

RECs and Offsets

Assuring Accurate GHG Tracking and Accounting

Meeting of the Environmental Tracking Network of North America
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Outline

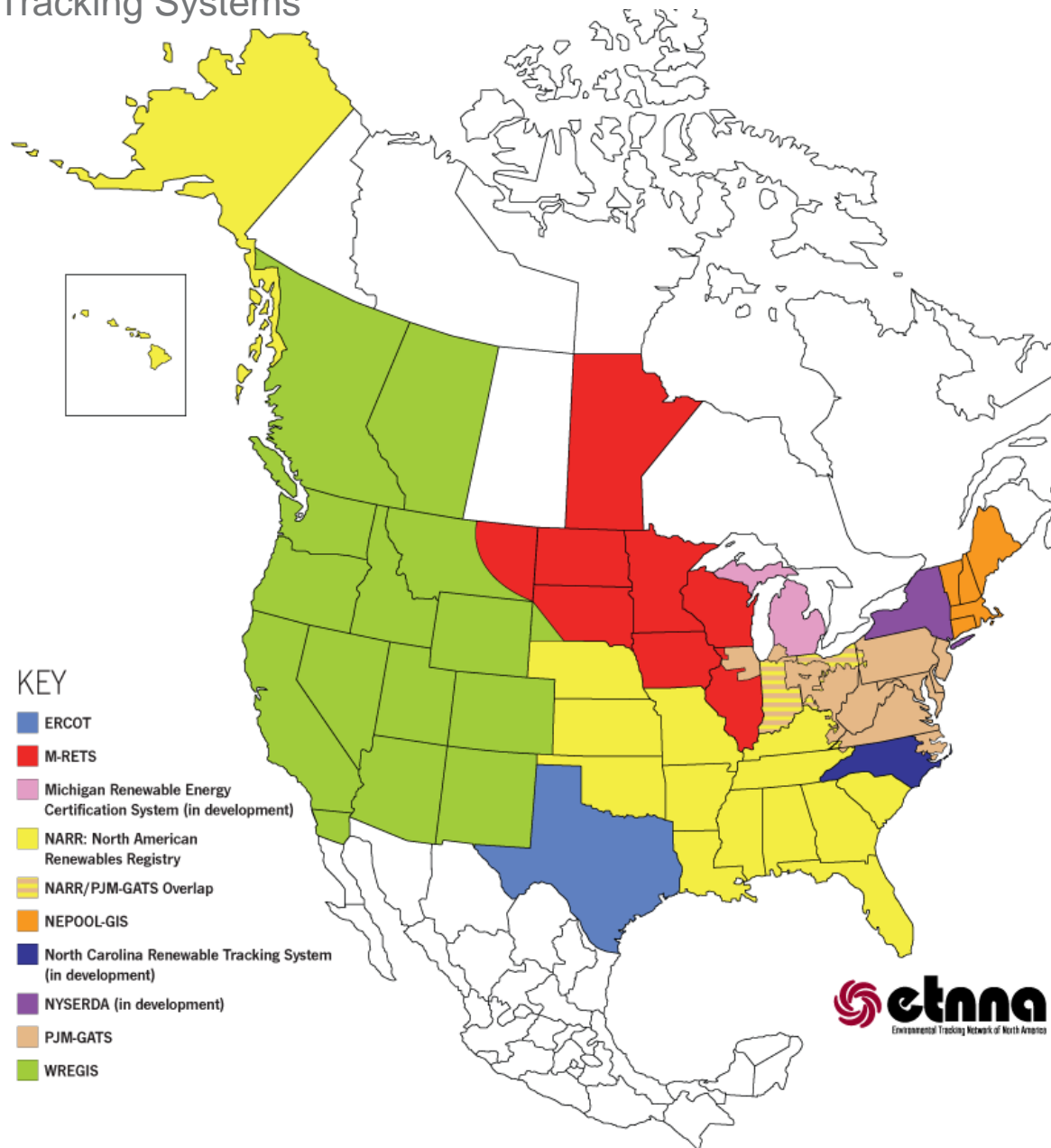
1. Purpose and Background Information
2. Main discussion points
 - Treatment of offsets and RECs in GHG project registries and RE tracking systems
 - Treatment of renewable energy and RECs in GHG inventories
 - Accounting for emissions characteristics in system mix
 - Allowance Tracking Systems
3. Discussion

Introduction to White Paper

- Focus: Interaction of RECs and offsets in registries and tracking systems to assess the potential for double counting and tracking flaws and to recommend best practices to assure accurate accounting and tracking for both commodities
- Areas of Examination
 - Renewable energy certificate tracking systems
 - GHG project registries
 - GHG inventories
 - Allowance tracking systems

