



# **NORTH CAROLINA RENEWABLE ENERGY TRACKING SYSTEM OPERATING PROCEDURES**

**January 31, 2011**

**Disclaimer:** This document is intended to guide the operations of NC-RETS, both the users of the system and its administrator, APX. It is intended to be consistent with the NC Utilities Commission's rules implementing North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard. Please contact Commission Staff if you believe there is a conflict between these Operating Procedures and the Commission's rules. NC-RETS users can propose changes to these procedures by participating in the NC-RETS Stakeholders Group.

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## Glossary

**Account:** An Account is the vehicle by which an individual or an organization participates in NC-RETS and uses the system to upload Renewable Energy Facility production data, or to create, hold, track and/or retire RECs in Sub-accounts, or to audit an Electric Power Supplier's compliance with North Carolina's Portfolio Standard. There are four Account types in NC-RETS: NC Electric Power Supplier, General, Qualified Reporting Entity, and Program Auditor.

**Account ID:** A unique NC-RETS identifier for an Account that is assigned by NC-RETS when the NC-RETS Administrator approves the Account in NC-RETS.

**Account Holder:** An Account Holder is a person or organization that has registered with NC-RETS and has established an Account in order to own RECs in NC-RETS, provide Renewable Energy Facility production data to NC-RETS, or audit a compliance program within NC-RETS.

**Account Manager:** An Account Manager is the administrator for an Account Holder's NC-RETS Account, having the ability to, among other things, setup and manage additional logins and login privileges for other Users, typically other employees of the same organization.

**Active Certificates:** An Active Certificate is a Renewable Energy Certificate or Energy Efficiency Certificate that is held in an Active Sub-account and that has not yet been retired. Such Certificates may be traded, transferred, exported or retired at the discretion of the Account Holder of the Active Sub-account, except that Energy Efficiency Certificates can be used for compliance with North Carolina's Portfolio Standard only by the Electric Power Supplier that produced them or by a group of affiliated Electric Power Suppliers using the same Utility Compliance Aggregator.

**Active Sub-account:** An Active Sub-account is a Sub-account of an Account Holder's Account and is the holding place for all Active Certificates. If the Account Holder is the owner of a Renewable Energy Facility, or is the Responsible Party of a Renewable Energy Facility, their Active Sub-account will be the first point of deposit for any Certificates created that are associated with the Project ID number, unless the Certificate is subject to a Forward Certificate Transfer. Similarly, if the Account Holder is an Electric Power Supplier that operates an energy efficiency program, the related Certificates are created in an Active Sub-account. An Active Sub-account may be associated with one or more Projects.

**Balancing Authority:** The entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority area,

and supports interconnection frequency in real time. Duke Energy and Progress Energy are the Balancing Authorities for most of North Carolina. PJM is the Balancing Authority for Dominion North Carolina Power's service area.

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

**Certificate:** NC-RETS issues two kinds of Certificates: Renewable Energy Certificates (RECs), and Energy Efficiency Certificates (EECs). Unless otherwise specified by statute, rule or NCUC order, NC-RETS will issue one Certificate for each MWh of energy produced by a Renewable Energy Facility or saved via an Electric Power Supplier-sponsored energy efficiency or demand-side management program. Certificates from Renewable Energy Facilities that are Multi-fuel Facilities shall be issued pursuant to Section 4.2.

**Commission:** The Commission is the North Carolina Utilities Commission.

**Compliance Sub-account:** A Sub-account used by an Electric Power Supplier or Utility Compliance Aggregator to demonstrate compliance with a specific year of Portfolio Standard obligation(s). The Account Holder places Certificates into the Compliance Sub-account, which is then audited by the Public Staff. Once the Commission has approved the Account Holder's compliance with the Portfolio Standard, the RECs are retired.

**Creation Date:** The date (DD/MM/YYYY) that a Certificate is created. Certificates are created upon acceptance of production data by the Account Holder, or if the production data passes all system validations, the Certificates will automatically create fourteen (14) days after the production data was uploaded into NC-RETS.

**Customer-Sited Distributed Generation:** A Renewable Energy Facility that is interconnected behind a retail customer meter and therefore not directly interconnected with either the distribution system or transmission system (including net metered facilities).

**Directory of Account Holders:** The Directory of Account Holders is a listing of all Account Holders registered with NC-RETS. This directory includes limited information for contacting each Account Holder and is available to the public via the NC-RETS website.

**Directory of Renewable Energy Facilities and Energy Efficiency Projects:** This is a listing of all approved Projects within NC-RETS.

**Dynamic Data:** Dynamic Data is variable information that is associated with a specific MWh produced or saved by a Project, such as Certificate Serial Number or Creation Date.

**Electric Power Supplier:** An organization that sells electricity to retail end users, such as investor-owned utilities, municipal utilities, and electric membership corporations. All Electric Power Suppliers in North Carolina must comply with the State's Portfolio Standard, although the requirements vary slightly for investor-owned utilities versus municipal utilities and electric membership corporations.

**Forward Transfer:** A transfer of Certificates arranged in advance to be effectuated on a specific future date.

**Fuel Type:** The kind of fuel or source of energy used to produce electric or thermal energy at a Renewable Energy Facility. See Appendix D for a list of eligible Fuel Types. This list was established by the North Carolina General Assembly when it enacted NC's Portfolio Standard.

**General Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Certificates for voluntary (non-compliance) reasons. This kind of Account can also open a Sub-account where RECs are created for a Renewable Energy Facility.

**Generation Activity Log:** The Generation Activity Log is an electronic ledger where energy production from Renewable Energy Facilities and energy saved by Electric Power Supplier energy efficiency programs is posted prior to Certificate creation. Each time production or savings data is received by NC-RETS for a particular Project, the date and quantity of qualifying MWhs produced or saved is posted to the Generation Activity Log. Adjustments received are posted likewise.

**Inbox:** Certificate transfers to an Account Holder are first posted in the Account Holder's Inbox. The Account Holder then either accepts or rejects the transfer. Upon acceptance, the Certificates are deposited in the Sub-account designated by the Account Holder.

**Megawatt-hour (MWh):** One thousand kilowatt-hours or 1 million watt-hours of energy. One MWh of energy produced by a qualifying fuel at a Renewable Energy Facility is required to create one Renewable Energy Certificate. One MWh of energy saved by an Electric Power Supplier's energy efficiency or demand side management project is required to create one Energy Efficiency Certificate.

**Multi-fuel Facility or Generation Project:** A Renewable Energy Facility that produces energy using more than one Fuel Type and might partially rely on a fuel that does not qualify for issuance of Certificates. See Section 4.2 below.

**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 in Megawatts (MW) is based on Nameplate Capacity.

**NC-RETS Administrator:** The NC-RETS Administrator is the entity under contract with the Commission to implement the NC-RETS Operating Procedures. The Commission selected APX to be the NC-RETS Administrator. The NC-RETS Administrator confers with Commission Staff, which seeks Commission concurrence, for exceptions to the NC-RETS Operating Procedures.

**North Carolina Electric Power Supplier Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Certificates. A North Carolina Electric Power Supplier Account can also register and maintain Projects and have Certificates issued to it for its Projects. A North Carolina Electric Power Supplier Account is the only kind of Account that can retire Certificates for compliance with NC's Portfolio Standard.

**Outbox:** After initiating a Certificate transfer, an Account Holder will see the Certificates in its 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. If accepted, the Certificates are transferred to the receiving Account Holder.

**Portfolio Standard:** The law enacted by North Carolina's General Assembly via Session Law 2007-397 that requires all Electric Power Suppliers serving retail customers in North Carolina to meet an increasing portion of their customers' electricity needs from renewable energy and conservation.

**Prior Period Adjustment:** An addition or subtraction made to a current Certificate issuance in order to correct for an under- or over-issuance of Certificates made in error in a prior period, most commonly due to inaccurate metering data.

**Program Auditor Account:** North Carolina regulators will use this Account to review Compliance Sub-accounts submitted by North Carolina Electric Power Suppliers and Utility Compliance Aggregators, as well as to view NC-RETS reports.

**Project:** A Project is either a Renewable Energy Facility or an Electric Power Supplier's qualifying energy efficiency programs (including demand-side management for municipalities and electric membership corporations).

**Project ID:** A unique NC-RETS identifier for a Project that is assigned by NC-RETS when the NC-RETS Administrator approves a Project for Certificate issuance in NC-RETS.

**Project Name:** Project Name is the name assigned to a Project when it is registered in NC-RETS.

**Public Staff:** The State agency charged with investigating Electric Power Supplier compliance with North Carolina's Portfolio Standard (among other things) and representing the using and consuming public in proceedings before the Commission.

**Qualified Reporting Entity (QRE) Account:** This Account type should be used for an NC-RETS Account Holder that reports meter readings and other generation data to the NC-RETS Administrator. Qualified Reporting Entities include Balancing Authorities, Electric Power Suppliers, a federal power agency or a municipal power agency. A QRE Account is assigned to each Project (except for those that are allowed to provide Qualified Estimates and Self-Reporting Facilities) and it is responsible for providing the Project's energy production information. NC-RETS tracks the specific Projects for which a QRE provides production information. A QRE Account cannot hold Certificates.

**Qualifying Estimates:** These are electric production estimates, based on generally accepted analytical tools such as PV Watts ([www.pvwatts.com](http://www.pvwatts.com)) for inverter-based solar photovoltaic Renewable Energy Facilities with a Nameplate Capacity of 10 kW or less. The facility owner shall document such estimates and retain such documentation for audit by the Commission and the Public Staff. Qualifying Estimates may be used to issue RECs in NC-RETS.

