



Impacts of the One Big Beautiful Bill On The US Energy Transition – Summary Report

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This report presents a brief summary of the REPEAT Project’s analysis of the impacts of changes in federal policy proposed by the administration of President Donald Trump and the Republican majority in Congress on the U.S. energy transition.

President Trump and Congressional Republicans have vowed to repeal and replace many of the legislative and regulatory policies created by the Biden Administration and 117th Congress to accelerate the transition to a cleaner U.S. energy system. In this report, we summarize the impacts of these repeals, including:

An **Executive Repeal** scenario assesses the impact of executive actions the Trump administration has stated it will take to unwind Biden-era climate and clean energy policies. This includes repeal of all EPA greenhouse gas regulations, DOT vehicle fuel economy standards, and DOE efficiency rules. The scenario also assumes executive agencies freeze distribution of all unspent funding made available by the IRA and IIJA.

We also analyze the impacts of [H.R. 1](#), the **One Big Beautiful Bill Act of 2025** (OBBB)—Republicans’ partisan budget ‘mega-bill,’ which substantially repeals nearly all of the tax credits enacted by the IRA to support clean electricity, fuels, vehicles and manufacturing. The bill also rescinds unobligated funding for clean energy and climate programs enacted by the IRA and the IIJA. In this report, we model two versions of the bill: the version passed by the House of Representatives on May 22, 2025, and the final version passed by the Senate on July 1, 2025 and House on July 3, 2025. These scenarios all include the impacts of Executive Repeal as well.

Additionally, we present **Continued Biden-era Policies** scenarios (in some cases spanning ‘Conservative’, ‘Mid-range’, and ‘Optimistic’ cases; the ‘Mid-range’ is most directly comparable to the OBBB and Executive Repeal cases), which assume the continuation of the full suite of policies enacted under the Biden Administration, including the combined impact the Inflation Reduction Act of 2022 (IRA) and the Infrastructure Investment and Jobs Act of 2021 (IIJA). This scenario also includes a set of regulatory policies enacted by the Biden Administration, including: Environmental Protection Agency (EPA) greenhouse gas emissions regulations on power plants, light and heavy vehicles, and oil and gas sector methane pollution; Department of Energy (DOE) efficiency standards; and Department of Transportation (DOT) vehicle fuel economy standards. The range of outcomes spanned by the three scenarios reflect uncertainty about the effectiveness of policy provisions and the potential impacts of constraints on siting, interconnection, supply chains and other rate-limiting factors.

We also provide a **Net-Zero Pathway** benchmark scenario. This scenario reflects a transition to net-zero greenhouse gas emissions across the economy by 2050.

Given the significant uncertainty about future outcomes, **all results in this report should be considered approximate**. REPEAT Project updates our analysis regularly as new data and inputs become available and new policies are proposed and enacted. Note that this work has not been subject to formal peer review.

Summary

Passage of the Republicans' budget mega-bill*, the “One Big Beautiful Bill Act” of 2025 will:

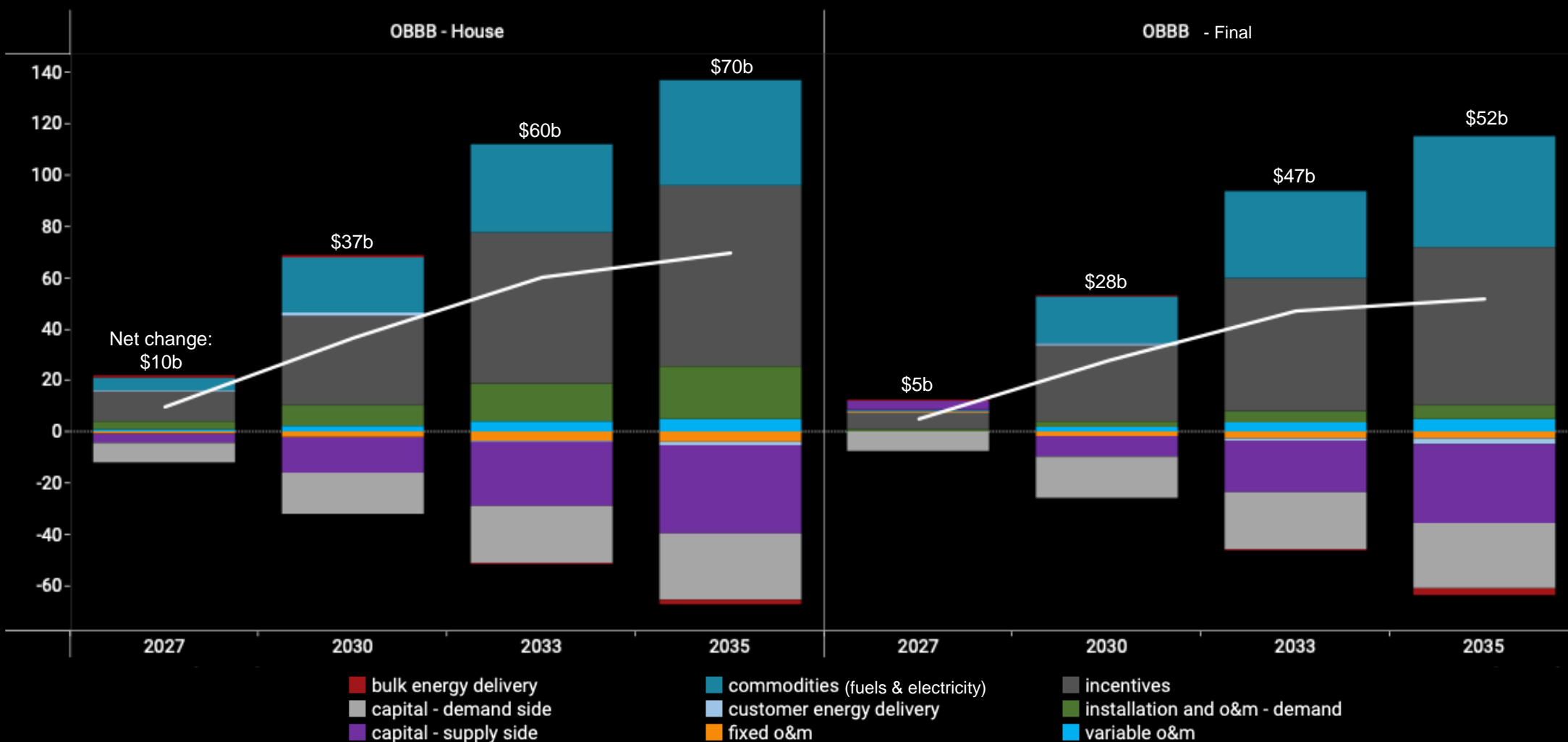
- Raise U.S. household and business energy expenditures by \$28 billion annually in 2030 and over \$50 billion in 2035.
- Increase average U.S. household energy costs by roughly \$165 per household per year in 2030 and over \$280 per household per year in 2035—an increase of about 7.5% in 2030 and over 13% in 2035.
- Reduce cumulative capital investment in U.S. electricity and clean fuels production by \$0.5 trillion from 2025-2035.
- Reduce cumulative new solar capacity additions by ~29 gigawatts and wind capacity by ~43 gigawatts from 2025-2030, and by ~140 gigawatts (solar) and ~160 gigawatts (wind) through 2035.
- Decrease clean electricity generation in 2035 by more than 820 terawatt-hours—more than the entire contribution of nuclear or coal to our electricity supply today.
- Increase U.S. greenhouse gas emissions by roughly 190 million metric tons per year in 2030 and 470 million tons in 2035—or about 2 percent of 2005 emissions in 2030 and 7 percent in 2035.

