Midwest Renewable Energy Tracking System

Operating Procedures

Effective ~~04/24/2023~~02/16/2024

Version ~~2023.3~~2024.1

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Section 1: Introduction

This document serves as a comprehensive introduction to the Midwest Renewable Energy Tracking System (M-RETS). M-RETS staff organized this document to help lead Organizations and their Users through registration and use of the System.

M-RETS offers a comprehensive list of training documentation with detailed walkthroughs of features here. M-RETS also offers custom web-based training modules for Organizations. To request a training, please contact systemadmin@mrets.org.

Section 2: Privacy and Security

Except where explicitly granted within the Operating Procedures, Terms of Use, or by Separate Agreement, M-RETS holds all User information strictly confidential. However, M-RETS provides public reports that include aggregate data available through the public area of the M-RETS website. M-RETS requires comprehensive verification before any information is disclosed, except if the requesting party is identified as a State or Provincial Regulator. More information about confidentiality can be found in the M-RETS Terms of Use, Section 11.

M-RETS requires Users to create a secure password with a minimum of 12 characters. M-RETS expressly prohibits the sharing of User credentials. M-RETS requires every person that logs into the System to have their own separate User login credentials. M-RETS tracks the specific activities of each User through the unique User ID and password. Failure to adhere to these security recommendations and the Terms of Use can lead to loss of access to M-RETS.

Section 3: Establishing an M-RETS Organization

Participation in M-RETS is voluntary, though some states or provinces may require participation in M-RETS for purposes of regulatory program compliance. Any party that registers with M-RETS and pays the applicable fees may establish an Organization in the System. There is no limit to the number of separate Organizations a company or individual may establish. Registrants will provide basic Organization registration information, such as username, address, contact info, etc. to M-RETS through a secure webpage on M-RETS. The registrant must pay all required fees specific to the Organization type subject to the M-RETS Terms of Use. An Organization in M-RETS will remain active until Inactivated (*See* Section 3.2: Inactivating an Organization).

M-RETS will check all Organization registration or modified existing Organization entries for completeness. An error message will flag mandatory fields not completed by the user.

Each Organization shall pay an annual Subscription Fee. A renewal fee will be due in the month of registration of each subsequent calendar year. The Subscription Fee will be based upon the type of Organization subscribed. Below is a visual representation of the features available to each subscription type. Please note that for billing purposes, M-RETS will use the prices listed on the website.

If a subscriber fails to pay their annual Subscription Fee within ninety-days (90) of issuance, M-RETS shall close the Organization's access to the System. A User that wishes to reactivate an Organization that is closed due to failure to pay shall be required to pay the full annual Subscription Fee as well as an additional reactivation fee equal to 65% of the current Subscription Fee applicable to the closed Organization.

I am looking to...	Micro-Generator Project Subscriptions	Small Generator Project Subscription	Project Subscription	General Subscription	Retail Purchaser Subscription	Qualified Reporting Entity (QRE)	Program Administrator/ Government Regulator	Market Administrator
Register Projects up to 100 kW	X	X	X	X	X			
Register Projects up to 1 MW		X	X	X	X			
Register Projects up to 1.5 MW			X	X				
Register Projects greater than 1.5 MW			X	X				
Hold RECs	X	X	X	X	X			
Transfer RECs	X	X	X	X				X
Accept REC Transfers				X	X			
Withdraw RECs	X	X	X	X				
Retire RECs	X	X	X	X	X			
Retire RECs for State RPS Complaince				X	X			
Export RECs	X	X	X	X				
Import RECs				X				
Create Accounts for My RECs	X	X	X		X			
View Organization/Project Info							X	
Upload Generation for Projects up to 150 kW	X	X	X	X	X	X		
Upload Generation for Projects over 150 kW						X		
Create Compliance Programs							X	
Participate in Compliance Programs				X				
Create Markets								X
Participate in Market	X	X	X	X	X			

- **Micro-Generator Subscription: $50/year**
  - This type of Organization can register a total of up to 100 kW in nameplate capacity of renewable Generator Assets and have Certificates issued to it. A Micro-Generator Subscription can hold, transfer (only outgoing transfers), withdraw and retire Certificates. A Micro-Generator Subscription cannot receive transfers from other parties.

I am looking to...	Small Generator Project Subscription	Project Subscription	General Subscription	Qualified Reporting Entity (QRE)	Program Administrator/ Government Regulator	Market Administrator
Register Projects up to 100 kW	X	X	X			
Register Projects up to 1 MW	X	X	X			
Register Projects up to 1.5 MW		X	X			
Register Projects greater than 1.5 MW		X	X			
Hold RECs	X	X	X			
Transfer RECs	X	X	X			X
Accept REC Transfers			X			
Withdraw RECs	X	X	X			
Retire RECs	X	X	X			
Retire RECs for State RPS Complaince			X			
Export RECs	X	X	X			
Import RECs			X			
Create Accounts for My RECs	X	X	X			
View Organization/Project Info					X	
Upload Generation for Projects up to 150 kW	X	X	X	X		
Upload Generation for Projects over 150 kW				X		
Create Compliance Programs					X	
Participate in Compliance Programs			X			
Create Markets						X
Participate in Market	X	X	X			

- **Small Generator Subscription: $~~125~~150/year**

    o   This type of Organization can register a total of up to 1.5 MW in total nameplate capacity of renewable Generator Assets and have Certificates issued to it. A Small Generator Subscription can hold, transfer (only outgoing transfers), withdraw and retire Certificates. A Small Generator Project cannot receive transfers from other parties.

- **Project Subscription: $~~550~~750/year**

    o   This type of Organization can register one or more renewable Generators and have Certificates issued to it for its Generators. A Project can hold, transfer (only outgoing

transfers), withdraw, and retire Certificates. This type of Organization cannot receive transfers from other parties.

- **General Subscription: $2,~~200~~500/year**

  o This type of Organization can hold, transfer (outgoing and incoming), and retire Certificates as well as register and maintain Generators and have Certificates issued to it for its Generators. This Organization type is the only type that can retire Certificates for compliance with any of the State RPS programs utilizing M-RETS.

- ~~Retail Purchaser Subscription: $1,100/year~~

  o ~~This type of Organization is for retail purchasers of Certificates. A Retail Purchaser Subscription can hold, accept incoming transfers, and retire Certificates. They can also register and maintain Generator Assets that are under 1 MW in capacity and have Certificates issued in their Organization. Retail Purchaser Subscriptions cannot make outgoing transfers.~~

- **Qualified Reporting Entity (QRE): No Fee**

  o Qualified Reporting Entity is the control area operator, interconnecting utility, scheduling coordinator, or an independent third-party meter reader and is not affiliated with the owner of the Generator for which the entity is reporting; or the control area operator or interconnecting utility and that is affiliated with the Generator owner, but having sufficient segregation of duties such that the person performing the QRE duties does not have access to transfer or retire Certificates created for that Generator. A QRE must enter into an agreement with M-RETS describing the terms and conditions under which the QRE agrees to

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conduct business with M-RETS and must report data in accordance with the standards set forth in these Operating Procedures.

- **Program Administrator/Government Regulator: No Fee**

  o State and provincial regulators, including but not limited to public utility commission and public service commission staff and voluntary market program administrators (e.g., Green-e, independent voluntary program administrators, and other state program administrators) may be granted a Program Administrator/Government Regulator Organization. To find out if an Organization qualifies, please contact M-RETS at systemadmin@mrets.org.

- **Market Administrator (Contact the M-RETS Administrator)**

  o The Market Administrator subscription is for organizations that facilitate the marketing, sale, and transfer of RECs between M-RETS organizations. The Market Administrator subscription is available to M-RETS partners that build tracking system integrations to market, sell and transfer RECs via an API. For an Organization to be a Market Administrator their Participant Terms of Use must be approved by M-RETS and be available for participants to review at all times.

Section 3.1: Billing Information

It is the Organization's responsibility to make sure billing info is up to date and correct. Billing Information can be changed at any time. Information on how to add or update billing contact information can be found here.

Organization Info holds Billing Information where Users can Access Organization Invoices. Information on how to view Invoices can be found here.

M-RETS accepts payment in the form of checks, wire transfers, or ACH transfers. Organizations must send requests for Vendor Authorization Forms and W-9s and/or billing questions to Tanya Gajewska at tanya@mrets.org.

Checks may be mailed to:

> Midwest Renewable Energy Tracking System, Inc.
> Lockbox 446023
> PO Box 64079
> St Paul, MN 55164-0703 (please always include the dash and 0703 after the zip code)

Wire transfers or ACH transfers may be routed to:

> Midwest Renewable Energy Tracking System, Inc.
> Bremer Bank
> 225 6th Street South Suite 200
> Minneapolis, MN 55402
> USA
> (Remittance Address and Routing Number can be found on the invoice)

1. Fees must be paid in US dollars.
2. Please include invoice number, Organization name, and M-RETS on check payments.
3. Please include invoice number(s) on wire transfer.
4. Payments may be made via wire transfer or check.

5. Please include currency and/or wire fees to the amount paid. The generated invoice does not include any wiring fees levied by the bank.

Note: payments may take up to 2 business days to be reflected in the Organization.

Section 3.2: Inactivating an Organization

A User with the appropriate permissions may begin the Organization Inactivation procedure by notifying M-RETS in writing from the email associated with a User that has the proper permission level. The User's written notice shall request that M-RETS should place the Organization into Inactive status. Any Generator assigned to the Organization will become Inactive and may not produce any further Certificates. Moreover, once Inactive Users from the Organization may not access any remaining Certificates or pending Transactions.

Section 3.3: Subscription Registration Review and Know-Your-Client (KYC) Procedures

3.3.1 Required Documentation

Organizations must submit the following documents through our online portal to assist the M-RETS System Administrator in reviewing the subscription registration. The M-RETS System Administrator may ask for supplemental documents not listed here:

1. **Certified Organizational Certificate**: This includes certified copies of Articles of Incorporation or equivalent.

2. **Ownership Structure Description**: Detail the ownership of the organization, specifying any owners with a 5% or greater ownership share.

3. **Blockchain/NFT Technologies Overview**: Provide an outline of how your organization employs Blockchain or NFT technologies.

4. **M-RETS Usage Plan**: Explain how your organization intends to use the services provided by M-RETS.

5. **API Integration (if applicable)**: If using an API, describe the software that will be used to interact with M-RETS.

6. **User Authorization**: If the individual registering the organization does not have an email associated with the organization, additional documentation proving authorization is required. This could be in the form of a board resolution or similar.

3.3.2 Identity Verification with Plaid

All organizations must complete identity and fraud detection verification through Plaid. Plaid is an industry-leading service that partners with over 12,000 financial institutions in the United States and many more globally. For a list of supported institutions, refer to Plaid's official institutions page.

3.3.3 Functions of Plaid:

- **Identity Confirmation**: Plaid confirms the identity of individuals and entities.

- **Risk Assessment**: Plaid's algorithms cross-verify against international watchlists for anti-money laundering (AML) and politically exposed persons (PEP) risks.

3.3.4 Data Privacy

It's important to note that M-RETS does not store any data collected by Plaid. After the verification process is complete, all such data will be deleted from our system.

By following this procedure, we aim to maintain a secure and trustworthy environment for all users and stakeholders in the EAC markets.

Section 4: The Tracking System

Section 4.1: Users

Users with Manage Organization permissions may create additional Users within their Organization by accessing the Organization information tab within the System.

M-RETS expressly prohibits the sharing of User credentials. M-RETS requires every person that logs into the System to have their own separate User login credentials. M-RETS tracks the specific activities of each User through the unique User ID and password.

More information about confidentiality can be found in the M-RETS Terms of Use.

Section 4.1.1: User Permissions

Every User in M-RETS has customizable permissions. Users can be set as Manage, Read Only, or No Access. Only a User with Manage permissions for the Organization can change permissions. The abilities of each level are as follows:

- Manage: Ability to view and edit the topic
- Read Only: Ability to solely view the topic
- No Access: Inability to view or edit the topic

In the event that a user should no longer be associated with an Organization and that user was the only user with Manage Organization permissions; M-RETS will require an affidavit on company letterhead before user permissions are changed or new users added to the Organization. The affidavit will explain that the user is no longer employed with the organization and identify the new manager for the Organization. The affidavit must be signed by a member of the Organization's management authorized to make contracting decisions.

Section 4.1.1.1: Organization Permission & Account Level Permissions.

'Organization' refers to the Organization Information, Billing Contact Information, and User List. Organization permissions grant Users within an organization access to specified accounts and permissions.

Section 4.1.1.2: Agent Permission

Agent users are a type "classified as "external" party that" parties who can be added to an affiliated with a specific Organization and within M-RETS. These agents can be granted varying degrees of access to any level of data. Agentsthe M-RETS organization using the permission settings. The Agent cannot beserve as the primary contact for anthe Organization. To add an Agent, the Principal of the Organization must have an active account with permissions to manage the Organization. Additionally, the Principal is required to upload a completed "M-RETS Schedule C: DECLARATION OF AGENCY" form, which can be found on the M-RETS website.

Section 4.1.1.3: Transactions Permission

'Transactions' refers to incoming and outgoing transfers of Certificates. A User with 'Manage' permissions will be able to transfer as well as accept incoming transfers of Certificates.

Section 4.1.1.4: Accounts Permission

'Accounts' refers to the three Accounts supported by M-RETS: Active, Retirement and Reserve. A User with 'Manage' permission will be able to create and deactivate Accounts within the account.

Section 4.1.1.5: Billing Permission

'Billing' refers to the invoicing System. A User with 'Manage' permissions will be able to view and save invoice details.

Section 4.1.1.6: Generators Permission

'Generators' refers to Electric Generator Assets. A User with 'Manage' permission will be able to create new Generators and edit current Generators. Users with 'Manage' permissions will also be permitted to report fuel allocation (fuel split) for multi-fuel generators with loaded data in a Pending status.

Section 4.1.1.7: Upload Generation Permission

'Upload Generation' refers to the uploading and issuance of Certificates. A User with 'Manage' permissions will be able to upload MWh information for issuance.

Section 4.1.1.8: API Permission

'API' refers to the Application Programming Interface. Any User that intends to connect and use our API will need Manage permissions.

Section 4.1.1.9: Programs Permission

'Programs' refers to the Programs feature that allows Regulator and General Subscription Organizations the ability to set up rulesets that prevent retirements of Certificates outside the parameters set to a specified Retirement Account. A User with 'Manage' permissions will be able to create and manage Programs.

Section 4.1.1.10: Markets Permission

'Markets' refers to the Markets feature that allows Regulator and General Subscription Organizations the ability to set up rulesets that prevent retirements of Certificates outside the parameters set to a specified Retirement Account. A User with 'Manage' permissions will be able to create and manage Programs.

Section 4.1.2: Notification Settings

M-RETS allows Users to opt into email notifications when certain changes occur to their Organization. By default, M-RETS disables email notifications. M-RETS encourages Users to enable email notifications in their settings. An informational walk-through on notification settings is on the integrated help system.

