



RAP

Energy solutions
for a changing world

EPA Green Power Partnership REC Tracking System Webinar: All Gen Tracking Systems

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April 30, 2015

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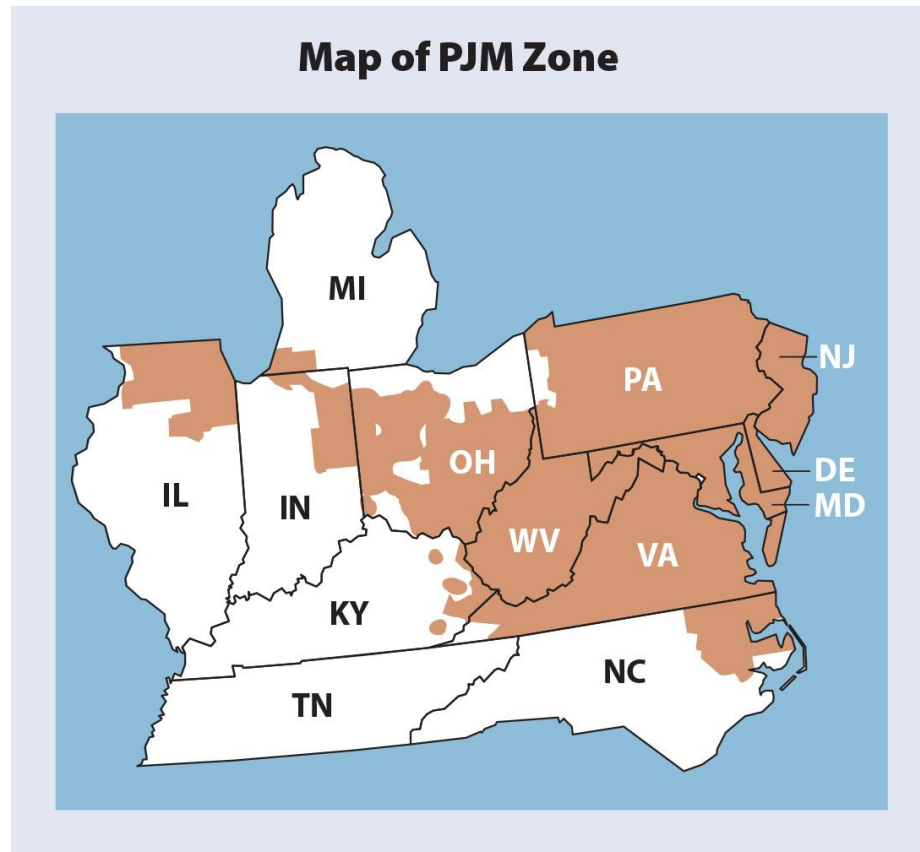
All Generation Tracking Systems--Overview

- Examples:
 - PJM's Generation Attribute Tracking System—GATS
 - NY ISO Generation Attribute Tracking System—NY GATS
 - New Eng. ISO's Generation Information System—GIS
- Basic Aspects of these Systems
 - What Gets Tracked
 - Determining Residual Mix
- Support reporting and verification requirements
 - Portfolio Standards
 - Energy Disclosure Requirements
- Integration with Cap-and-Trade Programs

GATS and GIS

- Initially developed to support:
 - State Renewable Portfolio Standard (RPS),
 - Voluntary Renewables Programs, and
 - Power Source Disclosure Laws.
- GATS and GIS constitute important infrastructure with capacity to track the generation and consumption of electrical energy.
- Today, GATS and GIS are used primarily to track transactions associated with renewable energy, however several states use them for retail disclosure purposes.

