

# **Midwest Renewable Energy Tracking System Operating Procedures**

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**Approved by**  
**M-RETS Technical Committee**  
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**As amended by**  
**Midwest Renewable Energy Tracking System, Inc. Board of Directors**

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## Executive Summary

M-RETS will track renewable generation located within the state and provincial boundaries of Minnesota, Iowa, North Dakota, South Dakota, Wisconsin, Illinois, Manitoba and a portion of Montana. It will also track Renewable Resource Credits (RRCs) for the State of Wisconsin. Any generator located outside of the geographic footprint of M-RETS owned by a participating utility, or a generator with a contract with a participating utility to deliver energy into the M-RETS footprint may participate in M-RETS. Any other generator may request to participate at an adjusted fee schedule to account for the recovery of start-up costs of the tracking system, and such a request is subject to approval by the M-RETS Board. Renewable generation is defined as energy generated by a facility that is considered renewable as defined by any of the states or provinces listed above. The M-RETS Administrator will issue one electronic M-RETS Certificate for each MWh of renewable energy that is generated by registered generators. To ensure that double-counting does not occur, generators participating in M-RETS must report 100% of their generation output in M-RETS.

Participation in M-RETS is voluntary. Any party, including non-generators, such as traders, marketers, and end-use customers may establish an account in the system. There is one basic type of account for all M-RETS Account Holders. The basic account contains two different subaccounts:

- An Active Subaccount
- A Retirement Subaccount

In addition, WI electric providers may also establish an RRC Banking and Trading Subaccount, known heretofore as an “RRC Subaccount.” M-RETS Certificates are originally deposited into the Active Account associated with the revenue meter established at the time of generator registration. Account Holders can then transfer M-RETS Certificates to the other subaccounts and other Account Holders. M-RETS users will be able to perform various functions and transactions within each account and subaccount type.

All data in M-RETS will be verified. M-RETS will not determine eligibility for state or voluntary programs. Each individual state will be responsible for determining whether or not a particular generating unit qualifies for a state program. However, the State Commissions may use the information collected and verified by M-RETS to conduct this determination.

M-RETS will issue reports on activity within the system. There are five types of public reports: directory of M-RETS Account Holders, directory of registered M-RETS Generators, M-RETS Bulletin Board, report on aggregated M-RETS Certificate Activity Statistics (monthly and annual), and RRC Program report. Public reports will be accessible to anyone via the public page on the M-RETS website.

## **1. Introduction – Development of these Operating Procedures**

With major funding from the Joyce Foundation, stakeholder participants in the Powering the Plains (PTP) Project partnered with the Izaak Walton League of America (IWLA) and the Center for Resource Solutions (CRS) to launch a two-year initiative to design and implement the Midwest Renewable Energy Tracking System (M-RETS) by the end of 2006. The initiative resulted in recommendations for the functional design and operation of M-RETS.

This initiative drew inspiration and support from three excellent regional workshops on credit trading and tracking held in 2004. Hosted by Commissioner Phyllis Reha of the Minnesota Public Utilities Commission and former Commissioner Burnie Bridge of the Public Service Commission of Wisconsin, with assistance from consultants Kevin Porter and Ed Holt, these workshops explored the benefits of renewable energy certificate trading and the role of tracking systems in supporting certificate trading markets and renewable energy policy compliance.

Following these regional workshops, PTP, IWLA and CRS project partners formed a regional, public-private Technical Review Committee in September 2004 (see participant list in Acknowledgements Section) to develop the first draft of the M-RETS Operating Procedures and to advise project partners and regulators on the future system governance and financing. The Technical Review Committee met three times and held numerous conference calls to:

- Review other regional tracking systems in the U.S. and Canada (NEPOOL in New England, PJM-GATS in the Mid-Atlantic states, ERCOT in Texas, and WREGIS in the western states/provinces), either currently in operation or under development;
- Determine the desired functionality for a Midwest system based on others' experiences and specific needs in the region;
- Reach consensus on M-RETS functionality, policy issues and operating rules for eventual recommendation to regulators in Illinois, Iowa, Manitoba, Minnesota, North Dakota, South Dakota and Wisconsin; and
- Devise strategies for establishing an M-RETS governing board, developing a Request for Proposals (RFP) for system hosting and software design, and securing funding of up-front system development costs and ongoing financing of future operations.

## **2. Geographic Scope**

M-RETS will track renewable generation located within the state and provincial boundaries of Minnesota, Iowa, North Dakota, South Dakota, Wisconsin, Illinois, Michigan, Manitoba and a portion of Montana. Any generator located outside of the geographic footprint of M-RETS owned by a participating utility, or a generator with a contract with a participating utility to deliver energy into the M-RETS footprint may participate in M-RETS. Any other generator may request to participate at an adjusted fee schedule to account for the recovery of start-up costs of the tracking system, and such a request is subject to approval by the M-RETS Board.

Renewable generation is defined as energy generated by a facility that is considered renewable as defined by any of the states or provinces listed above. State definitions of renewable energy are found in Appendix E. In addition, M-RETS will consider tracking non-renewable generation from any of these states, but additional fees will apply commensurate with the additional costs to the system for tracking the non-renewable generation.

M-RETS will also track Renewable Resource Credits (RRCs) for the State of Wisconsin.

### **3. M-RETS User Registration**

#### **3.1. Participation in M-RETS**

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 applicable fees may establish an account in the system.

#### **3.2. Establishing an M-RETS Account**

Any person or entity that wants to participate in M-RETS must establish an M-RETS account. There is no limit to the number of separate accounts a company or individual may establish. Registrants will provide basic account registration information, such as account holder name, address, contact info etc. to the M-RETS Administrator through a secure web-page on the M-RETS website. The registrant will also be required to supply payment for any account registration fees. An account in M-RETS will remain active until terminated. Termination can be initiated by the Account Holder by notifying the M-RETS Administrator.

M-RETS will check all account registration or modified existing account entries for completeness. Mandatory fields that are not completed by the registrant will be flagged to the submitter through an error message.

#### **3.3. Generator Registration**

M-RETS will only register generators within the geographic scope described in Section 2 above, or upon approval by the M-RETS Board of a request to participate by any other generator as described in Section 2.

To ensure that double-counting does not occur, generating units participating in M-RETS must report 100% of their generation output from that generating unit in M-RETS. In order to register a generating unit in M-RETS, the account holder must attest that this unit is not registered in any other registry. This attestation will be a part of the Generator Registration Agreement.

All Generator Owners who want M-RETS to create Certificates of generation or RRCs must first establish an account within the M-RETS system as described above and then register the generating unit(s) with M-RETS. Registration with M-RETS does not imply or confer acceptance into or eligibility for any state's Renewable Portfolio Standard program.



To register the generating unit(s), the owner of the generating unit or the Responsible Party must submit to the M-RETS Administrator all of the following:

- The M-RETS Account number to which the generation unit will be linked,
- A completed on-line generator registration form containing information related to the characteristics of the generation unit and associated meter,
- A completed Schedule A from the M-RETS Terms of Use outlining the **Generator Owner's Designation of Responsible Party if applicable**
- Any documentation requested by the M-RETS Administrator to verify the registration information, and
- Generator registration fee, if applicable.

Generating Units that are jointly owned must privately appoint a single party to act as the Account Holder.

With regard to existing generators, the M-RETS Administrator will adjust the account registration process and process for designating a generator agent in response to direction from regulators or courts.

The generator registration process will occur on-line through a secured web portal interface with password protection. M-RETS will check all account registration or modified existing account entries for completeness. Mandatory fields that are not completed by the registrant will be flagged to the submitter through an error message. Optional data fields, if used, may be filled in when the facility initially registers or may be completed after account activation. M-RETS will have the capability of recalling account holder information already keyed into the system.

All mandatory and optional data in M-RETS will be verified. After verification, the M-RETS Administrator will link the generating unit(s) with the M-RETS Account number indicated on the registration form. One or more generating units may be associated with a single M-RETS account. All Certificates created for a generating unit will be deposited into the account that is associated with the particular generating unit. In the event a generating unit has more than one power purchaser and the generating unit does not maintain its own M-RETS Account, the M-RETS Administrator may allow the certificates created for the generating unit to be directly deposited into the accounts of the generating unit's multiple power purchasers, so long as 100% of the generation from the facility is reported to M-RETS and the M-RETS Board is satisfied that (i) the reporting entity is not affiliated with the generating unit and (ii) there is no increased risk that the amount of generation will be misreported.

### **3.3.1. Multiple Units on a Single Meter**

Generating units are registered on a revenue-meter basis. See Section 7.2 for a definition of a revenue meter. In the case where there is more than one generating unit associated with a single revenue meter, the Generator Owner or Responsible Party can register more than one generating units under one registration if, and only if, all of the generating units have the same "essential generation characteristics." A list of essential characteristics is found in Appendix B-2. If the generating units associated with a single revenue 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 revenue 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 generation unit(s) associated with the revenue meter. For example, if there are two generating units (a biomass direct combustion generation unit and a biomass gasification unit and technology type is considered an essential characteristic) associated with one revenue 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 See Section 7.10 for information related to the registration process for Multi-fuel Generating Units.

### **3.3.2. Distributed Generation Aggregation**

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-2. Small Generator Aggregation will be allowed so long as any of the M-RETS State/Province programs allows for aggregation, the units once aggregated do not exceed a total nameplate capacity of <1 MW and each unit being aggregated is metered on a revenue meter basis as outlined in Section 7.2. Certificates created by units using Distributed Generation Aggregation may be eligible for the various state and provincial programs at the discretion of the state Commissions or other regulatory entity, and eligibility will require verification by the state Commission or other regulatory entity. The M-RETS Administrator 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 a close proximity to each other.

### **3.3.3. Verification of Static Data Submitted During Generator Registration**

Upon completion of the generator registration process, the M-RETS Administrator will verify the information provided to M-RETS by the registrant. The method of verification for each data field is found in Appendix B-1. As a part of the registration process, the Account Holder must sign and submit to the M-RETS Administrator an affidavit declaration that the information being provided is true and correct. The M-RETS Administrator will share generator information with state regulatory agencies when requested. Generators involved in the WI RRC program may be required to submit additional information to the WI PSC.

In the event data submitted is found to be false or if there is a discrepancy between the information submitted during the on-line registration process and the materials provided to verify the information, the M-RETS Administrator will notify the registrant that the information could not be positively verified. A process of either correcting the registration form, or withdrawing the registration form, or providing proof that the information on the registration form is correct will ensue between the M-RETS Administrator and the registrant until the M-RETS Administrator is satisfied that the information provided meets M-RETS standards for accuracy.

### **3.3.4. M-RETS Interaction with State Commissions and Certification of Facilities for State Programs**

M-RETS will 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 or not a particular generating unit qualifies for a state program. The State Commissions may use the information collected and verified by M-RETS to conduct this determination. The process for this is as follows.

The state utility regulatory Commissions will have the option of asking the M-RETS Administrator 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, the M-RETS Administrator will send an electronic message to the designated contact at the State Commission each time such a Generating Unit has been registered in M-RETS and the registration information has been verified. The state Commissions reserve the right to conduct site visits or request additional information from a Generator to determine whether or not the facility meets all of the requirements of a particular regulatory program or to verify information per state statute.

### **3.3.5. Terminating a Generating Unit's Participation in M-RETS**

If the Generator Owner or Responsible Party wants to remove a generating unit from the M-RETS system, they can do so by filing the Generating Unit Termination form with the M-RETS Administrator. The form will ask the Generator Owner or Responsible Party to specify the following information, including, but not limited to:

- The date the generating unit should be/will be removed from the M-RETS tracking system; This is the same as the final date of generation for which certificates are to be issued
- The name of the entity reporting the generation data, and
- The account to which Certificates not yet created should be deposited (if the usual account for deposit has been closed).

M-RETS will issue Certificates for any generation that occurs prior to the date of generating unit termination as instructed by the Generator Owner. Because of the lag time between generation and Certificate issuance, this may mean that Certificates will be issued and deposited after the termination date, but only for generation that occurred prior to the termination date. Certificates will be issued for generation that occurred prior to the termination date, but whose meter reading came in within 45 days after the termination date. No Certificates will be issued for generation that occurs after the termination date. If the account to which the generation unit is linked is also closed at the same time, the Generator Owner or Responsible Party must also specify the account to which any remaining Certificates that have not yet been issued should be deposited. Any fractional MWhs (i.e. any kWhs) left on the generation activity log at the time of de-registration will be forfeited.

If the M-RETS Administrator has cause to permanently suspend the Generating Utility's participation in M-RETS, no Certificates will be created after the date the Generating Unit has been suspended.

### **3.3.6. Changing the Account to which the Generating Unit is Associated**

If the Generator Owner or Responsible Party wants to change the account to which a generating unit is associated, they can do so by filing the Generating unit Transfer Form with the M-RETS Administrator. The form will ask the Generator Owner to specify the following information, including, but not limited to: The new account number to which the generating unit will be associated, and the date the change will be effective.

Certificates from generation that occurred up to the day the account change takes effect will be deposited into the account that the generating unit was associated with at the time the generation occurred. For example, if the generator owner changes the account to which a given generating unit is associated with from Account A to Account B, and the change is effective on March 1, then the Certificates from generation that occurred prior to March 1, will be deposited into Account A (even though the date of Certificate deposit will be after March 1, because of the lag time between generation occurrence and Certificate issuance.)

When changing the account to which a generating unit is associated, there cannot be any lapse in time where the generating unit is not associated with an M-RETS Account. If there is a period of time when the generating unit is not associated with an M-RETS Account, this will be treated as a deregistration/re-registration of the generating unit instead of a change of account.

Any fractional MWhs (i.e. any kWhs) left on the generation activity log on the date the change is effective will be forfeited.

### **3.4. 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 account holder 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 Account Holder *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 will be considered 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 date the assignment will be terminated, if there is one.

#### **3.4.1. Termination of Rights of Registration**

The Rights of Registration may be terminated by the Generator Owner or the Responsible Party subject to confirmation by the M-RETS Administrator that both the Generator

Owner and Responsible Party agree to the termination. The Account Holder will file the Generating Unit Termination form with the M-RETS Administrator. 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. If the registration rights have been terminated, no new Certificates will be issued from that generating unit until it is registered again. See Section 3.3.5 for additional information.

### **3.4.2. Changing Rights of Registration**

The Rights of Registration can be changed from one party to another party. When the Rights of Registration are changed, the disposition of the Certificates from that generating unit will follow the rules in Section 3.3.6. This function applies equally to the Generator Owner or to a Responsible Party, meaning that the Responsible Party has the ability to change the Rights of Registration to another party.

When the Rights of Registration are changed, the M-RETS Administrator 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 account to which a generating unit is associated, they can do so by filing the Generating unit Transfer Form with the M-RETS Administrator. The form specifies who the new Responsible Party with the Rights of Registration is, 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 Account. If there is a period of time when the generating unit is not associated with an M-RETS Account, this will be treated as a deregistration/re-registration of the generating unit.

In addition, the basic Generator Registration data must be reviewed and updated by the Account Holder when the Right of Registration is changed from one party to another.

## **4. M-RETS Account Structure**

There is one basic type of account for all M-RETS Account Holders. The basic account contains several different sub accounts:

- An Active Subaccount
- A Retirement Subaccount

In addition, WI electric providers may also establish an RRC Banking and Trading Subaccount, know heretofore as an “RRC Subaccount.”

M-RETS Certificates are originally deposited into the Active Account associated with the revenue meter established at the time of generator registration. Account Holders can then transfer M-RETS Certificates to the other subaccounts, as described in Section 12.

Within each account, it is possible to establish multiple Active Subaccounts and Retirement Subaccounts at the Account Holder’s discretion. The Account Holder will be able to view a

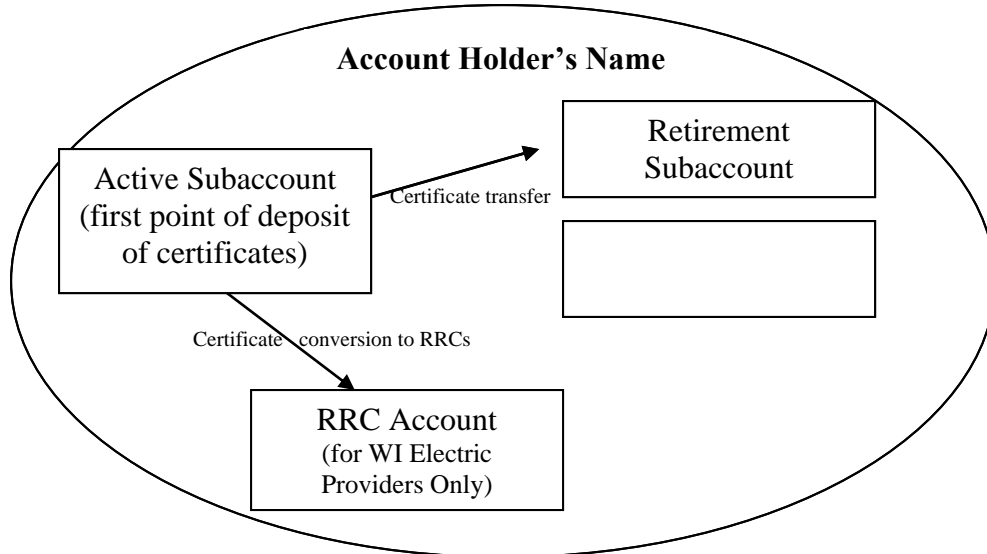
listing of Certificates in each subaccount, including the generation characteristics associated with each Certificate or block of Certificates.