There are three notification settings:

1. Transfers

2. Issuances

3. Retirements

Section 4.1.3: Notification Categories

Section 4.1.3.1: Transfers

This setting automatically emails Users upon initiation and completion of a transfer.

Example:

Hello,

An external certificate transfer for your organization is currently pending.
TRANSFEROR: [Organization A]
TRANSFEREE: [Organization A]
Total Certificates: 789
Transaction Details:

Project	Fuel Type	Vintage	Facility name	Quantity	Serial Number
M123	Wind	10/2021	Facility A	789	123-MN-10-2021-A475027E-1 to 789

To complete the transfer, [Organization B] must accept it by signing into M-RETS and visiting the Pending Transaction section of the Transaction page. (https://app.mrets.org/transfers/pending-transactions)

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Section 4.1.3.2: Issuance

This setting emails Users upon generation data upload.

Example:

Hi,
Organization: [Organization A],
The following RECs have been issued:

Project	M-RETS ID	Vintage	Quantity	Serial Numbers	Account
Facility A	M123	08/2022	298	123-MN-08-2022-B8907 - 1 -298	2022 Active

Your email preferences can be updated in the User Profile section of the M-RETS platform.

Section 4.1.3.3: Retirements

This setting emails Users when Certificates are retired.

Example:

Dear [User],

A certificate Retirement transaction was successfully processed for [Organization A]

Transaction Details:
[Certificate Quantity] certificates have been retired to [Retirement Account] ([Account ID]) for project [Project Name] ([Project ID], [Location]) with Fuel Type of [Fuel Type] and Vintage of [MM/YYYY]. The serial number range for these retired certificates is [Serial Number].

The reason for the retirement is [Retirement Category]: [Retirement Reason]
If you have any questions, please contact us at systemadmin@mrets.org.

Section 4.1.4: Inactivating Users

It is the Organization's responsibility to make sure the User list is current. This includes inactivating Users when they leave the company or no longer require access. This also includes adding Users to replace Users that have left the Organization. Failure to do this can lead to significant delays in accessing an Organization.

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In order to reinstate access to M-RETS, the Organization shall be required to present specific evidence that the managing employee is no longer with the Organization and the Organization maintains no other way to reset the password (e.g., accessing the former employee's email and utilizing the password reset function). M-RETS reserves the right to set the level of specific evidence, including but not limited to affidavits from executives maintaining the circumstances surrounding the departure of the employee and failure to transfer access to another User within the Organization.

Organizations may inactivate a User at any time for any reason. M-RETS may inactivate a User for failure to adhere to the Operating Procedures or Terms of Use.

Section 4.2: Accounts

M-RETS supports four Account types: Active Accounts, Reserve Accounts, Retirement Accounts and Market Accounts (Refer to section 4.8 for more information on Market Accounts). Users can transfer Certificates to specific Accounts manually or automatically upon upload. Each Account has a unique identification number, like a banking system. Users may attach aliases to Accounts for ease of reference (e.g., by state, by product name, etc.).

Section 4.2.1: Active Accounts

An Organization can have one or more Active Account(s). An Active Account is the holding place for all active M-RETS Certificates. The Active Account is like a cash checking Account. M-RETS Certificates in Active Accounts are liquid and an Organization—depending on the type—may be able to transfer, retire, or export the Certificates.

If the Account has a Generator Asset(s) associated with it, the Active Account will be the first point of deposit for any M-RETS Certificates created that are associated with the Generator Unit ID number.

Section 4.2.1.1: Deposits to the Active Account

There are four ways that M-RETS Certificates are deposited in an Active Account.

1. The Organization can transfer M-RETS Certificates into their Active Account from another Active Account.

2. The Organization can accept a transfer of Certificates from another M-RETS Organization.

3. The Certificates can be deposited into the Account by M-RETS based on verified generation data from a Generator Assets associated with the Active Account.

4. The Certificates can be deposited by M-RETS through the Import process.

Section 4.2.1.2: Transfers from the Active Account

There are four ways to remove M-RETS Certificates from an Active Account:

1. Transfer the M-RETS Certificates to another Account within the Organization (e.g., Retirement, Retirement or Reserve Accounts), or

2. Transfer the M-RETS Certificates to multiple Accounts, or

3. Transfer the M-RETS Certificates to the Active Account of another M-RETS Organization, or

4. Export the M-RETS Certificates out of M-RETS to another compatible tracking system.

Section 4.2.1.3: Functionality of an Active Account

In addition to being able to deposit and withdraw M-RETS Certificates from the Active Account, Organizations may view and sort their Certificates by a number of Certificate fields, generate reports about their Account, create additional Active Accounts, and transfer active M-RETS Certificates between Active Accounts.

Section 4.2.2: Retirement Accounts

An Organization may establish multiple Retirement Accounts. A Retirement Account is a repository for M-RETS Certificates that the Organization wants to designate as retired for a Voluntary environmental claim, for a beneficial owner, or toward a State or Provincial Compliance program. An Organization may retire Certificates for any number of reasons, including, but not limited to demonstrating compliance with a renewable mandate, retiring Certificates on behalf of green power customers, or making claims about the air quality benefits of the renewable Certificates. M-RETS Certificates in a Retirement Account are no longer transferable to another party and serve as an electronic proof of retirement.

Once an M-RETS Certificate is retired to a Retirement Account, those Certificates may not be transferred into any other Account, including another Retirement Account (i.e., if an Organization has multiple Retirement Accounts). The Retirement Account is effectively the last resting place for an M-RETS Certificate.

Section 4.2.2.1: Deposits to the Retirement Account

See Section 4.5.3: Retirement of Certificates

Section 4.2.2.2: Functionality of the Retirement Account

Retirement Accounts exist to hold Certificates permanently removed from circulation and serve as proof that the corresponding Certificates are subject to a voluntary or compliance claim or otherwise removed from circulation. Once an Organization completes the retirement, they cannot later change the retirement reason. This prevents the Certificate from being subject to a double claim. If, however, the Organization contacts M-RETS in writing within 24-hours from the time the Organization indicated the reason for retirement, M-RETS may grant a variance.

M-RETS will grant a variance within the 24-hour notice period when there is no likelihood a Certificate was claimed to be retired for multiple reasons and M-RETS does not suspect any nefarious intent or impropriety. If M-RETS believes there is any chance of double counting, they shall deny the request for a variance.

If an Organization notices an error in the selected retirement reason outside the 24-hour window, the Organization may contact M-RETS (systemadmin@mrets.org) in writing and ask that M-RETS grant a variance.[1] M-RETS shall review all requests made outside of the 24-hour window and may grant a variance if

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[1] Documentation for a Variance Request can be found here along with a checklist found here.

they determine that the request is made in good faith and: that the Organization submitted their request for a variance in writing within a reasonable amount of time after discovering the error, that there is a legitimate reason for the change, and that there is no likelihood a Certificate was claimed to be retired for multiple reasons. M-RETS may submit the variance request—or send an email outlining the circumstances—to a state or provincial regulator should there be concern compliance with the variance request could result in potential double counting.

Section 4.2.3: Reserve Accounts

An organization may establish multiple reserve accounts at their discretion. A Reserve Account is an account that is used to designate Certificates as "Reserved". Transferring Certificates to a Reserve Account removes the Certificates from circulation. Once Certificates are placed in a Reserve Account they can no longer be transferred to another organization. Reserve Accounts and the transactions associated with them are considered permanent. Certificates deposited into a Reserve Account will be settled and claimed outside of M-RETS. The M-RETS Administrator cannot verify an environmental claim for certificates deposited into the Reserve Accounts.

Section 4.2.3.1: Deposits to a Reserve Account

Certificates are deposited into a Reserve Account by any user with Manage Transaction permissions in an organization. Once Certificates are deposited into a Reserve Account, the information associated with the Certificates cannot be edited.

Section 4.2.3.2: Withdrawals from a Reserve Account

The M-RETS Administrator has the sole ability to withdraw Certificates from a Reserve Account. Once the user has deposited Certificates into a Reserve Account they can no longer be moved by any User. The M-RETS Administrator will require documentation explaining why Certificates were deposited in error.

Section 4.2.4: Account Status

M-RETS classifies Accounts with the following statuses: Open, Closed, Archived, and Frozen.

Section 4.2.4.1: Open

An 'Open' status denotes the Account is ready to use and Users may Transfer or Retire Certificates to this Account. This status applies to Active Reserve and Retirement Accounts.

Section 4.2.4.2: Closed

An Active Account can be set to a status of 'Closed' when no longer needed. Before closing, the Account must contain zero Certificates. Thus, the User must Transfer or Retire all Certificates from the Account prior to closing. An Account with a 'Closed' status denotes the Account can no longer accept Transfers. This status only applies to Active Accounts.

Section 4.2.4.3: Archived

When Retirement or Reserve Accounts are no longer needed, they can be set to a status of 'Archived'. An 'Archived' status denotes the Account cannot accept further Retirements. However, Retired and Reserve Certificates remain in an 'Archived' Account. This status only applies to Retirement and Reserve Accounts.

Section 4.3: Generators

M-RETS defines renewable generation as energy generated by an electric Generator Asset that any state, province, or territory participating in M-RETS considers renewable by law or policy. M-RETS issues one electronic Certificate for each MWh of renewable energy produced by assets registered and approved in M-RETS. To ensure that double-counting does not occur, electric generator assets participating in M-RETS must only register in one tracking system and report 100% of their generation output in M-RETS. An organization found registering electric Generator in another tracking system after being approved in M-RETS or reporting generation outside of M-RETS will be found to be in Default of the M-RETS Terms of Use. M-RETS maintains a list of state and provincial definitions of renewable energy located in the M-RETS compliance footprint here.

Any Generator that delivers energy into North America may register in M-RETS. Other states, provinces, territories, countries or Generators outside of North America may request to use M-RETS subject to the approval of the M-RETS Board. In addition, M-RETS will track other generation forms (e.g., nuclear generation) or other environmental attributes. Requests to add a generator outside North America or to track other generation forms should be made in writing to the M-RETS System Administrator (systemadmin@mrets.org) and M-RETS leadership listed here.

M-RETS may issue Certificates for any energy production serving a load that the grid would otherwise serve if not for the asset. M-RETS will not create Certificates for generation supplying station

service/parasitic load unless specifically approved for a state or provincial RPS, RES or goal defined in Regulation or rule.

For Customer-Sited Distributed Generator Assets, the original data source for reporting total energy production must be from metering at the AC output of an inverter, adjusted to reflect the energy delivered into either the transmission or distribution grid. Customer-Sited Distributed Generation Assets serving onsite load and not connected into a transmission or distribution grid (Behind-the-Meter) will need to measure generation production must be from metering at the AC output of an inverter. Systems registered with a battery backup will need to illustrate that grid power used to charge the battery is not metered as generation from the renewable Generating Asset. In the absence of a meter measuring production as described above (i.e., if there is no meter at the inverter), the original data source for reporting total energy production must be from metering placed to measure only the hourly positive generation flowing to the distribution system, adjusted to reflect the energy delivered into either the transmission or distribution grid. Test energy is not treated differently and must also be delivered to the transmission or distribution grid.

M-RETS defines a Generator Asset as an electric facility consisting of one or more Generators with the same ~~essential generation characteristics~~Essential Generating Characteristics with a single meter that measures the output.

Section 4.3.1: Registration of a Generator

All Generator Owners must first establish an Organization subscription and then register the Generator Asset(s) with M-RETS. As part of the Generator Registration Agreement, the User must attest that this Asset is not registered in any other Registry. Generator Assets that are jointly owned must privately appoint a single Organization where the Generator will reside.

To register the Generator Asset(s), the owner of the Generator Asset or the Responsible Party must submit to M-RETS the following:

1. A completed on-line Generator registration form containing information related to the characteristics of the Generator Asset and associated meter.

2. If applicable, a completed Schedule A from the M-RETS Terms of Use outlining the Generator Owner's Designation of Responsible Party.

3. Any documentation requested by M-RETS to verify the registration information which could include:

   a. Utility Signed Interconnection Agreement

   b. Utility Certificate of Completion

   c. State Air Permit

   d. State or provincial regulatory order

   e. Providing a Generator's EIA Entity ID which is an official, unique identification numbers assigned by EIA can expedite the approval process. The EIA Entity ID is required for all Generators over 1 MW in the United States and may be found by accessing the report here.

   f. FERC Qualifying Facility certification (FERC Form 556)

   g. PURPA Qualifying Facility approval documentation

4. If this Generator will use MISO or SPP as the reporting entity, fill out and upload the MISO or SPP Release Form in the Generator documents.

   a. For the MISO Release form, it is important that the form reflects the correct MISO CP Node.

5. Documentation supporting the capacity factor calculation and annual output of a generator, (E.g., Engineering report prepared by a licensed professional engineer; solar design tool reports such as Aurora, HelioScope, PVsyst, PV Watts, etc.)

6. Multi-fuel Generators must submit to M-RETS a report prepared by a licensed professional engineer containing documentation for measuring and verifying the quantities of each fuel type, the method of determining the net heat content and moisture content of each fuel source, and the heat rate of the Generator. M-RETS will share this documentation with state or provincial regulators upon request of the regulator.

7. Generator Assets with installed battery backups must provide documentation to illustrate that grid power used to charge the battery is not metered as generation from the renewable Generating Asset.

The Generator Asset registration process will include both mandatory and optional data entry and M-RETS shall verify all data prior to making a Generator Active.

NOTE: Registration with M-RETS does not imply or confer acceptance into or eligibility for any state or provincial Renewable Portfolio Standard program.

A Visual Guide to the Generator Registration Process

| Creation of a Generator | Generator is Placed in a 'Draft' Status | Static Data is Entered, and the Generator is Submitted for Approval | Generator is Placed in a 'Pending' Status | M-RETS Reviews the Static Data | If Data Is Correct, M-RETS Approves the Generator | Generation Can Be Uploaded |
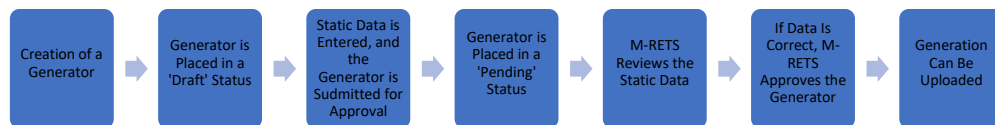
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Section 4.3.1.1: Static Data in M-RETS

Static data fields describe the physical attributes of the Generating Unit. Users provide this data to M-RETS during the Generator registration process, and the subsequent update processes described below.

M-RETS shall verify all static data before including it in the System. Appendix A: Generator Static Data Fields lists the method of verification for each data field. In addition, M-RETS may conduct site visits to further verify the information as needed.

Section 4.3.2: Verification of Static Data Submitted During Generator Registration

Upon completion of the Generator registration, the User represents and warrants to M-RETS that all information for this Generator shall be true, complete, and correct to the best of its knowledge, information, and belief. Any changes after submission may result in a delay in the approval process. The Generator approval process begins once the Generator is submitted from a draft status.