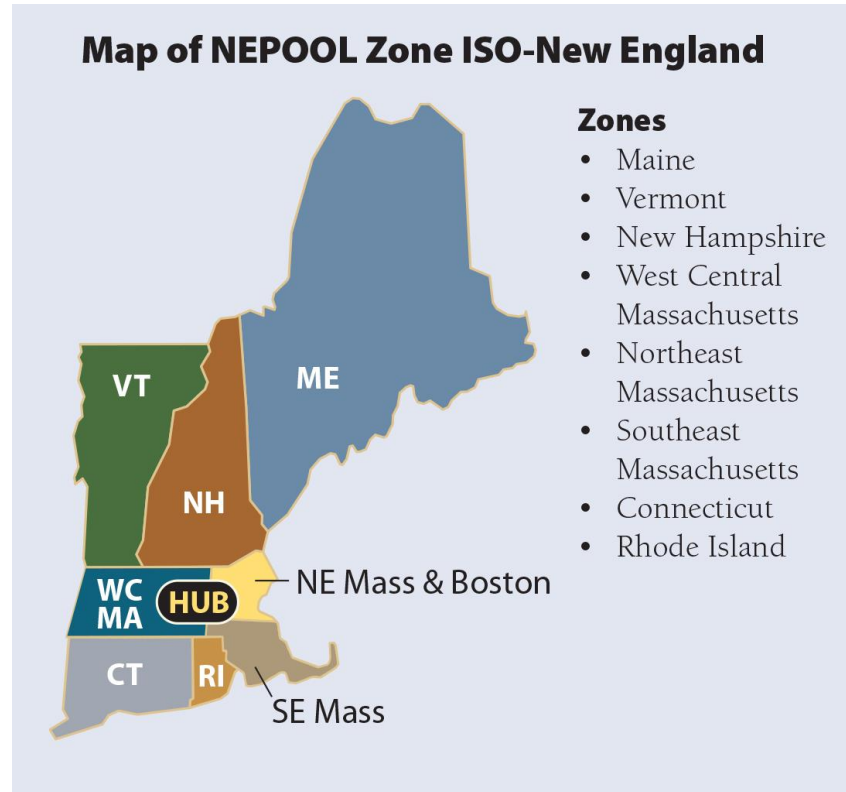
PJM's GATS



NY GATS—In Development



New England ISO's GIS

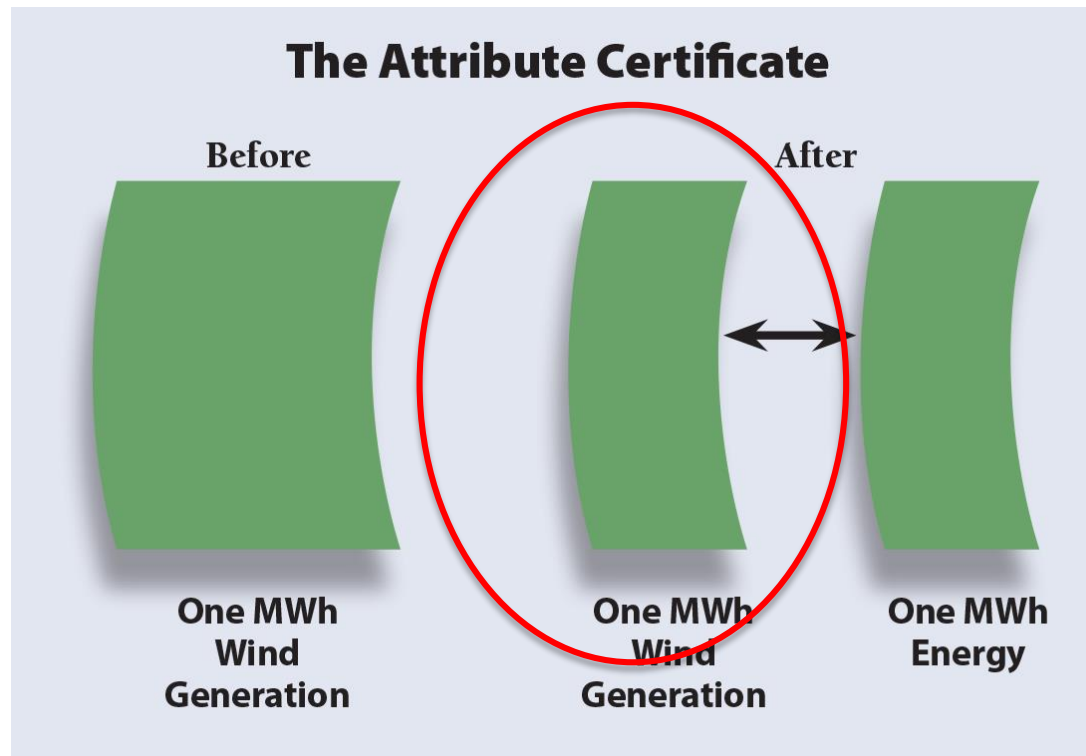


Tracking Systems

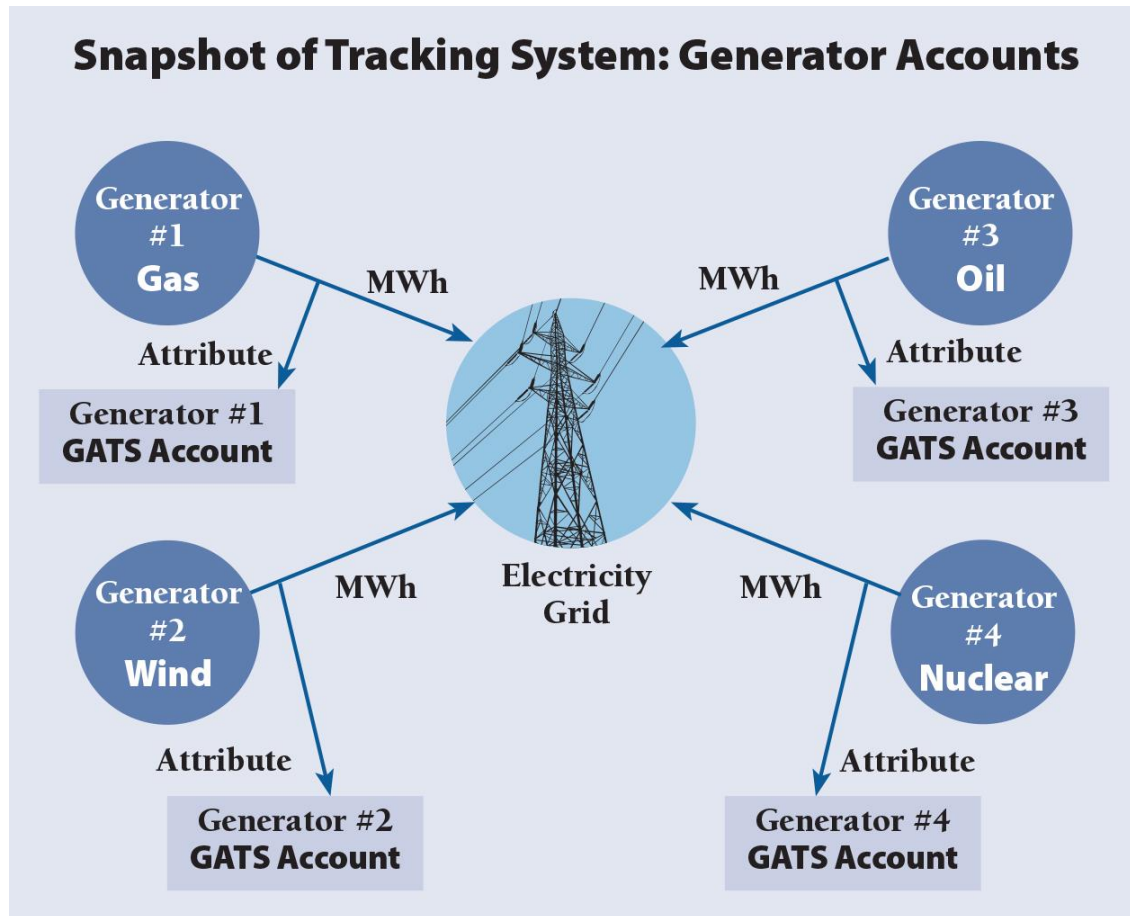
- Mint individual certificates for each MWh; **not limited to RE MWhs**
- Enable trading of attributes across state borders without physical constraints of electric system

