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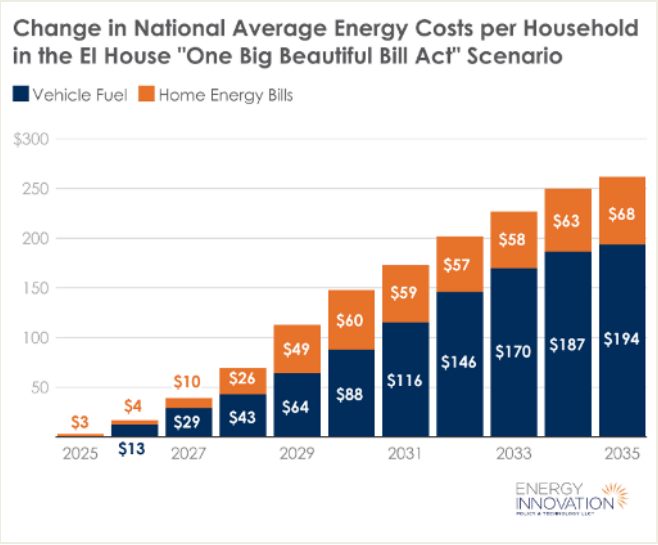
ASSESSING IMPACTS OF THE "ONE BIG BEAUTIFUL BILL ACT" ON U.S. ENERGY COSTS, JOBS, HEALTH, AND EMISSIONS

On May 22, the United States House of Representatives passed its 2025 budget Reconciliation legislation entitled the One Big Beautiful Bill Act (OBBBA); the bill has now moved on to the U.S. Senate for committee markups and an eventual vote.

The legislation repeals multiple federal policies, funding programs, and tax credits that drive American energy manufacturing and deployment. As passed, the text claws back unobligated funding, expands new oil and gas leasing, changes and eliminates existing energy and manufacturing tax credits, and repeals certain Clean Air Act programs. In particular, the bill drastically changes and terminates existing clean energy tax credits passed by Congress in 2022, which to date have generated $321 billion in new private-led investment across 2,369 domestic energy and manufacturing facilities.[1] This represents 4.7 percent of all US private investment in the first quarter of 2025. An additional $522 billion of outstanding private investment has been announced across 2,217 facilities.

As passed in the House, the OBBBA would undercut these 4,500 projects, threatening billions in investments, holding back economic growth, costing jobs, and forcing families and businesses to pay higher energy bills. Uncertainty about the continuation of these programs has already caused $14 billion in clean project cancellations and 10,000 lost jobs so far in 2025.

Energy Innovation used its open-source, peer-reviewed Energy Policy Simulator to analyze the potential effects of the policy changes included in this legislation. This analysis compares a "Current Policies" scenario that includes all current law and regulations to an "EI House OBBBA" scenario that includes energy- and agriculture-related Reconciliation provisions. A full discussion of the provisions modeled is included in Appendix A.

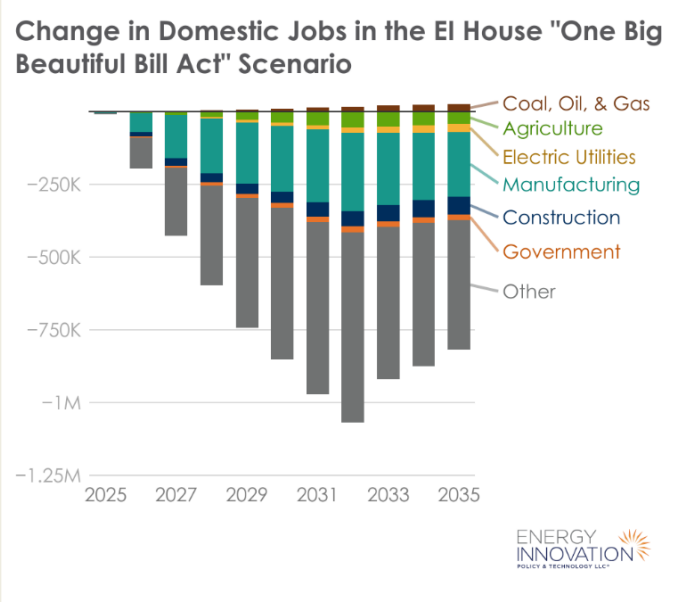


We find the House OBBBA as passed would increase annual energy bills by $20 billion across all American households annually in 2030, swelling to more than $37 billion in higher

[1] As of May 2025

energy costs by 2035, for a total of $170 billion during the budget window of 2025 to 2034. This is due to higher dependence on fossil fuels and higher fossil fuel prices. Although the House OBBBA leads to more fossil fuel production, prices still exhibit a net increase, as increased demand would raise prices more than increased domestic supply could lower them.

The changes envisioned by this bill would cost America's workforce 840,000 jobs in 2030 and 790,000 jobs in 2035 as new investment in domestic energy and manufacturing falters.



Annual GDP would shrink by $140 billion in 2030 and $130 billion in 2035. Between 2025 and 2034 – the Reconciliation budget window – cumulative GDP would shrink by $1.1 trillion.

As manufacturing and clean energy are concentrated in particular regions of the U.S., impacts on local economies vary by region.

The modeling in this report expands our initial assessment of the draft Reconciliation bill released by House committees in May, incorporating methodological and policy updates summarized in the Methodology section below. Notably, this modeling now reflects changes that were introduced between the OBBBA text released by House committees and the final House OBBBA text, including the repeal of passenger light-duty CAFE standards for model years 2024–2026, a change to the phaseout timeline for 45U credits for existing nuclear production, and more recent Congressional Budget Office estimates of agriculture conservation outlays.

This modeling also includes other important federal policy changes, including Congress' revocation of California's waiver for Advanced Clean Cars II and Advanced Clean Trucks rules, a newly added model feature to estimate the employment impacts of cancelled battery projects due to modified tax credits, various methodological improvements to the estimation of jobs and GDP impacts, and refined assumptions and modeling on fuel price changes from increases in demand for coal, natural gas, and refined oil products.

Less Electricity Supply

The House OBBBA text includes several modifications to the technology-neutral production tax credit (PTC) and investment tax credit (ITC) for clean electricity. These changes include an earlier phaseout timeline for the credits, new language tethering credit eligibility to a placed-in-service date instead of a commence-construction date (effectively ending the credits four years earlier and making it such that many projects already in the planning phase would be affected), alongside restrictions on taxpayer eligibility and changes to rules on the use of components, subcomponents, and critical minerals from Foreign Entities of Concern (FEOC).

Collectively, these changes would dramatically slow deployment of new electricity generating capacity at a time of rapidly growing electricity demand – total U.S. demand is forecast to increase 16 percent, or 128 GW, in the next four years.

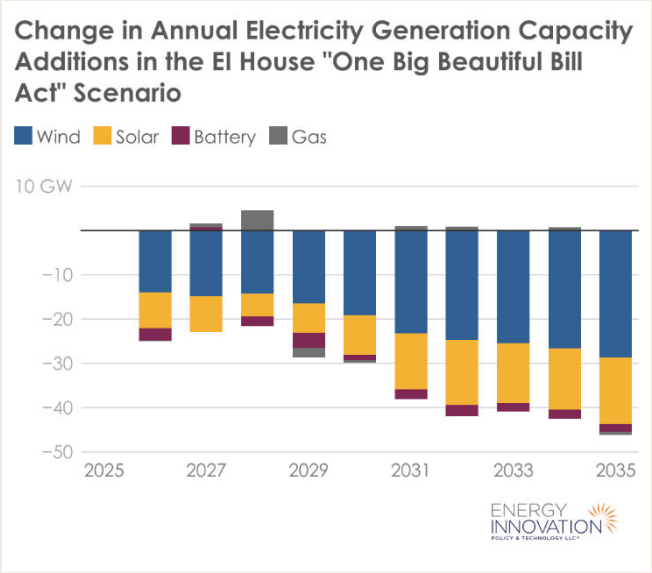
Compared to the Current Policies scenario, the House OBBBA would decrease cumulative new electricity capacity by 120 gigawatts (GW) by 2030 and 330 GW by 2035.

