



**MICHIGAN RENEWABLE ENERGY CERTIFICATION SYSTEM  
OPERATING PROCEDURES**

January 2010

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## Glossary

**Account:** An Account is an account in MIRECS. There are six account types in MIRECS, as described in Section 3 below.

**Account Holder:** An Account Holder is a party that has registered with MIRECS and has established an Account within MIRECS.

**Account Manager:** An Account Manager is the administrator for an Account Holder's Account, having the ability to, among other things, setup and manage additional logins and login privileges for Users.

**Active Credits:** An Active Credit is a Credit that is held in an Active Sub-account. Such Credits may be traded, transferred, exported or Retired at the discretion of the Account Holder of the Active Sub-account.

**Active Sub-account:** The Active Sub-account is a sub-account of an Account Holder's Account and is the holding place for all Active Credits. If the Account Holder is the owner of a Generating Unit, or is the Responsible Party of a Generating Unit, their Active Sub-account will be the first point of deposit for any Credits created that are associated with the Asset ID number, unless the Credit is subject to a Forward Credit Transfer. An Active Sub-account may be associated with one or more Assets.

**Asset:** An Asset is defined in Section 5.

**Asset Name:** Asset Name is the name assigned to an Asset when it is registered in MIRECS.

**Balancing Authority:** The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a balancing authority area, and supports interconnection frequency in real time.

**Beneficial Ownership Rights:** With respect to any Credit, Beneficial Ownership Rights means (i) any contractual or other right to direct or control the sale or other disposition of, or the Retirement of, such Credit or (ii) any contractual or other right to receive the benefits of such Credit or any proceeds from the sale or other disposition of such Credit.

**Bulletin Board Sub-account:** The Bulletin Board Sub-account is a sub-account of an Account Holder's Account and is the holding place for all Active Credits that the Account Holder has posted for sale on the Bulletin Board.

**Commission:** The Commission is the Michigan Public Service Commission and any successor agency.



**Credit:** MIRECS will issue three types of credits: Renewable Energy Credits (REC), Advanced Cleaner Energy Credits (ACEC) and Incentive Renewable Energy Credits (IREC).<sup>1</sup>

**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 a Credit is created. Credits are created monthly, approximately seven (7) days after the Account Holder has accepted the generation amount of the Generation Activity Log.

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

**Directory of Registered Generating Assets:** This is a listing of all approved Assets within MIRECS.

**Dynamic Data:** Dynamic data is variable information that is associated with a specific MWh from an Asset, such as Credit serial number or date of generation.

**Electric Service Provider (LSE):** This term refers to any organization selling retail electricity to end users, such as investor owned utilities, municipal utilities, and electric cooperatives.

**Essential generating characteristics:** This term refers to the generation characteristics that have to be the same in order for small generating facilities to register as an aggregated generation facility. The specific requirements are outlined in Appendix C.

**Fuel Type:** Fuel Type designates the type of fuel used to fire a Generating Unit being registered with the MIRECS, using one of the Fuel Type codes set forth in [Appendix E](#).

**Generating Asset:** A Generating Unit that has been accepted by the MIRECS Administrator for listing in MIRECS and for which MIRECS issues Credits.

**Generating Unit:** A renewable energy generator.

**Generation Activity Log:** The Generation Activity Log is an electronic ledger where generation is posted prior to Credit creation. Each time generation data is received by MIRECS for a particular asset, the date and quantity of MWhs is posted to the Generation Activity Log. Adjustments received will be posted likewise.

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

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<sup>1</sup> Energy Optimization Credits will be added at a later time.

**General Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire credits. A General Account can also register and maintain Assets and have Credits issued to it for its Assets.

**Group Retirement Sub-account:** A Group Retirement Sub-account is a type of Retirement Sub-account used to designate Credits being Retired by an Account Holder on behalf of an Indirect Owner. Once a Credit has been transferred into a Group Retirement Sub-account, it cannot be transferred again to any other Account. See the MIRECS Terms of Use for more detail on the requirements related to beneficial ownership.

**Inbox:** Credit transfers to an Account Holder are first posted in the Account Holder's Inbox. The Account Holders will then either accept or reject the transfer. Upon acceptance the Credits will be deposited in the sub-account designated by the Account Holder.

**Indirect Owner:** A third-party having Beneficial Ownership Rights in one or more Credits held in an Account Holder's Group Retirement Sub-account.

**Megawatt-hour (MWh):** One thousand kilowatt-hours or 1 million watt-hours.

**Michigan Electric Service Provider Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Credits. A Michigan Electric Service Provider Account can also register and maintain Assets and have Credits issued to it for its Assets. **A Michigan Electric Service Provider Account is the only type of Account that can Retire Credits for compliance with PA295.**

**Multi-fuel Generation Asset:** A Multi-fuel Generation Asset is one that is capable of producing energy using more than one Fuel Type, excluding fuels used for start-up (which in any case cannot exceed 1% of the fuel used annually on a total heat input basis). See Section 5.2 below

**MIRECS Administrator:** The MIRECS Administrator is the entity with the authority to administer or oversee the administration and implementation of the MIRECS Operating Procedures. Oversight is being provided by the Commission and any request for exemptions to the rules will be referred to the Commission.

**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.

**Non-profit Wholesale Power Provider Account:** A non-profit entity that supplies wholesale electric power to one or more Michigan electric service providers that maintain a Michigan Electric Service Provider Account. This type of Account can hold, transfer (outgoing and incoming), and Retire Credits. This Account type can also register and maintain Assets and have Credits issued to it for its Assets.

**Outbox:** After initiating a Credit transfer, an Account Holder will see the Credits in its Outbox. The Account Holder to whom the Credits have been transferred will either accept or reject the transfer. If rejected, the Credits will be returned to the Active Sub-account from which they were transferred. If accepted, the Credits are transferred to the receiving Account Holder.

**Program Administrators:** Administrators of compliance and/or certification programs. Program Administrators can have a separate Account type (see Program Administrator Account in Section 3 below) allowing them functionality to denote eligibilities for the specific program as well as other verification functionalities.

**PA295 or “the Act”:** PA295 is the State of Michigan’s Clean, Renewable, and Efficient Energy Act, 2008 PA295, MCL 460.1001 et seq.

**Program Administrator Account:** This type of Account is provided to administrators of compliance and voluntary programs that utilize MIRECS and/or have eligibilities noted for certain Credits. It will allow Program Administrators to review eligibilities and compliance reports. Asset details will only be displayed in a Program Administrator Account if the Account Holder registering that Asset has listed it as eligible according to the specific program/certification.

**Project Account:** This type of Account can register Assets and have Credits issued to it for its Assets. A Project Account can hold, transfer (only outgoing transfers), withdraw and retire Credits. A Project Account cannot receive transfers from other parties.

**Qualified Reporting Entities (QRE):** A Qualified Reporting Entity is an entity reporting meter reading and other generation data to the MIRECS Administrator. Qualified Reporting Entities may include Balancing Authorities and other independent parties accepted by the MIRECS Administrator, and for certain Customer-Sited Distributed Generation, the generation owner or customer. The protocol for such reporting is outlined in the *MIRECS Requirements for Qualified Reporting Entities* document.

**Qualified Reporting Entity (QRE)/ Verifier Account:** An Account Holder with a QRE Account is assigned to an Asset and is responsible for verifying generation or storage information from that Asset. MIRECS tracks the specific types of Assets for which QRE’s are approved to provide services, ensuring that they are suitably qualified and accredited. The QRE Account cannot hold Credits.

**Registration Rights:** The right to register an Asset in MIRECS.

**Renewable Energy Credit (REC):** See Credits.



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

**Retail Purchaser Account:** This type of Account is for retail purchasers of Credits. A Retail Purchaser Account can hold, accept incoming transfers, and retire Credits. They can also register and maintain Assets that are under 1MW in capacity and have Credits issued in their Account. A Retail Purchaser Account cannot make outgoing transfers.

**Retirement Sub-account:** A Retirement Sub-account is used as a repository for Credits that the Account Holder wants to designate as Retired and remove from circulation. Once a Credit has been transferred into a Retirement Sub-account, it cannot be transferred again to any other Account.

**Retirement of Credits or Retirement/Retire:** Retirement of Credits is an action taken to remove a Credit from circulation within MIRECS. Retirement may be initiated only by the Account Holder for Credits in his/her own Accounts. Retirement is effectuated by transferring Credits into a Retirement Sub-account or a Group Retirement Sub-account.