In the event data submitted is inaccurate or if there is a discrepancy between the information submitted during the on-line registration process and the materials provided to verify the information, M-RETS will notify the registrant of the issue. A process of either correcting the data in the online registration form, withdrawing the registration, or providing proof that the information on the registration form is correct will ensue between M-RETS and the registrant until M-RETS is satisfied that the information provided meets M-RETS approval standards.

Section 4.3.3: M-RETS Interaction with State Commissions and Certification of Facilities for State Programs

M-RETS shall be responsible for verifying any information submitted to M-RETS during the Generating Unit Registration Process. Each individual state will be responsible for determining whether a Generating Unit qualifies for a state program. The State Commissions may use the information collected and verified by M-RETS to conduct this determination.

State regulatory commissions have the option of asking M-RETS to send them an electronic version of the registration information for all Generating Units in their jurisdiction or claiming to be eligible for any state programs. If the state commission has exercised this option, M-RETS will send an electronic message to the designated contact at the state commission each time M-RETS registers and verifies such a Generating Unit. The state commissions reserve the right to conduct site visits or request additional information from a Generator to determine whether the facility meets all the requirements.

Section 4.3.4: Multi-Fuel Generators

A multi-fuel Generator is one that can produce energy using more than one fuel type, where the quantity of each of the fuels used is greater than 1% annually on a total heat input basis, excluding fuels used for start-up. A multi-fuel Generator Asset can be a Generating Unit that uses a renewable fuel with a fossil fuel or one that uses multiple types of renewable fuels. Such Assets must register with M-RETS as a multi-fuel Generator. If the Generator Owner or M-RETS cannot measure or calculate the relative quantities of electricity production from each fuel, the Generator is not eligible to register as a multi-fuel Generating Unit in M-RETS.

M-RETS only creates Certificates for renewable fuel types and certain approved non-renewable technologies approved to issue Alternative Energy Certificates. Each Certificate issued for a multi-fuel

Generating Unit will reflect only one fuel source. The total number of Certificates issued for a fuel type in a reporting period will be proportional to the electric output from that fuel type for that reporting period.

The Generator or its owning Organization must maintain supporting documentation related to 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 M-RETS. M-RETS may require copies of such calculations and supporting documentation will be subject to audit by M-RETS, state regulators, or their agents. M-RETS shall treat as Confidential Information all data submitted to or audited by M-RETS subject to the requirements of this paragraph not contained in reports available to the public.

Section 4.3.4.1: Allocating Output for Each Fuel Source

For purposes of creating M-RETS Certificates reflecting the fuel source mix of multi-fuel Generating Units, the proportion of Certificates attributable to each fuel source shall be determined consistent with the following rule. For renewable fuels 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 Units 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.

Upon registration, all multi-fuel Generators must submit to M-RETS a report prepared by a licensed professional engineer containing documentation for measuring and verifying the quantities of each fuel type, the method of determining the net heat content and moisture content of each fuel source, and the heat rate of the Generator, if applicable. M-RETS will share this documentation with state or provincial regulators upon request of the regulator.

Section 4.3.5: Multiple Units on a Single Meter

Generating Units register on a meter basis. In the case where there is more than one Generating Unit associated with a single meter, the Generator Owner or Responsible Party can register more than one Generating Units under one registration if, and only if, all the Generating Units have the same ~~essential generation characteristics~~Essential Generating Characteristics.

If the Generating Units associated with a single meter do not have the exact same ~~essential generation characteristics~~Essential Generating Characteristics, the Generator Owner or Responsible Party has two choices—they can either install a new meter(s) such that all Generating Units associated with a single meter have the same generation characteristics, or they can use the Aggregate Metering feature in the Generator Registration to create an aggregate metering group to designate a percentage allocation on an MWh output basis for each different Generating Unit(s) associated with the meter.

Example: If there are two Generating Units (a biomass direct combustion Generating Unit and a biomass gasification unit and technology type is considered an ~~essential characteristic~~Essential Generating Characteristic) associated with one meter, the registrant would indicate that X% of the output as measured at the meter comes from the direct combustion unit and Y% comes from the gasification unit.

Section 4.3.6: Distributed Generation Groups (DGG)

For small (<=1 MW) customer-sited Distributed Generating Units, M-RETS will allow aggregation into "Distributed Generation Groups" up to a total of 1MW in Nameplate Capacity. Distributed Generation

Groups require that the units are not metered together and do not share the same location, but which are located within the same state or province, and which otherwise share the same ~~essential generation characteristics identified in Appendix B: Fuel Type.~~Essential Generating Characteristics. Distributed Generation Groups are treated as a single system and Certificates are issued on the entire combined generation.

Aggregated units into a DGG must meet the following ~~criteria~~Essential Generating Characteristics:

a.   All Units are located in the same state.

~~a.~~b. The M-RETS State/Province programs allow for aggregation if an eligibility is sought; and

~~b.~~c. The Aggregated Units do not exceed a total nameplate capacity of 1 MW.

M-RETS will require documentation to be submitted for each Distributed Generating Unit to verify the unit's installation engineering, interconnection and ownership which may include an interconnection agreement, Certificate of Completion and Schedule A. For a detailed list of the required documents, refer to Section 4.3.1.

~~Micro-Generator Project Subscriptions are only authorized to register up to 100kW of project registrations. This account type will not be permitted to register DGG registrations.~~

Section 4.3.7: Annual Review of Generators

M-RETS requires Users to update/review Generators once a year during the month of January to ensure correct information. M-RETS will email Users with the requisite permissions as well as prompt them within the System to complete the review.

It is the User's requirement to confirm that they represent and warrant to M-RETS that all information for their Generator shall be true, complete, and correct to the best of their knowledge, information, and belief.

M-RETS requires that Organizations review and accept all Generator data by January 31st. Failure to complete the annual review for each Generator in an Organization by January 31st each year will result in the loss of access to the Organization until a User with proper permissions reviews and confirms all of the data for every Generator in the Organization.

Section 4.3.8: Changes to Static Data

In addition to the annual update, Users must notify M-RETS of the following that have the effect of changing static data tracked by M-RETS within 30 calendar days of the effective date and/or knowledge of the change:

a. A change in fuel type at a Generating Unit, and the date on which the change occurred.

b. A change in Generating Unit ownership (*See* Section 4.3.12: Changing the Organization to which the Generator is Associated).

c. A change to Generator eligibility for any programs or certification tracked by M-RETS. Before M-RETS adds an eligibility to a Generator, M-RETS will verify the Generator meets the states eligibility

requirements. In the case where a state requires preapproval, M-RETS will require the appropriate documentation and reserves the right to verify this information with the appropriate state, province or independent certifier. A User may remove an eligibility at any time.

d. A change to any of the "~~essential generating characteristics~~Essential Generating Characteristics",

M-RETS can remove Generators for cause, including willful misrepresentation of static data. M-RETS may rely on the M-RETS dispute resolution process (*See* M-RETS Terms of Use) to address such situations, and M-RETS will accept no liability for Generator misrepresentations. M-RETS reserves the right to take appropriate action in consultation with the M-RETS Board to respond to willful misrepresentation of static data, including but not limited to withholding issuing Certificates, Inactivating an Organization associated with a particular Generating Unit, or withholding participation in M-RETS for Generating Units that have willfully misrepresented static data.

Section 4.3.9: Terminating a Generator's Participation in M-RETS

If the Generator Owner wishes to voluntarily de-list a Generator from M-RETS, they must notify M-RETS via email from an email account registered in that Organization with Manage Generator privileges with the following information:

- The date the generating unit should be/will be removed from M-RETS; This is the same as the final date of generation for which Certificates are to be issued, and

- The name of the Reporting Entity, and

- Provide M-RETS with notice whether the Generator is moving to another tracking system and allow M-RETS to release any relevant information about the generator to the tracking System Administrator.

M-RETS will issue Certificates for any generation that occurs prior to the date of generating unit termination as instructed by the Generator Owner. Because of the lag time between generation and Certificate issuance, this may mean that Certificates will be issued and deposited after the termination date, but only for generation that occurred prior to the termination date. Certificates will be issued for generation that occurred prior to the termination date, but whose meter reading came in within 62 days after the termination date. M-RETS will not issue Certificates for generation that occurs after the termination date.

To ensure data integrity, unused or retired Generators are set to 'Inactive' status. Only M-RETS can Inactivate a Generator. Setting a Generator to Inactive prevents any subsequent generation uploads and Certificate creation by the Generator. Inactivating a Generator does not affect previously issued Certificates.

Section 4.3.10: Generator Suspension

If M-RETS has cause to suspend the Generator Asset's participation in M-RETS, Certificate production will cease until M-RETS approves a reinstatement of the Generator. Suspension of a Generator does not affect Certificates previously issued in accordance with the M-RETS Terms of Use and Operating Procedures.

Section 4.3.11: Generator Termination

If M-RETS has cause to permanently terminate the Generator Asset's participation in M-RETS, M-RETS will cease any further production of Certificates, and the Generator will be inaccessible. Termination of a Generator does not affect Certificates previously issued in accordance with the M-RETS Terms of Use and Operating Procedures.

Section 4.3.12: Changing the Organization to which the Generator is Associated

If the Generator Owner or Responsible Party ("Transferor") wants to change the Organization to which a Generator Asset is associated, they can do so by requesting the change from M-RETS in writing or via email.

The Transferor must confirm the following:

a. The Organization Name and Organization I.D. of the Transferor.

b. The Generator Name and M-RETS I.D.

c. The effective date of the change and the last vintage that should be issued to the Transferor.

The Transferee must confirm the following:

a. The Organization Name and Organization I.D.

b. The Generator Name and M-RETS I.D.

c. The Account Name and Account I.D. to which the Generator will initially issue Certificates upon competition of the change.

d. The effective date of the change and the first vintage that should be issued to the Transferee.

e. Any changes to the static Generator data (e.g., new Reporting Entity, Eligibilities).

Certificates from generation that occurred up to the day the Organization change takes effect will be issued into the Organization that the Generating Unit was associated with at the time the generation occurred.

For example, if the Generator owner changes the Organization to which a given Generating Unit is associated with from Organization A to Organization B, and the change is effective on March 1, then the Certificates from generation that occurred prior to March 1, will be deposited into Organization A (even though the date of Certificate deposit will be after March 1, because of the lag time between generation occurrence and Certificate issuance.)

There cannot be any lapse in time where the Generator Asset is not associated with an M-RETS Organization. If there is a period when the Generator Asset is not associated with an M-RETS Organization, M-RETS will treat this as an Inactivation/Reactivation of the Generator Asset instead of a change of Organization.

Any fractional remainder MWhs (i.e., any kWh) will transfer to the new owner of the Generator.

Section 4.3.13: Assignment of Rights of Registration – Designation of Responsible Party

The owner of a Generating Unit or Responsible Party may assign the right to register the Generating Unit(s) in M-RETS to a designated responsible party for the purposes of allowing that party the ability to control and manage the disposition of any M-RETS Certificates. . This assignment of registration rights will give the designated Organization full and sole management and authority over the transactions and activities

related to the Generating Unit within M-RETS. For the purposes of M-RETS, this party is the Responsible Party for that Generating Unit.

M-RETS will require both parties to confirm an assignment of registration rights and the date the assignment will be effective using the Schedule A: Designation of Responsible Party form.

Section 4.3.14: Termination of Rights of Registration

The Generator Owner or the Responsible Party may terminate the Rights of Registration subject to confirmation by M-RETS that both the Generator Owner and Responsible Party agree to the termination. The User will file the Generator Asset Termination Form with M-RETS. The form specifies who the new Responsible Party with the Rights of Registration is and the date the change in registration will occur. Termination of Rights of Registration has the effect of deregistering the Generating Unit from M-RETS. Thus, no new Certificates will be issued from that generating upon the effective date of the termination. *See* Section 4.3.12: Changing the Organization to which the Generator is Associated for additional information.

Section 4.3.15: Changing Rights of Registration

When changing the Rights of Registration, M-RETS will confirm that both parties (the Generator Owner or current Responsible Party and the new Responsible Party) agree to the change. If the Generator Owner or Responsible Party wants to change the Organization to which a Generator Asset is associated, they can do so by filing the Generator Asset Transfer Form with M-RETS. The form specifies who the new Responsible Party with the Rights of Registration is, and the date the change in registration will occur. There cannot be any lapse in time where the Generator Asset is not associated with an M-RETS Organization. If

there is a period when the Generator Asset is not associated with an M-RETS Organization, M-RETS will treat this as a deregistration/re-registration of the Generator Asset.

In addition, the User must review—and update if necessary—the basic Generator Registration data when the Right of Registration is changed from one party to another.

Section 4.4: Generation

Any User with Generation Upload permissions can submit generation in either MWh or kWh data into M-RETS. Each time M-RETS receives generation data for a Generator, the date and quantity of MWhs is posted to the Generation Log. Any fractional remainders (i.e., kWh) will not issue Certificates but will roll over to the next month of generation. Once uploaded, data will be labeled with one of the following:

- **Accepted**: Applies to all generation less than 1 MWh reported to M-RETS. The System will add this data to the subsequent month of generation for issuance.

- **Issued**: Applies to all generation 1 MWh or greater and indicates the Certificates are now active.

- **Rejected**: Applies all data Rejected by the Account Holder, QRE or Administrator. Data can be reloaded for Vintages in a Rejected Status

- **Pending**: Applies to all generation that 1) Generation that fails feasibility and therefore needs M-RETS approval; 2) generation waiting to receive a 'fuel type' allocation from a multi-fuel Generator; or 3) Generation subject to the 14 day Holding Period to issue Certificates (to be implemented 2023; see Section 4.4.8: for more information on Holding Period Issuances). Pending Generation is not issued and therefore not represented by Active Certificates.

An organization shall pay a per-REC Issuance Fee for up to the first one million one hundred thousand (1,100,000) RECs issued in the Registry each calendar year by a given generator registered in its organization. This cap does not apply to backloaded generation or to Alternative Energy Certificates (AEC) (e.g. Pumped Hydro or Nuclear)

Section 4.4.1: Acceptable Format

A QRE or User must upload generation through the M-RETS portal. The data must be in a .csv or .txt file format. Excel or Notepad can be used to create a generation data file. Programs (e.g., Microsoft Excel) that add formatting may reformat date fields which will result in errors when loading the file. The data shall be in ASCII Text with data fields delimited by commas (Comma-Separated Value – CSV format). M-RETS supports two types of reporting: Monthly Generation Data and Hourly Generation Data. All Generation data is to be reported in UTC. The switch to daylight saving time does not affect UTC and is not adjusted to reflect changes either to or from Daylight Saving Time.

