

Midwest Renewable Energy Tracking System

Operating Procedures

Effective 1/1/2020

DRAFT

M-RETS Operating Procedures

Table of Contents

Section 1: Introduction	1
Section 2: Privacy and Security	1
Section 3: Establishing an M-RETS Organization	1
Section 3.1: Billing Information	3
Section 3.2: Inactivating an Organization	4
Section 4: The Tracking System.....	4
Section 4.1: Users	4
Section 4.1.1: User Permissions	4
Section 4.1.2: Notification Settings	5
Section 4.1.4: Inactivating Users	7
Section 4.2: Accounts	7
Section 4.2.1: Active Accounts	7
Section 4.2.2: Deposits to the Active Account	8
Section 4.2.3: Transfers from the Active Account.....	8
Section 4.2.4: Functionality of an Active Account.....	8
Section 4.2.5: Retirement Accounts.....	8
Section 4.2.6: Deposits to the Retirement Account.....	9
Section 4.2.7: Functionality of the Retirement Account.....	9
Section 4.2.8: Account Status	9
Section 4.3: Generators.....	10
Section 4.3.1: Registration of a Generator.....	11
Section 4.3.2: Verification of Static Data Submitted During Generator Registration	12
Section 4.3.3: M-RETS Interaction with State Commissions and Certification of Facilities for State Programs.....	12
Section 4.3.4: Multi-Fuel Generators	12
Section 4.3.5: Multiple Units on a Single Meter	13
Section 4.3.6: Distributed Generation Aggregation	13
Section 4.3.7: Annual Review of Generators.....	14
Section 4.3.8: Changes to Static Data	14
Section 4.3.9: Generator Inactivation	15
Section 4.3.10: Generator Suspension.....	15
Section 4.3.11: Generator Termination	15
Section 4.3.12: Changing the Organization to which the Generator is Associated.....	15
Section 4.3.13: Assignment of Rights of Registration – Designation of Responsible Party.....	16
Section 4.3.14: Termination of Rights of Registration	16
Section 4.3.15: Changing Rights of Registration	16
Section 4.4: Generation.....	17
Section 4.4.1: Acceptable Format	17
Section 4.4.2: Uploading Time Restrictions	18
Section 4.4.3: Requirements of Data Reporting Entities (QREs)	19
Section 4.4.4: Measurement of Generation and Adjustments	19
Section 4.4.5: Changes to Issuances (Rollbacks and Prior Period Adjustments).....	19
Section 4.4.6: Data Transmittal.....	20
Section 4.5: Renewable Energy Certificates (RECs)	20
Section 4.5.1: Creation of Certificates.....	20
Section 4.5.2: Data Fields Carried on Each Certificate	21
Section 4.5.3: Retirement of Certificates	21

M-RETS Operating Procedures

Section 4.5.4: Retirement Types21

Section 4.5.5: Forced Retirement of Certificates23

Section 4.6: Transactions 23

Section 4.6.1: Transferring Certificates between Organizations.....23

Section 4.6.2: Certificate Imports23

Section 4.6.3: Automatic Recurring Transfers.....24

Section 4.6.4: Irrevocable Automatic Recurring Transfers.....25

Section 4.6.5: Export of Certificates.....25

Section 4.6.6: Re-Import of Exported Certificates26

Section 4.7: Programs 26

Section 4.7.1: Establishing a Program26

Section 4.7.2: Participating in a Program26

Section 4.8: API..... 27

Section 5: Wisconsin RPS 27

Section 5.1: WI Bankable 27

Section 5.2: WI Non-Bankable 27

Section 5.3: RRC Adjusted Quantity..... 28

Section 6: Public Reports 28

Section 7: Acknowledgements 28

Appendix A: Generator Static Data Fields 29

Appendix B: Fuel Type & Fuel Source 32

Appendix C: Transfer Appendix..... 34

Appendix C-1: Michigan Renewable Energy Certification System Imports 35

Appendix C-2: North Carolina Renewable Energy Tracking System Imports 36

Appendix C-3: North American Renewable Registry System Imports 37

Appendix C-4: Texas Renewable Energy Trading Program (ERCOT) 37

Declaration of Exporting Account Holder38

ERCOT System Information:38

Receiving Organization Holder Info:38

Appendix D: Glossary 39

M-RETS Operating Procedures

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 Users through registration and use of the System.

