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1 Introduction

This document identifies the requirements that must be met in order to be considered a Qualified Reporting Entity in the Midwest Renewable Energy Tracking System (M-RETS). It also contains the protocol for reporting generation data to M- RETS for the purposes of creating Renewable Energy Certificates. M-RETS operating documents can be found at http://www.mrets.org. Any capitalized terms contained herein that are not otherwise defined herein have the meanings as such terms are defined in the M-RETS Operating Procedures. If any terms of this document conflict with the M-RETS Operating Procedures, the terms of the M-RETS Operating Procedures shall control.

2 Guidelines

As a Qualified Reporting Entity (QRE), the reporting party will adhere to the following guidelines:

1. A Qualified Reporting Entity is defined in Appendix D of the M-RETS Operating Procedures as 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.
2. A QRE shall create a QRE account in the M-RETS. The M-RETS Administrator will validate the submitted registration information.
3. Data will be reported to M-RETS using a CSV format described in this document. Reported data shall be inherently reliable and fully auditable. M-RETS reserves the right to audit the MWh data totals.
4. 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 QRE.
5. A QRE may report data for aggregated small generators that share the same Essential Generation Characteristics. Refer to Section 3.3 and Appendix B-2 in the *M-RETS Operating Procedures* for Aggregation Requirements and a list of Essential Generation Characteristics.

3 File Description

3.1 Reporting Entity File Description

The data shall be in ASCII Text with data fields delimited by commas (Comma-Separated Value (CSV) format). The Generation file has the following general structure:

<column1Name>,<column2Name>,…
<column1Value>,<column2Value>,…

If the Column Name(s) and Value(s) do not conform with the above specification, the application will indicate a fatal error and the file will not be loaded.

Table 1-1 Generating Data File Content Structural Elements

<columnXName>	a human-readable label for the X'th column of CSV data
<fieldXValue>	a value for the X'th column of CSV data. There can be any number of data rows in a file. Data types are not quoted.

The following example shows a conforming input file.

ReportingEntityID,ReportingEntityID,MM/YYYY,MM/DD/YYYY,MM/DD/YYYY,TotalMWh Unit1,Unit1,10/2006,10/01/2006,10/31/2006,125

Null Values

If null is valid as a field value for a given field, the data may be optionally omitted in the file. For example, the following line indicates the last field is null.

32000,,125

Null is not a valid value for any current field elements.

4 Field Definitions

4.1 Generation Extract for M-RETS Generating Units

The generation extract provides total generation by unit for a given month. The QRE will use its login and password to access M-RETS and upload the file to the M-RETS portal. The fields are as described in the following table.

Table 2-1 Generating Units file format

Field Name	Data Type	Description
REPORTINGENTITY ID	Character	Unique identifier for the unit assigned by its Control Area or Reporting Entity. If MISO is the QRE, the CPNODE shall be used
REPORTINGENTITY ID	Character	Unique identifier for the unit assigned by its Control Area or Reporting Entity. If MISO is the QRE, the CPNODE shall be used
VINTAGE	Character (7)	Month and year of generation, formatted at MM/YYYY for any month in the current Reporting Period.
BEGINDATE	Character (10)	Begin month-day-year of generation output period formatted as MM/DD/YYYY
ENDDATE	Character (10)	End month-day-year of generation output period formatted as MM/DD/YYYY
TOTALMWh	Number	Total MWhs for the Reporting Month

5 File Loading

All files will be loaded into M-RETS using a valid active M-RETS Login and password that is associated with an active Qualified Reporting Entity Account type.

5.1 Loading Generation Extract File for M-RETS Generating Units

Only Account Holders of type "Qualified Reporting Entity" or "M-RETS Administrator" have the ability to load the Generating Extract File.

After logging into their M-RETS Account, this account holder should locate the Meter Data Loading module. To locate the desired generation output file, the reporting entity selects the Meter Data Loading module's "Browse" button to display a pop-up screen where the user can locate the desired file on computer or network drives.
After selecting a file, the user selects the "Upload Now" button to upload the file.

A current period output file can be loaded as many times as needed within the 69 day window for that period's certificate creation adhering to the four rules as listed below:

Data Reloading Rule	Description
Rule 1, reloading data when the existing data is already "Account Holder Accepted"	After an Account Holder has explicitly accepted the posted output data, if a file of the same, or different, data is reloaded, M-RETS will reject the data and notify the reporting entity that data for this unit has already been accepted. The status of the existing data will not change. To override this rule, see rule 4 below.
Rule 2, reloading data when the existing data is "M-RETS Accepted" or "Account Holder Disputed"	Reloading the data file will overwrite any data that was previously loaded for that unit and set the new data status to "M-RETS Accepted".
Rule 3, reloading data when the existing data is "M-RETS Administrator Accepted", "M-RETS Administrator Disputed", or "M-RETS Admin Adjusted"	If a file of the same, or different, data is reloaded, M-RETS will reject the data and notify the reporting entity that this unit's data is either "M-RETS Admin Accepted", "M-RETS Admin Disputed", or "M-RETS Admin Adjusted" and therefore cannot be accepted. The status of the currently posted data will not change. To override this rule, see rule 4 below.
Rule 4, data file reloaded by the M-RETS Administrator	The reloaded data will overwrite all previously loaded data for this unit regardless of its current status

Before posting the output to the M-RETS database, the system validates the uploaded data. When all validations are successfully completed, the data is loaded into the database and written to the Generation Activity Log. The system notifies the Account Holder via email that

- Generation output data has been loaded for specific generating units in the account
- Data is available to be reviewed for accuracy, then approved or disputed.