By 2030, additions fall by:

- 37 GW in decreased solar capacity (of which 4 GW is distributed solar)
- 79 GW in decreased wind capacity
- 9 GW in decreased battery storage capacity

By 2035, additions fall by:

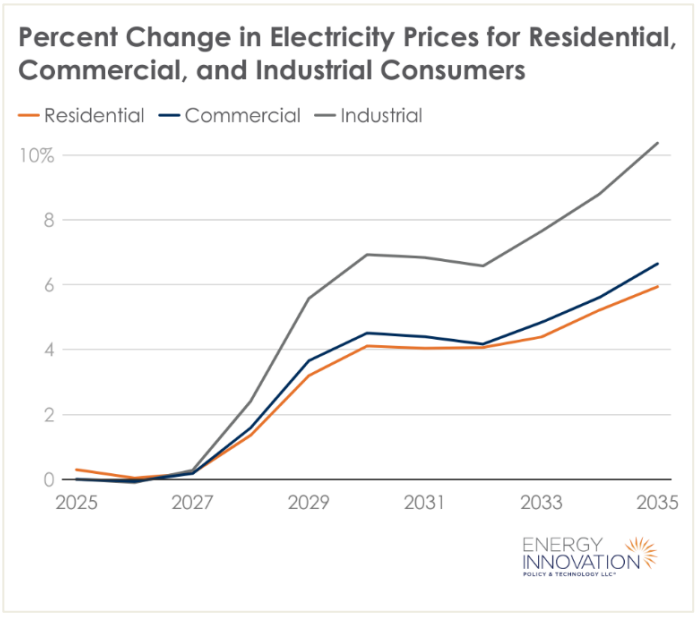
- 110 GW in decreased solar capacity (5 GW distributed)
- 210 GW in decreased wind capacity
- 9 GW in decreased battery storage capacity



Making new clean electricity less economic will decrease new investment by utilities and independent power producers, threatening the ability to bring new capacity online in time to meet demand forecasts and significantly raising the costs to do so. Clean energy composed more than 90 percent of all new capacity added to the U.S. grid in 2024, while gas turbine manufacturers face delivery backlogs until at least 2029. Clean electricity tax credits bolster new deployment by incentivizing development of new renewables.

Higher Energy Spending

Reduced clean energy investment will increase fuel and operating expenses across the country. Wind and solar have no fuel costs and lower operation and maintenance (O&M) costs than fossil-fueled power plants, which means they put downward pressure on overall power generation prices compared to non-renewable generation sources. Repealing federal energy tax credits would hamper deployment of low-cost clean electricity and increase the share of electricity coming from fossil fuel power plants, thus increasing electricity generation prices. Higher demand for fossil fuels raises prices for those fuels which, in turn, makes electricity generation using those fuels even costlier.

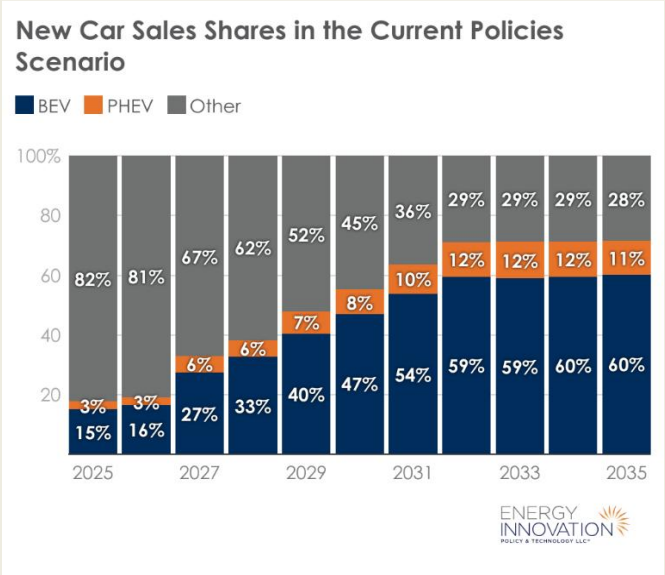


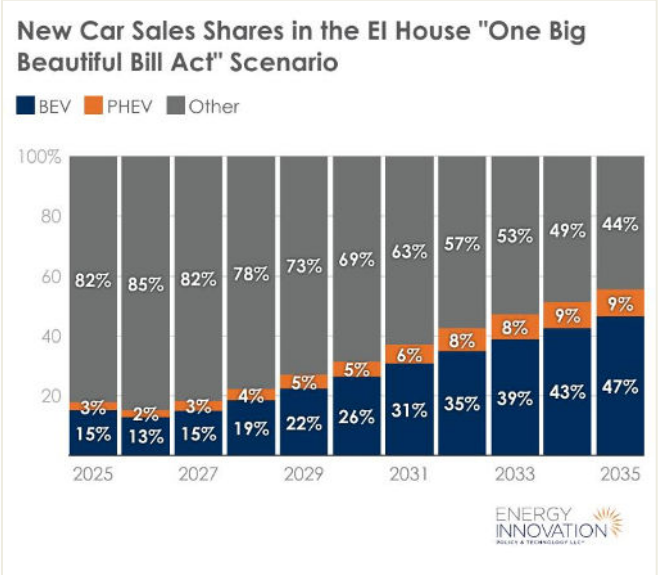
With limited new clean resources, the cost of meeting growing demand increases considerably; by 2035, we find a 50-percent increase in wholesale power prices from the loss of this new capacity and higher fossil fuel prices.

Simultaneously, repealing other incentives and existing standards, including U.S. Environmental Protection Agency and National Highway Traffic Safety Administration standards on vehicle tailpipe emissions and fuel economy would further increase energy spending.

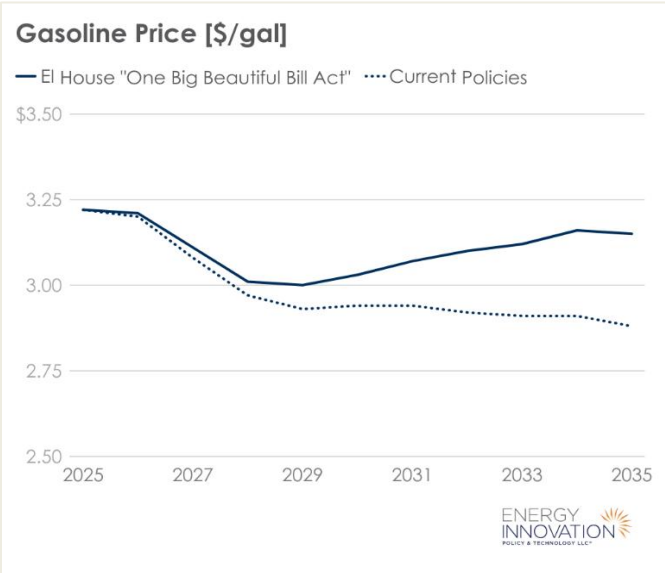
Repealing these rules would hold back zero-emission vehicle (ZEV) sales, with ZEV sales in

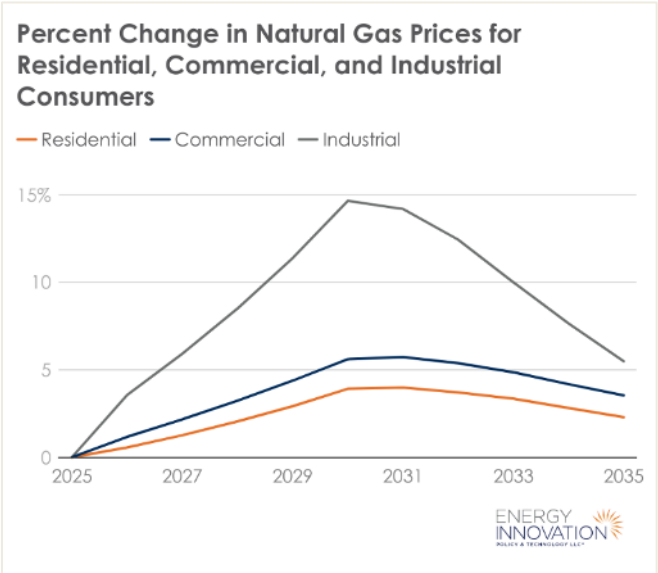
2030 falling from 55 percent in the Current Policies scenario to only 31 percent in the House OBBBA scenario. Internal combustion engine vehicles are more expensive to operate than ZEVs, which increases annual fuel expenditures for vehicles.