M-RETS offers a comprehensive list of training documentation through the web application. Users can find detailed walkthroughs of features here: <https://help.mrets.org/>. M-RETS also offers custom web-based training modules for Organizations. To request a training, please contact systemadmin@mrets.org.

M-RETS staff were all involved with the creation and editing of these Operating Procedures. At the time of creation, M-RETS staff consisted of:

Benjamin Gerber, Executive Director
Tanya Gajewska, Chief Administrative Officer
Rosie Hoyem, Program Manager
Sean Darling, Technical Program Coordinator

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 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 registrant.

M-RETS Operating Procedures

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 subscription types with more detailed information. 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 Organizations 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'm looking to...	Micro-Generator Project Subscription	Small Generator Project Subscription	Project Subscription	General Subscription	Retail Purchaser Subscription	Qualified Reporting Entity (QRE)	Program Administrator/ Government Regulator
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 Compliance				X	X		
Export RECs	X	X	X	X			
Import RECs				X			
Create Accounts for My RECs	X	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	X	X	X	X		

- **Micro-Generator Project Subscription: \$50/year**
 - This type of Organization can register a total of up to 100 kW in nameplate capacity of renewable Generators and have Certificates issued to it for its Generators. A Micro-Generator Project can hold, transfer (only outgoing transfers), withdraw and retire Certificates. A Micro-Generator Project cannot receive transfers from other parties.
- **Small Generator Project Subscription: \$125/year**
 - This type of Organization can register a total of up to 1.5 MW in total nameplate capacity of renewable Generators and have Certificates issued to it for its Generators. A Small Generator Project can hold, transfer (only outgoing transfers), withdraw and retire Certificates. A Small Generator Project cannot receive transfers from other parties.
- **Project Subscription: \$550/year**
 - 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

M-RETS Operating Procedures

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

- **General Subscription: \$2,200/year**
 - 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 MRETS.
- **Retail Purchaser Subscription: \$1,100/year**
 - This type of Organization is for retail purchasers of Certificates. A Retail Purchaser can hold, accept incoming transfers, and retire Certificates. They can also register and maintain Generators that are under 1 MW in capacity and have Certificates issued in their Organization. Retail Purchasers cannot make outgoing transfers.
- **Qualified Reporting Entity (QRE): No Fee**
 - 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 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**
 - State regulators, including but not limited to public utility commission and public service commission staff and voluntary market program administrators (e.g. Green-e) may be granted a Program Administrator/Government Regulator Organization. To find out if an Organization qualifies please contact M-RETS at systemadmin@mrets.org.

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.

M-RETS Operating Procedures

PO Box 856556
Minneapolis MN 55485-6556
(please always include the dash and 6556 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
Routing and Transit Number: 096010415
Account Number: 492037987

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 including 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 requisite permission. The User shall furnish the data 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 RECs. Moreover, any RECs at the time the Organization becomes Inactive will be inaccessible.

Section 4: The Tracking System

Section 4.1: Users

Users 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

M-RETS Operating Procedures

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 or M-RETS 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

Section 4.1.1.1: Organization Permission

In M-RETS, 'Organization' refers to the Organization Information, Billing Contact Information, and User List.

Section 4.1.1.2: Transactions Permission

In M-RETS, '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 4.1.1.3: Generators Permission

In M-RETS, 'Generators' refers to Projects and Generators. A User with 'Manage' permission will be able to create new Generators, edit current Generators, and mark Generators inactive.

Section 4.1.1.3: Billing Permission

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

Section 4.1.1.4: API Permission

In M-RETS, 'API' refers to the application programming interface. Any User that intends to connect and use our API will need Manage permissions.

