

RGGI Program Review: Economic Impact Modeling Results

August 2025



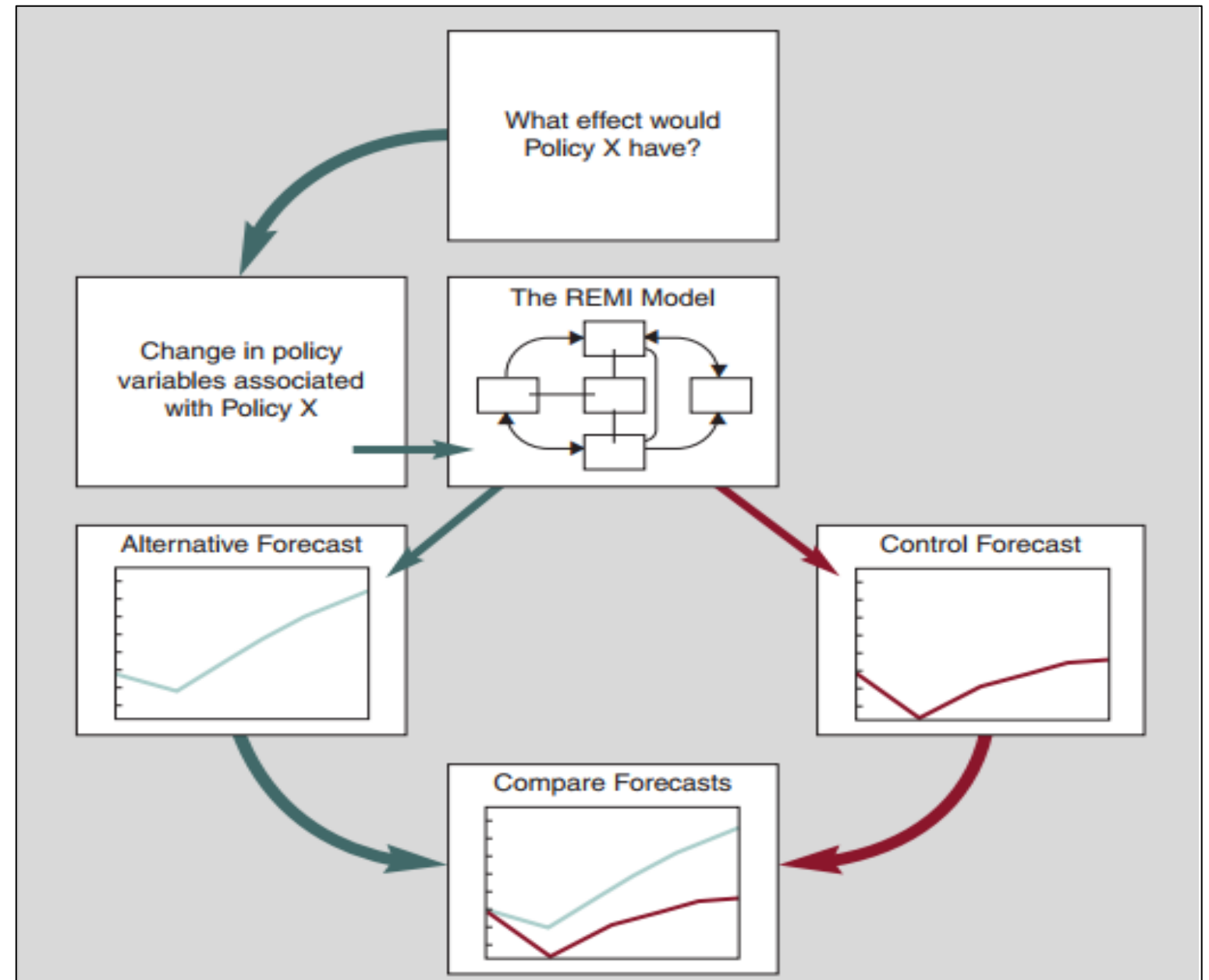
Overall Modeling Methodology

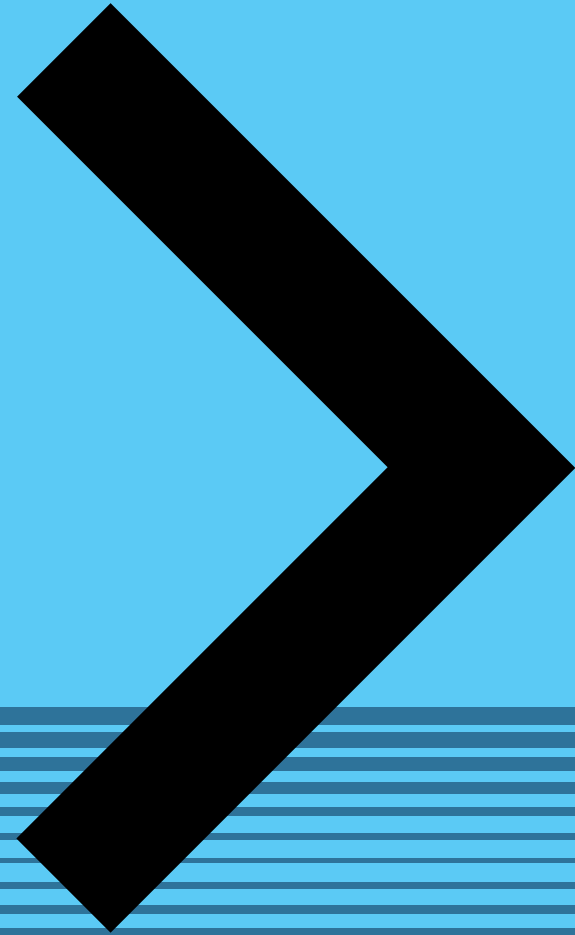
- Used 10-state REMI model (covering CT, DE, ME, MD, MA, NH, NJ, NY, RI, VT)
- Two broad set of inputs used to model the economic impacts of the policy changes
 - First set of inputs derived directly from relevant IPM runs
 - Reference Scenario (Current RGGI Price) (For both [Case A](#) / [Case B](#))
 - Policy Scenario (For both [Case A](#) / [Case B](#))
 - Second set comes from the allowance proceeds
 - Everything modeled at the individual state-level
- Results presented are at the RGGI region level
- Modeling does not include benefits of avoided carbon emissions
 - REMI modeling focuses on regional economic impacts, not societal benefits of environmental policies



REMI Model Background

- REMI is a dynamic macroeconomic model
 - The model uses a combination of input- output, econometric and computable general equilibrium (CGE) modeling techniques
 - Using a 10-state model for this study
- Calibrated to most recent regional and industry data
 - Census regions and North American Industry Classification System (NAICS)-based industry classification
 - Provides the ability to analyze detailed distributional impacts
- REMI estimates impacts over time
 - Produces robust short-and long-term impacts





Results

RGGI Region Results

- Overall RGGI-induced economic impacts are minor, reflecting that the pace of economic growth in this region will not be disrupted by these changes
- Both [Cases A](#) and [B](#) lead to slight positive net benefits for the RGGI economy
- Investments in beneficial electrification and energy efficiency reduce energy consumption and lead to consumer savings producing positive economic benefits

Cumulative RGGI Results (3% Discount Rate*)		
Economic Indicator	2025 - 2040	
	Case A	Case B
Employment (Thousands of Job-Years)	176.5	24.9
% Change from Reference Case	0.0309%	0.0044%
Reference Case Level	571,567	
Gross State Product (Billion Fixed 2022\$)	\$20.4	\$21.1
% Change from Reference Case	0.0288%	0.0195%
Reference Case Level	\$70,645	