**Qualifying Meter:** This is a meter that provides energy production data of sufficient quality that it can be relied upon for the issuance of Certificates. For a Renewable Energy Facility that is interconnected to a Balancing Authority, it is the meter or data source that is used by the Balancing Authority for settlements. For Renewable Energy Facilities that are interconnected to an Electric Power Supplier's distribution system, it is the meter supplied by and read by the Electric Power Supplier. For a Renewable Energy Facility that is interconnected behind an Electric Power Supplier's meter at a customer's location, a Qualifying Meter can either be 1) an ANSI-certified meter that may be read and self-reported by the owner of the Renewable Energy Facility who shall comply with the Commission's meter testing requirements pursuant to Commission Rule R8-13; or 2) another industry-accepted, auditable and accurate metering, controls and verification system. For a combined heat and power system or solar thermal energy facility that has been approved by the Commission as a Renewable Energy Facility, the facility's useful thermal energy (excluding energy used to produce electricity) may be measured by an industry-accepted meter for

measuring British thermal units (Btu). NC-RETS shall issue one Certificate for every 3,412,000 Btu of qualifying thermal energy.

**Qualifying MWh:** Energy that is produced by a Renewable Energy Facility via a fuel source or technology that qualifies it for the NC Portfolio Standard.

**Renewable Energy Certificate (REC):** See Certificates.

**Renewable Energy Facility:** An energy production facility that has been approved by the Commission as eligible to have some or all of its output count toward NC's Portfolio Standard. The owner of such a Facility located in North Carolina is eligible to register that Facility in NC-RETS, where Certificates are issued for qualifying energy production.<sup>1</sup>

**Responsible Party:** An Account Holder who has been assigned the registration rights for a given Project. This assignment occurs outside of NC-RETS and gives the designated Account Holder *full and sole* management authority over the transactions and activities related to the Project within NC-RETS.

**Retirement Sub-account:** A Retirement Sub-account is 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 Sub-Account.

**Retirement of Certificates or Retirement/Retire:** Retirement of Certificates is an action taken within NC-RETS to permanently remove a Certificate from circulation. There are two types of retirement: voluntary or compliance. Retirement may be initiated only by the Account Holder for Certificates in his/her own Sub-accounts. Voluntary retirement is effectuated by transferring Certificates into a Retirement Sub-account. For Electric Power Suppliers, compliance retirement occurs when RECs are placed into a Compliance Sub-account, and submitted for review to the Commission. RECs associated with an approved Compliance Sub-account are placed into retirement by Commission action.

**Self-Reporting Facility:** This is a Renewable Energy Facility or utility-sponsored energy efficiency or demand-side management Project for which the owner self-reports its output or energy savings. This includes 1) a customer-sited Renewable Energy Facility interconnected behind an Electric Power Supplier's meter that has either 1) a meter that meets ANSI standards and complies with Commission Rule R8-13, or 2) another industry-accepted, auditable and accurate metering, controls and verification system; 2) inverter-based solar facilities of 10-kW or less; 3) solar thermal facilities; and 4) combined heat and power

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<sup>1</sup> The owner of a Renewable Energy Facility that is located in South Carolina, which has its meter read by a NC Electric Power Supplier, may also register the Project in NC-RETS for the issuance of RECs.

facilities. Self-Reporting Facilities transmit their production data to the NC-RETS Administrator via the Self-Reporting Interface pursuant to Section 5.7.

**Self-Reporting Interface:** This is a standard internet-based data entry portal that serves as the method for a Self-Reporting Facility, including energy efficiency and demand-side management Projects, to communicate dynamic data to the NC-RETS Administrator pursuant to Section 5.7.

**Serial Number:** NC-RETS assigns a Serial Number to each Certificate that it issues. The Serial Number contains embedded codes that explain when it was issued.

**Static Data:** Static Data describes the attributes of a Project and includes information related to the characteristics of the Renewable Energy Facility such as technology type, ownership and location.

**Station Service:** Station Service is the portion of electricity or thermal energy produced by a Renewable Energy Facility that is immediately consumed at that same facility in order to power the facility's pumps, etc., or to process fuel. Such energy is not eligible for issuance of Certificates.

**User:** Any person who has been granted access by an Account Holder to "use" its Account in NC-RETS, 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 NC-RETS Administrator. NC-RETS tracks the specific activities of each User through their unique login and password.

**Utility Compliance Aggregator:** An organization that assists an Electric Power Supplier or group of Electric Power Suppliers in demonstrating its compliance with NC's Portfolio Standard.



## 1. Introduction

The Commission established the North Carolina Renewable Energy Tracking System (NC-RETS) to issue and track Renewable Energy Certificates (RECs) and Energy Efficiency Certificates (EECs). NC's electric utilities use NC-RETS to demonstrate compliance with the State's Portfolio Standard established under Session Law 2007-397. Renewable energy producers may register their facilities with the Commission. If approved, they can use NC-RETS to create RECs that meet the requirements of NC's Portfolio Standard.

NC-RETS uses verifiable energy production data from participating facilities to create one digital Certificate for each MWh (or thermal equivalent) generated from renewable energy. Electric Power Suppliers and Utility Compliance Aggregators use NC-RETS to track the results of qualifying energy efficiency and demand-side management customer programs operated by Electric Power Suppliers. NC-RETS and all related energy production and customer program records are audited by the Public Staff of the North Carolina Utilities Commission. NC-RETS will integrate with all other REC tracking systems in the United States to allow for the import and export of RECs to and from North Carolina.

## 2. NC-RETS User Registration

### 2.1 Participation in NC-RETS

Any party is eligible to participate in NC-RETS, which means that any person can own RECs and track them in NC-RETS. NC-RETS includes many reports and links that are available to the general public. The Public Staff and the Commission use NC-RETS to audit compliance with NC's Portfolio Standard.

Electric Power Suppliers (or their Utility Compliance Aggregators) must use NC-RETS to demonstrate their compliance with NC's Portfolio Standard. An Electric Power Supplier establishes an Account in NC-RETS to hold RECs, including those that they acquire or generate and those associated with allocations from the Southeastern Power Administration (SEPA). Similarly, an Electric Power Supplier uses NC-RETS to document and track eligible energy savings via Energy Efficiency Certificates (EECs) from its qualifying energy efficiency and demand-side management programs. Each year, starting in 2011 for the 2010 compliance year, Electric Power Suppliers and Utility Compliance Aggregators will move RECs and EECs into a Compliance Sub-account, which will be audited to determine whether the organization

complied with the Portfolio Standard.<sup>2</sup> Once the Commission determines that the organization has complied, those RECs will be permanently Retired, meaning they cannot be sold or reused for compliance.

NC-RETS issues and tracks Certificates originating from NC's Projects registered in NC-RETS and also tracks those Certificates that are imported into NC-RETS from other tracking systems in the United States. Organizations that operate Renewable Energy Facilities located in North Carolina and that want RECs associated with their facilities' output to be eligible to count toward NC's Portfolio Standard must participate in NC-RETS.<sup>3</sup> They use NC-RETS to create an Account for each facility where production data (meter readings or self-reported data, depending on the facility's size) or other criteria are uploaded, and RECs are issued. After arranging to sell RECs to a North Carolina Electric Power Supplier or Utility Compliance Aggregator, they will be able to use NC-RETS to transfer those RECs to the purchaser. In addition, NC-RETS has a Bulletin Board where they can post RECs that they would like to sell.

Utility organizations that read the production meters for any Renewable Energy Facilities located in North Carolina use NC-RETS to provide those meter readings on an on-going basis. NC-RETS uses those meter readings to create one REC for each qualifying MWh of energy produced by a Renewable Energy Facility.<sup>4</sup>

Balancing Authorities (Duke Energy and Progress Energy) that provide energy balancing and accounting at the transmission level, use NC-RETS to upload monthly production data for Renewable Energy Facilities that are interconnected to their transmission systems.

## **2.2 Establishing an Account**

Any person or entity wanting to participate in NC-RETS must establish an Account. Accounts should be established in accordance with the timeline for certificate creation (see Section 6.2) to ensure Certificate eligibility.

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<sup>2</sup> Some municipal utilities and electric membership corporations (EMCs) have contracted with a power agency, GreenCo Solutions, Duke Energy, or Progress Energy, to act as a Utility Compliance Aggregator that will manage and report compliance with the Portfolio Standard on behalf of that municipal utility or EMC.

<sup>3</sup> If a facility already participates in PJM's Generation Attribute Tracking System (GATS), it does not need to also participate in NC-RETS. This may be the case if the facility is located in Dominion's service territory.

<sup>4</sup> "Qualifying MWh" is one that was produced by a fuel that qualifies under Session Law 2007-397 at a facility that has been registered with the Commission as a Renewable Energy Facility. NC-RETS does contain the functionality to apply multipliers in exceptional cases such as the Duke off-shore wind turbines, where one MWh will create more than one REC.

Registrants will provide basic Account registration information, such as Account Holder name, address and contact information, to the NC-RETS Administrator through a secure web-page on the NC-RETS website<sup>5</sup> and agree to the Terms of Use. (The Terms of Use are available for review on the NC-RETS website, [www.ncrets.org](http://www.ncrets.org), under “Documents.”) See [Appendix A](#) for step-by-step instructions. The NC-RETS Administrator reviews the Account application and may request more information before approving or rejecting the application. An Account remains active until terminated. Termination can be initiated by the Account Holder by notifying the NC-RETS Administrator. Accounts can also be terminated if an Account Holder fails to pay the NC-RETS 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.

### **Account Types and Sub-Account Structure**

There are four (4) types of Accounts in NC-RETS:

- **North Carolina Electric Power Supplier Account:** This type of Account can hold, transfer (outgoing and incoming), and Retire Certificates. A North Carolina Electric Power Supplier Account can also register and maintain Projects and have Certificates issued to it for its Projects, including energy efficiency and demand side management programs. A North Carolina Electric Power Supplier Account is the only type of Account that can retire Certificates for compliance with NC’s Portfolio Standard. An organization that provides compliance services for another Electric Power Supplier is called a Utility Compliance Aggregator. Only Electric Power Suppliers and Utility Compliance Aggregators are eligible to establish a North Carolina Electric Power Supplier Account.