Each account and subaccount will have a unique identification number, similar to a banking system where a checking and savings account associated with one person each have unique account numbers. Users may attach aliases to subaccounts for ease of reference (e.g., by state, by product name, etc.)

M-RETS users will be able to perform various functions and transactions within each account and subaccount type, as described below.

There are no limitations on the number of Active or Retirement Subaccounts that an Account Holder may have.

Figure 1. Basic M-RETS Account Structure



**4.1. Active Subaccount**

An Account Holder can have one or more Active Subaccount(s). The Active Subaccount is the holding place for all active M-RETS Certificates. The Active Subaccount is like a cash checking account. The M-RETS Certificates in it are liquid and can be transferred, exported, etc. at the discretion of the Account Holder.

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

**4.1.1. Deposits to the Active Subaccount**

There are several ways that M-RETS Certificates are deposited in an Active Subaccount.

- (a) The Account Holder can transfer M-RETS Certificates into their Active Subaccount from another of the Account Holder's Active Subaccounts,
- (b) The Account Holder can accept a transfer of Certificates from another M-RETS Account Holder,
- (c) They can be deposited into the account by the M-RETS Administrator based on verified generation data from a generating unit associated with the Active Subaccount or as a result of the adjustment process, or
- (d) They can be deposited by the M-RETS Administrator as a result of an import.

If the Account Holder has more than one Active Subaccount, they can specify in each case the Active Subaccount in which they want the Certificates to be deposited.

#### **4.1.2. Transfers from the Active Subaccount**

There are several ways to withdraw or remove M-RETS Certificates from an Active Subaccount:

- (a) Transfer the M-RETS Certificates to the Active Subaccount of another M-RETS Account Holder,
- (b) Transfer the M-RETS Certificates to another of one's own Subaccounts (e.g. retirement), or
- (c) Export the M-RETS Certificates out of M-RETS to another compatible tracking system.
- (d) Transfer of M-RETS Certificate to an active RRC account.

#### **4.1.3. Functionality of Active Subaccount**

In addition to being able to deposit and withdraw M-RETS Certificates from the Active Subaccount, Account Holders will be able to view and sort their Certificates by a number of Certificate fields, generate reports about their account, create additional Active Subaccounts, and transfer active M-RETS Certificates between Active Subaccounts.

#### **4.2. Retirement Subaccount**

A single Retirement Subaccount will be established when the Account Holder registers with M-RETS. An Account Holder may establish additional Retirement Subaccounts at their discretion, as needed. A Retirement Subaccount is used as a repository for M-RETS Certificates that the Account Holder wants to designate as retired. An Account Holder 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 the Retirement Subaccount are no longer transferable to another party, and serve as an electronic record or proof of retirement. M-RETS Certificates

in the Retirement Subaccount also cannot be transferred into any other Account, including another Retirement Subaccount (i.e. if an Account Holder has multiple Retirement Subaccounts). The Retirement Subaccount is effectively the last resting place for an M-RETS Certificate.

#### **4.2.1. Deposits to the Retirement Subaccount**

To deposit M-RETS Certificates in a Retirement Subaccount; they must be transferred into the Retirement Subaccount by the Account Holder or the Account Holder's Agent from that Account Holder's Active Subaccount. RRCs may also be deposited into the Retirement Subaccount by the Account Holder from the Account Holder's RRC Account. Account Holders will be allowed to create standing orders within their account whereby they instruct M-RETS to automatically transfer certain M-RETS Certificates or RRCs, or the contents of specific Active Subaccounts, to one of the Account Holder's Retirement Accounts, on a periodic basis (see Section 12).

All existing RRCs with a generation vintage year prior to 2004, and that have a status of "active", will be automatically deposited into a retirement Subaccount on May 1, 2012 by the M-RETS Administrator and be given a status of "retired". Additionally, all RRCs with a generation vintage year of 2004 or later have a four year life for purposes of complying with the Wisconsin RPS, Wis. Admin. Code § PSC118.04(2)(g). Therefore, unless otherwise directed by the Wisconsin Commission or its staff, RRCs with a generation vintage year of 2004 or later, and that have a status of "active", will be transferred by the M-RETS Administrator to the Account Holder's Retirement Account on May 1 of the fifth year following the vintage year and be given a status of "retired-expired". For example, an RRC with a vintage year of 2010, and that has a status of "active", will be transferred by the M-RETS Administrator to the Account Holder's Retirement Account on May 1, 2015.

#### **4.2.2. Withdrawals from the Retirement Subaccount**

There are no withdrawals from the Retirement Subaccount. M-RETS Certificates or RRCs that were retired in previous years can be archived periodically so they do not occupy space in the database and in the Subaccount.

#### **4.2.3. Functionality of the Retirement Subaccount**

Account Holders will be able to view and sort M-RETS Certificates by Certificate fields, generate reports about M-RETS Certificates held in their Retirement Subaccount, and indicate for what purpose the M-RETS Certificates were retired. Once an Account Holder indicates the reason for retirement, this cannot be changed later, so as to prevent the Certificate from being claimed to be retired for multiple purposes. To indicate the reason for retirement, M-RETS will have a pull-down menu of options that the Account Holder can select. The options will be consistent with regulatory programs and any voluntary programs or voluntary market activities that are added by the M-RETS Administrator.

Account Holders will also be able to view the gross number of RRCs held in their Retirement Subaccount and the year the RRCs were retired.



### **4.3. RRC Subaccount**

An RRC Subaccount may only be established by a Wisconsin electric provider or on behalf of a Wisconsin electric provider. At the end of each calendar year, RRCs may be created for Wisconsin Electric Providers based on information submitted by such providers. If RRCs are created, they will be deposited into the Account Holder's RRC Subaccount (see Section 10.6 for RRC creation). RRCs may be created in accordance with Wisconsin Statutes § 196.378 and Wisconsin Administrative Code Chapter PSC 118.

#### **4.3.1. Deposits to the RRC Subaccount**

There are two ways that RRCs are deposited in an RRC Subaccount.

- (a) They can be deposited into the account by the M-RETS Administrator based on information provided by the Account Holder during the "Request for REC Conversion to RRCs" described in Section 10.6, or
- (b) The Account Holder can accept a transfer of RRCs from another M-RETS Account Holder.

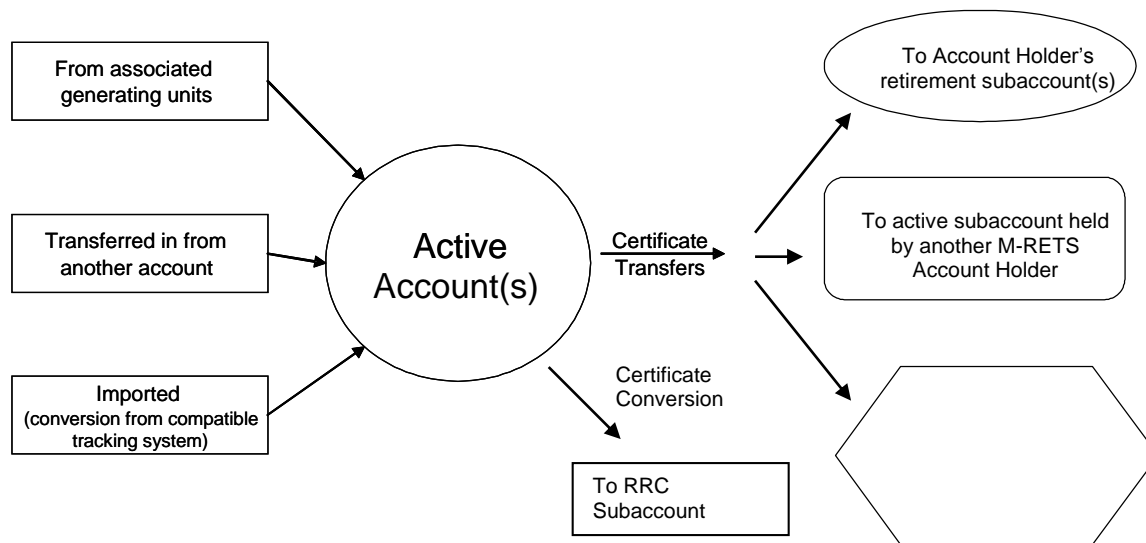
#### **4.3.2. Transfers from the RRC Subaccount**

There are two ways to withdraw or remove RRCs from an RRC Subaccount:

- (a) Transfer the RRCs to the RRC Subaccount of another M-RETS Account Holder, or
- (b) Transfer the RRCs to one's own Retirement Subaccount. (See section 4.2.1 for more information regarding transfer of RRCs to one's own Retirement Subaccount).

#### **4.3.3. Functionality of RRC Subaccount**

In addition to being able to deposit and transfer RRCs from the RRC Subaccount, Account Holders will be able to view the gross number of RRCs held in the RRC Subaccount, and generate reports about their RRC Subaccount using the RRC Status Report. The RRC Status Report displays the gross number of RRCs available in the Active RRC Subaccount, Quantity RRCs needed to meet the Wisconsin RPS, and how many RRCs have been retired.

**Figure 2. Flow of Certificates between M-RETS Accounts**

## 5. Access to Accounts and Confidentiality

There are 4 levels of access to an account. In addition, the M-RETS Administrator will have access to all accounts through system operation functions. As a part of the registration process, the M-RETS Administrator will supply all users with a confidentiality statement ensuring that no account information will be shared without the express consent of the Account Holder.

The Account Holder has full access to any account that they establish. They also have the *sole* ability to assign permission to another party, known as their “Agent”, to “use” their account, which may include viewing information, performing transactions, changing personal information etc. Assignment of account access can be done during the account registration process, or at any time the Account Holder wishes to update their account profile on-line by adding additional users to their account.

User access may be granted at the account or subaccount level. The process for granting access is generally as follows: the Account Holder will be required to fill out an on-line form for each user they want to add to their account. They will provide information about that user such as name, email address and will indicate the level of access that user is permitted to have and the account or subaccounts to which that user has access. The M-RETS Administrator will send an email to that party, asking them to select a user name and password, and will confirm that they agree to the terms of participation in M-RETS. The new user, known as an Agent, will then be able to perform the functions or view the information per the permissions granted by the Account Holder. The Account Holder may at any time revoke the permissions granted to an Agent by notifying the M-RETS Administrator.

The M-RETS System will be able to track the specific activities of each user through the unique user ID and password.

### **5.1. M-RETS Levels of Account Access**

The table below indicates the possible permissions that an M-RETS Account Holder may grant. For each level of access, the user will be able to perform all of the functions indicated with an “X”. There are a number of actions that are not available to anyone except the system administrator or the Account Holder - these are indicated by a sole X in the Account Holder or system admin column.

#### **5.1.1. Level 1 Access**

Level 1 access is automatically enabled when for the Account Holder an account is established. Only one user can have Level 1 access. Level 1 access includes all functions available to Account Holders including, but not limited to:

- **Account Holder Registration and Maintenance**
  - Ability to assign and revoke access to others within the Account Holder’s organization
  - Ability to authorize third party access<sup>1</sup> to account (e.g. agent, regulator)
  - Ability set up and terminate account
  - Ability to merge two subaccounts
  - Any activity requiring an electronic signature
  - Updating/changing acct holder data
  - Creating new subaccounts
  - Changing alias’ on subaccounts
- **Generating Unit (GU) Registration**
  - Register a generating unit(GU)
  - Terminate GU registration for an account
  - Transfer GU registration to another account
  - Assign/change the subaccount a registered GU is associated with
  - Identify/authorize the “reporting entity” to provide generation data to M-RETS for GU
  - Submit 1 time data needed to verify GU characteristics
  - Set up forward Certificate transfers
- **Generation Data Management (For specific or all generating units registered within the account)**
  - Submit GU generation allocation data in case of a multi-fuel GU w/ a single meter
  - Key in generation data (only for those facilities that are allowed to self-report generation data)
  - Accept or reject reported generation used for Certificate creation
  - Provide and update GU characteristics and facility info
- **Certificate Management and Maintenance**
  - Initiate transfers from any account to any account

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<sup>1</sup> Defined broadly to include everything from full access to modify account, to read-only access

- Set up/remove standing orders from any account to any account
- Accept/reject transfers, imports
- **Report Management**
  - Run standard reports (includes sorting and filtering within standard reports)
  - Create new reports-specify what's in the report
  - Authorize distribution or distribute reports
- **View Only/Read Only Access**
  - Certificate look-up function
  - Generation Unit and Generation Activity Log view only

### **5.1.2. Level 2 Access**

Level 2 access is granted by the Account Holder on a subaccount basis. There is no limit to the number of users that can be granted Level 2 access. Level 2 access includes access to all of the following functions for the indicated subaccount:

- **Account Holder Maintenance**
  - Updating/changing acct holder data
  - Creating new subaccounts
  - Changing alias' on subaccounts
- **Generating Unit (GU) Registration**
  - Register a generating unit(GU)
  - Terminate GU registration for an account
  - Transfer GU registration to another account
  - Assign/change the subaccount a registered GU is associated with
  - Identify/authorize the "reporting entity" to provide generation data to M-RETS for GU
  - Submit 1 time data needed to verify GU characteristics
  - Set up forward Certificate transfers
- **Generation Data Management (For specific or all generating units registered within the account)**
  - Submit GU generation allocation data in case of a multi-fuel GU w/ a single meter
  - Key in generation data (only for those facilities that are allowed to self-report generation data)
  - Accept or reject reported generation used for Certificate creation
  - Provide and update GU characteristics and facility info
- **Certificate Management and Maintenance**
  - Initiate transfers from any account to any account
  - Set up/remove standing orders from any account to any account
  - Accept/reject transfers, imports
- **Report Management**
  - Run standard reports (includes sorting and filtering within standard reports)
  - Create new reports-specify what's in the report
  - Authorize distribution or distribute reports
- **View Only/Read Only Access**
  - Certificate look-up function
  - Generation Unit and Generation Activity Log view only

### **5.1.3. Level 3 Access**

Level 3 access is granted by the Account Holder. There is no limit to the number of users that can be granted Level 3 access. Level 3 access includes access to all of the following functions:

- **Account Holder Maintenance**
  - Updating/changing acct holder data
  - Creating new subaccounts
  - Changing alias' on subaccounts
- **Generation Data Management (For specific or all generating units registered within the account)**
  - Submit GU generation allocation data in case of a multi-fuel GU w/ a single meter
  - Key in generation data (only for those facilities that are allowed to self-report generation data)
  - Accept or reject reported generation used for Certificate creation
  - Provide and update GU characteristics and facility info
- **Certificate Management and Maintenance**
  - Initiate all transfers, except transfers to retirement subaccounts
  - Set up/remove standing orders, except standing orders to retirement subaccounts
  - Accept/reject transfers, imports
- **Report Management**
  - Run standard reports (includes sorting and filtering within standard reports)
  - Create new reports-specify what's in the report
- **View Only/Read Only Access**
  - Certificate look-up function
  - Generation Unit and Generation Activity Log view only

### **5.1.4. Level 4 Access: Regulator**

Regulators will automatically be granted Level 4 access to all accounts in M-RETS. Level 4 access includes access to all of the following functions:

- **Report Management**
  - Run standard reports (includes sorting and filtering within standard reports)
- **View Only/Read Only Access**
  - Subaccount read-only access
  - Certificate look-up function
  - Generation Unit and Generation Activity Log view only

### **5.1.5. Level 4a Access: Reporting Entity**

Reporting Entities will automatically be granted Level 4a status granting them the ability to load generation output data for all units that designate that Reporting Entity the right to do so. Level 4a access includes access to all of the following functions:

- **Report Management**
  - Run standard reports (includes sorting and filtering within standard reports)
- **View Only/Read Only Access**

- Generation Unit and Generation Activity Log view only (for those units that the reporting entity is reporting data for)

**Table 1. Account Permissions**

Table 1. below has the same information as the lists above, but was left in for ease of reviewing because it is a quick way to see what is different between the different levels of access.