We find that new leasing provisions in the House OBBBA would increase domestic production of oil and gas, lowering prices for these fuels. We also model the impact of lower royalty rates for domestic drilling, which act as lower taxes on domestically produced fuels. While greater production and lower royalty rates decrease prices, they are more than offset by price increases from higher demand for fossil fuels. More internal combustion engine vehicles on the road increases demand for gasoline and diesel, while greater reliance on natural gas in the power sector increases natural gas prices. Some fuels see greater price increases than others; in 2035, we find a $0.25 per gallon increase in gasoline (approximately 9 percent), 6- and 2-percent increases in residential electricity and natural gas prices, respectively, and 10- and 5-percent increases in electricity and natural gas prices for industrial producers, respectively. We find the average U.S. household will spend nearly $90 more on annual vehicle fuel alone in 2030 and more than $190 annually in 2035, with wide variation across states.

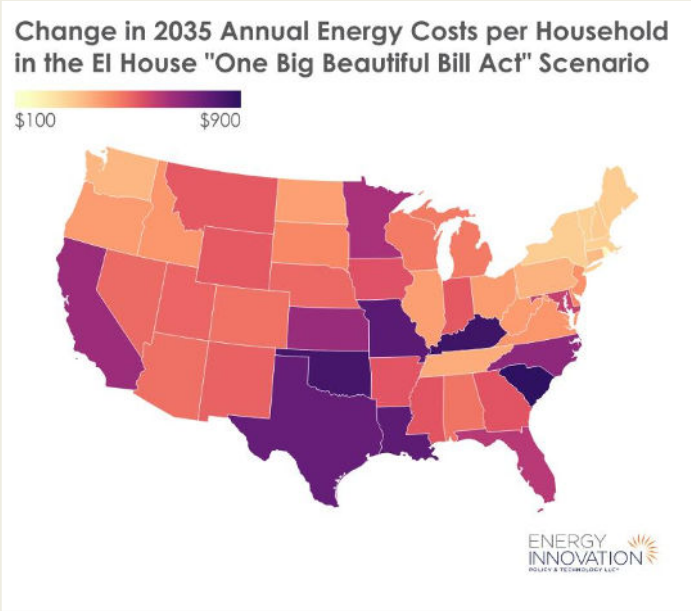




Due to consumers' increased reliance on more expensive fossil fuels, the EI House OBBBA scenario forecasts an increase of $60 billion in fuel and O&M costs in 2030, rising to $110 billion in 2035. Across the 2025 to 2034 budget window, fuel and O&M costs would increase by $530 billion across the economy, cumulatively.

Increased capital, fuel, and operating expenses from the OBBBA would raise consumer energy bills, forcing households to pay more for their electricity and natural gas. The bill would increase household energy spending by an average of nearly $150 per year in 2030 and more than $260 per year in 2035, with wide variation across states.

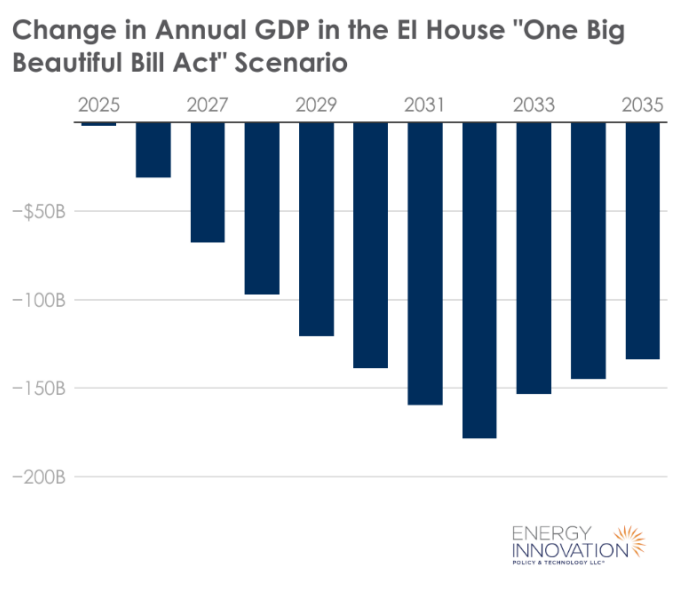
Nationwide, households will foot $170 billion in increased energy bills during the budget window of 2025 to 2034. Consumers in some states would see particularly large jumps in their energy bills, with annual increases of $900 in South Carolina, $860 in Kentucky, and $850 in Oklahoma in 2035.



Less Manufacturing Investment And Fewer Jobs

Changes to funding and tax credits in the OBBBA will force developers to cancel a significant number of the announced clean energy manufacturing facilities while significantly delaying clean electricity deployment. The OBBBA provisions modeled would shrink GDP by more than $1.1 trillion across the budget window from 2025 to 2034 as clean energy manufacturing and construction projects fail.

Diminished private sector investment causes significant job losses in the EI House OBBBA scenario. We find this legislation would cost Americans 840,000 jobs compared to the Current Policies scenario in 2030 and 790,000 jobs in 2035.



This includes losing direct jobs from decreased investments in clean energy projects, indirect jobs from lower demand for the inputs to those projects, and induced jobs from lower induced economic activity (e.g., higher fuel costs mean consumers have less money to re-spend in the economy).

These numbers are likely conservative because we only explicitly model the potential cancellation of domestic battery manufacturing facilities, not other advanced manufacturing projects.

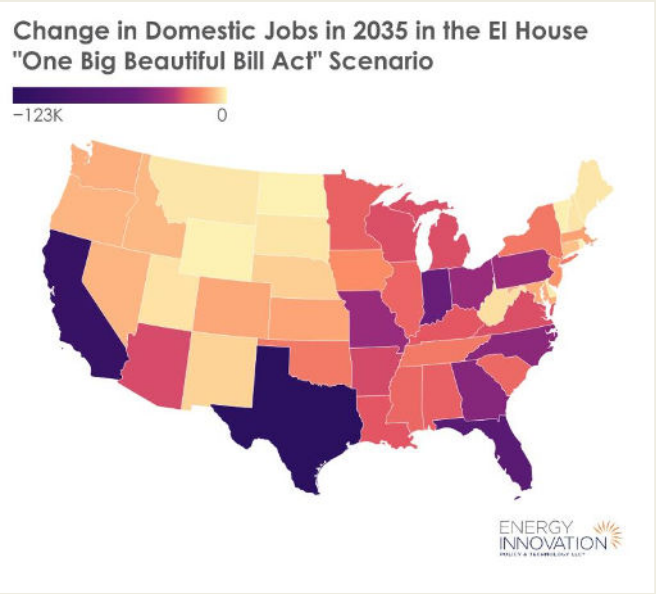
Because manufacturing and clean energy development are concentrated in specific U.S. states, employment in each state is affected differently by the OBBBA.