* - all relative to executive actions that President Trump plans to take without Congressional action. The combined effect of executive and legislative repeal of Biden-era policies is also presented in this report.

Americans spend >\$50b more on energy in 2035

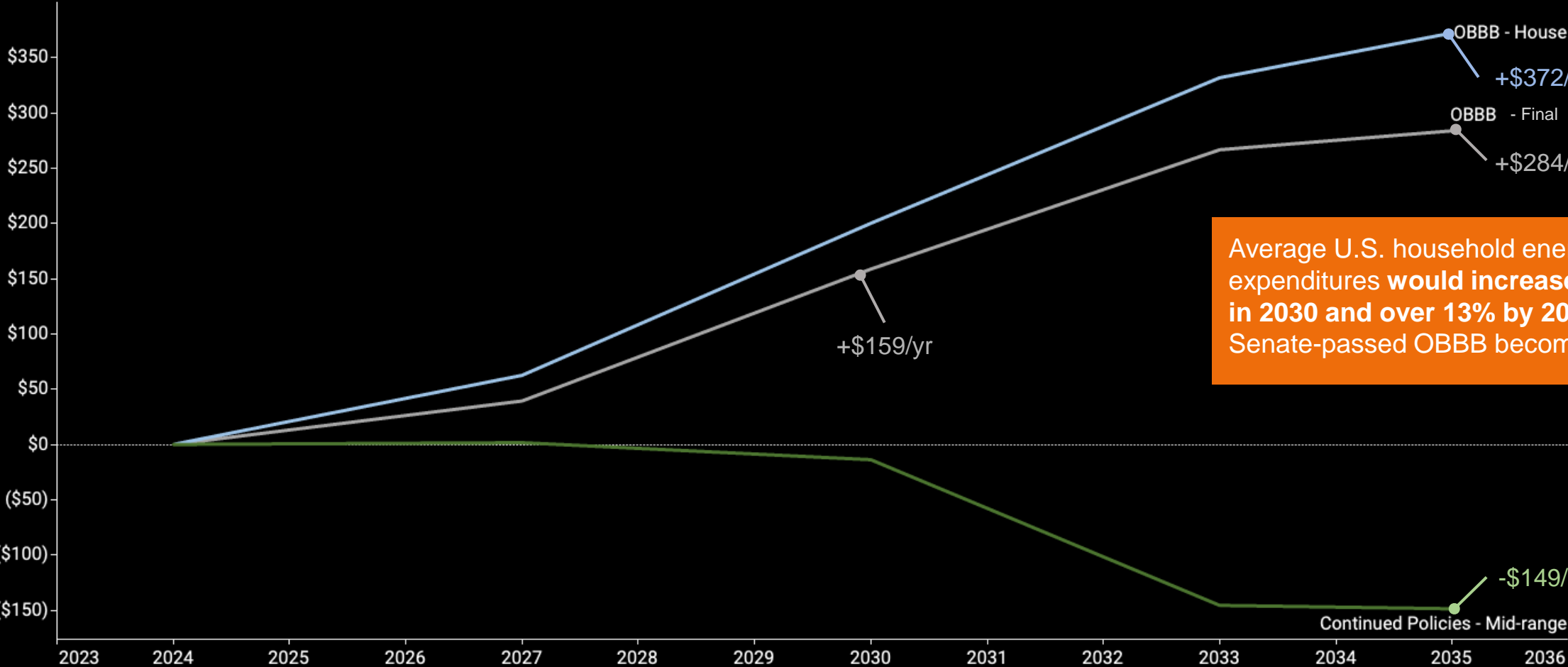
Change in Annual US Energy Expenditures¹

Billions of 2022 dollars



Household energy expenditures rise

Change in Average Household Annual Energy Costs¹
2022 dollars per year



Average U.S. household energy expenditures **would increase by 7.5% in 2030 and over 13% by 2035** if the Senate-passed OBBB becomes law.²

1 – Changes relative to Executive Repeal case. Note: REPEAT Project’s modeling suite does not capture endogenous changes in coal, natural gas, or petroleum product prices as a function of changes in demand. Increases in consumption of fossil fuels under repeal scenarios would likely further increase prices and thus household energy expenditures beyond the levels depicted here.