<b>M-RETS Functions</b>	<b>Level 1: Account Holder <sup>2</sup></b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4: Regulator</b>	<b>Level 4a: System QRE</b>	<b>System Admin.</b>
<b>Acct Holder Registration</b>						
-Ability to assign and revoke access to others within the Account Holder’s organization	X			X	X	X
-Ability to authorize third party access <sup>3</sup> to account (e.g. agent, regulator)	X			X	X	X
-Ability set up and terminate account	X			X	X	X
-Ability to merge two accts	X					X
-Any activity requiring an electronic signature	X			X	X	X
<b>Acct Holder Maintenance</b>						
-Updating/changing acct holder data	X	X	X	X	X	X
-Creating new subaccounts	X	X	X			X
-Changing alias <sup>7</sup> on subaccounts	X	X	X			X
<b>Generating Unit (GU) Registration (Only for accounts that have GUs associated with them)</b>						
	<b>Level 1: Account Holder <sup>4</sup></b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4: Regulator</b>	<b>Level 4a: System QRE</b>	<b>System Admin.</b>
-Register a generating unit(GU)	X	X				X
-Terminate GU registration for an account	X	X				X
-Transfer GU registration to another account	X	X				X
-Assign/change the subaccount a registered GU is associated with	X	X				X
-Identify/authorize the “reporting entity” to provide generation data to M-RETS for GU	X	X				X
-Submit 1 time data needed to verify GU characteristics	X	X				X
-Set up forward certificate transfers	X	X				X
<b>Generation Data Management (For specific or all generating units registered within the account)</b>						
-Submit GU generation percent allocation data in case of a multi-fuel GU w/ a single meter or multiple GUs on one meter	X	X	X			X
-Key in generation data (only for those	X	X	X			X

<sup>2</sup> person or entity who signs the account agreement w/ M-RETS

<sup>3</sup> Defined broadly to include everything from full access to modify account, to read-only access

<sup>4</sup> person or entity who signs the account agreement w/ M-RETS

facilities that are allowed to self-report generation data)

-Accept or reject reported generation used for certificate creation X X X X

**-Load output data via file upload** X

**Generating Unit Maintenance**

-Provide and update GU characteristics and facility info X X X X

**Certificate Management and Maintenance**

**Intra-Account Active Transactions**

-Initiate transfers active to active accts (intra accts) X X X X

-Set up/remove standing orders for active to active accounts X X X X

**Certificate Management and Maintenance**

**Intra-Account Retirement Transactions**

-Initiate transfers from active to retirement accts X X X X

-Set up/remove standing orders for active to retirement accts X X X X

**Certificate Management and Maintenance**

**Inter-Account**

-Initiate transfers active to exports, including standing orders X X X X

-Initiate transfers active to active (inter accts), including standing orders X X X X

-Accept/reject transfers, imports X X X X

**Report Management**

-Run standard reports (includes sorting and filtering within standard reports) X X X X X X X

-Create new reports-specify what's in the report X X X X X

-Authorize distribution or distribute reports X X X X

**View Only/Read Only Access**

Subaccount Read-Only access X X X X X

Certificate look-up function X X X X X

Generation Unit and Generation Activity Log view only X X X X X

**Generation logging (at GU level)**

-Accept/reject generation data from a control area operator X X X X X

**Certificate Creation (at GU level)**

-Ability to issue a certificate from posted and accepted generation X X X X X

## **5.2. Confidentiality**

Except where permission has been explicitly granted, all Account Holder information will be held strictly confidential. Account Holder information will only be released in aggregate through the reporting process.

## **6. Static Data in M-RETS**

Static data fields describe the physical attributes of the generating unit. This data is provided by Account Holders to the M-RETS Administrator during the generator registration process, and the subsequent update processes described below.

For static data to be included in M-RETS, it must be verified. The method of verification for each data field is found in Appendix B-1. In addition, the M-RETS Administrator may conduct site visits to further verify the information as needed.

### **6.1. Updating Static Data**

After the initial registration with M-RETS, static data for each generating unit shall be updated annually by prompting all Account Holders to review and update their account information, including information about generating units associated with their account. M-RETS will stop issuing Certificates to any Account Holder that does not review and confirm or update their generating unit static data within the time specified by the M-RETS Administrator.

In addition to the annual update, Account Holders must notify M-RETS of the following that have the effect of changing static data tracked by M-RETS:

- (a) A change in fuel type at a generating unit, and the date on which the change occurred, within 30 calendar days from when the change is implemented.
- (b) A change in generating unit ownership, and the date on which the change occurred, within 30 calendar days after the sale closes. A change in ownership must be confirmed by a letter signed by both the seller and the buyer of the generating unit, and provided to the M-RETS Administrator. Agreements between M-RETS and Account Holders shall state that M-RETS will not be liable for depositing Certificates into an account that no longer represents a generating unit if the incorrect deposit occurs as a result of a lack of notification by the buyer and seller of the generating unit.
- (c) A change to generator eligibility for any programs or certification tracked by M-RETS. This must be communicated by the state, province or independent certifier, and confirmed by the Account Holder, within 30 calendar days after the change occurs.
- (d) A change to any of the “essential generating characteristics”.



## **6.2. Misrepresentation of Static Information:**

Generators can be removed from M-RETS for cause, including willful misrepresentation of static data. The M-RETS dispute resolution process can be used to address such situations, and M-RETS will accept no liability for generator misrepresentations. M-RETS reserves the right to take appropriate action in consultation with the M-RETS Board to respond to willful misrepresentation of static data, including but not limited to withholding issuing Certificates, freezing an account associated with a particular generating unit, or withholding participation in M-RETS for generation units that have willfully misrepresented static data.

## **7. Dynamic Data in M-RETS - Generation MWh Data**

### **7.1. Generation Data Requirements**

M-RETS Certificates may be issued for any energy production serving a load that otherwise would have been served by the grid if not for the generator. M-RETS will not create Certificates for generation supplying station service/parasitic load.

Data used to produce Certificates in M-RETS must be derived from control area settlements data polled from a revenue quality meter, except for (1) generators that do not go through a control area settlements process, and (2) customer sited distributed generators.

For generators that do not go through a control area settlements process and that are not customer-sited distributed generators, the data must be from a revenue quality meter adjusted to reflect the energy delivered, and the data must be communicated to the M-RETS Administrator by a Qualified Reporting Entity.

For customer-sited distributed generators, the original data source for reporting total energy production must be from revenue-quality 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 revenue-quality metering placed to measure only the hourly positive generation flowing to the distribution system, adjusted to reflect the energy delivered into either the transmission or distribution grid at the generator bus bar.

### **7.2. Revenue Metering Standards**

All generators participating in M-RETS must 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. Manual meter reads must be performed by a Qualified Reporting Entity.

For customer-sited generators or generators that do not go through a control area settlements process, a revenue-quality meter is one that meets the applicable ANSI C-12 standard or applicable state standards.

### **7.3. Measurement of Generation and Adjustments**

The output from each generating unit registered in M-RETS will be measured at the generator's bus bar, or adjusted to reflect the energy delivered at the generator's bus bar. Losses occurring on the bulk transmission or distribution systems after the metering point are not reflected in the Certificates created. M-RETS will not create Certificates for that portion of the generation that is used to supply station service, and therefore, generation data should also be netted of 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, the M-RETS Administrator will assume a conservative default fraction of total generation will be deemed to be from station service unless it can be proved otherwise.

If adjustments are needed, due to metering, reporting, error or any other reason, the reporting entity must report the adjustment as soon as possible to the M-RETS Administrator. If Certificates have not yet been created for the original generation amount to which the adjustment applies, the credit or debit will be posted to the Generation Activity Log, and will be reflected in the number of Certificates created that month. If Certificates have been created, the adjustment will be treated as a prior period adjustment described below in Section 7.4.

### **7.4. Prior Period Adjustments**

Adjustments that are made after the data are reported to M-RETS and Certificates are issued are known as prior period adjustments. All Account Holders will be made aware that there may be debits and credits in the current period as prior period settlement quality data are finalized.

Prior period adjustments must be reported to the M-RETS Administrator by the reporting entity. The M-RETS Administrator will post the prior period adjustment to the generation activity 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 will be realized when M-RETS Certificates are next issued. 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. The M-RETS Administrator will not accept adjustments for generation reported which occurred more than two years prior to the current month or prior to the original 62 day reporting period under which the facility registration was approved by the M-RETS Administrator.

### **7.5. Notification of Adjustments**

The Account Holder will be informed of all credit or debit adjustments as soon as the adjustment has been posted to the Generation Activity Log. Once M-RETS informs the Account Holder of a need for adjustment, the Account Holder then has 90 calendar days to dispute or accept the adjustment. Adjustment data that is accepted by the Account Holder or Administrator will contribute to the next certificate issuance. If after 90 days the Account Holder has neither Accepted nor Disputed the data, the M-RETS Administrator will automatically accept the adjustment.

### **7.6. Frequency of Data Collection/Meter Reading**

Energy generation data used in the development of M-RETS Certificates must be measured on an end-of-month basis, except for small generators with a nameplate capacity of 150kW or smaller or generators using Distributed Generation Aggregation. Such generators may report generation data on an end-of-year basis and must report no less frequently than annually.

### **7.7. Data Transmittal**

Data files are to be electronically transmitted to M-RETS using a secured protocol and a standard format specified by M-RETS Administrator. 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 generator owner, as the owner of the metered data, or their designated representative, has the responsibility to direct the Control Area Operator to release generation data to M-RETS. M-RETS participants will have 62 days from the end of the generation month to submit their generation data to the M-RETS Administrator. Generators that fail to submit generation data within the specified time period will not be able to have Certificate issued for that month of generation.

The data must be transmitted by a single entity, which must be either (1) the Control Area Operator, or (2) a Qualified Reporting Entity, however, small generators with a nameplate capacity less than or equal to 150 kW or generators using Distributed Generation Aggregation may opt to be treated as a Self-Reporting Generator.

### **7.8. Special Requirements for Self-Reporting Generators Only**

A Self-Reporting Generator must enter actual cumulative meter readings measured in either kWh or MWh and the date of the meter reading via the Self-Reporting Interface. Actual cumulative meter readings must be entered no less frequently than annually. Self-Reporting Generators that do not enter meter readings via the Self-Reporting Interface as required will receive a reminder notice from the M-RETS Administrator. Any such generator not entering a cumulative meter reading within 30 days of receipt of such a notice may be deemed inactive by the M-RETS Administrator. If and when a Self-Reporting Generator's Generation Activity Log is reactivated, the next meter read shall be the new baseline for accumulated generation data.

A Self Reporting Generator must have its cumulative hourly meter readings verified by a Third Party Verifier or Qualified Reporting Entity, not less than annually.

### **7.9. Generation Activity Log**

Each generation unit registered in M-RETS will have a Generation Activity Log associated with it. 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 generation unit, the date and quantity of MWhs is posted to the Generation Activity Log. Similarly, adjustments received will be posted likewise.

The status of each entry in the Generation Activity Log will be noted, where the possible values are:

- **M-RETS Accepted:** This label is used for all generation that has been reported to M-RETS and has been logged to the Generation Activity Log, but has not yet been accepted (or disputed) by the Account Holder.
- **M-RETS Pending:** Generation that fails feasibility and therefore is in need of M-RETS Administrator approval; or generation waiting to receive a 'fuel type' allocation from a multi-fuel generator. Generation in M-RETS Pending status will not contribute to certificate issuance.
- **Account Holder Accepted:** The Account Holder has accepted the posted generation, but the Certificates have not yet been issued.
- **Account Holder Auto-Accepted:** The Account Holder did not accept or dispute the generation posted within the given time period and the system automatically accepted the generation.
- **Account Holder Disputed:** The Account Holder has disputed the posted amount of generation.
- **M-RETS Cancelled:** The generation was logged, but Certificates were never issued for any number of reasons, for example, if there was fraudulent activity and further investigation determined that Certificates should not be issued.
- **Certificates Created:** All data that contributed to Certificate issuance.
- **RRCs Issued:** This label is for fractional MWhs that were converted to fractional RRCs.

The status of each entry in the Generation Activity Log will be changed by the M-RETS Administrator, according to the receipt of information by the M-RETS Administrator regarding the status of the Certificates. On the day of Certificate issuance, Certificates will be issued based on the total whole number of MWhs on the Generation Activity Log that are marked as follows: "Account Holder Accepted" or "Account Holder Auto-Accepted." Only Certificates that are marked as such will contribute to Certificate creation. Any fractional MWh will be rolled forward until sufficient generation is accumulated for the creation of an M-RETS Certificate .

Each time an item is posted to the Generation Activity Log, the Account Holder will be notified electronically. Account Holders will have at least 7 calendar days to accept or dispute any new regular entries to the Generation Activity Log and up to 90 days to accept or

dispute adjustments. If the Account Holder does nothing, the posting will be automatically accepted after the specified period.

The Generation Activity Log will include, at minimum, the following entries:

- (a) opening Balance/Prior Month's Balance Forward: reflecting the kWh (fraction of a MWh) remaining after the prior month's Certificate creation date;
- (b) MWh of generation reported to M-RETS (via Control Area, Qualified Reporting Entity or self-reported) during the current month;
- (c) administrative adjustments (for instance, for adjustments received from Reporting Entities occurring later than 90 days after the end of the month of generation);
- (d) creation of M-RETS Certificates; and
- (e) balance forward.

For generation units where the Reporting Entity supplies M-RETS meter readings, rather than net production, the Generation Activity Log shall include a column where the meter readings are recorded, and net generation is calculated.

### **7.10. Multi-Fuel Generation Units**

A Multi-fuel Generation Unit is one that is capable of producing 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 Generation Unit can be a Generation 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 Generation Unit. A generator that uses 1% or less of a second fuel may elect to register as a multi-fuelsingle fuel generator if they would like Certificates issued for the second fuel type. If the relative quantities of electricity production from each fuel can not be measured or calculated, and verified, the generator is not eligible to register as a Multi-fuel Generation Unit in M-RETS.

Certificates will be created for renewable fuel types only. Each Certificate issued for a Multi-fuel Generation 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.

Each M-RETS Account Holder or Responsible Party that has registered a Multi-fuel Generation Unit must report monthly to the M-RETS Administrator the proportion of electric output per fuel type, by MWh, generated by the unit during that month, calculated according to the applicable provisions of Section 7.10.1. The Generator must report the total generation from the Generating Unit by fuel type, however the M-RETS Administrator will only issue Certificates for the renewable generation. Generators and their Responsible Parties will have up to T1+62 calendar days to submit their proportion of electric output per fuel type for the month to the M-RETS Administrator where T1 equals the last day of the generation month. Certificates will not be logged to the Generation Activity Log until such information is provided by the Account Holder or Responsible Party. Generators that fail to provide the required information in the time specified will not have Certificates issued for that month of generation.

The generator or its Account Holder 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 2 years from the date of submission to the M-RETS Administrator. The M-RETS Administrator may require copies of such calculations, and supporting documentation will be subject to audit by the M-RETS Administrator, state regulators, or their agents. Data submitted to or audited by the M-RETS Administrator subject to the requirements of this paragraph that is not contained in reports available to the public will be treated as Confidential Information by the M-RETS Administrator.

### **7.10.1 Allocating Output for Each Fuel Source**

For purposes of creating M-RETS Certificates reflecting the fuel source mix of Multi-fuel Generation Units, the proportion of Certificates attributable to each fuel source shall be determined consistent with the following rules:

- (a) 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 Generation Unit will be created in proportion to the ratio of the net heat content of each fuel consumed to the net heat content of all fuel consumed in that month, adjusted to reflect differential heat rates for different fuels, if applicable.
- (b) Upon registration, all multi-fuel generators must submit to the M-RETS Administrator 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. This documentation will be shared with state or provincial regulators upon request of the regulator. More details on this requirement are found in Appendix B-3.

## **8. Requirements of Data Reporting Entities**

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

The M-RETS Administrator has developed 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 Qualified Reporting Entity's Account of the generating units for which the Qualified Reporting Entity is reporting. The protocols for collection of information such as meter IDs, data format, communication protocols and timing, and security requirements for data collection will be outlined in a document provided by the M-RETS Administrator (the Interface Control Document). This document will be updated as required 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. The M-RETS Administrator will work with the personnel from the reporting entities to verify information and address specific requirements of each reporting entity.

M-RETS reserves the right to audit the MWh data totals.

## **9. Data Security**

The following are a minimum set of security practice requirements for M-RETS to ensure data integrity and confidentiality:

1. Secured web portal interface with password protection for static data collection, user access and reporting.
2. Restricted access privileges based on participant and user roles using digital Certificates.
3. Well-defined system backup and recovery processes.
4. Secured file transfer and data upload processes using encrypted communications for all data interfaces.

## **10. Creation of Certificates and RRCs**

M-RETS Certificates are issued in whole numbers only. A Certificate created and tracked within M-RETS will represent all of the 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 the M-RETS system. Once a M-RETS Certificate is created, no changes can be made to that Certificate.

M-RETS does not define the life time or expiration date for Certificates. States and provinces may do so outside of M-RETS to meet their own requirements.

### **10.1. Certificate Creation**

The M-RETS Administrator will issue one electronic Certificate for each MWh of energy that is generated by those generation units that are registered with M-RETS.

Certificates will be issued based on the number of whole MWhs on the Generation Activity Log on the day of Certificate creation.

Each Certificate shall have a unique serial number. Certificate serial numbers shall contain codes embedded in the number that indicate such things as the generation unit ID, the location of the generator, and the vintage (month and year of generation) of the Certificate. A description of the exact serial number format can be obtained from the M-RETS Administrator.