In 2010, when North Carolina Electric Power Suppliers (and Utility Compliance Aggregators) first register to open an Account in NC-RETS, they will be required to input (on the Account registration screen) their organization’s 2009 North Carolina retail sales (in MWh). As soon as NC-RETS generates the Account Holder’s first NC-RETS bill on September 1, 2010, the Account Holder’s “prior year retail sales” field will be locked. NC-RETS will use the locked sales data to calculate bills from September 2010 through June 2011. In June of 2011 and each subsequent year, the Account Holder must enter the “prior year’s retail sales” data. Each July NC-RETS will use the new sales data to calculate monthly bills for North Carolina Electric Power Suppliers. For more details, please refer to the Fee Schedule, which is on-line at [www.ncrets.org](http://www.ncrets.org).

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<sup>5</sup> <http://www.ncrets.org>

- **General Account:** This type of Account can register Projects and have RECs issued to it for its Projects. (Before creating Certificates in NC-RETS, a Renewable Energy Facility must first register with the Commission.) A General Account can hold, transfer, and Retire Certificates (for reasons other than compliance with NC's Portfolio Standard). The Account Holder for a Renewable Energy Facility Project can seek eligibility for its facility with Green-e Energy or Low-Impact Hydro Institute (LIHI). If accepted by those organizations, NC-RETS can indicate such eligibilities on Certificates issued for output from the facility.
- **Qualified Reporting Entity (QRE) Account:** An Account Holder with a QRE Account is assigned to a Project and is responsible for providing energy production information such as monthly meter readings for that Project. A QRE Account cannot hold Certificates. The QRE uses its NC-RETS Account to upload meter reads or monthly settlement data for each Project to which it is assigned. An Electric Power Supplier should have a QRE Account if it reads the production meter for Renewable Energy Facilities, or if it is a Balancing Authority.
- **Program Auditor Account:** This type of Account will allow Commission and Public Staff to perform compliance review and auditing of program data as needed.

Accounts that can hold Certificates (North Carolina Electric Power Supplier and General Accounts) are given three types of Sub-accounts automatically by default when their Account is approved (Active, Retirement and Export Sub-accounts). An Active Sub-account is used to organize Certificates based on an organization's business structure as desired. The default Retirement Sub-account is used to Retire Certificates for voluntary reasons (that is, reasons other than compliance with NC's Portfolio Standard). The Export Sub-account is used to transfer Certificates to another tracking system. The Account Holder has the ability to rename these default Sub-accounts and create as many additional Active and Retirement Sub-accounts as necessary to meet their organization's needs. Retirement Sub-accounts cannot be renamed if they hold Certificates. When Certificates are issued, they are placed into an Active Sub-account that was designated when the Project was registered with NC-RETS. When an incoming Certificate transfer is pending, the recipient Account Holder identifies the Active Sub-account into which the Certificates 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. static Project details, eligible program certifications and Certificate origination details).

Accounts that can hold Certificates also have a single Bulletin Board Sub-account, used to post Certificates for sale on the NC-RETS Bulletin Board.

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

North Carolina Electric Power Suppliers and Utility Compliance Aggregators will have the ability to create Compliance Sub-accounts. Compliance Sub-accounts can only be used to Retire Certificates for the Portfolio Standard. A Compliance Sub-account is established for a specific compliance year, and the Account Holder must designate whether the Sub-account is subject to the compliance obligations of an electric public utility or the compliance obligations of a municipality / electric membership corporation or a group of municipalities / electric membership corporations.

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

There are four ways that Certificates are deposited into 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 can be generated by a Project and deposited by the NC-RETS Administrator into the Sub-account assigned to the Project.
- (d) Certificates can be transferred into a Compliance Sub-account prior to the Compliance Sub-account being submitted for review by the Commission and Public Staff.

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

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

- (a) Transfer the Certificates to the Sub-account of another Account Holder.
- (b) Transfer the Certificates to another of the Account Holder's own Sub-accounts (Active, Retirement, Export, Compliance, or Bulletin Board Sub-account).

Certificates that have been deposited in a Compliance Sub-account cannot be moved out of that Sub-account once the Electric Power Supplier or Utility Compliance Aggregator submits the associated Portfolio Standard Compliance Report to the Commission for review.

## 2.5 Retirement Sub-Accounts

A Retirement Sub-account is used as a repository for Certificates that the Account Holder wants to designate as voluntarily retired. 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) Certificates can be transferred from a Compliance Sub-account to a Retirement Sub-account prior to the Compliance Sub-account being submitted for review by the Commission and Public Staff.

An Account Holder choosing to retire a Certificate or a block of Certificates will use the transfer screen to identify the quantity of Certificates to Retire and the reason for Retirement. 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 Project characteristics and Certificate fields associated with the Retired Certificates. *Once Certificates are Retired, they cannot be moved or transferred out of the Retirement Sub-account to any other Sub-Account or Account Holder.*

NC-RETS validations ensure that Certificates deposited in a Retirement Sub-account are no longer transferable to another party or another Sub-account. NC-RETS reports allow Account Holders to show evidence of the Retirement.

## 2.6 Compliance Sub-Accounts

A Compliance Sub-account will be available to North Carolina Electric Power Suppliers and Utility Compliance Aggregators only. These entities can have one electric public utility Compliance Sub-account per compliance year and an unlimited number of municipal utility / electric membership corporation type of Compliance Sub-accounts per year. For example, for 2010, an Electric Power Supplier can have one Compliance Sub-account for itself (as an electric public utility) and 1 or more for each municipality/coop or group of such electric power suppliers for which it provides compliance reporting. Each Compliance Sub-account will be subject to the statutory requirements for either: 1) an electric public utility, or 2) a municipal utility/electric membership corporation (cooperative). Certificates in a Compliance Sub-account will be in a "pending retirement status" while the State Program Auditor/Regulator accesses it via a compliance report for audit. When that review and the related regulatory proceeding are complete, the Commission will use

NC-RETS to finalize Retirement of the Certificates into a permanent Retirement status. State Program Auditors will see the related Compliance Report from their own Accounts.

There are two ways that Certificates are deposited into a Compliance Sub-account:

- (a) Within an Account, Certificates can be transferred from an Active Sub-account or a Bulletin Board Sub-account to a Compliance Sub-account.
- (b) An Account Holder can accept a transfer of Certificates from another Account Holder directly into a Compliance Sub-account.

The NC-RETS Administrator is not responsible for the Retirement of Certificates by Account Holders, as it relates to voluntary or compliance-related Retirement deadlines or otherwise.

## **2.7 Transfers Between Accounts**

North Carolina Electric Power Supplier and General Account Holders may transfer Active Renewable Energy Certificates to other Account Holders. 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 Holder’s 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, NC-RETS 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 rejected, the Certificates will be deposited back into the originating transferor’s Sub-account. 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, NC-RETS 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 NC-RETS. If the transfer is withdrawn, NC-RETS will notify the recipient of the action.

## **2.8 Compatible Tracking Systems**

NC-RETS 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 NC-RETS on how to handle imports and/or exports and

implemented the required technology. NC-RETS is working towards setting up imports and exports with all registries that track generation from facilities that have been approved by the NC Commission. Appendix F lists the compatible tracking systems at the time of NC-RETS launch. This list is also posted at [www.ncrets.org](http://www.ncrets.org) and will be updated as more registries are deemed to be compatible.

### **2.8.1 Imports from other Tracking Systems**

Only Certificates from facilities and fuel types that have been approved by the Commission can export Certificates to NC-RETS. 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. NC-RETS) and the importing NC-RETS Account Holder (Account ID and name).

The NC-RETS Account Holder will see the imported Certificates in their Inbox module. Under the "From" column, the registry from which the RECs are coming will show in the Inbox module. The Certificate transferor will be the NC-RETS Administrator.

The imported Certificates will have a unique Serial Number that references the originating registry instead of NC-RETS. The Certificate data screen will also contain the original Serial Number from the issuing registry. All Projects from which Certificates have been imported into NC-RETS will be listed on the public 'Imported Facility 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 NC-RETS will issue with the fuel types used by NC-RETS and that correspond to fuel types approved by the Commission.

#### *2.8.1.1 Multi-fuel Facilities that use Swine and/or Poultry Waste*

Only NC-RETS and the North American Renewables Registry (NAR) currently can track swine waste and poultry waste Certificates separately from other kinds of biomass used in a Multi-fuel Facility. If a NC-RETS Account Holder is planning to import Certificates from a Project that is (1) registered in a tracking system other than NAR, and, (2) using more than one type of biomass, and, (3) where one or more of the fuels is swine and/or poultry waste, then additional procedures are needed to correctly differentiate swine and/or poultry waste Certificates from other biomass Certificates. NC-RETS

Account Holders contracting for such Certificates should contact the NC-RETS Administrator before the export is initiated from the exporting tracking system. The NC-RETS Administrator and the Commission will ask the NC-RETS Account Holder for Project specific information (i.e. fuel deliveries, generation data etc.) needed to substantiate that swine and/or poultry waste generated the energy associated with the RECs.

If the Project only uses one biomass fuel (i.e. swine waste or poultry waste) the above procedure is not needed.

### **2.8.2 Exports to other Tracking Systems**

In order to export a Certificate to another tracking system the NC-RETS Account Holder will designate a specific batch of Certificates for export and designate the registry and Account Holder (Account ID and Name) to whom the Certificates should be delivered.

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

## **3 Access to Accounts and Confidentiality**

### **3.1 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 any additional User logins and login privileges for his or her organization. The Account Manager will have full access to the organization's Account. The Account Manager can customize login permissions to allow view-only access to information or to allow the User to perform activities such as transfers and submitting/updating information. Such privileges can also be further attached to specific Sub-accounts or Projects. This provides Account Holders with significant flexibility when assigning Users to specific tasks or roles. User login setup can be done during the Account registration process or at any time the Account Manager wishes to add Users to the Account. The Account Manager supplies contact information for each User and designates their login name and password.

NOTE: The NC-RETS Terms of Use shall apply to any person who receives access to an NC-RETS Account or Sub-account from an Account Holder or Account Manager.

