
New York State Initiative to Reduce GHG's: Regional Greenhouse Gas Initiative (RGGI)

Environmental Monitoring, Evaluation, and Protection
in New York: Linking Science and Policy

October 25, 2005

Karl Michael

Program Manager
NYSERDA




RGGI Process

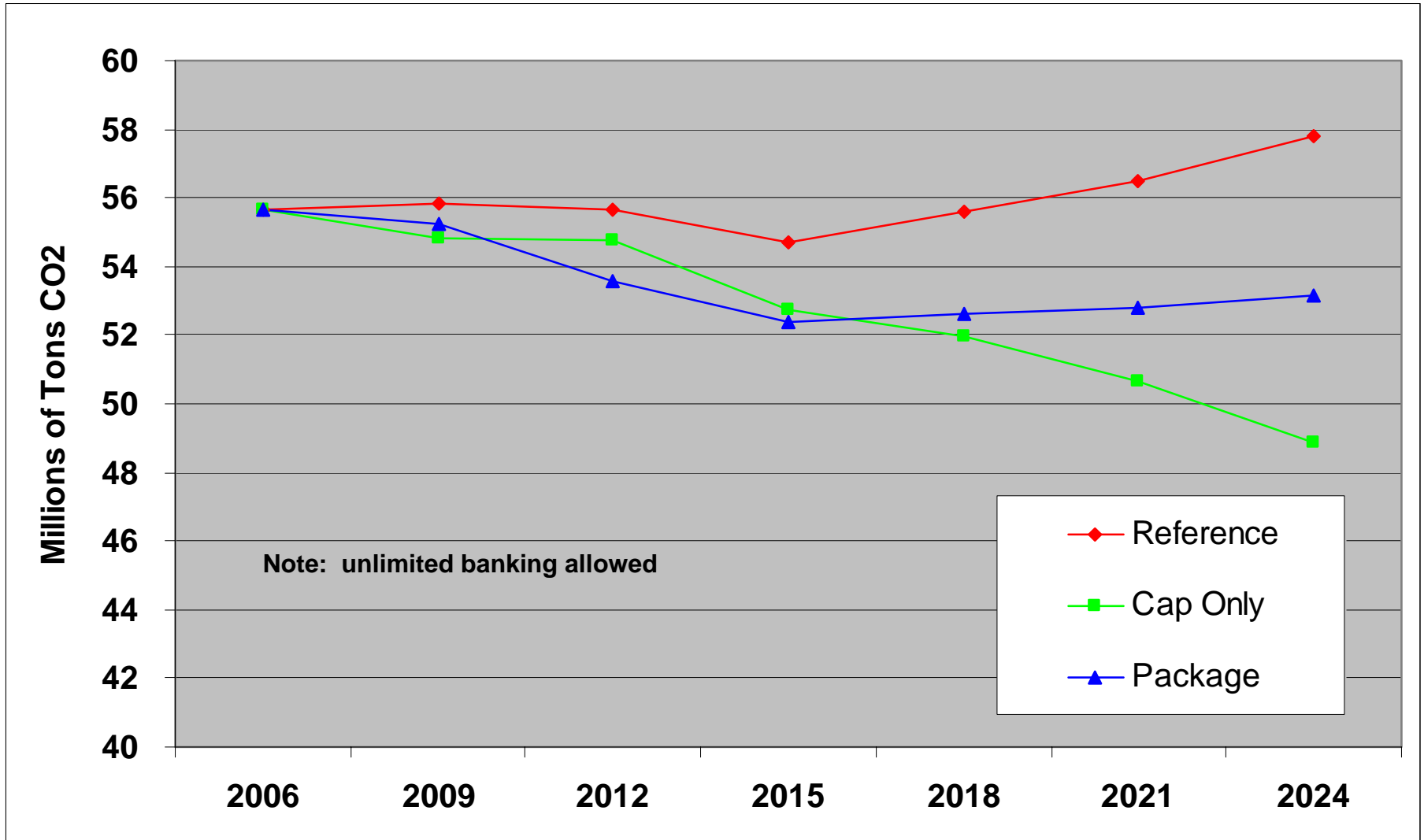
- Gov. Pataki's April 2003 Invitation
 - Staff Working Group (SWG)
 - Stakeholders
 - SWG Proposal
 - Agency Heads Meetings
 - Model Rule and MOU
 - Rulemaking
-