Certificates imported from a compatible tracking system must meet equivalent standards to M-RETS. M-RETS will issue an M-RETS serial number for Certificates imported from compatible tracking systems, as described below in Section 15.

### **10.2. Frequency of Certificate Creation**

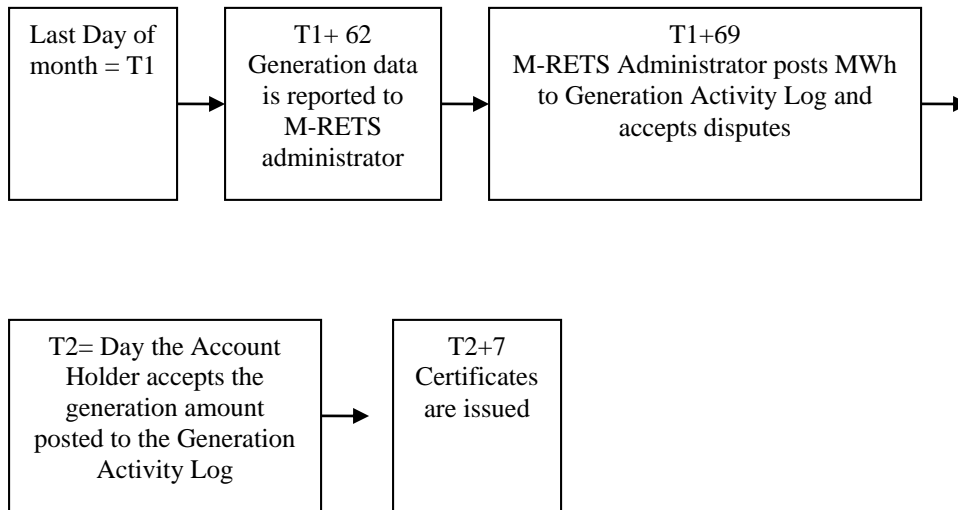
M-RETS will issue Certificates no more frequently than once per month per generating unit.

### **10.3. Process and Timeline for M-RETS Certificate Creation**

M-RETS Generators and their Responsible Parties will have up to T1+62 calendar days to submit their generation data to the M-RETS Administrator where T1 equals the last day of the generation month. Generators that fail to submit generation data within the specified time period will not be able to have Certificates issued for that month of generation. As soon as the generation data is received by the M-RETS Administrator and a data validity check is performed, they will post it on the generator's "Generation Activity Log" and notify the account holder via email that generation has been posted. The generation posting will be marked "M-RETS Accepted" on the Generation Activity Log. Once the generation is accepted by the Account Holder, the generation posting will be marked "Account Holder Accepted." Certificates will be issued on T2 + 7 days, where T2 is the day the generation posted is accepted by the Account Holder. No changes will be allowed to the generation MWh data for seven calendar days prior to the M-RETS Certificate creation.

The Account Holder must notify the M-RETS Administrator if they believe the generation data amount recorded on the Generation Activity Log is inaccurate for any reason. This is known as registering a dispute. The Account Holder may register a dispute any time after the generation is posted within the T1+69 period, and they will have at least 7 calendar days to do this. If there is a dispute registered, every reasonable effort should be made to resolve the dispute within T1+69 days. However, if the dispute is not resolved within the T1+69 day period, Certificate issuance for that generation will be delayed. The Certificates for disputed posting will be created seven days after the Account Holder has accepted the revised generation amount. While the generation posting dispute is being resolved, the generation posting will be marked "Account Holder Disputed." If the Account Holder does not register a dispute with the M-RETS Administrator within 69 days from the end of the generation month, the Certificates will be created.



**Figure 3: Timeline for M-RETS Certificate Creation****10.4. Certificate Creation for Accumulated Generation**

Generation data from generators that are under 150 kW and that are not reported to M-RETS on a monthly basis may be accumulated over one or more months prior to submittal to M-RETS for Certificate issuance.

Each generator for which generation is not reported by a reporting entity on a monthly basis must submit accumulated data at least 12 months from the date M-RETS last received generation data. If a generator fails to report meter readings within a 12 month period, M-RETS will issue a reminder and demand a meter read within a month, to prevent over-accumulation and gaming. Because the month of certificate issuance is material to some state, provincial and voluntary program eligibilities, the M-RETS Administrator may take appropriate actions to ensure that data reporting is occurring monthly wherever practicable.

The vintage on the issued Certificate will be the last month and year of generation contributing to an accumulated MWh. Certificate creation for accumulated generation will occur on the same schedule as all other generation in M-RETS as described in Section 10.4.

**10.5. Data Fields Carried on Each Certificate**

Appendix B-1 lists the essential data fields that shall be carried on each Certificate.

**10.6. Creation of RRCs**

RRCs will be created from eligible existing, and active, M-RETS Certificates by the M-RETS Administrator upon request by the RRC Account Holder. An Account Holder may request that an M-RETS Certificate be converted to an RRC anytime between January 1st and April 13 of the current year, for eligible renewable generation that occurred in any of the previous 5 calendar years. For example, an RRC conversion request on January 1, 2015 will only be allowed for eligible renewable energy that occurred during the calendar years 2010

through 2014. This process is intended to allow RRC conversion and retirement for Wisconsin RPS compliance for an eligible M-RETS Certificate for four compliance years after the year the M-RETS Certificate was created, consistent with Wisconsin Statute § 196.378(3)(c) (2011). The M-RETS Administrator is not responsible for ensuring that RRC conversion requests meet the eligibility requirements of Wisconsin law.

To create RRCs pursuant to Wisconsin Statutes § 196.378 (2011), the WI Electric Provider must provide the following information to the M-RETS Administrator via an electronic form:

- Name of WI Electric Provider (if different from RRC Account Holder name),
- MWhs sold at retail in Wisconsin during the previous year,
- Year of energy generation (vintage),
- Annual MWh from renewable sources that were delivered at retail in Wisconsin by renewable technology type,
- Number of RRCs that are requested,
- Technology type of RRCs requested,
- M-RETS Certificate serial numbers of Certificates for which conversion to RRCs is requested.

Upon receipt of this information, the M-RETS Administrator will execute a process of converting M-RETS Certificates held in the Account Holder's Active Subaccount to RRCs. First the M-RETS Administrator will confirm that the M-RETS Certificates slated for conversion to RRCs are from a facility certified as eligible by the WI PSC. This is done by ensuring that the data field indicating WI RRC Eligible has a "Yes" indication. Next, the M-RETS Certificates will be removed from the Active Account, noting that they were converted to RRCs. The RRCs will be deposited in the Account Holder's RRC Account. The state, provincial and voluntary program eligibilities that an M-RETS Certificate possessed prior to conversion into an RRC will no longer be indicated on the Certificate once it has been converted into an RRC.

RRCs created in this way will be in whole numbers in the denomination of 1 RRC equals 1 MWh of generation or 1 M-RETS Certificate.

The total number of RRCs requested may not exceed the gross number of annual MWh that were delivered at retail in a given year, and the renewable technology type of the RRCs requested must correspond with the number and type of M-RETS Certificate serial numbers to be retired. For example, if a WI Electric Provider delivered 1000 MWhs of biomass and 500 MWhs of wind, they may request up to 1500 RRCs to be created, and they must hold in their Active Account an equal number of biomass and wind Certificates as requested RRCs.

### **10.7. Creation of Fractional RRCs**

In addition to the whole RRCs created above, per Wisconsin law, Wisconsin Electric Providers will also have the option of creating "fractional RRCs." These are RRCs that are in the denomination of one tenth of a MWh. If a Wisconsin Electric Provider wishes to create a fractional RRC from generation in an amount less than one MWh, the Electric Provider shall submit a request for the fractional RRC in writing to the M-RETS Administrator. The M-

RETS Administrator shall rely upon the Wisconsin PSC to identify the appropriate course of action in response to such a request.

### **10.8. Interaction of M-RETS with the Wisconsin Renewable Resource Credit Tracking Program**

When M-RETS became operational, it became the sole and exclusive issuer and creator of new RRCs. RRCs created by the Wisconsin Renewable Resource Tracking Program which operated prior to the operation of M-RETS were transferred from the prior system to the Account Holder's RRC Account upon request by the RRC Account Holder. The M-RETS Administrator worked with the Wisconsin Renewable Resource Tracking Program Administrator to execute such transfers as requested. The request to transfer RRCs created before January 1, 2004 was required to be received by the M-RETS Administrator not later than July 1, 2008.

## **11. Certificate Errors and Correction**

### **11.1. Data Validity Check**

All generation data received by M-RETS will undergo an automatic data validity check to ensure that erroneous and technically infeasible data is not entered into M-RETS. The data validity check will compare reported electricity production to an engineering estimate of maximum potential production, calculated as a function of technology type, associated maximum capacity factor, nameplate capacity, fuel (if relevant), and time period since the previous cumulative meter reading entered. If data entered exceeds an estimate of technically feasible generation, M-RETS Administrator will be notified and the generation will be posted to the Generation Activity Log with a status "M-RETS Pending" until resolution is reached.

### **11.2. Certificate Errors Discovered After Certificate or RRC Issuance**

Once an M-RETS Certificate or RRC is created, no changes can be made to that Certificate or RRC. In the event that an error is discovered after Certificates or RRCs have been issued, the M-RETS Administrator will take measures to rectify the problem depending on the nature and the egregiousness of the error. If the error is related to the number of Certificates issued, the M-RETS administrator will first attempt to rectify this by making an adjustment to the generation activity log associated with the generator. If the error is related to the number of RRCs issued, the M-RETS administrator will rely upon the WI PSC to identify the appropriate course of action. If the error is found in one of the fields on the Certificate or RRC, the M-RETS Administrator will handle each situation on a case by case basis. Examples of actions that could be taken include, but are not limited to: notifying purchasers of the erroneous Certificates, freezing the account of the offending party, levying an administrative fine, banning participation in M-RETS.

## **12. Initial Deposit of Certificates in M-RETS Accounts**

The M-RETS Certificates will be first deposited into the M-RETS account that is associated with the generating unit, as established during the generating unit registration process described in Section 3. The sole exception to this rule is in the case of Forward Certificate Transfers, where the first point of deposit is the account identified as the recipient of the Forward Certificate Transfer.

## **13. Transfers of Certificates and RRCs**

### **13.1. Transferring Certificates between Accounts**

M-RETS Account Holders may transfer active Certificates to other M-RETS Account Holders at any time. RRC Account Holders may transfer RRCs to other RRC Account Holders at any time. Account Holders transferring such Certificates or RRCs shall effectuate the transfer in M-RETS by indicating in a designated screen in the interactive M-RETS website that a specified RRC, Certificate or block of Certificates are designated for transfer. Certificates and RRCs will be specified by their serial numbers. The Account Holder will also select the recipient from a pull-down list of M-RETS Account Holders or RRC Account Holders. After the transfer has been requested, M-RETS will provide a pop-up “Are you sure you want to transfer” screen that lists the details of the proposed transfer and ask for a final confirmation by the transferring Account Holder. After the request to transfer has been confirmed, M-RETS will send an electronic confirmation to the Account Holder that requested the transfer notifying them that a request to transfer Certificates or RRCs has been entered into M-RETS.

After the transfer has been initiated, the Certificates or RRCs that are pending transfer will be marked as “transfer pending” in the Account Holders active account or RRC Account respectively. This will have the effect of “freezing” the Certificates or RRCs so that they cannot be moved to another to subaccount or to another account holder. If the transfer is not confirmed within 14 days, Certificates will be released in the Account Holder’s Active Account or RRC Account respectively, and the “transfer pending” status removed.

After the transfer has been initiated, M-RETS will then send an electronic notification of the request to transfer Certificates or RRCs to the proposed recipient. The Certificate or RRC recipient must confirm the transfer within 14 calendar days of when it was requested by the transferee, or the transfer request will be deleted. The confirmation screen shall list the details of the proposed transfer and asks the proposed recipient to confirm the transfer. A pop-up screen will ask for a final confirmation (“Accept transfer?”). Once the recipient has confirmed the transfer, M-RETS will send an automatic electronic communication to the recipient notifying them that they have confirmed the Certificate or RRC transfer.

The transferring Account Holder may cancel any transfer before such transfer has been confirmed by the recipient by withdrawing the transfer in a designated screen on the website. M-RETS will notify the recipient that the transfer was canceled.

The transfer of any Certificate, block of Certificates or RRC shall only be registered in the M-RETS upon the electronic confirmation by both the transferring Account Holder and the recipient.

Once M-RETS has completed the transfer of Certificates or RRCs from one account to another, M-RETS will send an electronic confirmation to both Account Holders confirming that the transfer has been completed.

### **13.2. Standing Orders**

Account Holders may request reoccurring, automatic transfers of Certificates from Active Accounts to any of their other accounts (active, retirement, export), and also to Active Accounts held by different Account Holders. Such a transfer (a “Standing Order Transfer”) will occur through designated screens and processes in M-RETS in the same fashion all other Certificate transfers (as described in Section 12.1), except that the transferor (party initiating transfer) would only be able to rescind a Standing Order Transfer up to 7 calendar days prior to the date the transfer is to be implemented by the M-RETS Administrator. Standing orders are not limited to accounts that have generating units associated with them, however the transferor needs to be able to specify which certificates will be transferred on an ongoing basis without knowing in advance the certificate serial numbers. Therefore, during the initial Standing Order registration, the transferor will be required to indicate, when applicable, the generating unit as a way of identifying which certificates should be transferred. If the standard order is not based on a specific generation unit, other identifying characteristics of the Certificates to be transferred must be described.

In the registration of Standing Order Transfer, the transferor shall indicate:

- The active account/subaccount from which the Certificates should be transferred;
- The active account/subaccount to which the Certificates should be transferred;
- The generation unit(s)/fuel type(s) whose Certificates are to be transferred, if applicable;
- The day and month(s) that the Standing Order should be executed, and the end date if applicable;
- The maximum number of Certificates to be transferred, or the percentage of total Certificates in the account/subaccount to be transferred, during each such month; and
- The priority of the Standing Order relative to other Standing Orders, if applicable.

Each Standing Order Transfer has one transferee. An Account Holder may set up multiple Standing Order Transfers. Each Standing Order Transfer will be set up based on percentage of Certificates within a designated account/subaccount or as a fixed quantity, both within a certain month.

- (a) Percentage: When Standing Orders indicate a transfer of percentages of Certificates from a specific subaccount during the same period, the Certificates shall be allocated in proportion to the percentages indicated, except that in the event that such allocations would result in fractional Certificates being transferred, the transferor must specify a preference among multiple transferees for the last undivided Certificate.

- (b) **Fixed Quantity:** When a Standing Order designates a number of Certificates to be transferred, the transferor may establish a preference among multiple transferees. The transferor may indicate priorities (first, second, third, and so on) to designate the order in which fixed Standing Order Transfers shall be executed in a given month. In the instance when the total of Standing Order Transfers for a given month exceed the actual number of Certificates available, M-RETS will fill each Standing Order Transfer in order of priority, but only if each Standing Order Transfer can be fulfilled completely. If the first priority Standing Order can not be filled, the Account Holder will be able to specify at the time of registration, whether M-RETS should try to fill lower priority Standing Orders or not. Any Standing Order Transfers that cannot be fulfilled completely will not be executed.

Standing Order Transfers will be executed by the M-RETS Administrator no more frequently than a monthly basis.

Account Holders are responsible in the case that there are insufficient Certificates to complete a Standing Order Transfer.

When a Standing Order Transfer is initially registered, the M-RETS Administrator will send a notice to the transferee asking them if they accept the terms of the Standing Order. Acceptance of the Standing Order means that the transferee accepts all future transfers under the Standing Order. After the initial acceptance, the transferee will receive a notice from the M-RETS Administrator after each time Certificates are deposited into the transferee's account. In addition, the notification will explain if the Standing Order deposit was not fulfilled as expected (e.g. as indicated by the original terms of the Standing Order.)

Standing Order Transfers are not available for RRCs.

### **13.2.1. Rescission of Standing Orders**

Standing Orders can be rescinded at any time by the Account Holder that set up the Standing Order. If the request to rescind a Standing Order is received within 7 calendar days prior to the date the transfer is to be implemented by the M-RETS Administrator, the rescission will be implemented in the following month.

Standing Orders can only be rescinded in their entirety; they cannot be rescinded on a month by month basis. When a Standing Order is rescinded, the M-RETS Administrator will send a notice to the transferee.

### **13.3. Forward Certificate Transfers**

Account Holders that have a generating unit linked to their active account may request that Certificates from a specific generating unit be directly deposited into another M-RETS account when the Certificates are created. Such a request would occur in advance of the Certificate Creation Date and is known as a Forward Certificate Transfer. In this case, the generation will be posted to the Generation Activity Log as usual. After it has been accepted by the Account Holder, such Forward Certificates, when converted into Certificates on their

Creation Date, will be deposited directly into the account of the transferee, and the transferor will not at any point have possession of those Forward Certificates.

