Best Practices for Transferring Certificates across Tracking System Boundaries

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Introduction

These recommendations were developed by the Center for Resource Solutions in consultation with the North American Association of Issuing Bodies (NAAIB) Working Group and other renewable market stakeholders. The NAAIB Working Group is a voluntary forum for tracking system operators, known as Issuing Bodies, and regulators to meet regularly to discuss issues of common interest. The NAAIB is a Program of the Center for Resource Solutions.

This document does not represent an agreement or set of common practices among tracking system operators. Although in most instances, the recommendations are based on the current practices of one or more certificate tracking systems, CRS acknowledges that not all of the recommended Best Practices are in effect today. Rather, this document presents the thinking of the Center for Resource Solutions on the Best Practices that should be encouraged to enable transfers of certificates between tracking systems when such inter-regional transfers are desirable. CRS advises individual tracking systems and state policy makers to consider these recommendations in the context of regional policy, regulation and market activity.

There are at least four groups that are creating a demand for more seamless inter-regional transfers, particularly of renewable certificates: renewable certificate retailers and wholesalers, renewable certificate buyers, particularly large corporate buyers of renewable certificates with or without associated energy, regulators that are considering expanding the geographic scope of the renewable generation that is eligible for a state RPS program, and tracking systems under development that intend to accommodate inter-regional transfers, but do not yet have any protocols as to how this will occur. While the Best Practices below can apply to both renewable and non-renewable certificate inter-regional transfers, we see the greatest need developing for common protocols in the renewable sector.

Assumptions and Purpose

Most of the tracking systems in operation today have some protocols in place for allowing imports and exports of energy or renewable certificates, though these protocols have not been standardized across all tracking systems and generally do not include any communication or coordination with the originating tracking system, if there is one. This paper assumes that, (1) there is a need to develop common protocols to allow the transfer of certificates between tracking systems that want to facilitate inter-regional transfers, and (2) when such transactions take place, coordination between the exporting and importing tracking system needs to occur to

prevent double-counting. We also assume that each tracking system has the sole responsibility for the import and export of certificates into and out of its Domain.[1]

The purpose of this document is to present some protocols and procedures that will allow those tracking systems that want to have the functionality to perform inter-regional transfers of certificates to be able to do so. The Best Practices contained herein reflect a set of procedures that tracking systems should be able to generally support, based on our understanding of their operating rules. That said, we do not assume that all tracking systems will make the effort to enable certificate transfers between tracking systems. Though no tracking system operator, regulator or other user is obligated to follow these recommendations, we hope that with industry consensus, these practices will be incorporated in state policies and operating procedures over time as more systems become involved with imports and exports.

For a summary of existing tracking system rules for importing and exporting certificates, please see Appendices A-E.

Best Practices Transferring Certificates between Tracking System

The following steps are recommended by Center for Resource Solutions as Best Practices for transferring certificates between tracking systems. These Best Practices are meant to apply equally to certificate transfers with an accompanying energy delivery and "certificate-only" transfers without any energy delivery. Although some tracking systems today do not recognize certificates that are not associated with energy actually consumed within a state or control area, CRS hopes in the future, with the development of common standards for executing inter-regional transfers, tracking systems will increasingly be enabled to support certificate-only transfers where desired. CRS believes that both the compliance program needs of states and the needs of the voluntary market can be met, if the functionality to allow certificate-only transfers is applied appropriately.

1.0 Initiating the Transfer

1.1 The party in possession of the certificates, i.e. the account holder with the certificates in their account, should initiate the transfer. This is done by notifying their tracking system of their desire to transfer certificates, in whatever fashion is required by that tracking system.

1.2 The minimal amount of information that the account holder should provide to their tracking system:

(a) the certificate numbers to be transferred,

[1] Domain is defined as either the geographic area of a tracking system (in a mandatory system where all generators located in that geographic area are required to participate in the tracking system) or in the case of voluntary systems, the Domain is defined as the group of generators that are registered with that tracking system for the purpose of issuing certificates.

(b) the destination tracking system,
(c) the account number of the transferee and
(d) the transferee account name for cross-checking the account number.

Individual tracking systems may require that additional information be provided.