**Revenue-Quality Meter:** As defined in Section 6.2 below.

**Self-Reporting Generator:** A Customer-Sited Distributed Generation installation with a Nameplate Capacity of less than 1 MW that elects to have dynamic data transmitted to the MIRECS Administrator via the Self-Reporting Interface pursuant to Section 6.8

**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 MIRECS Administrator pursuant to Section 6.8.

**Static Data:** Static data describes the attributes of the Asset. Static information generally includes information related to the characteristics of the generation facility such as technology type, ownership or location.

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

**Storage Asset:** A Storage Facility accepted by the MIRECS Administrator that is eligible for receiving Incentive Credits.

**Storage Facility:** An advanced electric storage technology facility or a hydroelectric pumped storage facility.

**User:** Any party that has been granted access by an Account Holder to “use” its Account, which may include viewing information, performing transactions and changing personal information. The Account Holder may at any time revoke the permissions granted to a



User by notifying the MIRECS Administrator. MIRECS will be able to track the specific activities of each User through the unique login and password.

## 1 Introduction

The Michigan Renewable Energy Certification System (MIRECS or the System) collects and issues and tracks credits for facilities eligible for Michigan's *clean, renewable, and efficient energy act* 2008 PA295, MCL 460.1001 *et seq.* MIRECS assists Electric Service Providers in Michigan in demonstrating compliance with the *clean, renewable, and efficient energy act* and is used by the Michigan Public Service Commission to verify compliance. By creating a reliable process to evidence verification, issuance and retirement of Credits, MIRECS brings increased levels of integrity and trust to purchasers, sellers and regulators in the market.

The MIRECS Administrator will issue one electronic Credit for each MWh of renewable energy, advanced cleaner energy generation and generation eligible for incentive credits that is generated by registered Assets. MIRECS will track and display the certifications and program eligibilities associated with each Credit, as established by documentation and/or third-party verification during the Asset registration process. Assets can be registered in MIRECS based on claimed ownership of the Generating Unit or, subject to certain conditions, on authorization to act as a Responsible party for a Generating Unit.

Any party, such as generators, traders, marketers, non-profits or retail purchasers, wishing to have Credits issued, held, transferred, or Retired must establish an Account in MIRECS to do so. All Account Holders must agree to follow the rules and operating procedures described in this document and in the MIRECS Terms of Use.

All MIRECS Accounts use two types of sub-accounts to manage Credits: Active Sub-accounts and Retirement Sub-accounts. Active Sub-accounts are used for holding and transferring Credits. Retirement Sub-accounts are used for retiring Credits from circulation so that they can no longer be transferred between Account Holders or within an Account.

Credits are initially deposited into an Active Sub-account associated with an Asset. Account Holders can then transfer Credits to other Sub-accounts and to the Accounts of other Account Holders.

Credits will indicate eligibilities under Michigan's *clean, renewable, and efficient energy act* as well as for the following voluntary programs: Green-e Energy, and the Low Impact Hydropower Institute.

MIRECS will provide Account Holders and the public with reports on activity within the System. The public reports are accessible to anyone via the public page on the MIRECS website. These public reports are designed to ensure MIRECS transparency as to Credits issued and retired as well as providing visibility to the Credit attributes and program eligibilities.

## 2 MIRECS User Registration

### 2.1 Participation in MIRECS

Any party is eligible to participate in MIRECS. Electric Service Providers that have to comply with Michigan's *clean, renewable, and efficient energy act* are required to participate in MIRECS. Any party that registers with MIRECS and pays the applicable fees<sup>2</sup> may seek to establish an Account in the MIRECS. MIRECS will track Credits originating from Assets registered in MIRECS.

### 2.2 Establishing an Account

Any person or entity wanting to participate in MIRECS must establish an Account. Accounts should be established in accordance with the timeline for credit creation (see Section 7.2) to ensure Credit eligibility.

Registrants will provide basic Account registration information, such as Account Holder name, address and contact information, to the MIRECS Administrator through a secure web-page on the MIRECS website<sup>3</sup> and agree to the Terms of Use. See [Appendix A](#) for step-by-step instructions. The MIRECS Administrator will review the Account application and may request more information before, in its sole discretion, approving or rejecting the application. An Account will remain active until terminated. Termination can be initiated by the Account Holder by notifying the MIRECS Administrator. Accounts can also be terminated if an Account Holder fails to pay the MIRECS fees or is otherwise in default under the Terms of Use. The Terms of Use describe these issues, as well as additional important terms, and should be read and understood by anyone applying to be an Account Holder. See Michigan Renewable Energy Certification System Terms of Use

## 3 Account Types and Sub-Account Structure

There are six types of Accounts in MIRECS:

- **Michigan Electric Service Provider Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Credits. A Michigan Electric Service Provider Account can also register and maintain Assets and have Credits issued to it for its Assets. **A Michigan Electric Service Provider Account is the only type of Account that can Retire Credits for compliance with PA295.**
- **Non-profit Wholesale Power Provider Account:** A non-profit entity that supplies wholesale electric power to one or more Michigan electric service providers that maintain a Michigan Electric Service Provider Account. This type of Account can hold, transfer (outgoing and incoming), and Retire Credits. This

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<sup>2</sup> As described in the MIRECS Terms of Use and the MIRECS Fee Schedule, available online at <http://mirecs.org>

<sup>3</sup> <http://mirecs.org>

Account type can also register and maintain Assets and have Credits issued to it for its Assets.

- **General Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire credits. A General Account can also register and maintain Assets and have Credits issued to it for its Assets.
- **Project Account:** This type of Account can register Assets and have Credits issued to it for its Assets. A Project Account can hold, transfer (only outgoing transfers), withdraw and retire Credits. A Project Account cannot receive transfers from other parties.
- **Retail Purchaser Account:** This type of Account is for retail purchasers of Credits. A Retail Purchaser Account can hold, accept incoming transfers, and retire Credits. They can also register and maintain Assets that are under 1MW in capacity and have Credits issued in their Account. A Retail Purchaser Account cannot make outgoing transfers.
- **Qualified Reporting Entity (QRE)/ Verifier Account:** An Account Holder with a QRE Account is assigned to an Asset and is responsible for verifying generation or storage information from that Asset. MIRECS tracks the specific types of Assets for which QRE's are approved to provide services, ensuring that they are suitably qualified and accredited. The QRE Account cannot hold Credits.
- **Program Administrator Account:** This type of Account is provided to administrators of compliance and voluntary programs that utilize MIRECS and/or have eligibilities noted for certain Credits. It will allow Program Administrators to review eligibilities and compliance reports. Asset details will only be displayed in a Program Administrator Account if the Account Holder registering that Asset has listed it as eligible according to the specific program/certification.

Accounts that can hold Credits (Michigan Electric Service Provider, Non-profit Wholesale Power Provider Account, General, Project and Retail Purchaser Accounts) are organized using two principal types of Sub-accounts, Active and Retirement. When an Account is created in the System, a single default Retirement Sub-account and a single default Active Sub-account are created automatically. Account Holders can re-name these default Sub-accounts and create as many additional Active and Retirement Sub-accounts as necessary to meet their individual needs. Retirement Sub-accounts can not be renamed if they hold Credits. When Credits are deposited into an Account by the MIRECS Administrator, they are placed into an Active Sub-account that is designated when an Asset is registered. When Credits are transferred into an Account, the recipient Account Holder will identify the Active Sub-account into which they will be deposited. Each Account Holder will be able to view a listing of Credits held in each Sub-account and their attributes (e.g. documents, eligible program certifications and origination details).

Accounts that can hold Credits will also have a single Bulletin Board Sub-account, used to post Credits for sale on the MIRECS Bulletin Board. See Section 9 below.

Each Account and Sub-account will have a unique identification number. For ease of reference, Account Holders may attach aliases to Sub-accounts (e.g., by customer or by product name).

**With the exception of Group Retirement Sub-accounts, (i) Account Holders can not hold Credits on behalf of any other party, and (ii) an Account Holder must have full legal title of and all Beneficial Ownership Rights in the Credits held in its Accounts.**

### **3.1 Deposits to Active Sub-Accounts**

There are three ways that Credits are deposited in an Active Sub-account.

