

Tracking Renewable Energy for Compliance with the Clean Power Plan

May 15, 2015



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About Center for Resource Solutions

A nonprofit organization creating policy and market solutions to advance sustainable energy since 1997.

- Expert assistance
- Renewable energy and climate policy
- Renewable Energy Markets conference
- Green-e certification for suppliers and users of renewable energy and carbon offsets

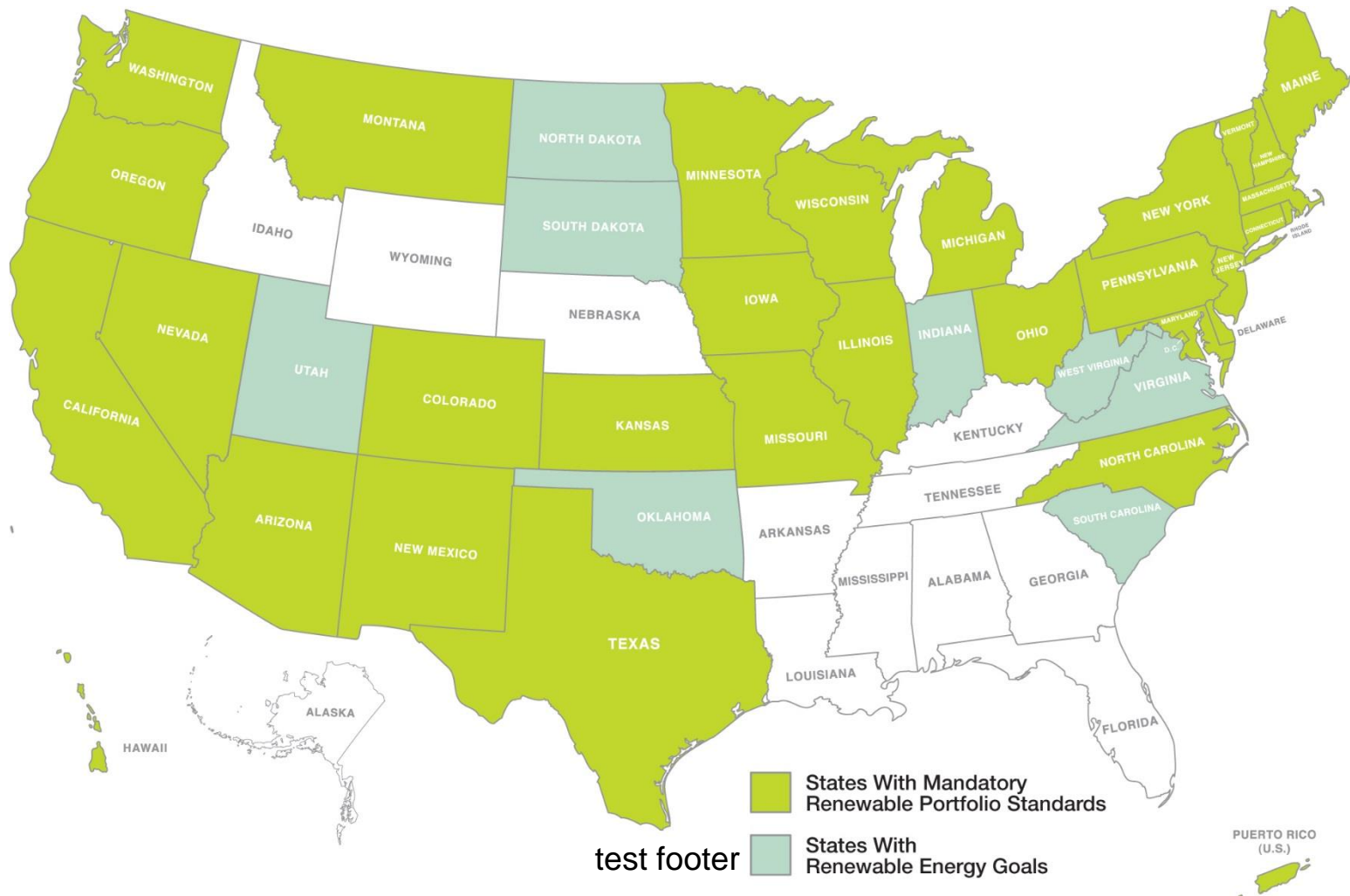


Renewable Energy for CPP Compliance

- “ ... a state could take into account all of the CO₂ emission reductions from renewable energy measures **implemented by the state, whether they occur in the state or in other states.** This proposed approach for RE acknowledges the existence of **renewable energy certificates (RECs) that allow for interstate trading of RE attributes ...**”

