ClimateWorks

Updated analysis of Senator Lugar's Practical Energy and Climate Plan: Bottom-line numbers

Discussion document
June 8, 2010

Preliminary

Disclaimer

The ClimateWorks Foundation is an independent organization with deep resources committed to objective analysis of energy and carbon strategies. ClimateWorks analyzed a variety of energy saving, clean energy, and carbon reduction opportunities. This analysis employed a detailed sector-by-sector and industry-by-industry model of the U.S. economy, combined with the REMI macroeconomic model. These slides reflect an analysis of the policies under consideration by Senator Lugar. Climate Works Foundation does not take a position on legislation.

Besides this work, Climate Works has also analyzed various cap and trade strategies, forestry and agricultural approaches, and other methods to cost effectively reduce dependence on foreign oil, reduce the environmental impacts and carbon emissions from energy consumption, increase America's technological competitiveness, and reduce energy costs.

Overall package

Reduced foreign oil use

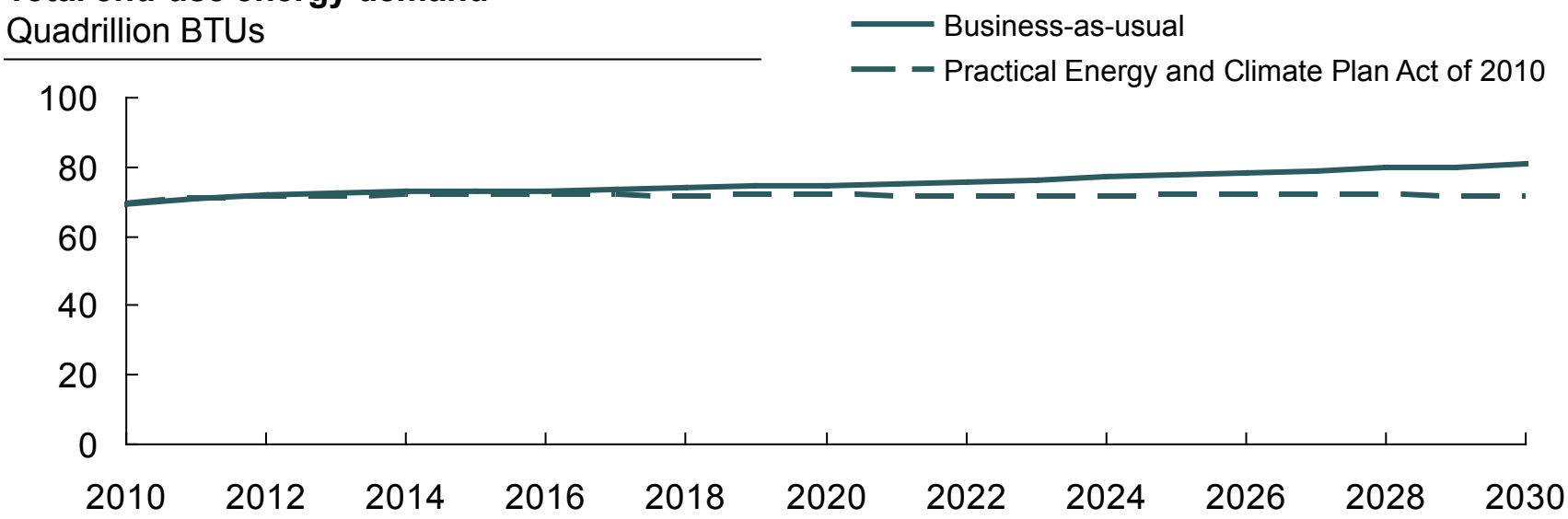
Efficiency

Diverse energy standard

Overall Package: Energy savings

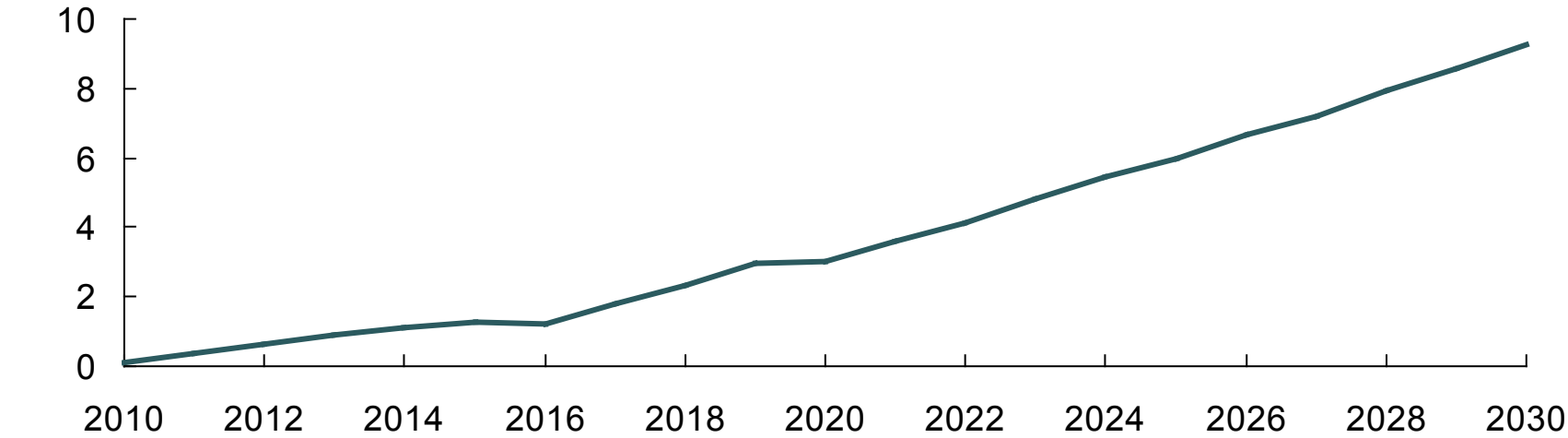
Total end-use energy demand

Quadrillion BTUs



Energy savings

Quadrillion BTUs; percent relative to business-as-usual



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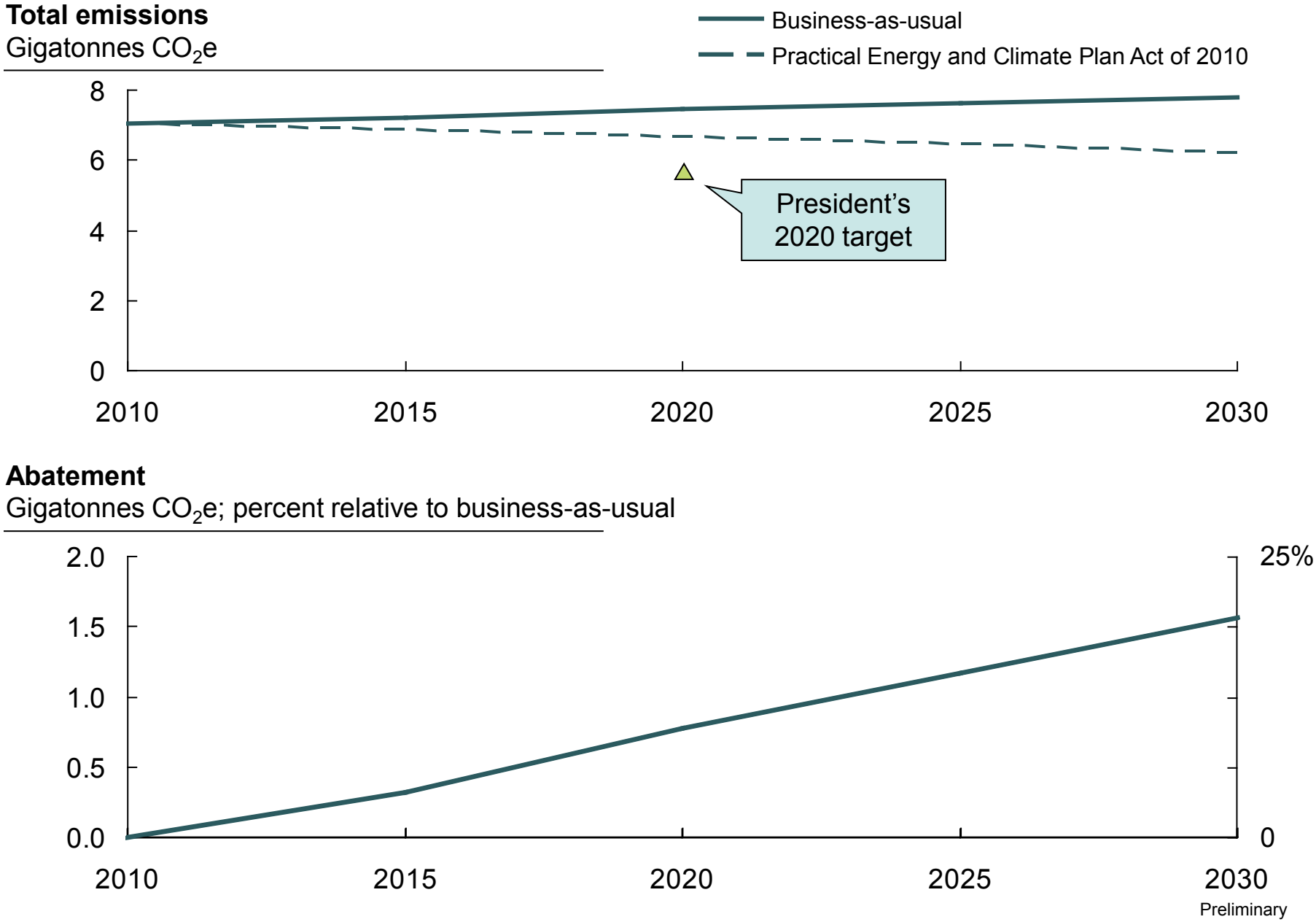
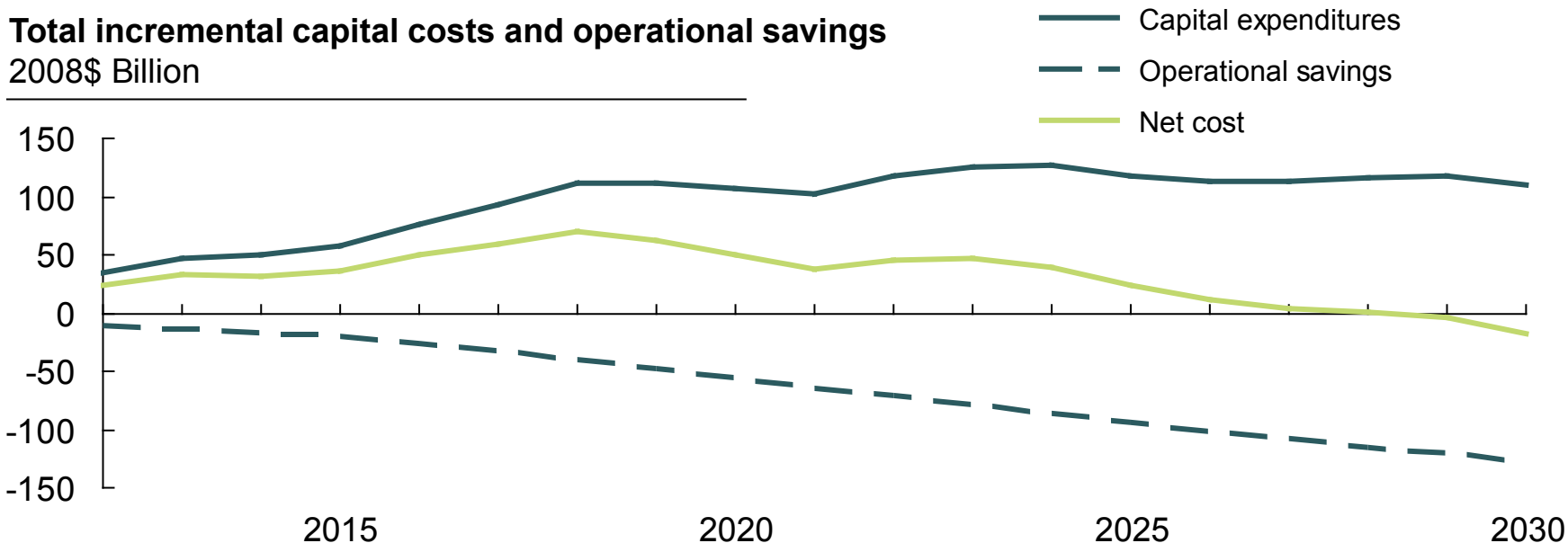
Overall Package: Emissions abatement