- (a) Within an Account, credits can be transferred from one Active Sub-account or Bulletin Board Sub-account to another.
- (b) An Account Holder can accept a transfer of Credits from another Account Holder.
- (c) Credits can be generated by an Asset and deposited by the MIRECS Administrator.

### **3.2 Transfers from Active Sub-Accounts**

There are two ways to withdraw or remove Credits from Active Sub-accounts:

- (a) Transfer the Credits to the Account of another Account Holder.
- (b) Transfer the Credits to another of the Account Holder's own Sub-accounts.

### **3.3 Retirement Sub-Accounts**

A Retirement Sub-account is used as a repository for Credits that the Account Holder wants to designate as Retired.<sup>4</sup> There are three ways that Credits are deposited in a Retirement sub-account:

- (a) Within an Account, Credits can be transferred from an Active Sub-account or a Bulletin Board Sub-account to a Retirement Sub-account.
- (b) An Account Holder can accept a transfer of Credits from another Account Holder directly into a Retirement Sub-account.
- (c) A Standing Order Transfer can be set up by the Account Holder to automatically deposit Credits into a Retirement Sub-account.

Credit Retirement can only be initiated by an Account Holder in respect of the Credits in its Account. The MIRECS Administrator is not responsible for the Retirement of Credits by Account Holders, as it relates to voluntary or compliance-related Retirement deadlines or otherwise.

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<sup>4</sup> An Account Holder may want to Retire Credits for any number of reasons, including, but not limited to, Retiring Credits for compliance, on behalf of the Indirect Owners of the Certificates or making claims about the environmental quality benefits of the Credits.

An Account Holder choosing to Retire a Credit or block of Credits will use the transfer screen to identify the quantity of Credits to Retire and the reason for Retirement (an optional field). The Account Holder must select the Retirement Sub-account to which the Credits will be deposited. The Retirement Sub-account will show the serial numbers of the Credits Retired, the date of Retirement and the reason for Retirement. In addition, there will be a mechanism to view the Asset characteristics/credit fields and documents associated with the Retired Credits. *Once Credits are Retired, they cannot be moved or transferred out of the Retirement Sub-account to any other Account or Account Holder.*

MIRECS validations ensure that Credits deposited in a Retirement Sub-account are no longer transferable to another party or another Sub-account. MIRECS reports allow Account Holders to show evidence of the Retirement to Program Administrators or the public. For more details on the retirement for the Michigan *clean, renewable, and efficient energy act* see *Section 9 MIRECS Compliance Retirements*.

### **3.4 Group Retirement Sub-Accounts**

In order to provide full transparency to markets and regulators, as well as enhancing the integrity of the MIRECS's ownership records, as a general matter Account Holders can not hold Credits on behalf of any other party. Specific exemptions to this are outlined in the MIRECS Terms of Use. One such exception to this is the Group Retirement Sub-account. Holders of a General Account can establish a Group Retirement Sub-account in which they can hold Credits on behalf of Indirect Owners solely for purposes of Retiring such Credits. The Group Retirement Sub-account can be used in connection with retirements on behalf Green Pricing sales and or REC sales in the voluntary market. The establishment and use of a Group Retirement Sub-account are subject to the terms and conditions in Section 6(c) of the Terms of Use.

### **3.5 Transfers between Accounts**

Michigan Electric Service Provider, Non-profit Wholesale Power Provider, General and Project Account Holders may transfer Active Credits to other Account Holders at any time. Credits will be specified by their serial numbers. The Account Holder will select the recipient from a pull-down list of Account Holders. After the transfer has been initiated, the Credits that are pending transfer will be marked as "transfer pending" in the Account Holders Outbox. This will have the effect of "freezing" the Credits so that they cannot be moved to another Sub-account or to another Account Holder.

After the transfer has been initiated, the System will send an electronic notification of the request to transfer Credits to the proposed recipient. The transfer recipient can review the Credit transfer details from the Account Holder's Outbox and must confirm or reject the transfer within fourteen (14) calendar days of when it was requested by the transferor. If confirmed the transfer recipient must designate the Sub-account to which the Credits are to be delivered. As soon as the recipient has confirmed or rejected the transfer, MIRECS will send an electronic notification to the transferor indicating the action taken. The transferor may cancel any transfer before such transfer has been confirmed by the recipient by withdrawing the transfer from the Account Holder's Outbox in MIRECS. If the transfer is withdrawn, MIRECS will notify the recipient of the action.

## **4 Access to Accounts and Confidentiality**

### **4.1 Account Access**

An Account Manager is established as part of the Account registration process. The individual listed in the initial Account application will be considered the Account Manager and have the ability to setup and manage additional logins and login privileges for his or her organization. The Account Manager will have full access to the organization's Account. Login permissions can be designated to allow view-only access to information or to allow activities such as performing transfers and submitting/updating information. Such privileges can also be further attached to specific Sub-accounts or Assets. This provides Account Holders with significant flexibility when assigning logins. Login setup can be done during the Account registration process or at any time the Account Manager wishes to add additional Users to the Account. The Account Manager will supply contact information for each login as well as designate the login name and password.

NOTE: The MIRECS Terms of Use shall apply to any person who receives access to a MIRECS Account from an Account Holder or Account Manager.

Once a login is established, MIRECS will send an email to the login contact specified by the Account Manager with details on the individual's login name. The Account Manager is required to communicate the password. Upon logging into the MIRECS for the first time, the new User will be prompted by the MIRECS to change his or her password. The new User will then be able to perform the functions or view the information per the permissions granted by the Account Manager. The Account Manager or MIRECS Administrator may at any time remove or add permissions to a login by using the account administration screens.

The MIRECS My Event Log report tracks and displays all actions performed within the Account by login name and timestamp. Account Managers will have access to the My Event Log report for their Account(s).

### **4.2 Levels of Account Access**

When an Account Holder creates logins for additional Users, the Account Holder assigns to the login one of two levels of access specific rights to login:

#### **4.2.1 Account Holder – Supervisor**

When completing the login profile for a new User, the Account Manager can assign "Account Holder – Supervisor" privileges to a login. The new login will be able to register assets, manage credits, and create additional logins, if necessary. The Account Manager can also give this login a subset of these privileges if needed.

#### **4.2.2 Account Holder – View Only**

When completing the login profile for a new User, the account holder can assign the login "Account Holder – View Only" privileges. This provides the login with limited

view rights. The Account Manager will then identify the specific Sub-accounts and Credits that the login will be able to access and view.

### **4.3 Confidentiality**

As stated in the Privacy Policy and the Terms of Use, certain Account information will be held confidential. Account information will only be used and released in aggregate through the public reporting process.

## **5 Asset Registration**

Within MIRECS and all related MIRECS documents, the term “Asset” is used to refer both to (1) a Generating Asset, which is a Generating Unit accepted by the MIRECS Administrator and for which MIRECS issues Credits, and (2) a Storage Asset, which is a Storage Facility accepted by the MIRECS Administrator that is eligible for receiving Incentive Credits.<sup>5</sup> A Generating Unit or Storage Facility is registered by an Account Holder by entering static data into MIRECS describing its attributes, subject to the review and approval by the MIRECS Administrator. Once an Asset is approved, dynamic data is entered to identify monthly energy generation or energy stored for which Credits are to be issued. Step-by-step instructions for registering an Asset can be found in [Appendix B](#).

Any Generating Unit or Storage Facility not approved by MIRECS within six months from the time it is listed therein shall be deactivated in the MIRECS, unless a grace period of three (3) months is requested by Account Holder. Deactivation does not preclude Account Holder from registering the Generating Unit or Storage Facility with MIRECS at a later date, but until such time as it is registered, the Generating Unit or Storage Facility will not be viewable in MIRECS.

### **5.1 Registering an Asset**

To ensure that double-counting does not occur, Generating Units being registered in MIRECS must have 100% of their output tracked by MIRECS. If a Generating Unit or an associated contract for its production was registered in another tracking system at one point, the MIRECS Administrator should be notified of this during the registration process and the Account Holder should be prepared to provide documentation to prove the Generating Unit (and, if applicable, its associated contracts) have been removed from the previous tracking system. A Storage Facility must have 100% of its input tracked by MIRECS, with a similar notification to the Administrator being made if it has previously been registered with another system.