EPA Carbon Pollution Emissions Guidelines for Existing Stationary Sources: Electric Generating Units, Federal Register vol. 79, No 117, June 18, 2014, Sec. VIII, F.6, p 34922

RPS an Important Tool for States to Comply With CPP



What is a REC Tracking System?












- Accounting system for renewable energy
 - Certificates are the currency (unique serial numbers, carry information about the generator)
 - Participants in tracking systems have accounts
 - Certificates can be transferred (traded) between accounts
 - Certificates are used when they are retired (permanent).
 - **Policy neutral**

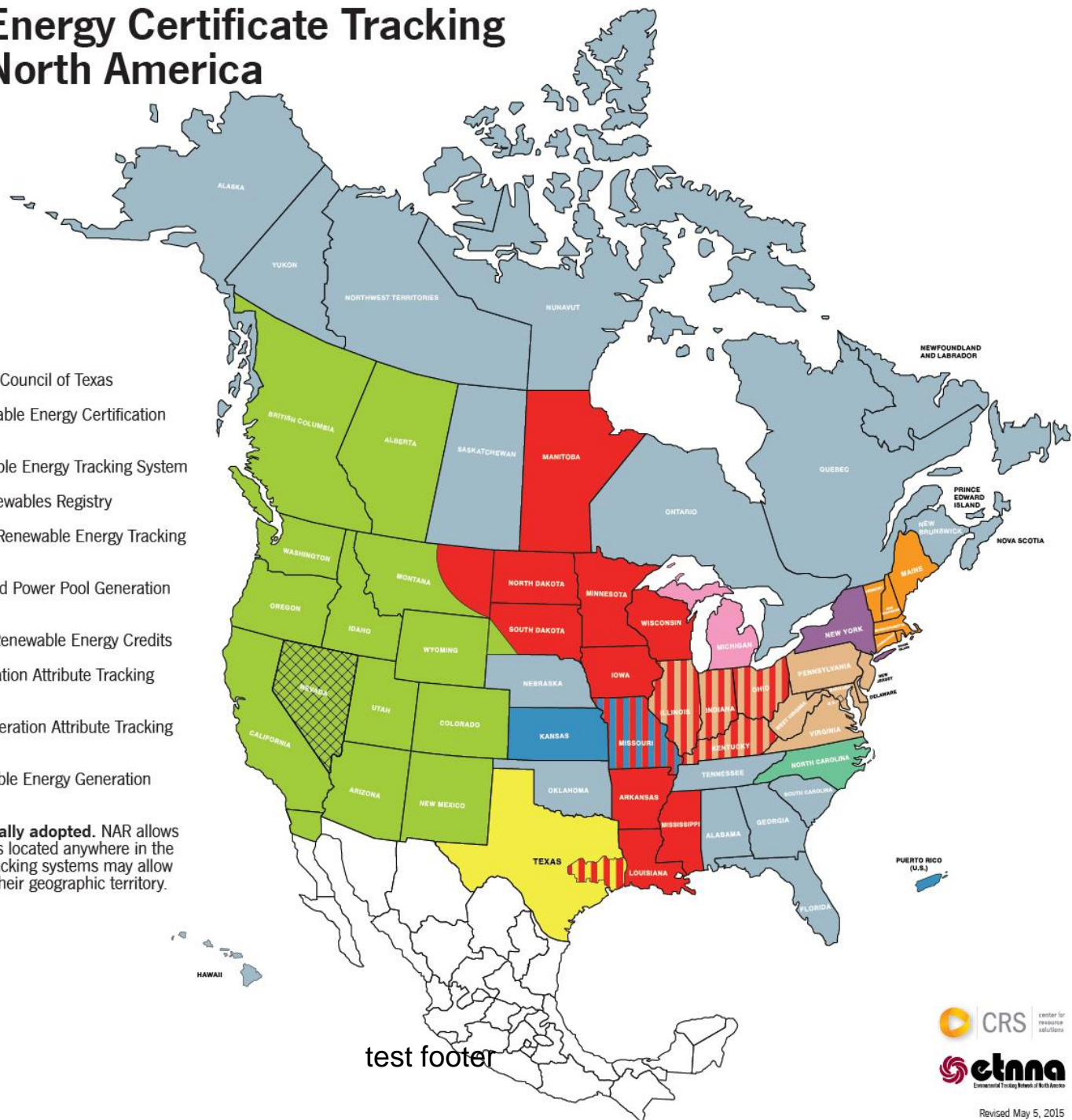
Key Roles of REC Tracking Systems

- Documenting renewable electricity production
- Identifying renewable energy generators and generation eligible for CPP compliance by state
- Verifying use of RE for compliance with a specific state plan
- Assuring no double counting between states for CPP compliance