2.0 Confirming the Validity of the Certificates

2.1 Upon receipt of a request to export certificates, the transferor's (exporting) tracking system should take necessary steps to assure that the certificates are valid for export. Although each tracking system may decide how this is best done within the rules of their system, the verification should confirm at a minimum that the certificates:

(a) are in an active state and transferable,
(b) have not already been retired, or otherwise taken out of circulation,
(c) have not already been applied to a disclosure label, sold to an end-use customer, used to meet a regulatory requirement, such as an RPS, or otherwise accounted for, and
(d) can not be used in any manner specified in (b) or (c) before the transfer is completed, rejected by the importing tracking system, or cancelled.

2.2 Upon verifying the validity of the certificates, the exporting tracking system should send an acknowledgement to the transferor notifying them that:

(a) their transfer request was received,
(b) their transfer request is being executed, or if not, why not, and,
(c) the certificates, as identified by the certificate numbers, are pending export.

2.3 The exporting tracking system should initiate a mechanism so that the designated certificates are "frozen" such that they can not be transferred, moved, or "used" while the export is pending completion.

3.0 Communication between Tracking System Operators

3.1 The method and process for communication used by the two tracking systems will be determined by individual agreements between tracking systems.[2] However, there are a few recommendations for the minimal information that should be included in the communication.

At a minimum, the exporting tracking system should provide the importing tracking system with the following information:

(a) the certificate numbers they wish to transfer,

[2] This description is intended to be conceptual only. At a later time, the Issuing Bodies may want to develop a more detailed software protocol, and then vendors can design solutions to this specification.

(b) the account number of the transferee,
(c) the transferee account holder's name,
(d) a confirmation of the validity of the certificates, i.e. that the certificates are "active" and that the information on the certificates has been verified in some manner. This may be done on an individual transfer basis or as a one time agreement between tracking systems.

In addition, the importing tracking system may request or require that additional information be provided so that it can determine if the certificates meet its criteria for import, such as proof that an energy delivery occurred (e.g., NERC tag information), a profile of the generating characteristics of the certificates, the vintage of the certificates, proof of RPS eligibility/state certification, etc.

4.0 Executing the Import

4.1 On receiving a request to import certificates, the importing tracking system should first confirm that the certificates meet their minimum criteria. If the certificates do not meet the criteria of the importing tracking system, then the importing tracking system should notify the exporting tracking system immediately. Whenever possible, the exporting tracking system should provide the additional information as is required by the importing tracking system if it is available.

4.2 If the certificates meet the criteria of the importing tracking system, the importing tracking system should notify the intended recipient (transferee) and ask them to accept or reject the transfer.

4.3 If the transfer is rejected by the receiving account holder, the importing tracking system should notify the exporting tracking system that the transfer was rejected.

4.3 If the transfer is accepted by the receiving account holder, then the importing tracking system should:

(a) Notify the exporting tracking system that the transfer was accepted. At this point the exporting tracking system should initiate the steps outlined in 5.0.
(b) Create new certificates that correspond with the imported certificates. The new certificates should contain the following data fields:

(1) All data fields that are normally present with any certificate issued by the importing tracking system,
(2) a field containing the original certificate serial number(s),
(3) a field identifying the originating tracking system,
(4) a field identifying the date of the import, and
(5) a field for the exporting account holder's name.

(c) The data fields for the new certificates should be populated as follows:

(1) The data should be carried over from the exported certificates for all data fields that are identical in both tracking systems;
(2) In cases where the exported certificates contain more data fields than are present in the importing tracking system, the data contained in those fields may be lost. If this happens, any party that wants to know the content of those data fields must use the serial number look-up function in the exporting system to find out more information about the certificate. It would be ideal if the importing tracking system decided to add additional fields to try to carry over *all* of the data; however we recognize this is not necessarily practical or feasible for all systems, and for this reason, do not include it in our recommendations at this time.
(3) In cases where the exported certificates contain fewer data fields than are present in the importing tracking system, we recommend that those fields be left blank. Again, it would be ideal if the importing tracking system made an effort to populate those fields with verified data, either by requiring the generator to register in their system, or otherwise going to external third party data sources, such as EIA, however, as with (c) (2) we recognize this may not be practical or feasible, and for this reason do not include it in our recommendations at this time.