Disposable Personal Income (Billion Fixed 2022\$)	\$13.2	\$8.9
% Change from Reference Case	0.0258%	0.0173%
Reference Case Level	\$51,119	

*Employment Numbers are Undiscounted



Modeling Inputs: IPM

IPM Methodology

- Changes in RGGI cap leads to additional changes in the energy markets, relevant for economic modeling
- IPM scenarios used in this analysis include
 - **Case A** — only procured renewable projects are accounted for, with RGGI Policy Case
 - **Case B** — all procured renewable projects and in-statute policies/regulations are accounted for, with RGGI Policy Case
 - Both Cases A and B are run under the Current Allowance Price and Policy Scenarios
- Changes captured include:
 - Changes/shifts in new generation capacity
 - Changes/shifts in fuel demand
 - Changes in retirements
 - (Small) changes in retrofit use
 - Electricity price impacts, adjusted for load affected by REC markets
 - Allowance revenue impacts



Modeling Inputs: Revenue Reinvestment

REMI Modeling of Allowance Revenues

- Revenue under [Case A](#) and [Case B](#) obtained from IPM modeling
 - Modeling inputs calculated as incremental over relevant Current RGGI price Reference cases (e.g., [Case A](#) Policy – [Case A](#) Current RGGI price)
 - Revenue allocated to each state based on distribution percentages from RGGI
- Revenue for each state then allocated to various investment categories based on state inputs
- Includes data on multiple investment categories
 - **Energy Efficiency:** electric and fossil
 - **Clean and Renewable Energy:** distributed generation
 - **GHG Abatement and Climate Change:** large bucket of categories including research, outreach / education, technological advancement
 - **Beneficial Electrification:** electric vehicles and conversion of end-use measures from fossil to electric (e.g., heat pumps)
 - **Direct Bill Assistance:** programs offering rebates on electric bills or other direct payments
 - Administrative Costs for states to implement RGGI funded programs
- Used RGGI Proceeds report to fill data gaps
 - Used proceeds report (“The Investment of RGGI Proceeds in 2022”, published July 2024) to ‘true up’ data