When a Forward Certificate Transfer is initially registered, the M-RETS Administrator will send a notice to the transferee asking them if they accept the terms of the Forward Certificate Transfer. Acceptance of the Forward Certificate Transfer means that the transferee accepts all future transfers under the Forward Certificate Transfer. After the initial acceptance, the transferee will receive a notice from the M-RETS Administrator after each time Certificates are deposited into the transferee's account. In addition, the notification will explain if the Forward Certificate Transfer deposit was not fulfilled as expected (e.g. as indicated by the original terms of the Forward Certificate Transfer.)

Forward Certificates may be subject to only one Forward Certificate Transfer – from the generation unit's account (account to which Certificates would have otherwise been originally deposited (Transferor)) to another M-RETS account –prior to the then applicable Creation Date.

Forward Certificate Transfers can be used for transfers to the Active Account of another M-RETS Account Holder, transfers to any of the other subaccounts of the transferor's own account, and exports of Certificates to compatible tracking systems.

After the Creation Date for a Forward Certificate, such Certificate shall be treated like any other Certificate and may be transferred again, retired, exported, etc.

In the registration of a Forward Certificate Transfer, the transferor shall indicate:

- a) The generation unit that will create such Forward Certificates;
- b) The active account/subaccount to which the Certificates should be transferred;
- c) The first vintage month/year that the Forward Certificate Transfer will be executed for and the end vintage month/year representing the last transfer in the Forward Certificate Transfer transaction;
- d) The maximum number of Forward Certificates to be transferred, or the percentage of total Certificates actually created that will be transferred, during each such month; and,
- e) The priority of the Forward Certificate Transfer relative to any other Forward Certificate Transfers, if applicable.

Forward Certificate Transfers can be requested to multiple transferees based on percentage of Certificates deposited within a certain month, or as a fixed quantity within a certain month.

- (a) Percentage: When Forward Certificate Transfers transfer percentages of Certificates from a specific generator during the same period, the Certificates into which such Forward Certificates are converted shall be allocated in proportion to the percentages indicated, except that in the event that such allocations would result in fractional Certificates being transferred, the transferor must specify, before the applicable Creation Date, a preference among multiple transferees for the last undivided Certificate.

- (b) **Fixed Quantity:** When Forward Certificate Transfers transfer a designated number of Certificates created during a single period, the transferor may establish a preference among multiple transferees in those Forward Certificate Transfers. The transferor may indicate priorities (first, second, third, and so on) to designate the order in which fixed Forward Certificate Transfers shall be executed in a given month. In the instance when the total of Forward Certificate Transfers exceeds the number of available Certificates, M-RETS will fill each Forward Certificate Transfer in order of priority, but only if each Forward Certificate Transfer can be fulfilled completely. If the first priority Forward Certificate Transfer can not be filled, the Account Holder will be able to specify at the time of registration, whether M-RETS should try to fill lower priority Forward Certificate Transfers or not. Any Forward Certificate Transfer that cannot be fulfilled completely will not be executed.

The transferor and the transferee Account Holders will not have any control over which Certificates for a particular generator are transferred for the requested month.

Forward Certificate Transfers will be executed by the M-RETS Administrator on a monthly basis. Account holders are responsible in the case that there are insufficient Certificates to complete a Forward Certificate Transfer.

Forward Certificate Transfers are not available for RRCs.

### **13.3.1. Rescission of Forward Certificate Transfers**

Forward Certificate Transfers can be rescinded at any time by the Account Holder that set up the Forward Certificate Transfer. If the request to rescind a Forward Certificate Transfer is received within 7 calendar days prior to the date the transfer is to be implemented by the M-RETS Administrator, the rescission will be implemented in the following month.

Forward Certificate Transfers can only be rescinded in their entirety; they cannot be rescinded on a month by month basis. When a Forward Certificate Transfer is rescinded, the M-RETS Administrator will send a notice to the transferee.

Any exercise of a contractual right of rescission of a Forward Certificate Transfer by a transferor shall be effected upon notice to the M-RETS Administrator, and in no event will the M-RETS Administrator be required to determine whether conditions to that rescission, other than receipt of the rescission notice, have been satisfied before effecting the rescission.

## **14. Retirement of Certificates and RRCs**

Any M-RETS Certificate or RRC retirement must be initiated by the M-RETS Account Holder in possession of the Certificate or RRC. The M-RETS Administrator is not responsible for ensuring that Account Holders retire Certificates or RRCs when appropriate.



### **14.1. Mechanism for Certificate Retirement**

When an Account Holder wishes to retire a Certificate or block of Certificates they will notify the M-RETS Administrator by selecting the Certificates serial numbers and indicating that such Certificates should be retired, indicating the reason for retirement (a mandatory field) , and selecting the Retirement Subaccount to which the Certificates should be deposited. This notification will occur on a designated page of the M-RETS website. When the M-RETS Administrator receives this notification, the Certificates will be withdrawn from the Account Holder's Active Subaccount and moved into the designated Retirement Subaccount. The Retirement Subaccount will show the serial numbers of the Certificates retired, the date of retirement, and the reason for retirement. In addition, there will be a mechanism to view the generation characteristics/Certificate fields of the retired Certificates. Once Certificates are retired, they cannot be moved or transferred out of the retirement account.

When an RRC Account Holder wishes to retire an RRC or number of RRCs they will notify the M-RETS Administrator by indicating on a designated page of the M-RETS website:

- the number of RRCs,
- the technology/fuel type of the RRCs,
- the compliance year that the RRCs are being retired for, and
- the Retirement Subaccount number to which the RRCs should be deposited.

M-RETS will automatically assign the "WI RPS" as the reason for the retirement of an RRC. When the M-RETS Administrator receives this notification, the RRCs will be withdrawn from the Account Holder's RRC Account and moved into the designated Retirement Subaccount. The Retirement Subaccount will show the gross number of RRCs retired grouped by technology/fuel type and compliance year, the date of retirement, and the reason for retirement. Once RRCs are retired, they cannot be moved or transferred out of the Retirement Subaccount.

### **14.2. Forced Retirement**

Retirement of Certificates is an action taken to remove a Certificate from circulation within the M-RETS system. Retirement may be initiated by the M-RETS Administrator, who can in consultation with the M-RETS Board and/or appropriate regulator(s) forcibly retire any Active Certificates. The M-RETS Administrator 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. Retirement is effectuated by transferring Certificates into a Retirement Subaccount.

## **15. Imports and Exports of Certificates**

Certificates may only be imported into M-RETS from a Compatible Tracking System (CTS) and, similarly, exported to a CTS. M-RETS will strive for compatibility with other tracking systems. A list of Compatible systems can be found in the Transfer Appendix . This compatibility will be based on minimum standards to ensure the security and integrity of the Certificate information and reciprocity of Certificate conversion. Technical protocols have

been developed to allow for imports and exports between the M-RETS Administrator and the administrators of the other tracking system.

### **15.1. Import of Certificates**

Certificates may be imported into M-RETS from a Compatible Tracking Systems (CTS) by a process of conversion. Conversion entails retiring the Certificate from the exporting tracking system and creating of a corresponding M-RETS Certificate. When the new M-RETS Certificate is issued, all data 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. More information on the process used for imports is available in the Transfer Appendix.

To import Certificates into M-RETS, the M-RETS Account Holder must arrange for the transfer of Certificates from the counterparty privately. In general, as with all transfers, the party in possession of the Certificates must initiate the transfer. Therefore, the transferor will notify their system administrator of the desire to export Certificate from their system into M-RETS, along with the information about the transferee, such as name and M-RETS account number. The administrator of the transferor's tracking system will then communicate with the M-RETS Administrator of the Certificate pending Certificate conversion. The M-RETS Administrator will then notify the M-RETS Account Holder of the transfer, and ask them to accept or reject the transfer. If the Account Holder accepts the transfer, the conversion of Certificates will ensue. Such a conversion will involve the export of the Certificate from the exporting system, and the issuance of a new Certificate by M-RETS. The converted Certificate will designate the system of origin and M-RETS will maintain a record of the serial number that was assigned in the exporting system. Through a coding system, the M-RETS serial number will identify the Certificate as imported and the tracking system of origin.

Please refer to the Transfer Appendix for more information on imports from specific CTSs.

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

### **15.2. Export of Certificates**

Certificates can only be exported out of M-RETS in one case: to a CTS. Exported RECs will be held in an Export Subaccount managed by the M-RETS Administrator. RECs held in the Export Subaccount are not accessible or transferable by the Account Holder to prevent double counting.

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

- **Compatible Tracking System**
- **Account Name**
- **Account ID**

When the M-RETS Administrator receives this request, they will assign the designated Certificate an “export pending” status to ensure that the Certificates cannot be inadvertently transferred or sold. The M-RETS Administrator will communicate with the Administrator of the Compatible System and arrange for the transfer of Certificates. If the transfer is accepted by the Compatible System, the Certificates will be moved from the Account Holder’s active account to the M-RETS Administrator’s Export Subaccount..

### **15.3. Re-Import of Exported Certificates**

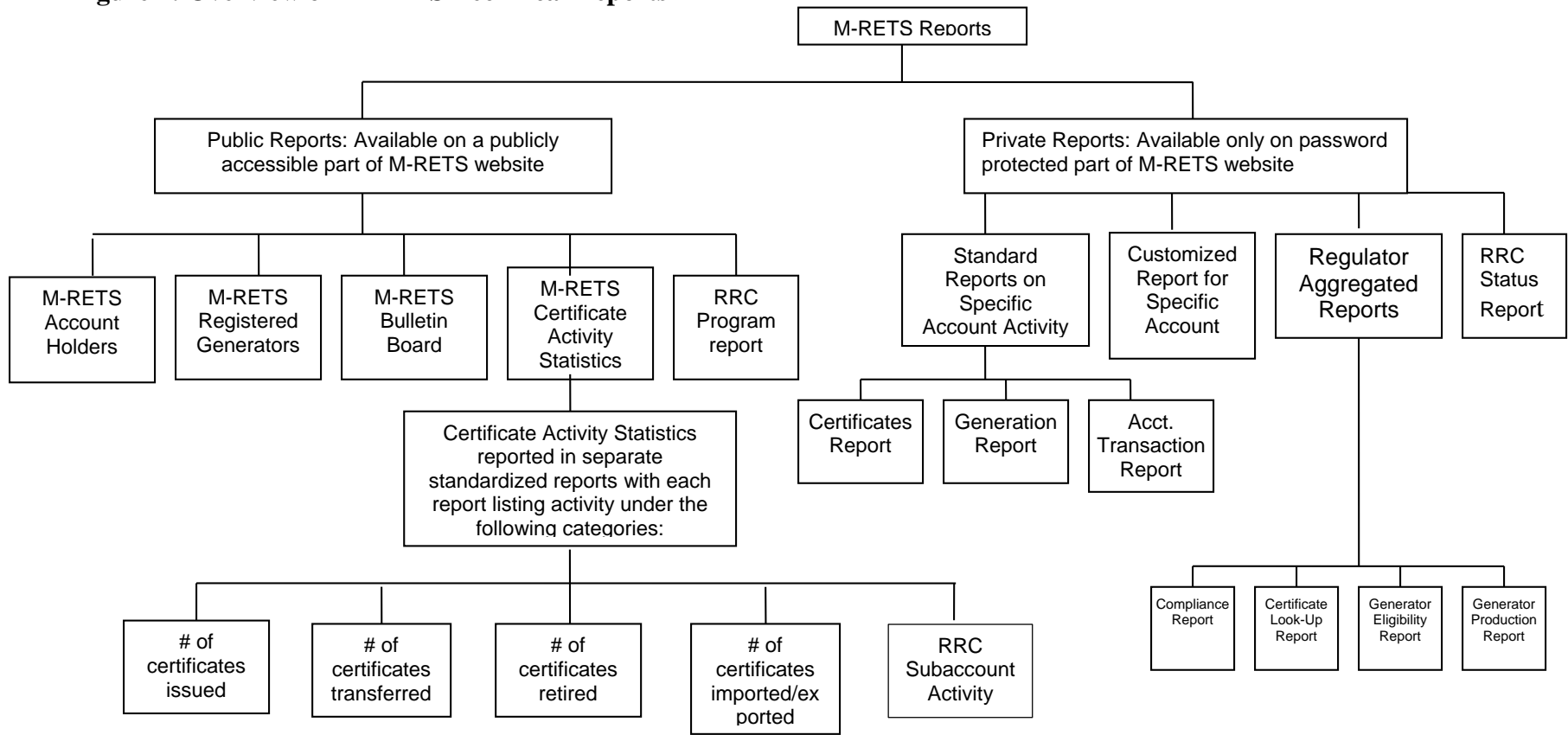
Certificates may be re-imported in M-RETS. To the extent any data fields were lost when the Certificate was originally exported, these fields will be repopulated with the original data when the Certificate is re-imported. Before this function is implemented, it should be re-evaluated for its cost-effectiveness and for the consistency with the operations of other Certificate tracking systems.

### **15.4. Preventing Double Counting of Imported/Exported Certificates**

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

## 16. Reporting

**Figure 4: Overview of M-RETS Technical Reports**



<sup>1</sup> Account Holder Custom Report

This would allow the Account Holder to sort certificate data in any of their subaccounts. To produce a custom report, M-RETS would prompt the Account Holder to select the fields to include in the report.

## **17.1. Public Reports**

There are five types of public reports: M-RETS Account Holders, M-RETS Generators, Bulletin Board, M-RETS Certificate Activity Statistics (Monthly and Annual), and RRC Program. Public reports will be accessible to anyone via the public page on the M-RETS website.

### **17.1.1. M-RETS Account Holders:**

This report contains a listing of all Account Holders with some limited contact and other information.

#### **Data fields contained in report:**

- Account ID
- Account Holder Company
- Account Holder Type (Project Account, Program Administrator, General Account, Retail Purchaser Account, Reporting Entity)
- WI Energy Service Provider (Yes/No)
- Account Manager Name, Title and Contact Information (Company Address, Account Manager Telephone, Company Web Site URL)
- 6 placeholders for future additions

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

### **17.1.2. M-RETS Generators:**

This report contains a listing of all account holder companies and the generating facilities registered in M-RETS.

#### **Data fields contained in report:**

- Account Holder Company
- Owner Name
- M-RETS ID
- Generating Facility
- WI RRC
- Facility Ownership Type (Investor-Owned Utility, Electric Cooperative, Municipal Utility, Joint Power Authority, Privately Owned Distributed Generation, Irrigation District, Electric Service Provider, Federal Marketer/Power Administrator, Tribal Organization, Wholesale Marketer)
- Multi-Fuel Indicator
- Fuel Type
- Fuel Source
- Commenced Operation Date
- Nameplate Capacity
- Eligibility (options are listed by state and program)

- Location (county, state/province)

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

### **17.1.3. M-RETS Bulletin Board**

The Bulletin Board public report allows owners of RECs and RRCs to post their certificates to this publicly accessible report for the purpose of finding potential buyers. If there are no offers available the message “No Records.” will display. An account holder that wishes to pursue an offer posted to the Bulletin Board should contact the owner using the contact information provided when drilling down on the hyperlinked Account Holder Company name.

**Data fields contained in report:**

- Account Holder Company (hyperlink to Account Holder’s contact information)
- Account Contact Person
- Account Contact Job Title
- M-RETS ID
- Facility Name
- Fuel Type
- Certificate Type
- Certificate Vintage
- Certificate Serial Numbers
- Quantity
- Eligibility (options are by state and program)

The name of each Account Holder Company has an embedded link to a screen that provides additional information about the Account Holder Company. Each certificate Quantity has an embedded link to a screen that provides additional information about the certificate.

**Sorting options:** Sorting is of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

### **17.1.4. M-RETS Certificate Activity Statistics**

These reports will allow the viewer to create a standard report or customized report on M-RETS activity over a selected monthly or annual time period. There are five types of certificate activities reported over the selected time periods: (1) Certificates issued, (2) Certificates transferred, (3) Certificates retired, (4) Certificates exported to a compatible tracking system or imported from a compatible tracking system; and (5) RRC Subaccount activity. Certificate

activity is provided in five separate standardized reports, represented by five tabs at the top of the screen.<sup>5</sup> Each report lists certificate activities according to the following data fields.

**Data fields for the standardized M-RETS Certificate Activity Reports:**

- Fuel
- Fuel Source
- State/Provincial/Voluntary Program Eligibilities
- Facility Ownership Type
- Nameplate Capacity

**Sorting Options:** Sorting of each report is possible by any of the data fields above (ascending/descending), for a specific time period.

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

**Confidentiality:** To protect confidentiality, reports will not be created where there are 4 or fewer generators included in the report output.

### **17.1.5. RRC Program Report**

This report will summarize the account holding of all WI Electric Providers with RRC Subaccounts for a given year.