Once a User login is established, NC-RETS sends 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 to the new User. Upon logging into NC-RETS for the first time, the new User is prompted by NC-RETS to change his or her password. The new User can then perform the functions or view the information per the permissions granted by the Account Manager. The Account Manager or NC-RETS Administrator may at any time remove or add permissions to a User by using the Account administration screens.

The NC-RETS My Event Log report tracks and displays all actions performed within the Account by login name and timestamp. Account Managers have access to the My Event Log report for their Account and Sub-accounts.

### **3.2 Levels of Account Access**

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

#### **3.2.1 Account Holder – Supervisor**

When completing the login profile for a new User, the Account Manager can assign them “Account Holder – Supervisor” privileges. Such a new User is able to register Projects, manage Certificates, and create additional logins, if necessary. The Account Manager can also give this User a subset of these privileges if needed.

#### **3.2.2 Account Holder – View Only**

When completing the login profile for a new User, the Account Manager can assign the User “Account Holder – View Only” privileges. This provides the User with limited view rights. The Account Manager will then identify the specific Sub-accounts and Certificates that the User will be able to access and view.

### **3.3 Confidentiality**

As stated in the Privacy Policy [[www.ncrets.org](http://www.ncrets.org)] and the Terms of Use, certain Account information is held confidential. Account information is only used and released by NC-RETS in aggregate through the public reporting process.

## **4 Project Registration**

Within NC-RETS and all related NC-RETS documents, the term “Project” is used to refer both to (1) a generating Project, which is a Renewable Energy Facility registered with the Commission, accepted by the NC-RETS Administrator and for which NC-RETS issues Certificates, and (2) an energy efficiency Project, which is registered with NC-RETS by an Electric Power Supplier for its energy

efficiency or demand-side management programs, or a Utility Compliance Aggregator on behalf of an Electric Power Supplier. (Note: only municipal utilities and electric membership corporations can use their demand-side management programs for Portfolio Standard compliance.) Once a Project is registered within NC-RETS, monthly production data or annual energy savings can be uploaded to NC-RETS to create Renewable Energy Certificates or Energy Efficiency Certificates. Step-by-step instructions for registering a Project can be found in [Appendix B](#).

#### **4.1 Registering a Project**

To ensure that double-counting does not occur, Renewable Energy Facilities registered in NC-RETS must have 100% of their output tracked by NC-RETS (with the exception of imported Certificates). If a Renewable Energy Facility or an associated contract for its production was registered in another tracking system at one point, the NC-RETS Administrator should be notified of this during the registration process and the Account Holder should be prepared to provide documentation to prove the Renewable Energy Facility (and, if applicable, its associated contracts) have been removed from the previous tracking system.

The owner, or Responsible Party, of a Renewable Energy Facility must first establish an Account within NC-RETS as described above and then register a Project as a Renewable Energy Facility or an Energy Efficiency Project, as the case may be, before NC-RETS can certify and issue Certificates attributable to it. The Account types that can register Renewable Energy Facilities are the NC Electric Power Supplier Account and the General Account. Only the NC Electric Power Supplier Account can register energy efficiency Projects in NC-RETS.

To register a Renewable Energy Facility or an energy efficiency Project (which would include DSM programs), the owner or the Responsible Party must:

- Have an approved Account in NC-RETS;
- Have registered with the Commission and received approval from the Commission for the Renewable Energy Facility; and
- Submit a completed on-line registration form containing information related to the characteristics of the Renewable Energy Facility or energy efficiency Project. (Note: Many Electric Power Suppliers will have several energy efficiency programs – their energy savings will be uploaded into one Project.)

The NC-RETS Administrator will review the information provided and request additional information as needed before approving a Renewable Energy Facility registration request in NC-RETS.

## **4.2 Multi-fuel Renewable Energy Facility Project**

A Multi-fuel Renewable Energy Facility Project is one that produces energy using more than one Fuel Type. A Multi-fuel Renewable Energy Facility Project can use a renewable fuel with a fossil fuel or use multiple types of renewable fuels. Such facilities must register with NC-RETS as a Multi-fuel Renewable Energy Facility Project. If the relative quantities of energy produced from each fuel cannot be measured or calculated, and verified, the facility is not eligible to register as a Multi-fuel Renewable Energy Project in NC-RETS.

Each Certificate issued for a Multi-fuel Renewable Energy Facility Project will reflect only one Fuel Type. The total number of Certificates issued for a Fuel Type in a reporting period will be proportional to the energy output from that Fuel Type for that reporting period.

Each NC-RETS Account Holder or Responsible Party that has registered a Multi-fuel Renewable Energy Facility Project must report monthly to the NC-RETS Administrator the proportion of energy output per Fuel Type, by MWh or Btu, generated by the Multi-fuel Renewable Energy Facility Project during that month, calculated according to the applicable provisions of Section 5.9.1. Though energy produced from all Fuel Types must be reported, NC-RETS will only issue Certificates for the qualified renewable energy. Certificates will not be issued until such information is provided by the Account Holder or Responsible Party.

The procedures and methodologies used by the Account Holder or Responsible Party to calculate the contribution of each Fuel Type should be retained by the Account Holder or Responsible Party according to Commission rules, and will be subject to audit by the Public Staff and the Commission.

To import Certificates from multi-fuel generators, see Section [2.8.1](#).

## **4.3 Verification of Static Data Submitted During Project Registration**

Upon completion of the Renewable Energy Facility Project registration process, the NC-RETS Administrator will review attestations, Energy Information Administration reports and other data sources to verify the information provided by the Account Holder.

In the event data submitted is found to be incorrect or if there is a discrepancy between the information submitted during the on-line registration process and the materials provided to verify the information, the NC-RETS Administrator will notify the registrant that the information could not be positively verified. A process of either correcting the registration form, or withdrawing the

registration form, or providing proof that the information on the registration form is correct will ensue between the NC-RETS Administrator and the registrant until the NC-RETS Administrator is satisfied that the information provided meets NC-RETS standards for accuracy. If any issues arise, the NC-RETS Administrator will raise them with the Public Staff in case a site visit is needed to verify the legitimacy of Project registration and generation data.

#### **4.4 Updating Static Data**

After the initial Project registration in NC-RETS, Account Holders should continually notify NC-RETS of the following actions or occasions that will have the effect of changing Static Data tracked by NC-RETS:

- (a) A change in Fuel Type for a Renewable Energy Facility, and the date on which the change occurred, within fifteen (15) calendar days from when the change is implemented. (The Account Holder should also notify the Commission, referencing the docket number from its registration order.)
- (b) A change in Project ownership, and the date on which the change occurred, within fifteen (15) 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 Project, and provided to the NC-RETS Administrator. Neither NC-RETS nor the NC-RETS Administrator will be responsible for depositing Certificates into an Account that no longer represents a Project if the incorrect deposit occurs as a result of a lack of notification by the prior and new owners of the Project. Parties should arrange for a meter-reading to occur coincident with the ownership change. This meter read will be used to determine the final REC issuance to the original owner. Subsequent production data will be used to generate RECs that will be issued to the new owner. (A facility owner must notify its QRE of any change of ownership. A new owner must also register the facility with the Commission.)
- (c) A change in a Project's eligibility for any programs or certification tracked by NC-RETS. This must be communicated by the Account Holder before any Certificates affected by the change are issued or within fifteen (15) calendar days after the change occurs, whichever is sooner.
- (d) A change to any of the "essential generating characteristics" of the Project.

#### **4.5 Misrepresentation of Static Information:**

Account Holders can be removed from NC-RETS for cause, including misrepresentation of Static Data. NC-RETS reserves the right to withhold issuing Certificates, to freeze a Sub-account or Account associated with a particular Project, or to withhold participation in NC-RETS for Projects that have willfully misrepresented Static Data. If the NC-RETS Administrator has

cause to suspend the Project's participation in NC-RETS, no Certificates will be created while the Project is under suspension. While under suspension, metering data may continue to be uploaded to the Project by the QRE but it will not contribute to Certificate creation. Upon removal of the suspension, Certificate issuance can proceed.

#### **4.6 Terminating a Project's Participation in NC-RETS**

If a Project's owner or Responsible Party wants to remove a Project from NC-RETS, they can do so by notifying the NC-RETS Administrator and specifying the following:

- (a) The date the Project should be/will be removed from NC-RETS;<sup>6</sup>
- (b) The name of the Project's Qualified Reporting Entity, if applicable; and
- (c) The Sub-account to which Certificates should be deposited (if the usual Account for deposit is being closed as well).

NC-RETS will issue Certificates for a Project up to the date of Project termination as instructed by the Project's owner or Responsible Party. No Certificates will be issued for adjustments that occur after the termination date. If the Account to which the Project is linked is also closed at the same time, the Project'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.

#### **4.7 Changing the Account (Owner) with which a Project is Associated**

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

- (a) The new Account number with which the Project 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 Project that were created up to the day the Account change takes effect will remain in, or be deposited into, the Account that the Project was associated with at the time the generation occurred. For example, if a Project's owner changes the Account with which the Project is associated from Account A to Account B, and the change is effective on March 1,

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<sup>6</sup> This is the same as the final date of generation for which Certificates are to be issued.

then the Certificates relating to generation that issued prior to March 1 will be deposited into Account A. Any issuance from the Project after March 1 will go into Account B.

The NC-RETS Administrator will need written confirmation of this change from both parties involved in the Project transfer in order to implement the change. When changing the Account with which a Project is associated, there cannot be any time when the Project is not associated with an Account. If there is such a lapse, this will be treated as a deregistration/re-registration of the Project instead of a change of Account. (Note: Project owners also need to inform the Commission of a change in ownership, referencing the docket number that the Commission assigned to their registration order.)