Section 4.1.1.5: Generation Permission

In M-RETS, 'Generation' refers to the uploading and issuance of Certificates. A User with 'Manage' permissions will be able to upload MWh information for issuance.

Section 4.1.2: 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

M-RETS Operating Procedures

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:

*Dear members of [Organization A] and [Organization B],
A Certificate Transfer transaction was successfully submitted from [Organization A] to [Organization B]:*

Transaction Details:

This transfer transaction ID is: 123456 789 Certificates have been submitted for Transfer from [Organization A] to [Organization B] Serial numbers: 123-MN-01-2019-12345 – 1 to 789.

To complete the Transfer, [Organization B] must accept it by signing into M-RETS system, and visiting the Pending Transaction section of the RECs/Transaction History page (<https://app.mrets.org/recs/transaction-history>).

Section 4.1.3.2: Issuance

This setting emails Users upon generation data upload.

Example:

Organization: [Organization A]

The following RECs have been issued:

<i>Generator</i>	<i>M-RETS ID</i>	<i>Vintage</i>	<i>Quantity</i>	<i>Serial Numbers</i>	<i>Account</i>
<i>Main Hydro Generator</i>	<i>M123</i>	<i>1/2019</i>	<i>2222</i>	<i>[Serial Numbers]</i>	<i>Default</i>
<i>Second Hydro Generator</i>	<i>M321</i>	<i>1/2019</i>	<i>3333</i>	<i>[Serial Numbers]</i>	<i>Default</i>

Section 4.1.3.3: Retirements

This setting emails Users when Certificates are retired.

M-RETS Operating Procedures

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] with Fuel Type of [Fuel Type] and Vintage of [Vintage Date]. 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.

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 two Account types; Active Accounts and Retirement Accounts. Users can transfer Certificates to specific Accounts manually or automatically upon upload. Each Account has a unique identification number, similar to 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.

M-RETS Operating Procedures

If the Account has a Generating Unit(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 Generating Unit(s) ID number.

Section 4.2.2: 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 of the Organization's Active Accounts.
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 Generating Unit associated with the Active Account or through an adjustment approved by M-RETS in accordance with the Operating Procedures.
4. The Certificates can be deposited by M-RETS through the import process. If the Organization has more than one Active Account, the Organization can specify in each case the Active Account in which they want the Certificates deposited.

Section 4.2.3: Transfers from the Active Account

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

1. Transfer the M-RETS Certificates to another of one's own Accounts (e.g. retirement), or
2. Transfer the M-RETS Certificates to multiple of one's own 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 4.2.4: 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 4.2.5: Retirement Accounts

An Organization may establish multiple Retirement Accounts at their discretion. A Retirement Account is a repository for M-RETS Certificates that the Organization wants to designate as retired. An Organization may want to 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.

M-RETS Operating Procedures

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 4.2.6: Deposits to the Retirement Account

See Section 4.5.3: Retirement of Certificates

Section 4.2.7: Functionality of the Retirement Account

Retirement Accounts exist to hold Certificates permanently removed from circulation and that the corresponding Certificates are subject to a voluntary or compliance claim. 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 request made outside of the 24-hour 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 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.

M-RETS has a pull-down 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 type of voluntary or compliance retirement reason.

Section 4.2.8: Account Status

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

Section 4.2.8.1: Open

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

M-RETS Operating Procedures

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

Section 4.2.8.2: 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 4.2.8.3: Archived

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

Section 4.2.8.4: Frozen

When a Retirement Account is part of a Program that has closed, it is set to a status of 'Frozen'. A 'Frozen' status denotes the Account cannot accept further Retirements. However, Retired Certificates remain in an 'Frozen' Account. This status only applies to Retirement Accounts.

Section 4.3: Generators

M-RETS defines renewable generation as energy generated by a facility 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 Generators registered and approved in M-RETS. To ensure that double-counting does not occur, Generators participating in M-RETS must report 100% of their generation output in M-RETS. M-RETS maintains a list of state definitions of renewable energy located in the M-RETS compliance footprint on the website available here: <https://www.mrets.org/resources/statutes/>.

