United States Energy Policy Simulator (EPS) Summary Documentation

Estimating Economywide Emissions for the United States

The United States Energy Policy Simulator (EPS) accounts for emissions produced in the following sectors: electricity generation, building energy consumption, industrial energy consumption, industrial process emissions, agriculture process emissions, transportation, district heating, hydrogen production, land use change, and geoengineering (direct air capture).

Our primary sources are federal data sets from the Energy Information Association (EIA), Environmental Protection Agency (EPA), and the National Renewable Energy Lab (NREL). The table below summarizes our data sources and methodology. For benchmarking against historical emissions, see the 'Start Year Calibration_2021.xlsx' file. For emissions projections, we primarily benchmark against the EIA's Annual Energy Outlook. As of version 4.0.0 of the EPS, we use the EIA's Reference scenario.

➤ PRIMARY DATA SOURCES

Model component	Source
ELECTRICITY	Existing capacity and heat rates: EIA's Form 923 and EIA's Form 860 & Hourly load factors: NREL's Electrification Futures Study Hourly capacity factors: NREL's Cambium data Imports/exports: EIA's Annual Energy Outlook 2023 Power plant costs and improvements in capacity factors for new plants: NREL's Annual Technology Baseline, mid-case
BUILDING ENERGY USE	EIA's Annual Energy Outlook 2023
INDUSTRIAL ENERGY USE	EIA's Annual Energy Outlook 2023
INDUSTRIAL PROCESS EMISSIONS, INCLUDING AGRICULTURE	Start year emissions: EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2021 Most projections: emissions for each industry scaled by the growth in industrial output by industry from EIA's Annual Energy Outlook 2023 Projections for HFCs: Data provided by the Rhodium Climate Deck Process emissions abatement potential: EPA Global Non-CO2 Greenhouse Gas Emissions Projections & Mitigation Potential: 2015-2050
LAND USE AND FORESTRY	EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2021

Model component	Source
TRANSPORTATION	Transport demand, start year vehicles, and fuel economy: EIA's Annual Energy Outlook 2023 On-road vehicle prices: Data provided by the International Council on Clean Transportation
INTEGRATED INPUT-OUTPUT MODEL	Organisation for Economic Co-operation and Development Input-Output Tables, supplemented by data from the U.S. Bureau of Labor Statistics and the U.S. Bureau of Economic Analysis where necessary Growth rates for industrial output: EIA's Annual Energy Outlook 2023
HEALTH IMPACTS	Health impacts per ton pollutant: EPA Technical Support Document

Understanding the Business-as-Usual and Reference Projections

The United States EPS model includes two scenarios. The first is a **business-as-usual (BAU) scenario**, which represents all federal and state policy that is currently finalized and binding. The BAU Scenario is the model's foundation, capturing projected changes based on economic growth, technology and cost changes, and existing policy commitments. Notably, EPS 4.0 now includes the Inflation Reduction Act (IRA) in the BAU scenario. See the Appendix for a full accounting of which sections of the IRA are included and the methodology for each.

➤ SUMMARY OF MAJOR POLICY ASSUMPTIONS

Sector	BAU Scenario
Electricity	• Expected retirements from EIA's Annual Energy Outlook • IRA tax credits and other provisions (e.g. support for rural co-operatives) • State-level clean electricity standards and renewable portfolio standards
Buildings	• Efficiency improvements and IRA incentives assumed in EIA's Annual Energy Outlook
On-Road Transportation	• Includes current EPA pollution standards for light-duty vehicles finalized March 2024 • IRA tax credits for zero-emission vehicles (passenger and commercial vehicles) • Economic adoption of zero emission vehicles[1]
Industry	• Includes the American Innovation and Manufacturing Act • IRA tax credits including credits for production of clean hydrogen, advanced manufacturing, and carbon capture and sequestration, in addition to other incentives such as the Advanced Industrial Facilities Deployment program • Includes EPA methane regulations for new and existing wells

[1] Zero-emission vehicle adoption in the BAU case is based on economic adoption modeled in the EPS, detailed info available here: https://us.energypolicy.solutions/docs/transportation-sector-main.html. EPS transportation data, such as vehicle prices, is largely taken from EIA and the ICCT, and the resulting zero-emission vehicle adoption curve rates are similar to other studies, including the "Electric Vehicle Outlook 2023": https://assets.bbhub.io/professional/sites/24/2431510_BNEFElectricVehicleOutlook2023_ExecSummary.pdf.