Monthly Generation Data Field Requirements
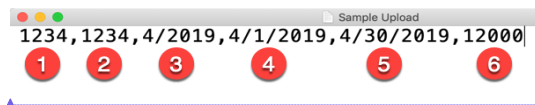
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1. Generator ID: The M-RETS ID. Use just the number (e.g., M805 should be listed as 805).

2. Reporting Unit ID: The Reporting Unit ID. Use the M-RETS ID if your generator does not have a Reporting Unit ID.

3. Vintage: Month and year of generation, formatted at MM/YYYY for any month in the current Reporting Period. This must be 7 characters long or the upload will fail.

4. Start Date of the Month: Begin month-day-year of generation output period formatted as MM/DD/YYYY. This must be 10 characters long or the upload will fail.

5. End Date of the Month: End month-day-year of generation output period formatted as MM/DD/YYYY. This must be 10 characters long or the upload will fail.

6. Total MWh: Total MWhs for the Reporting Month

Hourly Generation Data Field Requirements

```
Generator ID,Generator Name,Date,HE,Total kWh,Peak
1234,MRETS.SAMPLE.GENERATOR,11/1/19,1,50310,no
1234,MRETS.SAMPLE.GENERATOR,11/1/19,2,42971,no
1234,MRETS.SAMPLE.GENERATOR,11/1/19,3,33964,no
1234,MRETS.SAMPLE.GENERATOR,11/1/19,4,31929,no
1234,MRETS.SAMPLE.GENERATOR,11/1/19,5,28357,no
1234,MRETS.SAMPLE.GENERATOR,11/1/19,6,24293,no
1234,MRETS.SAMPLE.GENERATOR,11/1/19,7,23759,yes
1234,MRETS.SAMPLE.GENERATOR,11/1/19,8,28670,yes
1234,MRETS.SAMPLE.GENERATOR,11/1/19,9,18654,yes
```
(1)   (2)   (3)   (4) (5)   (6)

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1. Generator ID: The M-RETS ID. Use just the number (e.g., M805 should be listed as 805).

2. Reporting Unit ID: The Reporting Unit ID. Use the M-RETS ID if your generator does not have a Reporting Unit ID

3. Date of Generation: The date the generation occurred formatted as MM/DD/YYYY.

4. Hour of Generation (1-24). All hours for the total reporting period must be accounted for or the file will be rejected.

5. Total kWh for that specific hour.

6. Peak: Optional column to identify On Peak (Yes) or Off Peak (No) data

The monthly generation will be uploaded in MWh. Hourly/minute data must be uploaded in kWh.

● Uploading by hour or minute is optional.

● RECs are still created, retired, and transferred in MWh. Generation by hour or minute provide more granularity in the data associated with each REC batch.

● While generation by hour or minute increments is uploaded in kWh, Certificates are still only created in MWh.

MISO data files identify On Peak/Off Peak data. This is for informational purposes to provide Generator owners additional information about their production.

MISO defines On Peak and Off Peak in their FERC approved Tariff as:

   ▪ Off-Peak: All periods of time not classified as On Peak.

   ▪ On Peak: Period of time between Hour-ending 0700 EST through and including Hour-ending 2200 Hours EST Monday through Friday excepting New Year's, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day or if the holiday occurs on a Sunday, the Monday immediately following the holiday.

Section 4.4.2: Uploading Time Restrictions

To encourage timely reporting, M-RETS enabled automatic validations to generation uploads. Newly registered Generator Assets can report Generation back three (3) months from the date the Generator Asset is approved. If the User is aware that Generation occurred prior to three months, variance request can be submitted to allow generation prior to three months from the Generator Asset approval date. M-RETS will want to verify that the Generator Asset has not been registered in another tracking system and will need an attestation from the Organization that the environmental attributes have not been otherwise claimed outside of a recognized tracking system. Users have up to two years (730 days) from the generation end date to upload Prior Period Adjustment generation. M-RETS must approve any generation outside of this range.

M-RETS may accept generation which occurred prior to 730 days from the current month with a completed Variance Request Form. Upon registration, the Organization must contact M-RETS (systemadmin@mrets.org) in writing and ask that M-RETS grant a variance. M-RETS shall review all issuance requests made outside of the 730-day window and may grant a variance if they determine that the request is made in good faith and: that the Organization submitted their request for a variance in writing at the time of Generator registration, that there is a legitimate reason to issue the Certificates, and that there is no likelihood Certificates were previously claimed or retired. M-RETS may submit the variance request—or send an email outlining the circumstances—to a state or provincial regulator should there be concern compliance with the variance request could result in potential double counting.

Section 4.4.3: Requirements of Data Reporting Entities (QREs)

M-RETS will accept generation data from Control Area Operators, Qualified Reporting Entities and Self-Reporting Generators.

M-RETS will maintain a list in each QRE's Organization of the Generating Units for which the QRE is reporting. M-RETS will outline the protocols for collection of information such as meter IDs, data format, communication protocols and timing, and security requirements for data collection in the Interface Control Document. M-RETS will update this document when any changes are made that may impact the data collection process. To minimize the impact of document changes, this document is a general template that outlines a common approach and set of standards. The Reporting Entity Terms of Use contain the specific data collection parameters for each reporting entity. M-RETS will work with the personnel from the QREs to verify information and address specific requirements of each reporting entity.

M-RETS reserves the right to audit the MWh data totals submitted at any time.

Section 4.4.4: Measurement of Generation and Adjustments

M-RETS will measure the output from each Generating Unit delivered into either the transmission or distribution grid. Certificates do not reflect, nor does M-RETS measure losses occur on the bulk transmission or distribution systems after the metering. M-RETS will not create Certificates for that portion of the generation used to supply station service unless specifically approved for a state or provincial RPS, RES or goal defined in Regulation or rule. Therefore, generation data supplied to M-RETS must not reflect station service supplied from the Generator's side of the point of interconnection. For wholesale Generators also serving onsite loads, M-RETS will create Certificates for the onsite load distinct from station service, if the Generator Owner can provide evidence that the metering used is capable of distinguishing between on-

site load and station service. Otherwise, M-RETS will assume a conservative default fraction of total generation is station service unless it can be proved otherwise.

If, due to metering, reporting, error or any other reason, the data requires an adjustment, the reporting entity must report the adjustment as soon as possible to M-RETS.

Section 4.4.5 MidContinent Independent System Operator (MISO) Settlement Data

M-RETS can pull hourly generation data for generators above 5MW that are located in the MISO footprint. M-RETS pulls MISO generation data on a settlement plus 55-day window and corrections to data are pulled on a settlement plus 105-day window. For example, June 2022 generation data is uploaded to the M-RETS system on August 26th. To register a generator in M-RETS and have MISO be the reporting entity the user must fill out the M-RETS-MISO Data Release.

Section 4.4.6 Southwest Power Pool (SPP) Settlement Data

M-RETS can pull hourly generation data from SPP for generators above 5MW that are located in the SPP footprint.

Section 4.4.7: Changes to Issuances (Rollbacks and Prior Period Adjustments)

The User must notify M-RETS if they believe the generation data amount recorded on the Generation Log is inaccurate for any reason. This is known as registering a dispute. Adjustments made after the upload of generation data to M-RETS and/or Certificate issuance are known as Rollbacks or Prior Period Adjustments.

If the QRE or User uploaded incorrect generation data and the Certificates remain in the issuance Account, M-RETS will Rollback the issuance. Once the Rollback is complete, the Certificates may be re-uploaded.

If the QRE or User uploaded incorrect generation data and the Certificates do not remain in the issuance Account, a Prior Period Adjustment is required. M-RETS will post the Prior Period Adjustment to the Generation Log associated with the Generating Unit. This will have the effect of applying a credit or debit to the generation amount reported in the current month. Consequently, the adjustment occurs upon the next Certificate issuance. If new Certificates are created, the month of creation of the Certificates shall be the same as all other Certificates created that month, however the Certificates will also indicate the month the prior period generation occurred.

If a User requests a Rollback outside of the acceptable upload range, M-RETS may require evidence of data inaccuracy. This includes, but is not limited to:

a. Screenshot(s) of internal readings

b. Official readouts of generation

All requests for Rollbacks and Prior Period Adjustments are subject to review by M-RETS.

Section 4.4.8: Data Transmittal

Users must electronically transfer data files to M-RETS using a secured protocol and a standard format specified by M-RETS. The data shall reflect, at a minimum, the month and year of the generation, monthly accumulated MWhs for each meter ID and the associated meter ID(s) for each resource.

The data must be transmitted by a single entity, which must be either (1) the Control Area Operator, or (2) a QRE, or (3) a Self-Reporting Generator.

Section 4.4.9: Holding Period Issuances (To be implemented ~~2023~~2024)

M-RETS will place generation into a "Holding Period Required" state, this allows the owner of the generator to confirm the submitted generation. Self-reported generation can be withdrawn and resubmitted within the 14 day Holding Period by the owner. Once generation has been approved by the owner or M-RETS Administrator, Certificates will be issued. If generation is not reviewed within 14 days, the system will automatically issue Certificates.

Section 4.5: Certificates

M-RETS supports various Certificate Types. The most common Certificate Type is the Renewable Energy Certificate (REC) tracks the environmental attributes associated with reported generation (MWh) from renewable sources of electric generation. M-RETS also supports Alternative Energy Certificates (AEC) to track reported generation (MWh) from approved sources of non-renewable electric generation. AECs have been approved by the M-RETS Administrator as having an environmental benefit that should be tracked in M-RETS despite not being considered as a renewable source. See Appendix B for a list of Fuel Types and the

Certificate Type issued. M-RETS issues Import RECs which are issued for Import certificates from compatible tracking systems.

Section 4.5.1: Creation of Certificates

All generation data submitted to M-RETS will undergo an automatic validation to verify that the reported data is feasible for the hours reported in the file. The feasibility validation will ensure there are no overlapping generation entries, and that there are no gaps in reported dates. Using the reported Capacity Factor and Nameplate Capacity, M-RETS will verify reported generation is within an acceptable threshold of 2%. The Capacity Factor is commonly defined as the ratio of the electrical energy produced by a Generating Unit for the period of time considered to the electrical energy that could have been produced at continuous full power operation during the same period. M-RETS will use the following formula to calculate the feasible generation for a reported period.

([Nameplate Capacity]*[Capacity Factor])* [Hours in the Reported Duration])*1.02

Reported vintages that fail M-RETS' Data Feasibility Validation will need to be validated by the System Administrator. The User should provide their meter readings or screenshots of their meter data acquisition system substantiating the reported data. The M-RETS System Administrator will approve the generation and make recommendations to update your Capacity Factor if there is enough data to do an analysis.

Using an average Capacity Factor for generators subject to seasonal variations (e.g., solar and wind) can result in a validation process that falsely accepts all reported generation in seasons of low generation and falsely rejects all reported generation in seasons of high generation. The M-RETS Administrator can review historic meter data to model monthly Capacity Factors. Using validated data to perform an analysis and

calculate monthly Capacity Factors, the M-RETS Administrator can add a Validation Curve to make the capacity validation more accurate.

M-RETS will issue one electronic Certificate for each MWh of energy generated by those Generating Units registered with M-RETS. A Certificate created and tracked within M-RETS represents all renewable attributes from one MWh of renewable generation. M-RETS Certificates are "Whole Certificates," meaning that none of the renewable attributes may be split off from the Certificate while it is in circulation in M-RETS. Certificates will be issued based on the number of whole MWhs on the Generation Log on the day of Certificate creation. Hourly generation data can be uploaded to the system in kWh and the system will automatically convert the generation to MWs and issue RECs.

Depending on User settings, the System will notify the User via email that generation has been posted. The generation posting will be marked "Issued" on the Generation Log.

Certificates in M-RETS do not have a specific expiration date. States and Provinces define the lifetime or expiration date for Certificates as applied to the programs they oversee.

Section 4.5.2: Data Fields Carried on Each Certificate

a. Serial Number(s)
b. Account
c. ID
d. Generator Fuel Type
e. Vintage Date
f. Location
g. Quantity
h. Eligibilities

Section 4.5.3: Retirement of Certificates

Certificate Retirement is an action taken by the User to remove a Certificate from circulation. M-RETS is not responsible for ensuring that Users Retire Certificates for voluntary or compliance purposes. M-RETS requires all Users to initiate and complete all retirements. M-RETS maintains an integrated online help guide that Users can access here.

M-RETS provides a menu of options for acceptable retirement reasons that the Organization must select to complete the retirement. The options will be consistent with regulatory programs and any voluntary programs or voluntary market activities. Users shall notify M-RETS if they would like to add a new voluntary or compliance retirement type

Section 4.5.4: Retirement Types

Voluntary Retirement Types

Beneficial Ownership (BBO)

- Formal Definition: With respect to any Certificate, Beneficial Ownership Rights means any contractual or other right to direct or control the sale or other disposition of, or the Retirement of, such Certificate or (ii) any contractual or other right to receive the benefits of such Certificate or any proceeds from the sale or other disposition of such Certificate.
- M-RETS Uses: All retirements for the benefit of an individual owner for a general environmental reason (i.e., company purchasing RECs to green their operation). Within this Retirement type there are additional options in the "Reason" drop down box. One of the reasons is utility

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retirement on behalf of all customers. This Reason should be selected when a utility is looking to make a voluntary retirement that can be applied to all customers. An example of this is the Green Advantage® program through MidAmerican Energy Company or the Certified Renewable Percentage offered through Xcel Energy.

An Additional Details field is provided to allow the User to provide specific information about the sale (i.e., customer name, retirement year) Note: Compliance or Green-e Voluntary programs should not use the Beneficial Ownership retirement type. All RPS retirements (Including IL ARES Retirements) should use the State-Regulated Utility Renewable Portfolio Standard/Provincial Utility Portfolio Standard (RPS) Retirement Type. Green-e Voluntary Retirements should use the Green-e Energy Certified Voluntary Market Sale Retirement Type.

Green-e Energy Certified Voluntary Market Sale (GRN)

- M-RETS Uses: All Green-e Retirements. To retire Certificates to substantiate sales made in a given calendar year as "Green-e Energy certified", the party retiring Certificates must have a contract in place with Center for Resource Solutions to make Green-e Energy certified sales in that year of sale.

Utility Green Pricing (UGP)

- M-RETS Uses: Utility Green Pricing Program Retirements. Note: "Green-e Energy Certified" Utility Green Pricing Program Retirements should use the Green-e Energy Certified Voluntary Market Sale Retirement Reason.

Municipal Renewable Portfolio Standard (Compliance) (MUN)

- M-RETS Uses: Municipal Renewable Portfolio Standard retirements.

Federal Renewable Energy Requirement (FDR)

- M-RETS Uses: Federal Renewable Energy Requirement retirement for the following programs: EPACT 2005, Executive Order 13423, Federal Building, U.S. DOD Army, U.S. DOD Navy, U.S. DOD Air Force, U.S. DOD Marines, U.S. DOD, U.S. Park Service, Dept. of Interior. *Note: Please contact M-RETS if a Federal program is missing from this list.*

State/Provincial Requirement

- M-RETS Uses: State/Provincial Requirement for voluntary programs requiring the use of M-RETS.

