

MEMORANDUM

TO: Missouri Public Service Commission Case File
Case No. EO-2013-0462, Ameren Missouri's Request for a Waiver Regarding its
Renewable Energy Standard Compliance Report

FROM: Claire M. Eubanks, P.E., Engineering Analysis

/s/ Daniel I. Beck 4/25/2013 /s/ Jennifer Hernandez 4/25/2013
Engineering Analysis / Date Staff Counsel's Office / Date

SUBJECT: Staff Report and Recommendation to Approve Ameren Missouri's Request for a Waiver

DATE: April 25, 2013

SUMMARY

Staff has reviewed Union Electric Company d/b/a Ameren Missouri's (Ameren Missouri) request for a limited waiver from the requirements of Rule 4 CSR 240-20.100(7)(A)1.(I) for two types of REC purchases - for REC purchases from Ameren Missouri's customers and for RECs purchased from aggregators that are lawfully registered in another renewable energy registry. Based on its review of the information provided by Ameren Missouri and other sources, Staff recommends approval of the waiver request. The solar renewable energy certificates (S-RECs) discussed in the waiver meet the requirements of the Missouri Renewable Energy Standard, 393.1020 through 393.1030, RSMo, and the Commission's Electric Utility Renewable Energy Standard Requirements 4 CSR240-20.100.

OVERVIEW

On April 15, 2013, Ameren Missouri filed a request for a waiver of a specific subparagraph of the Commission's Renewable Energy Standard (RES), Rule 4 CSR 240-20.100(7)(A)1.(I). This subparagraph includes requirements for energy and/or renewable energy certificates (RECs) generated from a renewable energy resource that is not owned by the electric utility. The requirements include providing specific information for each resource that has a rated capacity of ten (10) kW or greater. Specifically, the waiver request pertains to S-RECs that are purchased from Ameren Missouri customers and third party aggregators.

DISCUSSION

4 CSR 240-20.100(7)(A)1.(I) states:

I. For acquisition of electrical energy and/or RECs from a renewable energy resource that is not owned by the electric utility, the following information for each resource that has a rated capacity of ten (10) kW or greater:

- (I) Name, address, and owner of the facility;
- (II) An affidavit from the owner of the facility certifying that the energy was derived from an eligible renewable energy technology and that the renewable attributes of the energy have not been used to meet the requirements of any other local or state mandate;
- (III) The renewable energy technology utilized at the facility;
- (IV) The dates and amounts of all payments from the electric utility to the owner of the facility; and
- (V) All meter readings used for calculation of the payments referenced in part (IV) of this paragraph;

The purpose of this subparagraph is to demonstrate the validity of RECs or S-RECs obtained from sources that are not owned by the electric utility. Generation of renewable energy at company owned resources is typically monitored by revenue quality meters and/or reported through an independent system operator. Resources to which this subparagraph applies are not necessarily monitored by the utility that seeks to retire the associated RECs for compliance purposes. This subparagraph compensates for the lack of utility ownership/control of the renewable energy resource.

The waiver request pertains to two sources of RECs, customer-generators and third party aggregators. Ameren Missouri's tariff allows for Standard Offer Contracts for customer-generators to sell S-RECs created by their systems to Ameren Missouri. Since the customer-owned systems are net-metered and qualified for solar rebates, extensive documentation has been obtained by Ameren Missouri.

Currently, the S-RECs being purchased by Ameren Missouri from third party aggregators are either registered within the Commission-approved tracking system, the North American Renewables Registry (NAR), or are first registered in the Western Renewable Energy Generation Information System (WREGIS) and imported into NAR. Although APX, Inc., developed the infrastructure for both tracking systems, the tracking systems are operated separately and have different operating procedures. Ameren Missouri provided a copy of the December 2010 WREGIS Operating Rules in File EO-2012-0150. NAR recently updated their operating procedures specifically related to aggregation; the April 2013 Operating Procedures are included as Attachment A.

There are two types of aggregation that occur in the tracking systems, aggregation of multiple generating units onto a single meter and small generator aggregation. Aggregation of multiple generating units on a single meter is typically done for facilities that share a revenue-meter but consist of units with

varying online dates or fuel types. The information required to aggregate multiple generating units onto a single meter is the same as any other asset, but the two tracking systems also require the account holder to provide the split of generation.

Small generator aggregation refers to aggregating a group of small generating units, such as residential and commercial scale solar photovoltaic systems, which are not metered together and do not share the same location. Small generator aggregation requires the units to utilize the same technology. The Company's waiver request applies to small generator aggregation; the S-RECs are purchased from aggregators who obtain S-RECs from various solar power producers. WREGIS and NAR have varying requirements regarding the minimum and maximum system size of the small generators. NAR also requires the projects to be located in the same state.

Staff has reviewed the registration requirements for WREGIS and the draft registration requirements for NAR. The following information required by 4 CSR 240-20.100(7)(A)1.(I) is maintained by Ameren Missouri and available for review by Staff upon request:

- I. **Name, address, and owner of the facility:** For customer-generators, Ameren Missouri has this information on file from the solar rebate and net-metering applications. For S-RECs tracked in WREGIS and NAR, the tracking systems require this information as part of the registration process.
- II. **An affidavit from the owner of the facility certifying that the energy was derived from an eligible renewable energy technology and that the renewable attributes of the energy have not been used to meet the requirements of any other local or state mandate:** Customer-generators complete an application process for net-metering and enter into a Standard Offer Contract with Ameren Missouri. As part of the application process, the design specifications are provided by the customer and after installation, a Missouri licensed engineer or electrician inspects the system. In the Standard Offer Contract the customer agrees that the S-RECs will not be sold to any other party during the term of the agreement. For aggregated projects, both NAR and WREGIS require proof that the entity registering an aggregated asset has right to register those facilities. For WREGIS, such proof could be: signed agreements, regulatory orders, governing laws or tariffs. NAR requires the entity registering an aggregating asset to sign an attestation that they have rights to the registration of the asset and have entered into a standard agreement with the asset. A copy of the standard agreement is also required.

- III. **The renewable energy technology utilized at the facility:** The verification is completed as discussed above. Additionally, both NAR and WREGIS collect project-level data including the renewable energy technology utilized by the aggregated projects.
- IV. **The dates and amounts of all payments from the electric utility to the owner of the facility:** The payments to Ameren Missouri's customer-generators are controlled by the Standard Offer Contracts. For calendar year 2012, the Standard Offer Contract pricing was fifty dollars per S-REC. For systems equal to or greater than ten (10) kW, annual payments are made for five (5) years. For the S-RECs tracked in WREGIS and NAR, Ameren Missouri has previously provided an execution date and average price per S-REC for purchases made from third party brokers (JE-2013-0221).
- V. **All meter readings used for calculation of the payments in part IV of this paragraph:** Meter readings used for calculating payments to Ameren Missouri's customer-generators are collected by the Company for systems ten (10) kW or greater. Self-reporting assets registered in NAR, such as aggregated projects, are required to substantiate generation reporting. Additionally, for RECs registered in NAR to be listed as eligible in Missouri, MDNR must approve the project, including small aggregated generators located outside of Missouri. For registering customer-sited distributed generation in WREGIS, the actual cumulative meter readings are entered by either the self-reporting entity or a qualified reporting entity. The two tracking systems currently have sufficient procedures in place to meet the intent of the Commission rules.

CONCLUSION

Based on its review of the information provided by Ameren Missouri and other sources, Staff recommends the Commission grant Ameren Missouri a limited waiver from the requirements of Rule 4 CSR 240-20.100(7)(A)1.(I) for two types of REC purchases - for REC purchases from Ameren Missouri's customers and for RECs purchased from aggregators that are lawfully registered in another renewable energy registry.