The owner, or Responsible Party, of a Generating Unit or Storage Facility must first establish an Account within MIRECS as described above and then register it as a Generating Asset or Storage Asset, as the case may be, before MIRECS can certify and issue Credits attributable to it. The Account types that can register Generating Units or Storage Facilities are the Michigan Electric Service Provider Account, the Non-profit

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<sup>5</sup> Energy Optimization projects will be added at a later time.



Wholesale Power Provider Account, the Project Account, the General Account and the Retail Purchaser Account (subject to a size limitation).

To register a Generating Unit or a Storage Facility as an Asset, the owner or the Responsible Party<sup>6</sup> must:

- Have an approved Account in MIRECS (either Michigan Electric Service Provider, Generator, General or Retail Purchaser);
- Submit a completed on-line registration form containing information related to the characteristics of the Generating Unit or Storage Facility;
- Submit any required documentation and/or affidavits proving eligibility for issuance of one or more types of Credits;
- Submit proof of title and/or additional documentation proving the Account Holder is either the owner of the Generating Unit or Storage Facility or has the owner’s permission to act as the Responsible Party for such Generating Unit or Storage Facility and register it in MIRECS in order to receive Credits<sup>7</sup>; and
- Pay any applicable registration fee.<sup>8</sup>

The MIRECS Administrator will review the submitted documentation and may require additional documentation to be submitted before a Generating Unit or a Storage Facility is accepted as an Asset.

**TABLE 1: AFFIDAVIT REQUIREMENTS**

<b>Fuel Characteristics</b>	<b>Technology</b>	<b>Affidavits</b>
Single-Fuel	Any	Municipal Solid Waste (if applicable) Michigan Workforce (if applicable) Michigan Equipment (if applicable) Self-reporting (if applicable) On-peak (if applicable)
Multi-fuel	Any	Multi-fuel (required) Municipal Solid Waste (if applicable) Michigan Workforce (if applicable) Michigan Equipment (if applicable) Self-reporting (if applicable) On-peak (if applicable)
Electric Storage	n/a	Electric Storage System (required) Michigan Workforce (if applicable) Michigan Equipment (if applicable) On-peak (if applicable)

<sup>6</sup> The Responsible Party is an entity to whom the owner of a Generating Unit or Storage Facility has given Registration Rights. This is described in detail in Section 5.9.

<sup>7</sup> Generating Units or Storage Facilities that are jointly owned must have a single party, privately appointed among the owners, to act as the Account Holder.

<sup>8</sup> See the MIRECS Fee Schedule for a description of all MIRECS fees.

**Municipal Solid Waste Affidavit:** This affidavit is signed by the Account Holder to confirm that the Generating Unit's Nameplate Capacity does not exceed the limits in Section 39 (1) (b) of PA295.

**Michigan Work Force Affidavit:** This affidavit is signed by the Account Holder to confirm that the Generating Unit or Storage Facility was constructed using a workforce composed of residents of the State of Michigan as determined by the Commission.<sup>9</sup>

**Michigan Equipment Affidavit:** This affidavit is signed by the Account Holder to confirm that the Generating Unit or Storage Facility was constructed using equipment made in this state as determined by the Commission.<sup>10</sup>

**Electric Storage System Affidavit:** This affidavit is signed by the Account Holder to confirm that the reported generation and storage information from the Storage Facility complies with Section 39 (2) (c) of PA295.

**Self-reporting Affidavit:** This affidavit is signed by the Account Holder to confirm the procedures whereby the Account Holder will self-report generation and/or on-peak generation data.

**Multi Fuel Affidavit:** This affidavit is signed by the Account Holder to confirm the procedures whereby the Account Holder will monthly self-report the proportion of different fuels used in a Multi-fuel Generation Asset.

**On-peak Affidavit:** This affidavit is signed by the Account Holder to confirm the procedures whereby the Account Holder will monthly self-report the proportion of on-peak versus off-peak data.

## 5.2 Aggregated Generating Units

For small (150 kW or less) generating units, MIRECS will allow aggregation ("Distributed Generation Aggregation") of Generating Units that are not metered together and do not share the same location but that are located within close proximity in the same state and otherwise share the same essential generation characteristics. As a rule, the essential generating characteristics are any characteristics that may determine eligibility for a certification for one or more types of Credits. A list of such essential characteristics is found in [Appendix C](#). Small Generator Aggregation will be allowed so long as the Generating Units once aggregated do not exceed a total Nameplate Capacity of 1 MW and each Generating Unit being aggregated is metered on a revenue meter basis as outlined in Section 6.2. The MIRECS Administrator may require documentation to verify each aggregated Generating Unit and generation data including: proof of Registration Rights and proof that each Generating Unit is within a close proximity to each other.

Generating Units are registered as Assets on a revenue-meter basis. In the case where there is more than one Generating Unit associated with a single revenue meter, the owner or Responsible Party can register more than one Asset under the same revenue meter if all of the Generating Units have the same essential generation characteristics. If the

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<sup>9</sup> PA295 Section 39(2)(e)

<sup>10</sup>PA295 Section 39(2)(d)

Generating Units associated with a single revenue meter do not have the exact same essential generation characteristics, the owner or Responsible Party must install a new revenue meter(s) such that all Generating Units associated with a single meter have the same generation characteristics.

### 5.3 Multi-fuel Generation Asset

A Multi-fuel Generation Asset is one that is capable of producing energy using more than one Fuel Type, where the quantity of each fuel used is greater than 1% annually on a total heat input basis, excluding fuels used for start-up. A Multi-fuel Generation Asset can be a Generation Asset that uses a renewable fuel with a fossil fuel or one that uses multiple types of renewable fuels. Such facilities must register with MIRECS as a Multi-fuel Generation Asset. A Generating Unit that uses 1% or less of a second fuel may elect to register as a Multi-Fuel Generation Asset if they would like Credits 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 Generating Unit is not eligible to register as a Multi-fuel Generation Asset in MIRECS.

Credits will be created for renewable energy and Advanced Cleaner Energy Credit-eligible Fuel Types only. Each Credit issued for a Multi-fuel Generation Asset will reflect only one fuel source. The total number of Credits 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 MIRECS Account Holder or Responsible Party that has registered a Multi-fuel Generation Asset must report monthly to the MIRECS Administrator the proportion of electric output per Fuel Type, by MWh, generated by the Multi-fuel Generation Asset during that month, calculated according to the applicable provisions of Section 6.10.1. Though generation from Fuel Types must be reported, the MIRECS will only issue Credits for the renewable energy and Advanced Cleaner Energy Credit-eligible generation. Credits will not be issued until such information is provided by the Account Holder or Responsible Party.

The procedures and methodologies used by the Account Holder or Responsible Party to calculate the contribution of each Fuel Type should be presented along with the completed *Multi-fuel Affidavit*. Supporting documentation can include third-party verification reports. The Account Holder or Responsible Party must maintain supporting documentation related to the derivation of the proportion of electric output per Fuel Type for each month for a minimum of 5 years from the date of submission to the MIRECS Administrator. The MIRECS Administrator and/or the Commission may require copies of such calculations, and supporting documentation will be subject to audit by the MIRECS Administrator, state regulators (including the Commission), or their agents.

#### **5.4 Verification of Static Data Submitted During Asset Registration**

Upon completion of the Asset registration process, the MIRECS Administrator will review attestations, Energy Information Administration reports and other data sources to verify the information provided to MIRECS by the Account Holder.

In the event data submitted is found to be incorrect 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 MIRECS 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 MIRECS Administrator and the registrant until the MIRECS Administrator is satisfied that the information provided meets MIRECS standards for accuracy.

In some cases, the MIRECS Administrator may require the Account Holder to contract with a third-party verifier to perform a site visit to further verify information as needed. The cost of verification will be born by the Account Holder seeking to register the Asset.

#### **5.5 Updating Static Data**

After the initial Asset registration in MIRECS, Account Holders can continually notify MIRECS of the following actions or occasions that will have the effect of changing static data tracked by MIRECS:

- (a) A change in Fuel Type for a Generating Unit, and the date on which the change occurred, within thirty (30) calendar days from when the change is implemented.
- (b) A change in Asset ownership, and the date on which the change occurred, within thirty (30) calendar days after the change occurs. A change in ownership must be confirmed by a letter signed by both the prior and new owners of the Asset, and provided to the MIRECS Administrator. Neither MIRECS nor the MIRECS Administrator will be responsible for depositing Credits into an Account that no longer represents an Asset if the incorrect deposit occurs as a result of a lack of notification by the prior and new owners of the Asset.
- (c) A change in an Asset's eligibility for any programs or certification tracked by MIRECS. This must be communicated by the Account Holder before any Credits affected by the change are issued or within thirty (30) calendar days after the change occurs, whichever is sooner.
- (d) A change to any of the "essential generating characteristics" of the Asset.

