Regional Carbon Pricing as Leakage Mitigation for Subregional Carbon Pricing

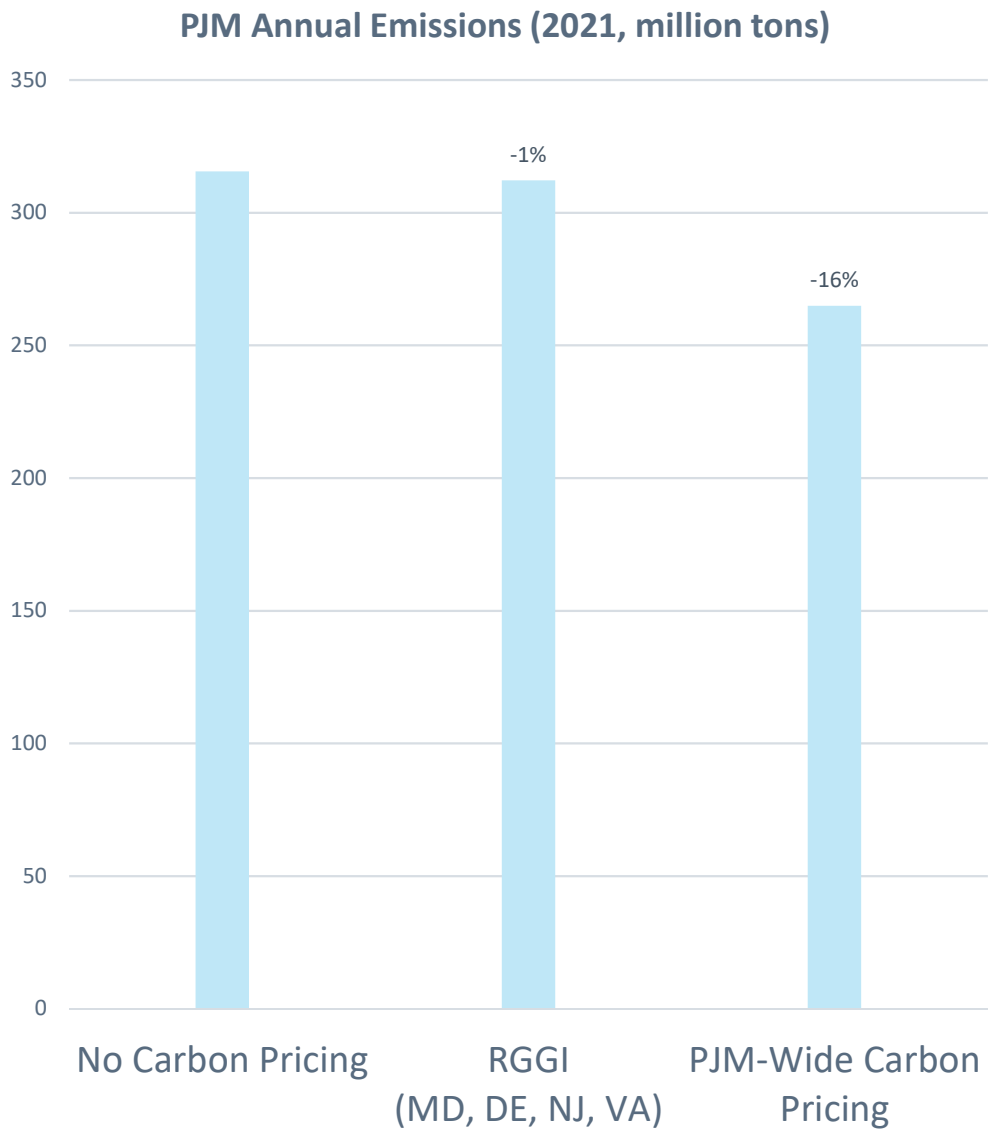
October 27, 2020

Overview of Concept

- We think that leakage would ideally be addressed by mimicking regional carbon pricing, rather than through subregional border adjustments.
  - To do so, all generators would have an emission-based compliance cost; if they don't actually face the cost then the design isn't incentive-compatible (resources will just adjust their offers to get around it).
    - This results in a pool of Non-RGGI generator compliance payments.
- Our goal would be to insulate Non-RGGI states from the impacts.
  - What does that entail? Today, we focus on consumer costs:
    - Increased energy market costs, and
    - Decreased ZEC payments. Nuclear revenues will increase under this structure, so ZEC payments should decrease.

Subregional vs Regional Carbon Pricing

- Leakage impedes subregional carbon pricing from achieving meaningful emissions reductions.
- Regional carbon pricing would achieve significant emissions reductions at the same carbon price.