**NORTH AMERICAN RENEWABLES REGISTRY
OPERATING PROCEDURES**

April 2013

Table of Contents

Glossary	iii
1 Introduction.....	1
2 NAR User Registration	2
2.1 Participation in NAR.....	2
2.2 Establishing an Account	2
2.3 Account Password Reset.....	2
3 Account Types and Sub-Account Structure.....	3
3.1 Deposits to Active Sub-Accounts	4
3.2 Transfers from Active Sub-Accounts	4
3.3 Retirement Sub-Accounts	5
3.4 Group Retirement Sub-Accounts	5
3.5 Transfers Between Accounts	6
3.6 Compatible Tracking Systems	7
3.6.1 Imports from other Tracking Systems	7
3.6.2 Exports to other Tracking Systems	7
4 Access to Accounts and Confidentiality	8
4.1 Account Access.....	8
4.2 Levels of Account Access.....	8
4.2.1 Account Holder – Supervisor.....	8
4.2.2 Account Holder – View Only	9
4.3 Confidentiality	9
5 Asset Registration	9
5.1 Registering an Asset	9
5.2 Registering a Contract Project	10
5.3 Multi-fuel Generators.....	11
5.4 Small Generator Reporting & Aggregation	12
5.5 Verification of Static Data Submitted During Asset Registration	13
5.6 Updating Static Data	13
5.7 Misrepresentation of Static Information:	14
5.8 Terminating an Asset’s Participation in NAR	14
5.9 Changing the Account with Which an Asset is Associated.....	14
5.10 Assignment of Registration Rights	15
5.10.1 Termination of Registration Rights	15
6 Dynamic Data in NAR – Generation Data/Energy Savings	15
6.1 Generation Data Requirements for Generating Units.....	15

6.1.1	Revenue Metering Standards	15
6.1.2	Measurement of Generation and Adjustments.....	16
6.1.3	Prior Period Adjustments	17
6.1.4	Notification of Adjustments.....	17
6.1.5	Data Transmittal.....	17
6.1.6	Requirements of Data Reporting Entities	17
6.1.7	Special Requirements for Self-Reporting Generators Only.....	17
6.1.8	Multi-fuel Generators.....	18
6.2	Generation Data Requirements for Energy Efficiency Projects	19
6.2.1	Data Transmittal.....	19
6.3	Generation Activity Log	19
7	Creation of Certificates	20
7.1	Certificate Creation	20
7.2	Process and Timeline for Certificate Creation.....	22
7.3	Certificate Creation for Accumulated Generation	22
7.4	Data Fields Carried on Each Certificate	23
8	Certificate Errors and Correction.....	24
8.1	Generation Data Validity Check.....	24
8.2	Certificate Errors Discovered After Certificate Issuance	24
9	Bulletin Board.....	25
10	NAR State Compliance Requirements.....	25
11	Public Reports	26
11.1	Account Holder Reports	27
12	Data Security.....	28
Appendix A: Account Holder Registration Process		1
Appendix B: Asset Registration Process		1
Appendix C: Essential Generation Characteristics for Aggregate Metering		1
Appendix D: Documentation Requirements for Multi-fuel Generators		1
Appendix E: NAR Fuel Types		1
Appendix F: List of Referenced Documents		1

Glossary

Account: An Account is an account in the NAR system.

Account Holder: An Account Holder is a party that has registered with NAR and has established an Account within the NAR system.

Account Holders Report: A public report listing Account Holders registered with NAR. This report includes limited information for contacting the Account Holder. Account Holders can choose to remain private and not appear on this report.

Account Manager: 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 Certificates: A Certificate that is held in an Active Sub-account. Such Certificates may be traded, transferred, exported or retired at the discretion of the Account Holder of the Active Sub-account.

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

Aggregated Project: A group of small (150 kW or less) Generating Units that are not metered together and do not share the same location but that are located within the same state and otherwise share the same essential generating characteristics and that are grouped into one Asset.

Asset: An Asset is either a renewable energy generator, a contract with a renewable energy generator, an energy efficiency project, or an Aggregated Project registered by an Account Holder in the Registry.

Asset Name: The name assigned to an Asset when it is registered in NAR.

Beneficial Ownership Rights: With respect to any Certificate, 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 Certificate or (ii) any economic interest in such Certificate, including without limitation any contractual or other right to receive any proceeds from the sale or other disposition of such Certificate.



Bulletin Board: Forum for allowing Account Holders to publicly post Certificates that they have available for sale.

Bulletin Board Sub-account: A sub-account of an Account Holder's Account and the holding place for all Active Certificates that the Account Holder has posted for sale on the Bulletin Board.

Certificate: A REC or an EEC. The NAR Administrator may consider revision of the definition of a Certificate in the future if needed to better meet the needs of state and provincial programs. See also the definition of "Whole Certificate".

Certification Programs: Voluntary initiative that has set criteria for what qualifies for its program. Examples of Certification Programs referenced in NAR are Green-e Energy and the Low Impact Hydropower Institute (LIHI).

Compliance Program: A state, regional or national program that requires load serving entities to generate, purchase and/or sell a certain amount of renewable energy. Several Compliance Programs currently use NAR, including Missouri, Kansas and Illinois as well as the commonwealth of Puerto Rico. Additional Compliance Programs may be added in the future.

Contract Project: One or more Generating Unit(s) that share one intertie with the distribution/transmission grid and are registered in NAR based on contractual ownership of both RECs and electricity for a fixed share of the generation. See Section 5.2 for details.

Control Area: An electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other Control Areas and contributing to frequency regulation of the interconnection. For the purposes of this document, a Control Area is defined in broad terms to include transmission system operations, market and load-serving functions within a single organization.

Control Area Operator: The operator of a Control Area. May be a system operator, a transmission grid operator or an Account Holder.

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).

Certificate Creation Date: The date that a Certificate is created.



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

EIA: Means the Energy Information Administration.

Energy Efficiency Account: This type of Account can register Energy Efficiency Projects as Assets and have EECs issued to it for its projects. An Energy Efficiency Account can hold, transfer (only outgoing transfers), withdraw and retire EECs. An Energy Efficiency Account cannot receive transfers from other parties.

Energy Efficiency Project: An energy efficiency activity that has been accepted by the NAR Administrator for listing in the Registry.

Energy Efficiency Certificate (EEC): An EEC represents all of the Environmental Attributes from one MWh of electricity savings from an Asset. The Registry will create one EEC per MWh of energy savings that occurs from an energy efficiency project. Individual states and provinces may create different definitions of energy efficiency certificates.

Environmental Attributes: Any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to generation from an Asset or savings from an Energy Efficiency Project and its displacement of conventional energy generation.

Fuel Type: Designates the type of fuel used to fire a generator being registered with the NAR.

Generating Unit: A generator, boiler, turbine, inverter or other prime mover operated to produce electric power.

Generation Activity Log: An electronic ledger where generation or energy savings is posted prior to Certificate creation. Each time generation or energy savings data is received by NAR for a particular Asset, the date and quantity is posted to the Generation Activity Log. Adjustments received will be posted likewise.

Generation Month: The calendar month in which the generation or energy savings occurred.



General Account: This type of Account can hold, transfer (outgoing and incoming), and Retire certificates. A General Account can also register and maintain Assets and have Certificates issued to it for its projects. A General Account is the only type of Account that can hold a Group Retirement Sub-account (see Section 3.4 below). This is the only account type that can Retire Certificates for any Compliance Program utilizing NAR.

Group Retirement Sub-account: A type of Retirement Sub-Account used to designate Certificates being Retired by an Account Holder on behalf of an Indirect Owner. Once a Certificate has been transferred into a Retirement Group Sub-account, it cannot be transferred again to any other Account.

Inbox: Certificate 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 certificates 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 Certificates held in an Account Holder's Group Retirement Sub-account.

Load-Serving Entity (LSE): Any organization selling retail electricity to end users, such as investor owned utilities, municipal utilities, and electric coops. Sometimes referred to as an "electric service provider." In NAR, LSE can also mean organizations that aggregate for member or customer LSEs.

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

Multi-fuel Renewable Energy Generator: A generator 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

NAR or Registry: As defined in Section 1 below.

NAR Administrator: The entity with the authority to administer or oversee the administration and implementation of the NAR Operating Rules. APX, Inc. serves as the Administrator of NAR.

NAR Projects Report: A public report listing of all registered Assets within the NAR system.

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.



Outbox: After initiating a Certificate transfer the Account Holder will see the Certificates in their Outbox. The Account Holder to whom the Certificates have been transferred will either accept or reject the transfer. If rejected, the Certificates will be returned to the Active Sub-account from which they were transferred.

Program Administrators: Administrators of Compliance and/or Certification Programs. Program Administrators can have a separate Account type (see Program Administrator Account below) allowing them functionality to denote eligibilities for the specific program as well as other verification functionalities.

Program Administrator Account: Account type provided to administrators of Compliance and Certification Programs that utilize NAR and/or have eligibilities noted for certain Certificates. It will allow Program Administrators to review eligibilities and compliance reports. Asset details will be displayed in a Program Administrator Account if the Account Holder registering that Asset has listed it as eligible according to the specific program.