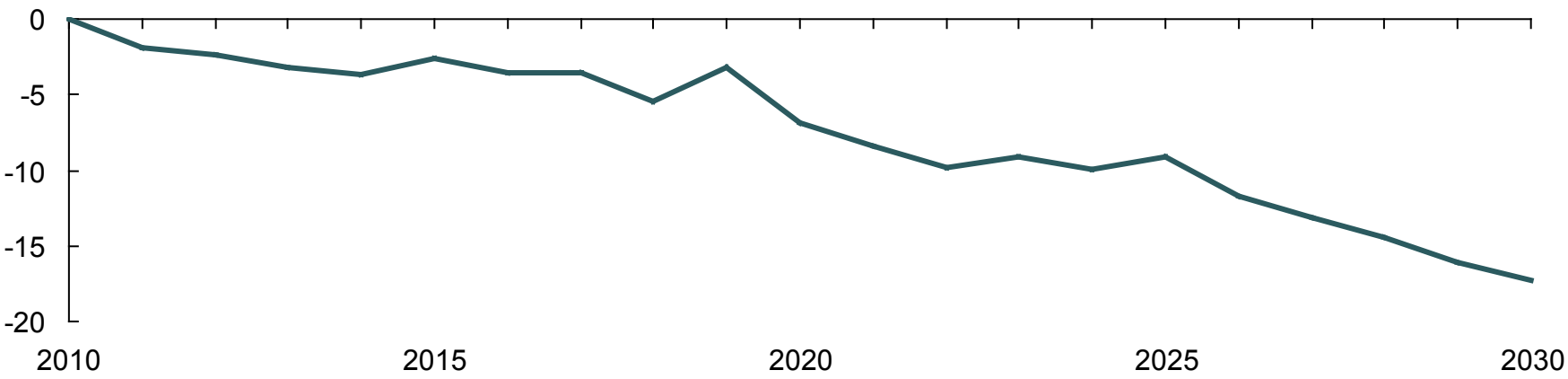


Overall Package: Costs and savings

Total incremental capital costs and operational savings
2008$ Billion



Relative change in household electricity bills
Percent relative to business-as-usual



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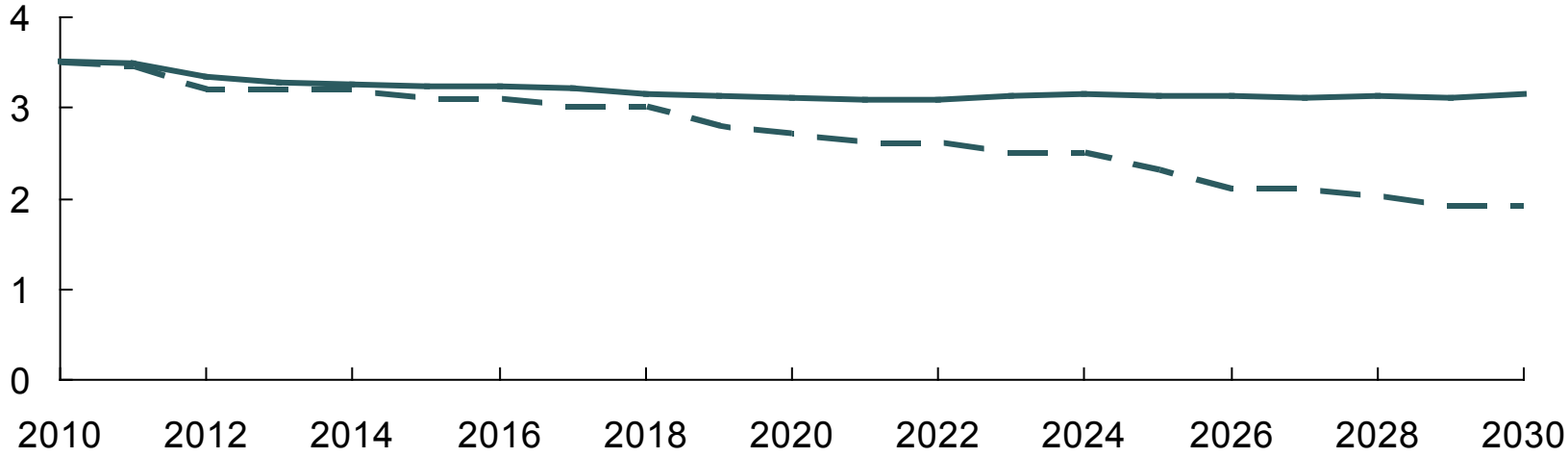
Overall Package: Reduction in foreign oil use

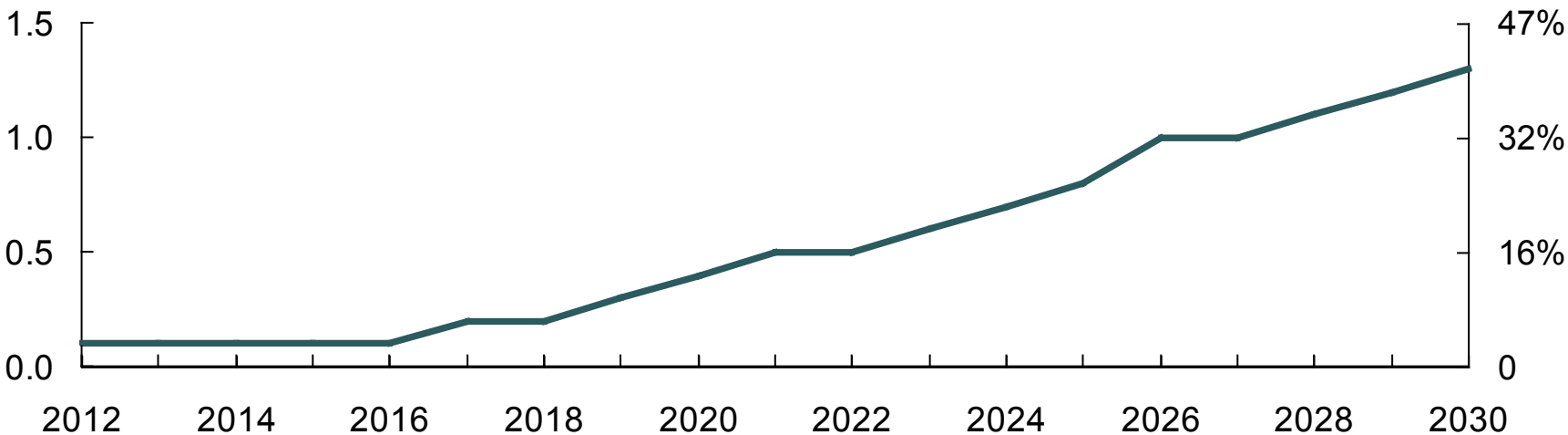
Oil imports*

Billion barrels per year



Reduction in oil use + increase in domestic production

Billion barrels per year; percent reduction in imports relative to business-as-usual*



