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# Midwest Renewable Energy Tracking System, Inc.

## The Role of Tracking Systems in the Clean Power Plan

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Minnesota Legislative Energy Commission

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# Stakeholders Founded M-RETS

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- **Mission:** M-RETS efficiently tracks and verifies renewable energy generation in collaboration with stakeholders, facilitating renewable energy development in the public interest
- Independent, quasi-governmental, non-profit
- Developed out of stakeholder process with regulators, RE advocates, generators & utilities similar to 111(d) stakeholder conversations



# Primary Stakeholders

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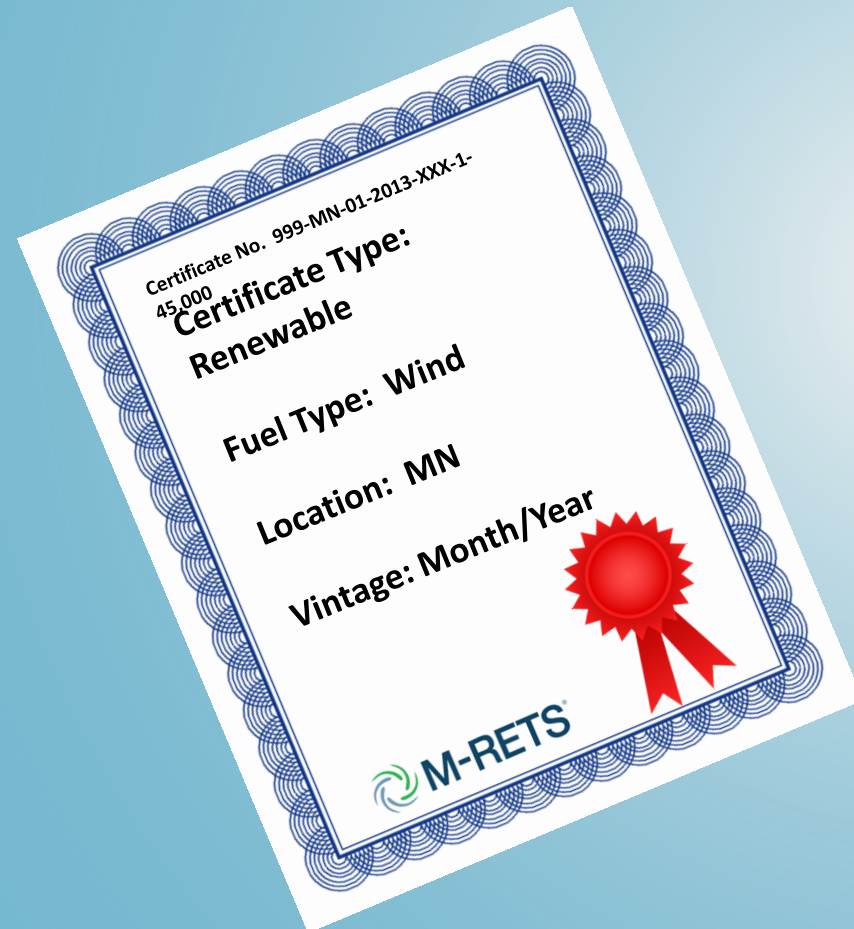
- State and provincial government renewable program administrators (regulators)
- Voluntary program administrators
- Renewable energy advocates
- Account Holders (fees paid for annual subscription and \$0.005/REC to issue, \$0.015/REC to retire)
  - Electric providers (muni, co-op and IOU)
  - Environmental Commodities/REC Brokers
  - Independent Power Producers or other large generators
  - Distributed generators and/or aggregators
  - Qualified Reporting Entities (data reporting)

# 1 MWh Renewable Energy = 1 Whole Certificate

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In M-RETS, a “Whole Certificate” is one where none of the renewable attributes have been separately sold, given, or otherwise transferred to another party by a deliberate act of the Certificate owner.