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

Qualified Reporting Entities (QRE): An entity reporting meter reading and other generation data to the NAR Administrator. Qualified Reporting Entities may include Control Area Operators and other independent parties accepted by the NAR Administrator, and for certain Customer-Sited Distributed Generation, the generation owner or customer. The protocol for such reporting is outlined in the North American Renewables Registry Requirements for Qualified Reporting Entities document.

Qualified Reporting Entity (QRE) Account: An Account Holder with a QRE Account is assigned to a project and is responsible for verifying generation or savings information from that project. NAR tracks the specific types of projects for which QRE's are approved to provide services, ensuring that they are suitably qualified and accredited. The QRE Account cannot hold a Certificate.

REEPS: As defined in Section 1 below.

Registration Rights: The right to register an Asset in the Registry. These rights are held by the owner of an Asset or by an entity that has been designated as a Responsible Party for a specific Generating Unit(s).

Renewable Energy Certificate (REC): A REC represents all of the Environmental Attributes from one MWh of electricity generation from an Asset. The NAR system will create one REC per MWh of generation that occurs from a Generating Unit or Contract



Project. Individual states and provinces may create different definitions of renewable certificates.

RECC: Means Renewable Energy Certificate Contract.

Renewable Energy Project: One or more Generating Unit(s) that share one intertie with the distribution/transmission grid and are registered in NAR.

Renewable Portfolio Standard (RPS): A legislative or administrative requirement imposed on electrical utilities or Load-Serving Entities in a given jurisdiction that requires them to generate a designated percentage of their total generation/retail portfolio from renewable energy resources.

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 NAR.

Retail Purchaser Account: Account type for retail purchasers of Certificates. A Retail Purchaser Account can hold, accept incoming transfers, and Retire Certificates. They can also register and maintain Renewable Energy Projects that are under 1MW in capacity and have RECs issued in their account. A Retail Purchaser Account cannot make outgoing transfers.

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

Retire, Retirement of Certificates, or Retirement: An action taken to remove a Certificate from circulation within the NAR system. Retirement may be initiated only by the Account Holder for Certificates in his/her own Accounts. Retirement is effectuated by transferring Certificates into a Retirement Sub-account or a Retirement Group Sub-account.

Revenue-Quality Meter: As defined in Section 6.1.1 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 NAR Administrator via the Self-Reporting Interface pursuant to Section 6.1.7

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 NAR Administrator pursuant to Section 6.1.7.



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

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

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 NAR Administrator. The NAR system will be able to track the specific activities of each User through the unique login and password.

Whole Certificate: A Whole Certificate is one where none of the Environmental Attributes have been separately sold, given, or otherwise transferred to another party by a deliberate act of the Certificate owner. See also definition of Certificate.

1 Introduction

The North American Renewables Registry (**NAR** or the **Registry**) collects and tracks information regarding renewable energy generation and energy efficiency savings originating within North America. NAR is designed to provide a policy-neutral, market-driven, electronic system for participants in the voluntary and compliance renewable markets. The States of Kansas and Missouri and the Commonwealth of Puerto Rico have designated NAR as the compliance registry for their renewable energy standards, the State of Illinois has authorized NAR as one of three eligible registries for generators serving the Illinois compliance market and the State of North Carolina has authorized NAR to serve as an eligible registry for out-of-state generators eligible for the North Carolina Renewable Energy and Energy Efficiency Portfolio Standard (**REEPS**).¹ By creating a reliable process to evidence verification, issuance and Retirement of Renewable Energy Certificates and Energy Efficiency Certificates, NAR brings increased levels of integrity and trust to purchasers, sellers and regulators in the market.

The NAR Administrator will issue one electronic Certificate for each MWh of renewable energy or energy savings that is generated by registered Assets. NAR will track and display the certifications and program eligibilities associated with each Certificate, as established by documentation and/or third-party verification during the Asset registration process. Assets can be registered in NAR based on ownership of the Asset or, if authorized, based on acting as the Responsible Party for the Asset.

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

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

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

Certificates will indicate if the issued Certificate is eligible for one or more of the following compliance and voluntary programs: Illinois RPS, Kansas RES, Missouri RPS,

¹ In order for Certificates to be Retired against the North Carolina REEPS they will have to be exported from NAR to the North Carolina Renewable Energy Tracking System (**NC RETS**).



New York RPS, North Carolina REEPS, Green-e Energy, the Low Impact Hydropower Institute and the US EPA Green Power Partnership. . Additional eligibilities may be added.

NAR 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 NAR website. These public reports are designed to ensure Registry transparency as to Certificates issued and Retired as well as providing visibility to the Certificate attributes and program eligibilities.

2 NAR User Registration

2.1 Participation in NAR

Participation in NAR is voluntary, though some Certification and Compliance programs require participation in NAR for purposes of program compliance. Any party that registers with NAR and pays the applicable fees² may seek to establish an Account in the Registry. NAR will track Certificates originating from Assets registered in NAR until those Certificates are transferred out of NAR.

2.2 Establishing an Account

Any person or entity wanting to participate in NAR must establish an Account. Registrants will provide basic Account registration information, such as Account Holder name, address and contact information, to the NAR Administrator through a secure web-page on the NAR website³ and agree to the Terms of Use. See [Appendix A](#) for step-by-step instructions. The NAR 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 NAR Administrator. Accounts can also be terminated if an Account Holder fails to pay the Registry 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.

2.3 Account Password Reset

If an Account Holder forgets the password for their NAR Account, the Account Holder will click on “Forgot Password” and will be prompted to enter their login name and additional verifying information. Account Holders will then be prompted to answer the security question they created during their account registration. Once submitted, a new password will be sent to the Account Manager’s email address.

² As described in the NAR Terms of Use and the NAR Fee Schedule, available online at <http://narecs.com>

³ <http://narecs.com>

3 Account Types and Sub-Account Structure

There are seven types of Accounts in NAR:

- **General Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Certificates. A General Account can also register and maintain Assets and have Certificates issued to it for its Assets. A General Account is the only type of Account that can hold a Group Retirement Sub-account (see Section 3.4 below).
- **Project Account:** This type of Account can register renewable energy projects as Generating Units and have RECs issued to it for its projects. A Project Account can hold, transfer (only outgoing transfers), withdraw and Retire RECs. A Project Account cannot receive transfers from other parties.
- **Energy Efficiency Account:** This type of Account can register Energy Efficiency Projects as Assets and have EECs issued to it for its projects. An Energy Efficiency Account can hold, transfer (only outgoing transfers), withdraw and Retire EECs. An Energy Efficiency Account cannot receive transfers from other parties.
- **Retail Purchaser Account:** This type of Account is for retail purchasers of RECs. A Retail Purchaser Account can hold, accept incoming transfers, and Retire RECs. They can also register and maintain projects that are under 1MW in capacity and have RECs issued in their Account. A Retail Purchaser Account cannot make outgoing transfers.
- **Qualified Reporting Entity (QRE) Account:** An Account Holder with a QRE Account is assigned to a project and is responsible for verifying generation or savings information from that project. NAR tracks the specific types of projects for which QRE's are approved to provide services, ensuring that they are suitably qualified and accredited. The QRE Account cannot hold Certificates.
- **Program Administrator Account:** This type of Account is provided to administrators of compliance and voluntary programs that utilize NAR and/or have eligibilities noted for certain Certificates. 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.
- **NAR Administrator Account:** This type of account is provided to the NAR Administrator and allows full access to all NAR functionalities.

Accounts that can hold Certificates (General, Project, Energy Efficiency 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 cannot be renamed if they hold Certificates. When Certificates are deposited into an Account by the NAR Administrator, they are placed into an Active Sub-account that is designated when an Asset is registered. When Certificates 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 Certificates held in each Sub-account and their attributes (e.g. documents, eligible program certifications and origination details).

Accounts that can hold Certificates will also have a single Bulletin Board Sub-account, used to post Certificates for sale on the Registry's Bulletin Board as well as an Export sub-account. 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, Account Holders cannot hold Certificates on behalf of any other party. An Account Holder must have full legal title of and all Beneficial Ownership Rights in the Certificates held in its Accounts.