**Data fields for RRC Program Report:**

- Company Name
- RRC Subaccount Name
- Total Retail Sales for Selected Year
- Average Sales for previous three years (where M-RETS will compute the average from the annual retails sales provided)
- Sum of Qualified Renewables (includes Wind, Biomass, Solar, New Hydro <60, Fuel Cells, Biogas, including Hydro 2001-2003 average)
- Total RRCs (where M-RETS computes this value)
- Total RRCs Retired
- Total Adjusted RRC Quantity
- RPS Requirement
- Baseline RPS
- This Year's RRC Surplus (where M-RETS computes this value)
- Retired Adjusted RRC as a Percentage of Average Sales

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

## **17.2. Account Holder Reports**

Account Holder reports for a specific account will only be accessible to the account holder, their designated agents, regulators and the M-RETS Administrator. Regulators will have read-only access to all account information in M-RETS. All Account Holder Reports can be accessed from the Account Holder Reports Module.

### **17.2.1. My Subaccounts Certificate Disposition Report**

This report will allow Account Holders to create a custom report on their own subaccount activity over a selected time period. Account holders can access and create these reports at anytime. Standard reports include:

- Subaccount ID
- Subaccount name
- M-RETS ID
- Generating Facility
- Fuel Type
- Certificate Vintage
- Quantity MWh
- Eligibility Flags
- Filters for Subaccount Type (All, Active, Retirement, RRC, Export, Bulletin Board)

### **17.2.2. Generation Report**

This report lists Certificates deposited to account by administrator based on generation data by date

- Month/Year of generation
- Generator ID #
- Generation amount (MWh)
- Subaccount number of deposit
- Subaccount name

### **17.2.3. Event Log**

General log of modifications to an account or generator registration

- Date
- Event Information
- Login Name
- Filters (Account Activity, Generation, Certificate Transfer, Sub Account, Standing Orders, Forward Transfers)

### **17.2.4. Certificate Transfer History Report**

This report is like a bank statement, displaying inter and intra account transfers

- Vintage
- M-RETS ID
- Generator Name
- Fuel Type
- Certificate Serial Numbers



- Login Name
- Quantity
- Date of Transfer
- Transferor
- Transferee
- Action
- Subaccount name
- Transaction ID
- Filters (Inter-Account Transfers, Intra-Account Transfers)

#### **17.2.5. My Recurring Transfers**

This report displays all Forward Transfers and Standing Orders approved to transfer certificates into the account.

- Transfer Name
- Counter Party
- Type
- Vintage Begin Date
- Vintage End Date
- Deposit Sub Account – ID Status
- Rescindable Status
- Filter (Forward Transfers, Standing Orders)

#### **17.2.6. My Account Registration/Generator History Reports**

The Account History and Generator History Reports keep a log of the Registration changes by recording a snapshot and displaying those snapshots by date.

#### **17.2.7. Generating Units By Status**

Displays all generating units registered in with the account by status.

#### **17.2.8. State/Provincial/Voluntary Program Admin Access Selection**

This report can be used by the Account Holder to give the State, Provincial or Voluntary Program Manager view only access to their retirement subaccounts in the Regulator Compliance Report. Each Program Manager Account is listed in this report with a designation flag.

#### **17.2.9. My Generation Activity Log**

The My Generation Activity Log (GAL) records all generation data by status. This report can be used to track the history of data loaded for every asset registered in the account.

#### **17.2.10. Certificates Eligible for RRC Conversion**

Between January 1st and April 13th of each year, this report can be used by Wisconsin Utilities to determine which certificates are eligible for conversion to RRC.

#### **17.2.11. My Generation Activity Report**

The Generation Activity Report tracks all data loaded in the account by Generation Period and Asset ID.

#### **17.2.12. My Invoices**

All invoices billed to the account are displayed in this account.

**17.2.12. RRC Status Report**

This report summarizes the WI Electric Provider's account holding of all with RRC in the account

- Account/Subaccount number
- Account/Subaccount name
- Retail Sales for selected year
- Average Sales for previous three years (where M-RETS will compute the average from the annual retails sales provided)
- Combined total of Wind, Biomass, Solar, New Hydro RRCs <60, Fuel Cells and Biogas
- Total RRCs (where M-RETS computes this value)
- Total RRCs Retired
- RPS Requirement
- Baseline RPS
- This Year's RRC Surplus (where M-RETS computes this value)
- RRC Transfers to other Electric Providers (Sales)
- RRC Transfers from other Electric Providers (Purchases)
- Current RRC Status
- Total RRCs as a percentage of Average Sales (where M-RETS computes this value)

**17.2.13 Retail Sales Report**

Load Serving Entities can use this report to report their Retail Load into their account.

**17.3. Regulator Aggregated Reports****17.3.1. State/Provincial or Voluntary Program Compliance Report**

Program Administrators can run a State/Provincial/Voluntary Program Compliance report to gauge Account Holders' compliance with each State/Provincial/Voluntary Program they are affiliated with, based on certificates deposited in Account Holders' Retirement subaccounts.

To generate this report, the regulator Account Holder uses the State/Provincial/Voluntary Program Administrator Reports module to display the State/Provincial/Voluntary Program Compliance Report screen. The user will specify the report's date range by entering MM/YYYY in the To: and From: fields. To view compliance results for an individual Retirement subaccount, the user will use the drop-down list of open "Retirement Subaccounts" at the top of the screen to select the desired subaccount. (The drop-down list also contains the option "All" to allow the user to view compliance results for all of the Retirement subaccounts to which the user has access, at one time; and also allows the user to screen these results according to Account Holder.) The user can also use the "Retirement Type" drop-down list to further screen results according to type of retirement account.

**Data fields contained in report:**

- Account Holder
- Subaccount
- Subaccount ID
- Retirement Types

- Compliance Period
- State/Province
- Reason
- Additional Details
- M-RETS ID
- Generating Facility
- Fuel Type
- Certificate Type
- Certificate Vintage
- Certificate Serial Numbers
- Quantity
- Duration – Start Date
- Duration – End Date
- State/Provincial/Voluntary Program eligibilities (multiple additional data fields)
- Action Date

The name of each Account Holder has an embedded link to a screen that provides additional information about the Account Holder. Each certificate Quantity has an embedded link to a screen that provides additional information about the certificate.

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

### **17.3.2. Certificate Look-Up Report**

To generate this report, the regulator Account Holder uses the Certificate Look-Up Report module to display the Certificate Look-Up Report screen, which provides a comprehensive listing of all certificates issued by the M-RETS system to which the user has access, sorted according to Account Holder, M-RETS ID number, and Certificate Serial Numbers.

#### **Data fields contained in report:**

- Account Holder
- M-RETS ID
- Generating Facility
- Fuel Type
- Certificate Type
- Certificate Vintage
- Certificate Serial Numbers
- Quantity
- State/Provincial/Voluntary Program eligibilities (multiple additional data fields)
- Status
- Certificate Status Effective Date
- Subaccount Name

The name of each Account Holder has an embedded link to a screen that provides additional information about the Account Holder. Each certificate Quantity has an embedded link to a screen that provides additional information about the certificate.

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

### **17.3.3. M-RETS Generator Program Eligibility Report**

To generate this report, the regulator Account Holder uses the M-RETS Generator Program Eligibility module to display the M-RETS Generator Program Eligibility Report screen, which provides a comprehensive listing of all generating facilities registered with the M-RETS system, sorted according to M-RETS ID number.

**Data fields contained in report:**

- M-RETS ID
- Generating Facility
- WI RRC
- Account Holder
- State/Province (facility location)
- Commenced Operation Date
- Name Plate Capacity
- Fuel Type Description
- Approval Date
- M-RETS Generation Reporting and Unit Type Classification
- State/Provincial/Voluntary Program eligibilities (multiple additional data fields)

Each Generating Facility name has an embedded link to a screen that provides the regulator Account Holder information on whether the facility is eligible under the regulator Account Holder's State/Provincial Program. The name of the facility's Account Holder has an embedded link to a screen that provides additional information about the facility Account Holder.

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

Note: A summary version of this report is provided on the regulator Account Holder's Login screen, in the table "Program Eligibilities."

### **17.3.4. M-RETS Generator Production Report**

To generate this report, the regulator Account Holder uses the M-RETS Generator Production module to display the M-RETS Generator Production report screen. The Account Holder uses the drop-down list labeled "Year" at the top of the screen to obtain monthly and total MWH production data for the desired year, for each of the listed generation facilities.<sup>6</sup>

#### **Data fields contained in report:**

- M-RETS ID
- Facility Name
- January MWH
- February MWH
- March MWH
- April MWH
- May MWH
- June MWH
- July MWH
- August MWH
- September MWH
- October MWH
- November MWH
- December MWH
- Annual MWH

**Sorting options:** Sorting of the report is possible by any of the data fields above (ascending/descending).

In the upper right corner of the screen, the Spyglass icon can be used to filter the report according to any of the categories listed in the report's data field header. The Arrow Down Page icon next to it can be used to download the report into an Excel spreadsheet.

### **17.4. Private Third Party Reporting**

M-RETS will have the capability to send a private report to a third party with the consent of the Account Holder. The Account Holder will notify the M-RETS Administrator that they want a designated report sent to a third party. The Account Holder must specify what fields/data are to appear in the report. M-RETS will create the report and the Account Holder must review its contents and provide an affirmation that the report is complete and correct. The Account Holder will be able to specify the email address of the person /entity to which the report is sent. M-RETS software will provide a final "are you sure" screen in which the Account Holder agrees to the name/contact information to which the report will be sent, as well as to the complete contents of the report. Upon receipt of confirmation from the Account Holder, M-RETS Administrator will send the report.

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Meredith Wingate of the Center for Resource Solutions, with assistance from her colleague, Dan Lieberman, provided a skillful and dedicated service of technical assistance and drafting to the Technical Review Committee.

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### Committee Members

- **Jeff Anthony**, Manager, Renewable Energy Strategy, We-Energies
- **Randy Bauer**, Manager, Asset Strategy, Alliant Energy
- **J.P. Brummond**, Generation Market Manager, Alliant Energy (former Committee participant)
- **Bryan Clow**, Renewable Energy Development, Illinois Department of Commerce and Economic Opportunity
- **Cynthia Fang**, Public Utilities Rates Analyst, MN Department of Commerce
- **Bill Grant**, Midwest Director, Izaak Walton League of America
- **Susan Hedman**, former staffperson, Illinois Department of Commerce and Economic Opportunity (former Committee participant)
- **Paul Helgeson**, Senior Engineer, WI Public Service Commission
- **Kelly Hunter**, Market Access Officer, Export Power Marketing Department, Manitoba Hydro (also representing Province of Manitoba)
- **Pat Keily**, Renewable Energy Program Manager, We-Energies
- **Mark Lambert**, former Member, Iowa Utility Board (former Committee participant)
- **Susan Mackenzie**, Rate Analyst, Minnesota Public Utilities Commission
- **John Pearce**, Utility Specialist, Iowa Utility Board
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- **Adam Sokolski**, Energy Associate, Izaak Walton League of America - Midwest
- **Michelle Swanson**, Manager, Policy Development, Xcel Energy
- **Paul Symens**, former South Dakota State Senator and farmer, SD
- **Michael Vickerman**, Executive Director, RENEW Wisconsin
- **Susan Wefald**, Commissioner, ND Public Service Commission

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- **Brad Crabtree**, Director, Powering the Plains Project, Great Plains Institute
- **Dan Lieberman**, Co-Director Clean Energy Policy Design and Implementation Program, Center for Resource Solutions
- **Eric Schroeder**, Business Manager, Great Plains Institute
- **Meredith Wingate**, Co-Director Clean Energy Policy Design and Implementation Program, Center for Resource Solutions

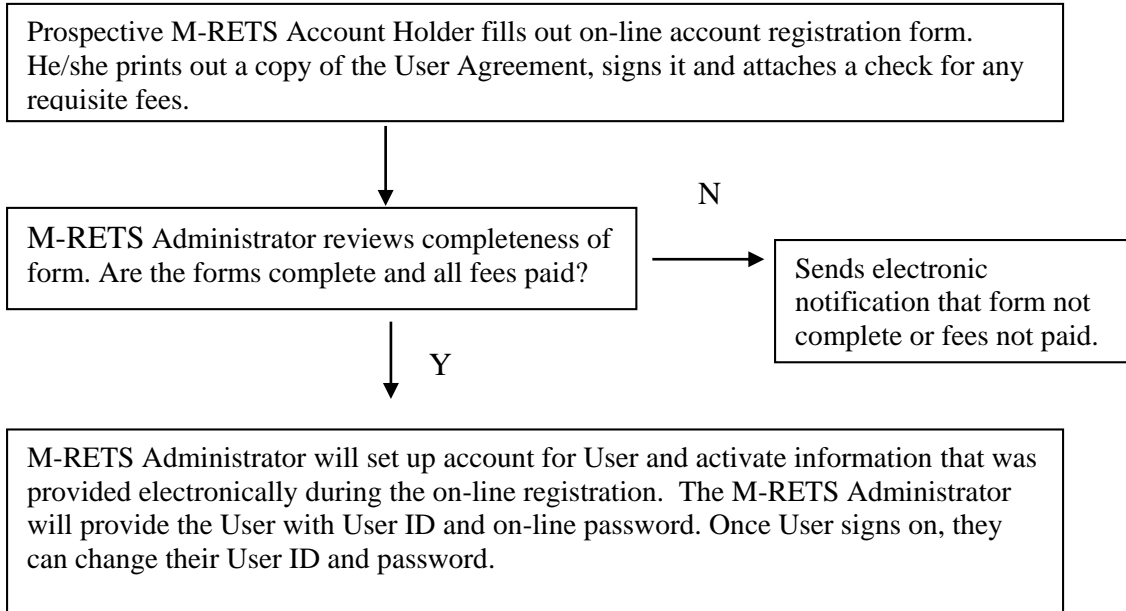
**2010 Operating Procedures Revisions**

The M-RETS Board would like to recognize and thank the members of the Operating Procedures Workgroup who worked to prepare many proposed revisions to the Operating Procedures for consideration by the M-RETS Board in 2010, with special thanks to Deborah Erwin of the Wisconsin Public Service Commission. The members of the Operating Procedures Workgroup worked from the Fall of 2008 through the Fall of 2009 contributing substantial time and effort to provide the M-RETS Board with thoughtful, consensus-based recommendations regarding a multitude of complex provisions and issues. The Workgroup members included:

- **Kari Chilcott Clark**, Xcel Energy
- **Larry Johnston**, Southern Minnesota Municipal Power Agency
- **Kelly Snyder**, ACES Power Marketing (formerly of Great River Energy)
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- **Chela Bordas O'Connor**, Wisconsin Public Service Commission
- **Bryan Gower**, APX, Inc.
- **Devon Walton**, formerly of APX, Inc.

