# Transportation and Climate Initiative: Reducing Transportation-Sector Emissions in the Northeast & Mid-Atlantic

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Georgetown Climate Center

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# Transportation and Climate Initiative

- 11 northeast and mid-Atlantic states and the District of Columbia
- TCI launched in 2010
- Working together to reduce energy use and GHG emissions from transportation


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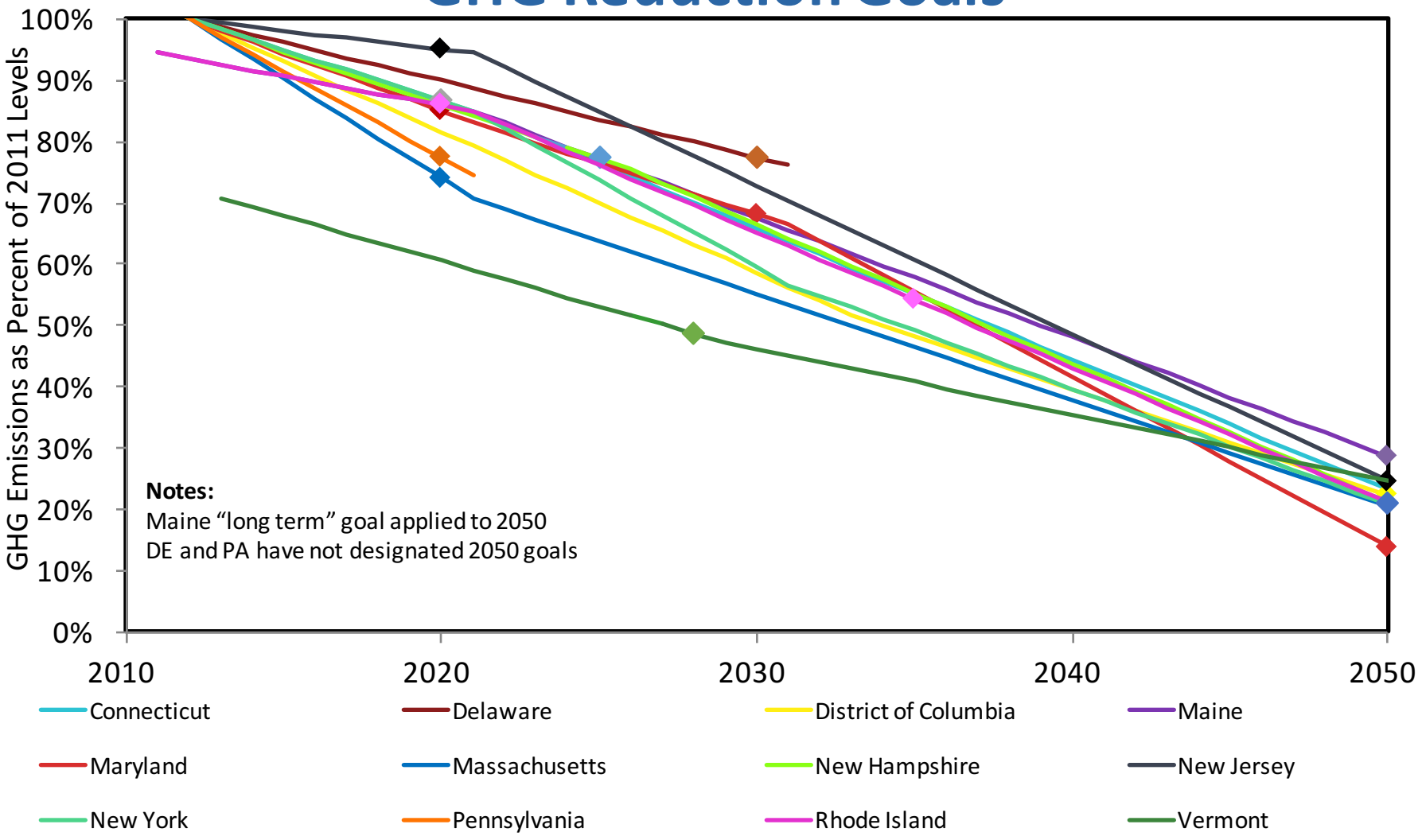
# TCI States Have Set Economy-Wide GHG Reduction Goals