RGGI Design Principles

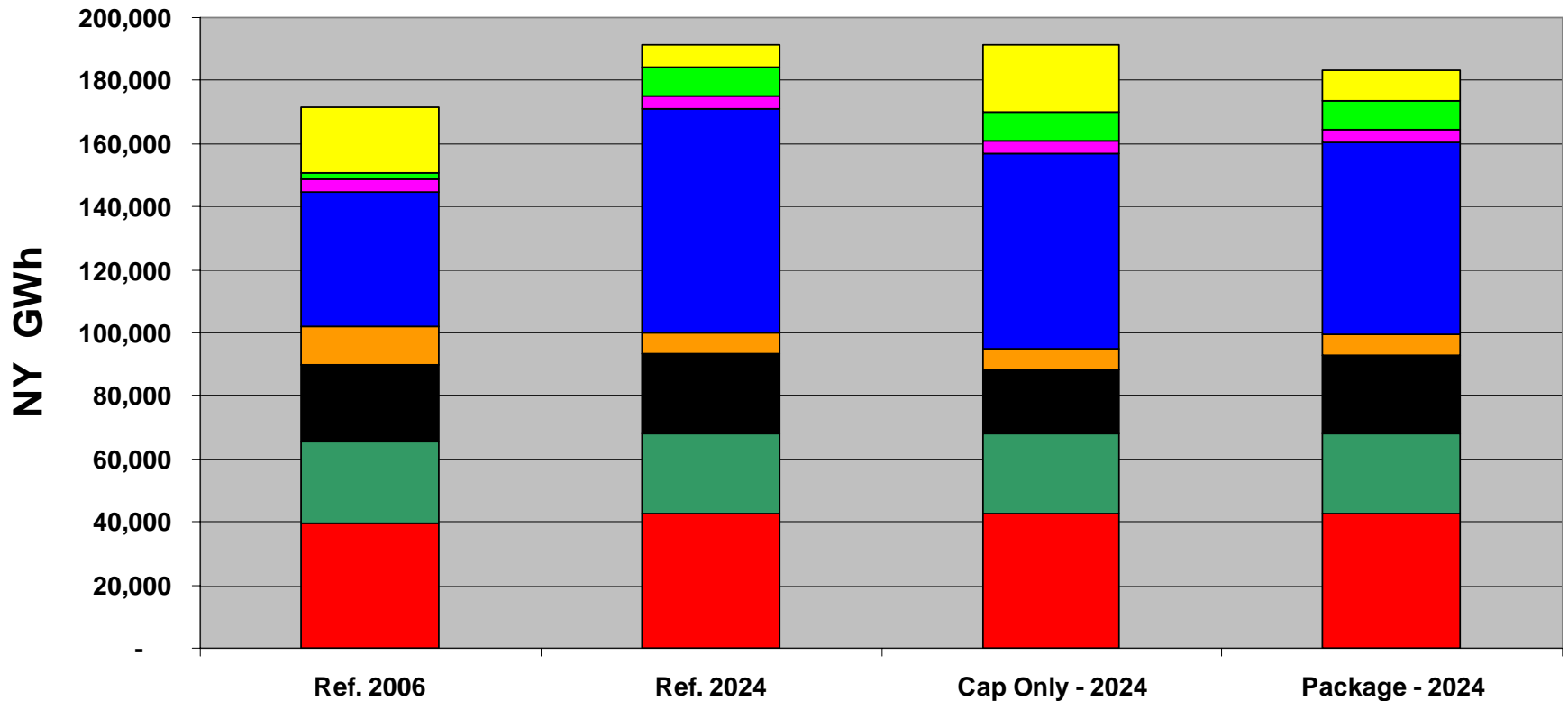
- Reduce CO2 with flexible, market-based program to achieve least cost reductions.
 - Create model for federal program.
 - Maintain electricity affordability, reliability and fuel diversity.
 - Make expandable to other states.
 - Build on programs in place.
-

- 
- Carbon cap
 - Stabilize emissions through 2015
 - Decrease by 10% by 2020
 - State CO2 budgets
 - Based primarily on 2000-2004 emissions
 - Offsets (Non-electric)
 - Up to 50% of emissions reductions
 - 20-25% of State Budget Auctioned
 - Energy efficiency, new technologies, etc.
 - Built-in review in 2015
 - Price impacts, offsets, imports