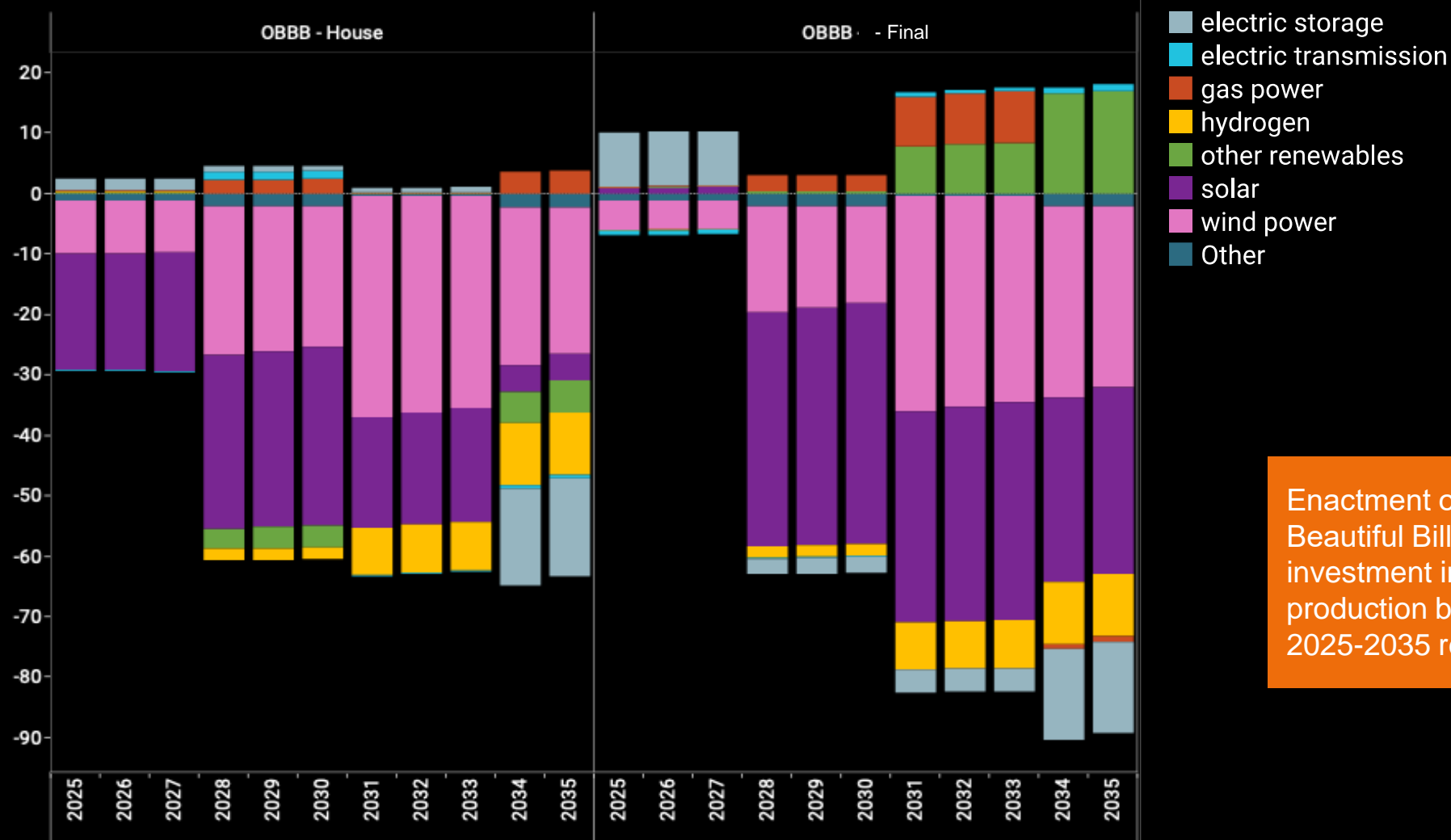
2 – Average household energy expenditures totaled \$2130/year (in 2022 dollars) according to EIA 2020 Residential Energy Consumption Survey.

OBBB kills \$0.5 trillion in investment

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Change in Capital Investment by Sector Due to Legislative Repeal of Continued¹