3.1 Deposits to Active Sub-Accounts

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

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

3.2 Transfers from Active Sub-Accounts

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

- (a) Transfer the Certificates to the Account of another Account Holder.
- (b) Transfer the Certificates 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 Certificates that the Account Holder wants to designate as Retired.⁴ There are three ways that Certificates are deposited in a Retirement sub-account:

- (a) Within an Account, Certificates 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 Certificates 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 Certificates into a Retirement Sub-account.

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

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

NAR system validations ensure that Certificates deposited in a Retirement Sub-account are no longer transferable to another party or another Sub-account. System reports allow Account Holders to show evidence of the Retirement to Program Administrators or the public.

3.4 Group Retirement Sub-Accounts

In order to provide full transparency to markets and regulators, as well as enhancing the integrity of the Registry's ownership records, as a general matter Account Holders cannot hold Certificates on behalf of any other party. The one 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 Certificates on behalf of Indirect Owners solely for purposes of retiring such Certificates.

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



The establishment and use of a Group Retirement Sub-Account are subject to the following provisions:

- (a) All legal title to and Beneficial Ownership Rights in any Certificate Retired in a Group Retirement Sub-account must be held by one or more Indirect Owners that have authorized the Retirement of the Certificate and the disclosure of information relating to such Certificate to NAR and the NAR Administrator.
- (b) Only Certificates that are being Retired on behalf of an Indirect Owner can be put into a Group Retirement Sub-account.
- (c) No Account Holder holding one or more Group Retirement Sub-accounts may Retire more than an aggregate of 19,999 Certificates in such Sub-accounts during a calendar year on behalf of any Indirect Owner.
- (d) If an Account Retires more than 99 Certificates during a calendar year on behalf of an Indirect Owner, the Account Holder shall report, concurrently with each Retirement, the following information:
 - (1) the name and email address of the Indirect Owner (and, if applicable, of each other individual or organization comprising the Indirect Owner on whose behalf such Retirement is made), and
 - (2) the reason for such Retirement of Certificates.

For purposes of applying the 19,999 REC and 99 REC thresholds, if a Certificate is Retired on behalf of an Indirect Owner comprised of multiple individuals and/or organizations, it shall be deemed to have been Retired on behalf of each such individual and/or organization.

3.5 Transfers Between Accounts

General, Project and Energy Efficiency Account Holders may transfer Active Certificates to other Account Holders at any time. Certificates 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 Certificates that are pending transfer will be marked as “transfer pending” in the Account Holders Outbox. This will have the effect of “freezing” the Certificates 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 Certificates to the proposed recipient. The transfer recipient can review the Certificate 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 Certificates are to be delivered. As soon as the recipient has confirmed or



rejected the transfer, NAR 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 NAR. If the transfer is withdrawn, NAR will notify the recipient of the action.

3.6 Compatible Tracking Systems

NAR is set up to accept transfers of eligible Certificates from compatible tracking systems. A compatible tracking system is a system that has set-up up a process with NAR on how to handle imports and/or exports and implemented the required technology. NAR is working towards setting up imports and exports with all REC registries in North America. The list of currently accepted REC imports and exports is maintained on the NAR website at: <http://narecs.com>

3.6.1 Imports from other Tracking Systems

In order to import a Certificate from another tracking system the Account Holder in the exporting tracking system will need to follow that tracking system's procedures for an export. This generally includes designating a specific batch of Certificates for export and designating the importing registry (i.e. NAR) and the importing NAR Account Holder.

The NAR Account Holder will see the imported Certificates in their Inbox module with a note stating that these are import Certificates. The Certificate transferor will be NAR Administrator.

The imported Certificates will have a unique Serial Number that references the originating registry instead of NAR. The Certificate data screen will also contain the original Serial Number from the issuing registry. All Projects from which Certificates have been imported into NAR will be listed on the public 'Imported Facilities' report. No information about the quantity transferred and the parties involved in the transaction will be publicly posted.

Tracking systems track fuel types differently. Certificates in NAR will issue with the Fuel Type used by NAR.

3.6.2 Exports to other Tracking Systems

In order to export a Certificate to another tracking system the NAR Account Holder will designate a specific batch of Certificates for export and designate the registry and Account Holder to whom the Certificates should be delivered.

After the transfer has been initiated, it will show up in the NAR Account Holder's Outbox module as "Pending." It will remain "Pending" until the NAR Administrator confirms that the Certificates are eligible for export to the importing tracking system.

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 NAR Terms of Use shall apply to any person who receives access to a Registry Account from an Account Holder or Account Manager.

Once a login is established, NAR 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 Registry for the first time, the new User will be prompted by the Registry 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 NAR Administrator may at any time remove or add permissions to a login by using the account administration screens.

The NAR 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 certificates, 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 Certificates 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 NAR and all related NAR documents, the term “Asset” is used to refer both to (1) a Renewable Energy Project, and (2) an Energy Efficiency Project. An Asset is registered by an Account Holder by entering Static Data into NAR describing the attributes of the Asset, subject to the review and approval by the NAR Administrator. Once the Asset is approved, Dynamic Data is entered to identify monthly renewable energy generation or monthly energy savings for which Certificates are to be issued. Step-by-step instructions for registering an Asset can be found in [Appendix B](#).

Any Asset not approved within the Registry within a year from the time such Asset is listed therein shall be deactivated in the Registry, unless a grace period of three (3) months is requested by Account Holder. Deactivation does not preclude Account Holder from registering the Asset with the Registry at a later date, but until such time as the Asset is registered, the Asset will no longer be viewable in the Registry.

5.1 Registering an Asset

To ensure that double-counting does not occur, Assets being registered in NAR must have 100% of their output or energy savings, respectively, tracked by NAR. If a Generating Unit or Energy Efficiency Project was registered in another tracking system at one point, the NAR Administrator should be notified of this during the registration process and the Account Holder should be prepared to provide documentation to prove the Asset has been removed from the previous tracking system.

An owner of a generator who wants NAR to create Certificates in respect of that unit must first establish an Account within the NAR system as described above and then register the generator as a Generating Unit. The Account types that can register renewable generators are the Project Account, the General Account and the Retail Purchaser Account (subject to a size limitation). An owner of an Energy Efficiency Project who wants NAR to create Certificates in respect of that project must first establish an Account within the NAR system as described above and then register the project as an Energy Efficiency Asset. The only Account type that can register Energy



Efficiency Projects is the Energy Efficiency Account. Registration with NAR does not imply or confer acceptance into or eligibility for any voluntary certification program or any state's Renewable Portfolio Standard or energy efficiency program.

To register a generator or an Energy Efficiency Project as an Asset, the owner or the Responsible Party⁵ must:

- Have an approved Account;
- Submit a completed on-line registration form containing information related to the characteristics of the Asset;
- Submit proof of title and/or additional documentation proving the Account Holder is either the owner of the generator or Energy Efficiency Project or has the owner's permission to act as the Responsible Party and register the generator or Energy Efficiency Project in NAR in order to receive Certificates⁶; and
- Pay any applicable registration fee.⁷

The NAR Administrator will review the submitted documentation and may require additional documentation to be submitted before a generator is accepted as an Asset.

5.2 Registering a Contract Project

NAR will allow the registration of a Contract Project based on contractual ownership of the electricity and RECs associated with a specific Renewable Energy Generator on a limited basis.⁸ For each applicable contract, Account Holders are required to enter details describing the renewable generator associated with the contract. This facilitates Account Holder data-entry and creates consistency across all types of Certificates, since all future owners of the Certificates from a Contract Asset can view the generator details in the same manner as is displayed for Certificates issued to a Generating Unit. Serial numbers differentiate between Certificates from Generating Units versus Contract Assets.⁹

To ensure that double-counting does not occur, the renewable generator associated with a contract being registered as a Contract Asset will either have 100% of its output tracked by NAR or will only be registered on the basis of historical, publicly available data (e.g., EIA reports). Account Holders can only register contracts as Contract Assets if the contract and its associated renewable generator are not already registered in NAR or any

⁵ The Responsible Party is an entity to whom the owner of a generator or energy efficiency project has given Registration Rights. This is described in detail in Section 5.10.

⁶ Generators or Energy Efficiency Projects that are jointly owned must have a single party, privately appointed among the owners, to act as the Account Holder.

⁷ See the NAR Fee Schedule for a description of all Registry fees.

⁸ This is done in part to accommodate the transition from markets with no existing REC tracking system to markets where electronic tracking of RECs is required by voluntary and Compliance Programs and customers.