- Attributes are defined as any and all credits, benefits, emission reductions, offsets, and allowances directly attributable to the generation
- Environmental attributes are the non-energy characteristics of a generator, including, for example, the direct emissions from the generator



# Renewable Energy Certificates

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**Renewable  
Energy  
Certificate**

**Energy  
(Null Power)**

**Renewable Portfolio  
Standard Markets**

**Voluntary Markets**

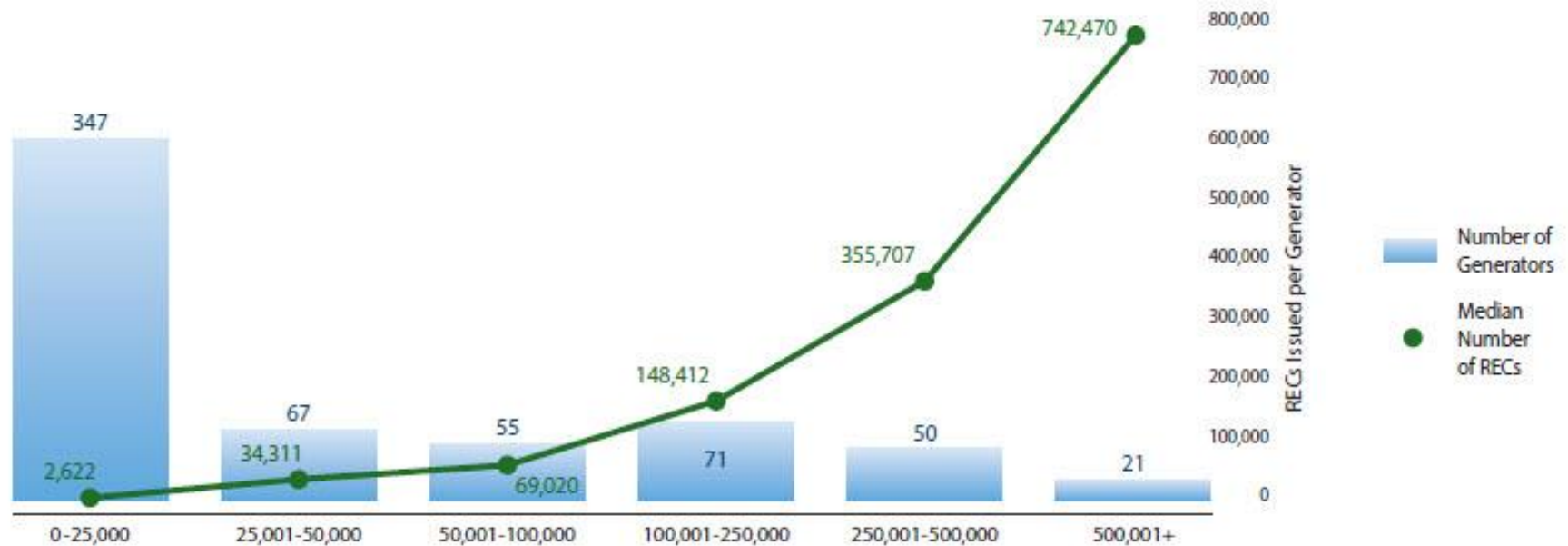
**Power Markets (ISOs)**

# Basics of REC Tracking Systems

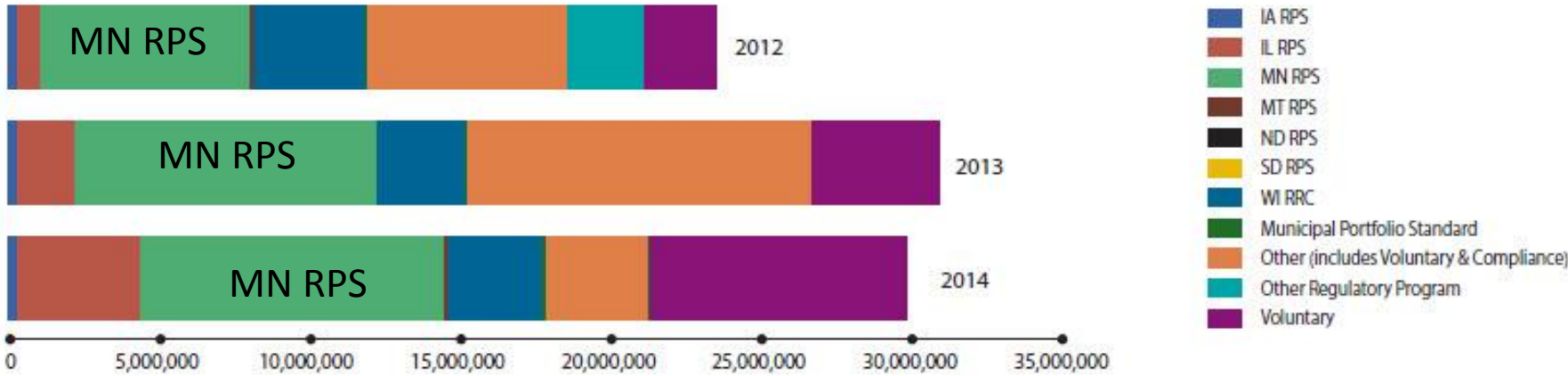
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- In last 15-20 years, 10 tracking systems were all created through state action (either individually or as consortium)
- Existing tool used in Renewable Energy markets to ensure that energy is metered, tracked and accounted in robust, safe repository
- Designated to independently issue RECs for production of RE by MWh with unique id #'s
- Use data supplied directly by transmission control areas, thereby assuring the data are accurate