Tracking Systems

- Separate the attribute from the electricity

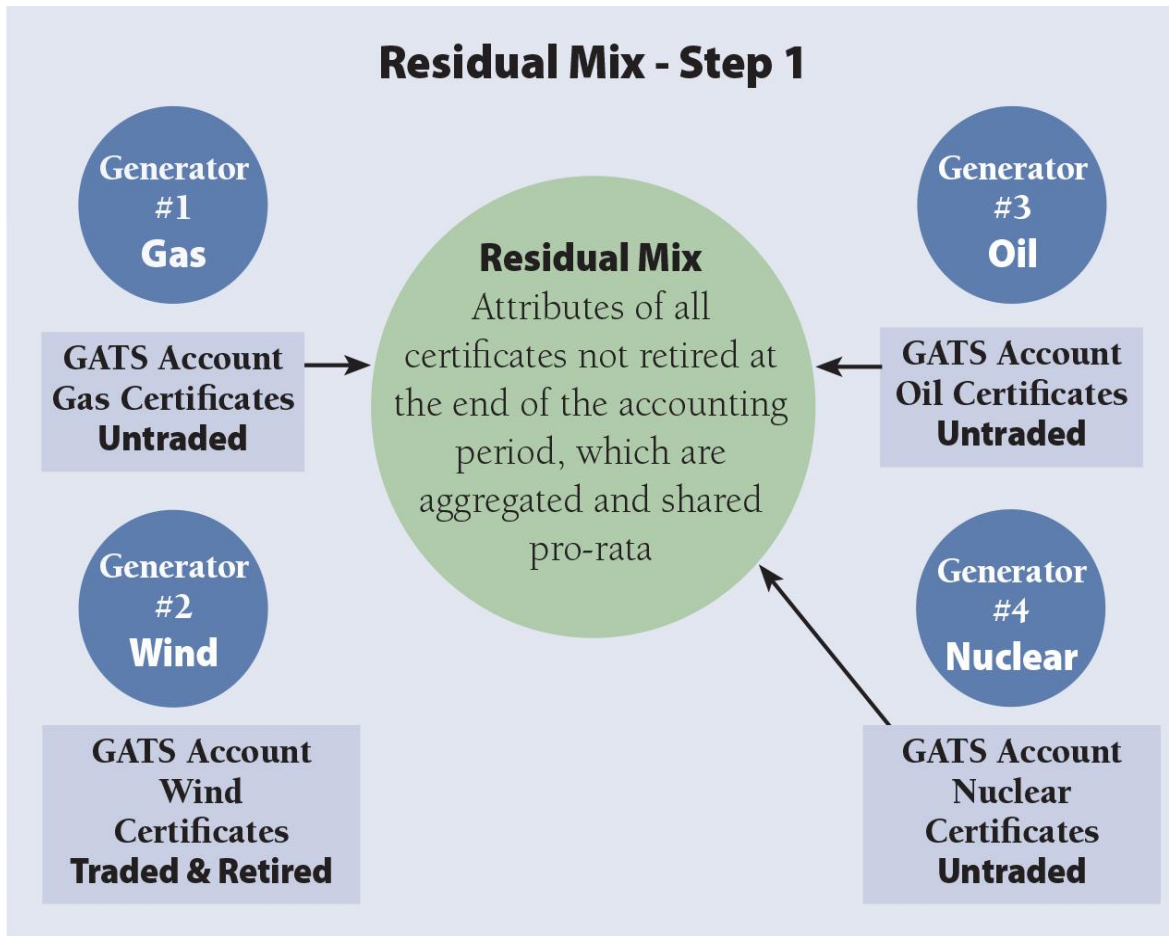


All-Generation Systems



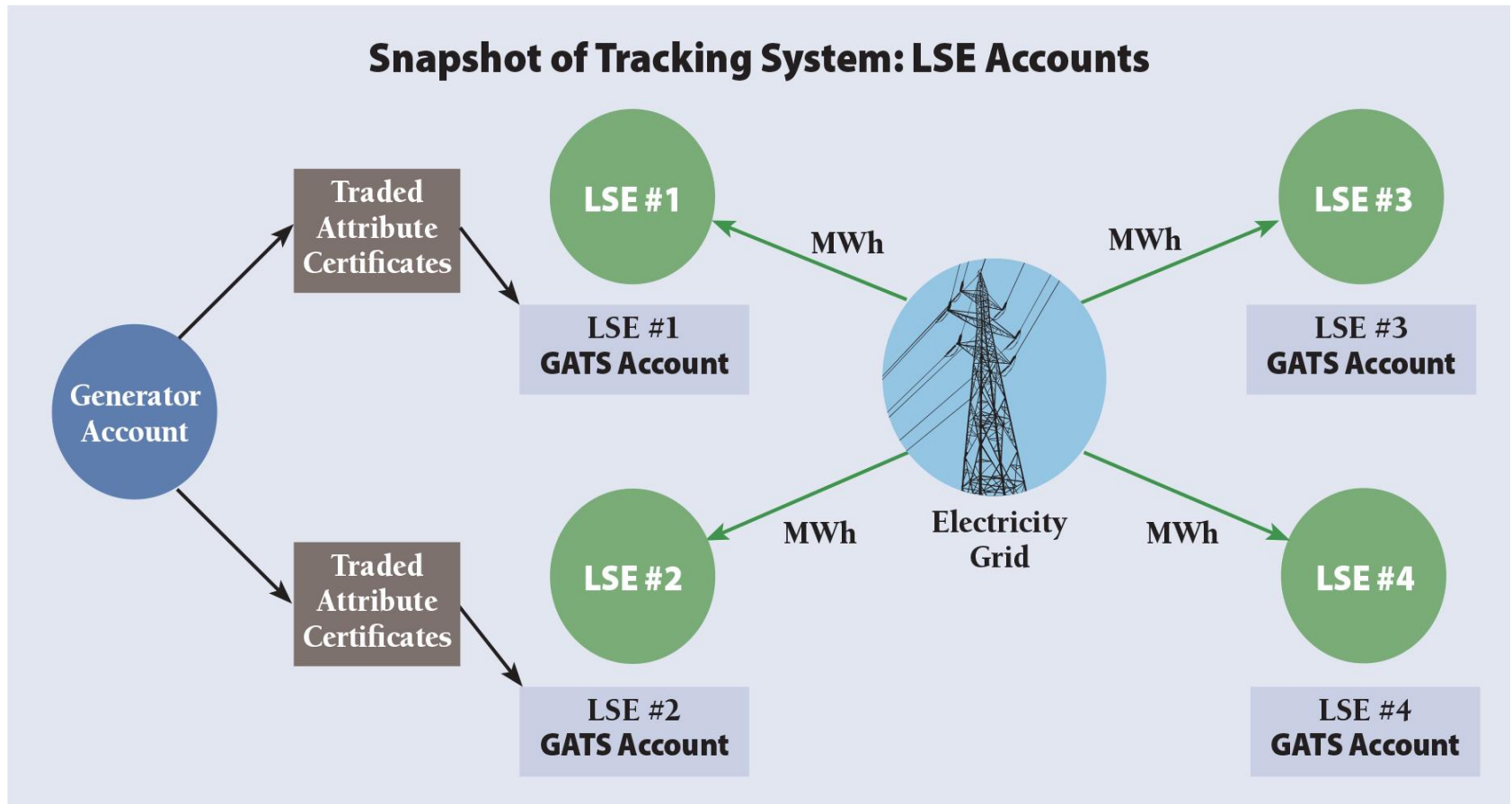
- Mint certificates for **every** MWh produced