Billions of 2022 dollars



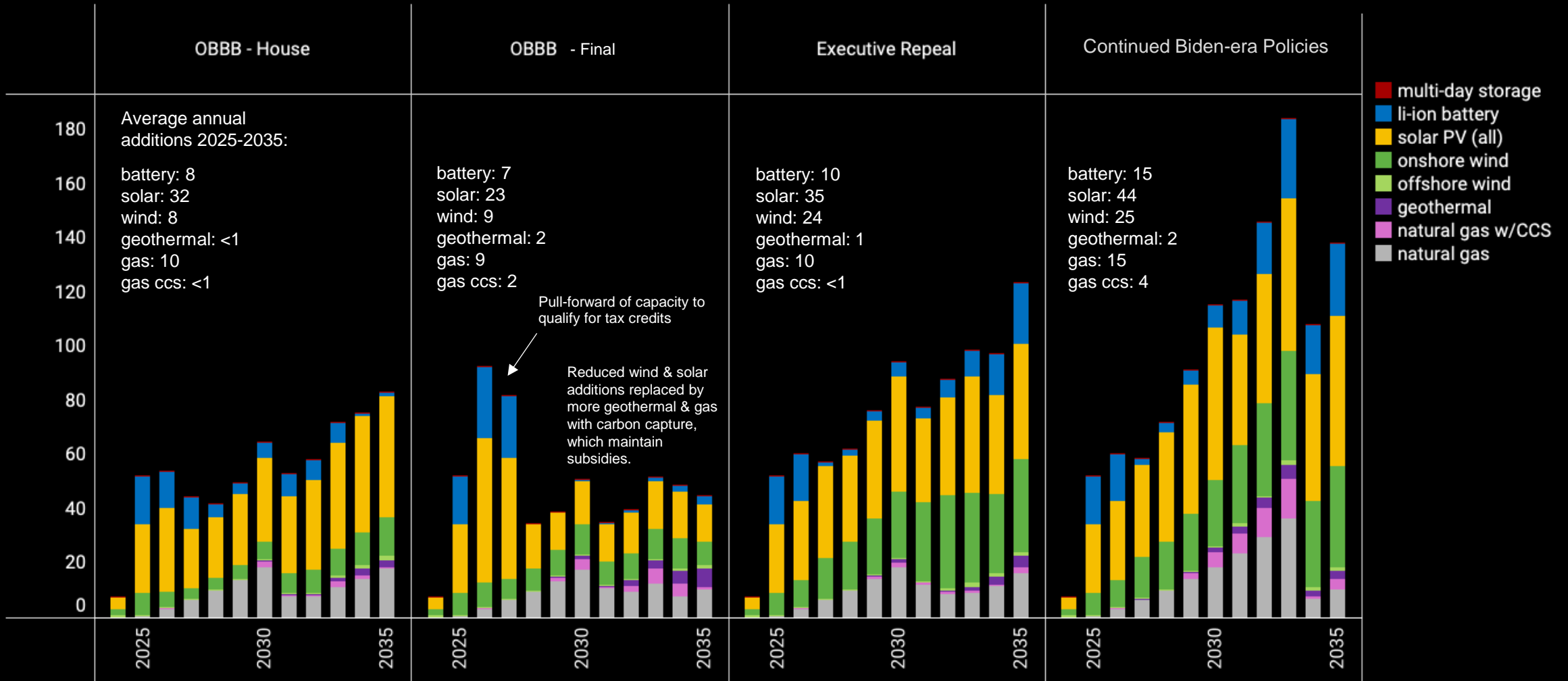
Enactment of the Senate 'One Big Beautiful Bill' reduces cumulative capital investment in electricity and clean fuels production by **\$0.5 trillion** from 2025-2035 relative to Executive Repeal.

Annual electricity capacity additions slow

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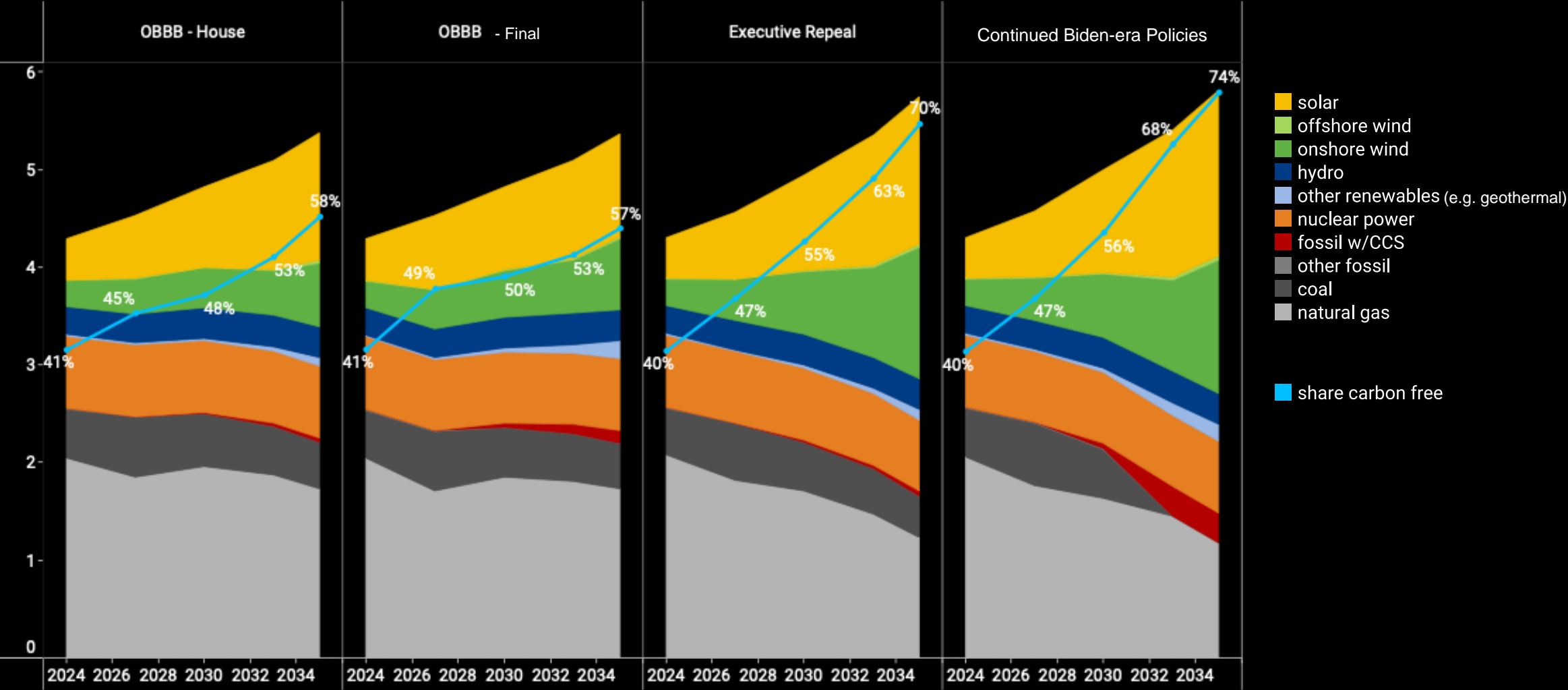
Comparison of Modeled Annual Average Capacity Additions

average gigawatts/year (GW/year)