Compliance Retirement Types

State-Regulated Utility Renewable Portfolio Standard / Provincial Utility Portfolio Standard (Compliance) (RPS)

- M-RETS Uses: State-Regulated Utility Renewable Portfolio Standard/Provincial Utility Portfolio Standard (RPS) retirements.

Other – Non-RPS Compliance

- M-RETS Uses: Federal, State or Provencial Programs requiring the retirement of RECs that are not part of a State-Regulated Utility Renewable Portfolio Standard / Provincial Utility Portfolio Standard.

Municipal Renewable Portfolio Standard (Compliance) (MUN)

- M-RETS Uses: Municipal Renewable Portfolio Standard retirements.

Federal Renewable Energy Requirement (FDR)

- M-RETS Uses: Federal Renewable Energy Requirement retirement for the following programs: EPACT 2005, Executive Order 13423, Federal Building, U.S. DOD Army, U.S. DOD Navy, U.S. DOD Air Force, U.S. DOD Marines, U.S. DOD, U.S. Park Service, Dept. of Interior. *Note: Please contact M-RETS if a Federal program is missing from this list.*

Section 4.5.5: Forced Retirement of Certificates

M-RETS and/or appropriate regulator(s) shall have sole discretion to retire any Active Certificates for mistake, fraud, or other reasonable cause consistent with these Operating Procedures, the Terms of Use and/or the purposes of the M-RETS program.

Section 4.5.6 : E-tags

An E-tag is an electronic record that contains details of a transaction to transfer energy from the point of generation to transmission across one or more balancing authority boundaries that is required by a regulatory authority. An E-tag is measured in MWh's and is applied to certificate quantities. The issuance of E-tags is referred to as matching the removal of an e-tag is known as unmatching. M-RETS does not actively facilitate the use of the E-tag functionality as there are no programs that require the use of E-tags as of the publication of these M-RETS Operating Procedures (2022). Should a program require E-tags, contact the M-RETS Administrator.

Section 4.5.7 : Granular Certificates/ Time-Based Environmental

Attribute Certificates (TEACs)

Granular Certificates (GC) or time-based environmental attribute certificates (TEACs) are traceable, digital certificates representing a unit of verified renewable energy that includes the time of production along with other relevant data related to the production of the energy.

Generation data can be reported on an hourly basis for Generators that use MISO or SPP as the Qualified Reporting Entity. Certificates issued with hourly data will be issued on a MWh basis. Eligible certificates with hourly data can be retired with an option to make an hourly claim from the retirement screen.

M-RETS is working to implement the fractionalization of RECs by Q2 2023.

Section 4.6: Transactions

Section 4.6.1: Transferring Certificates between Organizations

M-RETS Users may transfer Active Certificates to:

1. Another Organization

2. Another active Account

3. To a compatible tracking system

After a User initiates a transfer ("Transferor"), the transferred Certificates enter a 'Pending' state. This effectively "freezes" the Certificates and the System will prevent the Transferor from making additional transfers of Certificates in Pending status.

The Pending Transactions table lists all Pending Transactions for both the Transferor and Transferee. Once the Transferee confirm the transfer, both the Transferor and Transferee receive an email if their notifications are enabled.

The Transferor may cancel any transfer before a Transferee confirms the transfer by withdrawing the transfer in the Pending Transactions table. The Transferee may reject a transfer prior to acceptance. M-RETS will notify both the Transferor and Transferee should either party withdraw or reject a transfer.

Section 4.6.2: Certificate Imports

M-RETS Operating Procedures

A Compatible Certificate Tracking System is a generation tracking system that has an operating agreement with M-RETS. Only a Compatible Certificate Tracking System may import Certificates into M-RETS. Similarly, M-RETS can only export Certificates to a Compatible Certificate Tracking System. M-RETS supports open and transparent markets.

Using the M-RETS API, M-RETS supports allowing imports and exports between all Certificate tracking systems in North America, including allowing for the import/export of imported/exported Certificates. If a current system does not have import/export with M-RETS, please contact them and ask them to establish a connection.

Certificates may be imported into M-RETS by a process of conversion. Conversion entails retiring the Certificate from the exporting tracking system and creation 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 User 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(s) 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 M-RETS of the Certificate pending Certificate conversion. M-RETS will then notify the M-RETS User of the transfer and ask them to accept or reject the transfer. If the User 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 User rejects the import, M-RETS will notify the administrator of the other system, and no Certificate conversion will take place.

Section 4.6.3: Automatic Recurring Transfers

Users may request Automatic Recurring Transfers of Certificates from any Generator Fuel Type to the following:

1. One internal Account

2. Multiple internal Accounts

3. An external Organization within M-RETS

4. A Compatible Certificate Tracking System (Export)

In the registration of Automatic Recurring Transfer, the transferor must indicate:

1. Generator

2. Generator Fuel

3. Vintage Dates

4. Destination (Account, Multiple Accounts, External Organization, Compatible Tracking System)

5. Percentage (out to 5 decimal places xx.xxxxx%) or Maximum Number of Certificates

After a User initiates an Automatic Recurring Transfer ("Transferor"), the Automatic Recurring Transfer enters a 'Pending' state. The receiving Organization ("Transferee") then receives an email detailing the pending Automatic Recurring Transfer.

The Transferee must accept each transfer in the System prior to the deposit of the Certificates in the Transferee's Account. Please note: An acceptance of an Automatic Recurring Transfer does not automatically accept subsequent transfers. The System requires a manual acceptance by the Transferee in case of an unwanted or incorrect Automatic Recurring Transfer.

A User may set up multiple Automatic Recurring Transfers. However, each Generator Fuel Type may only be associated with one Automatic Recurring Transfer. For example, if your Generator uses both Biomass and Liquid Biomass, you will be able to create an Automatic Recurring Transfer for the Biomass and a separate Automatic Recurring Transfer for the Liquid Biomass. Single-fuel Generators may only set one Automatic Recurring Transfer at a time.

Each Automatic Recurring Transfer will be set up based on percentage of Certificates or a maximum number of Certificates. If less Certificates are issued than the maximum number specified, the total number of Certificates issued will transfer. If the Certificates are transferring to multiple Accounts, Users may prioritize the receiving Accounts. If there is a remainder, the User-set priority determines where to deposit the remaining Certificates.

Section 4.6.4: Irrevocable Automatic Recurring Transfers

From a technical standpoint, Irrevocable Automatic Recurring Transfers are like Automatic Recurring Transfers. However, only M-RETS can edit an Irrevocable Automatic Recurring Transfer. A change requires written electronic consent from the Transferor and Transferee. During the creation of an Automatic Recurring Transfers, Users can select an option to apply Irrevocable status to the Automatic Recurring Transfer.

Section 4.6.5: Export of Certificates

M-RETS can only export Certificates to a Compatible Certificate Tracking System. For Certificates that are exported, the cooperative agreements between the tracking systems handle how to prevent double counting.

To export Certificates from M-RETS to a Compatible Tracking System, the M-RETS User must select the batch of Certificates to export from an active Account and initiate a transfer using the Export Transfer option. The User must identify the following information:

a. Compatible Certificate Tracking System

b. The name of the intended recipient of the exported RECs

c. System ID of the party receiving the transfer (if available)

After initiation, the designated Certificate is placed in a "pending" status to ensure that the Certificates cannot be inadvertently transferred or sold. M-RETS will communicate with the Administrator of the Compatible Certificate Tracking System and arrange for the transfer of Certificates. If the Compatible Certificate Tracking System accepts the transfer, the Certificates will be removed from the M-RETS User's active Account. The status of the Certificates will be changed from "export pending" to "exported."

Section 4.6.6: Re-Import of Exported Certificates

M-RETS allows imports of previously exported Certificates. If 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.

Section 4.6.7: Mass Certificate Transfers

M-RETS will allow a user to transfer certificates to accounts within their organization or to other M-RETS Organizations using a .csv file. This functionality will be released in Q4 2022.

Section 4.7: Programs

The Program feature helps regulators, regulated entities, and organizations with their own internal programs to manage the complexity of various programs more efficiently. The Program feature allows regulators as well as Organizations the opportunity to set up rulesets that prevent retirements of Certificates outside the parameters sent to a specified Retirement Account.

Users may create rules around any subset or all the following attribute areas, however, the System does not require a ruleset to utilize this feature nor is this feature restricted to compliance programs:

1. Vintage Start [requires Certificate vintage to be within a certain date]

2. Vintage End [requires Certificate vintage to be within a certain date]

3. Eligibilities [requires Certificates to have AT LEAST one of the selected eligibilities]

4. Generator Location [Generator must originate in one of the selected state/provinces]

5. Fuel Types [Certificates must meet AT LEAST one fuel type]

6. Generators [Certificates must come from AT LEAST one of the selected Generators]

Section 4.7.1: Establishing a Program

Users can create a Program for internal use or can invite other M-RETS Organizations to participate.

Any User within a General Account Subscription Organization that has Program manage permissions can create an Internal Program. Only Organizations that create Internal Programs can use and view the Program. Any Account created as part of the Internal Program will be subject to the associated Program Ruleset.

Any User within a General Account Subscription Organization that has Program manage permissions can create an Internal Program. Only Organizations that create Internal Programs can use and view the Program. Any Account created as part of the Internal Program will be subject to the associated Program Ruleset.

The Administrator of an External Program can invite an unlimited number of other M-RETS Organizations to participate in a Program. All participants will receive a notification inviting them to participate in the Program. Prior to becoming active Program participants, the invitee must accept the invitation.

A walk-through guide to adding a Program may be found <u>here</u>.

Section 4.7.2: Participating in a Program

Once an Organization accepts an invitation to participate in a Program, the participating Organization must create a new Retirement Account and link the Account to the Program. As Certificates are retired into this Account, they will automatically appear on both the Program Administrator and the participant's Program dashboard. This dashboard is tailored to only show relevant information for their Program.

If a User attempts to retire Certificates that do not match the predetermined criteria of the Program, the System blocks the retirement. This prevents the retirement of incorrect Certificates.

A walk through guide to participating in a Program may be found <u>here</u>.

Section 4.8: Markets

Market programs are overseen by the "Market Administrator". The Market Administrator creates a market to which an unlimited number of participants can be invited. M-RETS Organizations participating in a market can transfer RECs to a special Market Account that gives the Market Administrator access to RECs

available for sale as well as the functionality to initiate and complete transfers. These organizations act as a pass-through for Market Transactions.

For an Organization to be a Market Administrator, its Participant Terms of Use must be approved by M-RETS and be available for participants to review at all times.

Section 4.8.1: Functionality and Permissions of Market Administrators

Market Administrators **have** the following functionality to:

- Invite and manage user permissions

- Passthrough transfer on market transactions

Market Administrators **do not** have the functionality to:

- Create Accounts

- Register Generators

- Upload generation

- Own Certificates

- Retire Certificates

Section 4.8.2: Market Transactions

Certificates a Market participant transfers to their Market Account are visible to the Market Administrator and will become available to be posted to the Market Administrator's external market platform.

The Market Administrator can toggle Certificates transferred to the Market Account as 'Encumbered' to prevent the RECs from being transferred and 'Unencumbered' to complete a market transaction.

When a transaction is initiated on RECs that are part of a Market, the Market Administrator has the ability to conduct a "Market Transaction". This includes creating a seamless transaction that sends Certificates from the Seller to the Market Administrator, then from Market Administrator to the buyer. The Market Transaction gives the Market Administrator the ability to expose or restrict the identities of the buyer and seller in any transaction.

Section 4.8.3: Functionality and Permissions of Market Participants

Market Participants have the following functionality:

- Participants can transfer Certificates into their designated Market Account.
- Participants can remove Certificates from the Market Account as long as the RECs are set to "Unencumbered".

Section 4.8.4 Market Accounts Functionality

Purchased Certificates by a participant in a market program are deposited into the participant's market account. These accounts are automatically created after the invitation to participate in a program is accepted.

Certificates deposited into a market account by default are placed into an "Unencumbered" status. The participant has the ability to place them as Encumbered if desired. Certificates in this account are visible to the Administrator and are posted to the external market platform. Purchased Certificates will be transferred to the purchasing Organization.

Section 4.9: API

M-RETS offers an application programming interface (API) to give Organizations with a General Account Subscription the ability to access M-RETS data from outside of the M-RETS Portal. Uses for this feature include, but are not limited to, creating an automated process to send a transfer or to pull report information. Organizations need to request an API access key before using the API. M-RETS can also provide access to a sandbox environment to test the API without affecting live production data in M-RETS. M-RETS encourages all users to use the sandbox environment prior to utilizing the M-RETS API in the production system.

Documentation for the API is accessed through the M-RETS portal. Click on the "Documentation" tab located in the left nav menu to view a list of available calls and technical specifications. The documentation is interactive and allows for the testing of API calls right in the interface.

More information on our API can be found in our Terms of Use.

Section 5: Wisconsin RPS

Certificates that are eligible for the Wisconsin RPS Program have one of the following eligibilities: WI Bankable and WI Non-Bankable. More information on the Wisconsin RPS can be found here.

Section 5.1: WI Bankable

M-RETS classifies Certificates that are WI RRC eligible and less than four years old as WI Bankable. WI Bankable Certificates are valid for Wisconsin compliance up to four years after the vintage year listed on the Certificate. After the fourth year, M-RETS removes the WI Bankable Certificate eligibility and the Certificate no longer qualifies for the Wisconsin RPS.

Section 5.2: WI Non-Bankable

M-RETS classifies Certificates that are not WI RRC eligible and less than one year old as WI Non-Bankable. Organizations may only retire Certificates for the Wisconsin RPS that are Non-Bankable for the compliance year matching the vintage listed on the Certificate. For example, a Wisconsin compliance Organization may retire a 2017 WI Non-Bankable Certificate for the 2017 Wisconsin RPS but not for the 2018 Wisconsin RPS. Because M-RETS does not set expiration dates on RECs, a User may still use a 2017 Wisconsin Non-Bankable REC for other purposes if that REC meets the guidelines for other state or voluntary programs. After the closure of the Wisconsin RPS program each year, M-RETS will remove the WI Non-Bankable designation from Certificates that are not in an M-RETS Retirement Account but no longer qualify according to Wisconsin state law and regulations.

Section 5.3: RRC Adjusted Quantity

M-RETS Operating Procedures

Wisconsin Stat. § 196.378(2)(b)1m.a. states that hydroelectric facilities owned or operated by Wisconsin electric providers during the "baseline" 2001-2003 period receive average value for purposes of the Wisconsin RPS. This value is based on an annual average production during the three-year baseline period. This in effect creates two different values: "Quantity" and "RRC Adjusted Quantity"

M-RETS automatically calculates the RRC Adjusted Quantity for use in the Wisconsin RPS Program once all Generators subject to this rule have all data uploaded for the compliance year. When using the M-RETS Program function, the correct number for compliance is the RRC Adjusted Quantity. For Generators participating in the Wisconsin RPS that do not have a three-year hydro average the RRC Adjusted Quantity and the Quantity should be equal.