Land use/Agriculture	• Extrapolated data from Second Biennial Update Report • IRA incentives for improved forestry practices and sustainable agriculture

Example Climate Mitigation Scenarios

➢ U.S. NDC Scenario

Energy Innovation developed a US NDC Scenario, which is designed to put the US on an emissions trajectory consistent with its stated climate goals. This scenario reduces greenhouse gas (GHG) emissions by 51% below 2005 levels by 2030, achieving the US NDC of 50%-52% below 2005 levels, and net zero GHGs by 2050. Details on policy assumptions and methodology are available on request.

Calculating Policy Impacts

For additional information on Energy Innovation's Energy Policy Simulator, please view the tutorial here. Detailed model documentation is also available here.

About the EPS

The Energy Policy Simulator is a non-partisan, open-source, and peer-reviewed model. The EPS was developed to evaluate the impacts of climate and energy policies on emissions, costs and savings, and fuel consumption. The EPS model is used by policymakers to select and refine climate legislation. For example, the US EPS model has been used to assess the impact of the Inflation Reduction Act[2] and of climate policies for the U.S. House Select Committee on the Climate Crisis.[3] EPS users input climate policies and the model then analyzes interacting policy impacts to forecast environmental and economic outcomes. The model generates a variety of data outputs including greenhouse gas emissions, criteria pollutant emissions, capital and operating cash flow changes, and macroeconomic changes to GDP and jobs. Energy Innovation and RMI have also produced EPS models for the lower 48 U.S. states.

The EPS model is available for download online here.[4] And full documentation on methodology and assumptions are available online here.[5]

Contact

If you have questions about using the EPS, we recommend first watching our video series, available here.[6] For further information on the EPS, contact us at policy@energyinnovation.org.

[2] https://energyinnovation.org/wp-content/uploads/2022/08/Updated-Inflation-Reduction-Act-Modeling-Using-the-Energy-Policy-Simulator.pdf
[3] https://energyinnovation.org/2020/07/28/hal-harveys-insights-and-updates-congressional-climate-plan-is-a-bet-your-country-moment/
[4] https://us.energypolicy.solutions/docs/download.html
[5] https://us.energypolicy.solutions/docs/index.html
[6] https://us.energypolicy.solutions/docs/video-series.html