NY CO₂ Emissions Trajectories



NY Generation Mix



■ Nuclear

■ Existing Renewables

■ Coal

■ Oil/Gas

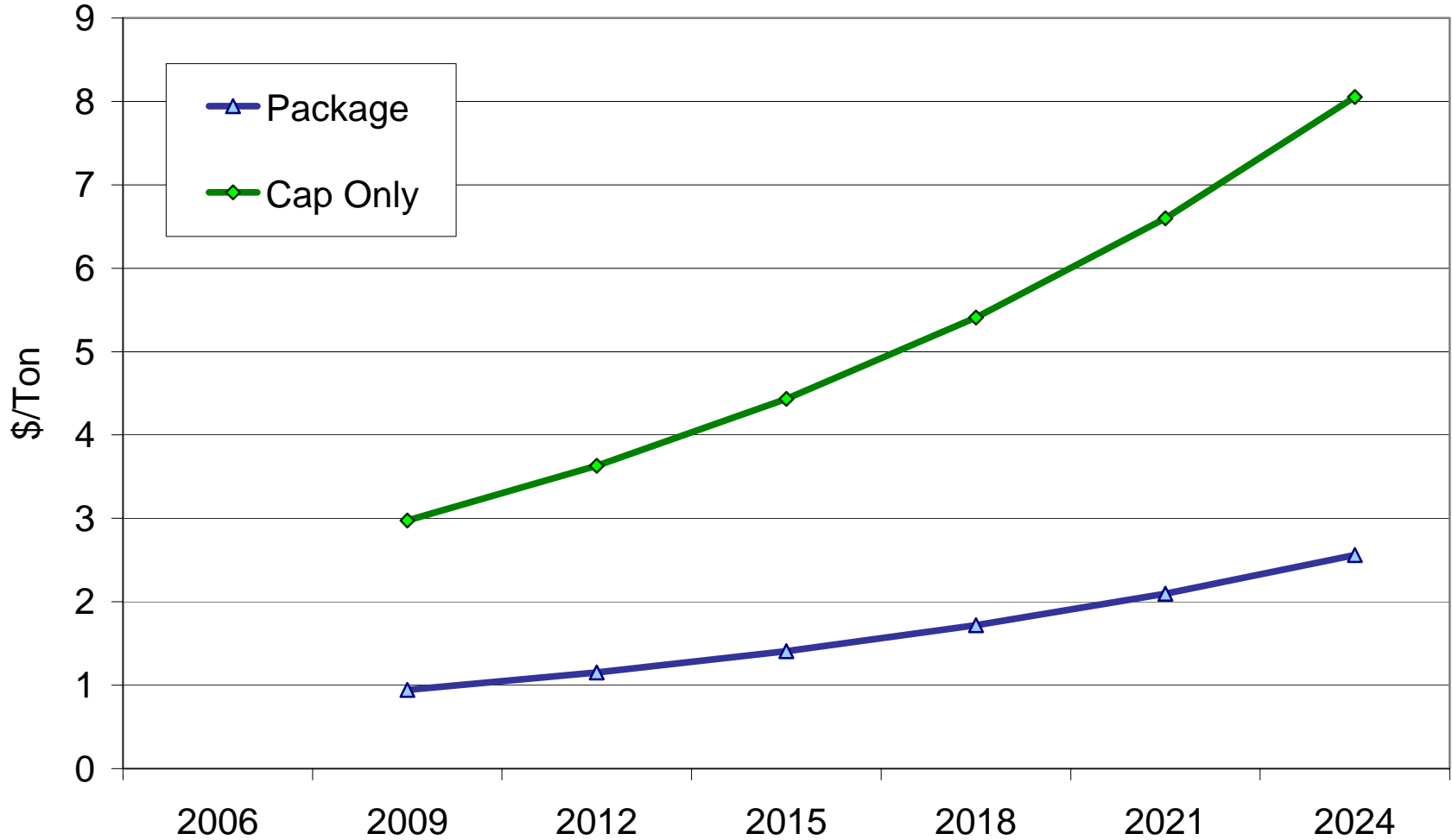
■ Natural Gas (CC&CT)