#### **5.6 Misrepresentation of Static Information:**

Account Holders can be removed from MIRECS for cause, including misrepresentation of static data. MIRECS reserves the right to withhold issuing Credits, to freeze an Account associated with a particular Asset, or to withhold participation in MIRECS for

Assets that have willfully misrepresented static data. If the MIRECS Administrator has cause to suspend the Asset's participation in MIRECS, no Credits will be created while the Asset is under suspension. Upon removal of the suspension Credit issuance can proceed.

### **5.7 Terminating an Asset's Participation in MIRECS**

If an Asset's owner or Responsible Party wants to remove an Asset from MIRECS, they can do so by notifying the MIRECS Administrator and specifying the following:

- (a) The date the Asset should be/will be removed from MIRECS ,<sup>11</sup>
- (b) The name of the Asset's Qualified Reporting Entity, if applicable; and
- (c) The Sub-account to which Credits have been deposited (if the usual Account for deposit is being closed as well).

MIRECS will issue Credits for an Asset up to the date of Asset termination as instructed by the Asset's owner or Responsible Party. No Credits will be issued for adjustments that occur after the termination date. If the Account to which the Asset is linked is also closed at the same time, the Asset's owner or Responsible Party must also specify the Account to which any remaining Credits that have not yet been issued should be deposited. Failure to do so will result in loss of Credits.

### **5.8 Changing the Account with Which an Asset is Associated**

If the Asset's owner or Responsible Party wants to change the Account with which an Asset is associated, they can do so by notifying the MIRECS Administrator and providing the information requested by the MIRECS Administrator, including, but not limited to:

- (a) The new Account number with which the Asset will be associated;
- (b) The date the change will be effective; and
- (c) Any documentation required for legal purposes or to meet certification requirements.

Credits from the Asset that were created up to the day the Account change takes effect will remain in, or be deposited into, the Account that the Asset was associated with at the time the generation or storage occurred. For example, if an Asset's owner changes the Account with which the Asset is associated from Account A to Account B, and the change is effective on March 1, then the Credits relating to generation or storage that occurred prior to March 1, will be deposited into Account A (even though the date of deposit will likely be after March 1, given the expected time delay between actual generation or storage and Credit issuance).

The MIRECS Administrator will need written confirmation of this change from both parties involved in the Asset transfer in order to implement the change. When changing

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<sup>11</sup> This is the same as the final date of generation or storage for which Credits are to be issued.

the Account with which an Asset is associated, there can not be any time when the Asset is not associated with an Account. If there is such a lapse, this will be treated as a deregistration/re-registration of the Asset instead of a change of Account, and the relevant fees will be assessed.

## **5.9 Assignment of Registration Rights**

An Asset's owner or Responsible Party may assign an Asset's Registration Rights to an Account Holder for the purposes of allowing that party the ability to control and manage the disposition of any Credits resulting from the operation of the Asset. 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 Asset within MIRECS. For the purposes of MIRECS, this Account Holder will be considered the Responsible Party for that Asset.

MIRECS will require both parties to confirm an assignment of Registration Rights, the date the assignment will be effective and the date the assignment will be terminated, if there is one.

### **5.9.1 Termination of Registration Rights**

Registration Rights may be terminated by either the Asset's owner or Responsible Party subject to confirmation by the MIRECS Administrator that both agree to the change. Termination of Registration Rights has the effect of deregistering the Asset from MIRECS. If the Registration Rights assignment has been terminated, no new Credits will be issued from that Asset until it is registered again.

## **6 Dynamic Data in MIRECS – Generation Data**

### **6.1 Generation Data Requirements**

Credits are issued for any renewable energy production or energy storage that otherwise would have been served by a non-renewable resource if not for the Asset. MIRECS will not create Credits for generation supplying station service. Data used to issue Credits for renewable generation must be derived from a Revenue-Quality Meter and communicated to the MIRECS Administrator by a Qualified Reporting Entity unless the Nameplate Capacity is less than 1 MW, in which case it can be self-reported. If self-reported the Account Holder will have to submit a *Self-reporting Affidavit*.

### **6.2 Revenue Metering Standards**

All individual Generating Units registered in MIRECS must register their Revenue-Quality Meter or Midwest ISO assigned CPNODE. For Generating Units that are interconnected to a utility or Balancing Authority, a "Revenue-Quality Meter" is any meter used by the reporting Balancing Authority for settlements. The data must be electronically collected by a meter data acquisition system, such as an MV-90 system, or pulse accumulator readings collected by the Balancing Authority's energy management system, and verified through a Balancing Authority checkout/energy accounting or



settlements process that occurs monthly. The preferred source for the data is a meter data acquisition system. If the Balancing Authority 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 Generating Units that do not go through a Balancing Authority settlements process and that are not Customer-Sited Distributed Generation, the data must be from a Revenue-Quality Meter adjusted to reflect the energy delivered into the transmission grid at the high side of the transformer and communicated to the MIRECS Administrator by a Qualified Reporting Entity if the Nameplate Capacity is 1 MW or more. For Customer-Sited Distributed Generation, 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 high side of the transformer. 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 high side of the transformer. If the Customer-Sited Distributed Generation uses all of the energy produced on site, then no adjustment for transformer losses is needed.

### **6.3 Measurement of Generation and Adjustments**

The output from each Generating Asset registered in MIRECS will be measured at the point of interconnection to the transmission or distribution company's facility, or adjusted to reflect the energy delivered into either the transmission or distribution grid at the high side of the transformer. Losses occurring on the bulk transmission or distribution systems after the metering point are not reflected in the Credits created. MIRECS will not create Credits 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 Generating Units also serving onsite loads, MIRECS will create Credits for the on-site load distinct from station service, if the Generating Unit's owner or Responsible Party can provide evidence that the metering used is capable of distinguishing between on-site load and station service. Otherwise, the MIRECS 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 MIRECS Administrator. If Credits 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 Credits created that month. If Credits have been created, the adjustment will be treated as a prior period adjustment described below in Section 6.4.

### **6.4 Prior Period Adjustments**

Adjustments can be made by an Account Holder after the data is reported and used to issue Credits in MIRECS. These adjustments are known as prior period adjustments.

The Account Holder will access the Project Output Data Review screens to submit an adjustment to the MIRECS Administrator. If accepted by the MIRECS Administrator, the credit or debit to the generation volume reported in the current month will post to the Generation Activity Log. Consequently, the adjustment will be realized when Credits are next issued. If new Credits are created, the vintage of the Credits shall reflect the actual generation period. The MIRECS Administrator will not accept adjustments for generation reported more than two years prior.

### **6.5 Notification of Adjustments**

The Account Holder will be informed of all credit or debit adjustments once the adjustment has been posted to the Generation Activity Log. Once MIRECS informs the Account Holder of a need for adjustment, the Account Holder then has thirty (30) calendar days to dispute or accept the adjustment. If after thirty (30) days the Account Holder has failed to respond, the MIRECS Administrator will automatically accept the adjustment.

### **6.6 Data Collection Procedure**

Energy-generation data for which Credits are issued should be reported in monthly intervals and will be accepted by the MIRECS Administrator on an ongoing basis. Data files are to be electronically transmitted to MIRECS using a secured protocol and a standard format specified by the MIRECS 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 as well as on-peak vs. off-peak generation for facilities qualifying for the On-peak Incentive Credit. The owner of the Generating Asset, as the owner of the metered data, or the Responsible Party, has the responsibility to direct the Balancing Authority to release generation data to MIRECS.

The data must be transmitted by a single entity, which must be either (1) a Qualified Reporting Entity or (2) a Self-Reporting Generator.

### **6.7 Requirements of Data Reporting Entities**

MIRECS will accept generation data from Qualified Reporting Entities (QRE) and Self-Reporting Generators. The *MIRECS Requirements for Qualified Reporting Entities* document describes the terms and conditions under which the QRE agrees to exchange information and conduct business with MIRECS. This document identifies the protocols for collection of information such as meter IDs, data format, communication protocols and timing, and security requirements for data collection. The document also outlines the necessary requirement to qualify as a QRE.