Appendix: Full List of IRA Sections Included in BAU

Senate Section	Policy	Included in BAU?	Methodology
			Finance
13101	Extension and Modification of Credit for Electricity Produced from Certain Renewable Resources	Yes	First, we calculate the percentage of new plants that will qualify for a) the prevailing wage and apprenticeship requirements and b) the domestic content requirements. For part a, we only calculate the share of plants that would meet the apprenticeship requirement and assume all these plants would also meet the prevailing wage requirement (varying assumptions on the share of qualifying plants across scenarios based on data for the construction industry from the ACP Labor Supply Report). For part b, we calculate the domestic content share for each power plant type. For onshore and offshore wind, we assume 100% of plants qualify for the bonus credit, based on a Net Zero America analysis, which lists domestic content shares for various wind components at well over the 55% domestic content requirement. For solar, we use the cited domestic content values for cells, modules, and inverters to calculate a weighted domestic content share, given the percentage of solar capital costs by component from the JEDI model. We assume a mid-case between scenarios where domestic content for solar PV remains constant and where domestic content can gradually increase to meet the 55% requirement by 2026. For batteries, we assume 100% of grid batteries will qualify, based on the volume of announced battery manufacturing projects in the U.S. Next, we add in the energy community bonus, assuming that 50% of capacity additions qualify. We then calculate what the total credit value would be for each technology in each year for both the ITC and the PTC. For the PTC values, we also adjust the calculated credit by the present value over 10 years divided by the present value over the plant financing period, because the PTC is only available for the first 10 years of a plant's lifetime. Finally, we apply a transferability multiplier of 7.5%. This value reduces the credit value available to developers to account for the fact tax credits are transferable. We begin phasing out tax credits once electricity emissions reach 25% of 2022 values, in the year 2039. We limit our analysis to onshore and offshore wind, solar PV, solar thermal, geothermal, municipal solid waste, and battery storage. We do not model credits for qualifying hydro or biogas plants. For solar PV, we calculate a LCOE for both the ITC and PTC settings to determine whether that resource elects the ITC or the PTC in each year.
13102	Extension and Modification of Energy Credit	Yes	See 13101
13103	Increase in Energy Credit for Solar and Wind Facilities Placed in Service in Connection with	Yes	We assume that 1.8 GW of distributed solar is deployed as a result of this section each year the clean energy tax credits are in effect.

	Low Income Communities		
13104	Extension and Modification of Credit for Carbon Oxide Sequestration	Yes	For the power sector, we apply 45Q credits to all power plants with CCS. The EPS is not currently equipped with endogenous industrial CCS based on economics. For the industry sector, we use a Rhodium analysis of CCS deployment under the IRA to determine the amount of CCS by industry category. We keep industry CCS constant after 2035.
13105	Zero-Emissions Nuclear Power Production Credit	Yes	The nuclear PTC runs through 2032, and we assume the credits are sufficient to keep all existing nuclear without planned retirement dates online through that time. We determined the credit values using calibration to find the value that kept all nuclear online through 2032.
13201	Extensions of Incentives for Biodiesel, Renewable Diesel and Alternative Fuels	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
13202	Extension of Second Generation Biofuel Incentives	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
13203	Sustainable Aviation Fuel Credit	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
13204	Clean Hydrogen	Yes	We assume a 76% displacement of gray hydrogen with electrolytic hydrogen, and assume electrolyzers are powered by new clean electricity. This represents replacement of merchant H2, covering ammonia and all non-by product refinery demand. The credit is applicable through 2032 before it expires. We assume the same level of hydrogen production through electrolysis once the tax credits expire (considering producers will have already invested in the production process).
13301	Extensions, Increase, and Modifications of Nonbusiness Energy Property Credit (25C)	Yes	Partially included in the Annual Energy Outlook, which we use as a primary source of input data

