



**RGGI Preliminary**  
**Electricity Sector Modeling Results**  
*Phase III RGGI Reference and Package Scenario*

**August 17, 2006**

**ICF Consulting**

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# Updates to Reference and Package Cases

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- The following changes were made to the Phase III Reference Case relative to the September 2005 Reference Case:
  - Oil and gas prices updated to most recent EEA projection
  - Electric peak and demand updated to most recent projections from NYISO, ISO-NE and PJM
  - Calibrated NH generation mix through 2009
  - 600 MW IGCC with 50% carbon capture capability added in upstate NY in 2018
- The following changes were made to the Phase III Package Case relative to the September 2005 Package Case:
  - Updated offset supply curves
  - Implemented Revised offset triggers from MOU

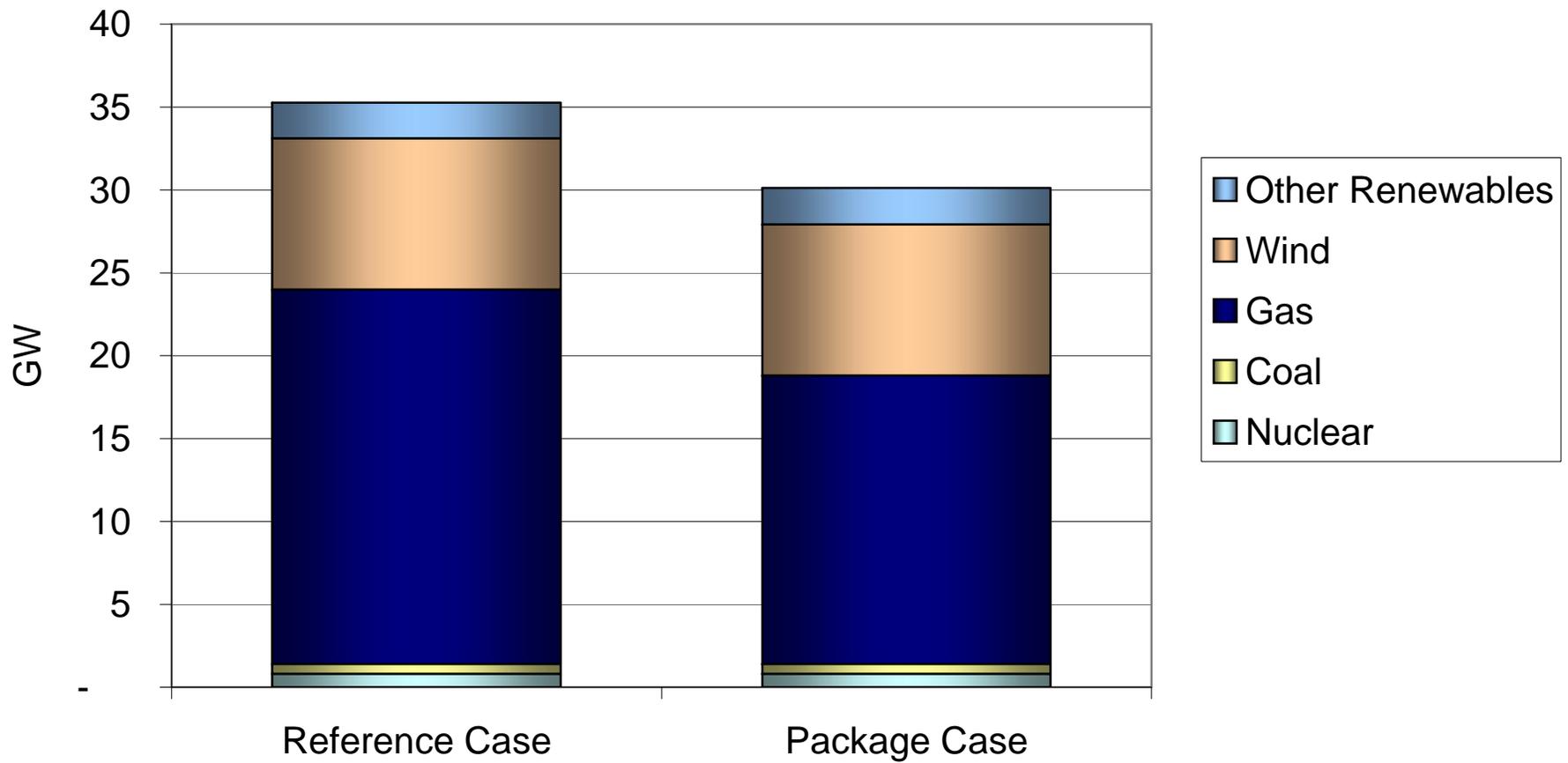
# Package Scenario

- The Package Scenario presented here is based off of the Phase III RGGI Reference Case and includes the following:
- CO<sub>2</sub> Policy – Phased-in cap to 2018 (see table below)
  - Offsets – Updated supply curves with limits as defined in MOU (table below assumes 3.3% offset limit)
  - Efficiency Measures – Options as defined by ACEEE limited by Program Cost Budget Equivalent to 1.0-times Current Program Expenditures

