6. On the Annual Settlement Date, all Unsettled Certificates from the previous calendar year that remain in the Active Subaccounts will be included in the Residual Mix calculation and no longer tracked. CEPS-Eligible Certificates that remain in the Active Subaccount will be automatically transferred to the CEPS Subaccount during the End of Period Processing.

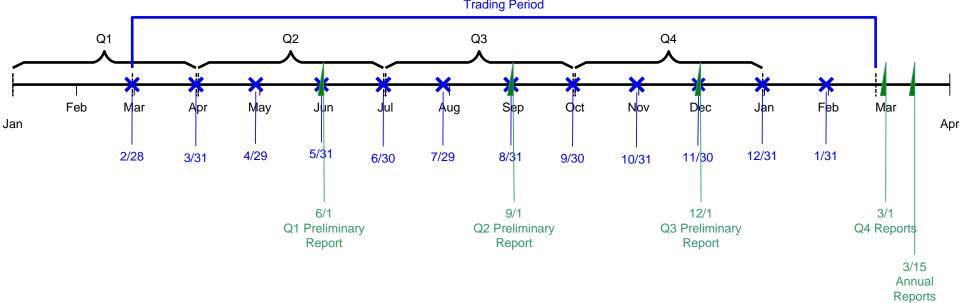
<sup>&</sup>lt;sup>10</sup> The periodicity for Certificate creation was changed from quarterly to monthly to accommodate the possibility of differing state reporting periods. For example, the NJ RPS reporting year is June 1st to May 31st. CEPS eligible Certificates submitted for compliance in NJ must be based on energy generated in the reporting year and an annual report must be filed by each supplier/provider by September 1st. In the previous GATS timeline proposal, Certificates for Q2 would not have been created until September 15th, so CEPS/RPS eligible Certificates for Q2 could not be used for compliance in NJ.

<sup>&</sup>lt;sup>11</sup> The provision to transfer CEPS eligible Certificates to a CEPS account and exclude them from the Residual Mix calculation was implemented so that CEPS eligible Certificate expiration dates will be determined by state policies.



### **GATS Timeline**

2/28 - 2/24 Trading Period





### Appendix E

### **Regulatory Agencies**

#### Energy Regulatory Agencies <a href="http://www.naruc.org/displaycommon.cfm?an=15">http://www.naruc.org/displaycommon.cfm?an=15</a>

**Delaware Public Service Commission** 

Illinois Commerce Commission / Illinois Power Agency

Indiana Utility Regulatory Commission

Kentucky Public Service Commission

Maryland Public Service Commission / Maryland Energy Administration

Michigan Public Service Commission

New Jersey Board of Public Utilities

North Carolina Utilities Commission

Ohio Public Utility Commission

Pennsylvania Public Utility Commission

Tennessee Regulatory Authority

Virginia State Corporate Commission

West Virginia Public Service Commission

District of Columbia Public Service Commission

Federal Energy Regulatory Commission

### Environmental Regulatory Agencies <a href="http://www.epa.gov/epahome/state.htm">http://www.epa.gov/epahome/state.htm</a>

Delaware Department of Natural Resources & Environmental Control (DNREC)

Illinois Environmental Protection Agency (IEPA)

Indiana Department of Environmental Management (IDEM)

Kentucky Environment and Public Protection Cabinet (EPPC)

Maryland Department of the Environment

Michigan Department of Environmental Quality (MDEQ)

New Jersey Department of Environmental Protection (DEP)

North Carolina Department of Environment and Natural Resources (DENR)

Ohio Environmental Protection Agency

Pennsylvania Department of Environmental Protection (DEP)

Tennessee Department of Environment and Conservation (TDEC)

Virginia Department of Environmental Quality (DEQ)

West Virginia Department of Environmental Protection (DEP)

District of Columbia Environmental Health Administration

U.S. Environmental Protection Agency

#### State Attorneys General <a href="http://www.naag.org/ag/full\_ag\_table.php">http://www.naag.org/ag/full\_ag\_table.php</a>

For the following PJM states and the District of Columbia:

Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.



# **Publication Record**

Date Revised	Revision No.	Summary of Changes
1/2024	12	•
9/2020	11	Appendix B - Updated Fuel Cell descriptions
		Appendix F – Updated to Appendix E
		Removed references to the old Appendix E - Reports
10/2019	10	•
10/2019 12/2011	10 7	
		<ul> <li>Administration</li> <li>Appendix F – Energy Regulatory Agencies – Added Federal Energy Regulatory Commission</li> <li>Appendix F – Environmental Regulatory Agencies – Added U.S. Environmental Protection Agency</li> </ul>