⁹ Serial numbers for Certificates from Generating Units include REC while serial numbers for Certificates from a Contract Asset include 'RECC'.

other REC tracking registry. If either was registered in another tracking system at one point, the NAR Administrator should be notified of this during the registration process and the Account Holder should be prepared to provide documentation to prove the contract and its associated generator has been removed from the previous tracking system.

An owner of a contract who wants NAR to create Certificates in respect of the generation purchased there under must first establish an Account within the NAR system as described above and then register the contract as a Contract Project. The only Account type that can register a Contract Project is a General Account. Registration with NAR does not imply or confer acceptance into or eligibility for any voluntary certification program or state's Renewable Portfolio Standard program.

To register a contract as a Contract Project, the owner must:

- Have an approved General Account in NAR;
- Submit a completed on-line registration form containing information related to the characteristics of the contract and its related generator;
- Submit contractual documents that document the ownership of the renewable and environmental attributes produced by the associated generator as well as the associated energy; and
- Pay any applicable registration fee.¹⁰

The NAR Administrator will review the submitted documentation and may require additional documentation to be submitted before a contract is accepted as a Contract Project.

When and if a renewable generator associated with Contract Project registers in NAR as a Generating Project, all Contract Project registrations associated with the newly registered Renewable Energy Project must be terminated. The Account Holder of the Contract Project will no longer be directly issued Certificates.

5.3 Multi-fuel Generators

A "Multi-fuel Generator" 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). Such facilities must register with NAR as a Multi-fuel Generator. If the relative quantities of electricity production from each fuel cannot be measured or calculated, and verified, the generator is not eligible to register in NAR.

¹⁰ See the NAR Fee Schedule available at <http://www.narecs.com> for a description of all Registry fees.

For Multi-fuel Generators, the owner or Responsible Party is required to indicate the percentage of electricity output coming from each type of fuel for each period of generation reported. The NAR system will use total electricity output and this percentage to issue fuel-specific Certificates for the electricity output associated with renewable generation. Account Holders with Multi-fuel Generators may be asked by the NAR Administrator to produce documentation supporting the indicated electricity output by fuel source. Supporting documentation could include third-party verification reports.

5.4 Small Generator Reporting & Aggregation

A group of small Generating Units that are not metered together and do not share the same location but that are located within the same state and otherwise share the same Essential Generating Characteristics can be registered as an Aggregated Project in NAR under the following conditions:

- The nameplate capacity of each Generating Unit is less than 150 kW;
- The Generating Units being aggregated are located in the same state;
- The Generating Units being aggregated utilize the same technology/fuel type; and
- The aggregated Nameplate Capacity has to be less than 1 MW.

If the Generating Units being aggregated became operational in different years, the Aggregated Project will be assigned the oldest operational year.

When registering several Generating Units into one Asset (Aggregated Project flag set to “yes”), the NAR Administrator will:

- (a) Collect project level information that is shared across all Generating Units;
- (b) Collect generating unit-level registration information for each generating unit aggregated in the Aggregated Project; and
- (c) Verify that the total aggregated Nameplate Capacity does not exceed 1MW.

FOR MISSOURI LOCATED SMALL GENERATORS ONLY: If the Generating Units being aggregated are less than 10 kW and the generation is based on estimates rather than metering records, they can be registered without providing the project-level detail for each unique project provided that the following conditions are met:

- (a) The estimation methodology has been approved by the Missouri Department of Natural Resources; and
- (b) The Account Holder registering the Asset keeps records of all individual generating units and estimates and makes them available upon request from the NAR Administrator.

5.5 Verification of Static Data Submitted During Asset Registration

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

In the event data submitted is found to be false or if there is a discrepancy between the information submitted during the on-line registration process and the materials provided to verify the information, the NAR 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 NAR Administrator and the registrant until the NAR Administrator is satisfied that the information provided meets NAR standards for accuracy.

In some cases, the NAR 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 registering the Asset.

5.6 Updating Static Data

After the initial Asset registration in NAR, Account Holders can continually notify NAR of the following that have the effect of changing Static Data tracked by the system:

- (a) A change in Fuel Type for a generator, 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 NAR Administrator. Neither NAR nor the NAR Administrator will be liable for depositing Certificates 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 to Asset-eligibility for any programs or certification tracked by NAR. This must be communicated by the Account Holder before any Certificates affected by the change are issued or within thirty (30) calendar days after the change occurs.
- (d) A change to any of the “essential generating characteristics” of the Asset.

5.7 Misrepresentation of Static Information:

Account Holders can be removed from NAR for cause, including willful misrepresentation of Static Data. NAR reserves the right to withhold issuing Certificates, to freeze an account associated with a particular Asset, or to withhold participation in NAR for Assets that have willfully misrepresented Static Data.

5.8 Terminating an Asset's Participation in NAR

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

- (a) The date the Asset should be/will be removed from the NAR tracking system¹¹,
- (b) The name of the Asset's reporting QRE, if applicable; and
- (c) The Sub-account to which Certificates have been deposited (if the usual Account for deposit is being closed as well).

NAR will issue Certificates for an Asset up to the date of Asset termination as instructed by the Asset's owner or Responsible Party. No Certificates 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 Certificates that have not yet been issued should be deposited. Failure to do so will result in loss of Certificates.

If the NAR Administrator has cause to suspend the Asset's participation in NAR, no Certificates will be created while the Asset is under suspension.

5.9 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 NAR Administrator and providing the information requested by the NAR 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.

Certificates 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 savings 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 Certificates relating to generation or savings that occurred prior to March 1, will be deposited into Account A (even though the date of

¹¹ This is the same as the final date of generation for which Certificates are to be issued.

deposit will likely be after March 1, given the expected time delay between actual generation or savings and Certificate issuance).

When changing the Account with which an Asset is associated, there cannot be any time where 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.

5.10 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 Certificates 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 NAR. For the purposes of NAR, this Account Holder will be considered the Responsible Party for that Asset.

NAR 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.

5.10.1 Termination of Registration Rights

Registration Rights may be terminated by either the Asset's owner or Responsible Party. Termination of Registration Rights has the effect of deregistering the Asset from NAR. If the Registration Rights assignment has been terminated, no new Certificates will be issued from that Asset until it is registered again.

6 Dynamic Data in NAR – Generation Data/Energy Savings

6.1 Generation Data Requirements for Generating Units

Certificates are issued for any renewable energy production that otherwise would have been served by a non-renewable resource if not for the generator. NAR will not create Certificates for generation supplying station service. Data used to issue Certificates for renewable generation must be derived from a Revenue-Quality Meter and communicated to the NAR Administrator by a Qualified Reporting Entity unless the Nameplate Capacity is less than 1 MW, in which case it can be self-reported.

6.1.1 Revenue Metering Standards

All generators participating in NAR must use a Revenue-Quality Meter. For generators that are interconnected to a utility or Control Area Operator, a "Revenue-Quality Meter" is any meter used by the reporting Control Area Operator for settlements. The data must be electronically collected by a meter data acquisition system, such as an 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.

For generators that do not go through a Control Area 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 NAR Administrator by a QRE 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.

6.1.2 Measurement of Generation and Adjustments

The output from each Asset registered in NAR 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 Certificates created. NAR will not create Certificates for that portion of the generation that is used to supply station service, and therefore, generation data should also be netted of station service supplied from the generator's side of the point of interconnection. For wholesale generators also serving onsite loads, NAR will create Certificates for the on-site load distinct from station service, if the generator'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 NAR 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 NAR Administrator. If Certificates have not yet been created for the original generation amount to which the adjustment applies, the credit or debit will be posted to the Generation Activity Log, and will be reflected in the number of Certificates created that month. If Certificates have been created, the adjustment will be treated as a prior period adjustment described below in Section 6.1.3.

6.1.3 Prior Period Adjustments

Adjustments can be made by an Account Holder after the data is reported and used to issue Certificates in NAR. 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 NAR Administrator. If accepted by the NAR 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 Certificates are next issued. If new Certificates are created, the vintage of the Certificates shall reflect the actual generation period. The NAR Administrator will not accept adjustments for generation reported more than two years prior.

6.1.4 Notification of Adjustments

The Account Holder will be informed of all credit or debit adjustments as soon as the adjustment has been posted to the Generation Activity Log. Once NAR informs the Account Holder of a need for adjustment, the Account Holder then has ninety (90) calendar days to dispute or accept the adjustment. If after ninety (90) days the Account Holder has failed to respond, the NAR Administrator will automatically accept the adjustment.