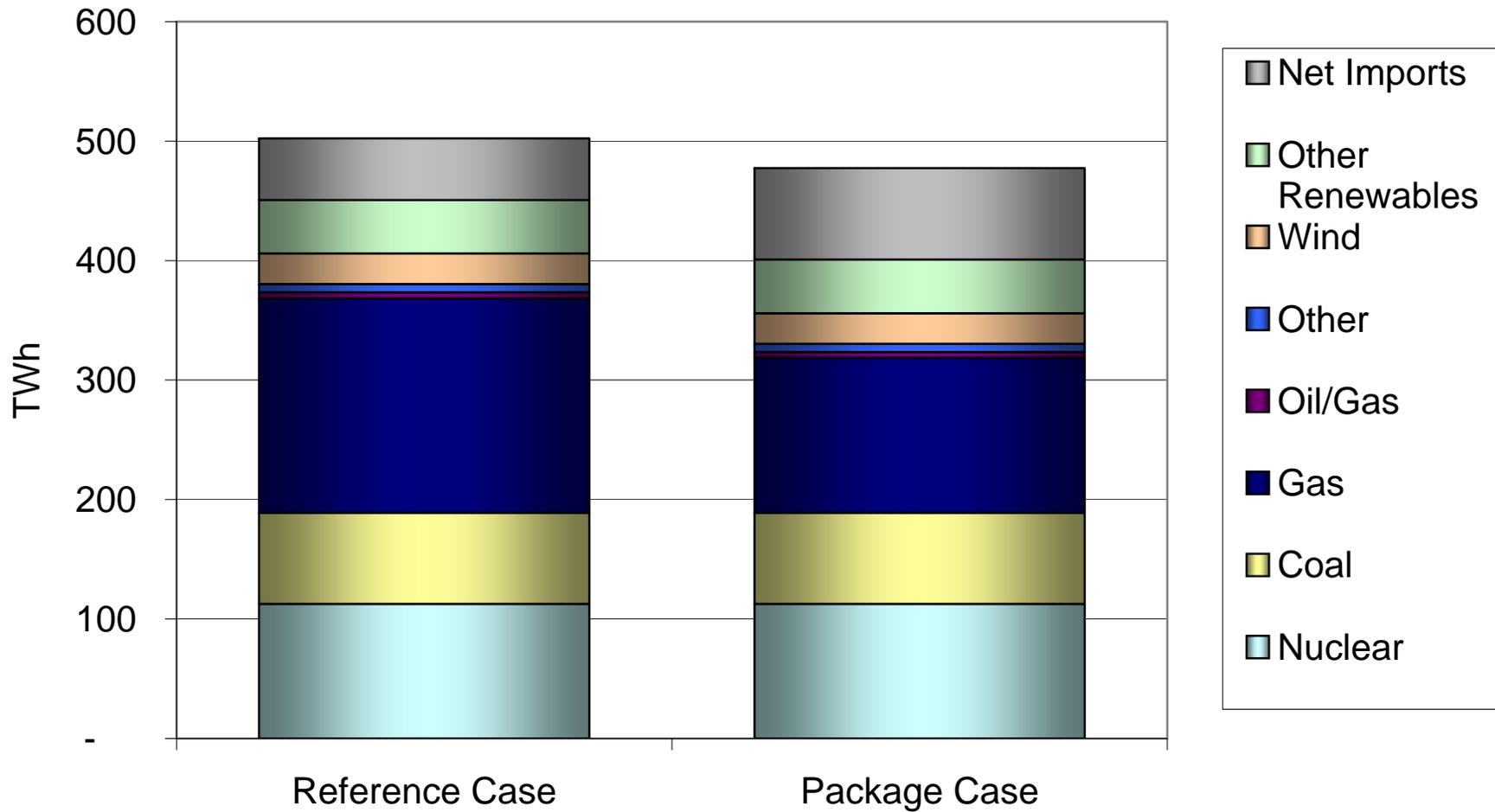
	Reference Case, Phase III, 9 state (MMTons)	Policy Guide	RGGI Cap (MMTons)	Offset Limit (%)	Offset Limit (MMTons)
<b>2006</b>	<b>121.5</b>	<b>2006 levels (early action)</b>	<b>121.5</b>	<b>3.3%</b>	<b>4.01</b>
2007	121.6	2006 levels (early action)	121.5	3.3%	4.01
2008	121.8	2006 levels (early action)	121.5	3.3%	4.01
<b>2009</b>	<b>121.9</b>	<b>2006 levels</b>	<b>121.5</b>	<b>3.3%</b>	<b>4.01</b>
2010	122.6	2006 levels	121.5	3.3%	4.01
2011	123.4	2006 levels	121.5	3.3%	4.01
<b>2012</b>	<b>124.1</b>	<b>2006 levels</b>	<b>121.5</b>	<b>3.3%</b>	<b>4.01</b>
2013	125.8	2006 levels	121.5	3.3%	4.01
2014	127.4	2006 levels	121.5	3.3%	4.01
<b>2015</b>	<b>129.1</b>	<b>2.5% Below 2006 Levels</b>	<b>118.5</b>	<b>3.3%</b>	<b>3.91</b>
2016	131.1	5.0% Below 2006 Levels	115.4	3.3%	3.81
2017	133.0	7.5% Below 2006 Levels	112.4	3.3%	3.71
<b>2018</b>	<b>135.0</b>	<b>10% Below 2006 levels</b>	<b>109.4</b>	<b>3.3%</b>	<b>3.61</b>
2019	136.1	10% Below 2006 levels	109.4	3.3%	3.61
2020	137.1	10% Below 2006 levels	109.4	3.3%	3.61
<b>2021</b>	<b>138.2</b>	<b>10% Below 2006 levels</b>	<b>109.4</b>	<b>3.3%</b>	<b>3.61</b>
2022	139.8	10% Below 2006 levels	109.4	3.3%	3.61
2023	141.4	10% Below 2006 levels	109.4	3.3%	3.61
<b>2024</b>	<b>143.0</b>	<b>10% Below 2006 levels</b>	<b>109.4</b>	<b>3.3%</b>	<b>3.61</b>