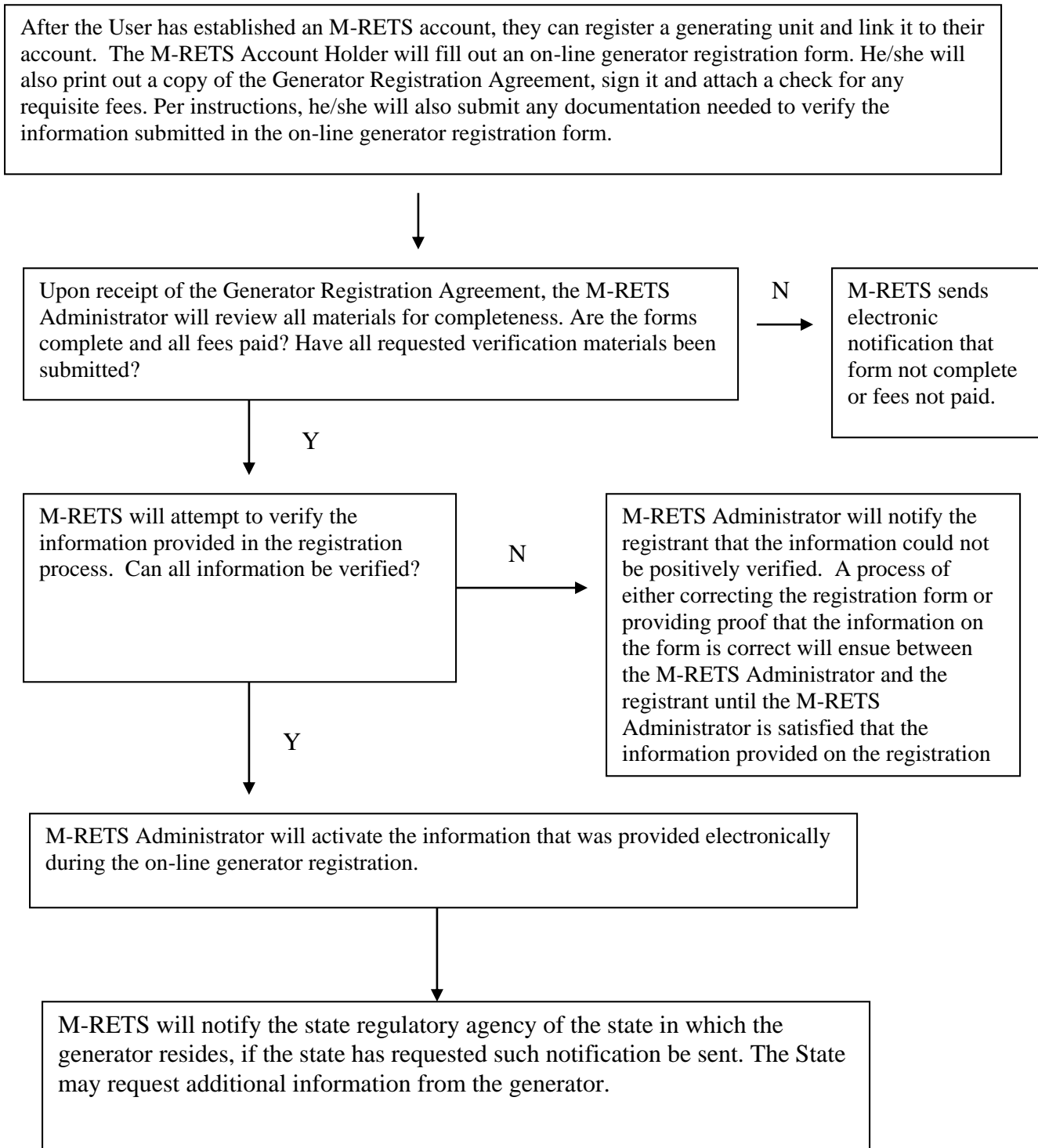
## Appendix A: Account Holder Registration Process and Generator Registration Process

### Account Holder Registration Process





Generator Registration Process



**Appendix B-1: Data Fields**

	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
1	Generator name	y	Mandatory	Attestation		
2	Company phone	n	Mandatory	Attestation		
3	Company street address	n	Mandatory, if different from mailing address	Attestation		
4	Company mailing address	n	Mandatory	Attestation		
5	Company fax	n	Optional	Attestation		
6	Company website/URL	n	Optional	Attestation		
7	Contact person's name and title	n	Mandatory	Attestation		
8	Contact mailing address	n	Mandatory	Attestation		
9	Contact email	n	Either fax or email required.	Attestation		
10	Contact phone	n	Mandatory	Attestation		
11	Generator registration date with WI RRC Program	n	Mandatory for WI RRC participants only	WI PSC	Generator will key in registration date, but field will not be activated until confirmation from WI PSC	
12	Organization type of Account Holder- Pull-down options include: Generator/generation aggregator IOU Retail marketer Broker Tribal organization Municipal Utility Coop Utility Crown Utility Public interest organization Regulator Federal marketer	n		Attestation		

<sup>7</sup> We need to decide which of these fields are mandatory for people to fill in, or optional. They could be mandatory for a particular state or particular program, and optional for everyone else. the thing you need to consider with each field is how it will be verified by the M-RETS administrator and the ease in which it will be verified (ease of verification relating to cost)

	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
	Wholesale marketer Other load-serving entity Other (fill in)					
13	Generator ID number	y	Mandatory	Provided by M-RETS administrator or WI PSC	If the facility is located in WI, system will prompt for a WI ID number. If facility is not located in WI, then M-RETS will assign the number.	make sure that the cost of doing this is no more than if M-RETS issued all numbers
14	Facility Name (Primary name should be EIA name; Provide space to list 2 additional names "AKA")	y	mandatory for generators	EIA Form 860		
15	Primary Facility owner	n	mandatory for generators	EIA Form 860/Attestation	Add a check box for "if not single owner". If the box is checked, then a window should pop open allowing the Account Holder to enter all owners, indicating a primary Account Holder or percent of ownership. There should be an indicator if the facility is owned by an LLC.	
16	Is the facility owner a retail electricity provider in WI? (Y/N)  If no, list retail electric providers with which the facility has wholesale contracts	n	Optional except for WI.	Attestation	Needed for WI.	
17	Facility Operator Company Name	n	mandatory for generators	EIA Form 860/Attestation		
18	Facility Operator: Contact person's name	n		EIA Form 860/Attestation		
19	Facility Operator: Contact mailing address	n		EIA Form 860/Attestation		
20	Facility Operator: Contact email	n		EIA Form		

	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
				860/Attestation		
21	Facility Operator: Contact phone	n		EIA Form 860/Attestation		
22	Physical location of the generator (City/Town, state/province)	y	mandatory for generators	EIA Form 860/Attestation		
23	Latitude/Longitude of the generator	n	optional	Attestation	The lat/long will be optional and will not be disclosed in public reports for national security reasons.	
24	Generator classification Pull down options = (1) Generation reported by a Control Area Operator on a unit-specific basis; (2) Small Wholesale Generation; (3) Wholesale Generation Also Serving On-Site Loads; (4) Customer-Sited Distributed Generation.	n	mandatory for generators	Attestation		These are the options needed for meter data collection (we think) See survey results
25	Does the generator qualify as a Community-based energy development project (C-BED) under MN law?:	y	mandatory for generators	Attestation	Needed for MN	
26	Data Reporting Entity Type: pull-down options include: Control Area Operator/Utility Qualified Reporting Entity Self/Account Holder	y	Mandatory for generators	Attestation	Needed for M-RETS administrator	
27	(drop-down of registered reporting entities)	y	Mandatory for generators	Attestation	Needed for M-RETS administrator	

	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
37	Control area operator for facility (Utility name or ISO name)	n	mandatory for generators	Attestation		Unsure whether this is needed in addition to the next field below, or if these are duplicative
38	Utility to which generating unit is physically interconnected	y	mandatory for generators	Attestation		this field will not tell you who is receiving the power
39	Voltage level at which facility is interconnected	n	mandatory for generators	Attestation	Not sure if it is needed for MN; keep as placeholder	
40	Nameplate installed capacity of Facility - MW (consistent with EIA definition of Maximum Generator Nameplate Capacity; If multiple generating units, aggregate at facility level	y	Mandatory for Generators	EIA Form 860/	EIA definition is: <b>Generator nameplate capacity (installed):</b> The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.	Any other background info needed to verify if 860 form not available  High level of verification needed
41	Are multiple generating units (GUs) aggregated under one meter? (Y/N)  If yes, list capacity of each generating unit:	n	Mandatory for Generators	Attestation		
42	Repowered or additional capacity added? (Y/N) If yes, Amount of additional capacity in	y	Mandatory for Generators	EIA Form 860		High level of verification needed

	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
	MW If yes, Repower Date: (mm/yyyy)					
43	Expected annual capacity factor (percentage) or maximum annual capacity	n	Mandatory for Generators	Attestation	Needed for verification- this would be a guess for some generators, so don't need a more rigorous verification	
44	Technology (pull down options include:) <ul style="list-style-type: none"> <li>• Wind</li> <li>• Solar PV</li> <li>• Hydropower</li> <li>• biomass (specify method of combustion (pull down options include:))                             <ul style="list-style-type: none"> <li>○ Direct combustion,</li> <li>○ Gasification,</li> <li>○ Liquifaction</li> <li>○ Other, please specify</li> </ul> </li> <li>• Hydrogen (specify technology used)</li> <li>• Geothermal</li> <li>• Tidal or wave power</li> <li>• Other</li> <li>• (Need ability to add options here)</li> </ul>	y	Mandatory for Generators	EIA Form 860/Attestation		High level of verification needed
45	Fuel Type (pull down options include:) <p>For Biomass:</p> <p>Agricultural products—please specify, Wood products—please specify, Agricultural by-products, including wastes—please specify, Landfill gas, Mixed-municipal solid waste, Refuse-derived fuel. Other, please specify</p> <p>For Hydrogen:</p> <ul style="list-style-type: none"> <li>• Wind</li> </ul>	y		EIA Form 860/Attestation	Collect this data average heat rate for the facility through verification but this data field will not be tracked on each Certificate.	High level of verification needed

	<b>Static Data Fields</b>	<b>Data Field on Certificate?</b>	<b>Mandatory /Optional Field<sup>7</sup></b>	<b>Method of verification</b>	<b>Decisions/Rules</b>	<b>Outstanding Questions/Comments</b>
	<ul style="list-style-type: none"> <li>• Solar PV</li> <li>• Hydropower</li> <li>• biomass (specify method of combustion and fuel type:)                             <ul style="list-style-type: none"> <li>Method of Combustion                                     <ul style="list-style-type: none"> <li>○ Direct combustion,</li> <li>○ Gasification,</li> <li>○ Liquifaction</li> <li>○ Other, please specify</li> </ul> </li> <li>Fuel Type                                     <ul style="list-style-type: none"> <li>○ Agricultural products—please specify,</li> <li>○ Wood products—please specify,</li> <li>○ Agricultural by-products, including wastes—please specify,</li> <li>○ Landfill gas,</li> <li>○ Mixed-municipal solid waste,</li> <li>○ Refuse-derived fuel.</li> <li>○ Other, please specify</li> </ul> </li> </ul> </li> <li>• Geothermal</li> <li>• Tidal or wave power</li> <li>• Coal</li> <li>• Nuclear</li> <li>• Natural gas</li> <li>• Other</li> </ul> <p>Multi fuel generator (Y/N)                              If yes, designate the percentage of each fuel used at the facility allocated on an output basis:</p> <ul style="list-style-type: none"> <li>• Wind</li> <li>• Solar PV</li> <li>• Hydropower</li> </ul>					

	<b>Static Data Fields</b>	<b>Data Field on Certificate?</b>	<b>Mandatory /Optional Field<sup>7</sup></b>	<b>Method of verification</b>	<b>Decisions/Rules</b>	<b>Outstanding Questions/Comments</b>
	<ul style="list-style-type: none"> <li>• biomass (specify method of combustion and fuel)                             <ul style="list-style-type: none"> <li>Method of Combustion                                     <ul style="list-style-type: none"> <li>○ Direct combustion,</li> <li>○ Gasification,</li> <li>○ Liquifaction</li> <li>○ Other, please specify</li> </ul> </li> <li>Fuel Type                                     <ul style="list-style-type: none"> <li>○ Agricultural products—please specify,</li> <li>○ Wood products—please specify,</li> <li>○ Agricultural by-products, including wastes—please specify,</li> <li>○ Landfill gas,</li> <li>○ Mixed-municipal solid waste,</li> <li>○ Refuse-derived fuel.</li> <li>○ Other, please specify</li> </ul> </li> </ul> </li> <li>• Hydrogen (specify source from list below)                             <ul style="list-style-type: none"> <li>○ Wind</li> <li>○ Solar PV</li> <li>○ Hydropower</li> <li>○ Geothermal</li> <li>○ Tidal or wave power</li> <li>○ Coal</li> <li>○ Natural gas</li> <li>○ Nuclear</li> <li>○ Other</li> <li>○ Biomass (specify method of combustion and fuel type:)                                     <ul style="list-style-type: none"> <li>Method of Combustion   <ul style="list-style-type: none"> <li>○ Direct combustion,</li> <li>○ Gasification,</li> <li>○ Liquifaction</li> </ul> </li> </ul> </li> </ul> </li> </ul>					



	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
	<ul style="list-style-type: none"> <li>○ Other, please specify</li> <li>Fuel Type</li> <li>○ Agricultural products—please specify,</li> <li>○ Wood products—please specify,</li> <li>○ Agricultural by-products, including wastes—please specify,</li> <li>○ Landfill gas,</li> <li>○ Mixed-municipal solid waste,</li> <li>○ Refuse-derived fuel.</li> <li>Other, please specify</li> </ul>					
46	For Biomass: Average heat rate of facility per kWh of net generation (BTU/kWh)	n	Mandatory for Generators	?		High level of verification needed b/c this might be basis for which Certificates are issued
47	For Biomass: Emission Control Technology (pull down options include) <ul style="list-style-type: none"> <li>• constructed in compliance with new source performance standards promulgated under the federal Clean Air Act for a generation facility of that type,</li> <li>• employs the maximum achievable or best available control technology available for a generation facility of that type,</li> <li>• neither.</li> </ul>	y	Mandatory for Generators	?	Needed for MN	High level of verification needed Operating permit might be used for verification
48	Meter manufacturer	n	Mandatory for	Attestation	Used for verification purposes	

	Static Data Fields	Data Field on Certificate?	Mandatory /Optional Field <sup>7</sup>	Method of verification	Decisions/Rules	Outstanding Questions/Comments
			Generators		by WI	
49	Meter type	n	Mandatory for Generators	Attestation	used for verification purposes by WI	
50	Meter serial number	n	Mandatory for Generators	Attestation	used for verification purposes by WI	
51	Date of last meter certification	n	optional	Evidence of last meter certification	used for verification purposes by WI	
52	Is the facility certified by an independent body? Pull down options: Green-e eligible Ecologo certified Low Impact Hydro certified Muni COTI certification WI PSC certified eligible for RPS (Others can be added as they develop)	y	<b>Optional</b>	Furnished by certification entity	Field is not activated until confirmation by certification body; burden on generator to get the certifier to furnish proof	
53	WI PSC RPS Certification Number	y	Mandatory for WI Certified GUs	Attestation	May be confirmed by WI PSC	
54	WI PSC Provider Status	n	Mandatory for WI Electric Providers	Attestation	May be confirmed by WI PSC	
55	Annual retail sales (MWhs)	n	Mandatory for WI Electric Providers	Attestation	May be confirmed by WI PSC	
56	Annual MWhs delivered at retail	n	Mandatory for WI Electric Providers	Attestation	May be confirmed by WI PSC	
57	Does the facility meet the WI PSC definition for "excludable hydro?"	y	Mandatory for WI Certified GUs	Attestation	May be confirmed by WI PSC	
	<b>Dynamic Data Fields</b>					
58	Certificate serial number	y	n/a	Filled in by M-RETS Admin		
59	Date of generation (mm/yyyy)	y	n/a	Filled in by	for accumulated Certificates	

	<b>Static Data Fields</b>	<b>Data Field on Certificate?</b>	<b>Mandatory /Optional Field<sup>7</sup></b>	<b>Method of verification</b>	<b>Decisions/Rules</b>	<b>Outstanding Questions/Comments</b>
				M-RETS Administrat or	will be the last month in which the MWH was completed	

In addition, there will be 30 blank placeholder fields for future use.

## **Appendix B-2: Essential Generation Characteristics**

### **Introduction**

Section 3.3 describes the Generator Registration process. As a general rule, registration in M-RETS requires each generating unit to register separately. However, multiple generating units may be registered together as a single Generator if the generating units qualify for one of the forms of aggregation outlined in Section 3.3. Aggregation in M-RETS is only allowed if all generating units have the same “essential generation characteristics.” “Essential generation characteristics,” for the purposes of M-RETS aggregation, refer to any characteristic that affects the Certificate’s eligibility for any state, provincial or other certification program. These programs, in part, determine value in the marketplace and are relevant to how each generating unit creates M-RETS Certificates. Aggregation is intended to facilitate ease of registration, and is not intended to have a detrimental effect on the eligibility of an M-RETS Certificate for any state, provincial or other program. M-RETS is not responsible for ensuring eligibility of aggregated Certificates for any particular program.

### **Distributed Generation Aggregation**

To facilitate the use of M-RETS by small distributed generation units, generating units that meet the requirements for Distributed Generation Aggregation set forth in Section 3.3 may register as a single Generator so long as each generating unit shares the same fuel type, fuel source and generation technology.

### **Multiple Units on a Single Meter**

Where generating units are metered together at a single physical location, these generating units may be registered together only if they share the same essential generation characteristics. A partial list of essential generation characteristics is provided below. Generating units on a single meter that do not share those essential generation characteristics identified with an asterisk (\*) below may be allowed to register together on a case by case basis after providing additional documentation to the M-RETS Administrator.

### **Fuel Type**

Fuel type is an essential generation characteristic. See Appendix B-3 for procedures regarding Multi-Fuel generating units.

### **Additional Essential Generation Characteristics, Organized by Fuel Type:**

#### **Wind**

Fuel type  
Date of first operation  
Repowered indicator\*  
Repowered date\*

#### **Hydro**

Fuel type  
Generation technology\*  
Date of first operation  
Repowered indicator\*  
Repowered date\*

**Solar**

Fuel type  
Generation technology\*  
Date of first operation;  
Repowered indicator\*  
Repowered date\*

**Biogas (including liquid biofuels; see fuel source)**

Fuel type  
Fuel source  
Generation technology\*  
Date of first operation  
Repowered indicator\*  
Repowered date\*  
Emissions profile (if provided)  
Generation technology\*  
Multi-fuel indicator (if applicable)

**Biomass**

Fuel type  
Date of first operation;  
Repowered indicator\*  
Repowered date\*  
Emissions profile (if provided)  
Generation technology\*  
Multi-fuel indicator (if applicable)

**Geothermal**

Fuel type  
Fuel source  
Date of first operation  
Repowered indicator\*  
Repowered date\*

**Hydrogen**

Fuel type  
Date of first operation  
Repowered indicator\*  
Repowered date\*

**Municipal Solid Waste**

Fuel type  
Fuel source  
Date of first operation  
Repowered indicator\*  
Repowered date\*  
Generation technology\*  
Multi-fuel indicator (if applicable)

**Tidal or Wave**

Fuel type  
Date of first operation  
Repowered indicator\*  
Repowered date\*

**Natural Gas**

Fuel type  
Generation technology  
Multi-fuel indicator

**Coal**

Fuel type  
Generation technology  
Multi-fuel indicator

**Diesel**

Fuel type  
Generation technology  
Multi-fuel indicator

**Jet Fuel**

Fuel type  
Generation technology  
Multi-fuel indicator

### **Appendix B-3: Documentation Requirements for Multi-Fuel Generation Units**

Upon registration with M-RETS as a Multi-fuel Generation Unit, each such Multi-Fuel Generation Unit's Account Holder must submit to the M-RETS Administrator a report prepared by a licensed Professional Engineer containing documentation of a methodology for calculating the electricity production associated with each fuel used during a month, consistent with the applicable requirements of Section 7.10.1. Following the M-RETS Administrator's review and acceptance of such a report's methodology, the Multi-Fuel Generation Unit's Account Holder may seek creation of M-RETS Certificates subject to the provisions of Section 7.10. This requirement will be waived for facilities that provide documentation supporting renewable output calculations to a state, provincial or other regulatory authority upon verification by the regulatory authority that such documentation has been provided.

