MDE Observations of REC-based GHG Accounting

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REC-based GHG Emissions Accounting

REC-based emissions calculation could be a reasonable exercise for evaluating the effectiveness of the RPS (Renewable Portfolio Standard) as a policy.

However, it needs to be a separate ledger from the inventory and requires thorough consideration.

Inventory Protocol

GHG Protocol is for companies

National governments take inventory guidance from the IPCC

States look to IPCC, EPA State Inventory Tool, and EPA's national and state-level inventories

Global Protocol for Community-Scale Greenhouse Gas Emission Inventories	U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions
"Cities shall use the location-based method for scope 2 calculations in the GPC, and may **separately document emissions from the market-based method** (see Box 6.1). The **supplemental market-based figure** can help cities understand the choices of individual consumers, businesses and institutions, growing the market demand for low-carbon energy." ([link](#))	"Local governments have the option to include information on GHG benefits associated with these activities in the process of their reporting, so long as this information is **presented separately from gross GHG emissions** data calculated using the methods provided by this Protocol. It is not Protocol-compliant to solely report net GHG emission numbers (e.g., subtracting renewable energy credits from the gross emissions estimate). Information on these activities is best presented in the context of climate action plans, sustainability plans, and progress reports on the implementation of emission reduction strategies." ([link](#))

Inventory Protocol

REC-based emissions accounting puts emissions outcomes at the whims of policy design (e.g., time component, ACP payments in lieu of compliance, REC multiplier, etc.)

Time component

> An inventory accounts for emissions/removals that have occurred in a specific year.

> However, RECs created in one year can be retired as much as 5 years later.

Using the proposed approach, MD's imported electricity emissions would show a significant increase in 2023, even as the PJM grid mix has gotten cleaner. This is not due to an on-the-ground change in actual renewable electricity generation in that year but rather due to MD electricity suppliers choosing to pay the ACP instead of purchasing RECs.

Complications of multiple markets

Conflates REC purchases with electricity purchases. They are two separate markets.

  Side note: ORECs (offshore wind renewable energy credits) are bundled

Double-counting of attribute purchases and electricity purchases

Crediting voluntary REC purchases

Example of a large-load customer with a contract with a carbon-free generator

  The proposed method would have them emitting at the rate of PJM-wide fossil generation

  The actual in-state carbon-free generation would be artificially assumed to be non-existent until such time that the RPS is changed to consider it a qualifying source and it's RECs are purchased by a utility for RPS compliance

Other factors

Double-counting of small-scale solar

Consistency among all other PJM states