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Climate Policy and the Economy

Discrete Program Assessment

2014 JISEA Annual Meeting

March 2014

Carbon control policies

- Climate-Energy-Economy
  - Essential for all – the fundamental challenge
- Interesting time
  - Growing state, regional programs
  - Federal administrative actions
- Purpose: climate risk mitigation (social, economic, health, environment)
- Battlefield: the economy
  - Wealth of nations
  - Disproportionate impacts on lower-income individuals
- *The Gauntlet*: EPA Section 111(d)

Carbon control and economic impacts

Recent examples studied

- **Regional Greenhouse Gas Initiative**
  - **Program review and adjustment**
  - **State legislative review**
  - **Deliberation on other state programs (CA)**
  - **Potential Sec 111(d) compliance strategy?**
- **Massachusetts Green Communities Legislation**
  - **Aggressive energy-environment measures to address carbon**
  - **EE, net metering, long-term Ks, utility solar build, community assistance, smart grid…**
  - **Focus of backlash, upcoming Governor race**

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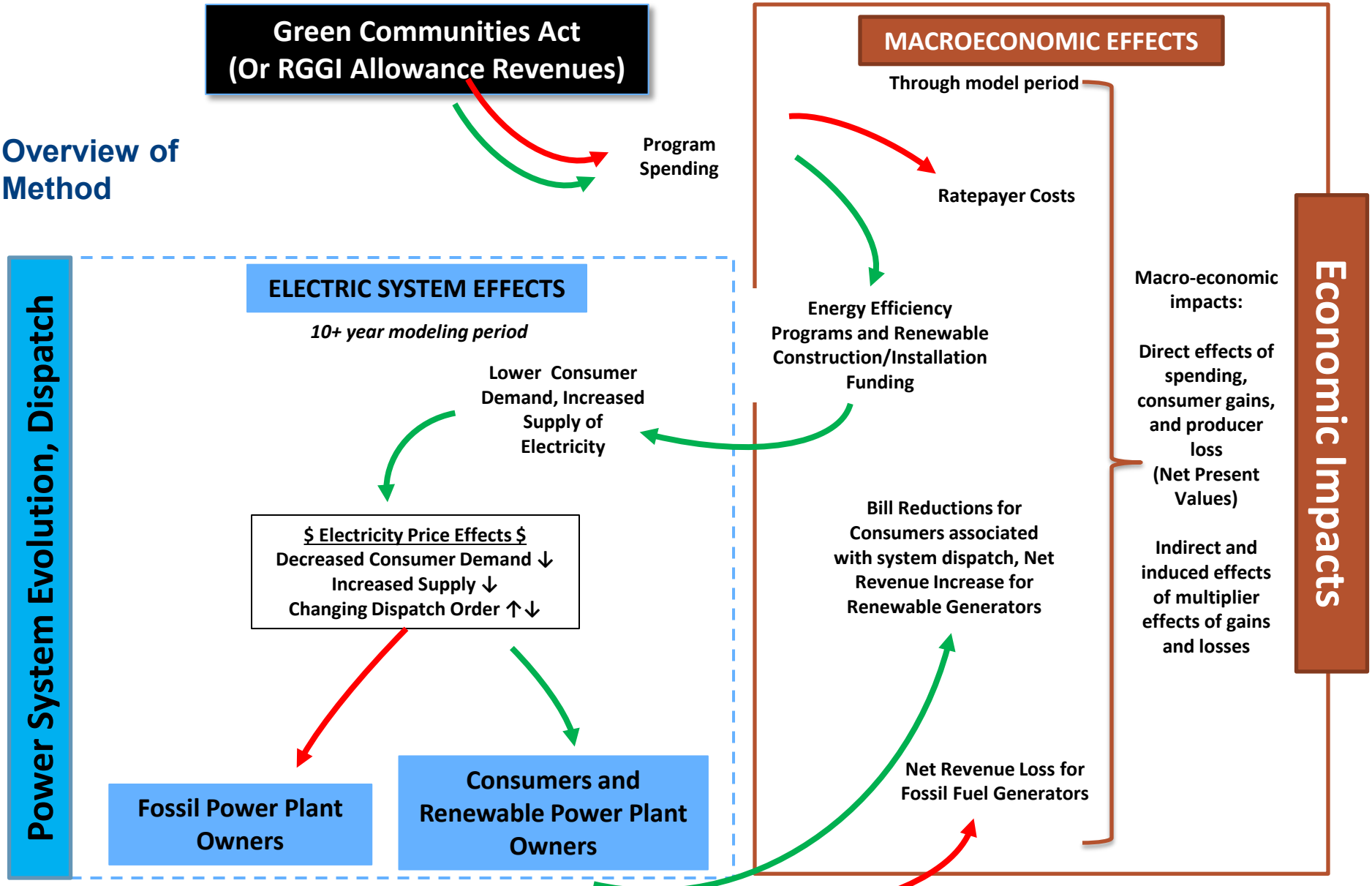
What the study is…

- **Economic study**
  - of actual revenues, actual programs, actual impacts
  - focused on Massachusetts
- **Following the money**
  - through the electric sector
  - and through the macro economy
- **Measuring results**
  - In net present values, using social and private discount rates