# 2014 Renewable Generator and Certification Profile



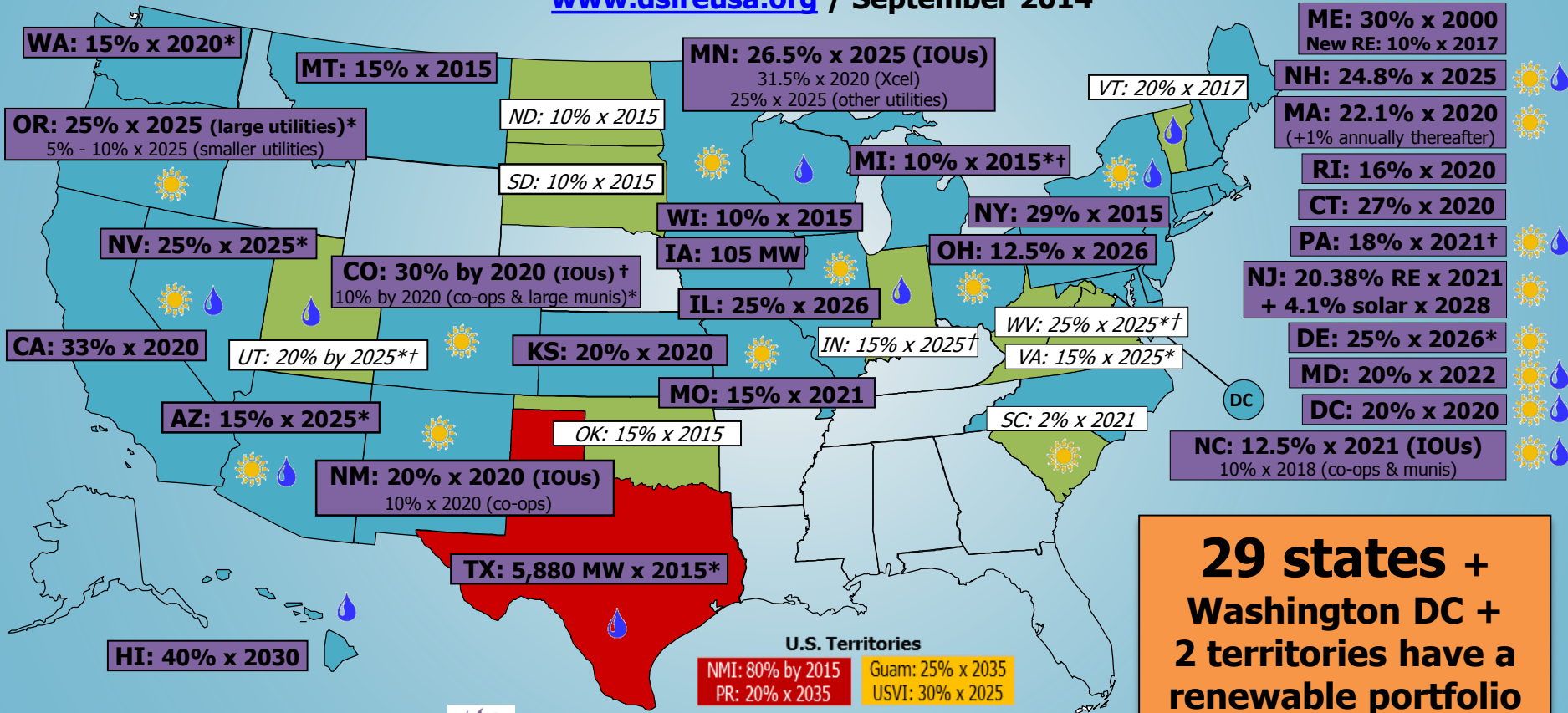
# REC Retirements





# RPS and Compliance Roots

[www.dsireusa.org](http://www.dsireusa.org) / September 2014



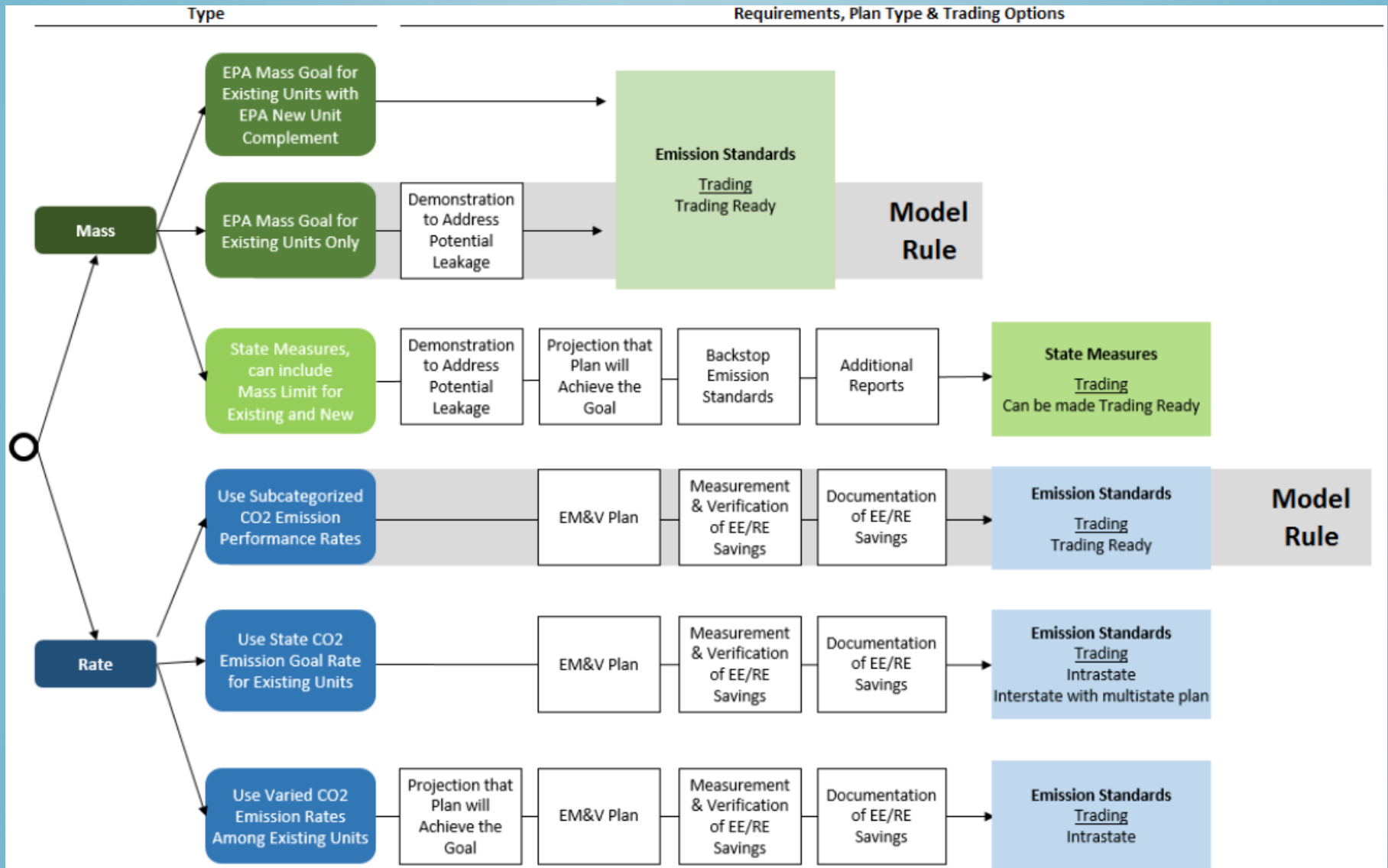
**29 states + Washington DC + 2 territories have a renewable portfolio standard**  
*(9 states and 2 territories have renewable portfolio goals)*

Renewable portfolio standard  
 Renewable portfolio goal  
 Solar water heating eligible

Minimum solar or customer-sited requirement  
 Extra credit for solar or customer-sited renewables  
 Includes non-renewable alternative resources