- Certificates may or may not be traded

Residual Mix—Step 1



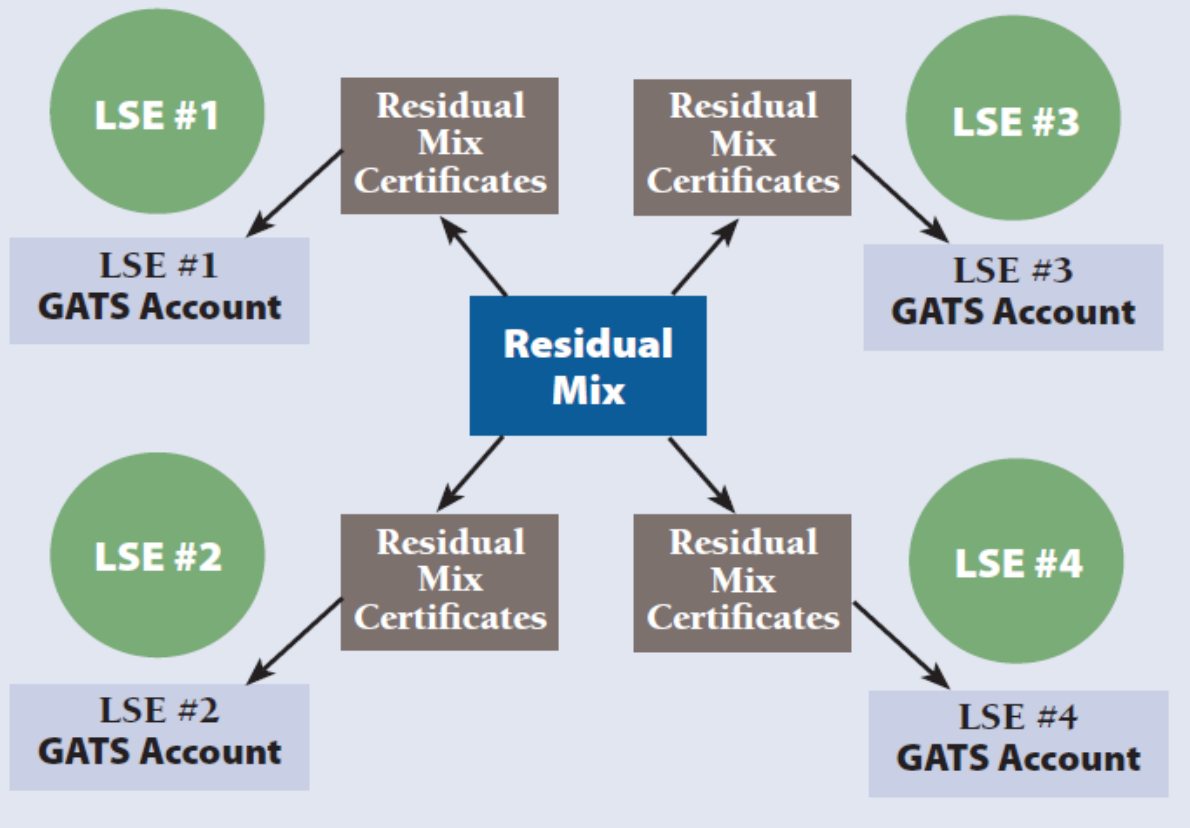
- All Energy Systems Track:
 - Traded attributes, and
 - **Untraded** attributes