In 2030, the states with the worst job losses are:

- California with 70,000 lost jobs
- Texas with 61,000 lost jobs
- Florida with 59,000 lost jobs
- North Carolina with 45,000 lost jobs
- Ohio with 32,000 lost jobs

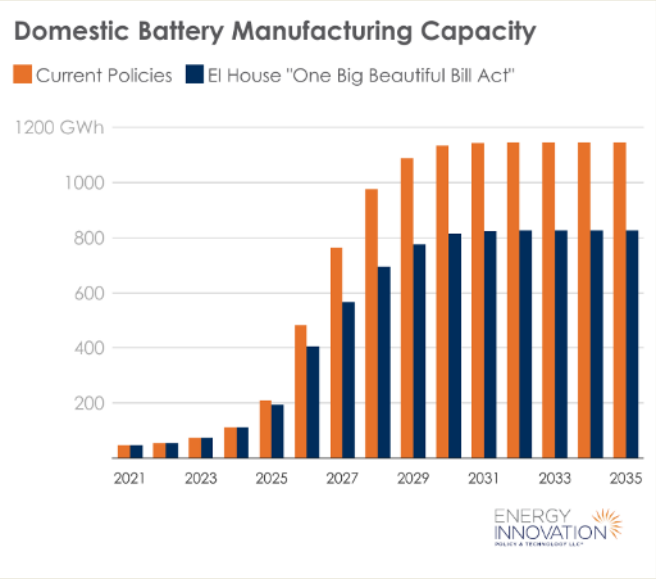
In 2035, the states with the worst job losses are:

- Texas with 120,000 lost jobs
- California with 110,000 lost jobs
- Florida with 73,000 lost jobs
- Indiana with 54,000 lost jobs
- Georgia with 43,000 lost jobs



In particular, the 45X tax credit for advanced manufacturing is encouraging firms to build battery factories in the U.S., rather than elsewhere. Repealing 45X would cede this growth to other countries, like China, Mexico, Canada, and the European Union.

But language included in the OBBBA not only significantly shortens the timeline for 45X credits but would make compliance for the 45X credit so difficult to achieve as to effectively render it nonexistent. It will likely lead to the cancellation of most projects that have not already commenced construction (in fact it may lead to closure of already open plants if tax credits are removed and potentially clawed back).



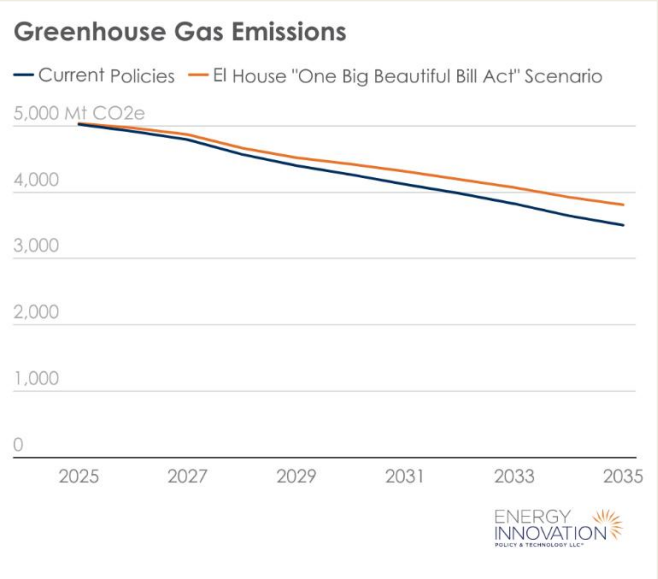
In effect, it would stop the burgeoning U.S. battery manufacturing industry in its tracks, disincentivizing corporations from building new factories in the U.S.

Losing these announced facilities means the OBBBA would cost America 31,000 battery manufacturing jobs by 2030. Policies in the OBBBA would cut another 190,000 manufacturing jobs in other sectors, for a total of 230,000 lost manufacturing jobs in 2030.

Higher Pollution And Negative Health Impacts

The OBBBA would also increase air pollution, particularly from power plants and vehicles. Emissions would increase by 160 million metric tons of carbon dioxide equivalent (Mt CO2e) in 2030, rising to nearly 310 Mt CO2e in 2035 – the equivalent of adding 72 million cars to the road. Higher local air pollution would harm public health, leading to 430 additional premature deaths annually by 2030 and 930 annually by 2035.

These estimates are limited to the impacts of the bill and do not incorporate impacts from other policies announced by the Trump administration, notably including a repeal of EPA's 111 rules for CO2 emissions from power plants.



Methodology

The Current Policies scenario includes the IRA, the Infrastructure Investment and Jobs Act (IIJA), and the CHIPS and Science Act, as well as finalized U.S. EPA rules including oil and gas methane standards; tailpipe carbon dioxide (CO2) standards for light-, medium-, and heavy-duty vehicles; and power plant CO2 standards. It also includes any state-level renewable portfolio or clean energy standards or state carbon pricing schemes, but not the adoption of the Advanced Clean Cars or Advanced Clean Trucks rules, which were revoked by Congress in May.

The House OBBBA scenario repeals the EPA tailpipe CO2 standards for light-, medium-, and heavy-duty vehicles and NHTSA fuel economy rules based on Reconciliation text. All other EPA rules modeled in the Current Policies scenario are left in place. It reflects only changes in the share of domestic battery manufacturing, not other advanced manufacturing projects that could be canceled due to the OBBBA, meaning these estimates are likely conservative and impacts are likely greater than reported here.

The modeling in this report builds on our initial assessment of the draft Reconciliation bill released by House committees in May. This report accounts for policy updates since the initial publication, as well as methodological updates to improve modeling. These changes include:

- Removing California's waiver for Advanced Clean Cars and Trucks rules, which was revoked by Congress in May
- Accounting for battery manufacturing capacity reductions due to repeal of the 45X tax credit
- Repeal of Model Year 2024 to 2026 tailpipe CO_2 and fuel efficiency vehicle standards added in the final bill text
- Differing timeline for phase-out of the 45U tax credit for nuclear power updated in the final text
- Methodological updates in the input-output model, primarily associated with how we calculate input-output impacts for energy industries
- Adjusting agriculture conservation outlays using CBO estimates
- Adjusting assumptions for fuel price impacts of various policies
- State-level modeling

For more information on how we modeled changes in federal clean energy tax credit and other federal funding programs, see Appendix A. Model settings for this analysis are also available on request. Extensive documentation on the EPS model architecture and methodology is available online.

APPENDIX A: MODELED PROVISIONS FROM BILL

This appendix contains detail on the provisions in the OBBBA that were modeled in this assessment. The appendix is organized by U.S. House committee. The final section addresses impacts on fuel prices resulting from policy changes in the OBBBA.

Ways and Means	
Sec. 112002. Termination of Clean Vehicle Credit	§112002(a) terminates the clean vehicle tax credit under I.R.C. §30D in 2027 rather than 2032. This credit provided up to $7,500 to taxpayers for the purchase or lease of qualifying clean vehicles. §112002(b) adds a special rule for taxable year 2026 wherein vehicles only qualify for the credit if the cumulative number of covered vehicles sold by the manufacturer of that vehicle is under 200,000 as of December 31, 2025. Using data from Marklines and Cox Automotive, we find this disqualifies most clean vehicles from qualification, as several manufacturers have hit this limit. See Appendix B for a summary table of OEM qualifications for credits. If vehicle qualification criteria remain unchanged, only two vehicles would qualify for credits in 2026. We phase out federal incentives for battery electric-, plugin hybrid-, and fuel cell cars and SUVs according to this updated schedule, leaving only sales-weighted state-level incentives.
Sec. 112003. Termination of Qualified Commercial Clean Vehicles Credit	§112003 terminates the commercial clean vehicle tax credit under I.R.C. 45W in 2026 rather than 2032. This credit provided up to $7,500 or $40,000 to taxpayers for the purchase or lease of new vehicles under or over 14,000 pounds gross vehicle weight rating. We phase out federal incentives for battery electric-, plugin hybrid-, and fuel cell vehicles according to this updated schedule.
Sec. 112006. Termination of Residential Clean Energy Credit	§112006 phases out the residential clean energy credit under I.R.C. §25D in 2026 rather than 2035. This credit covered 30 percent of the costs of new, qualified clean energy property for homes, such as solar panels, wind turbines, batteries, and heat pumps. In the national modeling, we calculate annual distributed energy capacity additions in AEO 2023's Reference and No IRA scenarios, then subtract the difference from the Current Policies scenario's projected capacity. In the state modeling, we use the difference between the IRA and no IRA scenarios from REPEAT analysis.[2]