- Facilitating interstate trading of RE for CPP

Renewable Energy Certificate Tracking Systems in North America

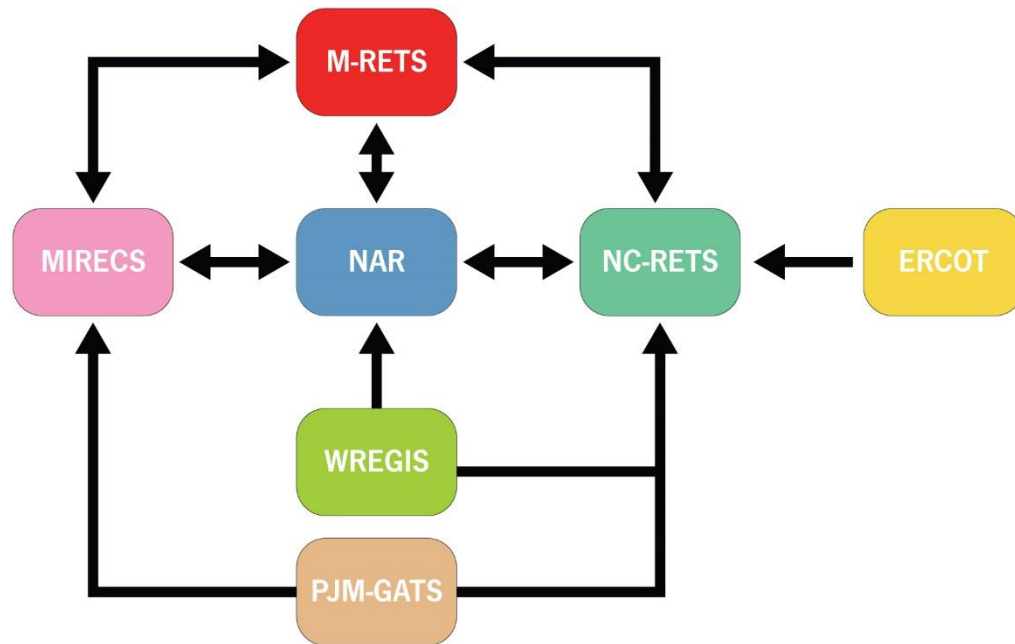
KEY

-  **ERCOT:** Electric Reliability Council of Texas
-  **MIRECS:** Michigan Renewable Energy Certification System
-  **M-RETS:** Midwest Renewable Energy Tracking System
-  **NAR:** North American Renewables Registry
-  **NC-RETS:** North Carolina Renewable Energy Tracking System
-  **NEPOOL-GIS:** New England Power Pool Generation Information System
-  **NVTREC:** Nevada Tracks Renewable Energy Credits
-  **NYGATS:** New York Generation Attribute Tracking System (in development)
-  **PJM-GATS:** PJM EIS's Generation Attribute Tracking System
-  **WREGIS:** Western Renewable Energy Generation Information System
-  **No tracking system formally adopted.** NAR allows registration from generators located anywhere in the U.S. and Canada. Other tracking systems may allow registrations from outside their geographic territory.