* Assuming all reduction comes from imports

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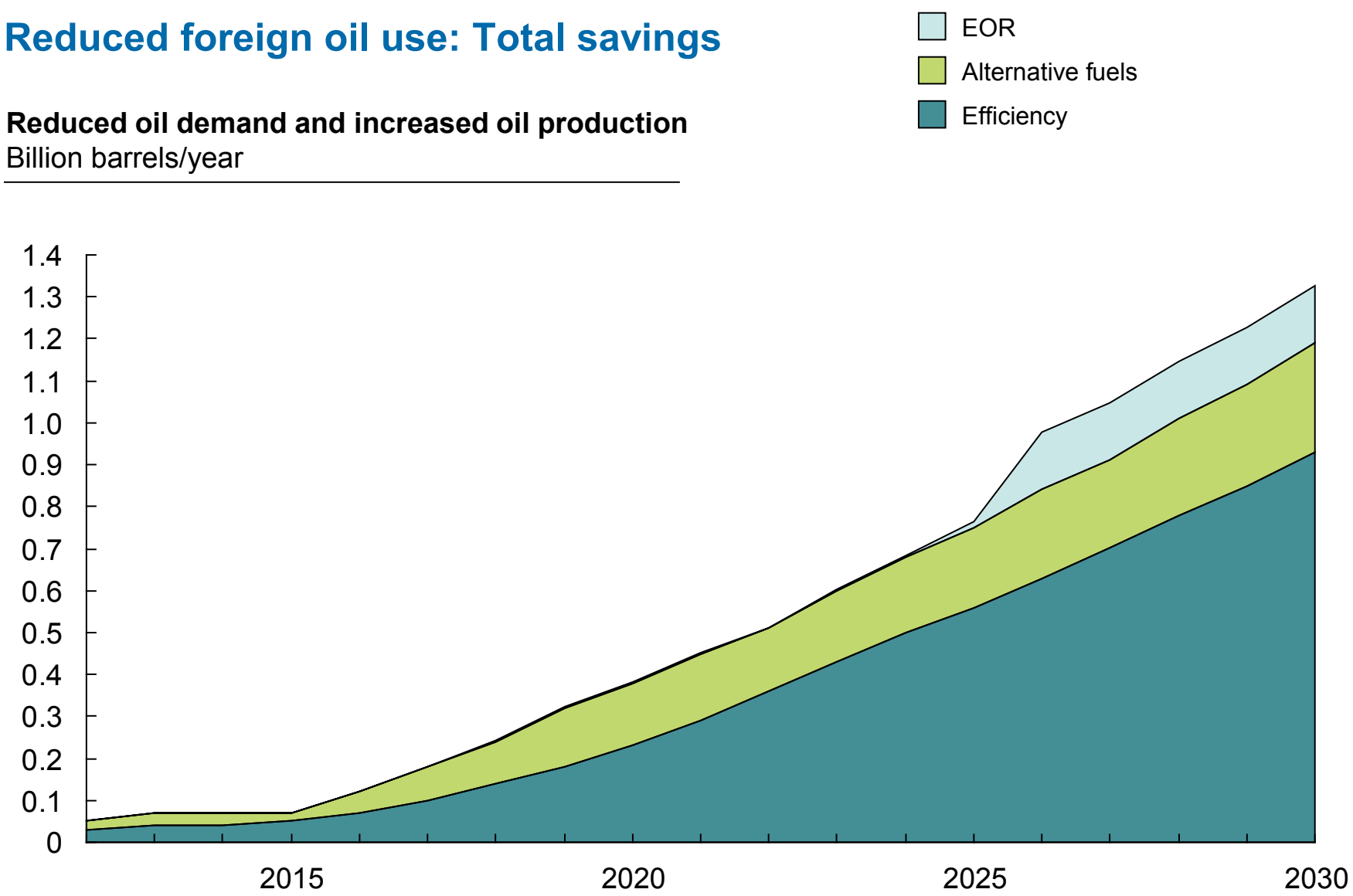
Reduced foreign oil use: Total savings

Reduced oil demand and increased oil production
Billion barrels/year



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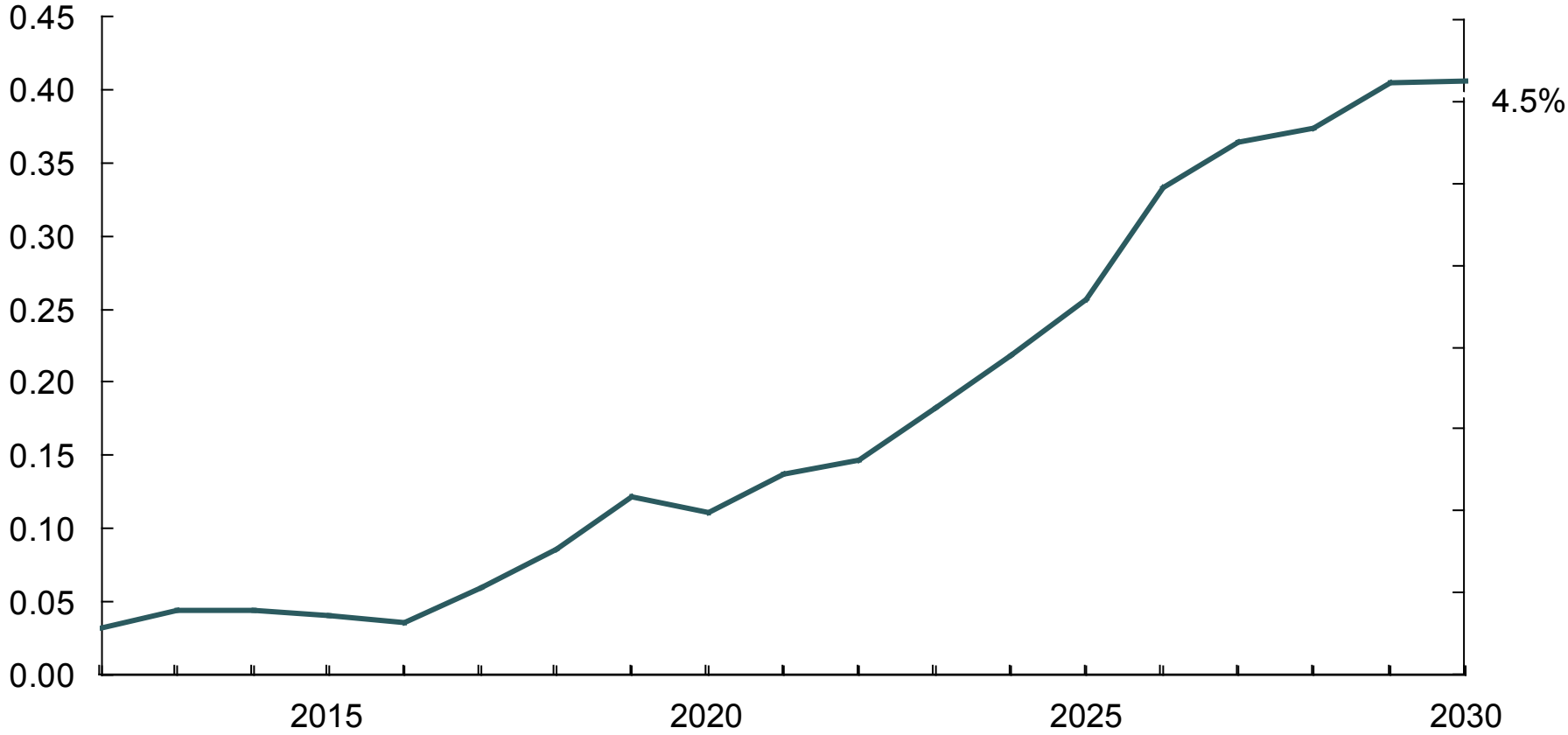
Reduced oil use: Emissions abatement

