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The Potential for Tracking & Trading Energy Efficiency under the Clean Power Plan

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Agenda



Benefits of Trade

Currency of Trade

Platforms for Tracking,
Trading, and Reporting

Considerations

Q & A

Benefits of EE Trade

Description of trading-ready approach

- ❑ States develop their own individual compliance plans for meeting their individual targets
- ❑ Voluntarily trade either ERCs or allowances with other states

Benefits of the approach

- ❑ Conducive to multi-state solutions without joint plans
- ❑ Lower compliance cost
- ❑ Greater compliance flexibility

Emissions Performance Rates

“When we hold power plants of the same type to the same standards, it means that their reductions are interchangeable – creating a system that’s ready for trading. The built-in ability to trade emissions gives states even more flexibility in how they achieve their carbon pollution reduction goals”.

- EPA

Currency of Trade

Emissions rate credits (ERCs)

Rate-based states

- 1 MWh of generation or savings
- ERCs are created for EE measures installed after January 1, 2013 that are in place when the compliance period begins in 2022
- EM&V plans required

Allowances

Mass-based states

- 1 short ton CO₂
- Functions similar to existing carbon markets (RGGI, CA)
- In most cases EM&V plans are not required as compliance is measured at stack

Who can trade?

3 options for rate-based states:

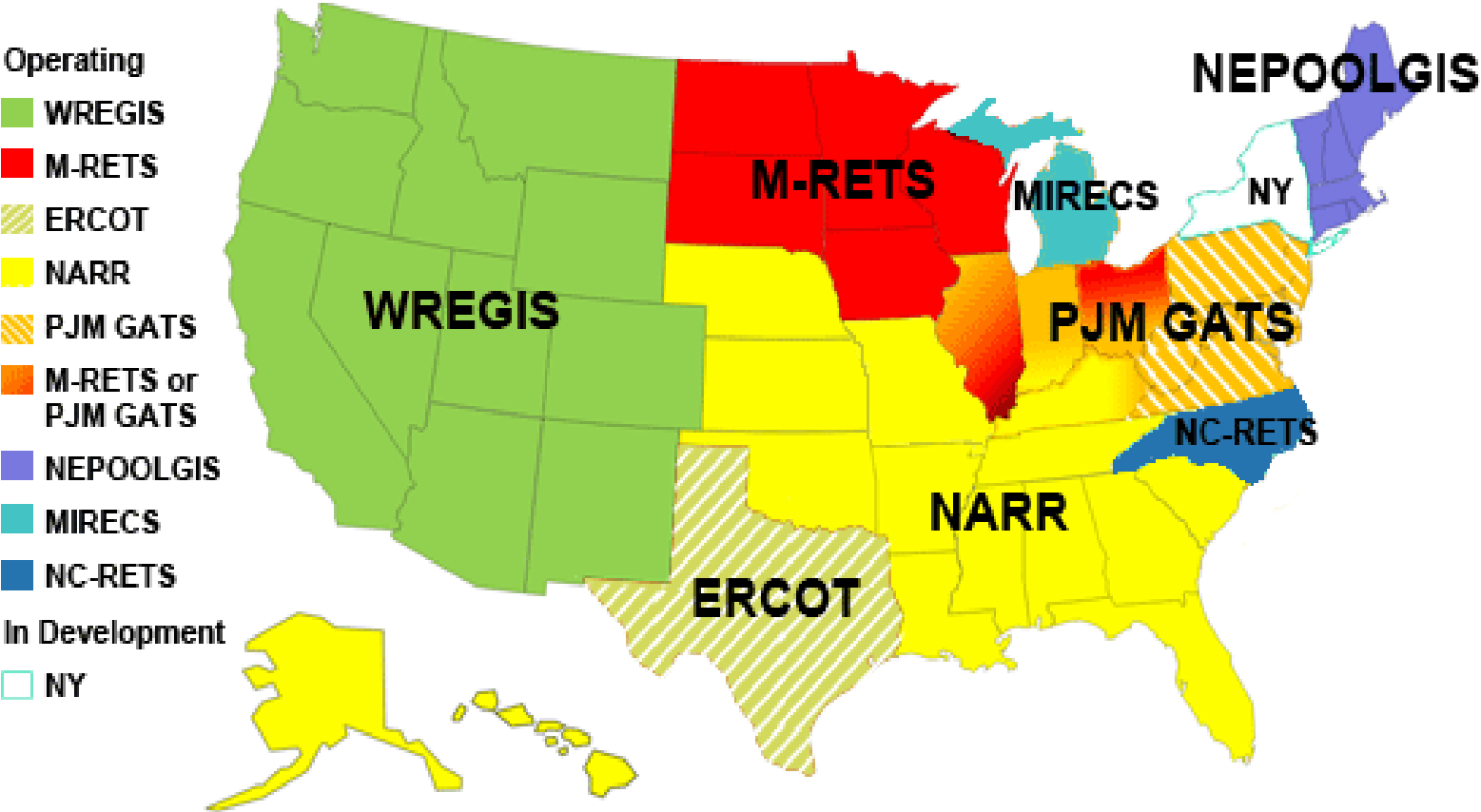
- Sub-categorized rates approach (model rule)
- State-wide rate goal (multi-state plan required)
- Varied CO2 emissions rates (only intra-state trading)

3 options for mass-based states:

- Existing units only (model rule)
- Existing units + new source complement
- State measures approach (multi-state plan required)
- Inter and intra-state trading are both allowed

Rate and mass cannot trade with each other

Where will trading take place?