## **5 Dynamic Data in NC-RETS – Generation Data – Role of Qualified Reporting Entity**

### **5.1 Qualified Reporting Entity (QRE) Guidelines**

A QRE is a Balancing Authority, an Electric Power Supplier, or a federal or municipal power agency. They provide production data to NC-RETS for Renewable Energy Facilities at least monthly. A Balancing Authority provides data consistent with its monthly settlements process. Other QREs provide data from routine meter readings. Each QRE adheres to the following guidelines:

1. A QRE that must also comply with the Portfolio Standard shall demonstrate that its employees who are responsible for reporting facility production data are separated organizationally from its employees who are responsible for Portfolio Standard compliance. “Separate from” means that the QRE employee(s) work in a separate department, division, section or unit that is not responsible for planning for, demonstrating or assuring Portfolio Standard compliance. The NC-RETS Administrator may make exceptions for extremely small Electric Power Suppliers after consulting with the Commission. However, in no event shall the employee who creates or uploads production data be the same employee who uses NC-RETS for compliance purposes.
2. A QRE creates a QRE Account in NC-RETS. The NC-RETS Administrator will validate the application information that it submits.
3. Upon approval, each QRE is added to the list of QREs available for selection by a Project. Upon registration, a Project will have to provide a unique ID that is assigned by the QRE, which links its facility to the QRE. NC-RETS will provide each QRE with a list of the Projects that have

selected it. When a new Project selects the QRE, the QRE will be notified via e-mail.

4. A QRE will at least monthly provide electricity production data to NC-RETS that is inherently reliable and auditable. If the meter-read period spans parts of two months, the QRE shall assign the usage to the later month.
5. Reported electricity production data shall be financial settlement quality data from revenue quality meters, which would include those that meet ANSI-12 standards.
6. Each QRE shall upload data to NC-RETS. The QRE must use a valid active NC-RETS login and password associated with its NC-RETS QRE Account. After logging into the Account, the QRE Account Holder should locate the Meter Data Loading module. To locate the desired generation output file, the User selects the Meter Data Loading module's "browse" button to display a pop-up screen where the User can locate the desired file on computer or network drives. After selecting a file, the User selects the "Year" and then the "Upload Now" button to upload the file. The file must be formatted in ASCII Text with data fields delimited by commas (Comma-Separated Value (CSV) format).

The following example shows a conforming input file.

```
PROJECTID,REPORTINGENTITYID,VINTAGE,FROMDATE,TODATE,
TOTALMWH
114,2A58A68,08/2010,08/01/2010,08/31/2010,100
```

The fields are as described in the following table:

Field Name	Data Type	Description
PROJECTID	Integer	Unique NC-RETS identifier for the Project assigned by NC-RETS upon Project approval.
REPORTINGENTITYID	Integer and Character(50)	Unique identifier for the Project assigned by its QRE from the QRE's internal systems.
VINTAGE	Numeric Character(7)	Month and year of production, formatted as MM/YYYY for any month in the current reporting period

FROMDATE	Numeric Character(10)	Begin month-day-year of production output period formatted as MM/DD/YYYY
TODATE	Numeric Character(10)	End month-day-year of production output period formatted as MM/DD/YYYY
TOTALMWH	Floating decimal	Total MWhs for reporting period, with three spaces beyond the decimal

A current period output file can be loaded as many times as needed adhering to the following restrictions. (1) After an Account Holder has explicitly accepted the posted output data, NC-RETS will not accept re-loaded data for the same production period. NC-RETS will reject an attempted re-loaded. If the Account Holder has not yet accepted, the QRE can re-load the data, the previous data will be over-written and the Account Holder will receive notification of new data being posted. Otherwise, the QRE should contact the NC-RETS Administrator, who can re-load the file if it is appropriate to do so. (2) If NC-RETS has accepted the data or the Account Holder has disputed the data, and no Certificates have yet issued, a QRE can re-load the data. In all other instances, the QRE should work with the NC-RETS Administrator if it believes data needs to be re-loaded.

NC-RETS will validate a Project's uploaded data before posting the output into the NC-RETS data base. When all validations<sup>7</sup> are successfully completed, the data is loaded into the database and can be seen in a Project's Generation Activity Log. If the Project fails to produce energy in a given month, a QRE should report by uploading "zero" to be accepted by the Account Holder. NC-RETS then notifies the Account Holder via email that generation output has been loaded for the Project, and the data is available to be reviewed for approval or dispute.

## 5.2 Generation Data Requirements

NC-RETS will not create Certificates for generation supplying Station Service. Data used to issue Certificates for Renewable Energy Facilities must be derived from a Qualifying Meter or Qualifying Estimate and communicated to the NC-RETS Administrator.

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<sup>7</sup> Validations include correct assignment of QRE, assessment of engineering feasibility of output, potential overlap of reporting period with prior uploads, data exceeds 35 days reported for a given vintage, and whether data for a previous period remains subject to dispute.

For Renewable Energy Facilities whose output is settled monthly by a Balancing Authority, a “Revenue-Quality Meter” is the data source used by the Balancing Authority for settlements. The data must be electronically collected by a meter data acquisition system, such as an MV-90 system, or pulse accumulator readings collected by the Balancing Authority’s energy management system, and verified through a Balancing Authority checkout/energy accounting or settlements process that occurs monthly. The preferred source for the data is a meter data acquisition system. If the Balancing Authority does not have an electronic source for collecting revenue meter data, then manual meter reads will be accepted.

When a QRE submits generation data (either manually entered or uploaded via file) NC-RETS validates the data to verify its engineering feasibility. To perform the validation, NC-RETS uses the following required variables from the Generating Project Registration screen:

- Nameplate Capacity
- Capacity Factor or Maximum Annual Energy

Data validation is performed for both current period reporting and Prior-Period Adjustment reporting, regardless of whether the data is loaded as a file or entered manually in the Project’s Self-Reporting Interface. To determine the feasibility of the submitted data, NC-RETS will use the following equations:

For those Projects with a registered “Capacity Factor”:

$$(\text{Nameplate Capacity}) * (\text{Capacity Factor}) * (\text{number of hours in the duration}) * (1.02)$$

For those Projects with a registered “Maximum Annual Energy”:

$$(\text{maximum annual energy}) / (8760 \text{ hours in a year}) * (\text{number of hours in the duration}) * (1.02)$$

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

If the validation is successful, and the reported energy production is less than or equal to the maximum feasible generation for the facility, the data becomes available to the Account Holder to review and then accept, or dispute. If the Account Holder accepts the data, it will be included in the next Certificate issuance cycle. For Prior-Period Adjustments, the data will contribute to the next Certificate issuance after it was accepted (either by the Account Holder, or auto-accepted by NC-RETS).

If the loaded data fails the engineering feasibility validation, the QRE will be prompted with a “soft” warning as to the failed validation. The QRE has the ability to continue posting the data by selecting the “continue” button on this pop-up screen. If the QRE wishes to continue posting data, NC-RETS will send an automated email to both the NC-RETS Administrator and the Account Holder that the data loaded for their Project has failed the engineering feasibility validation, but that the QRE has decided to have the data posted to the database anyway. The notification will also state that the data has a status of “NC-RETS Pending” until either corrected, or approved by the NC-RETS Administrator. Data with this status will not contribute to Certificate creation. The QRE can instead decide to not post the data to the database as a result of the failed validation by selecting the “cancel” button on this same pop-up screen. Selecting cancel will discontinue the data loading process for the Project in question and no notifications will be sent.

For all loaded data, the NC-RETS Administrator will have a report “Engineering Feasibility Estimate Calculations Report” which will list all Projects that have had data loaded, the amount of output loaded, and the feasibility pass/fail result.

**NOTE: Failed validation for a single facility does not result in a failure to load the entire file – only the data for the facility that failed the validation.**

### **5.3 Measurement of Generation and Adjustments**

The output from each Renewable Energy Facility Project registered in NC-RETS will be measured at the point of interconnection to the transmission or distribution company’s facility. Losses occurring on the bulk transmission or distribution systems after the metering point are not reflected in the Certificates created. NC-RETS will not create Certificates for that portion of the generation that is used to supply Station Service, and therefore, generation data should also be netted of Station Service supplied from the generator’s side of the point of interconnection. For Renewable Energy Facilities also serving onsite loads, NC-RETS will create Certificates for the on-site load distinct from Station Service, if the facility’s owner or Responsible Party can provide evidence that the metering used is capable of distinguishing between on-site load and Station Service. If adjustments are needed, due to metering, reporting, error or any other reason, the QRE must report the adjustment as soon as possible to the NC-RETS Administrator. If Certificates have not yet been created for the original generation amount to which the adjustment applies, the Certificate or debit will be posted to the Generation Activity Log, and will be reflected in the number of Certificates created. If Certificates have been created, the adjustment will be treated as a Prior Period Adjustment described below in Section 5.4.

## **5.4 Prior Period Adjustments**

Adjustments can be requested by an Account Holder, including Self-Reporting Facilities, or a QRE, after the data is reported and used to issue Certificates in NC-RETS. These adjustments are known as Prior Period Adjustments. The Account Holder accesses the Project Output Data Review screen to submit an adjustment to the NC-RETS Administrator. If accepted by the NC-RETS Administrator, the Certificate 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. NC-RETS will not accept adjustments for generation reported more than one year prior.

## **5.5 Notification of Adjustments**

The Account Holder will be informed of all positive or negative adjustments once the adjustment has been posted to the Generation Activity Log. Once NC-RETS informs the Account Holder of a need for adjustment, the Account Holder then has fourteen (14) calendar days to dispute or accept the adjustment. If after fourteen (14) days the Account Holder has failed to respond, the NC-RETS Administrator will automatically accept and create the adjustment.

## **5.6 Data Collection Procedure**

Energy-generation data should be reported within 30 days of the meter read and will be accepted by the NC-RETS Administrator on an ongoing basis. Currently, NC-RETS can accommodate data in batches that contain up to 35 days of production data. Data files are to be electronically transmitted to NC-RETS using a secured protocol and a standard format specified by the NC-RETS Administrator. The data shall reflect, at a minimum, the month and year of the generation, monthly accumulated MWhs for each NC-RETS Project ID and the associated NC-RETS and Project ID(s) for each Project. The owner of the Generating Project, as the owner of the metered data, or the Responsible Party, has the responsibility to direct the QRE to release generation data to NC-RETS.

The data must be transmitted by a single entity, which must be either (1) a QRE Self-Reporting Facility.