[2] https://repeatproject.org/results?comparison=benchmark&state=national&page=1&limit=25

Sec. 112008. Phase-out and Restrictions on Clean Electricity Production Credit	§112008 accelerates the phaseout of the clean electricity tax credit under I.R.C §45Y, moves from a commenced construction to a placed in service timeline and applies restrictions to the requirements for qualifying facilities. The foreign entities restrictions in this section restrict qualifying taxpayers and forbid recipient taxpayers from receiving material assistance from prohibited foreign entities in the form of payments from, or components, subcomponents, or critical minerals included in property extracted, processed, recycled, manufactured, or assembled by a prohibited foreign entity. We conclude that as written these requirements are sufficiently prohibitive, as to prevent any taxpayer from earning the credits in the window before the accelerated timeline established in §112008 concludes. As a result, we assume the new restrictions will be binding, preventing newly built clean electricity plants from qualifying for the tax credit as of 2026 for any projects not currently under construction.
Sec. 112009. Phase-out and Restrictions on Clean Electricity Investment Credit	§112009 accelerates the phaseout of the clean electricity investment tax credit under I.R.C §48E and applies restrictions to the requirements for qualifying facilities. For the same reasons as with §112008, we assume the new restrictions will be binding, preventing newly built clean electricity plants from qualifying for the tax credit as of 2026.
Sec. 112011. Restrictions on Carbon Oxide Sequestration Credit	§112011 places restrictions on the carbon oxide capture credit under I.R.C. §45Q. It forbids the issuance of carbon oxide capture credits to foreign entities and repeals the transferability of the credits after 2027. Unlike the foreign entities requirements in §§ 112008–112009, this provision does not forbid material assistance from foreign entities. We do not believe the foreign entities restriction in §112011 will have a material impact on the taxpayers being issued the carbon oxide credit. Additionally, due to the nature of taxpayers being issued carbon oxide credits, we do not believe the repeal of transferability will have a material impact on the credit's use. As a result, we model no change to carbon oxide sequestration in our EI House OBBBA scenario.
Sec. 112012. Restrictions on Zero-emission Nuclear Power Production Credit	§112012 accelerates the termination of and places restrictions on the nuclear power production tax credit under I.R.C. §45U. It forbids the issuance of nuclear power production credits to foreign entities. We assume that the limited foreign entities provisions will have no impact on the collection of the credit due to the nature of the

	taxpayers producing nuclear power. We assume that the credit terminates in line with the schedule established in §112012(b), with no credits issued in 2032.
Sec. 112013. Termination of Clean Hydrogen Production Credit	§112003 terminates the clean hydrogen production tax credit under I.R.C. 45V in 2026 rather than 2032. No facilities for which the construction begins after December 31, 2025 qualify for the credit. The Current Policies scenario assumes hydrogen production aligns with the Current Policy scenario of Evolved Energy Research's Annual Decarbonization Perspective report, with 63 percent and 3 percent of U.S. hydrogen supplied by electrolyzers and reforming with carbon capture, respectively, by 2040.[3] With the early termination of the 45V credit, we assume production remains stagnant at 2025 levels through midcentury.
Sec. 112014. Phase-out and Restrictions on Advanced Manufacturing Production Credit	§112014 terminates tax credits for advanced manufacturing under I.R.C. §45X a year early in 2031, removes wind components from eligibility after December 31, 2027, repeals the transferability of the credits, and applies foreign entities restrictions. The foreign entities restrictions in this section forbid recipient taxpayers from receiving material assistance from prohibited foreign entities in the form of payments from, or components, subcomponents, or critical minerals included in property extracted, processed, recycled, manufactured, or assembled by a prohibited foreign entity. We find that the restriction is sufficiently prohibitive to prevent any taxpayer from earning the credits. The Current Policies scenario does not include §45X tax credits for all eligible technologies, but the EPS does explicitly include tax credits for domestic battery manufacturing. The Current Policies scenario reads in the expected growth in U.S. battery manufacturing capacity to track government tax credit outlays for production, and we assume manufacturers pass 50 percent of their tax credit revenue through to consumers in the form of lower battery prices (for vehicles and grid batteries). The EI House OBBBA Scenario assumes all planned battery manufacturing capacity that is not currently under construction will be cancelled, and no battery manufacturing facilities receive §45X starting in 2026. We use data from Argonne[4] to determine expected battery manufacturing capacity by state, and data from NREL[5] paired with research on the current status of

[3] https://www.evolved.energy/us-adp-2024

[4] https://publications.anl.gov/anlpubs/2024/03/187735.pdf

[5] https://www.nrel.gov/transportation/li-ion-battery-supply-chain-database

	individual projects to determine the fraction of planned capacity cancelled. This round of modeling adds a new EPS capability to translate the loss in battery manufacturing capacity into employment and GDP impacts. We use estimates of direct employment per GWh battery manufacturing capacity from ICCT[6] in the fully integrated input-output model within the EPS.
Energy and Commerce	
Sec. 42113	§42113 rescinds unobligated funds for the reduction of methane emissions from oil and gas operations and delays collection of the Methane Fee until 2034. We use information from EPA's Regulatory Impact Assessment[7] of the Waste Emissions Charge to find the emissions reductions and revenue collection attributable to the fee (leaving EPA's OOOO rules for oil and gas operations in place). We remove these impacts in the EI House OBBBA Scenario for the US national modeling. We do not model this provision at the state level, as we do not have state-level impact estimates from EPA.
Sec. 42201 and Sec. 42301	These sections repeal EPA tailpipe rules for light-, medium-, and heavy-duty vehicles as well as the NHTSA rule for CAFE standards for passenger light-duty vehicles starting with model year 2024. The Current Policies scenario uses vehicle sales shares by technology (e.g., battery electric, gasoline, plug-in hybrid) from EPA's Regulatory Impact Assessments. We remove the binding sales shares requirements from the baseline to order repeal of the rules. When modeling the current CAFE standards for model years 2024-2026, we conservatively assume no change in fuel economy for year 2025. We then use AEO data to calculate the decrease in fuel economy for year 2026.
Transportation and Infrastructure	
Sec. 100004. Registration Fee on Motor Vehicles	§100004 establishes $250 and $100 annual registration fees imposed on the owner of electric and hybrid vehicles registered for operation by State transportation departments. These fees are increased on an annual basis to account for inflation each fiscal year. We add annual fees to the calculation of the net present cost of vehicle technologies used to inform consumer choice in the EPS transportation structure.
Natural Resources	

[6] https://theicct.org/publication/us-ldv-battery-manufacturing-jobs-by-2032-jan24/