Any Generator that delivers energy into North America may register in M-RETS. Any other Generator may request to participate, however, that request is subject to approval by the M-RETS Board. 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.

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

For customer-sited distributed Generators, 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 at the Generator bus bar. 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

M-RETS Operating Procedures

generation flowing to the distribution system, adjusted to reflect the energy delivered into either the transmission or distribution grid at the Generator bus bar. Test energy is not treated differently and must also be delivered to the transmission or distribution grid at the Generator bus bar to create Certificates.

M-RETS defines a Generator as an electric generating facility consisting of one or more Generating Units with the same essential generation 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 Generating Unit(s) with M-RETS. As part of the Generator Registration Agreement, the User must attest that this Unit is not registered in any other Registry. Generating Units that are jointly owned must privately appoint a single Organization where the Generator will reside.

To register the Generating Unit(s), the owner of the Generating Unit 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 Generating Unit 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
 - a. It is helpful for Generators to include a Generator interconnection agreement that helps support the registration information. See Acceptable Documentation in Appendix A: Generator Static Data Fields.
 - b. Providing a Generators 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](#).
4. If this Generator will use MISO as the reporting entity, please fill out and upload [this form](#) in the Generator documents. It is important that the form reflects the correct MISO node.

The Generator 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's Renewable Portfolio Standard program.

A Visual Guide to the Generator Registration Process



Section 4.3.1.1: Static Data in M-RETS

M-RETS Operating Procedures

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 process, 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 utility 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 can be a Generating Unit that uses a renewable fuel with a fossil fuel or one that uses multiple types of renewable fuels. Such facilities must register with M-RETS as a multi-fuel Generator. A Generator that uses 1% or less of a second fuel may elect to register as a multi-fuel single fuel Generator if they would like Certificates issued for the second fuel type. 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 Operating Procedures

M-RETS only creates Certificates for renewable fuel types. 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.

If the Generating Units associated with a single meter do not have the exact same essential generation 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 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) 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 Aggregation

M-RETS Operating Procedures

For small (<1 MW) Generating Units, M-RETS will allow aggregation (“Distributed Generation Aggregation”) of Units not metered together and which 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 & Fuel Source.

Aggregated Generators must meet the following criteria:

- a. The M-RETS State/Province programs allows for aggregation if an eligibility is sought; and
- b. The Aggregated Units do not exceed a total nameplate capacity of 1 MW.

M-RETS may require documentation to verify each Aggregated Unit and generation data including proof of the right to registration and proof that each unit is within acceptable proximity to the other units.

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”.

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

M-RETS Operating Procedures

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: Generator Inactivation

To ensure data integrity, unused or retired Generators are set to an '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 Generating Utility's participation in M-RETS, Certificate production will cease until M-RETS approves a re-instatement 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 Generating Utility'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 Generating Unit 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 completion 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.

M-RETS Operating Procedures

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 is not associated with an M-RETS Organization. If there is a period when the Generator is not associated with an M-RETS Organization, M-RETS will treat this as an Inactivation/Reactivation of the Generator 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 an M-RETS Organization for the purposes of allowing that party the ability to control and manage the disposition of any M-RETS Certificates resulting from the operation of the Generating Unit(s). 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, and the termination date if applicable.

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 Generating Unit 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, the disposition of the Certificates from that Generating Unit will follow the rules in Section 4.3.13: Assignment of Rights of Registration – Designation of Responsible Party. This function applies equally to the Generator Owner or to a Responsible Party, meaning that the Responsible Party can change the Rights of Registration to another party.

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 Generating Unit is associated, they can do so by filing the Generating Unit Transfer Form with M-RETS. The form specifies who the

M-RETS Operating Procedures

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

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 MWh 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.
- **Pending:** Generation that fails feasibility and therefore needs M-RETS approval; or generation waiting to receive a ‘fuel type’ allocation from a multi-fuel Generator. Pending Generation is not issued and therefore not represented by Active Certificates.