# **RGGI Package Scenario**

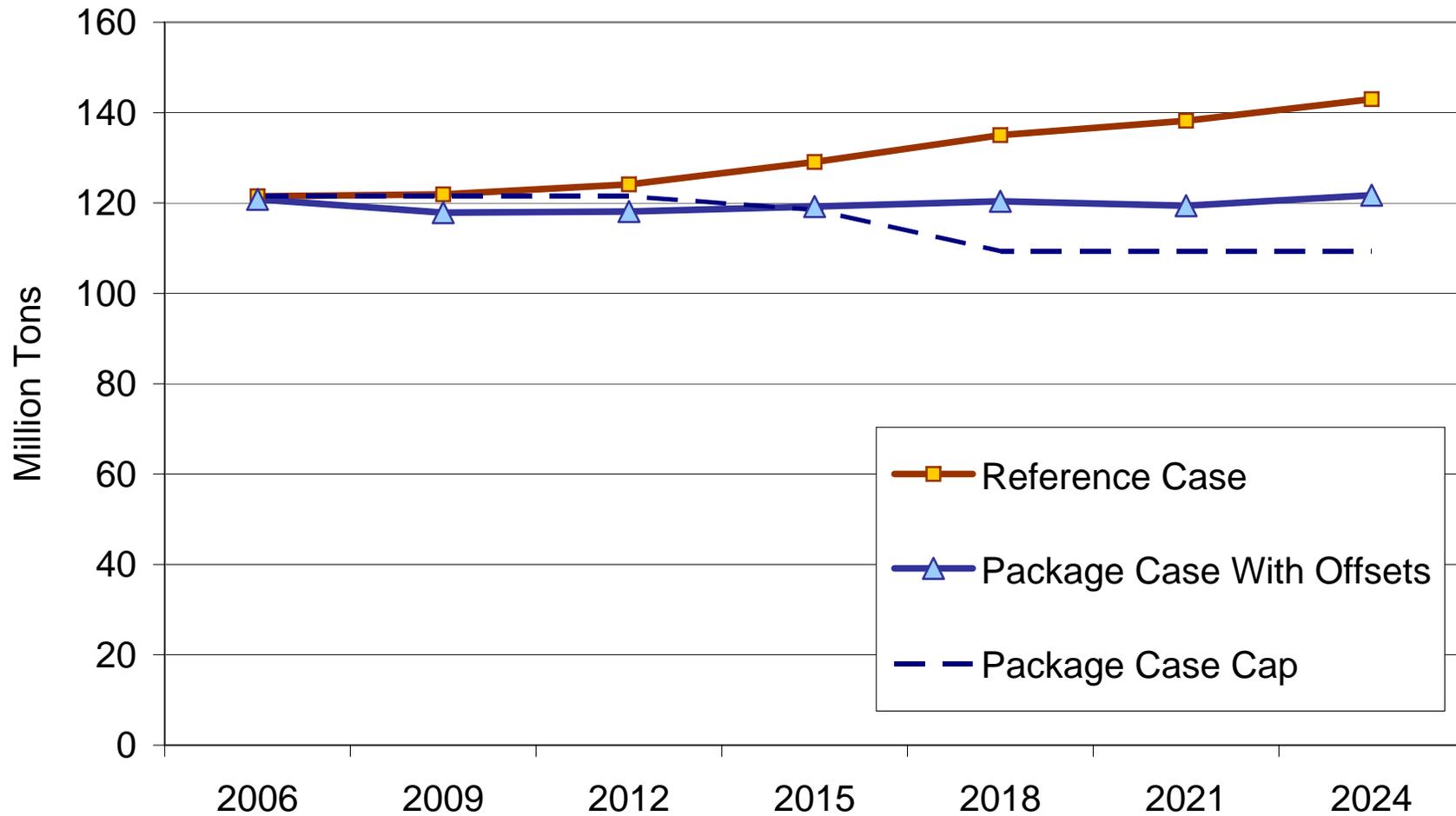
# RGGI Cumulative Capacity Additions by 2024