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

1. Quantities of each fuel type must be measurable and verified by documentation provided for verification or approval at least annually to a state, provincial or other regulatory authority, if available. If such documentation is not available, verifiable documentation of fuel quantities consumed during each month may be considered, such as financial records of fuel supply deliveries coupled with plant reports documenting mass of each fuel consumed in each calendar month.
2. Documentation of net heat content for each fuel source must be supported by documentation of heat content measurement consistent with American Society for Testing and Materials (ASTM) standards and the frequency of heat content testing certified by a laboratory following ASTM standards procedures or a licensed professional engineer. Heat content and moisture content (for non-liquid fuels) for each fuel source in a Multi-fuel Generating Unit must be tested on a monthly basis, except for a generator that meets any of the following:
  - a. A Multi-fuel Generating Unit producing less than 1500 MWh per year of electricity from a renewable fuel source, including a Multi-Fuel Generating Unit registered using Distributed Generation Aggregation. Documentation of the grounds for estimated renewable electricity to be produced must be provided to the M-RETS Administrator.
  - b. A Multi-fuel Generating Unit using liquid fuels where the fuel arrives as blended. Documentation of fuel blend and assumed heat content must be provided to and approved by the M-RETS Administrator. Heat content assumed must be consistent with industry standards as verified by the M-RETS Administrator.
3. If specification of a heat rate is required according to provisions of Section 7.10.1, the heat rate must be determined according to testing certified by a laboratory following ASTM standards procedures or by an independent third party, consistent with American Society for Testing and Materials standards. If different heat rates apply for different fuels, the determination for each applicable heat rate must meet the requirements of this paragraph.

## Appendix B-4: 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 the M-RETS Administrator	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:**

<b>Fuel Type</b>	<b>Fuel Source</b>
Biogas	Biogas
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
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
WHR	Energy produced by a generation 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.
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)

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

#### PROCESS

1) CTS Account Holder selects a batch of certificates and initiates an export transfer in a CTS. As part of the export process the CTS Account Holder is asked to select from a drop-down menu which registry the certificates should be transferred to what account holder.

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

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

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

5) If the transfer is approved, the M-RETS Administrator will allow the applicable certificates to be issued and delivered to the designated M-RETS Account Holder. 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 Credits (IRECs) for generation which meets the following requirements:

1. 2 renewable energy credits 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 Account Holder selects to export 50 RECs with a MWh-to-REC ratio of 0.5. In this case 50 RECs will be retired and 25 MWh will be processed for import into M-RETS. The table below shows the process for a variety of different ratios:

Scenario	MWh of Generation	MIRECS RECs Issued	MIRECS IRECs issued	MWh-to-RECs ratio	RECs/IRECs selected for export from MIRECS	Import RECs issued in 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 credits 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 credits 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 Credits 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 credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributable to the generation from the generation unit(s).”

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

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

## **Appendix C-3: North American Renewable Registry System Imports**

There are no significant differences between the M-RETS and NAR definition of a REC. As result RECs may be imported from NAR by following the process outlined in Appendix C.

## Appendix D: Glossary

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

**Active Certificates:** An active M-RETS Certificate is a Certificate that is held in an M-RETS Active Subaccount. Such Certificates may be traded, transferred, exported, retired etc. at the discretion of the holder of the Active Subaccount or his/her Agent.

**Active Subaccount:** See Subaccount

**Agent:** Any party other than the Account Holder that has been granted access (by the Account Holder) to “use” their account, which may include viewing information, performing transactions, changing personal information etc. The Account Holder may at any time revoke the permissions granted to an Agent by notifying the M-RETS Administrator. The M-RETS System will be able to track the specific activities of each Agent through the unique user ID and password. Also know as a User.

**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 of the attributes from one MWh of electricity generation from a renewable generating unit registered with the M-RETS tracking system or a Certificate imported from a Compatible Tracking System (CTS) and converted to an M-RETS Certificate. The M-RETS system 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 the M-RETS system. 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 the M-RETS Administrator. After such designation is made, the M-RETS Administrator will issue a corresponding M-RETS Certificate that can be used within the M-RETS system.

**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).

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

**Date of First Operation:** The month and year a generation unit first began commercial operation or for non-commercial facilities, the date approved by the licensing or permitting agency. For repowered or refurbished generation 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. The M-RETS Administrator may refine the definition of Date of First Operation for small non-commercial generation units in the future.

**Directory of Account Holders:** The Directory of Account Holders is a listing of all Account Holders registered with M-RETS. This directory includes limited information for contacting the Account Holder.

**Directory of Registered Generating Units:** This is a listing of all registered generating units within the M-RETS system grouped by facility.

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

**Dynamic Data:** Dynamic data is variable information that is associated with a specific MWh from a registered generating unit, such as Certificate serial number or date of generation. See Appendix B-1 for a list of dynamic data fields.

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

**Facility/Generating Facility:** See Generator.

**Forward Certificate Transfer:** Normally, the first point of deposit for M-RETS Certificates is the account to which a generating unit is registered. With a Forward Certificate Transfer, the Account Holder to which the generating unit is registered requests that the Certificates be directly deposited into another M-RETS account when the Certificates are created. As a result, the first point of deposit for Certificates subject to a Forward Certificate Transfer is that other specified account. After this initial deposit, Certificates subject to Forward Certificate Transfers shall be treated like any other Certificate for all purposes.

**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.

**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.

**Generating Unit:** A piece of equipment or machinery that is capable of generating electricity.

**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.

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

**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 generation 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 Agent:** See Agent.

**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 the M-RETS Administrator 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.

**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.

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

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

**M-RETS Certificates:** See Certificate.

**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 at a later date 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.

**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 the M-RETS Administrator 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 the M-RETS Administrator.

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

**Renewable Resource Credit (RRC):** A "Renewable Resource Credit" means a credit in the State of Wisconsin, calculated in accordance with rules promulgated subject to Wis. Stat. § 196.378(3)(a).

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

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

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

**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.

**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.

**Retirement Subaccount:** See Subaccount

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

**Revenue 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. Manual meter reads must be performed by a Qualified Reporting Entity.

For customer-sited generators or generators that do not go through a control area settlements process, a revenue-quality meter is one that meets the applicable ANSI C-12 standard or applicable state standards.

**Revenue-Quality Meter Output:** The energy delivered into the transmission grid at the high side of the transformer. The data must be electronically collected by a meter data acquisition system, such as a MV-90 system, or pulse accumulator readings collected by the control area's energy management system, and verified through a control area checkout/energy accounting or settlements process that occurs at the end of each month. Metering standards for generation units not reported by control areas are further described in Section 7.2.

**RRC Subaccount:** See Subaccount

**Self-Reporting Generator:** A Customer-Sited Distributed Generation installation with a nameplate capacity of less than or equal to 150 kW that elect to have dynamic data transmitted to the M-RETS Administrator via the Self-Reporting Interface pursuant to Section 7.8.

**Self-Reporting Interface:** A standard Internet-based data entry portal which serves as the method for a Self-Reporting Generator to communicate dynamic data to the M-RETS Administrator pursuant to Section 7.8. The protocol for entering data via Self-Reporting Interface will be documented in the Interface Control Document for Self-Reporting Generators.

**Standing Orders:** A reoccurring, automatic transfer of M-RETS Certificates from an Account Holder's Active Subaccount to one of their other Subaccounts, or to an Active Subaccount held by a different Account Holder.

**Static Data:** Static data describes the attributes of the generating unit. Static information generally includes information related to the characteristics of the generation facility such as technology type, ownership or location. See Appendix B-1 for a list of M-RETS Static Data Fields.

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

**Subaccount :** M-RETS provides several different subaccounts for holding and retiring M-RETS Certificates; ;

**Active Subaccount:** The Active Subaccount is the holding place for all active M-RETS Certificates. If the Account Holder is a registered generator, or is the designated representative of a registered generator, their Active Subaccount will be the first point of deposit for any M-RETS Certificates created that are associated with the generating unit ID number, unless the Certificate is subject to a Forward Certificate Transfer. An Active Subaccount may be associated with one or more generating units.

**Retirement Subaccount:** A Retirement Subaccount is used as a repository for M-RETS Certificates that the Account Holder 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.

**RRC Subaccount:** An RRC Subaccount is a holding place for M-RETS Certificates that have been converted to a Wisconsin Renewable Resource Credit under Wis. Stat. § 196.378(3)(a)

An RRC Subaccount may only be established by a Wisconsin electric provider or on behalf of a Wisconsin electric provider. At the end of each calendar year, RRCs may be created for Wisconsin Electric Providers based on information submitted by such providers. If RRCs are created, they will be deposited into the Account Holder's RRC Subaccount (see Section 10.6 for RRC creation). RRCs may be created in accordance with Wisconsin Statutes § 196.378 and Wisconsin Administrative Code Chapter PSC 118.

**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. The vintage of an RRC is based on the year in which the electric generation occurred, and not the year in which the RRC was created or converted.

**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 credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributable to the generation from the generation unit(s). Renewable attributes do not include greenhouse gas avoidance credits 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. The M-RETS Administrator 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 revenue 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 a RRC Account will be provided to the M-RETS Administrator by the Wisconsin Public Service Commission.

## Appendix E: State and Provincial Definitions of Renewable Energy

*Last Updated July 2, 2007, except where noted.*

### **Illinois**

"Renewable energy resources" include energy from wind, solar thermal energy, photovoltaic cells and panels, dedicated crop grown for energy production and organic waste biomass, hydropower that does not involve new construction or significant expansion of hydropower dams, and other such alternative sources of environmentally preferable energy. "Renewable energy resources" does not include energy from the incineration, burning or heating of waste wood, tires, garbage, general household, institutional and commercial waste, industrial lunchroom or office waste, landscape waste, or construction or demolition debris.

Source: The Renewable Energy, Energy Efficiency, and Coal Resources Development Law (20 ILCS 687,) passed in December of 1997.

### **Iowa**

The Iowa Code defines renewable energy as energy produced by either an "alternate energy production facility" or "small hydro facility." Specifically, Iowa Code 476.42(1) defines "alternate energy production facility" as: "a solar, wind turbine, waste management, resource recovery, refuse-derived fuel, agricultural crops or residues, or woodburning facility." Iowa Code 476.42(4) defines "small hydro facility" as: "a hydroelectric facility at a dam." In practice, Iowa "small hydro facilities" have been less than 4 MW in size.

Source: Iowa Code 476.42(1) and Iowa Code 476.42(4)

### **Manitoba**

Definition under development.

### **Minnesota** (*updated April 23, 2010*)

The following energy sources are defined as renewable energy sources under Minnesota statutes and proceedings, as of March 31, 2010.<sup>8</sup> Since this definition encompasses the definition of renewable energy under multiple Minnesota statutes and proceedings, it is broader than the definition under any specific Minnesota statute and therefore does not define eligibility under any particular Minnesota program.

Renewable energy sources in Minnesota are:

1. wind,
2. solar,
3. hydroelectric facilities (with a capacity of less than 100 MW),
4. hydrogen, if generated from resources included in M.S. 216B.1691, subd.1.,
5. biomass, and
6. geothermal.

The following biomass fuels are defined as renewable:

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<sup>8</sup> Minn. Stat. §§ 216B.1691, 216B.2422, subd. 1 (c); 216C.051, subd. 7 (g) (1); 216B.2411, subd. 2 (c); and 216B.2424, subds. 1 and 6 (f), and Minnesota Public Utilities Commission proceedings under Docket No. E-999/CI-03-869 and E-999/CI-04-1616.

- Primary woody or herbaceous vegetative matter (plants), including but not limited to wood, grasses, agricultural crops or residues;
- Processed plant materials from industry waste sources, including manufacturing, construction, or demolition;
- Methane or other combustible gases derived from the processing or decay of plant, animal, or municipal solid waste materials;
- Liquid fuels derived from plant or animal sources, including but not limited to ethanol, biodiesel, vegetable oil, or animal fats;
- Mixed municipal solid waste (MSW) and refuse-derived fuel from MSW; and
- Organic compounds of wastewater effluent, sludge, or related byproducts from publicly owned treatment works, but not including incineration of wastewater sludge to produce electricity.

Source: Minn. Stat. §§ 216B.1691, 216B.2422, subd. 1 (c); 216C.051, subd. 7 (g) (1); 216B.2411, subd. 2 (c); and 216B.2424, subds. 1 and 6 (f), and Minnesota Public Utilities Commission proceedings under Docket No. E999/CI-03-869.

Please refer to the most recently codified versions of relevant statutes and Commission Orders.

#### **North Dakota** (updated April 23, 2010)

Renewable electricity and recycled energy include electricity generated from facilities using the following sources:

1. Solar, using the sun as the source of energy for producing electricity.
2. Wind, using the wind as the source of energy for producing electricity.
3. Hydroelectric, using water as the source of energy for producing electricity.
4. Biomass, using agricultural crops and agricultural wastes and residues, wood and wood wastes and residues, animal wastes, and landfill gas as the fuel to produce electricity.
5. Geothermal, using energy contained in heat that continuously flows outward from the earth as the source of energy to produce electricity.
6. Hydrogen, provided that the hydrogen is generated from a source listed in this section.
7. Recycled energy systems producing electricity from currently unused waste heat resulting from combustion or other processes into electricity and which do not use an additional combustion process. The term does not include any system whose primary purpose is the generation of electricity unless the generation system consumes wellhead gas that would otherwise be flared, vented, or wasted.

Source: North Dakota Century Code section 49-02-25.

#### **South Dakota** (updated June 17, 2014)

For the purposes of §§ 49-34A-94 to 49-34A-96, inclusive, renewable electricity and recycled energy include electricity generated from facilities using one or more of the following sources:

- (1) Wind that uses wind as the source of energy to produce electricity;
- (2) Solar that uses the sun as the source of energy to produce electricity;
- (3) Hydroelectric that uses water as the source of energy to produce electricity;
- (4) Hydrogen that is generated from one of the sources listed in this section;
- (5) Biomass that uses agricultural crops and agricultural wastes and residues, wood and wood wastes and residues, animal and other degradable organic wastes, municipal solid waste, or landfill gas as the fuel to produce electricity;

- (6) Geothermal that uses energy contained in heat that continuously flows outward from the earth as the source of energy to produce electricity; and
- (7) Recycled energy systems that produce electricity from currently unused waste heat resulting from combustion or other processes and which do not use an additional combustion process. The term does not include any system whose primary purpose is the generation of electricity.

Source: SL 2006, ch 241, § 1; SL 2007, ch 271, § 1; SL 2008, ch 243, § 1.

**Wisconsin** (*updated April 23, 2010*)

(h)Renewable resource" means any of the following:

- 1. A resource that derives electricity from any of the following:
  - a. A fuel cell that uses a renewable fuel.
  - b. Tidal or wave action.
  - c. Solar thermal electric or PV.
  - d. Wind power.
  - e. Geothermal technology.
  - f. Biomass.
  - 1m.Hydro with a capacity of less than 60 MW
- 2. Any other resource, except a conventional resource, that the Commission designates as a renewable resource.

Source: Wis. Stat. §196.378(1)(h) (2005)

**Appendix F: List of Forms & Agreements with References**

<u>Name</u>	<u>Reference</u>
Change Control Form	www.m-rets.com
Consent to Assignment	Terms of Use – Section 17
Consent of Non-Transacting State Regulator	Schedule B-2 TOU
Consent of Subscriber	Schedule B-1 TOU
Declaration of Agency – Level 1 Access	Schedule C-1 TOU
Declaration of Agency – Level 2, Level 3 or Level 4 Access	Schedule C-2 TOU
Generator Registration Agreement	Section 3.3, Schedule A TOU
Generating Unit Termination Form	Section 3.3.5
Generating Unit Transfer Form	Section 3.3.6
Interface Control Document	Section 8
Midwest ISO Release Form	www.m-rets.com
M-RETS Subscriber Billing Information Form	Schedule D TOU
Reporting Entity Terms of Use	Section 8