## **5.7 Special Requirements for Self-Reporting Facilities Only**

A Self-Reporting Facility must enter actual cumulative meter readings measured in kWh / MWh or Btu (which will be converted to 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. If a Self-Reporting Generator chooses to report data in cumulative over the course of multiple months (for example, 01/2010-06/2010), it can do so by

uploading the data for the most recent vintage month (06/2010) and providing evidence of the monthly breakdown quantity to the NC-RETS Administrator. Self-Reporting Facilities that do not enter meter readings via the Self-Reporting Interface as required will receive a reminder notice by email from the NC-RETS Administrator. Self-Reporting Facilities risk having their Project de-activated in NC-RETS if they do not provide meter readings at least annually.

## 5.8 Generation Activity Log

Each Project registered in NC-RETS will have a Generation Activity Log associated with it. The Generation Activity Log is an electronic ledger where generation is posted prior to Certificate creation. Each time generation data is received by NC-RETS for a particular Project, the date and quantity of MWh 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:

- **NC-RETS Accepted:** This label is used for all generation that has been reported to NC-RETS, has passed the NC-RETS feasibility test and has been logged to the Generation Activity Log, but has not yet been accepted (or disputed) by the Account Holder.
- **NC-RETS Pending:** The NC-RETS Administrator is waiting for the resolution of a situation before the Certificates can be issued. For example, if the NC-RETS Administrator is waiting to receive a Fuel Type allocation from a Multi-fuel Generation Project or other update from a Generating Unit.
- **Account Holder Accepted:** The Account Holder has accepted the posted generation, but the Certificates have not yet been issued.
- **NC-RETS Admin Accepted:** The NC-RETS 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.
- **NC-RETS Admin Disputed:** The NC-RETS 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 NC-RETS Administrator. Certificates will be issued based on the total whole number of MWh on the Generation Activity Log that are marked "Account Holder 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.

Account Holders will have fourteen (14) calendar days to accept or dispute any new regular entries to the Generation Activity Log and fourteen (14) days to accept or dispute adjustments. If the Account Holder does not respond, the posting will be automatically accepted after the specified period and Certificates issued.

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

- (a) Account Holder's Name
- (b) Activity Date
- (c) NC-RETS Project 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 reported to NC-RETS during the current month
- (h) Fuel Type
- (i) Status
- (j) Note (displaying Serial Numbers or data upload file names)

## **5.9 Multi-fuel Generation Projects**

For Multi-fuel Generation Projects, Certificates will be created for the eligible Fuel Type(s) only.<sup>8</sup> Each Certificate issued for a Multi-fuel Generation Project 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.

After each upload of production data, the Project's Account Holder will be asked to first verify the energy production data, and then input how much of the production is attributable to each Fuel Type. The Account Holder for the facility shall retain for audit supporting documentation related to the derivation of the proportion of electric output per Fuel Type for each period for which the Generating Unit is issued Certificates. Such supporting documentation is subject to audit by state regulators (including the Commission) and the Project's QRE.

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<sup>8</sup> For example, a coal-fired Generating Unit that uses biomass for co-firing can be considered a Multi-fuel Generation Project and have biomass Certificates issued in respect of that biomass-fired generation.

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

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

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 Generation Project 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.

## **5.10 Energy Efficiency Data Requirements**

An Electric Power Supplier that is eligible to demonstrate Portfolio Compliance via Energy Efficiency Certificates, or its Utility Compliance Aggregator, shall create a Project in NC-RETS for that purpose. The Electric Power Supplier (or its Utility Compliance Aggregator) shall use the Self-Reporting Interface to create EECs. The Electric Power Supplier or its Utility Compliance Aggregator shall retain for audit work papers demonstrating how it calculated the amount of EECs to be created. Such work papers shall detail for each customer program the estimated volume of customer participation and related energy savings, adjustments for actual operating results (participation and savings rates) and the findings of measurement and verification analyses.

## **6 Creation of Certificates**

Certificates are issued in whole numbers only. Once a Certificate is created, no changes can be made to that Certificate.

### **6.1 Certificate Creation**

The NC-RETS Administrator will issue one Certificate for each MWh of eligible electric energy or 3,412,000 Btu of eligible thermal energy that is generated or electric energy saved by a Project. Certificates are issued based on the number of whole MWh 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 NC-RETS.

**TABLE 2: NC-RETS SERIAL NUMBER IDENTIFIERS**

Identifier	Display Order	Data Type	Length	Range of Codes	Comments
Originating Registry	1	Alpha-numeric	3	NCRETS (WREGIS, ERCOT, GATS, MRETS, MIRECS, NEPOOL & NAR (for Certificate imports))	Used to identify originating registry (especially important for enabling import-exports with other registries)
Unit type	2	Alpha-numeric	4	REC: Renewable Energy Certificate issued for a Renewable Energy Facility or SEPA allocation EEC: Energy Efficiency Certificate issued for an energy efficiency project	Used to identify if the issuance is based on renewable energy generation, energy efficiency project
NC-RETS ID	3	Numeric	6	1 - 999999	NC-RETS Unique ID assigned to each Facility
State	4	Alpha-numeric	2		State Abbreviation identifying the State in which the renewable energy generation occurred. SEPA would be NA. EE or DSM would be NC
Vintage Month	5	Numeric	2	01-12	The month in which the renewable energy and SEPA generation occurred. Not needed for EE and DSM
Vintage Year	6	Numeric	4	2008-2099	The year in which the energy efficiency or renewable energy generation occurred.
Batch Number	7	Numeric	5	Numeric value assigned to the each batch of certificates created 1 - 99,999 unique per source per vintage.	
Serial Block Start	8	Numeric	9	Numeric values assigned by NC-RETS 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 NC-RETS from 1 - 999,999,999.	A number to identify the last certificate in a block of certificates.

## 6.2 Process and Timeline for Certificate Creation

Certificates will not be issued for generation occurring prior to January 1, 2008, and RECs issued in other registries before January 1, 2008, may not be imported into NC-RETS.

Once the generation data (production data as measured by a Qualifying Meter or a Qualifying Estimate) is received by the NC-RETS Administrator and a data validity check is performed, it will post in the Account Holder's "Generation Activity Log" and NC-RETS will notify the Account Holder via email that generation has been posted. The generation posting will be marked "NC-RETS Accepted" on the Generation Activity Log. Once the generation is accepted by the Account Holder, the generation posting will be marked "Account Holder Accepted." The Certificates will issue immediately following this. If the Account Holder takes no action, Certificates will issue in 14 days.

The Account Holder must notify the NC-RETS Administrator if it believes the generation data amount recorded on the Generation Activity Log is inaccurate for any reason. The Account Holder may register a dispute any time after the generation is posted and will have 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 NC-RETS Administrator, the Certificates will be created in 14 days.

For Multi-fuel Generation Projects, RECs will not issue until the Account Holder both accepts the generation data and supplies supporting fuel allocation data, as specified in Section 5.9. The Account Holder must submit to NC-RETS 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 NC-RETS for audit purposes. Account Holders must retain for audit the work papers demonstrating how they determined the fuel allocation for each reporting period.

### **6.3 Certificate Creation for Accumulated Generation**

Generation data from Renewable Energy Facilities that have a Nameplate Capacity of 10 kW or less that self-report their output need not be reported monthly and may be accumulated over several months prior to submittal to NC-RETS for Certificate issuance. However, NC-RETS will require the owner to self-report the data in time-increments that do not exceed 35 days. The vintage on the issued Certificate(s) will be the last month and year of generation contributing to one (1) accumulated MWh.

### **6.4 Data Fields Carried on Each Certificate**

Each Certificate carries a list of data fields. Some of these fields may not be applicable for energy efficiency projects.

**TABLE 3: CERTIFICATE DATA FIELDS**

<b>DATA FIELD</b>	<b>COMMENTS</b>
<b>CERTIFICATE DATA:</b>	
Certificate Type	REC or EEC
NC-RETS ID	Unique ID assigned to each Project record in NC-RETS.
Project Type	Used to identify if the issuance is based on a Renewable Energy Facility (including SEPA), or Energy Efficiency Project (including demand side management)
Project Name	Name of Project
Certificate Vintage	Vintage of Generation (month/year for RECs; Year for EEC, including DSM)
Certificate Serial Numbers	See details above
Quantity of Certificates	Total Certificates
Meter Data From:	Year-Month-Date
Meter Data To:	Year-Month-Date
Certificate Creation Date:	Date Certificates were issued in NC-RETS
Cost-Recovery Year:	Year of Cost-Recovery
NC REPS Expiration:	Expiration of NC REPS Eligibility
Utility behind project [EEC only]	Name of Electric Power Supplier running the EE/DSM program(s)
<b>STATIC ASSET DATA:</b>	
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
Commenced Operation Date	Date the Facility commenced operation
Fuel Type	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
Hydro Upgrade (Y/N)	Denotes whether Facility has been Upgraded
Upgrade Amount: NA	Denotes the portion, if applicable, of facility that has been upgraded and is eligible to create RECs for upgrade amt.
Re-power date (required if Re-powered Indicator = Y)	Date of re-powering
NC In-State/Out-of-State	Facilities eligible for NC and located in NC; Facilities eligible for NC and located outside of NC but with power delivered to any NC utility. If these certificates are transferred out of the utility account, they lose the NC In-State and become Out-of-State; Facilities eligible for NC and located outside of NC

ELIGIBILITY FOR VOLUNTARY PROGRAMS:	
Green-e Energy Eligible <sup>9</sup>	Denotes eligibility and, if applicable, certification number
LIHI Certified <sup>10</sup>	Denotes eligibility and, if applicable, certification number

## 7 Certificate Errors and Correction

### 7.1 Generation Data Validity Check

All generation data received by NC-RETS will undergo an automatic data validity check to ensure that erroneous and technically infeasible data is not entered into NC-RETS and used to issue Certificates. The data validity check will compare reported energy production to an engineering estimate of maximum potential production, calculated as a function of technology type, associated maximum capacity factor, Nameplate Capacity, Fuel Type and time period since the previous cumulative meter reading was entered. If data entered exceeds an estimate of technically feasible generation, the NC-RETS Administrator will be notified and the generation will be posted to the Generation Activity Log noting the status of failed feasibility. The NC-RETS Administrator will contact the Account Holder if the generation data entered is infeasible.