Description: Before generation output data is posted to any M-RETS databases, the system performs the following validations:

Validation Type	**Description**	**Failure Result**
Reporting Entity validation	Is the reporting entity designated to report output data for the generating unit, as classified by the Account Holder in the generating unit's registration information?	System rejects data, sends reporting entity an error message that they are not designated to report on this generating unit, and creates an Exception Report for M-RETS Administrator review.
Engineering Feasibility Assessment	As described on the next page, feasibility is determined using a formula that includes the amount of generation reported (MWh), the duration (begin/end), the nameplate capacity, and the capacity factor.	Soft-warning to the reporting entity that the MWh have failed the Engineering Feasibility for the generating unit. The reporting entity is allowed to continue posting the data, but it will remain in a pending state. Both the M-RETS Administrator and the Account Holder will be notified of the failed feasibility estimate. Before the data can become eligible for Certificate Issuance, the M- RETS Administrator will require the Account Holder or QRE to submit the hourly metering readings or settlement system reports as available.
Begin/End Duration overlap/gap check	For the duration of generation (Begin MM/DD/YYYY and End MM/DD/YYYY), are there gaps or overlaps from the data reported for the previous reporting period?	System rejects the data and sends an error message to the reporting entity that the duration reported for this unit has either gaps or overlaps from data reported for a previous reporting period. Either error message will be specific to the problem – one message for a gap, and another for an overlap.
Multiple Units aggregated to this meter flag – Y/N	Does the unit being reported on share its meter with multiple units? If No, proceed with other validations. If Yes, see description to the right.	M-RETS will write the data to the database for the Primary Generating Unit. At Certificate Creation, and assuming the data is not disputed, M- RETS will divide the amount of reported generation by the number of units sharing the meter (or allocated by percentage specified by the Account Holder) and then process the data individually for each unit.

Current Status of any previously loaded data	If data was previously loaded for the units in the file, what is that data's current status?	See Rules 1-4 on the previous page

When a reporting entity submits generation data M-RETS validates the data to verify its engineering feasibility before writing it to the database. To perform the validation, M-RETS uses the following required variables that were defined in Page 1 ofthe Generating Unit Registration screen:

- Nameplate Capacity
- Capacity Factor or Maximum Annual Capacity
- Duration – defined as the length of period, in hours, for which generation activity is being reported (this is calculated by the system given theBegin Date/End Date in the file or entered manually)

Data validation is performed for both current period reporting and prior-period adjustment reporting, regardless of whether the data is loaded as a file or entered manually in the unit's Self-Reporting screen. To determine the feasibility of the submitted data, M-RETS will use the following equation:

(nameplate capacity) * (capacity factor) * (number of hours in the duration) * (1.02)

The number of hours in the duration is based on the duration of the generating period each time the information is reported on the generating unit. To determine the duration value, M-RETS will calculate the number of hours in the generating period (for example, the number of hours in the generating period with a Begin Date of January 1, 2006 and an End Date of January 31, 2006 would be 744). The 1.02 will allow for a margin of error.