6.1.5 Data Transmittal

Data files are to be electronically transmitted to NAR using a secured protocol and a standard format specified by the NAR Administrator. The data shall reflect, at a minimum, the month and year of the generation, monthly accumulated MWhs for each meter ID and the associated meter ID(s) for each resource. The owner of the Generating Unit, as the owner of the metered data, or the Responsible Party, has the responsibility to direct the Control Area Operator to release generation data to NAR.

The data must be transmitted by a single entity, which must be either (1) a QRE or (2) a Self-Reporting Generator (for Customer-Sited Distributed Generation installations less than 1 MW Nameplate Capacity that have opted to be so treated).

6.1.6 Requirements of Data Reporting Entities

NAR will accept generation data from QREs and Self-Reporting Generators. The *NAR Requirements for Qualified Reporting Entities* document describes the terms and conditions under which the QRE agrees to exchange information and conduct business with NAR. 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.

6.1.7 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 from the NAR Administrator. Any such generator not entering a cumulative meter reading within thirty (30) days of receipt of such a notice may be deemed inactive by the NAR 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.

6.1.8 Multi-fuel Generators

For Multi-fuel Generators, Certificates will be created for the renewable Fuel Type(s) only.¹² Each Certificate issued for a Multi-fuel Generator will reflect only one fuel source, with the total number of Certificates issued for a Fuel Type being proportional to the overall output for that reporting period.

The generator or its associated Account Holder must submit supporting documentation related to the derivation of the proportion of electric output per Fuel Type for each period for which the generator or Account Holder is issued Certificates. The NAR Administrator will require copies of such calculations, and supporting documentation may be subject to audit by the NAR Administrator, state regulators, QREs, certification organizations or their agents.

For purposes of creating Certificates reflecting the fuel source mix of Multi-fuel Generators, the proportion of Certificates 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 Certificates for each Fuel Type in such Multi-fuel Generator will be created in proportion to the ratio of the net heat content of each fuel consumed to the net heat content of all fuel consumed in that month, adjusted to reflect differential heat rates for different fuels, if applicable.
- (b) Other: Multi-fuel Generators not fitting the descriptions provided by certification organizations (e.g., Green-e Energy) should request from the certification organization a decision on allocating output for each Fuel Type for their situation. Such a decision will set a precedent for similarly situated generators. Any new methodology must be approved by the certification organization and presented to the NAR Administrator prior to Certificates being issued for that generator.

¹² For example, a coal-fired generator that uses less than 1% of biomass co-firing can be considered a Multi-fuel Generator and have biomass Certificates issued in respect of that biomass-fired generation.

In addition, upon registration, all Multi-fuel Generators must submit to the NAR 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](#).

6.2 Generation Data Requirements for Energy Efficiency Projects

Certificates are issued for energy savings resulting from a specific Energy Efficiency Project. Data used to issue Certificates for energy savings must be a result of a specific measurement and verification process that includes independent certification of the energy savings. The energy savings are reported by a Qualified Reporting Entity and cannot be self-reported.

6.2.1 Data Transmittal

Data files are to be electronically transmitted to NAR using a secured protocol and a standard format specified by the NAR Administrator. The data shall reflect, at a minimum, the month and year of the energy savings, monthly accumulated savings for each project. The data must be transmitted by a Qualified Reporting Entity.

6.3 Generation Activity Log

Each Project, General, Energy Efficiency and Retail Purchaser Account registered in NAR will have a Generation Activity Log associated with it. The Generation Activity Log is an electronic ledger where generation and energy savings is posted prior to Certificate creation. Each time data is received by NAR 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:

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

- **NAR Admin Disputed:** The NAR Administrator has disputed the posted amount of generation.
- **Certificates Created:** Certificates have been created.

The status of each entry in the Generation Activity Log will be changed consistent with the information received by the NAR Administrator. Certificates will be issued based on the total whole number of MWhs on the Generation Activity Log that are marked “Account Holder Accepted” or “NAR Accepted.” Only Certificates that are marked as such will contribute to Certificate creation. Any fractional MWh will be rolled forward until sufficient generation is accumulated for the creation of a Certificate. Each time an item is posted to the Generation Activity Log, the Account Holder will be notified electronically.

The Generation Activity Log will include the following entries:

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

7 Creation of Certificates

Certificates are issued in whole numbers only. A Certificate created and tracked within NAR will represent all of the attributes from one MWh of renewable generation or energy savings. Certificates are “Whole Certificates,” meaning that none of the Environmental Attributes may be split off from the Certificate while it is in circulation in the NAR system. Once a Certificate is created, no changes can be made to that Certificate.

7.1 Certificate Creation

NAR will issue one Certificate for each MWh of renewable energy that is generated and each MWh of energy that is saved by an Asset. Certificates are issued based on the

number of whole MWhs listed in the Generation Activity Log for a given reporting period. Each Certificate shall have a unique serial number. Certificate serial numbers shall contain codes embedded in the number. The table below identifies the serial number format used in NAR.

Table 1: NAR Serial Number Identifiers

Identifier	Display Order	Data Type	Length	Range of Codes	Comments
Originating Registry	1	Alpha-numeric	3	NAR, MRETS, NCRETS, WREGIS, MIRECS	Used to identify originating registry.
Unit type	2	Alpha-numeric	4	REC = Renewable Energy Credit issued for a Generating Unit. RECC = Renewable Energy Credit issued for Environmental Attributes obtained pursuant to a contract with a renewable energy facility not registered as a Generating Unit EEC = Energy Efficiency Certificate issued for an Energy Efficiency Project.	Used to identify if the issuance is based on a facility registration with NAR
Asset ID	3	Numeric	6	1-999999	Unique ID assigned to each Asset record in NAR.
State	4	Alpha-numeric	2		State Abbreviation identifying the State in which the renewable energy generation or energy savings occurred.
Vintage Month	5	Numeric	2	01-12	The month in which the renewable energy generation or energy savings occurred.
Vintage Year	6	Numeric	4	07-99	The year in which the renewable energy generation or energy savings occurred.
Batch Number	7	Numeric	5	Numeric value assigned to the each batch of credits created 1 – 99,999 unique per originating generator or project per vintage.	
Serial Block Start	8	Numeric	9	Numeric values assigned by registry from 1 - 999,999,999.	A number to identify the first certificate in a block of certificates.
Serial Block End	9	Numeric	9	Numeric values assigned by registry from 1 - 999,999,999.	A number to identify the last certificate in a block of certificates.

7.2 Process and Timeline for Certificate Creation

Historical generation and energy savings data can be submitted for Assets for vintages up to two years prior to when the Asset was first registered in NAR. Reporting of such historical data has to take place within 3 months of registering the Asset in NAR. Reporting of generation and energy savings data for vintages after the date when the Asset was registered in NAR has to be completed within one year of when the generation took place.

Once the generation or energy savings data is received by the NAR Administrator and a data validity check is performed, it will post in the Account Holder's "Generation Activity Log" and NAR will notify the Account Holder via email that the data has been posted. The posting will be marked "NAR Accepted" on the Generation Activity Log. Once the data is accepted by the Account Holder, the generation posting will be marked "Account Holder Accepted." and Certificates will be issued immediately following this. If the Account Holder takes no action, data in 'NAR Accepted' status will result in Certificate issuance 14 days after the data was reported. The exception to this schedule is if the generation data is a 'Pending' status due to it failing feasibility (see Section 8) or if multi-fuel allocations are required (see below).

The Account Holder must notify the NAR Administrator if it believes the generation or energy savings data 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 14 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 NAR Administrator, the Certificates will be created in 14 days.

For Multi-fuel Generators, RECs will not issue until the Account Holder both accepts the generation data and supplies supporting fuel allocation data. The Account Holder must submit to NAR the proportion of energy output to be allocated to each Fuel Type. The Account Holder provides the Fuel Type allocation via the Generation Data Review screen located in the Account Holder's Asset Management Module. The fuel allocation information will remain available in NAR for audit purposes. Account Holders must retain for audit the work papers demonstrating how they determined the fuel allocation for each reporting period.