Abatement

Gigatonnes CO_2e; percent relative to TOTAL business-as-usual emissions



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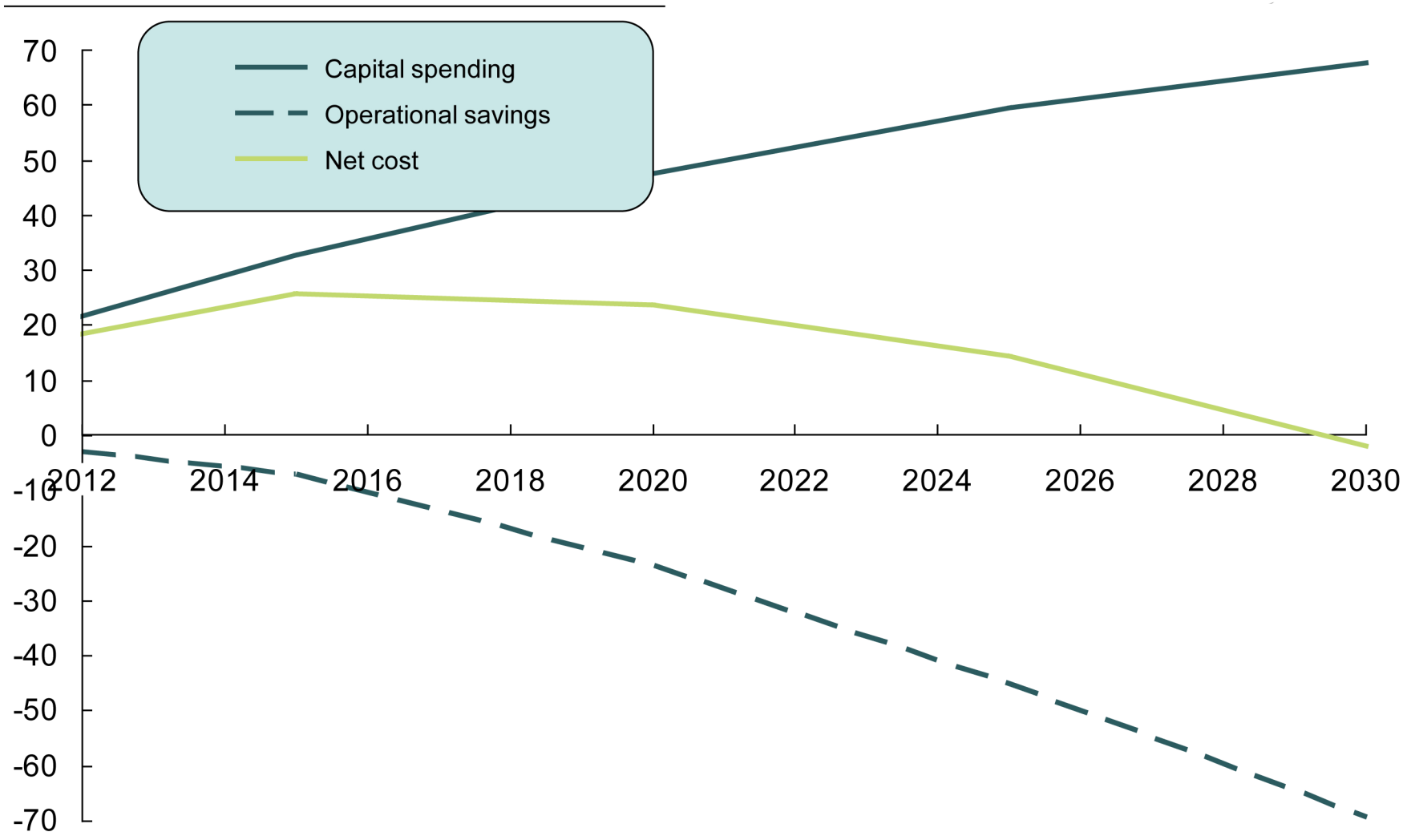
Reduced oil use: Costs and savings due to transport efficiency