5.0 Executing the Export

5.1 On receiving the confirmation from the importing tracking system that the transfer was accepted, the exporting tracking system should:

(a) Initiate an action to take the designated certificates permanently out of circulation in the exporting tracking system (for example, by changing the status of the exported certificates to "exported" and move those certificates to an export or reserve or retirement account).
(b) Make a notation on the certificate that indicates it was exported to another system. At a minimum, the notation should include:

(1) the date it was exported, and
(2) the tracking system it was exported to.

(c) Confirm the successful execution of the transfer with the importing tracking system.
(d) Notify the transferor account holder of the successful export of the certificates.

5.2 On receiving the notification from the importing tracking system that the transfer was rejected, the exporting tracking system should:

(a) Initiate an action to allow the certificates to be actively used, i.e. undo the "frozen" status that the certificates were in pending export; and
(b) Notify the account holder that their transfer request was rejected.

6.0 Special Provisions for Tracking Systems that Do Not Have a Periodic Settlement Process

For those tracking systems that do not have a periodic settlement process for all certificates,[3] CRS recommends that the tracking system disallow the importation of non-renewable certificates without an commensurate energy import when the certificate originated in a tracking system that has a periodic settlement process for environmental disclosure purposes.[4] If this were allowed, it would provide an opportunity for utilities participating in tracking systems that have a settlement to effectively greenwash their environmental disclosure labels by exporting their dirty electricity certificates, and park them indefinitely in an account in one of the systems that do not have a periodic settlement process. This recommendation is limited to those certificates originating in a tracking system that has a periodic settlement because we do not want to eliminate the possibility that there may be legitimate environmental reasons why a party might want to transfer a non-renewable certificate without associated energy, for example, natural gas certificates for voluntary carbon reduction programs.

7.0 Special Provisions for Tracking Systems that Allow Certificate-Only Transfers

For those tracking systems that allow certificate-only transfers, we recommend that the tracking systems have some mechanism to differentiate inter-regional certificate transfers that occur with an energy delivery from those without an energy delivery. The rationale for this recommendation is that regulators and potential buyers may want this information to determine program eligibility, assess environmental impacts of the certificate transfer on the local electricity system, or simply because this characteristic may confer a different value in the market.

Other Recommended Best Practices:

Serial Number Look-Up Function: We recommend that all tracking systems have a serial number look-up function that would allow any person to fill in a certificate serial number and be provided with non-confidential information about the certificates, including, but not limited to, the generation characteristics, the vintage of the certificate, the current status of the certificates and if the certificate originated in another tracking system. This will assist all interested parties, including consumers, regulators and tracking system operators, to find out additional information about an imported/exported certificate if desired.

[3] Currently this includes WREGIS, M-RETS and ERCOT RECs.
[4] Currently, PJM GATS and NEPOOL GIS have periodic settlement processes.

Appendix A: Issuing Body Rules for Unit-Specific or Certificate-Only Imports

(This may not apply to system mix imports)

	GIS	GATS	NJ BTM	WREGIS	M-RETS
1a. Energy delivery	Energy must be delivered into NEPOOL control area	Can issue certificates whether or not energy is delivered into PJM, but for certificates to be counted on a retail LSE's environmental disclosure label, the energy must be delivered into PJM	Energy must be delivered to a New Jersey distribution utility.	Energy delivery not required	Not specifically addressed, though stakeholder discussions assumed energy delivery not required
1b. Certificate-only imports from a region without a Compatible Tracking System	Not allowed	Certificate-only imports must qualify for RPS in at least one PJM state, state must approve creation of certificates	Currently not allowed.	WREGIS will accommodate generation units in states/provinces included and bisected by the WECC geographical boundaries that could qualify under state/provincial renewable energy laws/programs	Not Allowed
1c. Certificate-only imports from a Compatible Tracking System	Not currently allowed.	Certificates must qualify for RPS in at least one PJM state	Currently not allowed.	Certificates must meet the renewable definition of one of the western states.	Allowed
2. Certificate Eligibility	Certificates must come from GU that is eligible under one of the GIS "green" RPS fields	Certificate-only imports must qualify for RPS in at least one PJM state	Currently not allowed.	Must be from a "Compatible Tracking System" which is not yet defined	Must be from a "Compatible Tracking System" which is not yet defined
3. GU location	GU must be located in adjacent control area	Certificate-only imports must qualify for RPS in at least one PJM state, state must approve creation of certificates	Currently not allowed.	Must be part of a compatible tracking system, or GU must be located in states included or bisected by WECC.	Must be part of a compatible tracking system, or GU must have a contract with a participating utility to delivery energy into the