### 7.2 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 NC-RETS Administrator will contact the Commission to explain the issue. The NC-RETS Administrator and the Commission will determine appropriate action, which could include Retiring Certificates that were created erroneously. (Certificate issuance errors caused by errors made in calculating the relative fuel mix for Multi-fuel Generation Projects will be handled in this manner.) The NC-RETS Administrator may “freeze” Certificates that are implicated in an issuance error until a method of addressing the error is developed. This means that the Certificates cannot be transferred to another Account Holder or Retired until the error is resolved. Certificate issuance errors and their resolution will be logged, and that log made available to the Public Staff and the Commission for audit.

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<sup>9</sup> This field is targeted for users who will use NC-RETS for voluntary program certifications.

<sup>10</sup> This field is targeted for users who will use NC-RETS for voluntary program certifications.

## 8 NC-RETS Compliance Requirements

Electric Power Suppliers and Utility Compliance Aggregators will make transfers to the Compliance Sub-account to mirror and support their annual Portfolio Standard compliance filing to the Commission. Certificates in this Sub-account will remain in Active status until the Compliance Sub-account has been reviewed and approved by the Commission. Once approved, the Certificates will be Retired. The Public Staff and the Commission will have access to the Sub-account details.

The process will work as follows:

1) Electric Power Suppliers will establish a Compliance Sub-account for a compliance year using the “Create New Sub-Account” link. Reference Section 2.6 for more details about how Compliance Sub-accounts function. The Electric Power Supplier or Utility Compliance Aggregator will select the relevant compliance year and compliance type (electric public utility or municipality/electric membership corporation) to determine the mandates they have to meet via the given Compliance Sub-account. Utility Compliance Aggregators will need to specify the specific Electric Power Suppliers for which they are reporting, along with the prior year retail sales for each of those Electric Power Suppliers. Utility Compliance Aggregators have the option to create a Compliance Sub-account for each municipality or electric membership corporation separately if they so choose. Or, several Electric Power Suppliers (municipality/electric membership corporations only) can be grouped together for purposes of a Compliance Sub-account.

2) Electric Power Suppliers or Utility Compliance Aggregators can then proceed to transfer Certificates to the Compliance Sub-account(s).

3) From a Compliance Sub-account the Account Holder can access a Compliance Report that displays the quantity achieved and quantity still needed for specific mandates such as solar power, swine waste, and poultry waste, as well as the overall Portfolio Standard mandate, using the mandate requirement reflected in the statute for electric public utilities or municipal utilities/electric membership corporations. The report will also display the proportion of the Certificates that are in-state (including out-of-state RECs bundled with power delivered to NC) and how many are unbundled out-of-state Certificates.

4) When the Account Holder has finished their transfers for the compliance year, they will ‘submit’ the Compliance Sub-account for Commission review. This will lock the Certificates in place allowing for the Public Staff and Commission to perform their reviews. No changes to this Sub-account can be made by the Account Holder during this time.

5) The Commission will receive an automatic notification that a report has been submitted for their review. After their review the Commission can select to either 'approve' or 'reject' the Compliance Sub-account. Approval will result in the Certificates being Retired permanently in the Compliance Sub-account associated with the given compliance year. Rejection will reopen the Compliance Sub-account to allow the Account Holder to amend the Compliance Sub-account with the required Certificates after which they can re-submit the Sub-account for Commission review. Status of the Compliance Sub-account can be accessed via the Compliance Reports available to the Account Holder, the Public Staff and the Commission.

## 9 Public Reports

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

- **Account Holders.** This report contains a listing of all Account Holders with some limited contact information.
- **NC-RETS Projects.** This report contains a list of current and historic facilities by fuel source with owner information, updated daily as needed. It includes a link to each Project's docket within the Commission's website.
- **RECs Issued- Annual Report.** This report will have a drop-down list beginning with 2008. Data for 2010 RECs Issued will not be posted until April 1<sup>st</sup> 2011. The same will be true with all following years where the data for the previous year is not posted until April 1st. Data to be shown will be an aggregate of RECs issued by fuel type and eligibility.
- **EECs Issued- Annual Report.** This report will have a drop-down list beginning with 2008. Data for 2010 EECs Issued will not be posted until April 1<sup>st</sup> 2011. The same will be true with all following years where the data for the previous year is not posted until April 1st. Data to be shown will be an aggregate of EECs issued per utility that performed the energy savings.
- **Public Utility Compliance Report.** Provides details of each utility's Portfolio Standard compliance filed per year.

- **Imported Facilities Report.** Shows all Renewable Energy Facilities which exported Certificates into NC-RETS.
- **Bulletin Board.** Shows RECs which are posted by Account Holders as being available for purchase.

## 9.1 Account Holder Reports

Account Holder reports for a specific Account will only be accessible to the Account Holder, their designated agents and the NC-RETS Administrator. Account Holders, including all of the Users for an Account, can view up-to-date data in these reports at any time. Current reports include:

- **My Event Log.** This report lists all of the events that have taken place in the Account.
- **My Sub-Accounts.** This provides a list of Certificates held in the Account's Sub-accounts and allows the Account Holder to filter data by specific Active or Retirement Sub-accounts.
- **My Certificate Transfers.** This report provides a comprehensive list of Certificate transfers between Sub-accounts and other Account Holders in NC-RETS.
- **My Recurring Transfers.** This includes transfer details related to Forward Transfers only.
- **My Account Holder Registration History.** This report provides a list of all the changes to the Account Holder registration data.
- **My Project Registration History.** This report provides a list of all the Projects that have been registered in NC-RETS and includes the date of registration, the NC-RETS ID and a link to the Project registration screens.
- **My Generation Activity Log.** This report provides a log of all generation and energy efficiency data loaded into NC-RETS for all of an Account Holder's Projects. It includes both self-reported data and each file uploaded by a QRE.
- **My Generation Report.** This report shows a summary of the data loaded by vintage for each facility.
- **My Compliance Report.** This report provides North Carolina Electric Power Suppliers and Utility Compliance Aggregators the ability to view their Certificates transferred into their Compliance Sub-accounts with

built-in calculations to determine if the compliance obligations are being met or not.

- **Non-NC REPS Retirement Report.** This report captures all voluntary retirement for any Account Holder retiring RECs for reasons other than the Portfolio Standard requirement.
- **Cost Recovery Report.** The Cost Recovery Report is only available to NC Electric Power Supplier Accounts. This report lists all Certificates held in the Account with a checkbox for the Account Holder to select all batches of Certificates to be reported for a cost recovery year.
- **My Invoices.** This report lists all NC-RETS invoices that have been issued to the Account Holder including the amount and payment status. The report also includes payment information.

## 10 Data Security

The following are a minimum set of security practice requirements for NC-RETS 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

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## Appendix A: Account Holder Registration Process

The following information will guide you through the steps necessary to create an NC-RETS Account. The NC-RETS Administrator is available to assist you throughout the registration process. Please call (888-378-4461) or email [NCRETS@apxenv.com](mailto:NCRETS@apxenv.com).

### STEP 1 – REVIEW NC-RETS OPERATING DOCUMENTS

You should first review the NC-RETS Operating Documents including the Terms of Use, Fee Schedule and Operating Procedures. The documents are on the Documents page (under the Resources tab) on the NC-RETS website ([www.NCRETS.org](http://www.NCRETS.org)).

### STEP 2 – ONLINE REGISTRATION

Go to [www.ncrets.org](http://www.ncrets.org) and select the “Register for an Account” link. A pop-up window will appear with a checklist describing the steps required to register for an Account. Select the appropriate Account Type and click the “Continue Registration” button.

The available Account Types are:

- North Carolina Electric Power Supplier<sup>11</sup>
- General Account
- Qualified Reporting Entity
- Program Auditor

### STEP 3 – ACCEPT THE TERMS OF USE

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

### STEP 4 – COMPLETE ACCOUNT APPLICATION

Upon accepting the Terms of Use, the next screen shows the online New Account Application Form. You will need to complete all required fields that are noted by an asterisk (\*). You must designate at least one person, but may designate two, who would receive emails regarding the status of NC-RETS invoices and payments. Note: It will be possible for the public to view the

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<sup>11</sup> See Page 3 for instructions regarding inputting prior year sales data.

Organization Contact information you provide when your Account is approved by the NC-RETS Administrator.

Upon completing the New Account Application Form and clicking "Submit," you will receive an email notification to validate/activate your registration. This activation must occur before the NC-RETS Administrator is notified of your pending Account.

#### STEP 5 – ACCOUNT REVIEW

The NC-RETS 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 NC-RETS Administrator will notify the Account Manager. Approved Account Holders may begin using all functions of NC-RETS available to their type of Account.

#### STEP 6 – CREATE SUB-ACCOUNT(S) & ADDITIONAL LOGINS

Upon Account approval, default Sub-accounts are automatically created based on the privileges of your Account type. All NC Electric Service Provider Accounts, and General Accounts will receive one Active, Export and Retirement Sub-account. Additional Sub-accounts can be created and Logins added to an Account.



## Appendix B: Project Registration Process

The following information will guide you through the steps necessary to register a Project in your NC-RETS General or North Carolina Electric Power Supplier Account. The NC-RETS Administrator is available to assist you throughout the registration process. Please call 888-378-4461 or email [NCRETS@apxenv.com](mailto:NCRETS@apxenv.com).

### STEP 1 – Review NC-RETS Operating Procedures

The NC-RETS operative documents detail the requirements and definitions of different types of Projects. The documents are available on:

[www.ncrets.org/resources/documents](http://www.ncrets.org/resources/documents).