■ Other - NUG/Cogen

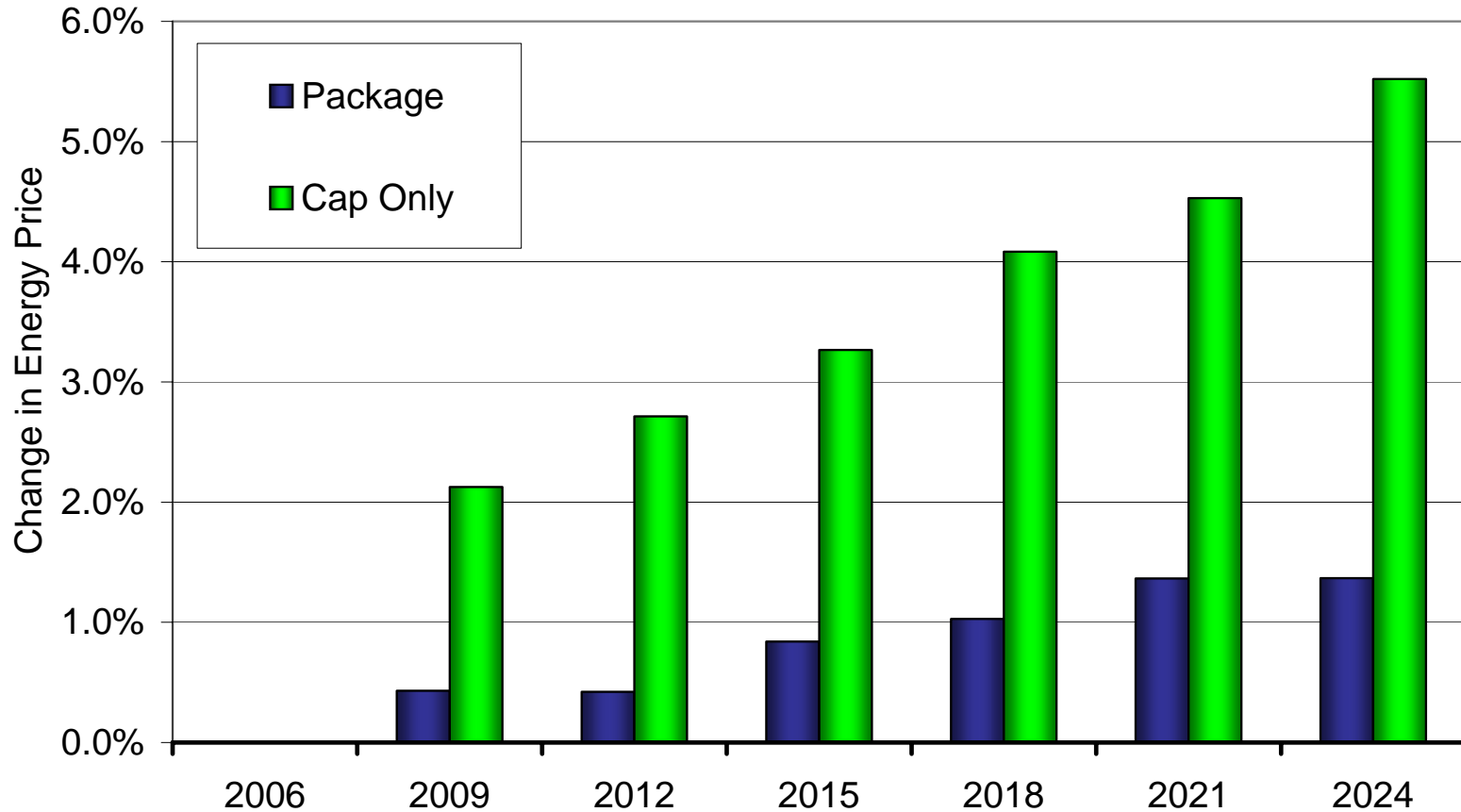
■ New Renewables

■ Net Imports

CO₂ Allowance Prices



Change in RGGI Average Annual Energy Prices



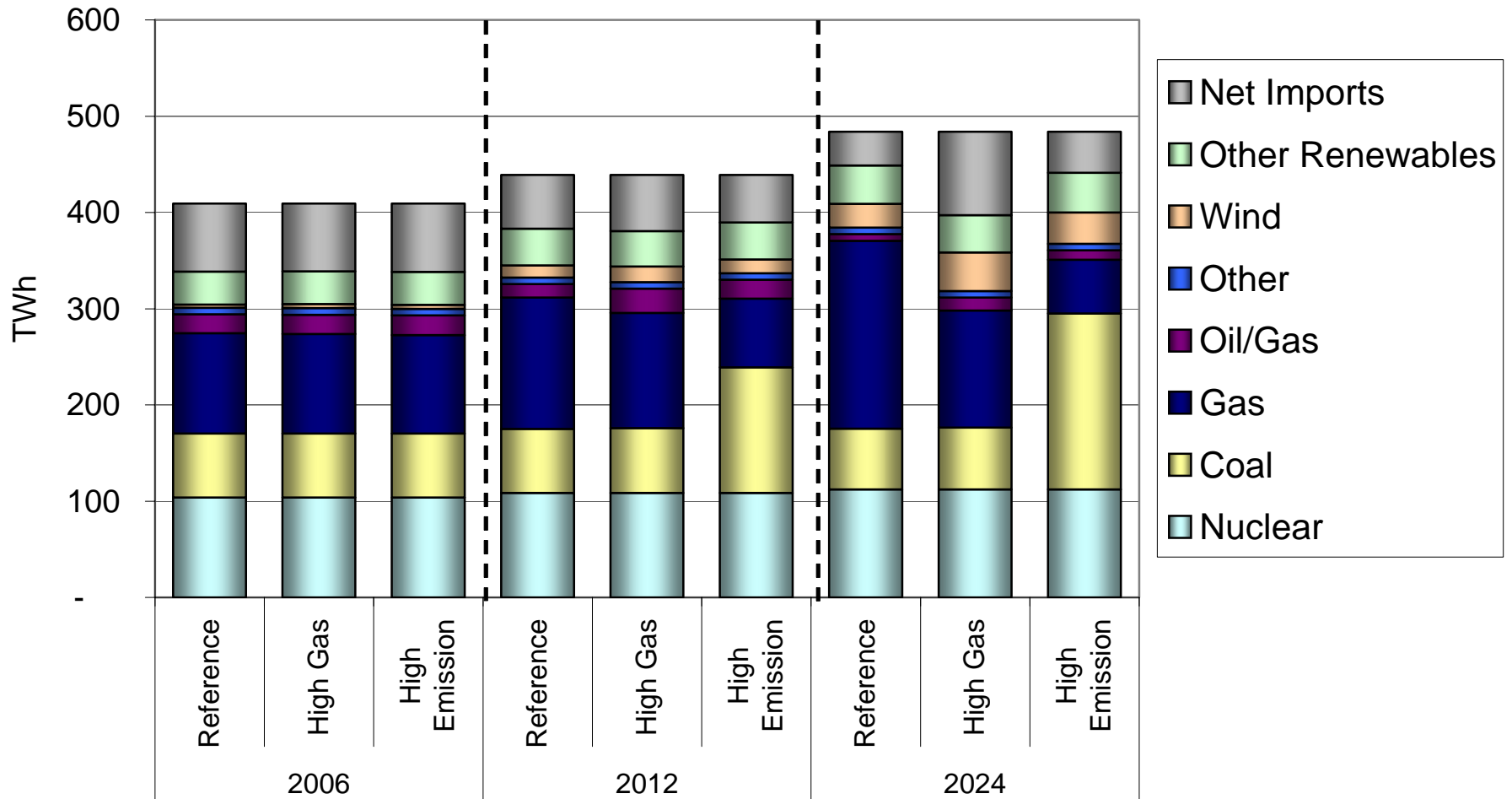
NOTE: Energy prices represent wholesale market prices and include annualized capacity prices. Note that the RGGI Package Scenario assumes that current levels of annual state expenditures for public benefit programs continue through 2025. While these types of programs cause lower wholesale prices by reducing electricity demand, they are paid for by consumers through a line item charge at the retail level, and are therefore not reflected in the wholesale price changes shown above. Current retail electricity prices already include the annual costs of these programs.