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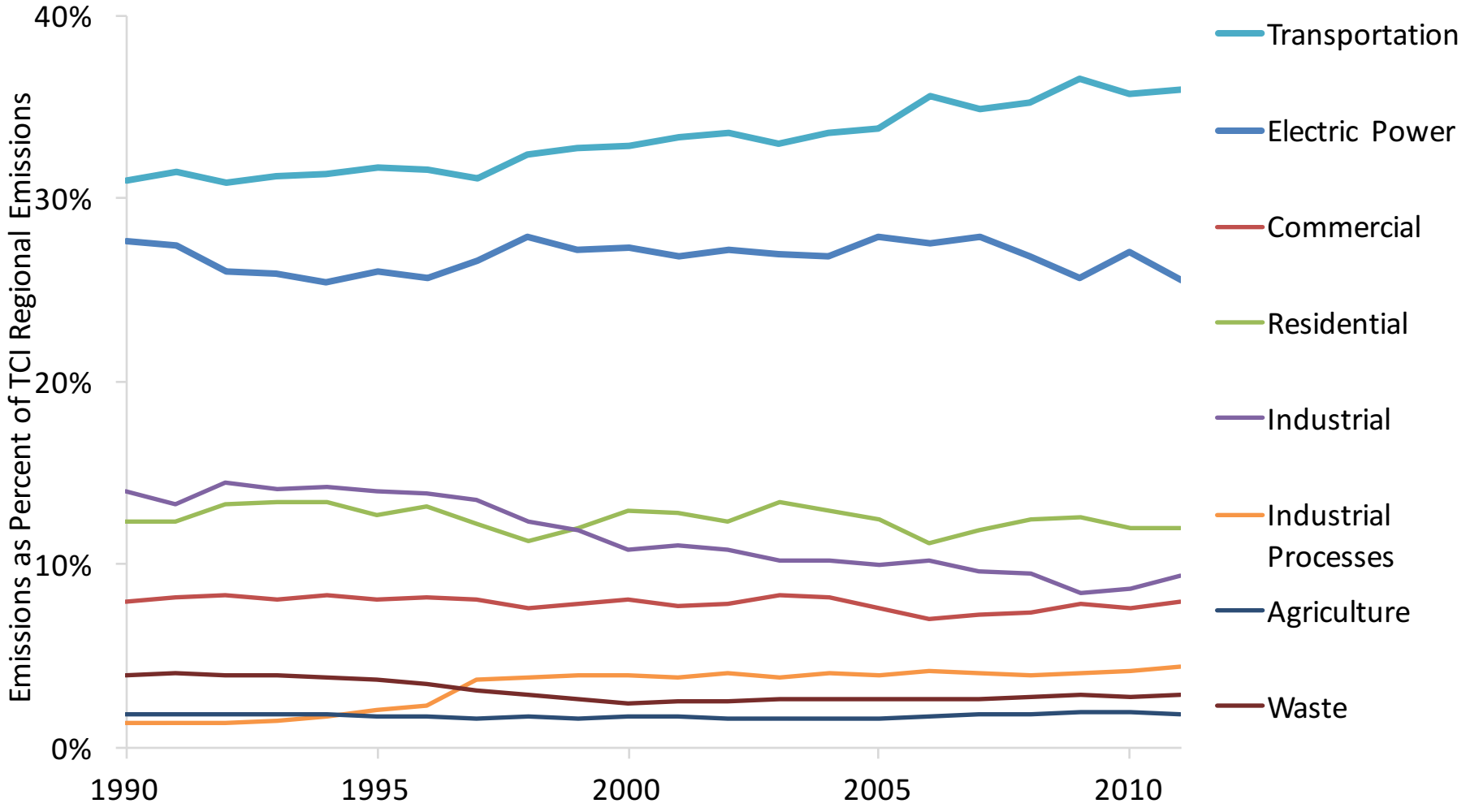
# Transportation is the Largest and Growing Share of GHG Emissions in TCI Region

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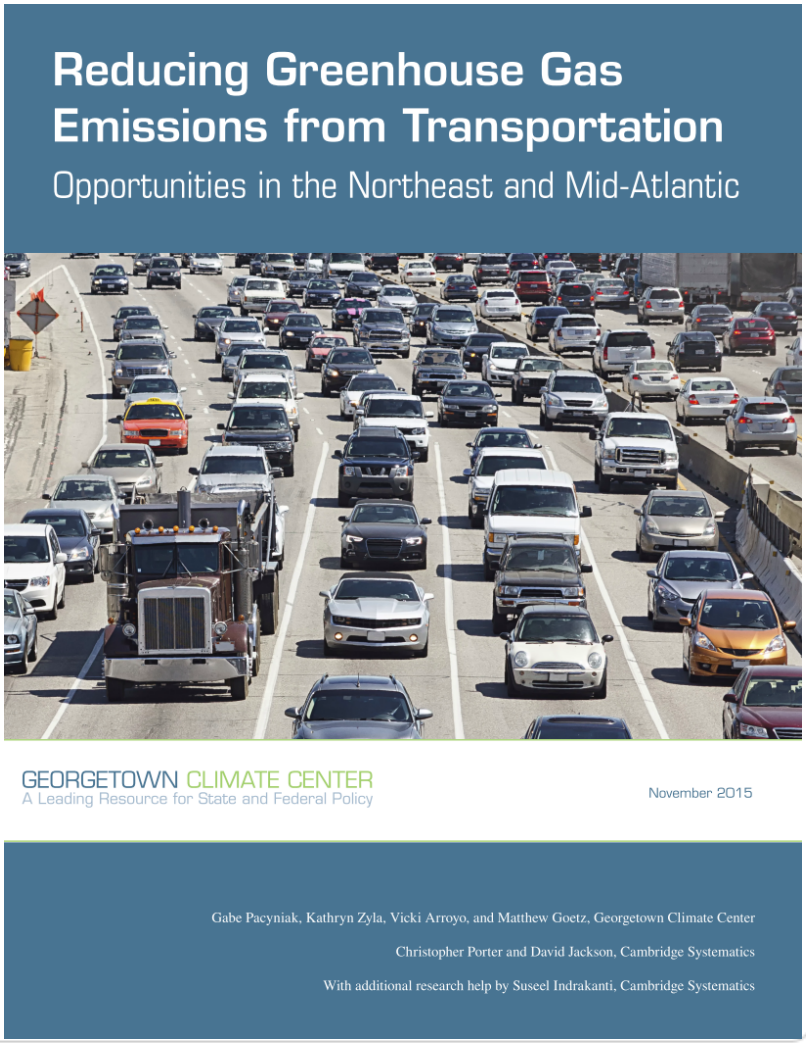
# Analysis Developed to Inform TCI

In 2012, TCI leaders asked to work together on meaningful multi-state emissions reduction policies.