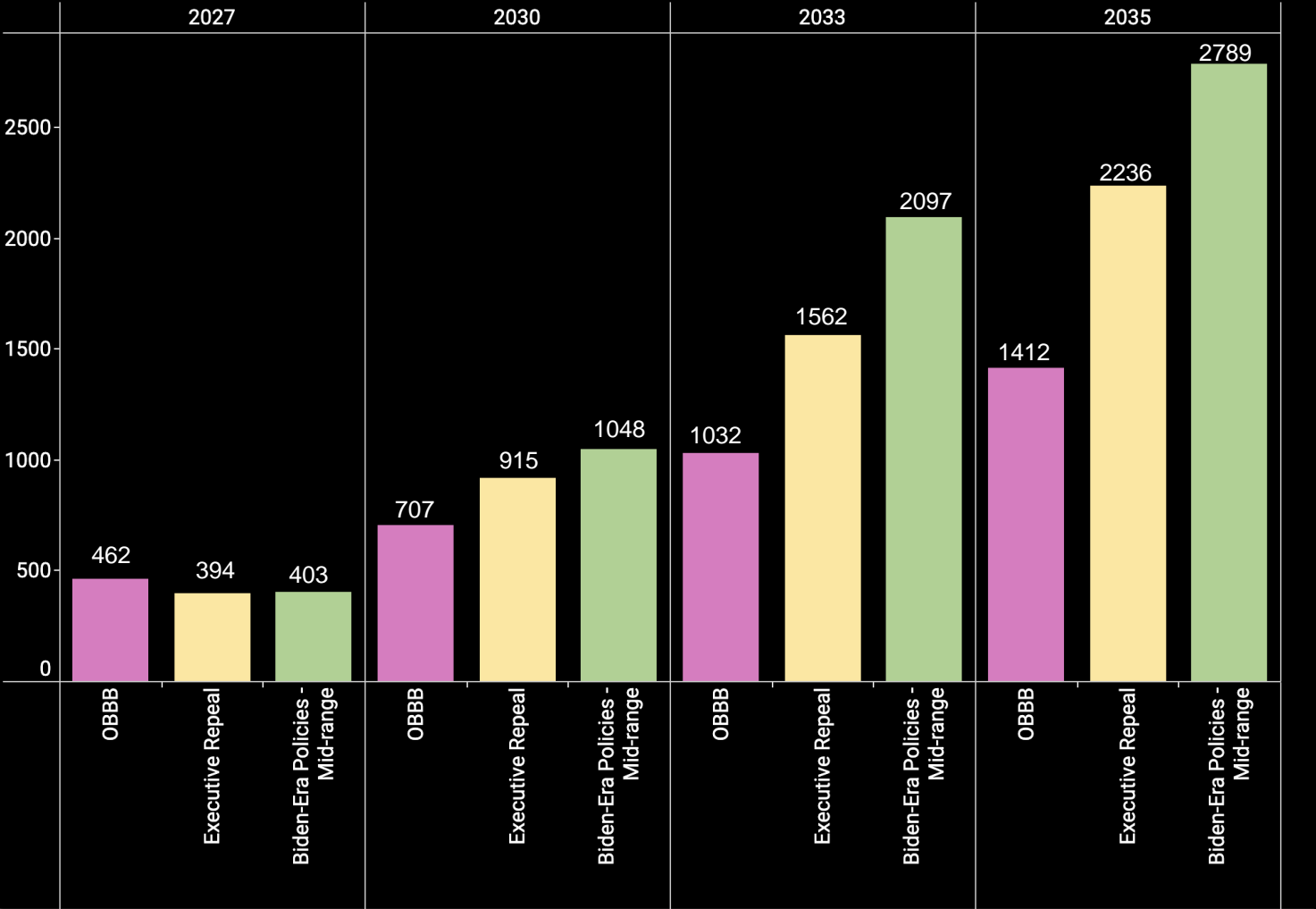
Less (and more costly) new electricity

Electricity Generation by Resource
Thousand terawatt-hours



Losing a nuclear fleet's worth of clean electricity

Increase in Clean Electricity Production From 2024¹
TWh



Repealing tax cuts for wind and solar power will substantially slow (but not stop) the growth of clean electricity in the United States. By 2035, total new clean electricity generation will be more than 820 terawatt-hours lower²—**more than the entire contribution of nuclear or coal to our electricity supply today.**