Background

Current Certificate Tracking Systems



GHG project registries for RE projects in North America

- GHG project registries track emission reductions in tons from qualified projects.
- Current/active GHG project registries
 - Chicago Climate Exchange (CCX)
 - Voluntary Carbon Standard (VCS)
 - Registries operated by APX, TZI, Bank of New York (pending), Caisse des Dépôts
 - The Gold Standard (operated by APX)
 - CleanProjects Registry (Canadian Standards Association)
 - Others?
 - American Carbon Registry (Winrock/ERT)
 - Clean Development Mechanism

GHG Inventories in North America

GHG inventory systems account for the carbon footprints of participants.

- Current/active North American GHG inventory tracking systems:
 - U.S. EPA Climate Leaders
 - The Climate Registry
 - Chicago Climate Exchange (CCX)
 - Canadian Standards Association GHG CleanStart Registry

Allowance tracking systems

- Allowance tracking systems are a mechanism to keep track of permits to emit GHGs.
- Current Status
 - RGGI COATS: In operation. Electric sector only.
 - CA: pending
 - WCI: pending
 - Midwest Accord: pending
 - Federal: pending

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Treatment of RECs and offsets in GHG project registries and RE tracking systems

1. Tracking carbon equivalences of RE in voluntary RE tracking systems
2. Tracking RECs and offsets from same RE project to ensure no double counting of carbon attributes
3. Tracking offsets from methane destruction and RECs from RE generation from the same project

1. Tracking carbon equivalences of RE in voluntary RE tracking systems

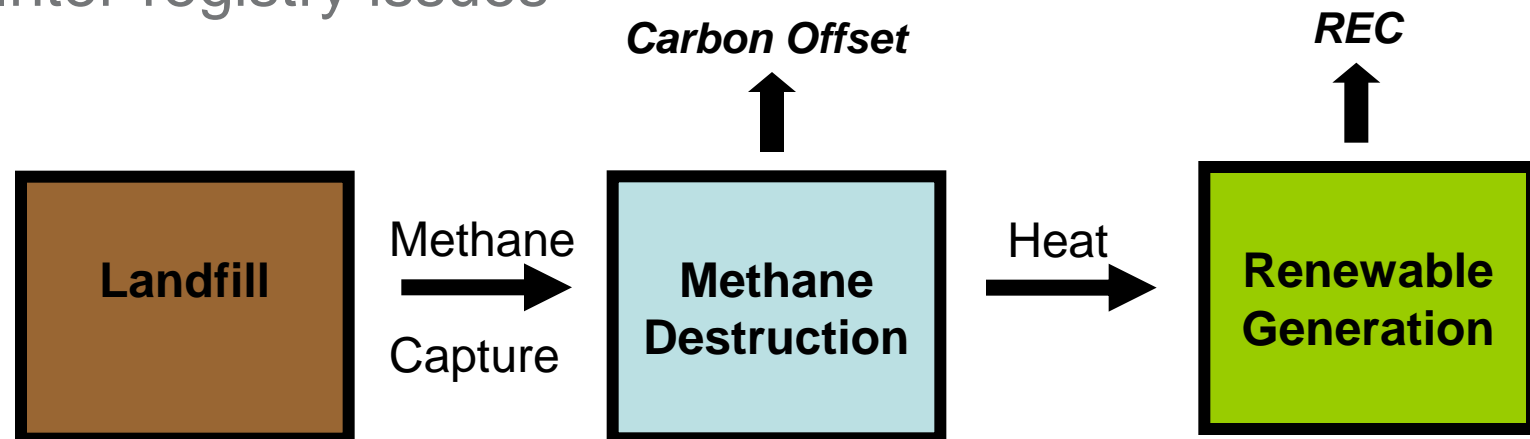
- Status: N.A.R. includes carbon equivalences for RECs; other RE tracking systems do not.
- Methodologies used
- Confusion- equivalency or offset?
- Clearly distinguishing in a RE tracking system between carbon equivalency and carbon offset

2. Tracking RECs and offsets from same RE project to ensure no double counting of carbon attributes

- RECs and offsets generated from the same project and sold as separate commodities
- Projects registered in both a GHG project registry and a renewable energy tracking system
- Coordination between the GHG project registries and electricity tracking systems

3. Tracking offsets from methane destruction and RECs from RE generation from the same project

- Methane capture and destruction producing both a carbon offset and REC in the same process
- Ensure offset does not include the emission reductions from the generation of electricity
- Inter-registry issues