- What are regional emission trends?
- What are opportunities for GHG reductions?
- What are economic impacts of clean transportation strategies?

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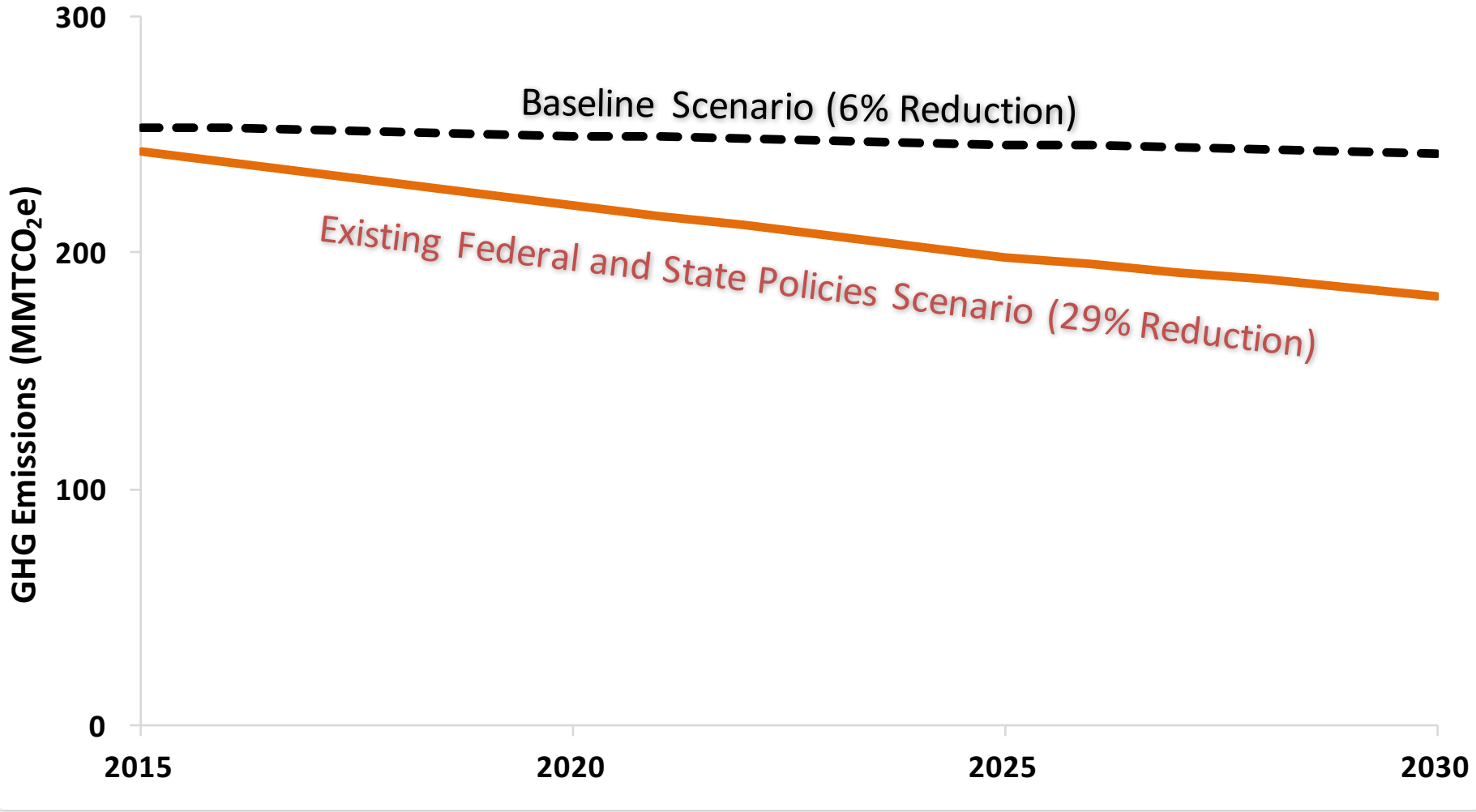
# Existing Federal and State Policies will Achieve Significant Reductions…