[7] https://www.epa.gov/system/files/documents/2024-11/wec-ria-final_11-2024.pdf

Sec. 80105. Reinstate Reasonable Royalty Rates	See Appendix C: Natural Resources Methodology Appendix C: Natural Resources Methodology
Sec. 80143. Coal Royalty	See Appendix C: Natural Resources Methodology Appendix C: Natural Resources Methodology
Sec. 80171. Mandatory Offshore Oil and Gas Lease Sales	See Appendix C: Natural Resources Methodology Appendix C: Natural Resources Methodology
Agriculture	
Sec. 10102. Conservation	§10102(d)(1)-(2) expand funding for agricultural conservation by approximately $10.7 billion from 2026 to 2031. We balance this funding with rescissions in §10105(d)(4) to calculate change in the uptake of climate mitigation opportunities in the agriculture sector. §10102(d)(4) rescinds the unobligated balances of IRA §21001(a) appropriated funds for agricultural conservation. We use CBO estimates to determine the changes in outlays for conservation.[8] We then use curve fitting of CBO outlay projections for conservation programs and appropriated funds[9] to estimate the share of each year's appropriated funds outlaid in subsequent years. We assign conservation funds to various mitigation opportunities from lowest to highest marginal cost using cost estimates from EPA's non-CO2 emissions report.[10] Lastly, we compare the emissions reduction potential for all funds appropriated under IRA with those assumed to be obligated and divide emissions reductions between methane

[8] https://www.cbo.gov/publication/61420

[9] https://www.cbo.gov/system/files/2024-06/51317-2024-06-usda.pdf

[10] https://www.epa.gov/global-mitigation-non-co2-greenhouse-gases/global-non-co2-greenhouse-gas-emission-projections

	and nitrous oxide based on each pollutant's share of U.S. agricultural emissions. We model this section for the US national modeling but not state level modeling, as the state-level models do not incorporate IRA agriculture and forestry provisions into the Current Policies scenario due to lack of data.
Sec. 10105. Secure Rural Schools; Forestry	§10105(d)(1) rescinds the unobligated balances of IRA §23002(a) appropriated funds for grants for non-federal forest landowners. We use CBO projections of IRA budgetary effects to estimate the unobligated balances of these funds as the sum of outlays from 2026 to 2031 divided by the total budget authority of the program.[11] §10105(d)(1) rescinds $101 million in unobligated balances from IRA §23002(a) appropriated funds for state and private forestry conservation. We calculate the change in annual outlays due to each of these rescissions and compare it with the total IRA budget authority under each section. We then assign outlays to various mitigation opportunities from lowest to highest marginal cost using cost estimates from EPA's non-CO2 emissions report and sum to estimate the change in forest management emissions changes over the program lifetime.[10] We model this section for the US national modeling but not state level modeling, as the state-level models do not incorporate IRA agriculture and forestry provisions into the Current Policies scenario due to lack of data.
Fuel Price Impacts	
All Sections	Except in the case of electricity prices, the EPS does not endogenously adjust fuel prices in response to policy-induced supply and demand changes. Therefore, in this assessment, we instead adjust fuel prices in line with alternative economic scenarios from EIA and data from EPA, while incorporating supply-side changes from exogenous modeling described in Appendix C: Natural Resources Methodology. The House OBBBA would repeal EPA tailpipe emission standards and NHTSA fuel economy standards. The AEO 2025 Alternative Transportation scenario assumes these standards, alongside California's truck sales mandates are not in place. As the truck sales mandates would mostly impact diesel prices, and the scenario has only a two-percent change in diesel price, we consider this difference negligible and incorporate the percent change in fuel prices between the Alternative

[11] https://www.cbo.gov/system/files/2022-08/hr5376_IR_Act_8-3-22.pdf

	Transportation and Reference scenarios into the OBBBA scenario. We treat motor gasoline specially because, while the Alternative Transportation scenario leaves California's car sales mandates in place, the mandates are removed from our Current Policies baseline following their Congressional revocation in May 2025. Therefore, rather than pulling percent changes from the AEO scenario directly, we average the AEO scenarios' change in fuel price divided by the change in gasoline demand from 2030 to 2050, and multiply this average by the annual change in gasoline demand in the OBBBA scenario. The House OBBBA would repeal several power-sector tax credits, resulting in increased power plant demand for natural gas, in turn raising prices more than transport policies would. For sectors other than the power sector, we source percent changes in natural gas prices for each sector using the difference between the AEO 2023 No IRA and Reference scenarios. However, the No IRA scenario assumes IRA was never in place, rather than that it is repealed, so power-plant gas price increases occur earlier than would be expected if OBBBA were passed, repealing 45Y/48E tax credits by 2026. Therefore, we instead use supply curves from EPA[12] to calculate natural gas price adders, then apply these adders to the incremental increase in power sector gas consumption in the OBBBA scenario above Current Policies. After these demand-side price changes, we apply price changes (reductions) from increased production and decreased royalties to yield a final change in the cost of each fuel. The production and royalty change methodologies are included in Appendix C.

[12] https://www.epa.gov/sites/default/files/2019-03/table_8-5_natural_gas_supply_curves_for_epa_platform_v6.xlsx

APPENDIX B: 2026 QUALIFICATION FOR 30D CREDITS

Parent group (controlled group)	Over/under 200k cap?	2025 30D-qualifying vehicles[13]
Tesla	Over	Cybertruck Model 3 Model X Model Y
General Motors	Over	Cadillac LYRIQ Cadillac OPTIQ Cadillac VISTIQ Chevrolet Blazer Chevrolet Equinox Chevrolet Silverado GMC Sierra EV
Ford Motor Co.	Over	Ford F-150 Lightning
Toyota Motor Co.	Over	
Hyundai Motor Group	Over	Genesis Electrified GV70 Hyundai IONIQ 5 Hyundai IONIQ 6 Kia EV6 Kia EV9
Stellantis	Over	Chrysler Pacifica Jeep Wagoneer
BMW	Over	
Nissan Motor Co.	Over	
Volkswagen Group	Over	
Volvo/Geely	Under	
Mercedes-Benz Group	Under	
Honda Motor Co.	Under	Acura ZDX Honda Prologue
Rivian Automotive	Under	
Mitsubishi Motors	Under	
Subaru Corp.	Under	
Mazda Motor Corp.	Under	
Lucid Group	Under	
Jaguar Land Rover	Under	
Fisker Inc.	Under	
VinFast	Under	
Ferrari	Under	
McLaren Automotive	Under	
Karma Automotive	Under	
Moke	Under	
Lordstown Motors	Under	
Mullen Automotive	Under	
Parent group (controlled group)	Over/under 200k cap?	2025 30D-qualifying vehicles[14]
Tesla	Over	Cybertruck

[13] Not all configurations or model years may qualify

[14] Not all configurations or model years may qualify

		Model 3 Model X Model Y
General Motors	Over	Cadillac LYRIQ Cadillac OPTIQ Cadillac VISTIQ Chevrolet Blazer Chevrolet Equinox Chevrolet Silverado GMC Sierra EV
Ford Motor Co.	Over	Ford F-150 Lightning
Toyota Motor Co.	Over	
Hyundai Motor Group	Over	Genesis Electrified GV70 Hyundai IONIQ 5 Hyundai IONIQ 6 Kia EV6 Kia EV9
Stellantis	Over	Chrysler Pacifica Jeep Wagoneer
BMW	Over	
Nissan Motor Co.	Over	
Volkswagen Group	Over	
Volvo/Geely	Under	
Mercedes-Benz Group	Under	
Honda Motor Co.	Under	Acura ZDX Honda Prologue
Rivian Automotive	Under	
Mitsubishi Motors	Under	
Subaru Corp.	Under	
Mazda Motor Corp.	Under	
Lucid Group	Under	
Jaguar Land Rover	Under	
Fisker Inc.	Under	
VinFast	Under	
Ferrari	Under	
McLaren Automotive	Under	
Karma Automotive	Under	
Moke	Under	
Lordstown Motors	Under	
Mullen Automotive	Under	

APPENDIX C: NATURAL RESOURCES METHODOLOGY

Offshore Leasing (Title VIII; Part VIII; Sec. 80171)

In 2023, the Bureau of Ocean Energy Management (BOEM) published the 2024–2029 National Outer Continental Shelf Oil and Gas Leasing Proposed Final Program.[15] The proposal includes a total of three oil and gas lease auctions in the Gulf of Mexico over five years.