					M-RETS footprint.
4. Exporting GU registration	Importer must register GU in the GIS and provide the unit-specific generation data.	GU need not be registered in GATS, but if not, System Mix Certificates are created for these imports	Currently not allowed.	For purposes of issuing certificates, GU must be registered in M-RETS. Issue not addressed if certificate is coming from a compatible tracking system..	For purposes of issuing certificates, GU must be registered in M-RETS. Issue not addressed if certificate is coming from a compatible tracking system..
5. Transmission rights	GU must have transmission rights over the ties to the NEPOOL control area	GU must have transmission system reservation if energy is to be delivered into the Control Area	Facility must be connected to distribution system of a NJ utility.	Transmission rights not required because of (1)	Assume transmission rights not required because of (1)
6. NERC tags	Importer must provide NERC tags for the imported energy that meets the requirements of both NEPOOL and the adjacent source control area regarding external transactions for energy.	NERC tags are required for delivered energy	Not applicable.	NERC Tags not required because of (1)	Assume NERC Tags not required because of (1)
7. Source of dynamic data for energy generated outside footprint of tracking system	Unclear	Imported energy is provided to GATS from the PJM market settlement system, or importing account holder must provide meter data to GATS.	Not applicable.	WREGIS can issue certificates from outside of WECC if the GU arranges to have meter data that meets WREGIS requirements delivered to WREGIS by their control area operator; GU also must sign an affidavit to prevent double-issuing;	Exporter must meet equivalent standards for data quality- assume that source must be same as in M-RETS, i.e. settled meter data (there are some limited exceptions)
8. Dynamic data verification	Importer must provide APX with evidence, which has been verified by APX, that GU actually generated the energy. (Comment - I don't	Importer must provide meter data demonstrating that the generator produced the scheduled number of MWh during the month.	Existing account holders for all non-solar facilities, and solar facilities > 10 kW provide monthly inverter or meter data which is verified by program	WREGIS will only accept certificates originating outside of WREGIS if the exporting tracking system is a "Compatible tracking system." This implies some level of similarity	Exporter must meet equivalent standards for metering, data quality, verification of GU registration information

	think APX does any verification of the generator MWh data).		administrator.	with regards to data verification, though specific standards are not in place.	
9. Double counting	Seller of the imported energy must certify that the specified attributes have not been and will not be otherwise sold, retired, claimed, represented as part of energy sold elsewhere or used to satisfy obligations in another jurisdiction.	GU located outside of PJM or its authorized agent must sign affidavit that GATS is only tracking system in which that GU's certificates will be created, and that the certificates have not been previously used or claimed by another entity/program.	All facilities sign attestation that they are only using this system and have not double-sold their RECs.	Same as PJM's	Handled through cooperative agreements with exporting tracking system.
10. Re-Import of Exported Certificates	Not addressed	Allowed	Not addressed yet, but could be allowed.	Allowed	Allowed

Appendix B: NEPOOL GIS Treatment of Imports/Exports

Excerpted from NEPOOL GIS Operating Rules, July 1, 2005 version

Rule 2.7 Imports

(a) All Energy imported into the Control Area must be accounted for through the creation of Certificates for the amount of such imported Energy.

(b) The fields for emissions and fuel sources for Certificates associated with Energy imported into the Control Area (i) prior to the SMD Effective Date, pursuant to a System Contract or pursuant to a Unit Contract not satisfying the requirements of paragraph (c) and (ii) from and after such date, pursuant to an External Transaction purchase not satisfying the requirements of paragraph (c) below (together "Imported System Energy"), shall be provided to the GIS Administrator by one of the Environmental Regulatory Agencies listed on Appendix 5.3. Such Certificate fields for each adjacent control area shall be based (i) on independently audited data for such control area, or (ii) 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 or AirData database, adjusted to reflect the latest available imports to and exports from such control area, or (iii) on data obtained by such Environmental Regulatory Agency from a local environmental regulatory agency for such control area. The Certificate fields for each adjacent control area that are in effect from time to time shall be posted on the GIS website. At such time as a source control area for Imported System Energy implements a generation information system that is compatible with the GIS, as determined by the NPC or its delegatee (a "Compatible GIS"), the NPC or its delegatee may amend this Rule 2.7(b) to address the creation of Certificates under this Rule 2.7(b). 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. The 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."