Treatment of renewable energy and RECs in GHG inventories

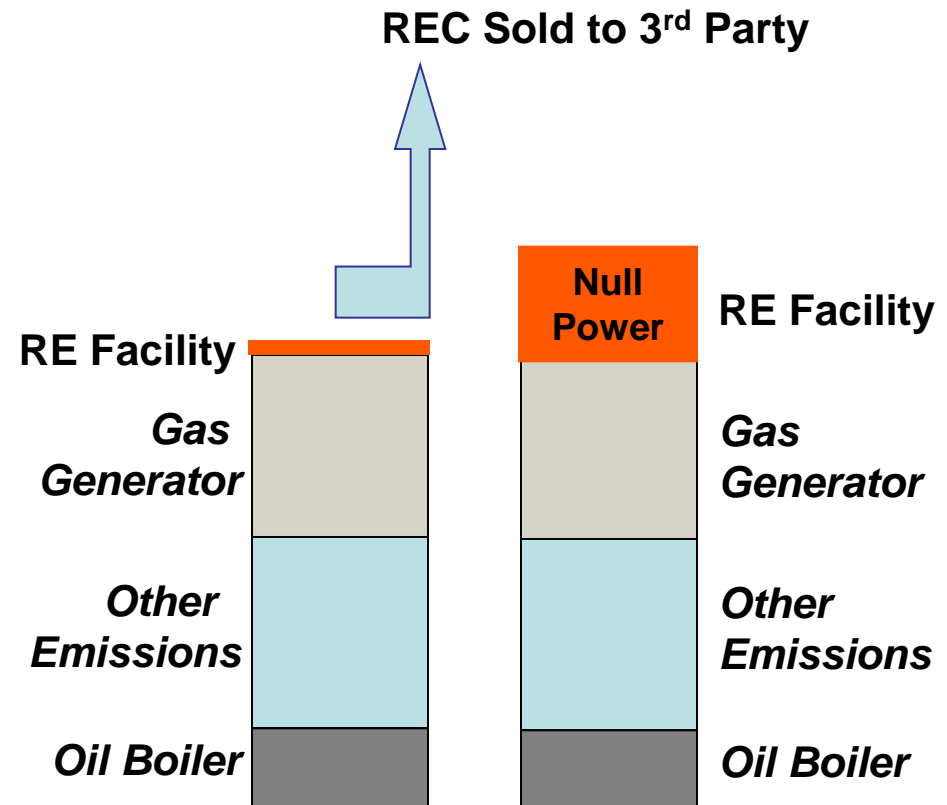
1. Accounting for the carbon benefits of purchased renewable energy and RECS in GHG inventories
2. Accounting for the GHG benefits by owners of RE facilities participating in inventories that sell RECs to other parties

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- Existing practices for treatment of renewable energy purchases under scope 2 accounting vary between inventories
- GHG inventories should adopt consistent practices that guarantee that RECs retired to substantiate claims and apply a consistent methodologies for calculating the GHG benefits of RE purchases
- Consideration of REC transfers or specific retirement accounts to substantiate scope 2 purchase claims
- Question: Should RE tracking systems have a role in tracking the GHG value of RECs for scope 2 claims?

2. Accounting for the GHG benefits by RE facility owners participating in inventories that also sell RECs to other parties

- Many RE generation owners participate in GHG inventories
- Double claiming of emission attributes (e.g. non-emitting) can occur within the inventory and in voluntary and compliance markets if RECs are sold to third parties.
- Guidance to inventories to adjust GHG accounting if RECs not retained by generation owners.



Accounting for Emissions Characteristics in System Mix

1. Proper accounting for system mix emission characteristics

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- System mix disclosure calculations vary
- Best practice facilitated by all generation tracking systems which assign emissions to null power
- Regions without all generation tracking systems often do not assign emissions to null power.
 - Current error using EPA Egrid data less than ½% for voluntary market purchases

System Mix Emissions	=	<u>All Emissions (tons)</u> All Generation (MWh)
Adjusted System Mix	=	<u>All Emissions – RE Emissions (~0)</u> All Generation – RE MWh

- Increased renewable development will increase error in carbon accounting for system power

Allowance Tracking Systems

1. Tracking carbon attributes of RE
 - Use of allowances for voluntary RE claims
 - Boundary and border issues
2. Tracking System Best Practices
 - Assuring proper tracking for compliance
 - Interaction of federal and regional allowance tracking systems

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 - Treatment of renewable energy and RECs in GHG inventories
 - Accounting in all generation tracking systems vs REC tracking systems
 - Allowance Tracking Systems
3. Discussion

Discussion

We welcome your feedback on the topics presented.

Please contact us with suggestions for the proposed outline for this ETNNA report.

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