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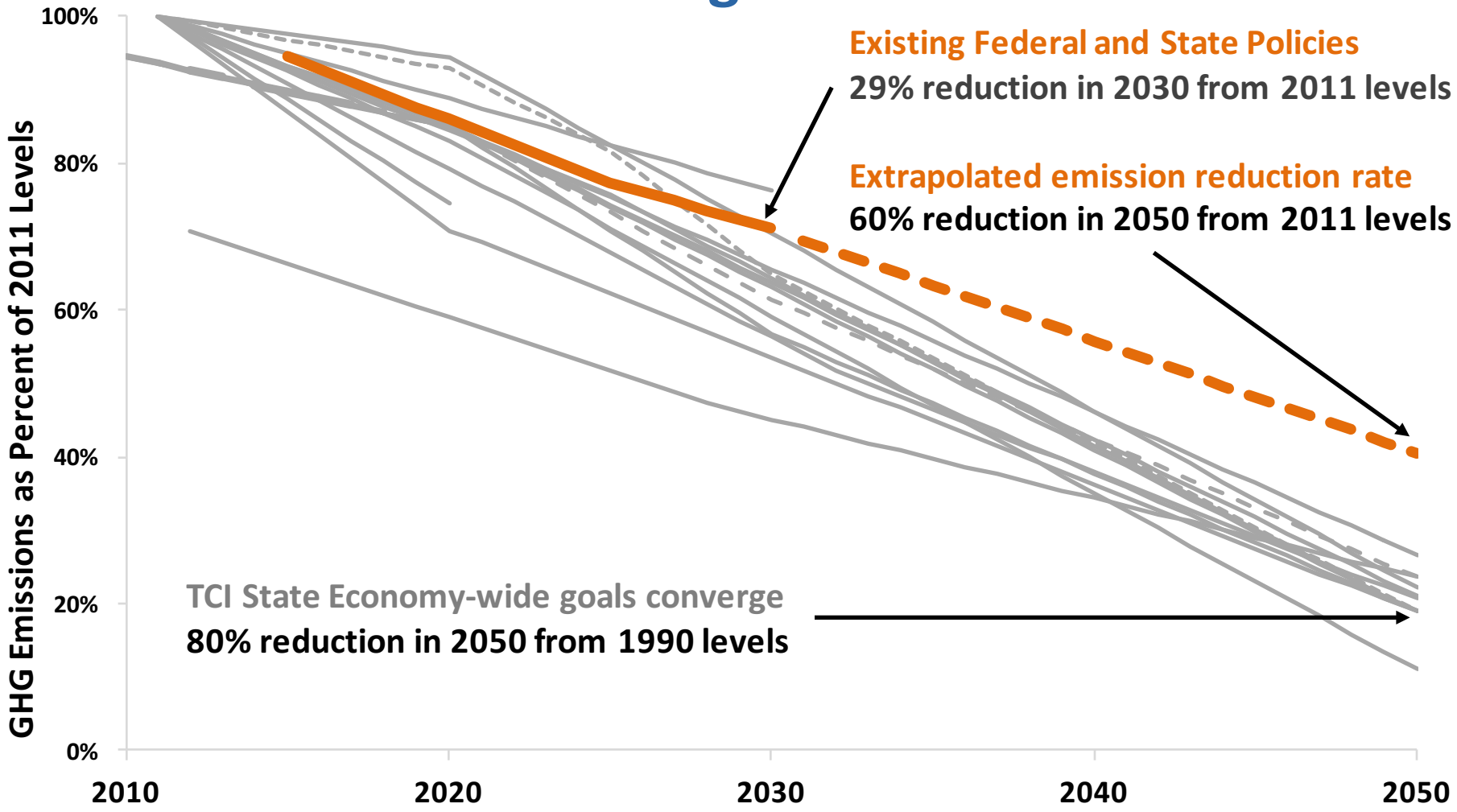
# …But Will Not Put States on Track to Meet Long-Term Goals