(c) The Certificates for Energy imported into the Control Area (i) prior to the SMD Effective Date, pursuant to a Unit Contract and (ii) from and after such date pursuant to an External Transaction for the output of a particular External Resource identified in the MSS for purposes of the GIS (together "Imported Unit Energy"), shall reflect the attributes of the generating unit generating such Energy if:

(v) such generating unit is eligible under one of the RPS fields listed in Part 2 of Appendix 2.4;
(w) such Energy is imported from such generating unit in an adjacent control area into the Control Area with transmission rights over the ties to the Control Area;
(x) such Energy is actually settled in the MSS;

(y) the Importing Account Holder importing such Energy has registered the applicable generating unit in the GIS as contemplated by Rule 2.3 and has provided the data contemplated by Rule 2.5; and
(z) such Importing Account Holder provides the GIS Administrator with (i) evidence, which has been verified by the GIS Administrator, that the generating unit actually generated such Energy, (ii) a NERC tag for such Energy meeting the requirements of the System Rules for External Transactions for Energy and the requirements of the adjacent source control area, and (iii) a certification of the seller of such Energy, in the form set forth in Appendix 2.7A, to the effect that the specified attributes have not been and will not be otherwise sold, retired, claimed, represented as part of Energy sold elsewhere or used to satisfy obligations in another jurisdiction.

(d) The GIS Administrator shall, on a quarterly basis, post on the GIS website and shall mail or electronically mail to the regulatory agency for the source control area listed on Appendix 2.7B a list of the Imported Unit Energy transactions that caused the creation of unit-specific Certificates based on data provided by an Importing Account Holder under paragraph (c) above. Such list shall identify the location of the generating unit generating the Imported Unit Energy to which each such transaction relates, the name of the Importing Account Holder registering such unit in the GIS, and the Certificate numbers created as a result of such transactions.

Rule 3.6 Exports

(a) All external sales of Energy that are not accounted for through the designation of specific Certificates, by Certificate number, associated with such exports pursuant to paragraph (b) below shall be assigned Residual Mix Certificates at the end of the applicable Trading Period. At such time as an adjacent control area implements a Compatible GIS, the NPC or its delegatee may amend this Rule 3.6(a) to address the assignment of Certificates under this Rule 3.6(a).

(b) The Certificates associated with Energy exported from the Control Area (i) prior to the SMD Effective Date, pursuant to a Unit Contract and (ii) from and after such date, pursuant to an External Transaction identified in the MSS as a unit-specific External Transaction sale for purposes of the GIS, may be transferred to the purchaser of such Energy if:

(x) the generating unit generating such Energy is eligible under one of the RPS fields listed in Part 2 of Appendix 2.4;
(y) such Energy is exported from the GIS Generator to a purchaser in an adjacent control area with transmission rights over the ties from the Control Area; and
(z) the Account Holder exporting such Energy and associated Certificates provides the GIS Administrator with a NERC tag for such Energy meeting the requirements of the System Rules for such External Transactions and the requirements of such adjacent control area.

(c) Certificates may be exported without associated Energy through the use of Reserved Certificate transactions as described in Rule 3.5, provided that such Certificates meet the requirements of such Rule.

(d) Solely for purposes of these GIS Operating Rules, Account Holders making external sales of Energy shall be considered “Retail LSEs,” and the amount of Energy sold in an external sale shall be included in calculating such Account Holder’s “Certificates Obligation.” All Certificates exported with associated external sales of Energy under paragraph (b) above shall be deposited into the exporting Account Holder’s subaccount for such exports and shall be used solely to satisfy the Account Holder’s Certificates Obligation associated with the applicable external sale of Energy.