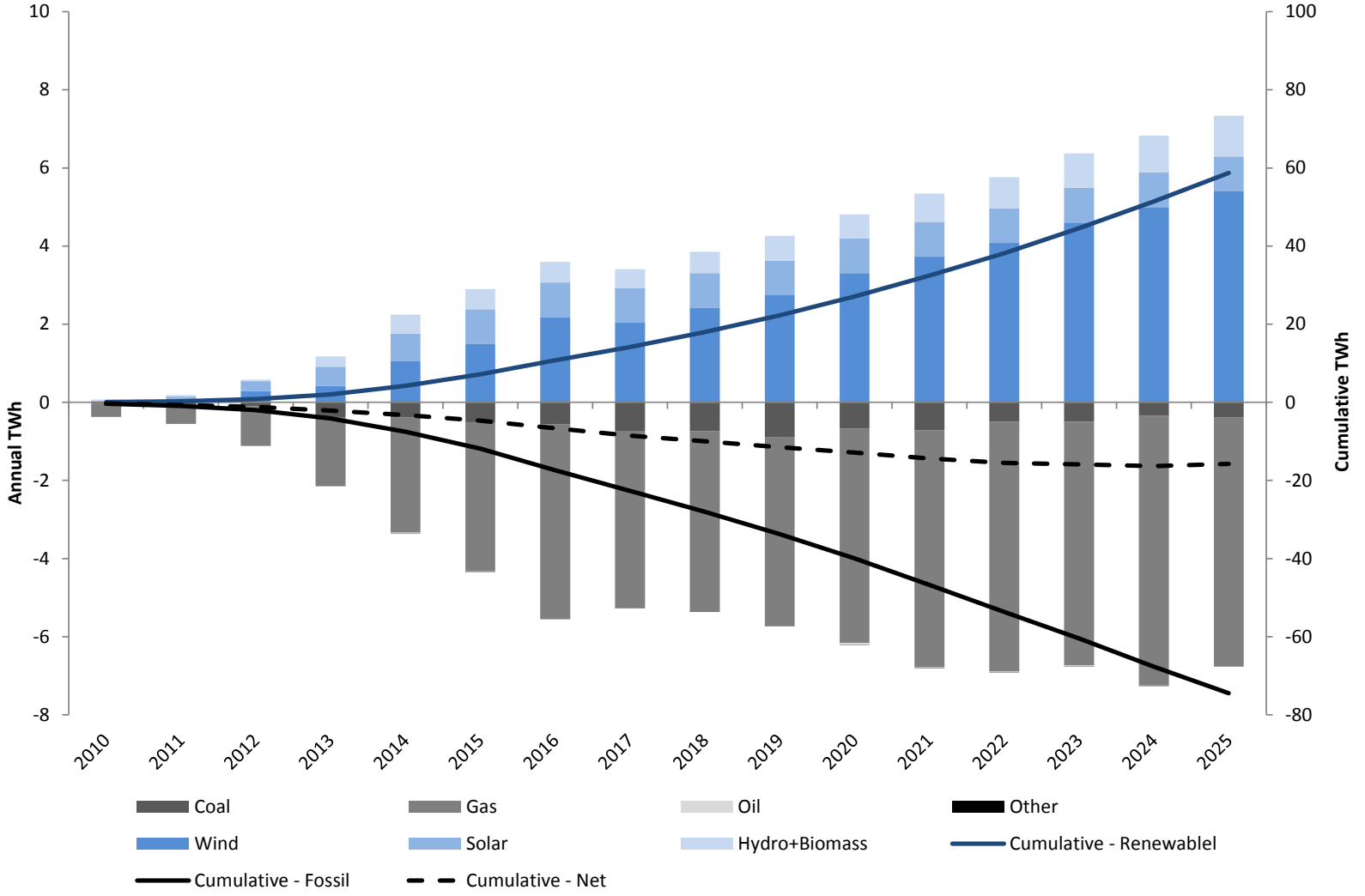
What the study is not…

- **Quantification of non-economic benefits**
  - e.g., health, economic, or environmental benefits of reduced emissions
- **…i.e., *not* a benefit-cost analysis**
- **Forecast of future program design or implementation**
- **Policy analysis**
  - Not developing recommendations for changes in policy

Overview of Method



Cumulative (line) and Annual (bar) differences in New England Generation due to GCA, by resource



Example: Summary of Macroeconomic Impacts in Massachusetts ….(Similar results for all states in RGGI analysis)

Description	3% Discount Rate		7% Discount Rate	
	Value Added*	Jobs**	Value Added*	Jobs**
Base Scenario	$1.42 billion	18,973	$0.80 billion	18,973
High Gas Price (+30%)	$2.14 billion	25,044	$1.37 billion	25,044
Low Gas Price (-30%)	$0.83 billion	14,099	$0.32 billion	14,099

* Value added reflects NPV direct, indirect and induced impacts in state/region through 10+ year modeling period, discounted to current dollars. **Jobs totals are summed across the period of study

- **Consumers save in electricity market due to reduced LMPs and lower demand, but bear the cost of on-site renewable and EE installations/programs**
- **Fossil suppliers lose revenues due to reduced LMPs and lower demand, but new renewable suppliers gain revenues and REC APS payments**
- **Construction and installation expenditures provide positive local economic impacts**

Carbon control and the economy

- Critical consideration
- Will be front and center in the coming months
- Can go either way; objectives, and *how* policies are designed & implemented is critical
  - E.g., focus on EE vs. renewables vs. customer bill assistance vs. general fund support
- Boundaries of interest also critical – winners and losers
- Classic presumption: bad for the economy – not necessarily the case for lead states/regions in first programs

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