# Future with the Clean Power Plan



# Highlights of 111 (d) Efforts



## How M-RETS Can Support State Compliance with the Clean Power Plan



M-RETS is a dynamic tracking and verification software platform that serves stakeholders in the power sector. Currently, the services provided by M-RETS facilitate the renewable energy credit (REC) marketplace both for voluntary purposes and for compliance with state renewable portfolio standards (RPS's). Just as state RPS's are variable, preferences for satisfying Clean Power Plan (CPP) emissions goals will vary among the states. Whatever pathways states choose to achieve their CPP goals, M-RETS will work with stakeholders to provide the information needed to demonstrate compliance to the EPA.

*Being a policy-neutral non-profit, M-RETS is agnostic regarding the policy pathways adopted by the states it serves, and does not advocate for any particular CPP compliance approach.*

This fact sheet provides an overview of CPP compliance options, the types of performance tracking these options entail, and initial thoughts on how M-RETS can be structured to meet the requirements of these options.

### Options for CPP compliance

Under the CPP, states have two fundamental choices for compliance:

- A mass-based approach in which affected electric generating units (EGUs) must meet a total emissions (mass) goal. CO<sub>2</sub> limits are determined by generator, and allowances representing one ton of carbon are issued and can be traded and used for CPP compliance. States can choose to also implement complementary strategies, such as renewable portfolio standards or energy efficiency resource standards, to meet the mass-based emission requirement.
- A rate-based approach in which affected EGUs must meet a lbs/MWh emissions rate. The EPA has defined a new tradable instrument, the Emissions Rate Credit (ERC), which represents 1 MWh of zero-emitting generation. Many types of generation and energy saving programs are eligible to earn ERCs, which can in turn be used by EGUs to improve their emissions rates.

Each approach may be adopted with variations, and EPA has presented a model rule for each approach that is designed to be "trading-ready" to facilitate interstate trading of credits and/or allowances.

### How can M-RETS help states track compliance?

M-RETS can provide the capabilities necessary to support any of the pathways states may choose. The goal for M-RETS is to provide a one-stop shop for states' CPP tracking needs:



RECs tracking: M-RETS already issues renewable energy certificates (RECs) based on measured and verified generation, and tracks RECs as they are traded both within and outside the region.



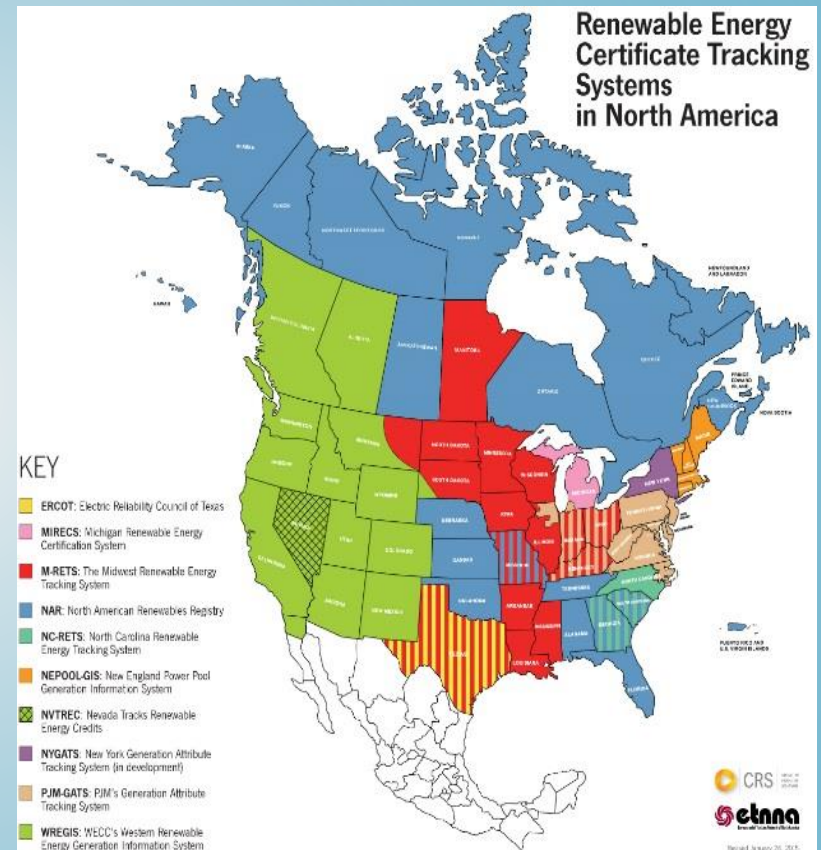
ERCs tracking: M-RETS could readily expand to issue and track ERCs on the behalf of all manner of eligible projects and programs. M-RETS could also provide information about the links between specific RECs and ERCs, which may be important for the voluntary RE market.