Appendix C: PJM EIS GATS Treatment of Imports/Exports

Excerpted from PJM GATS Operating Rules, Version 4, May 10, 2006

11. 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 Source	Type of Certificate	Destination Subaccount	Special Certificate Characteristics
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 **not** registered in the GATS	Imported Generation	The Active Subaccount for the Account Holder that imported the power	Display **Part 8 – Import Characteristics**
Non Unit Specific Import	System Mix	Active Subaccount of the Account Holder that imported the Energy	Display **Part 8 – Import Characteristics** and set the emissions to the average for the source Control Area

Emergency Energy	System Mix	Administrator's Account	Emissions are set to the average for the source Control Area
External Generator	Standard	Account Holder's CEPS Subaccount	
Imported Certificate	Imported Certificate	Account Holder's CEPS Subaccount	• Display Compatible Certificate Tracking System serial numbers in the Certificate Information Section • Display Part 8 - Import Characteristics Section with: 4. Date Imported 5. Compatible System Imported From 6. Account Holder

11.1. 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.

11.2. 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, www.pjm-eis.com (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."

11.3. 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.

11.4. 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.

11.5. 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.

11.6. 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.

Appendix C: M-RETS Rules for Imports/Exports

Excerpted from: Midwest Renewable Energy Tracking System
Technical Committee Recommendations, Final Draft, November 7, 2005

16. Imports and Exports of Certificates

As a general principle, it is intended that M-RETS will be compatible with other certificate tracking systems in North America to the extent that these other systems meet essentially equivalent standards, including but not limited to, metering, data quality, verification of registration information, and disaggregation of emissions attributes. Certificates may only be imported into M-RETS from a Compatible Certificate Tracking System and, similarly, exported to a Compatible Certificate Tracking System. A Compatible Certificate Tracking System is a generation tracking system that has an operating agreement with the M-RETS Administrator regarding the transfer of certificates between tracking systems. No imports or exports can occur until a protocol has been developed between the M-RETS Administrator and the administrator of the other tracking system.

After agreements have been reached with other tracking systems, M-RETS will post a list of Compatible Systems on their website. As other tracking systems develop, M-RETS 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 certificate conversion.

Note: There needs to be more work done on imports/exports and Compatible Tracking System standards.

16.1. Import of Certificates

Certificates may be imported into the M-RETS from a Compatible Certificate Tracking System by a process of conversion. Conversion entails retiring the certificate from the exporting tracking system and creating of a corresponding M-RETS Certificate. When the new M-RETS certificate is issued, all data fields will remain with the imported certificate, and the certificate serial number will be structured in a way to identify it as a certificate that originated in a Compatible Tracking System.

To import certificates into M-RETS, the M-RETS Account Holder must arrange for the transfer of certificates from the counterparty privately. In general, as with all transfers, the party in possession of the certificates must initiate the transfer. Therefore, the transferor will notify their system administrator of the desire to export certificate from their system into M-RETS, along with the information about the transferee, such as name and M-RETS account number. The administrator of the transferor's tracking system will then communicate with the M-RETS Administrator of the certificate pending certificate conversion. The M-RETS Administrator will then notify the M-RETS Account Holder of the transfer, and ask them to accept or

reject the transfer. If the Account Holder accepts the transfer, the conversion of certificates will ensue. Such a conversion will involve the export of the certificate from the exporting system, and the issuance of a new certificate by M-RETS. The converted certificate will designate the system of origin and M-RETS will maintain a record of the serial number that was assigned in the exporting system. Through a coding system, the M-RETS serial number will identify the certificate as imported and the tracking system of origin.

If the Account Holder rejects the import, the M-RETS Administrator will notify the administrator of the other system, and no certificate conversion will take place.

16.2. Export of Certificates

Certificates can only be exported out of M-RETS in one case: to a Compatible Certificate Tracking System. Any other removal of certificates from M-RETS will be managed through the retirement process.

Account Holder's accounts shall include a minimum of one Export Subaccount. The Export Subaccount will include all the data related to each export, including the name of the compatible tracking system to which the certificate was exported.

To export certificates from M-RETS to a Compatible Tracking System, the M-RETS Account Holder must notify the M-RETS Administrator of the desire to export certificates. The Account Holder must identify at a minimum the following information:

- the name and account information of the party that will receive the certificates,
- the serial numbers of certificates that are to be exported, and
- the export subaccount to which they want the M-RETS Administrator to move the certificates if the export is completed, and if the Account Holder has more than one export account.

When the M-RETS Administrator receives this request, they will assign the designated certificate an "export pending" status to ensure that the certificates cannot be inadvertently transferred or sold. The M-RETS Administrator will communicate with the Administrator of the Compatible System and arrange for the transfer of certificates. If the transfer is accepted by the Compatible System, the certificates will be moved from the Account Holder's active account to their export account by the M-RETS Administrator. The status of the certificates will be changed from "export pending" to "exported."