### **6.8 Special Requirements for Self-Reporting Generators Only**

A Self-Reporting Generator must enter actual cumulative meter readings measured in 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 by email from the MIRECS Administrator. Any

such Generating Unit not entering a cumulative meter reading within thirty (30) days of receipt of such a notice may be deemed inactive by the MIRECS Administrator and have its Generating Activity Log suspended. 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 submit metering records to substantiate generation reporting.

## 6.9 Generation Activity Log

Each Asset registered in MIRECS will have a Generation Activity Log associated with it. The Generation Activity Log is an electronic ledger where generation is posted prior to Credit creation. Each time generation data is received by MIRECS for a particular Asset, 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:

- **MIRECS Accepted:** This label is used for all generation that has been reported to MIRECS, has passed the MIRECS feasibility test and has been logged to the Generation Activity Log, but has not yet been accepted (or disputed) by the Account Holder.
- **MIRECS Pending:** The MIRECS Administrator is waiting for the resolution of a situation before the Credits can be issued. For example, if the MIRECS Administrator is waiting to receive a Fuel Type allocation from a Multi-fuel Generation Asset or other update from a Generating Unit.
- **Account Holder Accepted:** The Account Holder has accepted the posted generation, but the Credits have not yet been issued.
- **MIRECS Admin Accepted:** The MIRECS Administrator has accepted the posted generation, but the Credits have not yet been issued.
- **Account Holder Disputed:** The Account Holder has disputed the posted amount of generation.
- **MIRECS Admin Disputed:** The MIRECS Administrator has disputed the posted amount of generation.
- **Credits Created:** Credits have been created.

The status of each entry in the Generation Activity Log will be changed consistent with the information received by the MIRECS Administrator. Credits will be issued based on the total whole number of MWhs on the Generation Activity Log that are marked "Account Holder Accepted". Only Credits that are marked as such will contribute to Credit creation. Any fractional MWh will be rolled forward until sufficient generation is accumulated for the creation of a Credit. Each time an item is posted to the Generation Activity Log, the Account Holder will be notified electronically. Account Holders will have at thirty (30) calendar days to accept or dispute any new regular entries to the Generation Activity Log and thirty (30) days to accept or dispute adjustments. If the



Account Holder does not respond, the posting will be automatically accepted after the specified period.

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

- (a) Account Holder's Name
- (b) Activity Date
- (c) MIRECS Asset ID for associated data posted
- (d) Activity Description identifying Data Submitted, Fractional Data Remaining, Credits Created, etc.
- (e) Reporting Period Start
- (f) Reporting Period End
- (g) MWh of generation reported to MIRECS during the current month
- (h) Fuel Type
- (i) Status
- (j) Note (displaying serial numbers or data upload file names)

### **6.10 Multi-fuel Generation Assets**

For Multi-fuel Generation Assets, Credits will be created for the eligible Fuel Type(s) only.<sup>12</sup> Each Credit issued for a Multi-fuel Generation Asset will reflect only one fuel source, with the total number of Credits issued for a Fuel Type being proportional to the overall output for that reporting period.

The Generating Unit or its associated Account Holder may be asked to submit supporting documentation related to the derivation of the proportion of electric output per Fuel Type for each period for which the Generating Unit or Account Holder is issued Credits. The MIRECS Administrator will require copies of such calculations, and supporting documentation may be subject to audit by the MIRECS Administrator, state regulators (including the Commission), QREs, certification organizations or their agents.

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

For purposes of creating Credits reflecting the fuel source mix of Multi-fuel Generation Assets, the proportion of Credits attributable to each Fuel Type shall be determined consistent with the following rules:

- (a) For biomass co-fired with fossil fuels or using fossil fuels for startup or supplemental firing: In each month, the Credits for each Fuel Type in such Multi-fuel Generation Asset 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.

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<sup>12</sup> For example, a coal-fired Generating Unit that uses less than 1% of biomass co-firing can be considered a Multi-fuel Generation Asset and have biomass Credits issued in respect of that biomass-fired generation.

In addition, upon registration, all Multi-fuel Generation Assets must submit to the MIRECS Administrator a report prepared by an independent professional engineer containing documentation for measuring and verifying the quantities of each Fuel Type, the net heat content of each fuel source, and the heat rate, if applicable. More details on this requirement are found in [Appendix D](#).

Multi-fuel Generation Assets that are eligible for the on-peak Incentive Credit have the option to list a different fuel split for on-peak generation versus off-peak generation. The Account Holder must be able to substantiate any such differentiation if reported in MIRECS.

## 7 Creation of Credits

Credits are issued in whole numbers only. Once a Credit is created, no changes can be made to that Credit. **Note that certain eligibilities for a specific Credit may expire.**

### 7.1 Credit Creation

The MIRECS Administrator will issue one Credit for each MWh of eligible energy that is generated by an Asset as well as for any Incentive Credits for which the generation may qualify. Credits are issued based on the number of whole MWhs listed in the Generation Activity Log for a given reporting period and for Incentive Credits the multipliers defined in PA295. Each Credit shall have a unique serial number. Credit serial numbers shall contain codes embedded in the number. The table below identifies the serial number format used in MIRECS.

**TABLE 2: MIRECS SERIAL NUMBER IDENTIFIERS**

Identifier	Display Order	Data Type	Length	Range of Codes	Comments
Originating Registry	1	Alpha-numeric	3	MIRECS	Used to identify originating registry.
Unit type	2	Alpha-numeric	4	REC: Renewable Energy Credit issued for a Generating Asset ACEC: Advanced Cleaner Energy Credit for a Generating Asset IREC: Incentive Credit	Used to identify if the issuance is based on a facility or contract registration with MIRECS
Asset ID	3	Numeric	6	1-999999	Unique ID assigned to each Asset record in MIRECS.
State	4	Alpha-numeric	2		State Abbreviation identifying the State in which the renewable energy generation occurred.
Vintage Month	5	Numeric	2	01-12	The month in which the renewable energy generation occurred.
Vintage	6	Numeric	4	2009-2099	The year in which the

Identifier	Display Order	Data Type	Length	Range of Codes	Comments
Year					renewable energy generation occurred.
Batch Number	7	Numeric	5	Numeric value assigned to the each batch of credits created 1 – 99,999 unique per originating generator per vintage.	
Serial Block Start	8	Numeric	9	Numeric values assigned by MIRECS from 1 - 999,999,999.	A number to identify the first credit in a block of credits.
Serial Block End	9	Numeric	9	Numeric values assigned by MIRECS from 1 - 999,999,999.	A number to identify the last credit in a block of credits.

## 7.2 Process and Timeline for Credit Creation

Credits will not be issued for generation occurring more than one calendar year before MIRECS account approval of the owner or Responsible Party, or MIRECS approval of the Generating Unit registration. Exceptions will be made for Accounts completed on or before March 31, 2010, which can have Credits issued for generation data older than one year but for no period earlier than January 2009.

Once the generation data is received by the MIRECS Administrator and a data validity check is performed, it will post on the Account Holders “Generation Activity Log” and the System will notify the Account Holder via email that generation has been posted. The generation posting will be marked “MIRECS Accepted” on the Generation Activity Log. Once the generation is accepted by the Account Holder, the generation posting will be marked “Account Holder Accepted.” The Certificates will issue immediately following this.

The Account Holder must notify the MIRECS Administrator if it believes the generation data amount recorded on the Generation Activity Log is inaccurate for any reason. The Account Holder may register a dispute any time after the generation is posted and will have thirty (30) calendar days to do so. 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 MIRECS Administrator, the Credits will be created.

## 7.3 Credit Creation for Accumulated Generation

Generation data from Generating Units that have a Nameplate Capacity under 25kW and that are not reported to MIRECS on a monthly basis may be accumulated over one or more months prior to submittal to MIRECS for Credit issuance. The vintage on the issued Credit will be the last month and year of generation contributing to an accumulated MWh. Credit creation for accumulated generation will occur on the same schedule as all other generation in MIRECS.