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 file format. Excel or Notepad can create a CSV 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. Users may upload all their generation for the whole month or in partial months as long as a whole month is uploaded.

Monthly Generation Data Field Requirements



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.
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

M-RETS Operating Procedures

Hourly Generation Data Field Requirements

```
Sample Hourly Upload.csv
1234,MRETS.EXAMPLE.WIND1,2/1/2019,01,0.63
1234,MRETS.EXAMPLE.WIND1,2/1/2019,02,1.59
1234,MRETS.EXAMPLE.WIND1,2/1/2019,03,0.92
1234,MRETS.EXAMPLE.WIND1,2/1/2019,04,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,05,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,06,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,07,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,08,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,09,0.21
1234,MRETS.EXAMPLE.WIND1,2/1/2019,10,0.76
1234,MRETS.EXAMPLE.WIND1,2/1/2019,11,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,12,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,13,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,14,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,15,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,16,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,17,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,18,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,19,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,20,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,21,0
1234,MRETS.EXAMPLE.WIND1,2/1/2019,22,2.15
1234,MRETS.EXAMPLE.WIND1,2/1/2019,23,8.38
1234,MRETS.EXAMPLE.WIND1,2/1/2019,24,8.3
```

1 2 3 4 5

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.
3. Date of Generation: The date the generation occurred formatted as MM/DD/YYYY.
4. Total MWh: Total MWhs for the Reporting Month.
5. Hour of Generation (1-24). All hours for the total reporting period must be accounted for or the file will be rejected.
6. Total kWh for that specific hour.

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. This new feature is a way to 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 also provides data with On Peak/Off Peak designation. This data is for informational purposes only, however, it will give Generator owners more 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

M-RETS Operating Procedures

To encourage timely reporting, M-RETS enabled automatic validations to generation uploads. For small Generators (1 to 150 kW nameplate capacity), Users have up to one year from the generation end date to upload generation. For large Generators (>150 kW nameplate capacity), Users have 62-days from the generation end date to upload generation. M-RETS must approve any generation outside of these ranges. Failure to adhere to these ranges may lead to delays in receiving Certificates.

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 maintains an agreement with each of these reporting entities, known as the Reporting Entity Terms of Use, that describes the terms and conditions under which the reporting entity agrees to exchange information and conduct business with M-RETS. 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. The Interface Control Document will provide clear requirements to all parties up front which apply to all data collection. 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 at the Generator's bus bar or adjusted to reflect the energy delivered at the Generator's bus bar. Certificates do not reflect nor does M-RETS measure losses occurring 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. 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 on-site loads, M-RETS will create Certificates for the on-site 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: 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

M-RETS Operating Procedures

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 actually 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 4.4.6: 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 4.5: Renewable Energy Certificates (RECs)

Section 4.5.1: Creation of Certificates

Small Generators (1 to 150 kW) have up to one year from the generation end date to upload generation. Large Generators (>150 kW) have 62 days from the generation end date to upload generation. This applies regardless of whether the Generator is self-reporting or uses a QRE. M-RETS must approve any generation outside of these ranges.

All generation data submitted to M-RETS will undergo an automatic validation process. The process includes an automated verification process that reviews the feasibility of the generation amount, ensures there are no overlapping generation entries, and that there are no lapses in generation information.

M-RETS Operating Procedures

M-RETS only issues Certificates in whole numbers. 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.

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 life time or expiration date for Certificates as applied to the programs they oversee.

M-RETS will issue one electronic Certificate for each MWh of energy generated by those Generating Units registered with M-RETS. Certificates will be issued based on the number of whole MWhs on the Generation Log on the day of Certificate creation. M-RETS will issue Certificates no more frequently than once per month per Generating Unit.

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 after logging into the System and clicking on the green button in the lower left corner of the screen.