WIEB Project Objectives

Identify gaps between expected 111(d) compliance requirements for RE and EE tracking, trading, and reporting and what is available today.

- Determine what data, analysis, and reporting functions are needed for RE and EE compliance
- Determine what data, analysis, and reporting functions are currently available through WREGIS and other REC tracking systems and/or through existing EE tracking systems
- Perform gap analysis

Report link: <http://www.cadmusgroup.com/papers-reports/clean-power-plan-west/>

Project Approach

- ❑ Reviewed EPA's proposed rule and the supporting documents for the Clean Power Plan

- ❑ Interviewed key stakeholders in Western states including:
 - Public utility commissions
 - State energy office staff
 - State policy experts
 - Utility staff
 - Non-governmental organizations

- ❑ Interviewed tracking system administrators and users of WREGIS and M-RETS. Also interviewed APX

- ❑ Reviewed comments from key stakeholders on the proposed ruling

- ❑ Applied industry expertise and experience

Anticipated 111(d) Tracking System Feature Categories

Essential features:

- ❑ Minimum requirements to enable states to track, trade, and report ERCs/allowances for 111(d) purposes

Beneficial features:

- ❑ Not required for basic tracking, but would enhance the system usability for states trading ERCs/allowances for 111(d) purposes and/or managing compliance against the level of EE projected in the state plan

Existing Systems for EE Tracking

Tracking System Feature	NAR	NC-RETS	NEPOOL GIS
Allows self-reporting of energy saved		■	
Requires third-party verification of energy saved	■		■
Requires third-party submission of energy saved to tracking system	■		State dependent
Requires keeping annual documentation of savings and methods for audit purposes	■	■	■
Certificate data contains MWh of avoided generation	■	■	■
Certificate data contains emissions avoided			■

EE Gap Analysis Findings

Essential Features	Offered by WREGIS?
Account details (fuel type, vintage, reporting capabilities, ownership transfer)	√
111(d) eligibility marker	TF
Beneficial Features	
Calculate avoided emissions	TF
Track ERC/allowance indicators (EM&V protocols, net or gross savings)	GAP
Track progress against EE component of state 111(d) compliance plan	GAP

TF = Technically Feasible

Comparison of Other Systems

111(d) Anticipated Features	WREGIS	PJM-GATS	NEPOOL GIS	NC-RETS	NAR	M-RETS	MIRECS
Territory	Multi-state	Multi-state	Multi-state	One State Systems	Multi-state	Multi-state Registry	One State Systems
Essential 111(d) Fields and Functions							
Account holder	x	x	x	x	x	x	x
Retirement status	x	x	x	x	x	x	x
Generating facility	x	x	x	x	x	x	x
Unique serial number	x	x	x	x	x	x	x
Fuel type	x	x	x	x	x	x	x
Vintage	x	x	x	x	x	x	x
Public reports	x	x	x	x	x	x	x
Transfer of ownership	x	x	x	x	x	x	x
111(d) eligibility	TF	TF	TF	TF	TF	TF	TF
Beneficial 111(d) Fields and Functions							
Calculate emissions avoided	TF	TF	TF	TF	x	TF	TF
Allow for certificate importing	TF	x	x	x	x	x	x
Allow for certificate exporting	x	x	x	x	x	x	x
Calculate RE impacts	GAP	GAP	GAP	GAP	GAP	GAP	GAP
Make 111(d) accounting adjustments	GAP	GAP	GAP	GAP	GAP	GAP	GAP

* In table, x indicates that the field or feature currently exists in the system; TF indicates that the identified system is technically feasible, but is not currently a system function (either comparable functions are offered in sister systems, or the system itself has a comparable feature); and GAP indicates that the feature is not currently part of the system.

MIRECS

- Created to support and verify compliance with the MI Renewable Energy Standard
- Administered by APX
- Integrated with Midwest Renewable Energy Tracking System (M-RETS) and the North American Renewables Registry™ (NAR)

<http://www.legislature.mi.gov/documents/2007-2008/publicact/pdf/2008-PA-0295.pdf>

Considerations

EM&V Consistency

- Uniform Methods Project
- Regional Technical Forum
- EM&V contractor certifications?

Double Counting

- Linked registries

Timing of EM&V

- Needs to be done prior to ERC creation

Trading Internationally

- EPA will work with states who want to consider this option

Conclusions

There is no centralized EE platform to date, but EE trading under the Clean Power Plan is a viable option

- ❑ EE trading as a concept is much further developed than Draft Rule (i.e. currencies established: ERCs, allowances)
- ❑ Final CPP supports trade with options of individual, specified trading partner, or joint plans
- ❑ Existing REC platforms have the capability to accommodate 111(d)'s EE compliance requirements
- ❑ Protocols and methods of trading partners must promote consistency
 - DOE EM&V registry



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Appendix