## 7.4 Data Fields Carried on Each Credit

Each Credit carries a list of data fields. These fields include:

**TABLE 3: CREDIT DATA FIELDS**

DATA FIELD	COMMENTS
CREDIT DATA:	
Credit Type	REC, ACEC or IREC
MIRECS ID	Unique ID assigned to each Asset record in MIRECS.
Asset Type	Used to identify if the issuance is based on a Generation Asset or Energy Optimization Project <sup>13</sup>
Asset Name	Name of Asset
Primary Asset Name	Name of Facility
Credit Vintage	Vintage of Generation
Credit Serial Numbers	See details above
Quantity of Credits	Total Credits
Meter Data From: NA	
Meter Data To: NA	
Credit Creation Date:	Date Credits were issued in MIRECS
Asset Documents/Attestations: View	Any associated documents (metering records etc.)
STATIC ASSET DATA:	
County	County facility is located in
State or Province	State or Province facility is located in
Country	Country facility is located in
NERC Region	NERC Region facility is located in
eGrid Sub-Region	eGRID Sub-Region facility is located in
Qualifying Facility (Y/N)	Whether facility is a Qualifying Facility
Commenced Operation Date	Date the Facility commenced operation
Fuel Type/Energy Source	Fuel Type abbreviation
Nameplate Capacity	Nameplate Capacity of Facility
Reporting Entity Type	QRE or Self-reporting
Reporting Entity Contact Company or Organization name	Name of QRE, if applicable
Utility to which Facility is interconnected	Utility Interconnect
Repowered Indicator (Y/N)	Denotes whether Facility is Repowered
Repowered Amount: NA	Denotes the portion, if applicable, of unit that is repowered
Repower date (required if Repowered Indicator = Y)	Date of repowering
Eligibility for MIRECS	
ELIGIBILITY FOR VOLUNTARY PROGRAMS:	
Green-e Energy Eligible	Denotes eligibility and, if applicable, certification number
LIHI Certified	Denotes eligibility and, if applicable, certification number

<sup>13</sup> Energy Optimization Credit functionality will be added later.

## 8 Credit Errors and Correction

### 8.1 Generation Data Validity Check

All generation data received by MIRECS will undergo an automatic data validity check to ensure that erroneous and technically infeasible data is not entered into MIRECS. 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 Type and time period since the previous cumulative meter reading entered. If data entered exceeds an estimate of technically feasible generation, the MIRECS Administrator will be notified and the generation will be posted to the Credit Data Loaded Log. The MIRECS Administrator will contact the Account Holder if the generation data entered is infeasible.

### 8.2 Credit Errors Discovered After Credit Issuance

Once a Credit is created, no changes can be made to that Credit. In the event that an error is discovered after Credits have been issued, the MIRECS 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 Credits issued, the MIRECS administrator will first attempt to rectify this by making an adjustment to the Generation Activity Log associated with the generator. If the error is found in one of the fields on the Credit, the MIRECS 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 Credits, freezing the account of the offending party, levying an administrative fine or banning participation in MIRECS.

## 9 MIRECS Compliance Requirements

The specific procedures and process requirement for the compliance process within MIRECS are under development and will be finalized by the end of 2009.

## 10 Public Reports

There are three types of public reports provided by MIRECS: Directory of Account Holders, Directory of Registered Generating Assets and reports on Credit issuance and Retirement activity. Public reports will be accessible to anybody via the public page on the MIRECS website. It is expected that additional public reports will be added to meet future needs of Account Holders and Program Administrators using MIRECS. Public reports are carefully designed to ensure the confidentiality of Account Holder data per the Terms of Use. See the Terms of Use for more information regarding confidentiality.

- **Directory of Account Holders.** This report contains a listing of all Account Holders with some limited contact information.

- **Directory of Registered Assets.** This report contains a listing of all Assets registered in MIRECS with limited eligibility information.
- **Report on aggregate number of Credits issued and Retired.** This report lists the aggregate number of Credits issued and Retired in MIRECS for a given time period.

### 10.1 Account Holder Reports

Account Holder reports for a specific Account will only be accessible to the Account Holder, their designated Agents and the MIRECS Administrator. Account Holders can view up-to-date data in these reports at any time. Current reports include:

- **My Event Log.** This report lists all of the events that have taken place in the Account.
- **My Sub-Accounts.** This provides a list of Credits held in the Account's Sub-accounts and allows the Account Holder to filter data by specific Active or Retirement Sub-accounts.
- **My Credit Transfers.** This report provides a comprehensive list of Credit transfers, between Sub-accounts and other Account Holders in MIRECS.
- **My Account Holder Registration History.** This report provides a list of all the changes to the Account Holder registration data.
- **My Asset Registration History.** This report provides a list of all the Assets that have been registered in MIRECS and includes the date of registration, the MIRECS ID and a link to the Asset registration screens.
- **MIRECS Assets by Status.** This report provides a comprehensive list of an Account Holder's Assets, listing the Assets by status and summarizing data such as Fuel Type. This report also provides links to the transfer screen for each block of Credits.
- **Program Administrator Access Selection.** This report allows the Account Holder to assign Account access to specific Program Administrators who may have to verify Credit Retirement activity.
- **My Generation Activity Log.** This report provides a summary of all Credit data loaded into MIRECS for all of Account Holder's Assets.
- **My Generation Report.** This report provides a summary of all Credits created in MIRECS. It is filtered by vintage year.

- **Retirement Compliance Report.** This report provides Account Holders the ability to view all Credits Retired and an effective date of Retirement. This report can be provided to third parties wanting to verify Retirement of Credits.
- **Retail Sales Report.** This report provides Michigan Electric Service Providers the ability to report their previous year's retail load sales into their MIRECS account. This report allows the Account Holder to assign the reported retail sales to their Michigan Retirement Sub-account.
- **My Invoices.** This report lists all invoices that have been issued to the Account Holder including the amount and payment status. The report also includes payment information.

## 11 Data Security

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

- (a) Secured web portal interface with password protection for static data collection, User access and reporting.
- (b) Restricted access privileges based on participant and User roles using digital credits.
- (c) Well-defined system backup and recovery processes.
- (d) Secured file transfer and data upload processes using encrypted communications for all data interfaces

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## Appendix A: Account Holder Registration Process

The following information will guide you through the steps necessary to create a Michigan Renewable Energy Certification System Account. The MIRECS Administrator is available to assist you throughout the registration process. Please call 888 9MIRECS (888-964-7327) or email [mirecs@apx.com](mailto:mirecs@apx.com).

### STEP 1 – REVIEW MIRECS OPERATING DOCUMENTS

You should first review the MIRECS Operating Documents including the Terms of Use, Fee Schedule and Operating Procedures. The documents are on the Documents page on the MIRECS website ([www.mirecs.org](http://www.mirecs.org)).

### STEP 2 – ONLINE REGISTRATION

Go to MIRECS and select the “Register Here” link. A pop-up window will appear with a checklist describing the steps required to register for an account. Select the appropriate Account Type and click the “Continue Registration” button.

The available Account Types are:

- **Michigan Electric Service Provider Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Credits. A Michigan Electric Service Provider Account can also register and maintain Assets and have Credits issued to it for its Assets. **A Michigan Electric Service Provider Account is the only type of Account that can Retire Credits for compliance with PA295.**
- **Non-profit Wholesale Power Provider Account:** A non-profit entity that supplies wholesale electric power to one or more Michigan electric service providers that maintain a Michigan Electric Service Provider Account. This type of Account can hold, transfer (outgoing and incoming), and Retire Credits. This Account type can also register and maintain Assets and have Credits issued to it for its Assets.
- **General Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire credits. A General Account can also register and maintain Assets and have Credits issued to it for its Assets.
- **Project Account:** This type of Account can register Assets and have Credits issued to it for its Assets. A Project Account can hold, transfer (only outgoing transfers), withdraw and retire Credits. A Project Account cannot receive transfers from other parties.
- **Retail Purchaser Account:** This type of Account is for retail purchasers of Credits. A Retail Purchaser Account can hold, accept incoming transfers, and retire Credits. They can also register and maintain Assets that are under 1MW in



capacity and have Credits issued in their Account. A Retail Purchaser Account cannot make outgoing transfers.