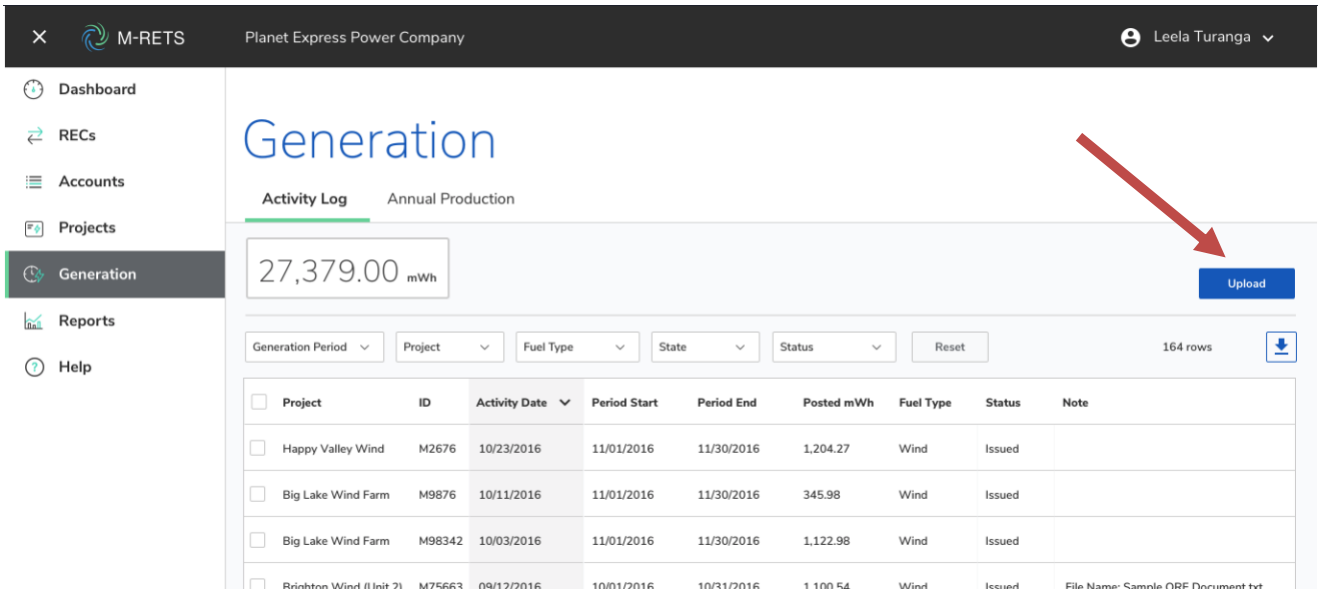
If the validation is successful, the data is loaded into the database, and becomes available to the Account Holder to review and then accept, or dispute. If the data is accepted, it will be included in the certificate issuance cycle for the relevant reporting period. For prior-period adjustments, the data will contribute to the next certificate issuance after it was accepted (either by the Account Holder, or auto-accepted by M- RETS).

If the loaded data fails the Engineering Feasibility validation, the reporting entity will be prompted with a 'soft' warning as to the failed validation. The reporting entity has the ability to continue posting the data by selecting the "continue" button on this pop-up screen, and if so wishes to continue posting data, M-RETS will send an automated email to both the M-RETS Administrator and the Account Holder that the data loaded for their generating unit has failed the Engineering Feasibility validation, but that the Reporting Entity has decided to have the data posted to the database anyway. The notification will also state that the data has a status of "M-RETS Pending" until either corrected, or approved by the M-RETS Administrator. Data with this status will not contribute to Certificate Creation. The reporting entity can also decide to not have the data posted to

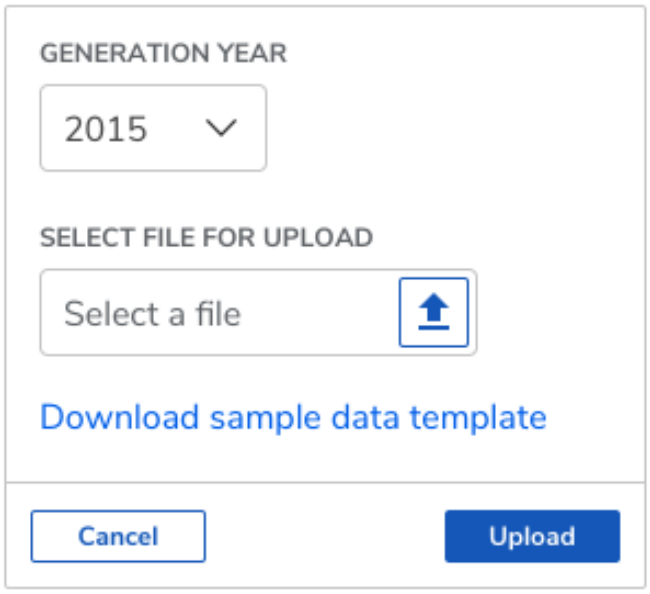
the database as a result of the failed validation by selecting the “cancel” button on this same pop-up screen. Selecting cancel will discontinue the data loading process for the unit in question and no notifications will be sent.

6 STEP-BY-STEP INSTRUCTIONS

1. Navigate to the Generation tab and select the "Upload" button.

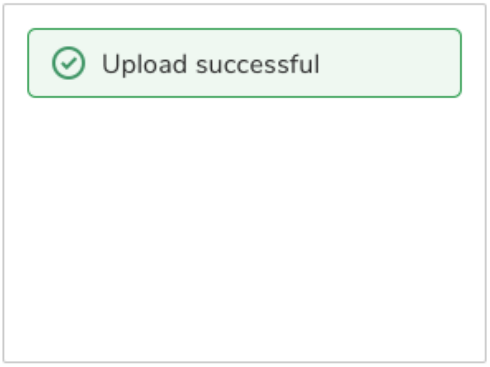


2. Use the “Select a file” field to navigate to a local file on your computer and select it. Then click “Upload.”



3. The file will be uploaded and the generation will be verified. If the upload is successful, you will see a result such as the dialog to the left. If it is not successful, you will see an error message such as the dialog box the right.

Successful Upload Message



Error Message