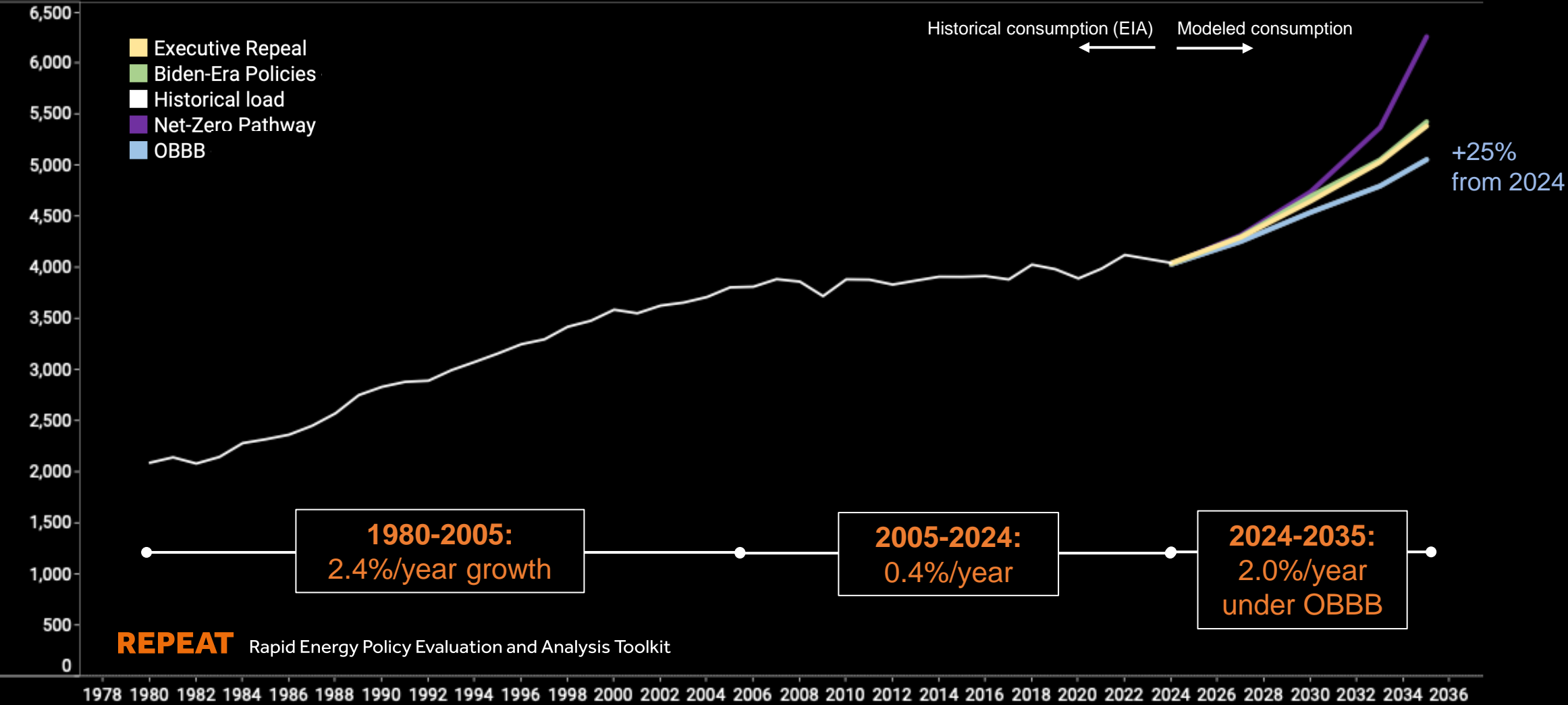
2 – Comparison vs Executive Repeal scenario

1 – Includes new generation from wind, solar, geothermal, nuclear and gas with CCS. OBBB is Senate version.

At a time of rapid electricity demand growth

Total Annual U.S. Electricity Consumption

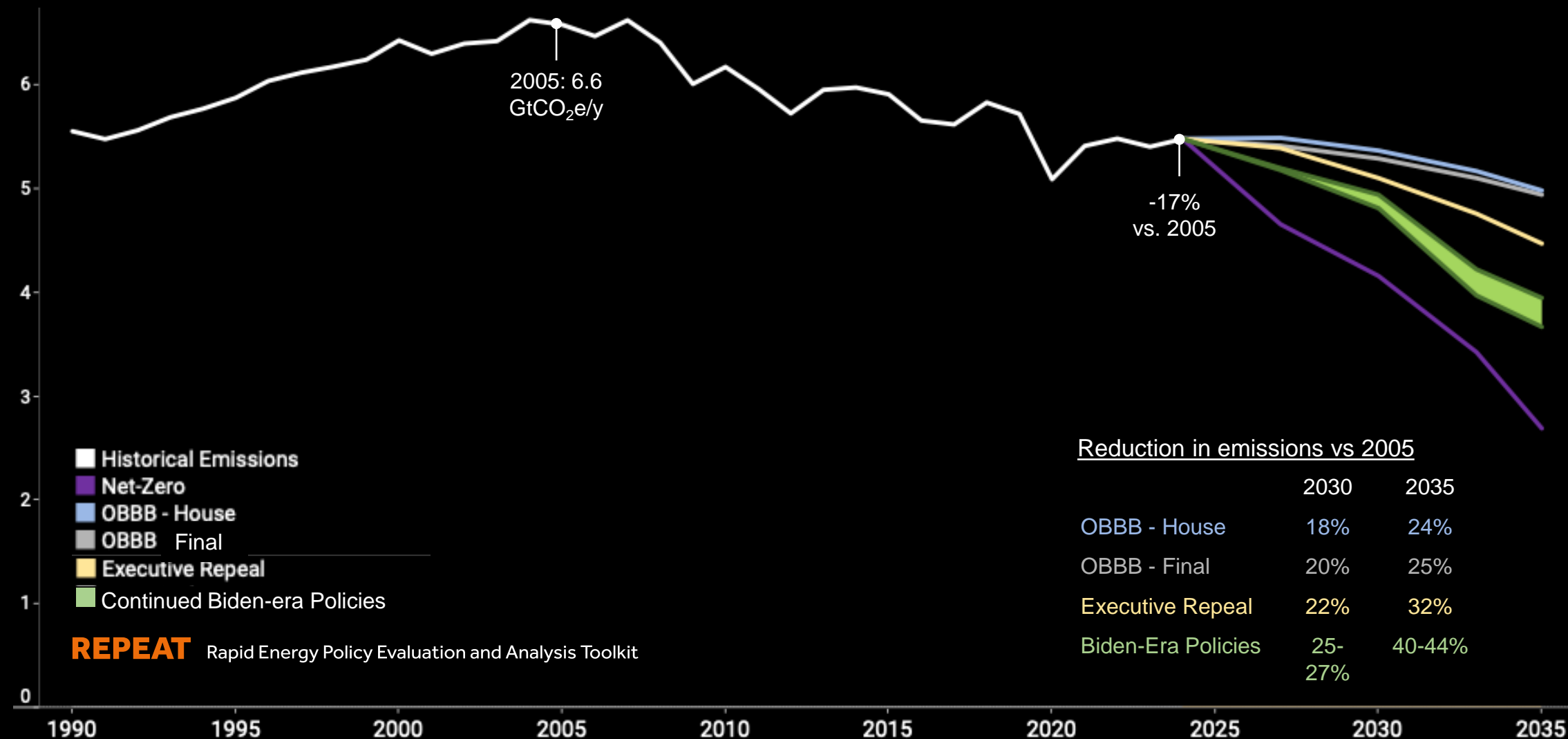
Billion kilowatt-hours (or terawatt-hours)