### STEP 2 - Register Project

- a. Log in to your Account and from the Manage Projects module, select the "Register New Project" link.
- b. Fill out the information on the New Project Registration page and select "Next."
- c. Continue to fill out the information on the second and third page of the New Project Registration screen and press "Submit."
- d. The NC-RETS Administrator will then be notified of the New Project Registration.
- e. At any time during this process you can save the form and return to complete it at a later time if you do not have all the required information.

Note: Owners of thermal projects will be required to enter their facility's maximum capacity in MW or annual energy production in MWh. To ease the process of registering a new thermal project, owners might want to calculate these conversions prior to starting the registration process.

### STEP 3 - Project Review

The NC-RETS Administrator will review the New Project Registration. For an energy project, the NC-RETS Administrator will compare the registration information to the Commission's order approving the Project as a Renewable Energy Facility. For an energy efficiency project, the NC-RETS Administrator will contact Commission Staff to verify that the electric power supplier is creating a project that is consistent with its REPS compliance plan filed with the Commission. Discrepancies regarding ownership and Project fuel(s) and size will need to be resolved before the Administrator will approve the Registration. If the New Project Registration is complete and approved, an email notification describing account approval is sent to the Account Holder. If materials are

incomplete or additional information is required, the Administrator will notify the Account Manager.

#### STEP 4 – Certificate Issuance

Certificates can be issued whenever metering data is available and has been communicated to NC-RETS. Metering data must come from a QRE (unless the Project is a Self-Reporting Facility). The Account Holder will receive an email indicating that metering data is available for their review. The Account Holder has 14 days in which to dispute the metering data. If the Account Holder takes no action, Certificates will issue in 14 days. In addition, the Account Holder can immediately approve the data, and Certificates will issue within one day.

All energy efficiency projects (including demand side management for municipalities and electric membership corporations) are self-reporting and can submit the energy savings data once per year to issue Energy Efficiency Certificates. Such Electric Power Suppliers must retain for audit their work papers demonstrating their forecasted energy savings for each program that they operate, and the actual results of those programs, including data from measurement and verification reports filed with the Commission. A group of energy efficiency programs may be treated by an Electric Power Supplier or Utility Compliance Aggregator as one Project within NC-RETS, provided that the Electric Power Supplier or Utility Compliance Aggregator maintains thorough documentation explaining how the net savings (and resulting Energy Efficiency Certificates) were calculated.

Unless otherwise provided, each municipal utility or electric membership corporation (or their Utility Compliance Aggregator) that wants NC-RETS to issue Certificates for their Southeastern Power Administration (SEPA) allocations will need to create a Project in NC-RETS and self-report their monthly SEPA deliveries based on their invoice from SEPA.

#### STEP 5 – Annual Update of Renewable Energy Facility Registration

Per the Commission's rules, Renewable Energy Facilities must annually provide attestations in order to continue to earn Certificates eligible for compliance with the Portfolio Standard. Each March 1<sup>st</sup>, March 20<sup>th</sup>, April 1<sup>st</sup> and April 15<sup>th</sup> NC-RETS will send an automated notification reminder to Account Holders that have Projects assigned to them. These notifications will remind the Account Holder of the need to complete the on-line attestation form. The Account Holder will be asked to certify that the Renewable Energy Facility remains in substantial compliance with laws for protecting the environment, that the facility continues to be operated as a Renewable Energy Facility, that Certificates from the facility are not being remarketed and that the Account Holder agrees to the auditing of its books by the Public Staff and the Commission. The facility owner certifies on-line regarding these four statements and provides their name, title, company and

phone number. After April 1, the Account Holder will be forced to complete the attestation in order to continue using NC-RETS. If the Account Holder has not completed the attestation by April 15, NC-RETS will notify the Commission which will consider whether to revoke the Renewable Energy Facility's registration.

## **Appendix C: Documentation Requirements for Multi-fuel Generation Projects**

Upon registering a Multi-fuel Generation Project, the Account Holder must submit to the NC-RETS Administrator a report documenting the methodology it will use to calculate the energy production associated with each fuel used during a month. Following the NC-RETS Administrator's review and acceptance of such a report's methodology, the Account Holder may seek creation of Certificates.

Documentation of the following information used to calculate the proportion of energy output per Fuel Type generated by the Renewable Energy Facility during a billing period must be maintained by Multi-fuel Renewable Energy Facilities for 10 years or as otherwise required by Commission rule.

1. Quantities of each Fuel Type used must be documented and must be consistent with those reported to Balancing Authority(s), EPA or state air regulators, if applicable.
2. Documentation of net heat content for each Fuel Type (if applicable) must be supported by documentation.
3. Specification of a heat rate must be consistent with the heat rate reported to the Renewable Energy Facility's Balancing Authority, if applicable.

## Appendix D: NC-RETS Generator Fuel Types

<b>FUEL/PROJECT TYPE (SHORT DESCRIPTION)</b>	<b>FUEL/PROJECT TYPE(LONG DESCRIPTION)</b>	<b>RENEWABLE</b>
BAW	Biomass - Agricultural Solid Waste	Yes
BA3	Biomass - Animal Waste - Other Animal Waste, Solid or Gas	Yes
BA2	Biomass - Animal Waste - Poultry Waste, Solid or Gas	Yes
BA1	Biomass - Animal Waste - Swine Waste, Solid or Gas	Yes
BML	Biomass - Combustible Liquids - Other	Yes
BBL	Biomass - Combustible Liquids - Spent Pulping Liquors	Yes
BMC	Biomass - Energy Crop	Yes
BLF	Biomass - Landfill Methane	Yes
BMO	Biomass - Other Biomass, including Combustible Residues	Yes
BIM	Biomass - Other Combustible Gas	Yes
BWW	Biomass - Wood Waste	Yes
CO1	Coal	No
DI1	Diesel	No
GE1	Geothermal	Yes
HYD	Hydropower - Non-SEPA	Yes
H2O	Hydropower - SEPA	Yes
JET	Jet Fuel	No
MSW	Municipal Solid Waste - Non-Renewable	No
NG1	Natural Gas	No
OC1	Ocean/Wave/Current	Yes
OIL	Oil	No
OTH	Other non-renewable fuel	No
SO1	Solar - Photovoltaic	Yes
STH	Solar - Thermal	Yes
STU	Solar – Thermal Unmetered	Yes
TDF	Tire Derived Fuel – Renewable	Yes
TIR	Tire Derived Fuel – Not Renewable	No
WND	Wind	Yes



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

NC-RETS Terms of Use  
NC-RETS Fee Schedule  
North Carolina Session Laws 2007-397  
Commission Rules R8-64 through 69

## Appendix F: Compatible Tracking Systems

<b>COMPATIBLE TRACKING SYSTEM</b>	<b>CAN EXPORT CERTIFICATES TO NC-RETS</b>	<b>CAN IMPORT CERTIFICATES FROM NC-RETS</b>	<b>WEBSITE</b>
North American Renewables Registry (NAR)	Yes	Yes	narenewables.apx.com
Midwest Renewable Energy Tracking System (M-RETS)	Yes	No	mrets.org
Western Renewable Energy Generation Information System (WREGIS)	Yes	No	wregis.org
Electric Reliability Council of Texas (ERCOT)	Yes. See Appendix G	No	texasrenewables.com
PJM GATS	No	No	Pjm-eis.com

## **APPENDIX G: PROTOCOL FOR IMPORTS FROM ERCOT**

<b>Step</b>	<b>Process</b>	<b>ERCOT Status</b>	<b>NC RETS</b>
1	Seller will transfer RECs from their ERCOT account to <i>APX, Inc (for benefit of NC-RETS)</i> account.	Pending transfer	n/a
2	Seller will email NC-RETS admin the "Export Request Form" which includes the details below as well as agreement to release data to NC-RETS: 1) REC Quantity to be transferred 2) REC serial numbers 3) REC Vintage 4) Seller account name & ID# in ERCOT 5) Buyer account name & ID# in NC-RETS account ID	Pending transfer	n/a
3	1) APX will confirm that the details in the Export Request Form match the RECs that are pending transfer in the <i>APX, Inc (for benefit of NC-RETS)</i> account. 2) APX will confirm that the facility is approved by the NCUC. 3) APX will respond to the Seller in ERCOT that it is awaiting confirmation from the Buyer in NC-RETS or make the Seller in ERCOT aware of any issues found in 1-2 above.	Pending transfer	n/a
4	APX will email the Export Request Form from the Seller in ERCOT to the Buyer in NC-RETS to confirm transaction details	Pending transfer	n/a
5	Upon confirmation from the Buyer in NC-RETS, ERCOT REC transfer will be accepted in <i>APX, Inc (for benefit of NC-RETS)</i> account. and proceed to step 6 -or- Upon rejection by the buyer in NC-RETS, ERCOT REC transfer will be rejected by the <i>APX, Inc (for benefit of NC-RETS)</i> account. (No further steps needed)	Transfer Accepted – Certificates Active in APX-ERCOT account OR Transfer Rejected – Certificates Active in Seller's account in ERCOT	n/a
6	NC-RETS Admin creates Project Record in NC-RETS, if necessary <sup>12</sup> , and issues RECs in NC-RETS.	Certificates Active in the ERCOT APX, Inc. Account	Certificates Issued in APX's NC-RETS account
7	NC-RETS Admin transfers RECs to the buyer in NC-RETS	Certificates Active	Certificates Pending transfer

<sup>12</sup> If this is the first import of RECS from the facility, an import project will need to be created in NC-RETS. The projects are created once in the NC-RETS administrator account and stay there. After being created once, they do not need to be created for each future transaction.

8	Buyer in NC-RETS accepts transfer.	Certificates Active	Transfer Accepted
9	APX retires Certificates in ERCOT, <i>APX, Inc (for benefit of NC-RETS)</i> account with the following details: Export to NC RETS [Exporter] [Importer][Date]	Certificates Retired	Certificates Active in Buyer's NC-RETS account
10	APX confirms conclusion of import with both parties (REC Exporter and REC Importer). APX creates log entry in NC-RETS with REC details for the ERCOT RECs that were retired, paired with the NC-RETS RECs that were created.	Certificates Retired	Certificates Active