- **Qualified Reporting Entity (QRE)/ Verifier Account:** An Account Holder with a QRE Account is assigned to an Asset and is responsible for verifying generation or storage information from that Asset. MIRECS tracks the specific types of Assets for which QRE's are approved to provide services, ensuring that they are suitably qualified and accredited. The QRE Account cannot hold Credits.
- **Program Administrator Account:** This type of Account is provided to administrators of compliance and voluntary programs that utilize MIRECS and/or have eligibilities noted for certain Credits. It will allow Program Administrators to review eligibilities and compliance reports. Asset details will only be displayed in a Program Administrator Account if the Account Holder registering that Asset has listed it as eligible according to the specific program/certification.

### STEP 3 – ACCEPT THE TERMS OF USE

Read and agree to the MIRECS Terms of Use (this is your next step after clicking “Continue Registration”). Acceptance of the Terms of Use must be indicated by reviewing all terms; checking each section; and lastly, agreeing to the Terms of Use by pressing the “I Agree” button.

### STEP 4 – COMPLETE ACCOUNT APPLICATION

Upon accepting the Terms of Use, the next screen shows the online New Account Application Form. You will need to complete all required fields that are noted by an asterisk (\*). Note: It will be possible for the public to view the Organization Contact information you provide when your Account is approved.

Upon completing the New Account Application form and clicking SUBMIT, you will receive an Email notification to validate your registration. This validation must occur before the MIRECS Administrator is notified of your pending Account.

### STEP 5 – ACCOUNT REVIEW

The MIRECS Administrator will review the Account application. If the Account application is complete and approved, an email notification of Account approval will be sent to the designated Account Manager Email address provided in the New Account Application form. If materials are incomplete or additional information is required, the MIRECS Administrator will notify the Account Manager. Approved Account Holders may begin using all functions of the system available to their type of Account.

### STEP 6 – BILLING

Applicable Account Subscription and Registration Fees will be billed when the Account is approved. Once the invoice is created, the MIRECS Administrator sends the Account



Manager an Email notification with the invoice and payment details. The Invoice is also made available online via the “My Invoices” report within MIRECS for downloading and printing. Invoices must be paid within thirty (30) days. Failure to pay will result in Account deactivation.

#### STEP 7 – CREATE SUB-ACCOUNT(S) & ADDITIONAL LOGINS

All types of Account Holders must first create an Account for their organization. After Account approval, additional Sub-accounts can be created and Logins added to an Account. Owners of Generating Units or Storage Facilities, in addition to creating an Account, must also register each one of their Generating Units and Storage Facilities, including designation of a Qualifying Reporting Entity. Please refer to the MIRECS’s online help for registration details.

## Appendix B: Asset Registration Process

The following information will guide you through the steps necessary to register an Asset in your Michigan Renewable Energy Certification System account. The Registry Administrator is available to assist you throughout the registration process. Please call 888-964-7327 or email [mirecs@apx.com](mailto:mirecs@apx.com).

### STEP 1 – Review MIRECS Operating Documents

The MIRECS’s operative documents detail the requirements and definitions of different types of Assets. The documents are available on [www.mirecs.org](http://www.mirecs.org).

### STEP 2 - Register Asset

- a. [Log in to your account](#) and select the "Register New Asset" link.
- b. Fill out the information on the New Asset Registration page and select “Next”.
- c. Continue to fill out the information on the second and third page of the Asset Registration screen and press “Submit”.
- d. The Registry Administrator will then be notified of the New Asset Registration.
- e. At any time during this process you can save the form and return to complete it at a later time if you do not have all the required information.

### STEP 3 - Asset Review

The Registry Administrator will review the Asset registration. If the Asset application is complete and approved, an email notification describing account approval will be sent to the Account Holder. At this time an invoice will be issued for any applicable registration and subscription fees. If materials are incomplete or additional information is required, the Administrator will notify the Account Manager.

### STEP 4 – Credit Issuance

Credits can be issued as often as once a month if the metering data has been communicated to MIRECS. Metering data must come from a Qualified Reporting Entity unless the Generating Unit is less than 1 MW in capacity, in which case it can be a Self-Reporting Generator.

## **Appendix C: Essential Generation Characteristics for Aggregate Metering**

Aggregate metering is a term used here to describe what occurs when more than one Generating Unit is registered as one Asset. In order to do this, the Generating Units must have the same “essential generation characteristics.”

As a principle, the “essential generation characteristics” for the purposes of aggregate metering should be any characteristics that affects the Credit’s eligibility for any state program, certification program or in general determines value in the marketplace.

The determination of what counts as the essential characteristics that must be the same across Generating Units that are registered as one Asset and the aggregate metering procedures and requirements will be developed by the Commission in concert with MIRECS stakeholders.

## **Appendix D: Documentation Requirements for Multi-fuel Generation Assets**

Upon registering a Multi-fuel Generation Asset, the Account Holder must submit to the MIRECS Administrator a report prepared by an independent professional engineer containing documentation of a methodology for calculating the electricity production associated with each fuel used during a month. Following the MIRECS Administrator's review and acceptance of such a report's methodology, the Account Holder may seek creation of Credits. This requirement will be waived for Generating Units that provide fuel-split information to a state, provincial or other regulatory authority.

Documentation of the following information used to calculate the proportion of electric output per Fuel Type generated by the Generating Unit during a calendar month must be maintained by Multi-fuel Generation Assets seeking Credits, using the best available sources of information. If the Multi-fuel Generation Asset 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 MIRECS Administrator, for the requirements listed below.

1. Quantities of each Fuel Type (if applicable) must be measurable and verified by documentation provided to Balancing Authority(s), EPA or state air regulators, if available. If such documentation is not available, verifiable documentation of fuel quantities consumed during the month may be considered, such as metered liquid or gaseous fuel input where the meter is read by an independent third party so long as such entity has an agreement with the MIRECS Administrator, or 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 Type (if applicable) must be supported by documentation of heat content measurement by an independent laboratory.
3. If specification of a heat rate is required, the heat rate must be determined according to testing certified by an independent professional engineer consistent with the protocol accepted for plant heat rate testing in the plant's Balancing Authority. If different heat rates apply for different fuels, the determination for each applicable heat rate must meet the requirements of this paragraph.

## Appendix E: MIRECS Fuel Types

**TABLE E1: MIRECS FUEL TYPES**

<b>FUEL/PROJECT TYPE (SHORT DESCRIPTION)</b>	<b>FUEL/PROJECT TYPE(LONG DESCRIPTION)</b>	<b>RENEWABLE</b>	<b>ACEC</b>
BI2	Biomass (ACEC Qualifying)	No	Yes
BI3	Biomass (Non-Renewable) as defined by PA 295 sec 3 (f)	No	No
BIM	Biomass (Renewable) as defined by PA 295 sec 3 (f)	Yes	No
BL2	Landfill Gas (ACEC Qualifying)	No	Yes
BLF	Landfill Gas	Yes	No
CO1	Coal	No	Yes
CO2	Coal - Non ACEC	No	No
DI1	Diesel	No	Yes
DI2	Diesel - Non ACEC	No	No
FC1	Fuel Cells using Hydrogen derived from Fossil Fuels	No	Yes
FC2	Fuel Cells	No	No
GE1	Geothermal Energy	Yes	No
H2O	Hydropower as defined by PA 295 sec 11 (i)(iv)	Yes	No
MS1	Municipal Solid Waste - Renewable	Yes	No
MS2	Municipal Solid Waste - Non-Renewable	No	Yes
NG1	Natural Gas	No	Yes
NG2	Natural Gas - Non ACEC	No	No
NU1	Nuclear	No	No
OI2	Oil/Other Petroleum Based Fuel - Non ACEC	No	No
OIL	Oil/Other Petroleum Based Fuel	No	Yes
SO1	Solar and Solar Thermal Energy	Yes	No
STO	Stored Electricity as defined in PA 295 sec 39 (2)	No	No
WND	Wind	Yes	No
WO1	Waste Oil (ACEC Qualifying)	No	Yes
WO2	Waste Oil	No	No



## **Appendix F: List of Referenced Documents**

MIRECS Operating Procedures  
MIRECS Terms of Use  
MIRECS Fee Schedule  
MIRECS Asset Owner's Designation of Responsible Party  
MIRECS Requirements for Qualified Reporting Entities  
Regulated Person Attestation  
Multi-fuel Affidavit  
Municipal Solid Waste Affidavit  
Michigan Workforce Affidavit  
Michigan Equipment Affidavit  
Self-reporting Affidavit  
On-peak Affidavit  
Electric Storage System Affidavit