Section 6: Public Reports

M-RETS provides live-updated Public Reports on the M-RETS Landing Page subject to the privacy rules contained in the M-RETS Terms of Use.

Section 7: Acknowledgements

At the time of publication, the M-RETS Board of Directors included:

Eric Schroeder, Carbon Solutions, LLC

Tyler Meulemans, Public Service Commission of Wisconsin

Andy Kellen, WPPI Energy

Ken Nelson, Blue Delta Energy, LLC

Amanda Hosch, MidAmerican Energy Company

Leanne Shewchuk, Manitoba Municipal Government

Holly Lahd, Meta Platforms, Inc.

Renee Colbert, Dairyland Power Cooperative

Jim Jones, Great River Energy

Luke Penne, Constellation

Commissioner Joshua Byrnes, Iowa Utilities Board

Appendix A: Generator Static Data Fields

(*) denotes a required field

General	
General Information	
Facility Name*	Name of the facility (some facilities may have multiple units)
Unit Name*	Generator Name
EIA Number	ID number provided by the EIA (if applicable)
Qualifying Facility?	PURPA Qualifying Facility
Qualifying Facility ID	ID assigned to a Qualifying Facility by NERC
Reporting and Issuance	
Reporting Entity*	Organization that reporting generation data for the Generator
Reporting Unit ID*	MISO Node or a user-created identifier
Issuance Account*	Account all newly issued Certificates will be deposited
Location	
County	Physical county where Generator is located
State/Province*	State or Province where Generator is located
Country or Municipality	Physical country where Generator is located

*	
Facility Photo	A photo of the Generator
Owner	
General Ownership Information	
Single-Owner Facility?*	Is this facility owned by a single entity?
Additional Owner(s)	If this is not a single owner, list additional owners
Owner Contact Information	
Company Name*	Owner that holds legal title to the Generator
Address*	
City*	
State/Province*	
Zip/Postal Code*	Contact information of owner referenced above
Country*	
Phone*	
Website	
Mailing Address*	
Mailing City*	

Mailing State/Province*	
Mailing Zip/Postal Code*	
Mailing Country*	
Ownership Type and Registration Rights	
Ownership Type(s)	Electric Service Provider Federal Marketer/Power Administrator Investor-Owned Utility Irrigation District Municipal Utility Privately Owned Distributed Generation Rural Electric Cooperative Tribal Organization
Does your organization own this generator?	Y/N
Assignment of Registration Rights	If the generator is registered by a different entity, that is not the owner, this field must be marked and a Schedule A must be submitted
Do you have a PPA?	Yes/No; Power Purchase Agreement - Upload a copy of the PPA documentation

Assignment of Registration Rights Date	Date the Schedule A - Designation of Registration Rights was signed by the owner
Court/Regulator Assignment of Rights	Yes/No
Court/Regulator Assignment of Rights Date	Date the Court or Regulator Assigned the Registration Rights; Upload a copy of the Court or Regulator Assignment of Registration Rights Documentation
Operator	
Facility Operator Information	
Job Title	Job Title of Facility Operator
Name*	Name of Facility Operator
Mailing Address*	Mailing Address
Mailing Address Line 2	
City*	Mailing City
Mailing State/Province*	Mailing State/Province
Mailing Zip/Postal Code*	Mailing Zip/Postal Code

Mailing Country*	Mailing Country
Phone	Phone number of the facility operator
Email	Email address of the facility operator
Engineering	
Interconnection Information- Generator Classification	
Generator Classification	- Wholesale Generation - Generators that are directly connected to the electric distribution network and sell the generated electricity directly to the wholesale market - Wholesale Generation also serving On-Site Loads- Generators that are directly connected to the electric distribution network and sell the generated electricity directly to the wholesale market as well as consume it on-site - Customer- Sited Distributed Generation - On-site customer generation also known as Distributed Energy Resources
Balancing Authority	The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a balancing authority area, and supports interconnection frequency in real time.
Balancing Authority ID	Identification code for the Balancing Authority (if applicable)
Interconnected Utility	The owner or operator of an electrical utility distribution system that a Generator asset will be connected to for purposes of charging or discharging energy. The Interconnecting Utility issues the Interconnection Agreement and Certificate of Completion.

Interconnected Utility ID	Identification code for the Interconnected Utility (if applicable)
Engineering	
Commenced/Commercial Operation Date*	In-service date of Generator
Nameplate Capacity (MW) in A/C*	The maximum rated output of a Generator
Capacity Factor*	The ratio of the electrical energy produced by a Generating Unit for the period of time considered to the electrical energy that could have been produced at continuous full power operation during the same period.
Maximum Annual Energy*	Maximum annual output in MWH of the facility in 365 days
Biomass Net Generation BTU/kWh	*Heat rate* is one measure of the efficiency of a Generator or power plant that converts a fuel into heat and into electricity. The heat rate is the amount of energy used by an electrical Generator or power plant to generate one kilowatt hour (kWh) of electricity. The U.S. Energy Information Administration (EIA) expresses heat rates in British thermal units (Btu) per net kWh generated
Repower Date(s)	If repowered, the in-service date of the repowered Generator
METERING INFORMATION	
Aggregate Metering*	Yes/No - Multiple units that do not share essential generating characteristicsEssential Generating Characteristics should be registered as separate Generators under one metering group If yes, see below

Is this a new group or an addition to an existing group?*	- Create New Group: ○ Meter ID - Enter the Serial Number or Model Number of the Meter ○ Qualified Reporting Entity- reporting entity of generation - Add to an existing group ○ Meter ID - Select from the list of Meter IDs reported for existing groups
Is this a Revenue Quality Meter?*	A meter that is used by control area operators for settlements.
Revenue Meter ID*	Serial Number or Model Number of the Meter
WI INFORMATION	
Approved to report 3-year hydro average?*	Does this Generator use a 3-year hydro average specific to the Wisconsin Program
Hydro 3-year average	3-year hydro average value
Approved as a WI displacement facility?*	Is this facility certified by the State of Wisconsin as a WI displacement facility
Program Eligibility (See Appendix for detail)	

Appendix B: Fuel Type

Fuel Type

Fuel Type(Short Description)	Fuel Type(Long Description)	Renewable(Y/N)	Recycled(Y/N)	Certificate Type
ALT	Alternate Use	Y	N	REC
BFG	Gas - Blast-Furnace Gas	Y	N	REC
BIG	Biogas	Y	N	REC
BIM	Biomass	Y	N	REC
BLQ	Black Liquor	Y	N	REC
RWB	Biomass - Recovered Woody Biomass			REC
CO1	Coal	N	N	-
CON	Conversion of Fuel from Natural Gas Pipeline	Y	N	REC
DI1	Diesel	N	N	-
FC1	Fuel Cells	Y	N	REC
FLR	Flared Gas	N	Y	AEC
NG2	Fossil Fuel (CEC Renewable)	Y	N	REC
GE1	Geothermal Energy	Y	N	REC
H2O	Hydroelectric Water	Y	N	REC
HY2	Hydro (WI Eligible)	Y	N	REC
HYD	Hydrogen	Y	N	REC
IEH	Incremental/ Efficiency - Hydroelectric Water	Y	N	REC
JET	Jet	N	N	-
LHN	Large Hydro not meant for certificate creation	N	N	-

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MS1	Municipal solid waste	Y	N	REC
NG1	Natural Gas	N	N	-
NON	Not Listed - Contact M-RETS	N	N	-
NU1	Nuclear	N	N	AEC
OC1	Tidal or Wave	Y	N	REC
OIL	Oil	N	N	-
PHS	Pumped Hydro Storage	N	N	AEC
PSN	Pumped Storage not meant for certificate creation	N	N	-
SO1	Solar	Y	N	REC
TML	Thermal	Y	-	REC

TDF	Tire Derived Fuel	Y	N	REC

WHR	Waste Heat Recovery	Y	N	REC
WND	Wind	Y	N	REC
WO1	Waste Oil	N	N	REC

Appendix C: Transfer Appendix

Export Transfer

M-RETS will work with Compatible Tracking Systems (CTSs) to ensure a credible and reliable method for exporting RECs to a CTS. Currently approved CTSs for exporting are:

- Michigan Renewable Energy Certification System (MIRECS)

- North American Renewables Registry (NAR)

- North Carolina Renewable Energy Tracking System (NC-RETS)

The processes for export and import transfers are identical. Please see the import transfer process below for more information on how to complete a transfer with a CTS.

Import Transfers

M-RETS will work with a CTS to ensure a credible and reliable method for importing RECs from CTS. Currently approved CTSs for importing are:

- Michigan Renewable Energy Certification System (MIRECS)

- North American Renewables Registry (NAR)

- North Carolina Renewable Energy Tracking System (NC-RETS)

- Texas Renewable Energy Trading Program (ERCOT)

The following Import Process defines how Certificates are imported to M-RETS from Compatible Tracking Systems (CTS)

PROCESS

1. *CTS Organization selects a batch of Certificates and initiates an export transfer in a CTS. As part of the export process the CTS Organization is asked to select from a drop-down menu which registry the Certificates should be transferred to what Organization.*

2. *M-RETS will receive a notification that an import has been initiated. The CTS Administrator will provide an Import File to M-RETS with all applicable data as required by M-RETS.*

3. *M-RETS* confirms that the Generating Unit has previously been approved as an Import Generator in M-RETS. If yes, transaction will proceed. If no, M-RETS will complete the Import Generator Certification with the applicable Eligibility Flags verified using the information provided in the Import File.

4. *If M-RETS cannot validate the Import Generator meets the eligibility criteria for M-RETS, M-RETS* informs the *CTS* Administrator of the unsuccessful transfer by email.

5. *If the transfer is approved, M-RETS will allow the applicable Certificates to be issued and delivered to the designated M-RETS Organization. The import serial number uses the standard M-RETS format with the CTS name inserted into the format, for example:*

~~MIRECS~~NC-123-~~MI~~NC-01-2009-123-1 to 1

Appendix C-1: Michigan Renewable Energy Certification System Imports

MIRECS issues RECs and in some cases Incentive Renewable Energy Certificates (IRECs) for generation which meets the following requirements:

1. Two renewable energy Certificates for each megawatt hour As of electricity from solar power.

2. 1/5 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system, other than wind, at peak demand time as determined by the commission.

3. 1/5 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system during off-peak hours, stored using advanced electric storage technology or a hydroelectric pumped storage facility, and used during peak hours.

4. 1/10 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system constructed using equipment made in this state as determined by the commission.

5. 1/10 renewable energy credit for each megawatt hour of electricity from a renewable energy system constructed using a workforce composed of residents of this state

September 2023, M-RETS defines a REC as 1 MWh of renewable energy. As a result, does not accept imports from MIRECS. Please contact the M-RETS will realign the MIRECS REC definitionSystem Administrator with M-RETS when a REC is exported. MIRECS will use the original ratio of RECs to IRECs from the original facility and vintage and apply it to the quantity of RECs to be exported. The ratio will effectively reduce the RECs to be exported ensuring the export quantity represents 1 MWh. This will work in the following way:

When an import is initiated, MIRECS will display the total number of MWhs being exported and the corresponding number of MIRECS RECs being retired. The amount of MWh exported will be equal to the

total MIRECS RECs selected for export multiplied by the corresponding MWh-to-REC ratio. For example, an Organization selects to export 50 RECs with a MWh-to-REC ratio of 0.5. In this case 50 RECs will be retired and 25 MWh will be processed for import into M-RETS. The table below shows the process for a variety of different ratios:

Scenario	MWh of Generation	MIRECS RECs Issued	MIRECS IRECs issued	MWh-to-RECs ratio	RECs/IRECs selected for export from MIRECS	Import RECs issued in M-RETS	RECs/IRECs remaining in MIRECS	Equivalent MWh's of generation remaining in MIRECs
1	500	500	125	0.8	500	400	125	100
2	1000	1000	250	0.8	1000	800	250	200
3	500	500	250	0.67	500	333	250	167
4	1000	1000	500	0.67	1000	667	500	333
5	500	500	500	0.5	500	250	500	250
6	1000	1000	1000	0.5	1000	500	1000	500
7	500	500	1000	0.33	500	167	1000	333
8	1000	1000	2000	0.33	1000	333	2000	667

The end result of this process, for example, is that for scenario 1 above, a total of 525 Certificates are in circulation among the various tracking systems: 400 RECs in M-RETS and 125 RECs in MIRECS. The 400 RECs in M-RETS represent 400 MWh's of generation. The 125 RECs remaining in MIRECS still carry the MWh-to-REC ratio of 0.8 and therefore still represent only 100 MWh of generation. This is the desired result as the Certificates are based on 500 MWh of generation.

~~By applying a ratio that represents the proportionate amount of actual MWh of renewable generation all RECs (including IRECs) in MIRECS have the same value. Any REC or IREC can be exported to M-RETS because it will be "discounted" to reflect the additional Michigan incentive Certificates created from the MWh of generation. Ultimately, the information used for import by the tracking systems will be MWh of renewable generation. This will allow each tracking system to apply whatever types of incentives are desired, if~~ any~~, to the various MWh imported.~~ questions about MIRECS Imports.

Appendix C-2: North Carolina Renewable Energy Tracking System Imports

Imports from NC-RETS require an attestation because the North Carolina RPS statute states that certain attributes are not included in a REC for compliance purposes:

"A renewable energy Certificate does not include the related emission reductions, including, but not limited to, reductions of sulfur dioxide, oxides of nitrogen, mercury, or carbon dioxide."

In contrast, M-RETS expects that its Certificates be "whole Certificates," meaning Certificates "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 that are defined as any and all Certificates, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributable to the generation from the Generating Unit(s)."

Therefore, in order to prevent double claims on the emissions of the facility that generated the Certificate, imports from NC-RETS require assurance that the emission reductions (if any) have not been sold off to a third party.

To ensure any RECs imported into M-RETS from NC-RETS meet M-RETs definition of a REC an attestation form must be completed. The entity importing the RECs must attest that no attributes have been transferred separately from the RECs being imported, and specifically that the emissions attributes have not been transferred to any other party. The attestation form must be reviewed and approved by M-RETS for any imports from NC-RETS to be allowed.