- To answer stakeholder questions, we have conducted an extensive interview process and are examining potential roles M-RETS could play in helping states measure, verify and track reductions in carbon intensity.
- Areas of exploration include:
  - Tracking all power generation
  - Carbon reporting
  - Tracking ERCs



# Regional Footprint

- M-RETS primarily operates in the MISO footprint
- In response to stakeholder request, recently approved tracking of generation in AR, LA, KY, MO, MS, and TX
- M-RETS is regional, spreads costs over many users, resulting in efficient use of ratepayer dollars



# Policy Driven and Position Neutral

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- M-RETS does not determine eligibility for state, federal or voluntary programs
  - A generating unit is considered “renewable” if the energy generated is considered renewable by jurisdiction
  - Services are tailored to each state’s RPS compliance, all with their own definitions of eligible renewable energy
  - M-RETS does not determine REC shelf life or geographic eligibility
- M-RETS exists to facilitate and enable the most effective policy pathways










# Changes to Functionality

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- Dynamic software leads to nimble registry - If policies are adopted or amended, we work with stakeholders to determine if changes are needed
- Work with Account Holders and regulators via Enhancement Committee to implement statutory or regulatory changes or to meet market needs



# How M-RETS Can Support Clean Power Plan Compliance Pathways

Compliance Approaches		
State Policy Choice	Accountable Entities, Accountability Metric	How M-RETS Could Support
<p><b>MASS-BASED:</b> Utility- or Plant-level emissions budget, possibly with trading</p>	<ul style="list-style-type: none"> <li>Utilities or affected EGUs</li> <li>CO2 emissions (tons)</li> </ul>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> </div> <ul style="list-style-type: none"> <li>Tracking CO2 emissions and allowances, including trading activity</li> <li>Issuing ERCs in the limited set of situations where ERCs can be generated in mass-based states for use in rate-based</li> <li>Issuing RECs and EECs as long as separate functions continue to exist for these instruments</li> </ul>
<p><b>RATE-BASED:</b> Utility- or Plant-level emissions rates, possibly with trading</p>	<ul style="list-style-type: none"> <li>Utilities or affected EGUs</li> <li>CO2 emissions rate (lbs/MWh)</li> </ul>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> <div style="margin: 5px;"></div> </div> <ul style="list-style-type: none"> <li>Tracking all EGU generation (or affected EGUs only) and emissions to establish emission rates</li> <li>Issuing and tracking ERCs</li> <li>Issuing RECs and EECs as long as separate functions continue to exist for these instruments</li> </ul>

# Verification and Validation Role

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- M-RETS is a tracking system in an EM&V role, verifying RE meter data and providing reports, not a policy decision-making body
- Once policy decisions made by authorities, M-RETS can put rules in software or have manual checks and processes to help stakeholders report on compliance.
- We do this through:
  - Operating Procedures
  - Board of Directors
  - Regulator Group
  - Subscriber Group
  - Other advisory groups



# Next Steps

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- Center for Resource Solutions and Regulatory Assistance Program serving on consultant team advising on best practices and stakeholder input on 111(d)
- Fact sheets
- Options paper this fall
- October stakeholder meeting and 111(d) discussion

# More info and Public Reports Available at mrets.org



A screenshot of the M-RETS website. The navigation bar at the top includes links for Home, About M-RETS®, Resources, Events, M-RETS® News, and Training. The Resources dropdown menu is open, listing several options: Documents, Registration, Implemented Change Requests, Statutes, Useful Links, Frequently Asked Questions, Public Reports (circled in red), REC Imports &amp; Exports, and Board of Director's Workspace. The main content area on the left contains text about the Midwest Renewable Energy Tracking System, including a paragraph about tracking renewable energy in various states and provinces, and another paragraph about the system's administration by APX. On the right, there is a 'Registry Login' section with input fields for Username and Password, and buttons for Sign in and Register. Below the login section is a 'News' section with a list of board meeting dates from 2015.



# Thanks and Contact Information

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