Attribute Certificates Traded



Residual Mix Step 2

Residual Mix - Step 2



- After attribute certificates are traded:
 - Untraded certificates
 - Aggregated &
 - Shared pro-rata

All-Gen Systems Support RPSs and Elec Disclosure Policies: **Delaware**

- Retail electricity suppliers file a quarterly report with the PUC using fuel-mix information.
- Suppliers are required to provide, among other things:
 - total amount of electricity (kWh or MWh) supplied to each retail customer class, and
 - Fuel resource mix by percentage for each resource.

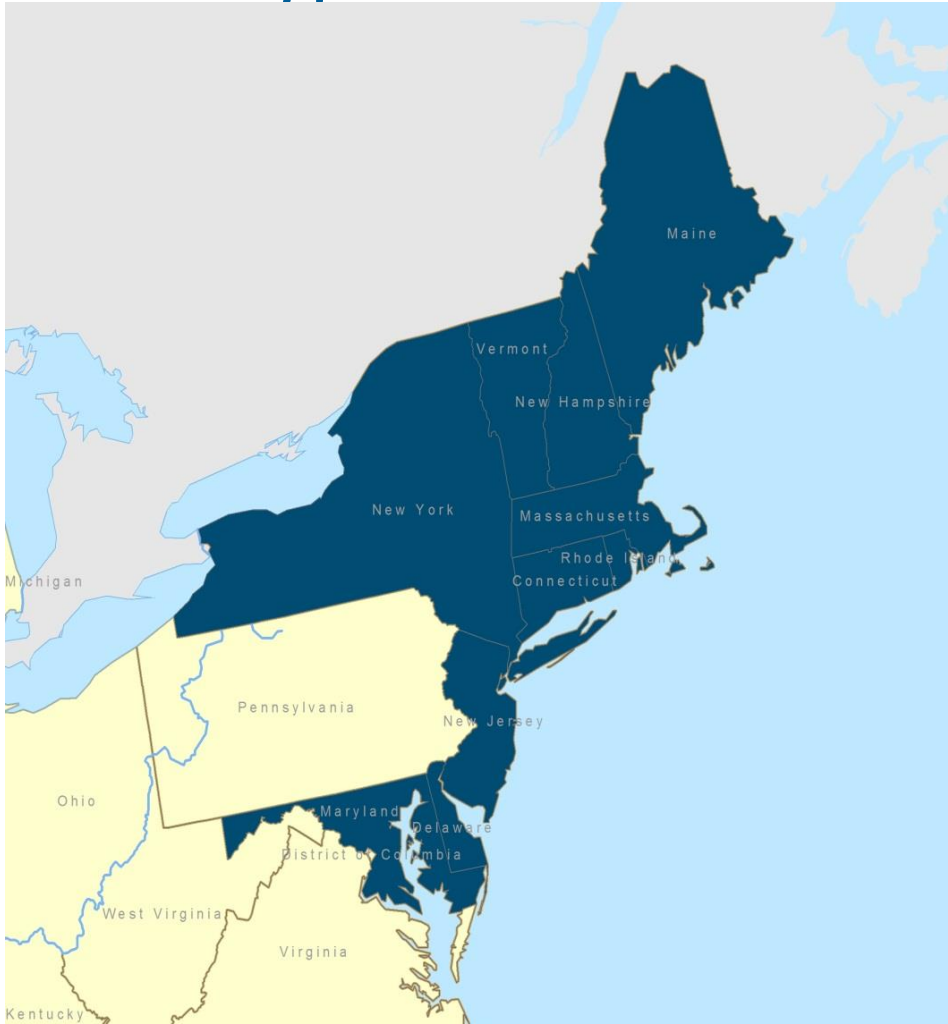
Maine Disclosure

- Retail providers required to provide residential and small commercial consumers with a label containing:
 - fuel mix and
 - emissions characteristics.
- No less frequently than on a 12-month basis.”

Attribute Tracking Systems Integrated with Mass-Based CO₂ Programs

- Mass-based CO₂ programs:
 - RGGI (Northeast US)
 - AB-32 (CA)

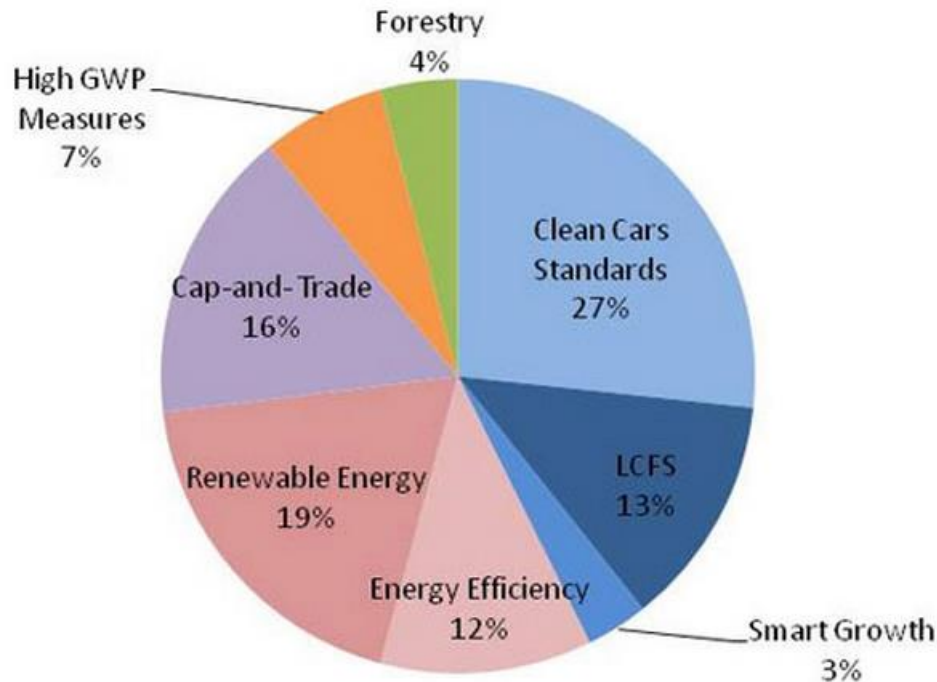
Integrating Vol. RE with Cap-and-Trade: The Regional Greenhouse Gas Initiative (2009)



- Voluntary RE set-aside mechanisms enable vol. RE mkt. to integrate within the C&T program.
- Retire CO₂ allowances in an amount that corresponds to CO₂ displaced by RE

Integrating Vol. RE with Cap-and-Trade AB32—California (2013)

AB 32 Emission Reduction Strategies
(Measure, Percent of Total)



Sources: CARB, Scoping Plan: Emissions Reductions from Scoping Plan Measures (last updated Oct. 28, 2010); 2020 GHG Emissions Forecast (last updated Oct. 28, 2010).

- Like RGGI, CA Cap-and-Trade has a Set-Aside for Vol. RE

Attribute Tracking Systems Integrated with Mass-Based CO₂ Programs

- Set-Aside Mechanisms enable Vol. RE mkt. to integrate within the C&T program.
 - Retire CO₂ allowances in an amount that corresponds to CO₂ displaced by RE

Thank You

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raonline.org

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