This leasing program stands in contrast with the House Natural Resources Committee's portion of the 2025 Reconciliation text. §80171 would require "not fewer than 30 lease sales in the Gulf of America during the 15-year period [after enactment of the law]" and "not fewer than 6 lease sales in the Cook Inlet…during the 10-year period [after enactment of the law]." Each Gulf lease sale would offer "not fewer than 80,000,000 acres" and each in the Cook Inlet "not fewer than 1,000,000 acres."

Royalty Rates (Title VIII; Part VIII; Secs. 80105, 80143)

§80105 of the House Natural Resource Committee's portion of the 2025 Reconciliation text would return oil and gas royalties to 2022 levels. This results in lowering onshore leasing royalties from 16.67 percent to 12.5 percent and offshore royalties from 16.67–18.75 percent to 12.5–18.75 percent. We model the decrease in federal royalty rates as a decrease in taxes on the share new of oil and gas produced on federal land in line with methodology from Resources for the Future.16 We also decrease coal royalties from 12.5% to 7% in line with Sec. 80143.

Onshore Leasing (Title VIII; Part VIII; Secs. 80101, 80121, 80122)

§80101 of the House Natural Resources Committee's portion of 2025 Reconciliation text would require the Secretary of the Interior to "immediately resume quarterly onshore oil and gas lease sales…in each of the following states: Wyoming, New Mexico, Colorado, Utah, Montana, North Dakota, Oklahoma, Nevada, Alaska," alongside any other state with land available for oil and gas leasing. The Secretary is required to offer "not less than 50 percent of all parcels nominated…through the submission of an expression of interest."

We expect production to increase due to resumed lease sales, but the size of the increase is uncertain as expressions of interest could vary significantly with oil prices and demand projections. Therefore, we do not model changes in onshore leasing in this study. For an analysis of return to onshore leasing levels during the first three years of the first Trump administration, see prior Energy Innovation modeling.[17]

Modeling Summary

We developed two scenarios to determine the incremental impact of expanded oil and gas drilling in line with the 2025 Reconciliation text against an IRA backdrop. The Current Policies scenario assumes a continuation of the least amount of additional federal oil and gas leasing allowed under current law. The EI House OBBBA scenario assumes the least amount of additional federal leasing allowed under the Reconciliation text.

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[15]https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/2024-2029_NationalOCSProgram_PFP_Sept_2023_Compliant.pdf

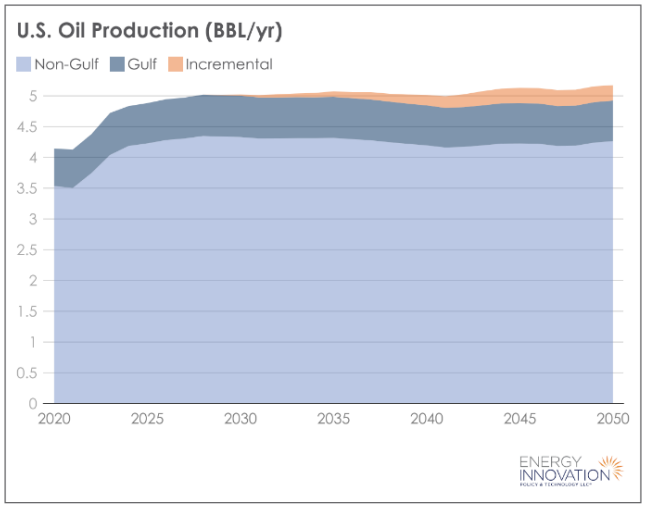
[16]https://www.resources.org/common-resources/if-then-new-cuts-to-oil-and-gas-royalty-rates-in-budget-reconciliation-will-reduce-federal-revenues

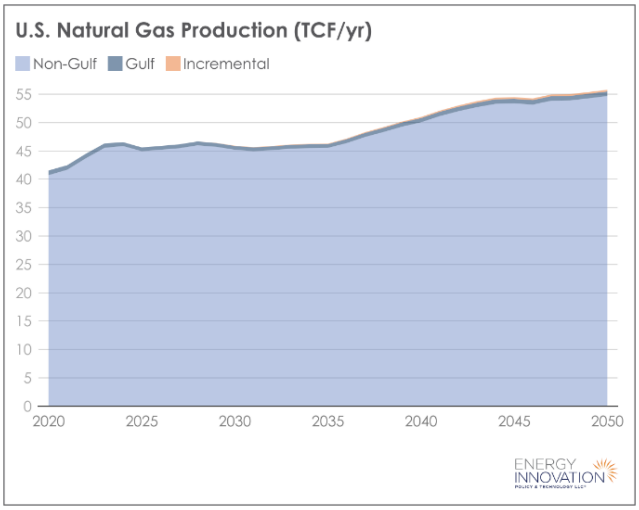
[17]https://energyinnovation.org/wp-content/uploads/The-Second-Half-of-The-Decisive-Decade-Potential-U.S.-Pathways-on-Climate-Jobs-and-Health.pdf

- Current Policies: Assumes the 2024–29 five-year offshore plan is implemented through 2029, and biannual, 60-million-acre auctions continue through 2050.
- EI House OBBBA: Assumes offshore leasing expands to levels proposed under the Natural Resources Committee text, with semi-annual, 80-million-acre Gulf auctions through 2040 and six one-million-acre auctions in the Cook Inlet. Assumes royalty rates are returned to pre-IRA levels.

Results

We calculated the incremental change in production associated with new leasing required by the Reconciliation text and fed this increase into the U.S. EPS. The additional, incremental production in the EI House OBBBA scenario is equivalent to a six-percent increase above Current Policies oil production and a one-percent increase above Current Policies natural gas production by 2050. 88 percent of new, incremental oil production and 96 percent of new, incremental gas would come from leases in the Gulf. This incremental production amounts to approximately a third of existing Gulf production of oil and gas.





This incremental increase in production would result in lower oil and gas prices before accounting for changes in prices from demand changes. Natural gas prices fall approximately 0.2 percent by 2030 and one percent by 2035 from incremental production. Gasoline prices would fall around 0.1 percent by 2030 and 0.4 percent by 2035 (~0.3 cents per gallon in 2030 and 1.4 cents per gallon in 2035). Falling prices would reduce average household energy bills by three dollars per year in 2030 and $12 per year in 2035 before incorporating increases in prices from demand changes. Incorporated into the context of the full EI House OBBBA scenario, these changes are overshadowed by greater increases in the price of oil, natural gas, and petroleum products due to shifting demand towards fossil fuels and away from electrification and low-cost renewable electricity generation.

The reduction in coal, oil, and gas royalties would cost the government approximately $10.5 billion in direct lost revenue over the budget window from 2025 to 2035.

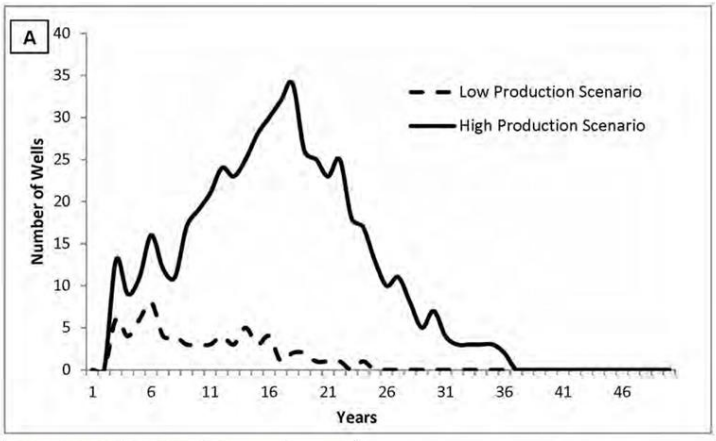
Methodology

We begin by determining the number of leases in each sceanrio. In the Current Policies scenario, we assume lease auctions continue at the biannual rate set out in the 2024–2029 OCS Proposed Final Program, with offerings of 60 million acres put up every other year. In the EI House OBBBA scenario,

we assume 30 sales for Gulf leases are held from 2025 to 2040 acocording to the schedule established in §80171(a)(1)(D), alongside six Cook Inlet sales from 2026 to 2032, according to the schedule established in §80171(a)(2)(D). We assume these offerings are additional to the five lease sales dictated in the 2024–2029 National Outer Continental Shelf Oil and Gas Leasing Program remain in place, as established by §80171(b).