Total incremental capital costs and operational savings*

2008$ Billion



* Operational savings defined as avoided fossil fuel cost

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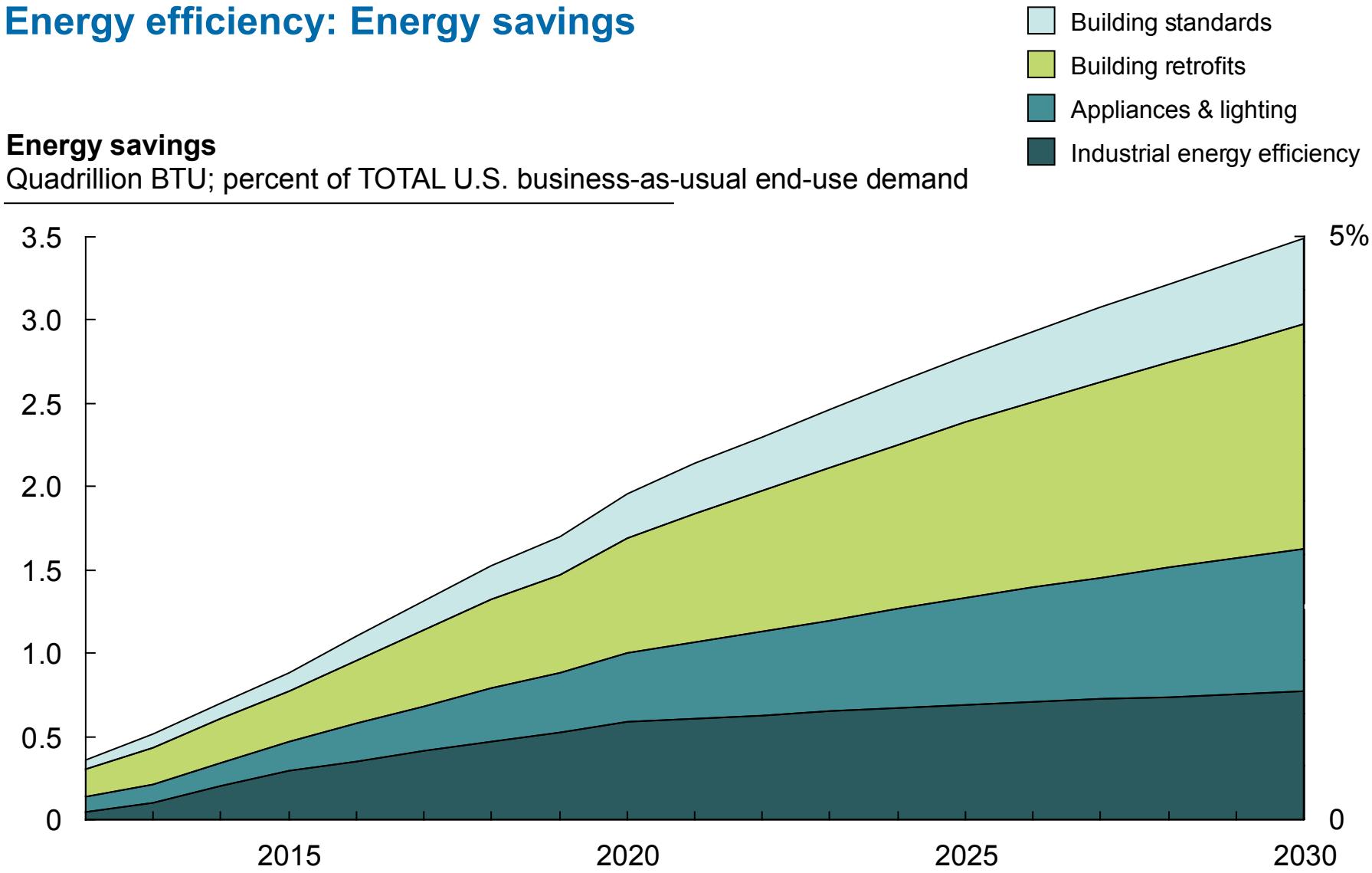
Energy efficiency: Energy savings



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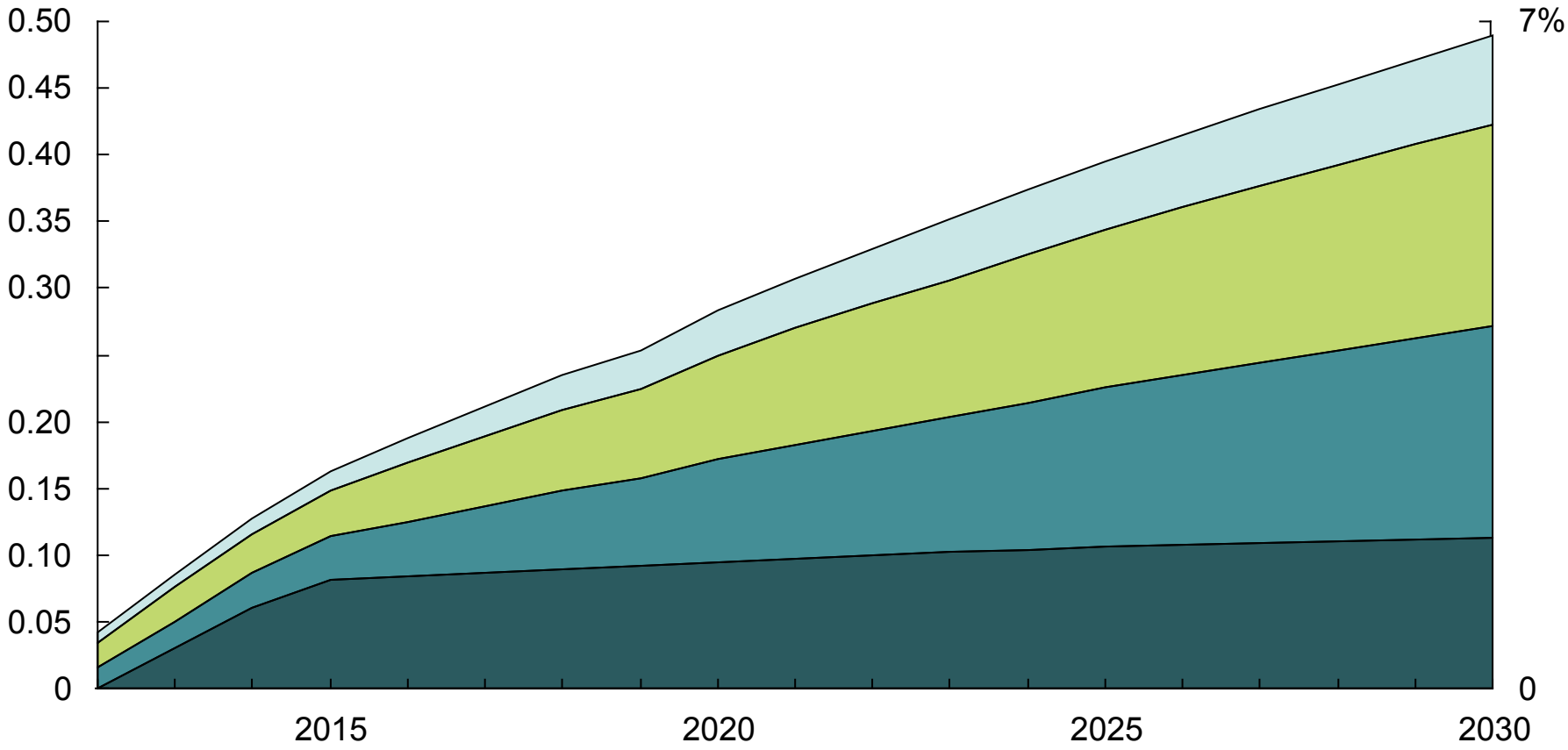
Energy efficiency: Emissions abatement