# RGGI Generation Mix in 2024



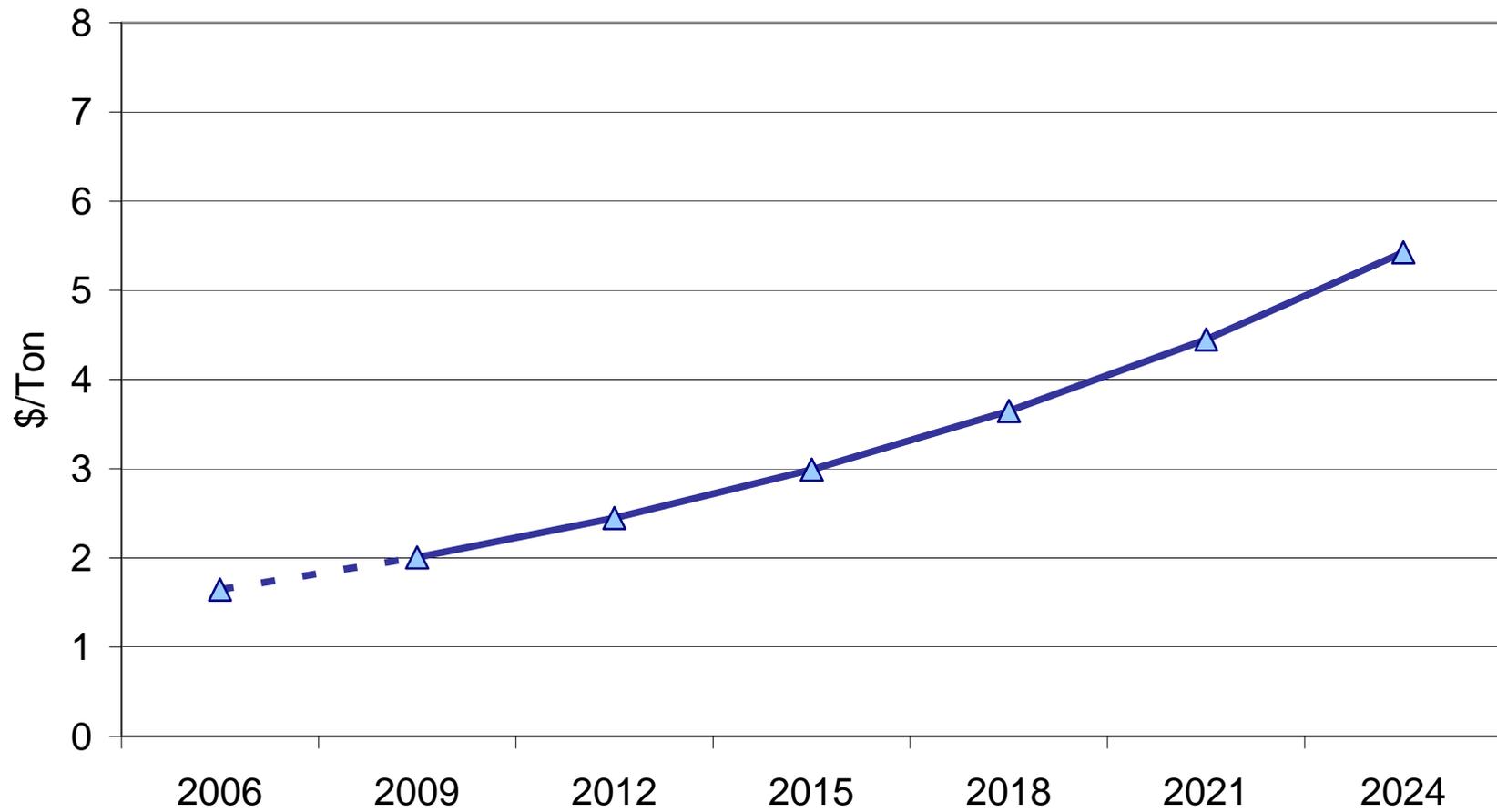
# RGGI 9-State CO<sub>2</sub> Emissions



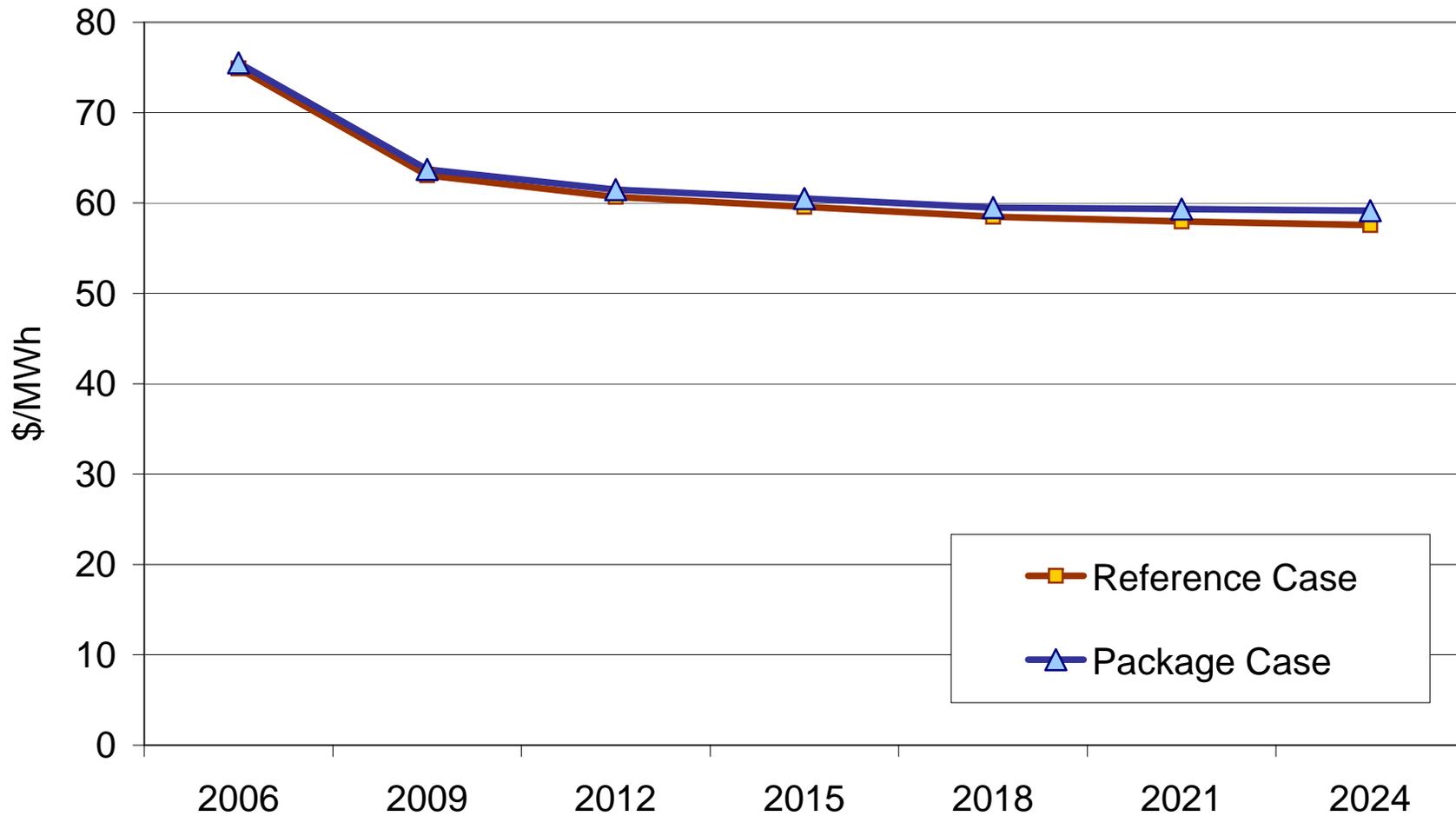
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# CO<sub>2</sub> Allowance Prices – Package Case

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# RGGI Average Annual Energy Prices