While the modeling assumes that end-use energy efficiency is implemented entirely by public benefit programs, it is recognized that energy efficiency could also be implemented by actions such as appliance standards and building codes that do not require state funding and could possibly be done at lower costs.

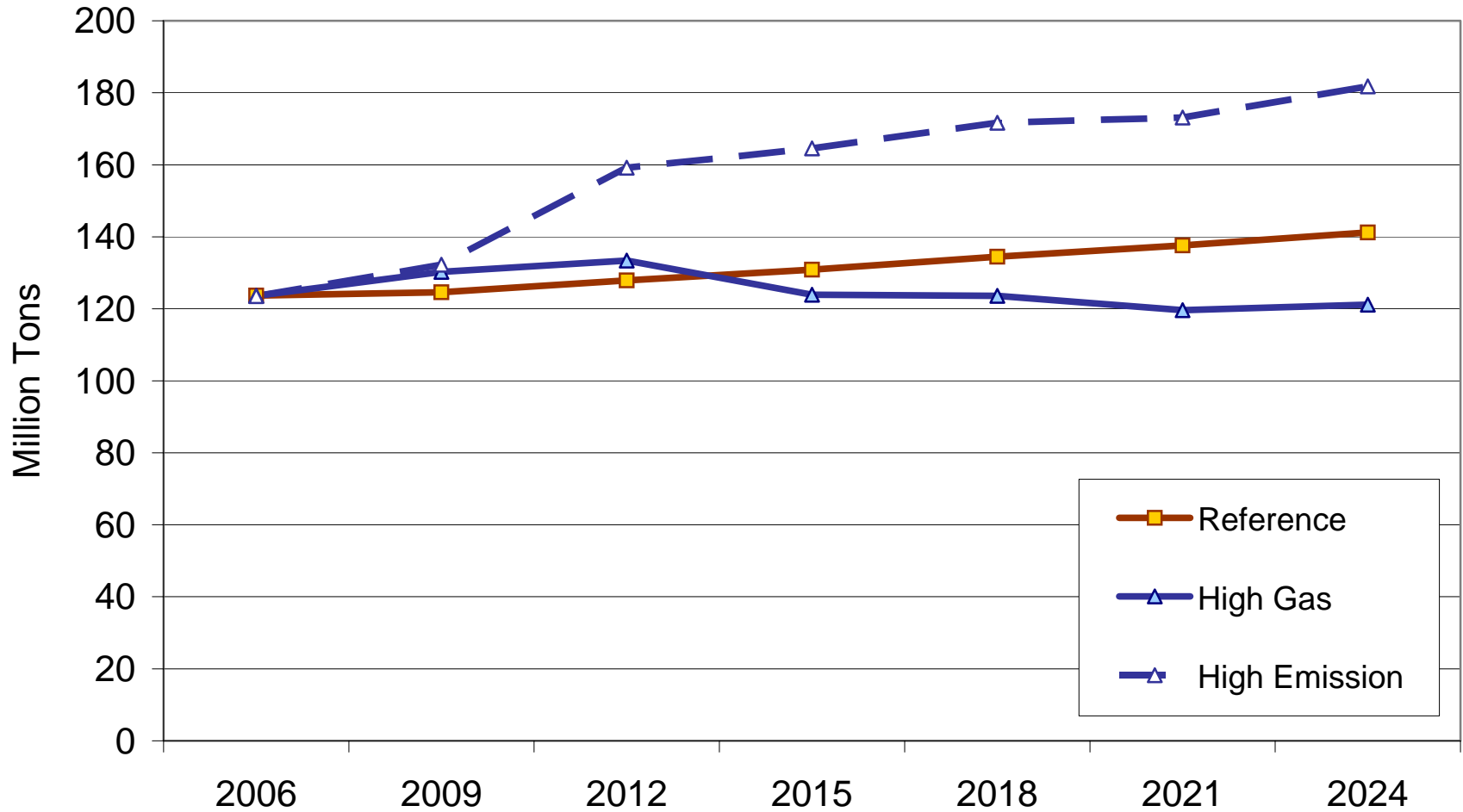
RGGI Higher Emissions Sensitivities

RGGI Generation Mix

Reference v. High Gas v. High Emissions

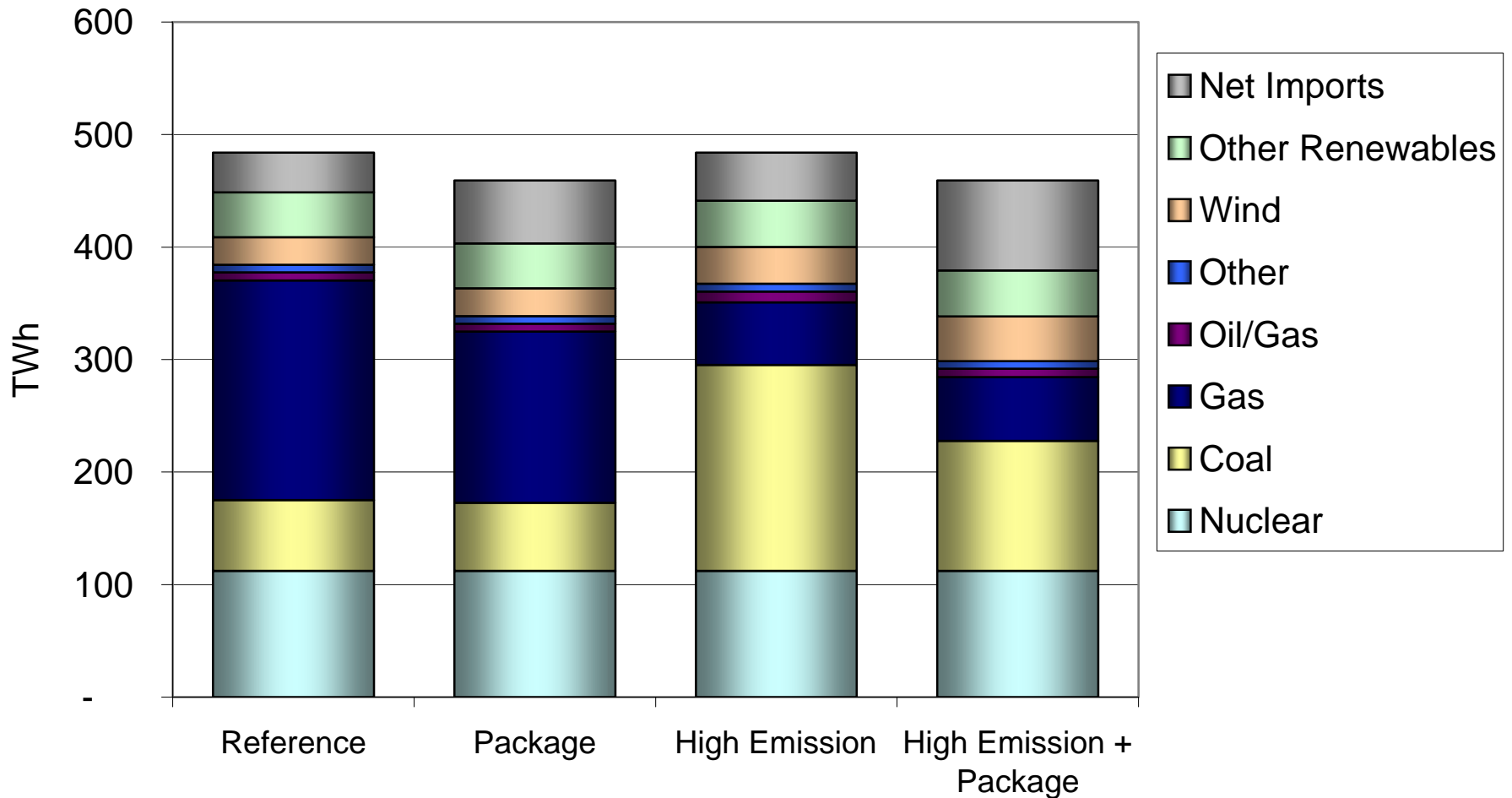


CO₂ Emissions Reference v. High Gas v. High Emissions