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RE Trading and Registry Transfers



Source: North American Renewables Registry (<http://www.narecs.com>) and The Midwest Renewable Energy Tracking System (M-RETS; <http://www.mrets.org/resources/frequently-asked-questions/>). Data accessed 2/10/15.

RPS States, DC and Puerto Rico	Allow RPS Imports From
4 States Allow No Imports	
2 States Allow Imports From	1 State
1 State Allows Imports From	2 States
2 States Allow Imports From	3 States
3 States Allow Imports From	4 States
1 State Allows Imports From	6 States
2 States Allow Imports From	7 States
1 State Allows Imports From	8 States
15 States Allow Imports From	9+ States

Tracking Systems Data Reflects Regulator Needs

Typical Certificate Data	
Issuing Tracking System/Certificate Type	State or Province
Generator's Tracking System ID	Country
Project Type	Grid region
Project Name	Fuel Type/Energy Source
Certificate Date of Generation (e.g., month/year)	Nameplate Capacity
Certificate Serial Number	Reporting Entity Type (e.g., QRE, self reporting)
Certificate Creation Date	Reporting Entity Contact Company or Organization
Utility to Which Project is Connected	Repowered Indicator (Y/N)
Utility to Which Facility is Interconnected	Repowered Amount
Program Eligibility (e.g., state RPS, Green-e Energy)	Repower Date (required if repowered indicator = Y)
Commenced Operation Date	Emissions

State Verification and Reporting

Example Certificate Retirement Report

Account Holder	Sub-Account	Retirement Types	Facility ID	Generating Facility	Fuel Type	Vintage Year/ Month	Certificate Serial Numbers	Quantity	State X Eligible	State Y Eligible	State Z Eligible	Green-e Energy Eligible
ACME	State X Renewable Energy Compliance	RPS	E9823	Slainte Wind Project - Dartmouth Ridge	Wind	11/2013	108-FR-12-3654-65987-1 to 98654	98,654	Yes	No	Yes	Yes
ACME	State X Renewable Energy Compliance	RPS	E9823	Slainte Wind Project - Dartmouth Ridge	Wind	11/2013	365-EW-36-4527-45871-1 to 87457	87,457	Yes	No	Yes	Yes
ACME	State X Renewable Energy Compliance	RPS	R2165	Kiba Solar - Blackrock Solar Energy Project	Solar	10/2013	656-GF-36-4712-56471-1 to 200	200	Yes	No	Yes	Yes
ACME	State X Renewable Energy Compliance	RPS	H9032	Fork Union County - Damascus Renewable Energy Center	Biomass	11/2013	659-LA-85-2198-34985-1 to 69832	69,832	Yes	No	Yes	Yes
ACME	State X Renewable Energy Compliance	RPS	J8723	Sol Solutions - Ridgefield Solar Farm	Solar	9/2013	879-AQ-14-3654-45698-1 to 20	20	Yes	No	Yes	Yes

Retirement reasons/subaccounts can be expanded to ID generation that is used for CPP by obligated entities.


It is critical for State Plans involving renewable energy to be clear that REC retirement (not eligibility) is needed for CPP Compliance.

Next Steps

- Tracking system administrators and states collaborate to:
 - Add new certificate data and reporting functionality to support states/regions CPP needs
 - Augment information collected during certificate retirement
 - Create or modify administrative access for state regulators
 - Expand certificate import/export functionality to match state policies for CPP



Resources

Navigating EPA's Clean Power Plan for Compliance With Renewable Energy




February 11, 2015

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Tracking Renewable Energy for the U.S. EPA's Clean Power Plan



Guidelines for States to Use Existing REC Tracking Systems to Comply with 111(d)



June 25, 2014


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Supporting State Compliance With the EPA Clean Power Plan



Recommendations for Renewable Energy Certificate Tracking Systems



February 11, 2015

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