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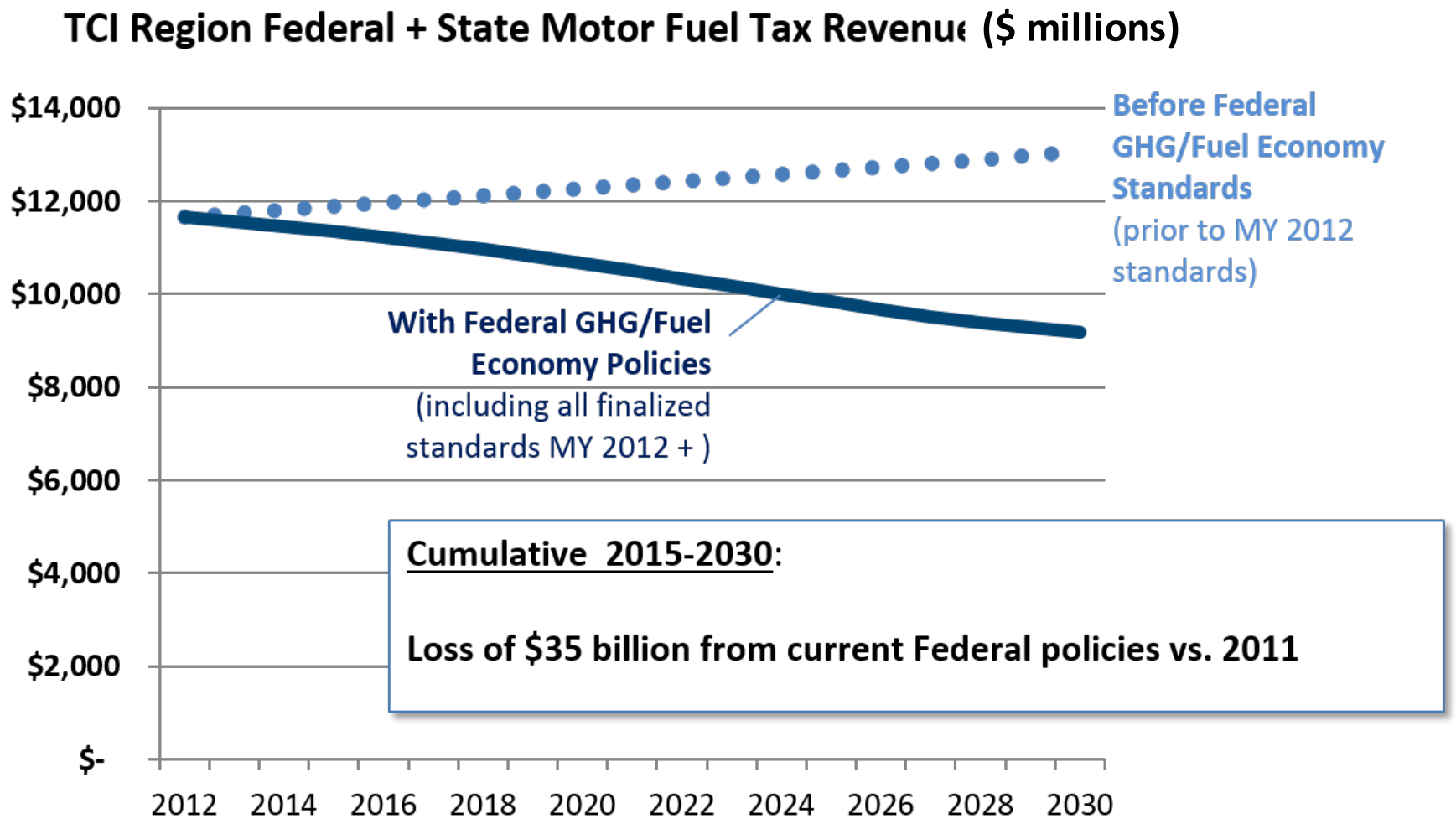
# Existing Federal Policies will Reduce State Transportation Funding

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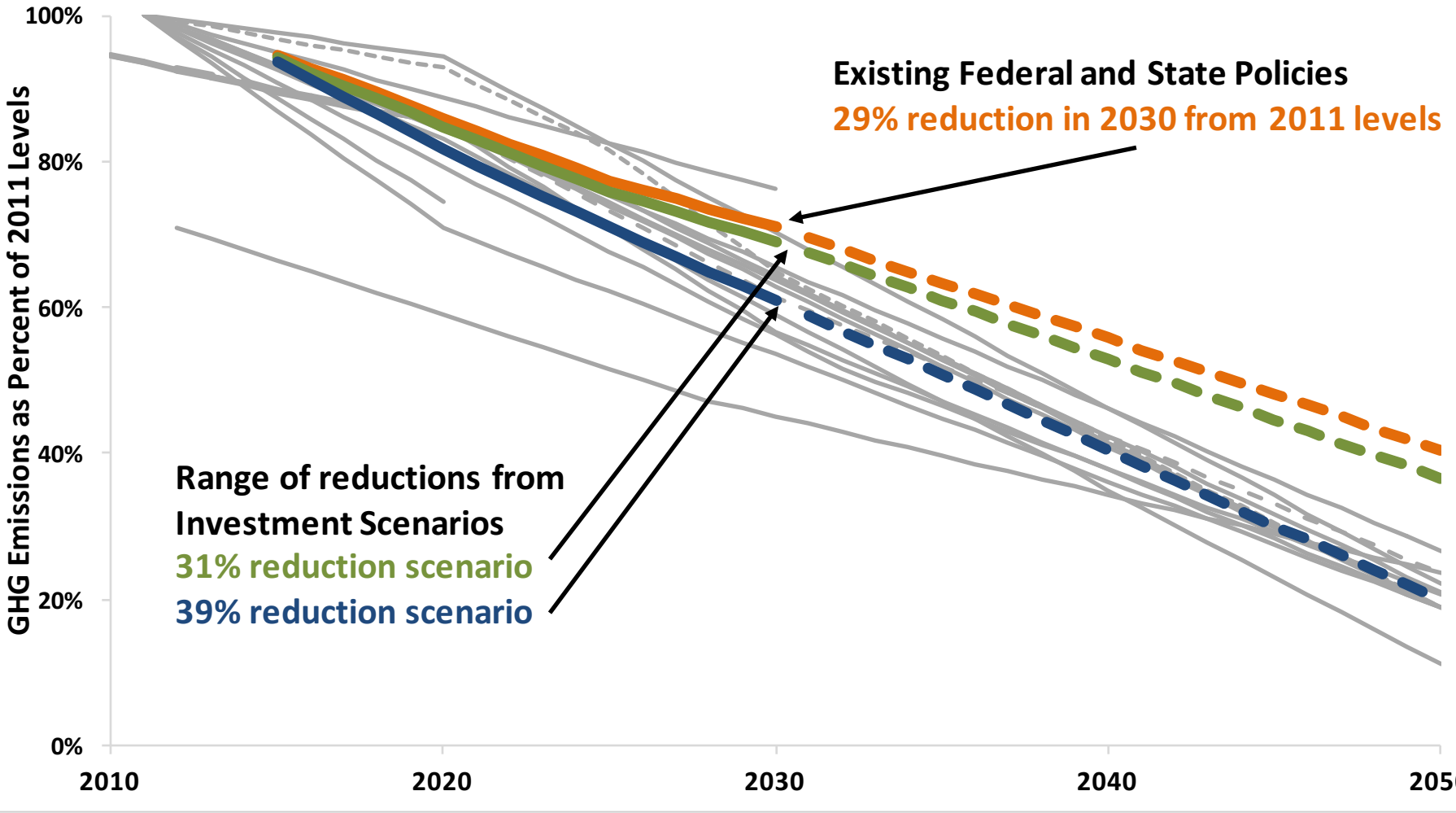
# Analysis Modeled Three Clean Transportation Investment Scenarios