Date	Revision	Summary of Changes
Revised	No.	Summary of Changes
9/2010	6	<ul> <li>Section 2 – Definition of Terms – Added definition for Third Party Reporter (TPR)</li> </ul>
		• Section 3 – Added that GATS tracks kWh
		• Section 5.1 – Added the acceptance of the Terms of Use online
		• Section 5.3.1 – Added the TPR Registration Process
		• Section 6.1 – Removed Import Generator Information
		• Section 6.2 – Added the MISO Data import functionality
		• Section 6.2.7.f – Added 30 day notification
		• Section 6.3.3.d – Added language regarding switching from estimates
		• Section 6.3.3.e, f, g – Added retroactive rules are by state
		• Section 6.3.7 – Third Party Reporter – Added the rules for the Third Party
		Reporter
		• Section 7.4 –Added what reasons are charged
		Section 7.5 –Added Bulletin Board Purchases
		• Section 8.3 –Added Account Holder review period time update
		• Section 10.2 – Standing Orders – added language that Standing Orders are
12/0/2000	_	only available for PJM Generators
12/8/2008	5	Section 2 – Definition of Terms – Added definitions for Emission Free  Energy and Emission Free Energy Contificate
		<ul> <li>Energy and Emission Free Energy Certificate</li> <li>Section 6.1.3.c &amp; Figure 1 – Added solar to classifications of generators and</li> </ul>
		• Section 6.1.3.c & Figure 1 – Added solar to classifications of generators and added the data entry types
		<ul> <li>Section 6.3.3 – Non-PJM Generators – Added the generation data entry types</li> </ul>
		for the Solar Systems
		• Section 7.2 – Added CEPS eligible certificates will be transferred to the
		CEPS Account
		• Section 8.2.3.1 – Added the use of PV Watts
		• Section 8.2.5.1 – Add information regarding losses in the obligation numbers
		• Figure 6 – Data fields on a Certificate were updated.
		• Removed Appendix A and all references to Appendix A. All Appendix
		references were updated throughout the document.
5/10/2006	4	• Section 8.6, Figure 6 – Data Fields on a Certificate, added Delaware RPS
		programs fields.
		• Section 11.3 – removed provision stating that External Generators must be
		"located in states adjacent to PJM geographical boundaries." External
		<ul> <li>Generators must only qualify for a program in at least one PJM state.</li> <li>Appendix A – added Delaware to Comparison of RPS Programs, and added</li> </ul>
		<ul> <li>Appendix A – added Delaware to Comparison of RPS Programs, and added NJ RPS percentages for 2009 through 2020.</li> </ul>
		<ul> <li>Appendix C – Added six Fuel Types: EE - 'Energy Efficiency', DSR -</li> </ul>
		'Demand-Side Response', FCN – 'Fuel Cell (Non-renewable)', FCR – 'Fuel
		Cell (Renewable)', STH – 'Solar Thermal', and WH - 'Waste Heat'. Added
		fields for Delaware RPS program.
8/31/2005	3	General - Changed 'GATS Account Holder' to 'Account Holder' and 'GATS
		Certificate' to 'Certificate', and corrected capitalization for defined terms
		throughout the document.



	Revision	Summary of Changes
Revised	No.	• • • • • • • • • • • • • • • • • • • •
		<ul> <li>Section 2 –Added definitions for Generator ID, Generator Owner, Imported System Energy, Multi-fuel Generating Unit, Non-Unit Specific Imports, Offtaker, PJM Generators, PJM Market, Qualifying Facility, Subscriber Agent, State Certification Number, Trader and Unit-Specific Imports. Changed Generator Agent to Generator Broker. Deleted definitions of Aggregator, Broker, and Marketer.</li> <li>Section 5.3 – changed Generator Agent to Generator Broker.</li> <li>Section 8.7 – clarified rules for initial deposit of Certificates.</li> <li>Appendix B – updated Account Holder Registration Process Overview</li> <li>Appendix C – Updated Generator Static Data Fields to include 1) Name of Generator Owner and 2) Relationship of Account Holder to Generator</li> </ul>
8/10/2005	2	<ul> <li>Owner.</li> <li>General - Changed 'GATS User' to 'GATS Account Holder' throughout</li> <li>Section 2 - Modified definition of Small Wholesale Generation in this section and Section 6.1</li> <li>Section 4 - updated GATS Administration section to be consistent with Terms of Use</li> <li>Section 5 - updated GATS Account Holder Registration section to be consistent with Terms of Use</li> <li>Appendix A - minor corrections to Comparison of RPS Programs</li> <li>Appendix B - updated Account Holder Registration Process Overview</li> </ul>
6/30/2005	1	<ul> <li>General – Made miscellaneous corrections based on comments received on Rev 0</li> <li>Section 2 - Modified definition of Billable State, Certificate, and Retail LSE Subaccount. Added definitions for Emissions Protocol, Retail LSE, and Voluntary Market</li> <li>Section 6.5.6 – Added paragraph describing use of an approved Emissions Protocol for Multi-fuel Generation Units</li> <li>Section 8 and Appendix C – added capability for the GATS Administrator to retroactively update eligibility for state programs on certificates created during the current trading period, upon request by an authorized state agency</li> <li>Section 9.2 – added capability to allow Standing Orders to be defined for a fixed period of time and irrevocable by the Transferor</li> <li>Appendix A – updated Comparison of RPS Programs</li> <li>Appendix C – changed additional generator static data fields to be required, updated table of Fuel Types</li> <li>Appendix F – deleted two Administrator reports: 1) Serving LSE and 2) Delinquent Unit Exports</li> </ul>
4/12/2005	0	<ul> <li>Appendix G – Added North Carolina to list of State Agencies</li> <li>Initial published version.</li> </ul>