Higher US greenhouse gas emissions

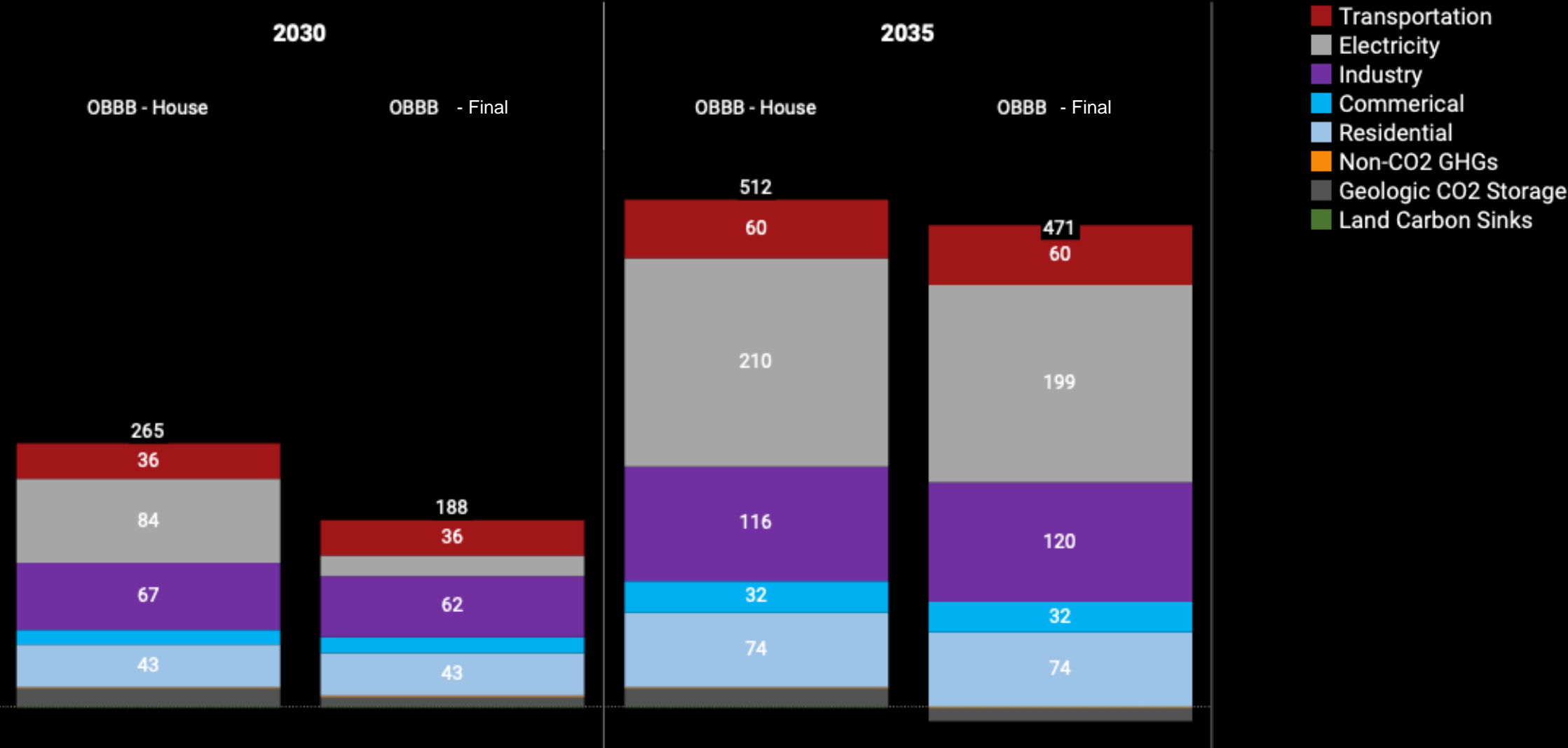
Historical and Modeled Net U.S. Greenhouse Gas Emissions (Including Land Carbon Sinks)

billion metric tons CO₂-equivalent (Gt CO₂-e)



US emissions are 0.5 billion tons higher in 2035

Change in Sectoral Emission¹
million metric tons CO2-equivalent (Mt CO2-e)