7.3 Certificate Creation for Accumulated Generation

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

7.4 Data Fields Carried on Each Certificate

Each Certificate carries a list of data fields. These fields include those listed below and additional fields may be added in the future:

DATA FIELD	COMMENTS
CERTIFICATE DATA:	
NAR ID	Unique ID assigned to each Asset record in NAR.
Asset Type	Used to identify if the issuance is based on a Generating Unit or an Energy Efficiency Asset
Asset Name	Name of Asset
Primary Facility Name	Name of facility
Certificate Vintage	Vintage of Generation
Certificate Serial Numbers	See details above
Quantity of Certificates	Total Certificates
Avoided Carbon, Green-e Climate Protocol (Metric Tons CO ₂ e)	If eligible, calculated based on resource type and location.
Avoided Carbon, US EPA Climate Leaders Protocol (Metric Tons CO ₂ e)	If eligible, calculated based on resource type and location.
Meter Data From: NA	
Meter Data To: NA	
Certificate Creation Date:	Date certificates were issued in NAR
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
Qualified 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 State and Provincial RPS Selections	(not currently applicable)
ELIGIBILITY FOR VOLUNTARY PROGRAMS:	
KS	Denotes eligibility for the Kansas Renewable Energy Standard
MO	Denotes eligibility for the Missouri Renewable Electricity Standard

NC	Denotes eligibility for the North Carolina Renewable Energy and Energy Efficiency Standard
NY	Denotes eligibility for the New York Renewable Portfolio Standard
ELIGIBILITY FOR VOLUNTARY PROGRAMS:	
Green-e Energy Eligible	Denotes eligibility and, if applicable, certification number
Green-e Climate Eligible	Denotes eligibility and, if applicable, certification number
US EPA GPP Eligible	Denotes eligibility and, if applicable, certification number
LIHI Certified	Denotes eligibility and, if applicable, certification number

8 Certificate Errors and Correction

8.1 Generation Data Validity Check

All generation data received by NAR will undergo an automatic data validity check to ensure that erroneous and technically infeasible data is not entered into NAR. The data validity check will compare reported electricity production to an engineering estimate of maximum potential production, calculated as a function of technology type, associated maximum capacity factor, Nameplate Capacity, fuel (if relevant) and time period since the previous cumulative meter reading entered. If data entered exceeds an estimate of technically feasible generation, the NAR Administrator will be notified and the generation will be posted to the “Certificate Data Loaded Log” report. The NAR Administrator will contact the Account Holder if the generation data entered is infeasible.

8.2 Certificate Errors Discovered After Certificate Issuance

Once a Certificate is created, no changes can be made to that Certificate. In the event that an error is discovered after Certificates have been issued, the NAR Administrator will take measures to rectify the problem depending on the nature and the egregiousness of the error. If the error is related to the number of Certificates issued, the NAR 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 Certificate, the NAR Administrator will handle each situation on a case by case basis. Examples of actions that could be taken include, but are not limited to, notifying purchasers of the erroneous Certificates, freezing the account of the offending party, levying an administrative fine or banning participation in NAR.

9 Bulletin Board

The NAR Bulletin Board allows Account Holders to publicly post Certificates that they have available for sale. Any Account Holders, as well as the public, can view the available Certificates including the following details:

- Company and Contact Name of Account Holder holding the Certificates
- Asset Name
- Fuel/Project Type
- Certificate Vintage
- Certificate Serial Numbers
- Certificate Quantity
- Certificate Eligibilities

In order to post Certificates on the Bulletin Board, the Account Holder must transfer them from an Active Sub-account to its Bulletin Board Sub-account. The Account Holder can transfer them back to an Active or Retirement Sub-account at any time, at which point they will no longer appear on the Bulletin Board.

10 NAR State Compliance Requirements

Kansas and Missouri compliance entities and Illinois Investor owned utilities can make transfers to their Retirement Sub-accounts to support their annual compliance with the requirements of the Kansas Corporation Commission, Missouri Public Service Commission, or Illinois Commerce Commission, as the case may be. Certificates that are moved to Retirement Sub-accounts are retired and cannot be transferred out of that Sub-account once submitted.

Kansas Compliance Process:

- 1) The Account Holder will create a Compliance Retirement Sub-account for the compliance year using “Create New Sub-Account” link. The Account Holder selects the Sub-Account Type “Retirement.” Aggregators will need to list the specific Account Holders they are reporting for compliance.
- 2) Account Holders will access their Active Certificates in their other Sub-accounts and select the Certificates to transfer to the Compliance Sub-accounts. Once on the Transfer Certificates page, the Account Holder will select the Compliance Sub-account from the drop down menu, check the box next to “Used by the Account Holder for a Renewable Portfolio Standard”, click “Kansas” next to the State drop-down menu, click the year from the “RPS Compliance Period” drop-down menu and select the reason.
- 3) If the retirement reason is Purchased RECs (which can only be used in 2011, 2016 and 2020) Account Holder must provide the “Capacity Factor” for the REC-to-

Capacity conversion (see Kansas Bill K.S.A. 2009 Supp. 66-1258 for calculation used).

- 4) When the Account Holder is finished, they will click “Submit” to officially Retire the Certificates on behalf of their annual compliance obligation with the Kansas Corporation Commission.
- 5) The last step is for the Account Holder to access the “Program Administrator Access Selection” located under their Account Holder Reports. In this selection page, the Account Holder will check the box next to “KCC”. This will allow the Kansas Corporation Commission to review the Account Holders Certificates retired for compliance. The Kansas Corporation Commission will review the Account Holders Compliance Retirement Sub-account by looking at their compliance report.

Missouri Compliance Process:

- 1) The Account Holder will create a Compliance Retirement Sub-account for the compliance year using “Create New Sub-Account” link. The Account Holder selects the Sub-Account Type “Retirement.” Aggregators will need to list the specific Account Holders they are reporting for compliance.
- 2) Account Holders will access their Active Certificates in their other Sub-accounts, select the Certificates to transfer to the Compliance Sub-accounts. Once on the Transfer Certificates page, the Account Holder will select the Compliance Sub-account from the drop down menu, check the box next to “Used by the Account Holder for a Renewable Portfolio Standard”, click “Missouri” next to the State drop-down menu and click the year from the “RPS Compliance Period” drop-down menu.
- 3) When the Account Holder is finished, they will click “Submit” to officially Retire the Certificates on behalf of their annual compliance obligation with the Missouri Public Service Commission.
- 4) The last step is for the Account Holder to access the “Program Administrator Access Selection” located under their Account Holder Reports. In this selection page, the Account Holder will check the box next to “Missouri Public Service Commission”. This will allow the Missouri Public Service Commission to review the Account Holders Certificates retired for compliance. The Missouri Public Service Commission will review the Account Holders Compliance Retirement Sub-account by looking at their compliance report.

11 Public Reports

There are six public reports provided by NAR:

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

- **Bulletin Board:** Forum to view available certificates for transfer.
- **Certificates Disclosed to Public:** NAR Account Holders can choose to make Certificate details available to the public. Any Certificates that have been designated for such disclosure will show up on this report.
- **Imported Facilities:** This report lists projects from which Certificates have been imported into NAR from other tracking systems.
- **Issued Certificates:** This report list the aggregate number of Certificates issued in NAR by generation vintage.
- **NAR Projects Report:** This report contains a listing of all Assets in NAR with eligibility information.

Public reports are accessible to anyone via the Resources page on the NAR website. It is expected that additional public reports will be added to meet future needs of Account Holders and Program Administrators using the Registry. Public reports are carefully designed to ensure the confidentiality of Account Holder data per agreements in the Terms of Use. See the Terms of Use for more information regarding confidentiality.

11.1 Account Holder Reports

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

- **Forward Transfer:** A transfer of Certificates arranged in advance to be effectuated on a specific future date.
- **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 NAR and includes the date of registration, the NAR ID and a link to the Asset registration screens.
- **My Certificate Transfers.** This report provides a comprehensive list of Certificate transfers, between Sub-accounts and other Account Holders in NAR.
- **My Event Log.** This report lists all of the events that have taken place in the Account.

- **My Generation Activity Log.** This report provides a summary of all Certificate data loaded into NAR for all of Account Holder's Assets.
- **My Generation Report.** This report provides a summary of all Certificates created in NAR. It is filtered by vintage year.
- **My Sub-Accounts.** This provides a list of Certificates held in the Account's Sub-accounts and allows the Account Holder to filter data by specific Active or Retirement Sub-accounts.
- **NAR 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/Project type. This report also provides links to the transfer screen for each block of Certificates.
- **Program Administrator Access Selection.** This report allows the Account Holder to assign account access to specific Program Administrators who may have to verify Certificate Retirement activity.
- **Retirement Compliance Report.** The Retirement compliance report provides Account Holders the ability to view all Certificates Retired to each certification program and an effective date of Retirement. This report can be provided to third parties wanting to verify Retirement of Certificates.