Section 4.5.4: Retirement Types

Beneficial Ownership (BBO)

- **Formal Definition:** With respect to any Credit, Beneficial Ownership Rights means any contractual or other right to direct or control the sale or other disposition of, or the Retirement of, such Credit or (ii) any contractual or other right to receive the benefits of such Credit or any proceeds from the sale or other disposition of such Credit.
- **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 retirement on behalf of all customers. This Reason should be selected when a utility is looking

M-RETS Operating Procedures

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.

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.

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.*

M-RETS Operating Procedures

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 4.6: 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

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 REC tracking systems in North America, including allowing for the import/export of imported/exported RECs. 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.

M-RETS Operating Procedures

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 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.

Dear [User],

The Organization [Transferor] added you as a destination in an Automatic Recurring Transfer (ART). Your Transfers can be viewed here: <https://app.mrets.org/transfers/recurring-transfers>

To start receiving Certificates, the following ART(s) must be accepted.

<i>Generator</i>	<i>M-RETS ID</i>	<i>Vintage Range</i>	<i>Fuel Type</i>	<i>Source Organization</i>	<i>Destination Organization</i>	<i>Max Quantity</i>	<i>Percentage</i>
<i>My Hydro Generator</i>	<i>M1234</i>	<i>1/2019-12/2024</i>	<i>Hydro</i>	<i>Organization A</i>	<i>Organization B</i>	<i>N/A</i>	<i>100%</i>

M-RETS Operating Procedures

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."

M-RETS Operating Procedures

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 4.7: Programs

The Program feature helps regulators, regulated entities, and organizations with their own internal programs to more efficiently manage the complexity of various programs. The Program feature allows regulators as well as Organizations the opportunity to set up rulesets that prevent retirements of Certificates outside the parameters set 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 or a Program Administrator can create an External Program. 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 [here](#).

Section 4.7.2: Participating in a Program

Once an Organization accepts an invitation to participate in a Program, the accepting 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.

M-RETS Operating Procedures

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 [here](#).

Section 4.8: 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 effecting 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.

M-RETS Operating Procedures

Section 5.3: RRC Adjusted Quantity

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:

Andrew Kell, Public Service Commission of Wisconsin

Andy Kellen, WPPI Energy

Dan Heim, Exelon/Constellation

Eric Schroeder, Subject Matter Expert

Esther Case, Central Iowa Power Cooperative (CIPCO)

Ken Nelson, Blue Delta Energy, LLC

Ken Smith, Ever-Green Energy, Inc.

Sherian Krause, MidAmerican Energy Company

Teody Leano, Manitoba Municipal Government

M-RETS Operating Procedures

Appendix A: Generator Static Data Fields

(*) denotes a required field

General	
General Information	
Unit Name*	Generator Name
Facility Name*	Name of the facility (some facilities may have multiple units)
WI RRC Unit ID	Wisconsin PSC assigned RRC Unit ID
WI RRC Program Registration Date	Date Wisconsin PSC approved the Generator registration
EIA Number	ID number provided by the EIA (if applicable)
Reporting and Issuance	
Reporting Entity*	What is the QRE for the Facility
Reporting Unit ID*	The MISO Node or a user-created identifier
Issuance Account*	This is the Account to which all newly issued Certificates will be deposited into.
Location	
County	Physical county where Generator is located
State/Province*	State or Province where Generator is located
Country*	Physical country where Generator is located
Latitude/Longitude	Exact location of Generator
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 the additional owners
Owner Contact Information	
Company Name*	Owner that holds legal title to the Generator
Address*	Contact information of owner referenced above
City*	
State/Province*	
Zip/Postal Code*	
Country*	