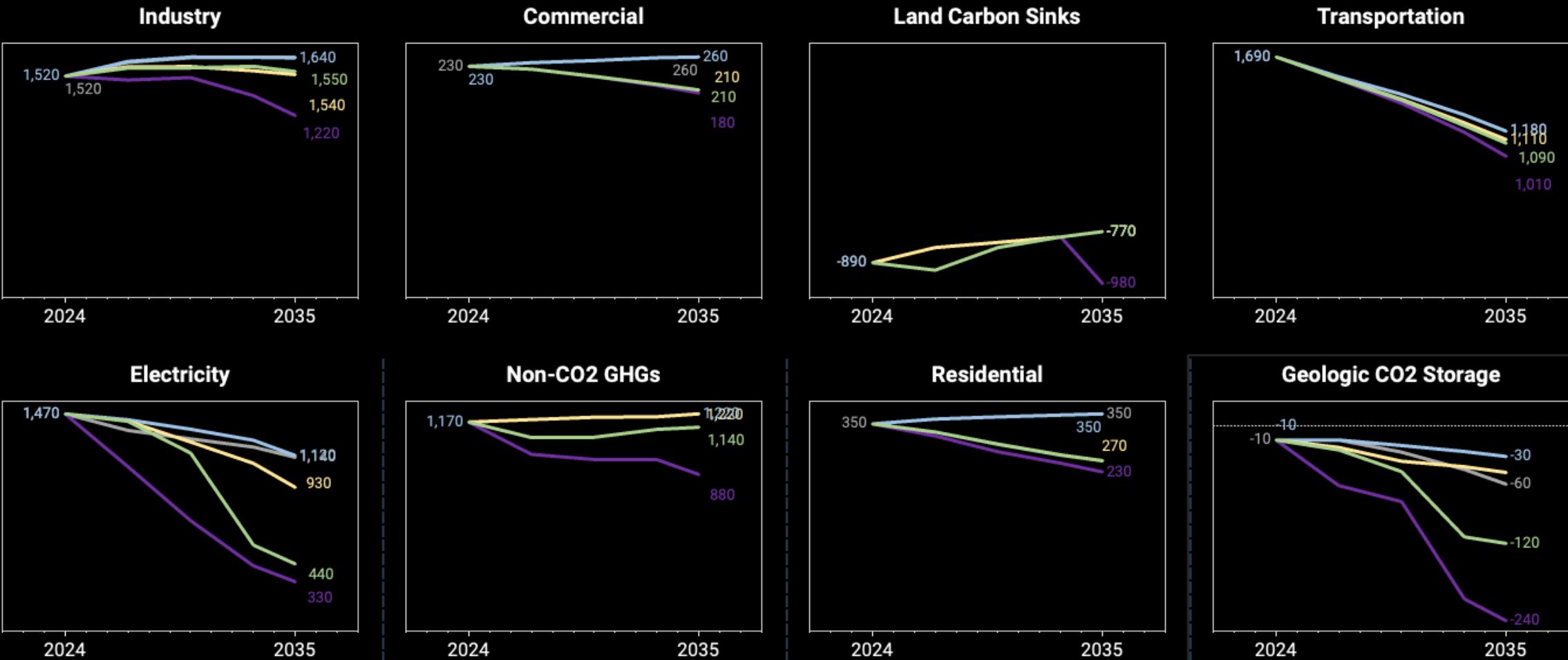


Changes in sectoral emissions

Modeled U.S. Greenhouse Gas Emissions By Sector

million metric tons CO2-equivalent (Gt CO2-e)

House OB BB Final OB BB Executive Repeal Biden-era Policies Net-Zero Pathway



About REPEAT Project

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REPEAT Rapid Energy Policy Evaluation and Analysis Toolkit

REPEAT Project provides regular, timely and independent environmental and economic evaluation of changes in federal energy and climate policies as they're proposed and enacted, offering a detailed look at the United States' evolving energy policy landscape and impacts on the nation's energy transition, economy, and environment.

Led by Princeton University [Prof. Jesse D. Jenkins](#), REPEAT Project is a joint project of the [Princeton University ZERO Lab](#) (Zero-carbon Energy Systems Research & Optimization Laboratory) and [Evolved Energy Research](#). Funding for the REPEAT Project is provided by [the Hewlett Foundation](#).

Approach: we employ geospatial planning and analysis tools coupled with detailed macro-energy system optimization models to **rapidly evaluate federal policy**. This is a refinement of methods used in the landmark Princeton [Net-Zero America](#) study.

Goal: provide independent, timely, and credible information and analysis for broad educational purposes, including as a resource available publicly for stakeholders, decision-makers, and the media.

Impact: since 2021, REPEAT Project has played [a central role](#) in informing debate, [media coverage](#), and public understanding of the impacts of proposed and enacted legislation and regulatory changes. The project continues to provide regular analysis of pending and finalized changes in federal energy and climate policy, impacts on the U.S. energy sector and economy, updates on progress towards climate goals, and other analysis at repeatproject.org



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The REPEAT Project Team

REPEAT Rapid Energy Policy Evaluation and Analysis Toolkit

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Website development by [Hyperobjekt](#)

For more, see repeatproject.org/about

Statement of interests: Jesse D. Jenkins is chief scientist of [Resilient Transition](#), which provides modeling, analytics and decision support for utilities, investors, asset owners, and technology companies. He serves on the advisory boards of Eavor Technologies Inc., a closed-loop geothermal technology company, Rondo Energy, a provider of high-temperature thermal energy storage and industrial decarbonization solutions, Dig Energy, a developer of low-cost drilling solutions for geothermal heating and cooling, and Karman Industries, a developer of high-efficiency industrial heat pumps, and he has an equity interest in each company. He also serves as a technical advisor to MUUS Climate Partners and Energy Impact Partners, both investors in early-stage climate technology companies. See <https://www.linkedin.com/in/jessedjenkins> for all affiliations.



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