Emissions reduction

Gigatonnes CO_2e; percent of TOTAL U.S. emissions



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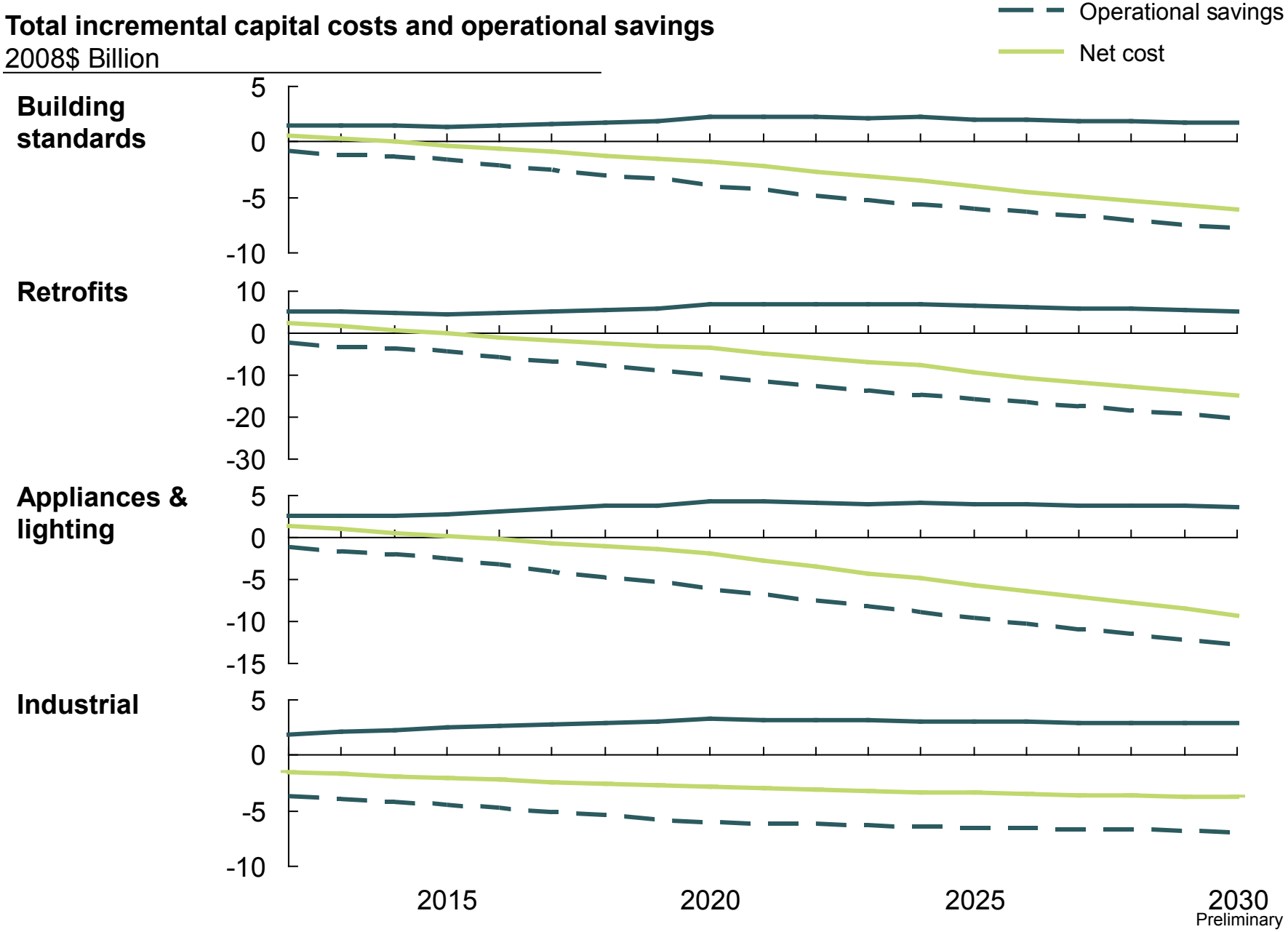
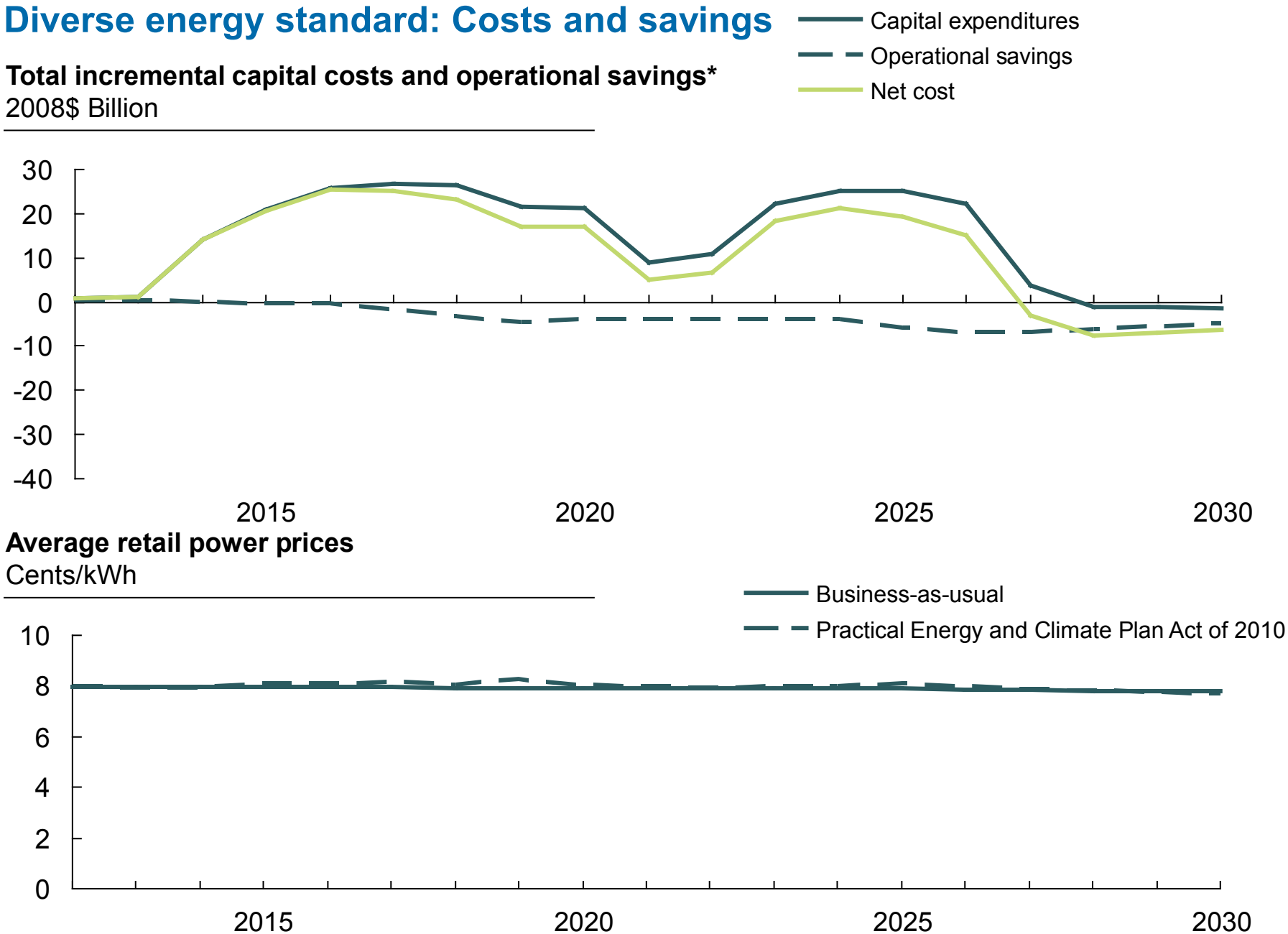
Energy efficiency: Costs and savings