- **Modest Investment**
  - $1.5 billion annual funding
- **Moderate Investment**
  - $3 billion annual funding
- **Aggressive Investment**
  - $6 billion annual funding

| Investment Allocation Strategy | Allocation |
|---|---|
| EV /alt. fuel infrastructure and incentives | 20% |
| Urban and intercity transit | 25% |
| Land use / Smart growth | 7.5% |
| Active transportation | 7.5% |
| TDM and Ecodriving | 10% |
| System operations / Efficiency | 15% |
| Freight / Intermodal | 15% |
| Total | 100% |

# Resulting Reductions Would Help States Achieve 2050 Goals

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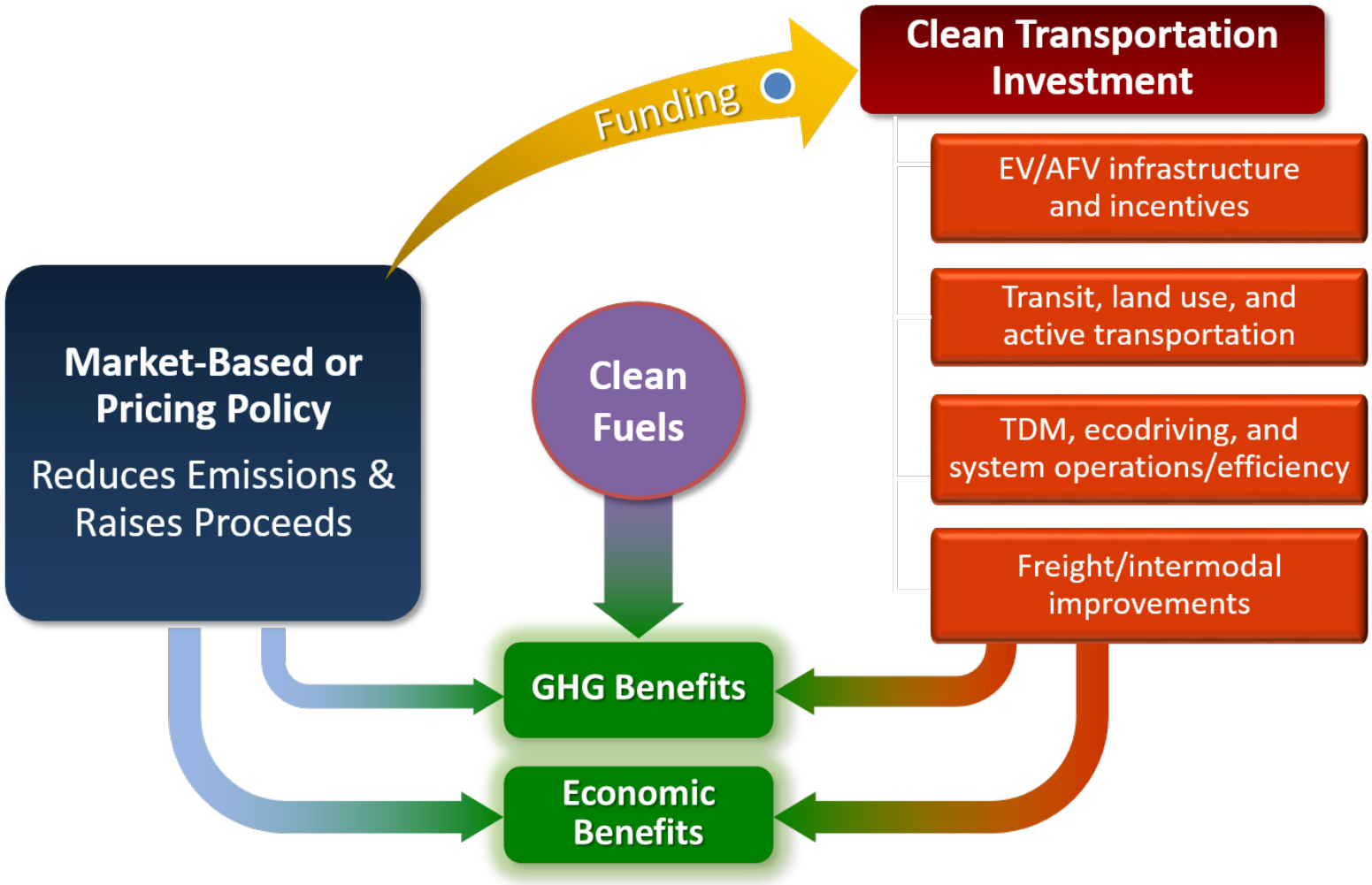
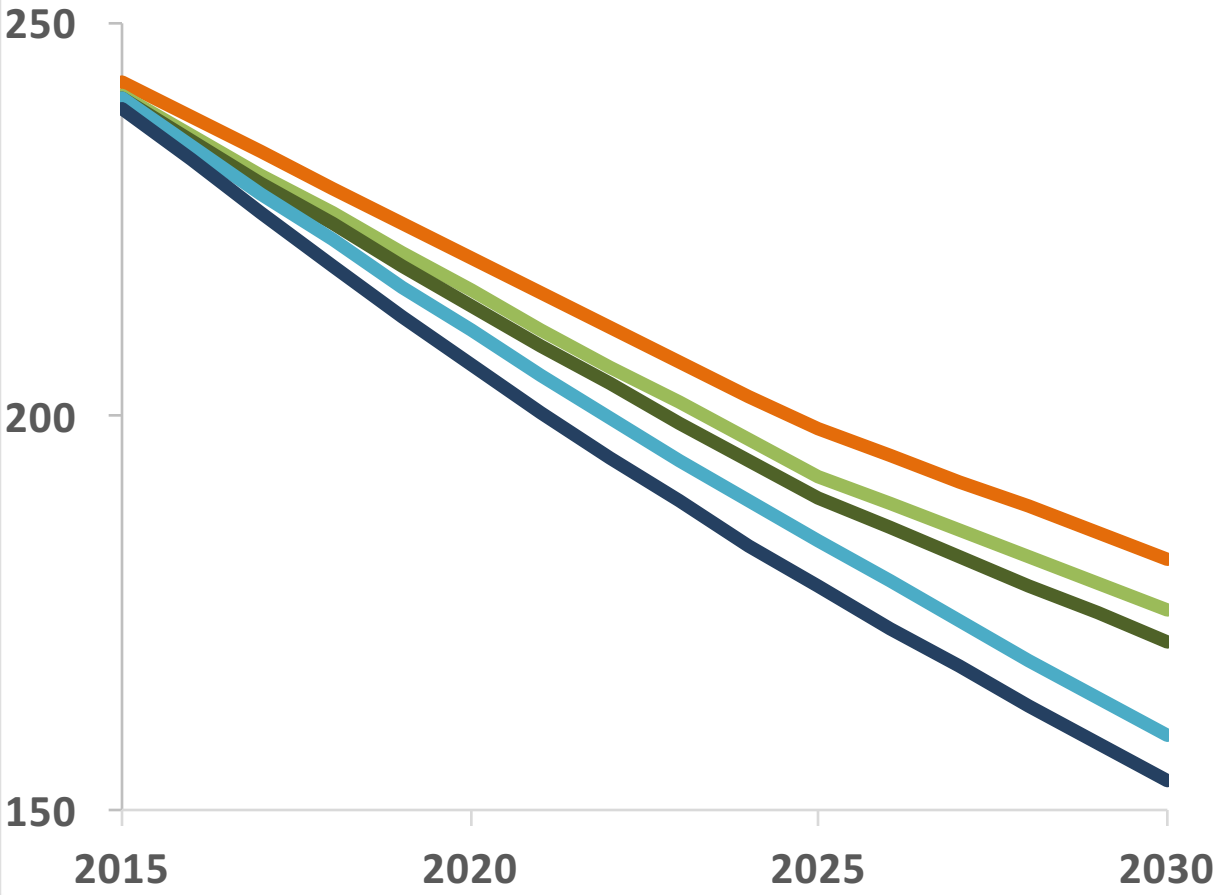
# "Policy Bundles" Analysis Combines Investment Scenarios with Market-Based & Fuels Policies