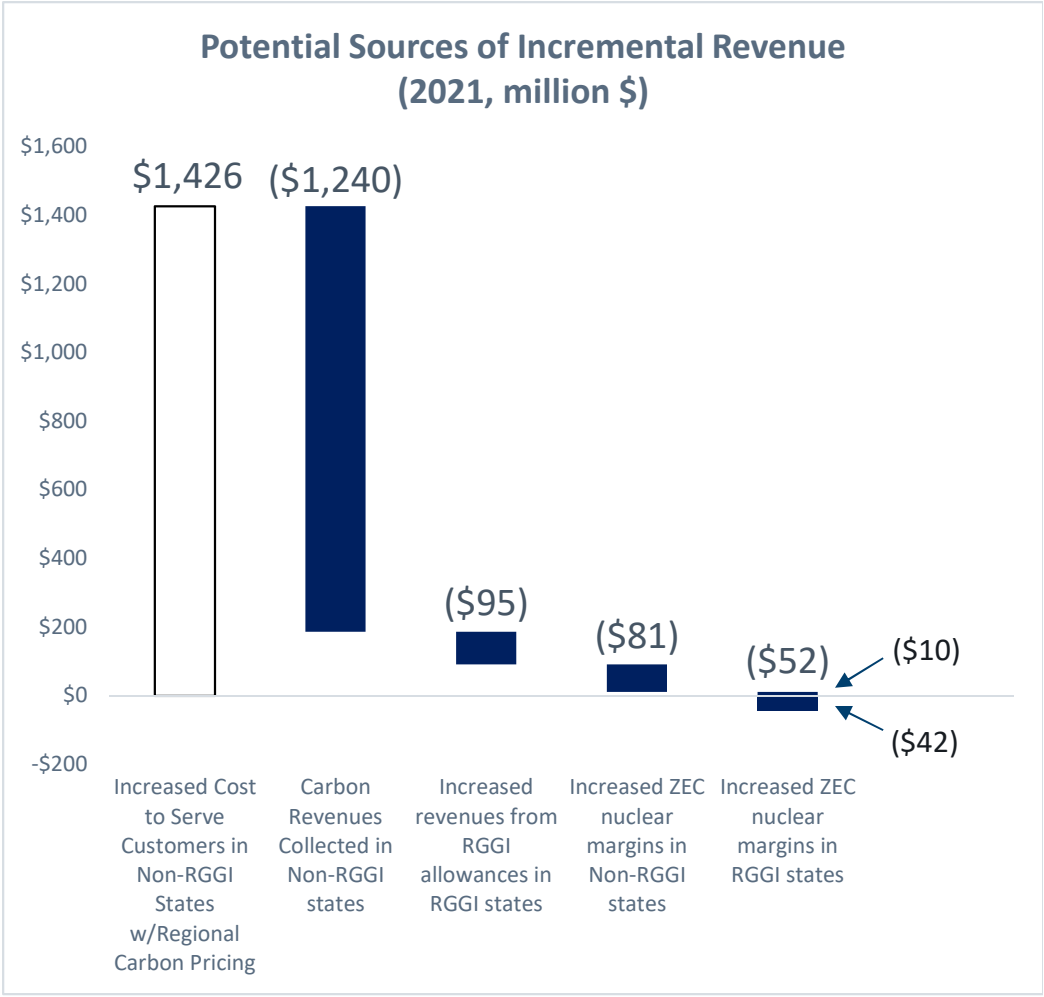
*All modeling results in this presentation are preliminary findings based on analysis conducted by PA Consulting.

How Do We Get There?

- Regional Carbon Pricing would raise LMPs, including for customers in states that haven't chosen to do carbon pricing.
- Does Regional Carbon Pricing create value elsewhere that could cover these costs?

Could this be Self Funding?

- Non-RGGI states would accumulate their own pool of compliance revenues.
- Regional Carbon Pricing would shift some generation back to RGGI states, and thus increase RGGI allowance revenues.
- Nuclear resources receiving ZECs in both RGGI (NJ) and Non-RGGI states (OH, IL) would see increased competitive market revenue, and thus states could decrease ZEC payments.



Yes, Incremental Revenues <u>Can</u> Cover Increased Costs to Non-RGGI Customers

Is this a Good Use of Incremental Funds?

Is it a good use of these incremental funds for RGGI states to help cover the increased costs to customers in Non-RGGI states?

$105 million from RGGI states would make Non-RGGI states whole.

PJM-wide carbon pricing reduces CO2 by 47 million tons.

RGGI states have the opportunity to enable very cost-effective carbon emission reductions.

$$\frac{\$105 \text{ million}}{47 \text{ million tons}} \rightarrow \$2.25/\text{ton}$$