We then calculate production intensities to convert these land offerings to estimated lease sales and production estimates. We source program area sizes from Table 5-2 in the 2023–2028 Proposed Program[18] and Table 11-2 in the 2017–2022 Proposed Program,[19] and source anticipated production levels from Table 5-2 in the former. This yields production intensity by area, which we divide by the number of lease sales proposed in each program area to yield the per-lease estimated ultimate recovery (EUR) per unit land area leased. To adapt to states, we scale production increases in the Gulf by the share of active leases off each state's shores (i.e., by planning area) using data from BOEM.[20]

Next, we produce well-drilling profiles for new leases using BOEM data on the timeline of well completions for a given area of development. Typically, wells on leased land are drilled over a period of approximately 30 years, peaking after about 15 to 20 years. We take the average of the Low and High Production Scenarios from the BOEM data in the following figure.



We then estimate production depletion profiles[21] to reflect the varying amount of product produced over the lifetime of each well. For example, around half of an average well's total product is produced in the first year after drilling. We averaged production profiles from EIA's AEO 2021[22] and then used curve fitting to find decline parameters matching the average profile. Multiplying this depletion curve by the BOEM drilling profile and dividing by the average total number of drills results in the cumulative production profile that determines the share of EUR recovered by age of the lease.

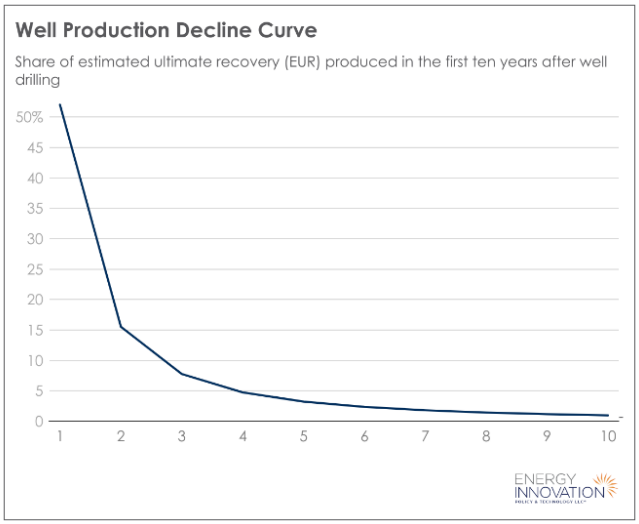
[18] https://www.boem.gov/sites/default/files/documents/oil-gas-energy/national-program/2023-2028_Proposed%20Program_July2022.pdf

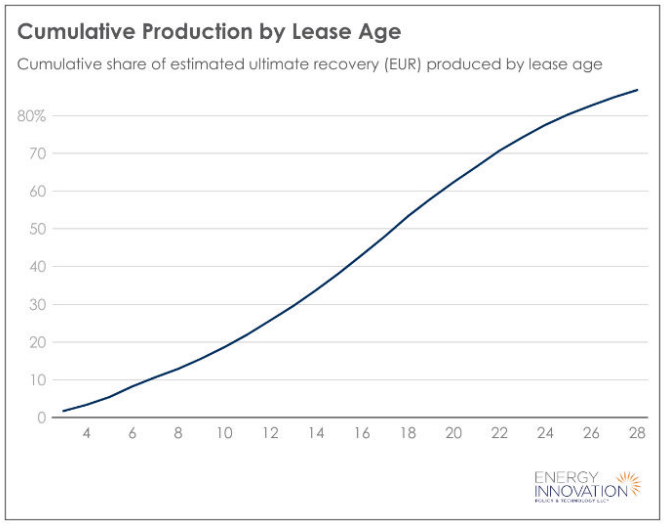
[19] https://www.boem.gov/sites/default/files/oil-and-gas-energy-program/Leasing/Five-Year-Program/2017-2022/2017-2022-Proposed-Program-Decision.pdf

[20] https://www.boem.gov/sites/default/files/documents/oil-gas-energy/leasing/regional-leasing/gulf-mexico-region/GOMR-Active-Lease-Map.pdf

[21] https://www.eia.gov/analysis/drilling/curve_analysis/

[22] eia.gov/analysis/drilling/curve_analysis/2021/excel/AEO2021_decline_curves.xlsx





Next, we reduce our calculated incremental production to account for rebound effects on state and private land. Data from Resources for the Future indicates that 52 to 72 percent of emissions from increased production on public lands is offset by decreases in production elsewhere. 30 percent of this rebound effect is due to decreases in production on state and private land – i.e., other domestic production decreases. As a result, we reduce our estimated incremental production values by 19 percent (62 percent of 30 percent).[23]

We then calculate the change in domestic fuel prices resulting from the incremental increase in production and reduced royalties. To do so, we estimated the percent price impact per percent change in U.S. production using data from the U.S. EIA's AEO 2025 Reference and High Oil and Gas Supply scenarios.We also reduced oil and gas taxes in line with reduced royalties for newly leased acreage, using data on the area of new production from Resources for the Future.[24] Lastly, we reduced the cost of petroleum-derived fuels in line with the share of each fuel's cost that comes from crude oil – these shares ranged from approximately 40 to 60 percent.

Lastly, we combined these supply-driven fuel price changes with demand-side changes described in the final section of **Error! Reference source not found.**. We input the increased production values and estimated price and tax changes into the EPS to simulate changes in economy-wide energy use, spending, and downstream impacts from changes in pollution.

[23] media.rff.org/documents/WP_20-16__Dec_2021.pdf

[24] resources.org/common-resources/if-then-new-cuts-to-oil-and-gas-royalty-rates-in-budget-reconciliation-will-reduce-federal-revenues

APPENDIX D: STATE-LEVEL RESULTS

State	2030 Job Losses	2035 Job Losses	2030 Household Energy Spending Change ($2024)	2035 Household Energy Spending Change ($2024)
AL	10000	23000	210	490
AR	6300	27000	150	540
AZ	23000	27000	260	490
CA	70000	110000	360	670
CO	15000	10000	300	490
CT	5600	6500	190	340
DE	2100	2000	250	450
FL	59000	73000	290	610
GA	31000	43000	220	540
IA	7700	14000	210	550
ID	3300	7900	210	420
IL	26000	22000	190	400
IN	20000	54000	160	530
KS	9700	10000	210	670
KY	14000	25000	250	860
LA	16000	26000	260	800
MA	12000	11000	190	290
MD	14000	9600	330	590
ME	2100	2500	140	300
MI	21000	27000	210	470
MN	14000	23000	230	640
MO	16000	37000	240	800
MS	8800	22000	220	540
MT	4100	2500	200	530
NC	45000	42000	290	700
ND	3100	1300	160	400
NE	3700	5100	210	510
NH	2200	2600	170	310
NJ	15000	13000	240	430
NM	3400	4600	260	520
NV	6200	8300	270	500
NY	19000	18000	160	300
OH	32000	37000	180	410
OK	14000	18000	200	850
OR	11000	8300	220	410
PA	23000	37000	190	360
RI	2000	1500	120	180
SC	15000	22000	350	900
SD	1600	2700	190	450
TN	9900	18000	120	380
TX	61000	120000	320	780
UT	9400	2900	230	510
VA	17000	27000	200	420
VT	1300	1400	150	290
WA	10000	9100	190	360
WI	11000	27000	160	470
WV	2000	3300	160	410
WY	900	1100	180	530