# GHG Emission Reduction Potential from "Policy Bundles"




**Percent reduction by 2030 from 2011 GHG emission levels:**

**29% Reduction**
Existing Federal & State Policies

**32% Reduction Scenario**
Modest Investment +
$3 Billion Pricing

**33% Reduction Scenario**
Moderate Investment +
$3 Billion Pricing

**38% Reduction Scenario**
Moderate Investment +
$3 Billion Pricing + Clean Fuels

**40% Reduction Scenario**
Aggressive Investment +
$6 Billion Pricing + Clean Fuels

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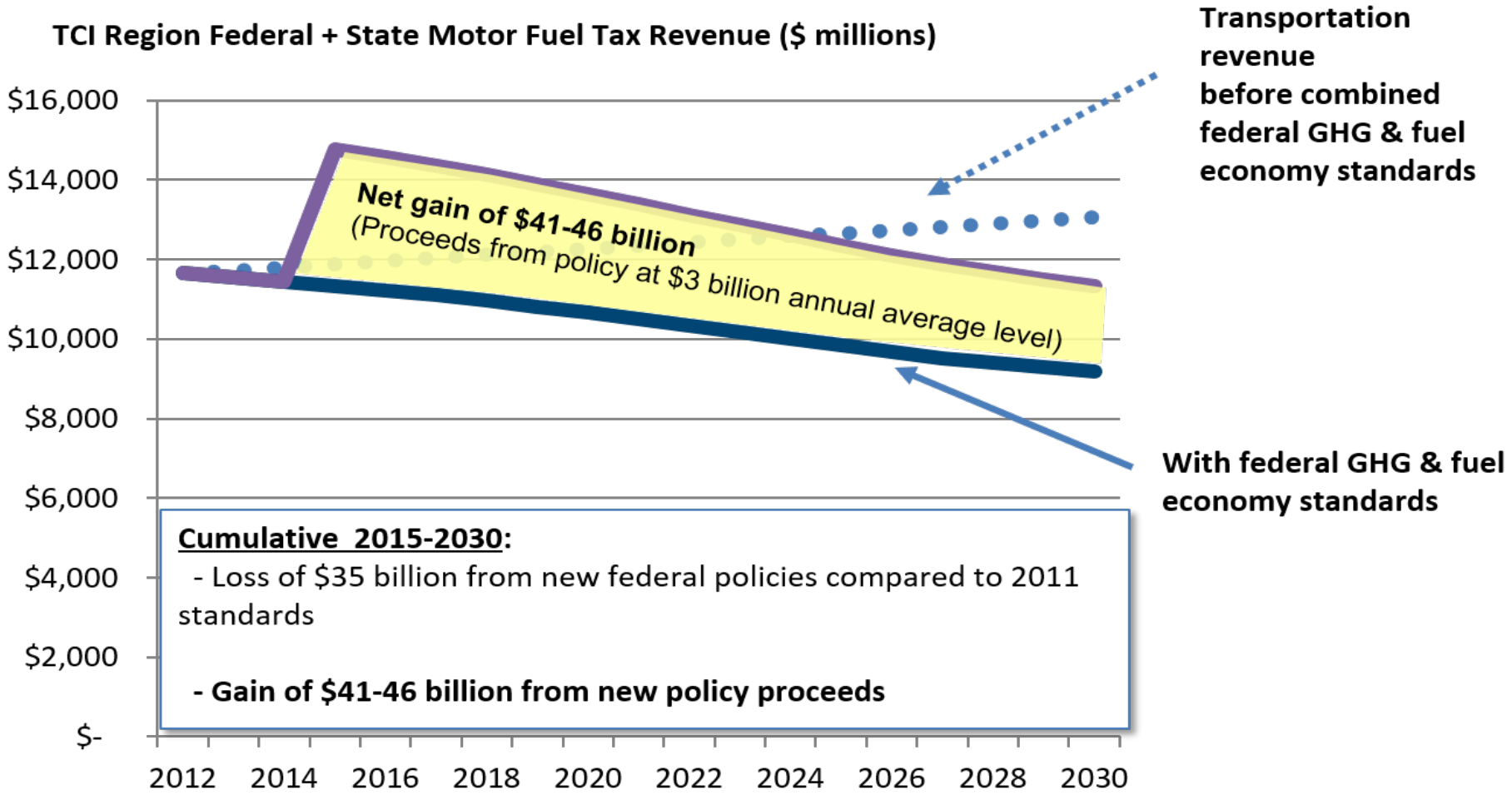
# Comprehensive Policy Proceeds Could be Used for Transportation

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# $3 Billion Annual Regional Investment Projected to Provide Significant Benefits

| Impact | 2030 | Cumulative 2015-2030 |
|---|---|---|
| ↑ in Regional Employment (Jobs) | 91,000-125,000 | 794,000-1,167,000 |
| ↑ in Gross Regional Product | $11.7-17.7 Billion | $92-144 Billion |
| ↑ in Disposable Personal Income | $9.9-14.4 Billion | $71-109 Billion |

**Range reflects low-end and high-end outcomes of four modeled scenarios

Massachusetts results in 2030:

| | |
|---|---|
| Jobs | 10,000 to 15,000 |
| Gross Regional Product | $1.4 to 2.3 Billion |
| Disposable Personal Income | $1.1 to $1.7 Billion |

# Reducing Carbon Pollution Creates Other Benefits

- Associated reduction in other criteria pollutants like PM, NOx, etc.
- Improved air quality results in fewer premature deaths and thousands of asthma cases
  - Public health benefits valued at $152-463 million in 2030
- Reduced vehicle travel would also result in fewer accidents, reduced wear on roads and bridges

# Implications for RGGI Program Review

- How much should/can transportation-sector emissions reductions contribute to economy-wide goals?
  - In what timeframe?
- Increasing electrification of vehicles means shift of emissions (and load) from liquid fuels to power sector

# States' Announcement

- In late November, Connecticut, Delaware, the District of Columbia, New York, Rhode Island and Vermont announced that they will work together to develop potential market-based policies to achieve substantial reductions in GHG emissions from the transportation sector.

- Through TCI, representatives from these states have begun meeting to discuss options and examples for market-based policies for the transportation sector.

# Thank You

**For inquiries, please contact**


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**Report is available on Georgetown Climate Center website:**
http://www.georgetownclimate.org

- Report materials: http://www.georgetownclimate.org/reducing-greenhouse-gas-emissions-from-transportation-opportunities-in-the-northeast-and-mid-atlanti