Appendix C-3: North American Renewable Registry System Imports

There are no significant differences between the M-RETS and NAR definition of a REC. As result RECs may be imported from NAR by following the process outlined in Appendix C.
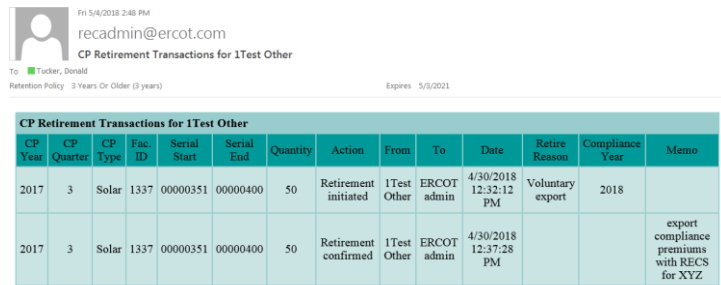
Appendix C-4: Texas Renewable Energy Trading Program (ERCOT)

The rules governing the Texas Renewable Energy Credit Trading Program do not provide a directive on exporting or importing files with other REC Trading Programs. Reasons to retire a REC in the Texas REC Trading Program include mandatory (compliance with the RPS mandate), voluntary and expired (still in the trading program when the REC reaches end of life). The Texas REC Trading Program does not export the REC, and any use of a REC retired in the Texas REC Trading Program by another REC Trading Program would be subject to that Trading Programs rules.

In 2018 ERCOT added a process whereby Account holders can identify the reason for retiring a REC by adding an optional field where an Account holder could leave the field empty or enter "green-e" or "export". To complete an export to M-RETS, the ERCOT Account holder must enter in the empty field, "Export to M-RETS" along with the date of the transaction. For example, if the export is initiated on October 1, 2018, for M-RETS to process the Export the field must read, "Export to M-RETS effective 10/01/2018."

Once the action is complete in the ERCOT system the User must submit a Summary Report to M-RETS (systemadmin@mrets.org). The email sent should look like the below example posted by ERCOT:

Fri 5/4/2018 2:48 PM
recadmin@ercot.com
CP Retirement Transactions for 1Test Other

To ▪ Tucker, Donald

Retention Policy 3 Years Or Older (3 years)   Expires 5/3/2021

CP Retirement Transactions for 1Test Other

CP Year	CP Quarter	CP Type	Fac. ID	Serial Start	Serial End	Quantity	Action	From	To	Date	Retire Reason	Compliance Year	Memo
2017	3	Solar	1337	00000351	00000400	50	Retirement initiated	1Test Other	ERCOT admin	4/30/2018 12:32:12 PM	Voluntary export	2018	
2017	3	Solar	1337	00000351	00000400	50	Retirement confirmed	1Test Other	ERCOT admin	4/30/2018 12:37:28 PM			export compliance premiums with RECS for XYZ

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The ERCOT Account Holder must also send an email to M-RETS with the following information:

Declaration of Exporting Account Holder

I, (print name and title) _____,

declare that I am the lawful representative of (Account Holder Name)

_____, and that I wish to export the

Certificates identified in this transaction from ERCOT to M-RETS. I further declare _____ (electronic initial)

that the Certificates to be imported are Whole Certificates as defined by M-RETS and do not contain any

Compliance Premiums, Bonus RECs, or any other Certificates that are above and beyond the electricity

generated by the facility according to all M-RETS Operating Procedures. Furthermore, all the generation and

environmental attributes, including the attributes indicating the level of direct emissions from the

generating facility, and also including any carbon offsets or avoided emissions (if any are authorized), were

transferred to the M-RETS Account Holder when it acquired the Certificates, and to the best of my

knowledge, these attributes have not been sold, marketed or otherwise claimed by any party other than

Account Holder.

Account Holder Representative Electronic Signature: _____

Printed Name: _____

Title: _____

Date: _____

ERCOT System Information:

Project Name or Facility ID:

Quantity: [total number of RECs exported from ERCOT to M-RETS]

Vintage: [Month/Year]

Serial number start and serial number end: [ex. 000001 – 000031]

Receiving Organization Holder Info:

System:

Organization at destination:

Organization ID at destination:

Additional notes:

Once M-RETS processes the Export from ERCOT to M-RETS, the Receiving M-RETS Account Holder must go into their Account and accept the transfer. Failure to include the declaration may result in a delay to the desired export of the RECs from ERCOT to M-RETS.

Appendix D: Glossary

Account: M-RETS provides several different Accounts for holding and retiring M-RETS Certificates

Active Account: The Active Account is the holding place for all active M-RETS Certificates.   If the Organization is a registered Generator, or is the designated representative of a registered Generator, their Active Account will be the first point of deposit for any M-RETS Certificates created that are associated with the Generating Unit ID number, unless the Certificate is subject to an automatic recurring transfer. An Active Account may be associated with one or more Generating Units.

Retirement Account: A Retirement Account is used as a repository for M-RETS Certificates that the Organization wants to designate as retired and remove from circulation. Once a Certificate has been transferred into an M-RETS Retirement Account, it cannot be transferred again to any other Account.

Active Account: *See* Account

Active Certificates: Any Certificate that is held in an M-RETS Active Account. Active Certificates may be traded, transferred, exported, retired, etc. at the discretion of the holder of the Active Account or his/her Agent.

Agent: Any party other than the Organization that has been granted access by the Organization to "use" their Organization. Agents may include viewing information, performing transactions,

changing personal information etc. The Organization may at any time revoke the permissions granted to an Agent by notifying M-RETS. The M-RETS System will be able to track the specific activities of each Agent through the unique User ID and password. Also known as a User. To add an Agent, the Principal of the Organization must have an active account with permissions to manage the Organization. Additionally, the Principal is required to upload a completed "M-RETS Schedule C: DECLARATION OF AGENCY" form, which can be found on the M-RETS website.

Alternative Energy Certificate (AEC): M-RETS supports Alternative Energy Certificates (AEC) to track generation (MWh) from approved sources of non-renewable electric generation. AECs have been approved by the M-RETS Administrator as having an environmental benefit that should be tracked in M-RETS despite not being considered as a renewable source (e.g., Pumped Hydro or Nuclear). The AEC Certificate type is a methodology to issue certificates for nonrenewable fuel types and should not be viewed as an endorsement of the technology or environmental benefit. Additional attributes can be assigned, when it is applicable (e.g., Emission Free Energy Certificate (EFEC))

Automatic Recurring Transfers: Normally, the first point of deposit for M-RETS Certificates is the Account to which a Generating Unit selects as its issuance Account. With an Automatic Recurring Transfer, the Organization to which the Generating Unit is registered requests that the Certificates be directly deposited into another Account when the Certificates are created. Automatic Recurring Transfers may be set up for transfers to:

1. One internal Account

2. Multiple internal Accounts

3. An external Organization within M-RETS

4. A Compatible Certificate Tracking System (Export)

Automatic Recurring Transfers can be set as Irrevocable during the confirmation of the transfer process. However, only M-RETS can edit Irrevocable Automatic Recurring Transfers once they are set.

Carbon-free electricity (CFE): Energy produced without generating carbon emissions, including renewable energy resources like wind and solar and non-renewable but zero emitting resources like nuclear.

Certificate: The term "Certificate," as used in this document, refers to an M-RETS Certificate of generation, or M-RETS Certificate. An M-RETS Certificate represents all the attributes from one MWh of electricity generation from a renewable Generating Unit registered with M-RETS or a Certificate imported from a Compatible Tracking System (CTS) and converted to an M-RETS Certificate. M-RETS will create exactly one Certificate per MWh of generation that occurs from a registered Generating Unit or that is imported from a CTS. See also definition of "Whole Certificate."

Commercial Operation Date/Commenced Operation Date (COD): Commercial Operation marks the start of a project's revenue-generating activity, when electricity generated is fed into the grid. It signifies that construction and commissioning of the facility have concluded with minimal non-essential issues, and that the facility is compliant with relevant grid codes and standards, allowing it to be operated safely and as intended. The COD is the date established on the utility assigned Certificate of Completion (COC) that marks the approved date of operations.

Compatible Tracking System: A Compatible Tracking System (CTS) is a generation tracking system that meets the guidelines that M-RETS has established to ensure the security and integrity of the Certificate information and reciprocity of Certificate conversion. Consequently, the transfer of Certificates between CTSs is allowed. Transfers cannot occur until guidelines have been established for

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converting Certificates from another tracking system into M-RETS Certificates. Please consult the Transfer Appendix for a current list of Compatible Tracking Systems.

Control Area/Control Area Operator: 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 of the Interconnection. 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 CTS are made available for import into M-RETS. The process involves designating the Certificate as exported from the compatible tracking system according to the protocol agreed upon jointly by the Administrator of the CTS and M-RETS. After such designation is made, M-RETS will issue a corresponding M-RETS Certificate that can be used within M-RETS.

Creation Date: The date that M-RETS Certificates are created. Certificates are created monthly, seven days after the Organization has accepted the generation amount of the Generation Activity Log.

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. For repowered or refurbished Generating Units, this is the date of original operation, not the date of the repower or refurbishing. For incremental capacity, this is the date of original operation for the non-incremental capacity. M-RETS may refine the definition of Date of First Operation for small non-commercial Generating Units in the future.

Dispute Resolution Process: Administrative process managed by M-RETS to resolve disputes regarding M-RETS functionality and actions, including but not limited to disputes related to the number of Certificates in an Account, static data, Organization 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. See Appendix B-1 for a list of dynamic data fields.

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, including sulfur dioxide (SOx), nitrogen oxide (NOx), or carbon dioxide (CO2) Emissions Free Energy Fuel sources include: Solar Photovoltaic, Wind, Hydro, and Nuclear. Additional fuel sources will be considered on a case by case basis.

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Emission Free Energy Certificate: A Certificate from a generating unit that produces Emission-Free Energy as designated by an Emission Free Energy Certificate (EFEC) eligibility flag designated by the generator owner or Designated Responsible Party.

Essential Generating Characteristics: M-RETS defines a Generator Asset as an electric facility consisting of one or more Generators with the same essential generation characteristics with a single meter that measures the output. Essential Generating Characteristics include:

- Location/Parcel
    - DGG Registrations require generators to be located in the same state
- Fuel Type/Source
- State/Provincial/Voluntary Program Eligibility

Facility/Generating Facility: *See* Generator.

Fuel Source: The specific source or origin of the fuel being used at a Generating Unit or Generator. Fuel source will be indicated during Generator registration if the fuel type has more than one potential fuel source and where indication of the fuel source is relevant to eligibility for one or more state or provincial program. A list of fuel sources is available in Appendix B-4.

Fuel Type: The type of fuel or other naturally occurring energy source that the Generating Unit or Generator uses to create electricity. A list of fuel types is available in Appendix B-4.

Generation Activity Log: The Generation Activity Log is an electronic ledger where generation is posted prior to Certificate creation. Each time generation data is received by M-RETS for a particular

Generating Unit, the date and quantity of MWhs is posted to the Generation Activity Log. Similarly, adjustments received will be posted likewise.

Generation Month: The generation month is the calendar month in which the generation occurred.

Generator Registration Agreement: The agreement between an Organization and M-RETS which sets forth terms and conditions for use of the M-RETS System.

Generator Asset (Project): M-RETS defines a Generator Asset as the M-RETS registration of an electric facility consisting of one or more Generators with the same essential generation characteristics with a single meter that measures the output. A piece of equipment or machinery that can generate electricity. This digital representation is some time referred to as a Project.

Granular Certificate (GC) - Granular Certificates (GC) or Time-Based Environmental Attribute Certificates (TEACs) are traceable, digital certificates representing a unit of verified renewable energy that includes the time of production along with other relevant data related to the production of the energy.

Incremental Capacity: Nameplate capacity added to an existing Generator. Incremental Capacity may consist of one or more new Generating Units. Incremental capacity does not include repowered capacity

Interconnecting Utility - the owner or operator of an electrical utility distribution system that a Generator asset will be connected to for purposes of charging or discharging energy. The Interconnecting Utility issues the Interconnection Agreement and Certificate of Completion.

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 M-RETS for the purposes of creating M-RETS Certificates. The Interface Control Document will identify M-RETS 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.

Load Serving Entity (LSE): This term refers to any Organization selling retail electricity to end Users, such as investor-owned utilities, municipal utilities, and electric coops. Sometimes referred to as an "electric provider." In M-RETS LSE can also mean Organizations that aggregate for member or customer LSEs.

M-RETS Administrator: M-RETS is the entity with the authority to administer or oversee the administration and implementation of the M-RETS Operating Rules.

M-RETS Board: The Board of Directors of Midwest Renewable Energy Tracking System, Inc., a Wisconsin nonprofit corporation.

M-RETS Certificates: *See* Certificate.

Marketer: Any person that either purchases RECs for sale to others or a broker that arranges sales of RECs between two or more parties is defined as a marketer.

Month and Year of Generation: *See* Vintage.

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Multi-Fuel Indicator: An indication that the Generating Unit or Generator is capable of using more than one fuel type to generate electricity. The multi-fuel indicator will be selected during registration or later if the Generating Unit or Generator is converted to multi-fuel capability after registration is complete.

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. Size classification is based on Nameplate Capacity.

Organization: An M-RETS Organization is a party that has registered with M-RETS and has established an Organization within M-RETS. Also referred to as a Subscriber or User.

Principal User (also referred to as Principle): Principal is a subscriber to the M-RETS System and has entered into an agreement with MRETS by accepting the Terms of Use located at http://www.mrets.org or is an entity whose Attributes data are contained in the M-RETS System;

Program: An M-RETS feature that is created to prevent irrelevant Certificates from being retired. This is based on a predetermined ruleset that narrows the field of acceptable Certificates. Users may create Programs for internal or external use.

External Program: A Program that is created by a Program Administrator, such as a Regulator, which allows one or multiple Organizations participate.

Qualified Reporting Entity: A Reporting Entity that is (1) the control area operator, interconnecting utility, scheduling coordinator, or an independent third-party meter reader and is not affiliated with the owner of the Generator for which the entity is reporting; or (2) the control area operator or interconnecting utility and that is affiliated with the Generator owner, but having sufficient segregation of duties such that the person performing the Qualified Reporting Entity duties does not have access to transfer or retire Certificates created for that Generator. A Qualified Reporting Entity must enter into an agreement with M-RETS describing the terms and conditions under which the Qualified Reporting Entity agrees to conduct business with M-RETS and must report data in accordance with the standards set forth in these Operating Procedures

Registered Generator: A renewable energy source, known as a Generating Facility or Generator, that has registered with M-RETS.

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 include a designated percentage of renewable electricity in their generation/retail portfolio.

Reporting Entities: A Reporting Entity is an entity reporting meter reading and other generation data to M-RETS. Reporting Entities may include Qualified Reporting Entities, and for certain Customer-Sited Distributed Generation, the generation owner or customer (see Self-Reporting Generator). The protocol for such reporting is the Interface Control Document.

Reporting Entity Terms of Use: The agreement between a reporting entity and M-RETS that describes the terms and conditions under which the reporting entity agrees to exchange information and conduct business with M-RETS.

Repowered Capacity: Nameplate capacity added to an existing electric generating facility that replaces generating capacity which is removed from operation.

Repowered Indicator: An indication that the Generating Unit or part or all of the Generator has been repowered. The repowered indicator will be selected during registration or at a later date if the repowering occurs after registration is complete.

Repowered: A Generating Unit or Generator is repowered when existing electric generating nameplate capacity is removed and replaced with new generating capacity. Repowering may consist of replacing existing capacity with the same or different electric generation technology.