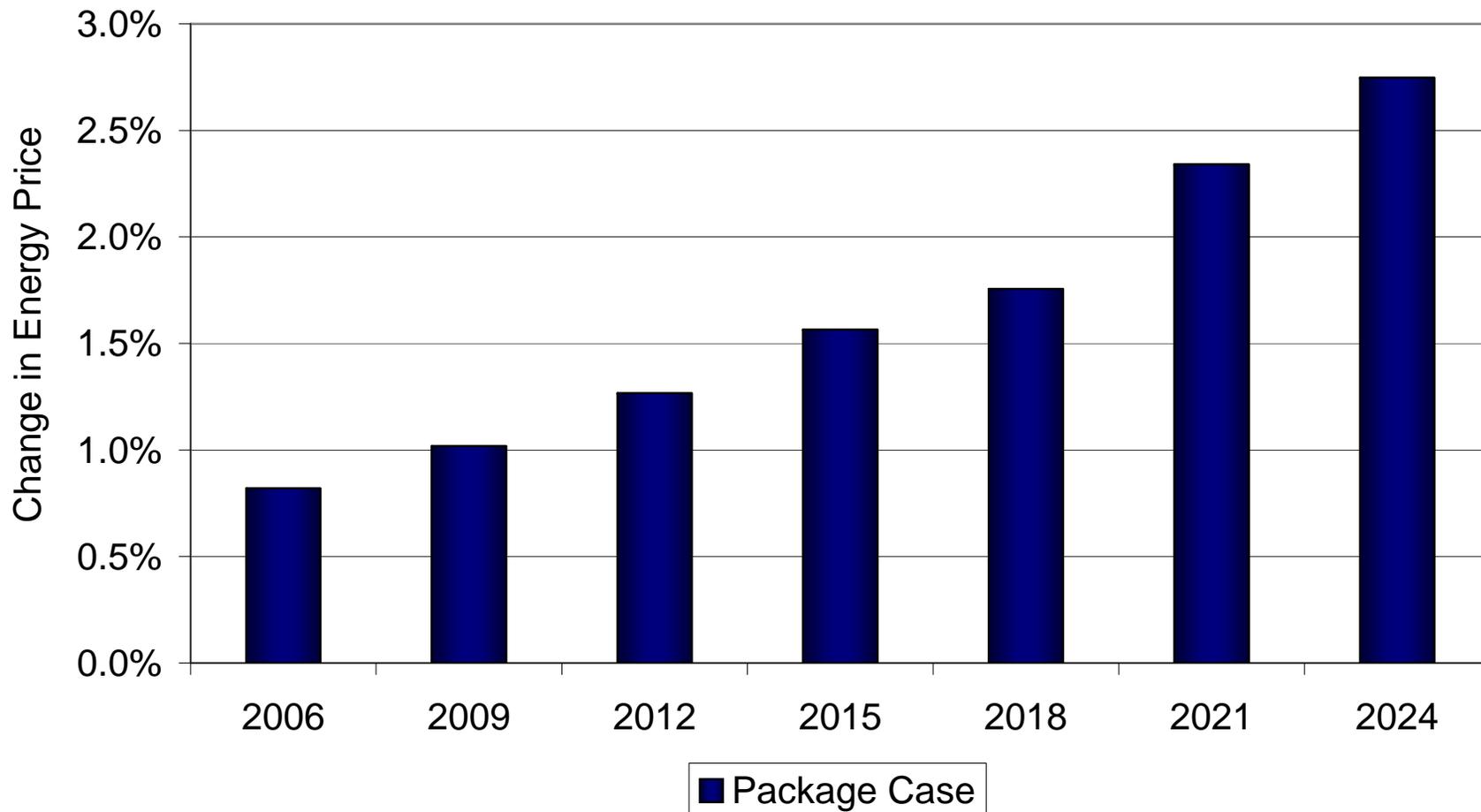
NOTE: Energy prices include annualized capacity prices.