12 Data Security

The following are a minimum set of security practice requirements for NAR 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 certificates.
- (c) Well-defined system backup and recovery processes.
- (d) Secured file transfer and data upload processes using encrypted communications for all data interfaces



Appendix A: Account Holder Registration Process

The following information will guide you through the steps necessary to create a North American Renewables Registry Account. The NAR Administrator is available to assist you throughout the registration process. Please call +1 (408) 899-3342 or email NAR@apx.com.

STEP 1 – Review Registry Operating Documents

You should first review the Registry Operating Documents including the Terms of Use, Fee Schedule and Operating Rules. The documents are on the Documents page.

STEP 2 – Online registration.

Follow the “Register for an Account” link which takes you to the NAR application page. Here you will 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 Accounts Types are:

The *General Account* is for Account Holders who will participate in the Registry as asset owners, brokers, marketers and traders. This account type provides the full functionality to register renewable Assets, have RECs issued in or transferred to your Account, and transfer RECs to other Account Holders.

The *Project Account* is for Account Holders who will participate in the Registry primarily as Generating Unit owners. This Account type provides functionality to register renewable Assets and transfer RECs to other Account Holders. A Project Account cannot accept incoming REC transfers.

The *Energy Efficiency Account* is for Account Holders who will participate in the Registry primarily as Energy Efficiency Asset owners. This Account type provides functionality to register energy efficiency Assets and transfer EECs to other Account Holders. An Energy Efficiency Account cannot receive transfers from other parties.

The *Retail Purchaser Account* is for Account Holders who are buying RECs or EECs to retire for their own use. This Account type provides functionality to accept REC transfers from other Account Holders and to register renewable Assets. A Retail Purchaser Account cannot transfer RECs or EECs to other Accounts.

The *Qualified Reporting Entity Account* is for entities that are qualified to provide data for renewable energy assets and energy efficiency assets registered in the Registry. This type of Account cannot hold RECs or register Assets.



The *Program Administrator Account* is provided to Certification and Compliance Programs to verify eligibilities related to the specific program. This Account type can also be used by Certification and Compliance Programs to verify compliance with certain mandates and policies. This type of account cannot hold Certificates or register Assets.

STEP 3 – Accept the Terms of Use

Read and agree to the Registry 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 which 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. Mark the Account as a Private Account if you would prefer that no one other than APX know of your Account in the Registry.

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 NAR Administrator is notified of your pending Account.

STEP 5 – Account Review

The NAR 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 NAR 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 NAR 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 the Registry 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 Assets, in addition to creating an Account, must also register each one of their generators and must designate a Qualifying Reporting Entity for each Generating Unit. Please refer to the Registry'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 Account. The NAR Administrator is available to assist you throughout the registration process. Please call +1 (408) 899-3342 or email NAR@apx.com.

STEP 1 – Review Registry Operating Documents

The Registry's operative documents detail the requirements and definitions of different types of Assets. The documents are available on <http://narecs.com/>

STEP 2 – Register Asset

Log in to your Account and select the "Register New Asset" link. Select whether this Asset is based on ownership of a generating asset or an energy efficiency asset. Fill out the information on the New Asset Registration page and select "Next". Continue to fill out the information on the subsequent pages of the Asset Registration screen and press "Submit". The NAR Administrator will then be notified of the New Asset Registration. 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 NAR Administrator will review the Asset registration. If the Asset application is complete and approved, an email notification describing Asset 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 NAR Administrator will notify the Account Manager.

STEP 4 – Certificate Issuance

Certificates can be issued as often as once a month if the metering data has been communicated to the Registry. Metering data must come from a Qualified Reporting Entity unless the Generating Asset is less than 1 MW in capacity, in which case it can be a Self-Reporting Generator. An invoice will be issued for each month where Certificates are issued.

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 Generating Unit. In order to do this, the generating units must be associated with a single revenue meter and they are only allowed to register as an aggregate facility in NAR if all of the generating units associated with the single meter 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 Certificate’s eligibility for any state program, certification program or in general determines value in the marketplace. The following list defines the essential characteristics that must be the same across generating units that are registered as one Generating Unit.

Essential Characteristics for Purposes of Aggregate Metering Organized by Fuel Type

WIND: Fuel Type, Date when generating unit first commenced operation, Repowered indicator, Repowered date

HYDRO: Fuel Type, Generation technology, Date when generating unit first commenced operation, Repowered indicator, Repowered date, Nameplate Capacity, LIHI certification

SOLAR: Fuel Type, Generation technology (Solar PV or Concentrated Solar Power), Date when generating unit first commenced operation, Repowered indicator, Repowered date

BIOGAS: Fuel Type, Date when Generating Unit first commenced operation, Repowered indicator, Repowered date, Generation technology, Multi-fuel indicator

BIOMASS: Fuel Type, Date when Generating Unit first commenced operation, Repowered indicator, Repowered date, Generation technology, Multi-fuel indicator

BIODIESEL: Fuel Type, Date when Generating Unit first commenced operation, Repowered indicator, Repowered date, Generation technology, Multi-fuel indicator

GEOTHERMAL: Fuel Type, Date when Generating Unit first commenced operation, Repowered indicator, Repowered date, Capacity

HYDROGEN: Fuel Type, Date when Generating Unit first commenced operation, Repowered indicator, Repowered date

Appendix D: Documentation Requirements for Multi-fuel Generators

Upon registration with NAR as a Multi-fuel Generator, each such Multi-fuel Generator's Account Holder must submit to the NAR 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 NAR Administrator's review and acceptance of such a report's methodology, the Multi-fuel Generator's Account Holder may seek creation of Certificates. 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 Renewable Energy Generators seeking Certificates, using the best available sources of information. If the Multi-fuel Generator 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 NAR Administrator, for the requirements listed below.

1. Quantities of each Fuel Type (if applicable) must be measurable and verified by documentation provided to Control Area Operators, Environmental Protection Agency 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 NAR 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 source (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 Control Area. If different heat rates apply for different fuels, the determination for each applicable heat rate must meet the requirements of this paragraph.

Appendix E: NAR Fuel Types¹³

ABBREVIATION	FUEL TYPE/GENERATION TECHNOLOGY
BAM	Biogas - Agricultural Methane
BAP	Biomass Combustion - Agricultural Products
BAW	Biomass Combustion - Agricultural Waste
BCA	Biomass Combustion - Animal Waste
BGA	Biogas - Animal Waste
BGW	Biogas - Wastewater Methane
BLB	Biogas - Liquid Biofuels
BLF	Biogas - Landfill Methane
BML	Biomass Combustion - Liquid Biofuels
BA1	Biomass – Animal Waste - Swine Waste, Solid or Gas
BA2	Biomass – Animal Waste - Poultry Waste, Solid or Gas
BWP	Biomass Combustion - Wood Products
BWW	Biomass Combustion - Wood Waste
CO1	Coal (used for Multi-fuel Generators; will not create Certificates)
DI1	Diesel (used for Multi-fuel Generators; will not create Certificates)
FC1	Fuel Cells using Hydrogen derived from fossil fuels (used for Multi-fuel Generators; will not create Certificates)
FHP	Federal Hydroelectric
GE1	Geothermal Energy
H2O	Hydroelectric Water - Dam/Impoundment
HRR	Hydroelectric - Run-of-River
HTI	Hydroelectric – Tidal
HWA	Hydroelectric - Wave power
HYD	Fuel cells using hydrogen derived from renewables
JET	Jet Fuel (used for Multi-fuel Generators; will not create Certificates)
MS1	Municipal solid waste
NG1	Natural Gas (used for Multi-fuel Generators; will not create Certificates)
OIL	Oil (used for Multi-fuel Generators; will not create Certificates)
SCP	Concentrated Solar Power
SO1	Solar Photovoltaics
WND	Wind

¹³ Additional Fuel Types may be added in the future.



Appendix F: List of Referenced Documents

North American Renewables Registry Operating Procedures

North American Renewables Registry Terms of Use

North American Renewables Registry Fee Schedule

North American Renewables Registry Asset Owner's Designation of Responsible Party

North American Renewables Registry Requirements for Qualified Reporting Entities

Will Brown
Notary Public