Responsible Party: An M-RETS Organization who has been assigned the Rights of Registration for a given Generating Unit. This gives the designated Organization full and sole management and authority over the transactions and activities related to the Generating Unit within M-RETS.

Retirement Account: *See* Account

Retirement of Certificates: Retirement of Certificates is an action taken to remove a Certificate from circulation within M-RETS. Retirement may be initiated only by the M-RETS Organization for Certificates in his/her own Account(s). Retirement is effectuated by transferring Certificates into a Retirement Account.

Revenue Meter: As of January 1, 2020, M-RETS no longer requires Generators to use a revenue quality meter. For Generators that are interconnected to a utility or control area operator, a revenue-quality meter is any meter used by the reporting control area operator for settlements. 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 which occurs monthly. The preferred source for the data is a meter data acquisition system. If the control area does not have an electronic source for collecting revenue meter data, then manual meter reads will be accepted.

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.

Self-Reporting Generator: A Generator that does not use a QRE to report generation. Users assigned privileges to report data should not also be assigned the privilege to manage transactions. All Certificates from Self-Reporting Generators will be indicated as self-reported.

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-1 for a list of M-RETS Static Data Fields.

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

Vintage: Month and Year of generation. The vintage on the issued Certificate will be the last month and year of generation contributing to an accumulated MWh.

Whole/ 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 that are defined as any and all Certificates, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributable to the generation from the Generating Unit(s). Renewable attributes do not include greenhouse gas avoidance Certificates based on the upstream capture of methane combined with the subsequent destruction of the methane. Individual states and provinces may create different definitions of renewable Certificates. M-RETS may consider revision of the definition of an M-RETS Certificate in the future if needed to better meet the needs of state and provincial programs. See also definition of "Certificate."

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 metering point. Such Generators either (i) have the net generation supplied to the grid reportable by the control area to M-RETS, or (ii) are not reportable by the control area to M-RETS on a unit-specific basis.

Wisconsin Electric Provider: An electric utility or retail electric cooperative serving customers in the State of Wisconsin. A list of electric providers eligible to establish an Organization will be provided to M-RETS by the Wisconsin Public Service Commission.

Appendix E: Ontario Program Rules

The IESO, acting on instructions from the Province of Ontario, has chosen to establish a Program within the M-RETS for its voluntary Clean Energy Credit Registry for the generation and consumption of clean electricity within the province of Ontario pursuant to the provisions of Part II.1 of the *Electricity Act, 1998*, S.O. 1998, c. 15 Sched. A (Ontario), Ontario Regulation 39/23: Clean Energy Credits and Ontario Regulation 160/99: Definitions and Exemptions. More information about Ontario's Clean Energy Credit Registry can be found here.

This Appendix E of the M-RETS Operating Procedures is only applicable to parties that have accepted an invitation from the IESO, in its capacity as Program Administrator, to join the Ontario Program within the M-RETS. The Ontario Program rules described in this Appendix E modify, delete, and/or add to the M-RETS Operating Procedures as described herein and shall be amended, from time to time, to align the M-RETS Operating Procedures with the requirements of Ontario's Clean Energy Credit Registry, including requirements established by the Ontario Electricity Act and Ontario Regulations. To the extent that this Appendix E conflicts or is inconsistent with other sections of the M-RETS Operating Procedures, this Appendix E shall take priority over all other sections of the M-RETS Operating Procedures for participants in the Ontario Program. Capitalized terms used in this Appendix E that are not defined in Section 1.1 shall have the meaning set forth in the M-RETS Operating Procedures.

The M-RETS Operating Procedures and the Ontario Program rules, as described in this Appendix E form the Clean Energy ~~Credity Registy~~Credit Registry Rules. The Clean Energy Credit Rules do not form part of the IESO's Market Rules.

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Section 1.1: Glossary

Clean Energy Credit: Ontario Environmental Attributes associated with the generation of one megawatt-hour of electricity that are recognized in the Clean Energy Credit Registry as a clean energy credit, following the submission of information to the Clean Energy Credit Registry, and on the M-RETS may take the form of any of the following: (i) Certificates; (ii) M-RETS Certificates; (iii) Whole Certificates; (iv) Renewable Energy Certificates or (v) Alternative Energy Certificates, as applicable.

Clean Energy Credit Registry: The Ontario Program implemented within the M-RETS, as adjusted for Ontario pursuant to this Appendix E

Clean Energy Credit Registry Rules: The M-RETS Operating Procedures as modified, deleted and/or supplemented in respect of the Ontario Program and as described in this Appendix E

Credit: See Clean Energy Credit.

Distribution System: Refer to the definition provided in the Ontario Electricity Act.

Distributor: Refer to the definition provided in the Ontario Electricity Act.

IESO: The Independent Electricity System Operator continued under Part II of the Ontario Electricity Act.

IESO-Controlled Grid: Refer to the definition provided in the Ontario Electricity Act.

Market Rules: The rules made under section 32 of the Ontario Electricity Act.

Ontario Electricity Act: The *Electricity Act, 1998*, S.O. 1998 c. 15, Sched.A (Ontario), as may be amended from time to time.

Ontario Environmental Attributes: Attributes or characteristics relating to the environmental benefits associated with electricity generated in Ontario from (i) biofuel, (ii) biogas, (iii) biomass, (iv) hydro, (v) nuclear, (vi) solar, or (vii) wind that are subject to transfer on their own without the electricity to which they are associated.

Ontario Regulations: Ontario Regulation 39/23: Clean Energy Credits, Ontario Regulation 160/99: Definitions and Exemptions, and any other Ontario regulations that may be in

effect in respect of Clean Energy Credits, all as amended from time to time.

Ontario Retirement Type: means the retirement type described in Section 4.5.4.

Ontario Transferee: A person or entity who intends to purchase or acquire a Clean Energy Credit. For clarity, the definition of Transferee provided in in the M-RETS Operating Procedure Section 4.6.3 is applicable to an Ontario Transferee.

Ontario Transferor: A person or entity that makes Ontario Environmental Attributes from a Generator Asset available for transfer. For clarity, the definitions of Transferor provided in the M-RETS Operating Procedure Sections 4.3.12, 4.6.1 & 4.6.3 are applicable to Ontario Transferors.

Program Administrator: The IESO.

Transfer: Includes a transfer of ownership, with or without consideration.

Transfer and Retirement Deadline: six (6) months after the end of the calendar year in which a Credit was generated.

Section 1.2: Registration

The IESO shall be the Program Administrator for the Ontario Program.

A party wishing to participate in the Ontario Program must register with the M-RETS, pursuant to Section 3, and in such process indicate their desire to participate in the Ontario Program. The M-RETS will review registrations and determine whether a party that has indicated their desire to participate in the Ontario Program is eligible to participate in the Ontario Program. If a party is determined to be eligible to participate in the Ontario Program, once the party has paid its Subscription Fee, the Program Administrator will issue an invitation to participate in the Ontario Program to the party.

Only Ontario Transferors and Ontario Transferees shall be eligible to participate in the Clean

Energy Credit Registry. All provisions of the M-RETS Operating Procedures relating to a party that registers with the M-RETS shall apply to Ontario Transferors and Ontario Transferees to the extent they do not conflict with this Appendix E. Except for the IESO, a party participating in the Clean Energy Credit Registry may not subscribe to the M-RETS as a Qualified Reporting Entity or a Market Administrator.

Section 1.2.1: Ontario Transferor

An Ontario Transferor shall:

(i) register with the M-RETS, including establishing an Organization, selecting a General Subscription and confirming their Organization wishes to be a participant in the Ontario Program;

(ii) register at least one Generator Asset with the M-RETs;

(iii) pay the applicable Subscription Fee set by the M-RETS in US dollars;

(iv) accept the Program Administrator's invitation to participate in the Ontario Program and confirm that it is an Ontario registrant;

(v) not transfer Ontario Environmental Attributes unless the Ontario Environmental Attributes are recognized in the Clean Energy Credit Registry as a Credit; and

(vi) not make Credits available for Transfer except as provided for in this Appendix E and

(vii) pay all applicable fees, set by the M-RETS in US dollars, including renewal and volumetric and transaction fees.

Section 1.2.2: Ontario Transferees

An Ontario Transferee must:

(i) have a customer account with the IESO or a Distributor with respect to its consumption of electricity in Ontario;

(ii) register with the M-RETS, including establishing an Organization, selecting a General Subscription and confirming their Organization wishes to be a participant in the Ontario Program;

(iii) pay the applicable Subscription Fee set by the M-RETS in US dollars;

(iv) accept the Program Administrator's invitation to participate in the Ontario Program and confirm that it is an Ontario registrant; and

(v) pay all applicable fees, set by the M-RETS in US dollars, including renewal and volumetric and transaction fees.

Note: The Program Administrator will issue invitations to join the Ontario Program to approved Organizations on an ongoing basis.

Section 1.2.3: Agents

An Ontario Transferor or Ontario Transferee may assign or revoke the permission of an Agent in accordance with applicable provisions and requirements of the M-RETS Operating Procedures.

Section 1.3: Credits

All provisions of the M-RETS Operating Procedures relating to Certificates, M-RETS Certificates, Whole Certificates, Renewable Energy Certificates or Alternative Energy Certificates shall apply to Credits to the extent they do not conflict with this Appendix E.

Credits shall:

(i) be associated with Ontario Environmental Attributes generated on or after January 1, 2023;

(ii) be associated with electricity generated by a Generator Asset located in Ontario and directly connected to the IESO-Controlled Grid or a Distributor's Distribution System; and

(iii) not be associated with electricity consumed before being delivered into either IESO-Controlled Grid or a Distributor's Distribution System (e.g., Wholesale Generation Also Serving On

Site Loads or Station Service loads).

Section 1.4: Credit Transfer

Section 1.4.1: Credit Transfer Restrictions

An Ontario Transferor may only Transfer a Credit if:

(i) the Transfer occurs by the Transfer and Retirement Deadline;

(ii) the Credit has been generated in the calendar year immediately prior to the applicable Transfer and Retirement Deadline;

(iii) the Credit is transferred to an Ontario Transferee;

(iv) the Credit will be retired by, or on behalf of, such Ontario Transferee against electricity consumed by the Ontario Transferee in Ontario in the same calendar year in which the Credit was generated; and

(v) the Credit has not previously been transferred or retired.

For clarity, an Ontario Transferor shall not export a Credit from the Clean Energy Credit Registry. Certificates, MRETS Certificates, Whole Certificates, Renewable Energy Certificates and Alternative Energy Certificates associated with a Generator Asset located outside of Ontario may not constitute Credits for the Ontario Program and may not be imported into the Clean Energy Credit Registry.

Section 1.4.2: Exemption from Credit Transfer Restrictions

Sections 1.4.1(iii) and 1.4.1(iv) do not apply with respect to the Transfer by an Ontario Transferor of Credits that are the subject of a contract entered into before January 1, 2023 respecting the Transfer, regardless of when the Credits are or were generated.

Section 1.5: Credit Retirement

An Ontario Transferee that accepts the Transfer of a Credit shall retire the Credit, by selecting Voluntary retirement, the Ontario Retirement Type and Voluntary retirement reason, and moving it to the Ontario Transferee's Ontario Program Retirement Account and selecting the Ontario Retirement Type and Voluntary retirement reason, by the Transfer and Retirement Deadline, against electricity consumed by the Ontario Transferee from the IESO-Controlled Grid or a Distributor's Distribution System within the same calendar year in which the Credit was generated.

An Ontario Transferor that does not Transfer a Credit shallmay retire the Credit, by selecting Voluntary retirement, the Ontario Retirement Type and Voluntary reason, and moving it to the Ontario Transferor's Ontario Program Retirement Account and selecting the Ontario Retirement Type and Voluntary reason, by the Transfer and Retirement Deadline. For clarity, an Ontario Transferor may retire a Credit against electricity it consumed to supply its station service load.

All Credits that have not been retired by an Ontario Transferor or an Ontario Transferee by the Transfer and Retirement Deadline shall be deemed to have been retired as of the Transfer and Retirement Deadline.

Section 1.6: Meter Data

All meter data submitted to the Ontario Program must be submitted by either the Program Administrator or a Self-Reporting Generator and must have originated from metering data that complies with Chapter 6 of the IESO's Market Rules and associated appendices or the Ontario Energy Board's Distribution System Code. Notwithstanding the foregoing, where revenue-grade meter data is not available meter data may be submitted as permitted by the M-RETS Operating

Procedures.

If the cumulative meter data is negative for any hour (i.e., the Generator Asset's electricity production is less than the electricity consumed) meter data must be recorded as zero MWh for such hour.

All meter data must be submitted by the Transfer and Retirement Deadline.

Section 1.7: Adjustments

An Ontario Transferor or Ontario Transferee may resubmit meter data (to correct previously submitted meter data that was inaccurate) to M-RETS staff pursuant to M-RETS Operating Procedure Section 4.4.7. Any implications of Rollbacks or Prior Period Adjustments as between Ontario Transferors and Ontario Transferees shall be addressed within the commercial terms of their transfer or transaction documentation, as applicable.

Section 1.8: Information

Section 1.8.1: Reporting

The IESO shall be entitled to publish reports displaying:

(i) registered Ontario Transferors and Ontario Transferees;

(ii) information respecting the number of Credits created in a calendar year;

(iii) information respecting the transfer of Credits, including information respecting the Credits that are available for transfer and the total number of Credits transferred in a calendar year broken down by energy source;

(iv) information respecting the retirement of Credits; and

(v) any other information about the Clean Energy Credit Registry that is required to be

published pursuant to the Ontario Electricity Act or Ontario Regulations.

Reports regarding Ontario's Clean Energy Credit Registry can be found here.

Section 1.8.2: Requests for Information

The IESO may require an Ontario Transferor or Ontario Transferee to give to the IESO, in the time and manner specified by the IESO, such information in relation to the Clean Energy Credit Registry as the IESO may specify for the purposes of auditing the Clean Energy Credit Registry or confirming the Ontario Transferor or Ontario Transferee is compliant with these Ontario Program rules, the Ontario Electricity Act and the Ontario Regulations.

Section 1.9: Deregistering

An Ontario Transferor or Ontario Transferee that wishes to cease participating in Ontario's Clean Energy Credit Registry shall notify M-RETS pursuant to M-RETS Operating Procedure Section 3.2.

Section 1.10: Compliance

All Ontario Transferors and Ontario Transferees shall comply with the M-RETS Operating Procedures, including the Ontario Program rules described in this Appendix E If an Ontario Transferor or an Ontario Transferee is found to be non-compliant with the M-RETS Operating Procedures, including the Ontario Program rules described in this Appendix E the IESO, as Program Administrator, may, in its sole discretion, make adjustments to the number of Credits and Account balances contained in the Accounts of a non-compliant Ontario Transferor or Ontario Transferee to rectify the impact of such non-compliance where possible and may deregister a non-compliant Ontario Transferor or Ontario Transferee.

M-RETS Operating Procedures