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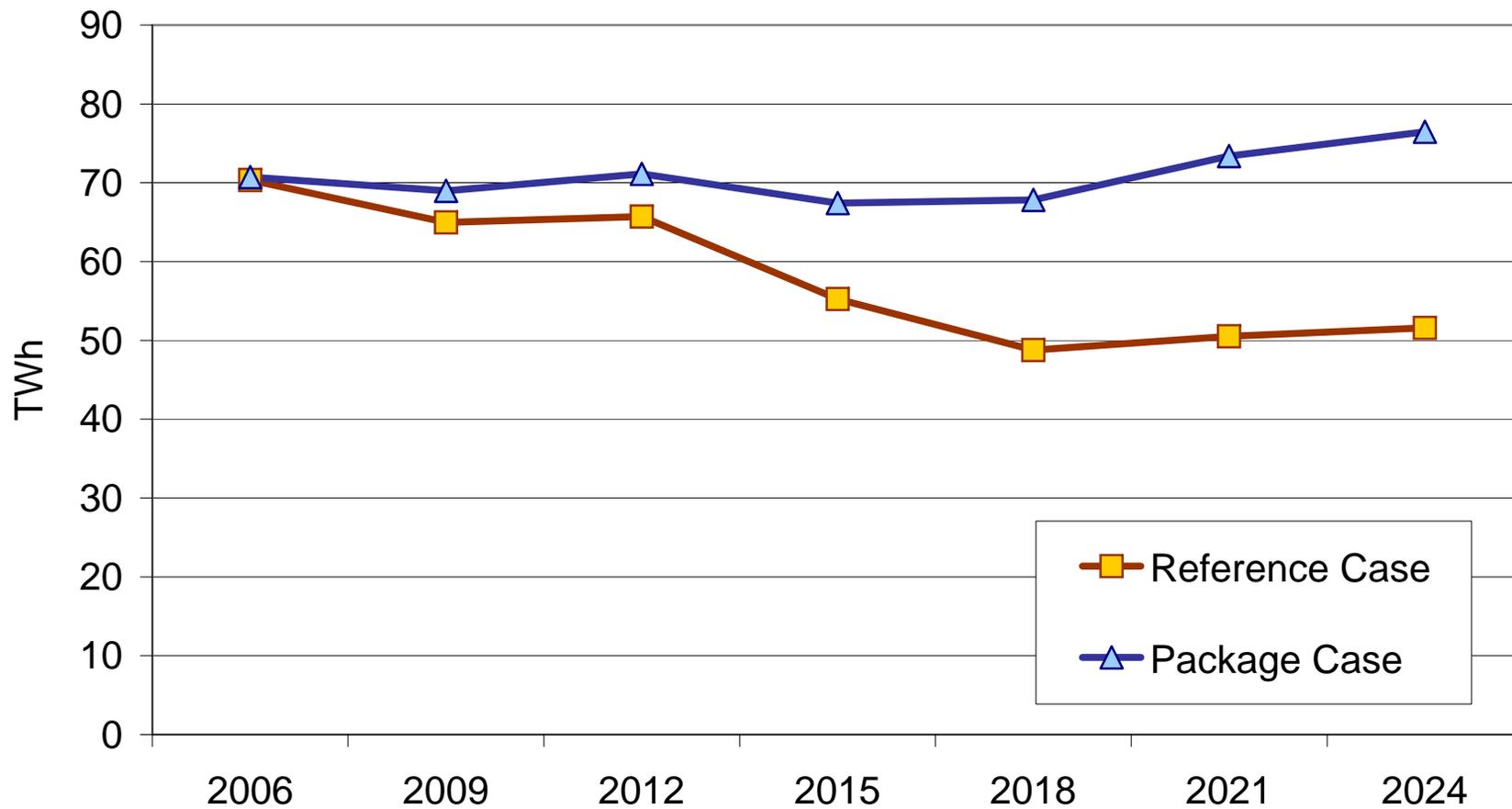
# Change in RGGI Average Annual Energy Prices

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NOTE: Energy prices include annualized capacity prices.

# RGGI Net Imports



# Cumulative CO<sub>2</sub> Reductions by 2015 and 2021

## RGGI and Eastern Interconnect/Canada