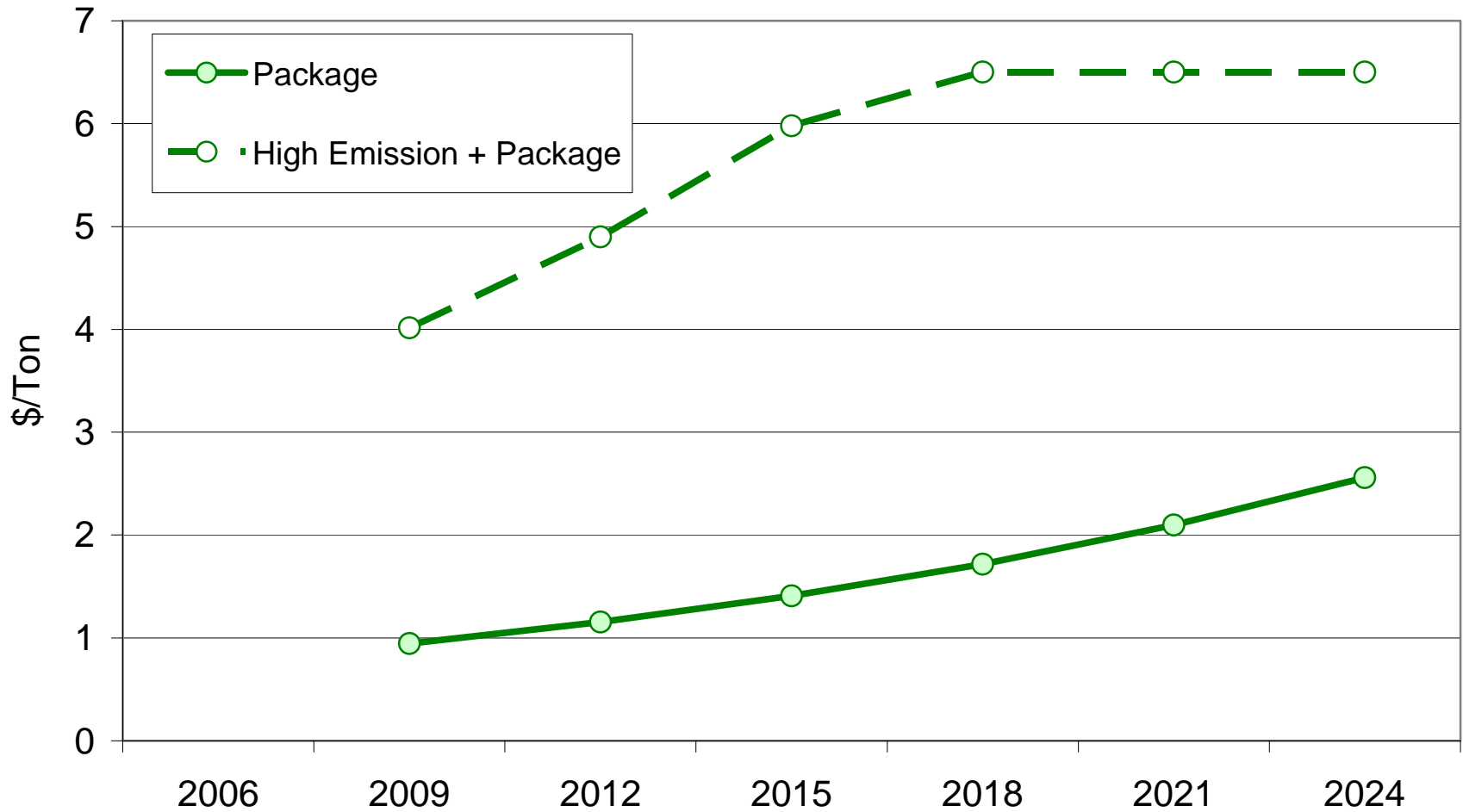


RGGI Package Scenario
compared to
Higher Emissions Reference Case

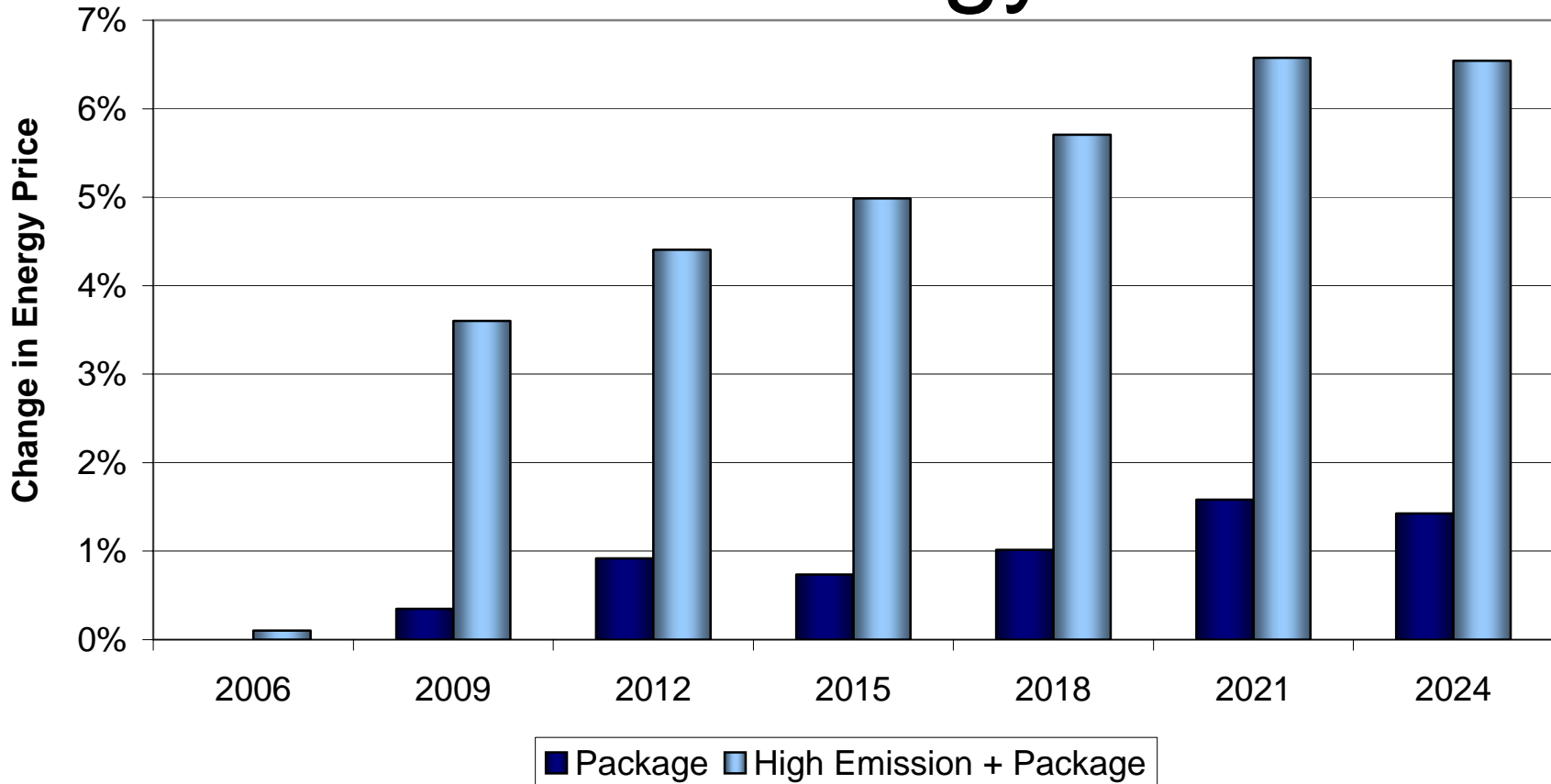
RGGI Generation Mix in 2024



CO₂ Allowance Prices



Change in RGGI Average Annual Energy Prices



NOTE: Energy prices represent wholesale market prices and include annualized capacity prices. Note that the RGGI Package Scenario assumes that current levels of annual state expenditures for public benefit programs continue through 2025. While these types of programs cause lower wholesale prices by reducing electricity demand, they are paid for by consumers through a line item charge at the retail level, and are therefore not reflected in the wholesale price changes shown above. Current retail electricity prices already include the annual costs of these programs.

While the modeling assumes that end-use energy efficiency is implemented entirely by public benefit programs, it is recognized that energy efficiency could also be implemented by actions such as appliance standards and building codes that do not require state funding and could possibly be done at lower costs.