Total incremental capital costs and operational savings

2008$ Billion



Diverse energy standard: Costs and savings



* Operational savings defined as avoided fossil fuel cost

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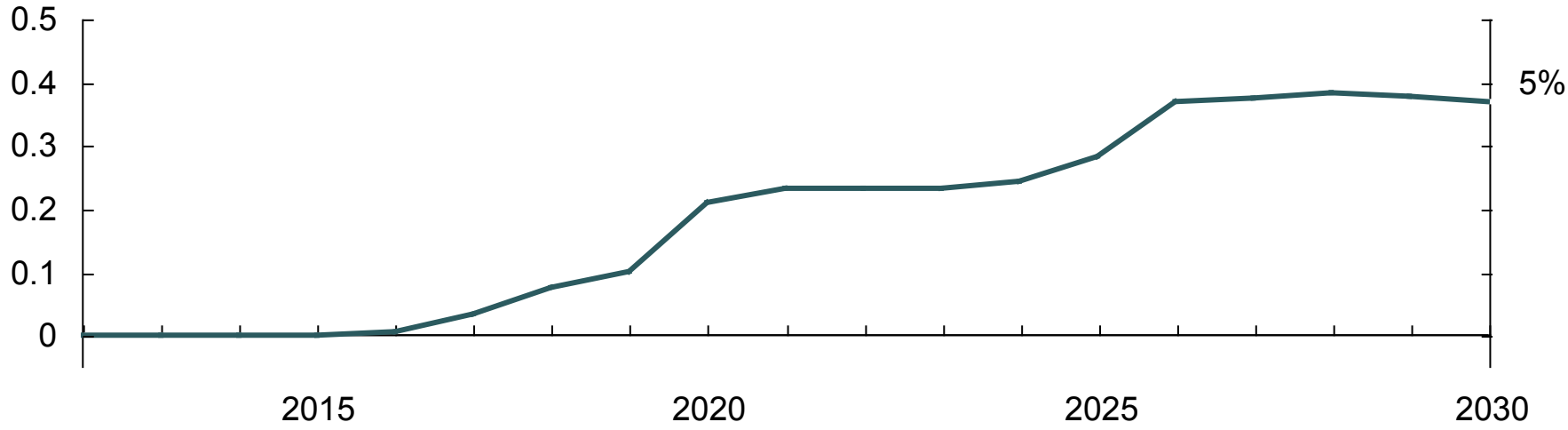
Diverse energy standard: Emissions abatement

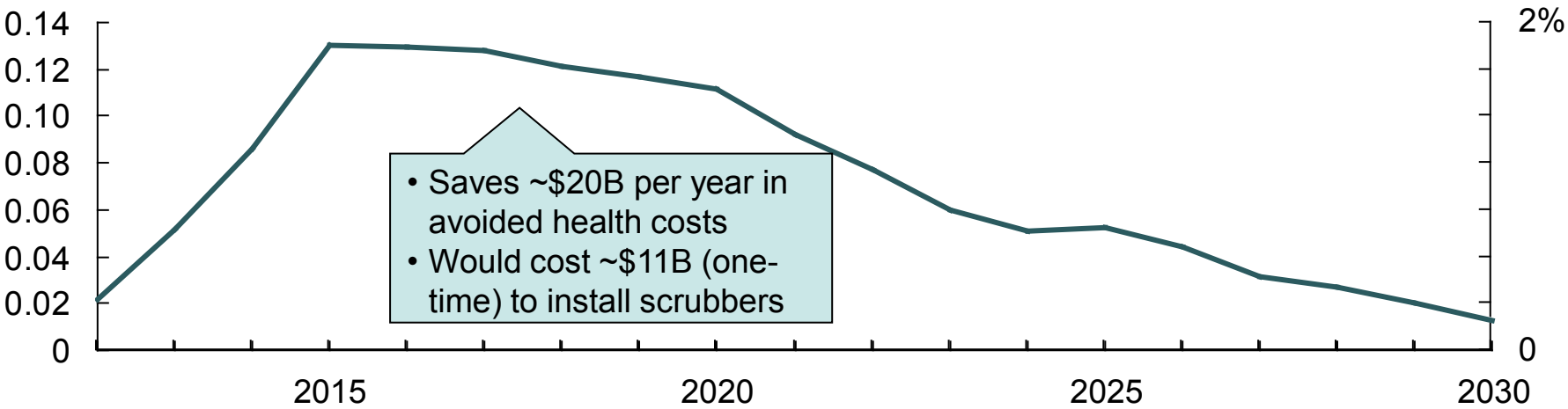
Clean power (renewables + nuclear + CCS + efficiency)

Gigatonnes CO_2e; percent relative to TOTAL business-as-usual emissions



Coal retirements

Gigatonnes CO_2e; percent relative to TOTAL business-as-usual emissions



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