Summary of Reinvestment Category Allocations by State

- Table represents current shares for state-level investment by categories used in the REMI modeling
- Revenue allocation is the same under [Case A](#) and [Case B](#), except CT (see table note)

State	Energy Efficiency	Clean & Renewable Energy	Beneficial Electrification	Direct Bill Assistance	GHG Abatement & Climate Change	Administration	Total
Connecticut*	40%	13%		42%		4%	100%
Delaware	57%	10%	16%	5%	5%	7%	100%
Maine	73%		20%		4%	3%	100%
Maryland	22%	7%	9%	55%	3%	4%	100%
Massachusetts	63%		33%			4%	100%
New Hampshire	7%			92%		1%	100%
New Jersey	14%	2%	69%		7%	7%	100%
New York	37%	7%	13%		36%	8%	100%
Rhode Island	52%	5%	29%	4%	0.2%	10%	100%
Vermont	92%					8%	100%

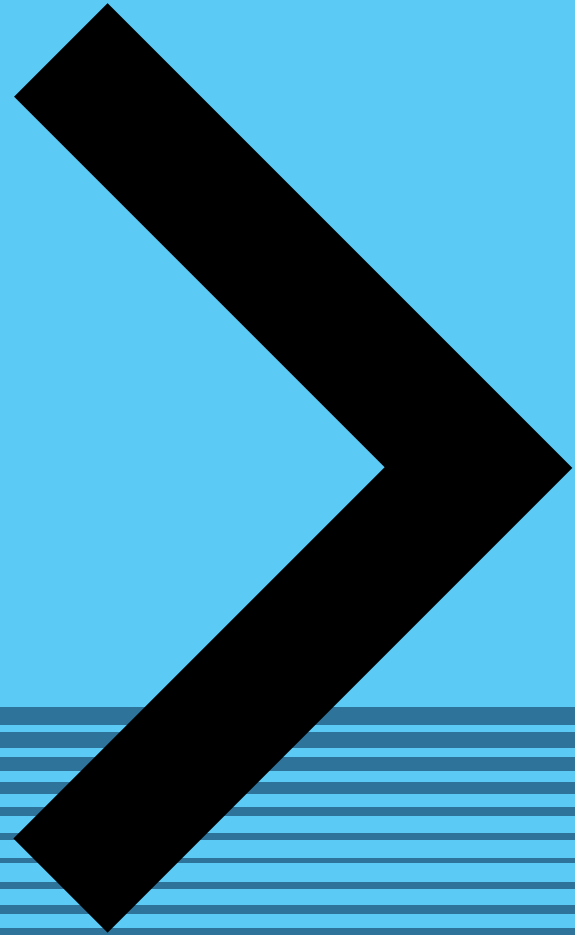
* CT has a special provision that if the allowance revenue meet specific threshold, “excess proceeds” are to be returned to ratepayers as DBA, a condition met under Case A but not under Case B. In Case B, corresponding investment shares: Energy Efficiency (69.5%), Clean and Renewable Energy (23%) and Administration (7.5%).

REMI Modeling of Allowance Revenue

- Allowance revenue converted into inputs under each investment category using data provided by states (e.g., savings ratios, customer out of pocket)
- Primarily these modeling inputs include:
 - Capital expenditures/investments – most investment categories incentivize spending on new equipment (e.g., energy efficient appliances, solar panels, electric vehicles)
 - Investment opportunity costs
 - Households/businesses that purchase equipment have alternative opportunities in the economy to spend their income
 - Bill savings (from change in fuel consumption)
 - Increase in money available to residential consumers to spend in the rest of the economy
 - Reduced costs of doing business for commercial establishments
 - Fuel production impacts
 - For fossil producing industries, a decline in demand for their products

REMI Modeling of Allowance Revenues – BE and Low Income

- Two new areas for modeling from the last program review
- Beneficial electrification net bill impacts include savings from lower consumption of fossil fuels
- Offset by induced demand of increased consumption of electricity
- Low-income re-investment of proceeds
- States provided data on percent of revenue directed to low-income communities for specific investment categories
- Multiple REMI modeling adjustments for low-income re-investments
- Adjust marginal propensity to consume: low-income consumers spend a higher proportion of their money and save/invest less
- Adjust the bucket of goods low-income consumers spend on (e.g., higher proportion of their income spent on housing, food, other necessities) based on consumer expenditure data
- Assume more local content associated with investments
- Such as efforts to use local firms, employ workers from local communities



[RECAP] Results

[RECAP] RGGI Region Results

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