16.3. Re-Import of Exported Certificates

Certificates may be re-imported in M-RETS. To the extent any data fields were lost when the certificate was originally exported, these fields will be repopulated with the original data when the certificate is re-imported. It is recommended that during the RFP process, this function is re-evaluated for its cost-effectiveness and for the consistency with the operations of other certificate tracking systems

16.4. 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.

Appendix D: WREGIS Interim Operating Rules on Imports/Exports

**Excerpted from: WREGIS Interim Operating Rules:
Functional Requirements, Final WREGIS Operational Rules Committee Recommendations, July 15, 2004**

11. Imports and Exports of Certificates

a) Creation and Import of Certificates from Generation Units Outside of WECC

WREGIS can issue certificates from generation units outside of WECC if:
1. The generation unit arranges to have meter data that meets WREGIS requirements delivered to WREGIS by their control area operator, as described in Section 6. Any generation unit, or its authorized agent, located outside of WECC that requests certificates be created for the first time, for a given period of generation (such as a month), by WREGIS must sign an affidavit that WREGIS is the only tracking system in which that generation unit's certificates will be created for the first time, and that the generation unit's certificates have not been previously used or claimed by another entity/program; or
2. The WREGIS Certificate is imported from a Compatible Certificate Tracking System.

WREGIS can issue certificates for generation units located outside of WECC whether or not all or a portion of the energy generated with the certificates is delivered into WECC.

WREGIS will accommodate generation units in states/provinces included and bisected by the WECC geographical boundaries that could qualify under state/provincial renewable energy laws/programs, even if the generation unit itself is not physically located within WECC.

The generation unit, or its designated agent, must hold a WREGIS account, and the certificates will deposited by the WREGIS administrator into that account.

Notes:
- *Initially, the WREGIS Administrator will only accept generator registrations from generation units located in states included or bisected by WECC. The WREGIS Administrator will determine under what circumstances generators in states not included in or bisected by WECC may register with WREGIS. The development and policies of the North American Association of Issuing Bodies will also influence the issuance of certificates for generation units located in states/provinces not included within or bisected by WECC.*

• *After WREGIS has begun operation, WREGIS will develop guidelines for state regulators on best practices regarding retail disclosures and WREGIS certificates, and will allow states to post information on the WREGIS website reporting how that state uses WREGIS with regard to disclosures.*

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b) Export of Certificates

Export of certificates out of WREGIS is also independent of energy deliveries out of WECC. Certificates can only be exported out of WREGIS in one case: to a Compatible Certificate Tracking System. Any other removal of certificates from WREGIS will be managed through the retirement process or certificate reservation process.

Account Holder's accounts shall include a minimum of one Export Subaccount. The Export Subaccount will include all the data related to each export, including the name of the compatible tracking system to which the certificate was exported.

c) Re-Import of Exported Certificates

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

d) Certificate Imports and Exports from a Compatible Certificate Tracking System

Certificates may be imported into the WREGIS from a Compatible Certificate Tracking System by a process of conversion. Conversion entails designating the certificate as exported from the exporting tracking system and the creation of a corresponding WREGIS Certificate. One overarching requirement for all certificates imported from another tracking system is that the certificates must meet the renewable definition of one of the western states. Also, prior to any imports, the WREGIS Administrator will have to develop a protocol for converting certificates between the WREGIS 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, WREGIS will post a list of Compatible Systems on their interactive website. As other tracking systems develop, WREGIS 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 certificate conversion.

To import certificates into the WREGIS, the WREGIS Account Holder that wishes to import the certificates must notify the WREGIS 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 WREGIS 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 WREGIS. The converted certificate will designate the system of origin and WREGIS will maintain a record of the serial number that was assigned in the exporting system. Through a coding system, the WREGIS serial number will identify the certificate as imported and the tracking system of origin.

The WREGIS 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 WREGIS to another compatible tracking system will work in the same fashion.

WREGIS shall provide Account Holders notification when export and import transactions are completed.

e) 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 WREGIS from generators located outside of WECC, 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 WREGIS.

Note: The WREGIS Institutional Committee will develop contract/agreement language needed to assure that non-WECC generators do not double issue certificates in more than one tracking system or through WREGIS and separate contracts.