M-RETS Operating Procedures

Phone*	
Website	
Mailing Address*	
Mailing City*	
Mailing State/Province*	
Mailing Zip/Postal Code*	
Mailing Country*	
Publish contact information?*	Do you want the contact information published in the M-RETS reports
Ownership Type and Registration Rights*	Ownership type
Ownership Type(s)	
Electric Service Provider	What type of Electric Service Provider is the owner
Federal Marketer/Power Administrator	Is the owner a Federal Marketer/Power Administrator
Investor-Owned Utility	A privately-owned electric utility whose stock is publicly traded and is rate regulated and authorized to achieve an allowed rate of return.
Irrigation District	Is the owner an irrigation district
Municipal Utility	Is the owner a municipal utility
Privately Owned Distributed Generation	Is the facility privately owned distributed generation (e.g. solar or wind)
Rural Electric Cooperative	Is the owner a Rural Electric Cooperative
Tribal Organization	Is the owner a legally recognized tribal Organization
Is the owner a WI electricity retailer?*	Is the Generator owner a Wisconsin Retail Electric Provider
Assignment of Registration Rights*	Were the registration rights assigned by another party
Court/Regulator Assignment of Rights*	Did a court assign the rights of this Generator to another party
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

M-RETS Operating Procedures

Mailing Zip/Postal Code*	Mailing Zip/Postal Code
Mailing Country*	Mailing Country
Engineering	
Class and Fuel Type	
Single or multi-fuel facility?*	Is this Generator a multi fuel Generator
Fuel Type & Fuel Source(s)*	Type of Fuel and Fuel Source(s)
Control Area Operator*	Name of the Control Area Operator/ISO (e.g. MISO or SPP)
Interconnected Utility*	Utility network Generator is interconnected with
Generation Technology*	Generator technology
Engineering	
Commenced 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	<i>Heat rate</i> 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*	Is this an aggregated facility
Aggregating Unit Count	How many Generators are aggregated if this is an aggregated facility
Primary Generator*	If this is an aggregated Generator, what is the primary Generator
Revenue Meter ID*	Serial Number or Model Number of the Meter
Meter Manufacturer*	Manufacturer of the meter
Meter Type*	Type of Meter (Revenue Grade Meter or Non-Revenue Grade Meter)
Last Meter Certification*	Last date the meter was certified
WI INFORMATION	
Approved to report 3-year hydro average?*	Does this Generator use a 3-year hydro average specific to the Wisconsin Program

M-RETS Operating Procedures

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 Source

Fuel Type

Fuel Type(Short Description)	Fuel Type(Long Description)	Renewable(Y/N)	Recycled(Y/N)
BIG	Biogas	Y	N
BIM	Biomass	Y	N
CO1	Coal	N	N
DI1	Diesel	N	N
FC1	Fuel Cells	Y	N
FLR	Flared Gas	N	Y
GE1	Geothermal Energy	Y	N
H2O	Hydroelectric Water	Y	N
HYD	Hydrogen	Y	N
JET	Jet	N	N
MS1	Municipal solid waste	Y	N
NG1	Natural Gas	N	N
NON	Not Listed - Contact M-RETS	N	N
NU1	Nuclear	N	N
OC1	Tidal or Wave	Y	N
OIL	Oil	N	N
SO1	Solar	Y	N
WHR	Waste Heat Recovery	Y	N
WND	Wind	Y	N
WO1	Waste Oil	N	N

Fuel Source:

Fuel Type	Fuel Source
Biogas	Biogas

M-RETS Operating Procedures

Biogas	Animal Waste
Biogas	Anaerobic digester system
Biogas	Liquid fuels derived from plant or animal sources, including but not limited to ethanol, biodiesel, vegetable oil, or animal fats
Biogas	Methane or other combustible gases derived from the processing or decay of plant, animal, or municipal solid waste materials
Biogas	Constructed in compliance with new source performance standards promulgated under the federal Clean Air Act for a generation facility of that type
Biogas	Employs the maximum achievable or best available control technology available for a generation facility of that type
Biomass	Biomass
Biomass	Method of combustion is Direct Combustion
Biomass	Method of combustion is Gasification
Biomass	Method of combustion is Liquefaction
Biomass	A majority of the fuel source is Agricultural products
Biomass	A majority of the fuel source is Wood products
Biomass	A majority of the fuel source is Agricultural by-products including wastes
Biomass	A majority of the fuel source is mixed municipal solid waste
Biomass	A majority of the fuel source is refuse-derived fuel
Biomass	Primary woody or herbaceous vegetative matter (plants), including but not limited to wood, grasses, agricultural crops or residues
Biomass	Processed plant materials from industry waste sources, including manufacturing, construction, or demolition
Biomass	Methane or other combustible gases derived from the processing or decay of plant, animal, or municipal solid waste materials
Biomass	Liquid fuels derived from plant or animal sources, including but not limited to ethanol, biodiesel, vegetable oil, or animal fats
Biomass	Mixed municipal solid waste and refuse-derived fuel from MSW
Biomass	Landfill Gas
Biomass	Animal Waste
Biomass	Constructed in compliance with new source performance standards promulgated under the federal Clean Air Act for a generation facility of that type
Biomass	Employs the maximum achievable or best available control technology available for a generation facility of that type
Coal	Coal
Diesel	Diesel
Fuel Cells	Fuel Cell using renewable fuels
Fuel Cells	Fuel Cell using non-renewable fuels
Flared Gas	Flared Gas
Geothermal Energy	Geothermal Energy
Geothermal Energy	Dry Steam
Geothermal Energy	Flash Steam
Geothermal Energy	Binary Cycle
Hydroelectric Water	Hydroelectric Water
Hydroelectric Water	Hydroelectric Water with a nameplate capacity that is less than 4MW
Hydroelectric Water	Hydroelectric Water with a nameplate capacity that is less than 60MW
Hydroelectric Water	Hydroelectric Water with a nameplate capacity that is less than 100MW
Hydrogen	Hydrogen
Jet	Jet

M-RETS Operating Procedures

Municipal solid waste	Municipal Solid Waste
Municipal solid waste	An energy recovery facility used to capture the heat value of mixed municipal solid waste or refuse-derived fuel from mixed municipal solid waste
Municipal solid waste	Anaerobic digester system
Municipal solid waste	Landfill Gas
Natural Gas	Natural Gas
Nuclear	Nuclear
Tidal or Wave	Tidal or Wave
Oil	Oil
Solar	Solar PV
Solar	Solar Thermal
WHR	Waste Heat Recovery/Recycled Energy Energy produced by a Generating Unit with a nameplate capacity of not more than fifteen megawatts that converts the otherwise lost energy from the heat exhaust stacks or pipes to electricity and that does not combust additional fossil fuel. "Recycled Energy" does not include energy produced by any system that uses energy, lost or otherwise, from a process whose primary purpose is the generation.
WHR	
Wind	Wind
Waste Oil	Waste Oil

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

M-RETS Operating Procedures

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-123-MI-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 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

M-RETS defines a REC as 1 MWh of renewable energy. As a result, M-RETS will realign the MIRECS REC definition 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:

M-RETS Operating Procedures

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 MRETS	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.

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

M-RETS Operating Procedures

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 a 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.”

This is what the retirement should look like in the ERCOT system.

Retire RECs

Reason to Retire: Mandatory Compliance Voluntary Retirement

Year: Any Year Technology Type: Any Type

Quarter: Any Quarter FIN: Any

Compliance Year: 2018 Number of RECs: 150

Type of RECs: Regular RECs Reason: export

Memo: Export to M-RETS Effective 10/01/2018
(Max. 200 chars.)

Retire

Once the action is complete in the ERCOT system the User must submit a Summary Report to M-RETS (systemadmin@mrets.org). In May 2018, ERCOT posted updates they made to the system that includes how to access and send the reports which is [accessible here](#). The email sent should look like the below example posted by ERCOT:

M-RETS Operating Procedures


 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

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:

M-RETS Operating Procedures

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.

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.

M-RETS Operating Procedures

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.”

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 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.

M-RETS Operating Procedures

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

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.

Generating Unit: A piece of equipment or machinery that can generate electricity.

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: An electric generating facility consisting of one or more Generating Units with the same essential generation characteristics and whose output is measured with a single certified meter.

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

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 Operating Procedures

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.*

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.

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, that 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.

M-RETS Operating Procedures

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 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. 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.

M-RETS Operating Procedures

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.