13302	Residential Clean Energy Credit (25D)	Yes	Partially included in the Annual Energy Outlook, which we use as a primary source of input data
13303	Energy Efficient Commercial Buildings Deduction (179D)	No	This section is not covered in the Annual Energy Outlook. Our back of the envelope calculations indicate the emissions savings from this program are quite small, and we therefore opt not to manually adjust Annual Energy Outlook energy demand projections for commercial buildings.
13304	Extensions, Increase, and Modifications of New Energy Efficient Home Credit (45L)	Yes	Partially included in the Annual Energy Outlook, which we use as a primary source of input data
13401	Clean Vehicle Credit	Yes	We calculate a weighted average incentive level based on the incentive amounst and the share of vehicles that would qualify based on manufacturing requirements, critical minerals, AGI cap, and MSRP cap.
13402	Credit for Previously-owned Clean Vehicles	No	We do not track used vehicle sales in the EPS
13403	Qualified Commercial Clean Vehicles	Yes	For commercial vehicle credits, we find that the credit caps of $7,500 for vehicles under 14,000 pounds or $40,000 for vehicles over 14,000 pounds apply in all years. We apply the credit to all new sales of commercial trucks, using a weighted average credit value for our freight LDV category which covers both light and medium duty trucks. We also apply the credit to a fraction of buses, excluding buses purchased by the government. The credit runs from 2023-2032.
13404	Alternative Fuel Refueling Property Credit	Yes	We calculate an incremental number of chargers deployed based on funding and the model's weighted average charger cost. We take estimated funding from the released JCT scores and assume 80% of the spending is directed toward public chargers. We do not attempt to model the effects of private chargers. The number of additional chargers is then fed into our model's calculations for the shadow price used to represent range/charging anxiety for passenger LDV owners, which is partially determined by the ratio of charging infrastructure to gasoline pumps. This adjustment helps to drop the shadow price in response to additional infrastructure and increase consumer adoption of electric vehicles.
13501	Extension of the Advanced Energy Project Credit	Yes	See methodology for Section 13502.
13502	Advanced Manufacturing Production Credit	Yes	The EPS explictly tracks tax credits for vehicle battery production. We therefore apply a credit of $35/kWh for battery cells and $10/kWh for assembly for onroad vehicle batteries. We use several external sources to determine the average kWh battery capacity for each vehicle type. We use ICCT research to determine what portion of the credits paid to producers is passed on to consumers in each year. For other tax credits, we manually adjust industrial energy demand from the Annual Energy Outlook based on our own calculations. We use the sector breakdowns from a Data for Progress analysis. We leverage the tax credits into total

			increased output of industries. Next, we use the model's 'buy in-region' policy to increase outputs of selected industries by the correct totals. We assume the stimulus results in permanent job creation, even after the tax credits expire.
13601	Reinstatement of Superfund	No	Out of scope for model
13701	Clean Electricity Production Credit	Yes	See methodology for Sections 13101-13102.
13702	Clean Electricity Investment Credit	Yes	See methodology for Sections 13101-13102.
13703	Cost Recovery for Qualified Facilities, Qualified Property, and Energy Storage Property	Yes	Partially included in the Annual Energy Outlook, which we use as a primary source of input data
13704	Clean Fuel Production Credit	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
13801	Elective Payment for Energy Property and Electricity Produced from Certain Renewable Resources, Etc.	No	Out of scope for model
13802	IRS Appropriations	No	Out of scope for model
13901	Extension of tax to fund Black Lung Disability Trust Fund	No	Out of scope for model
13902	R&D Credit	No	Out of scope for model

Agriculture			
21001	Additional Agricultural Conservation investments	Yes	Our approach is to calculate the amount of the model's 'crop and rice measures,' 'livestock measures,'improved soil measures' emissions abatement potential that matches the total funding in this Section. The corresponding emissions are then removed from our BAU totals. The remaining emissions abatement potential possible through policy levers is also adjusted. The EPS assumes agricultural practices need to be consistently implemented in every year in order to maintain emissions reductions. To be conservative, we phase out agricultural practices incentivized by the IRA over a period of 4 years rather than assume permanent reductions.
21002	Conservation Technical Assistance	Yes	Our approach is to calculate the amount of the model's 'crop and rice measures,' 'livestock measures,'improved soil measures' emissions abatement potential that matches the total funding in this Section. The corresponding emissions are then removed from our BAU totals. The remaining emissions abatement potential possible through policy levers is also adjusted. The EPS assumes agricultural practices need to be consistently implemented in every year in order to maintain emissions reductions. To be conservative, we phase out agricultural practices incentivized by the IRA over a period of 4 years rather than assume permanent reductions.
22001	Funding for Electric Loans for Renewable Energy (Sec. 317)	Yes	We combine 22001 and 22002 (Forgiveable loans for Renewable Energy + Rural Energy for America Program). We take historical energy spend by the Rural Utilities Service and apportion the new funding as in the past. We assume all funding not earmarked for energy efficiency goes toward retiring coal and replacing it with clean electricity.
22002	Rural Energy for America Program	Yes	See methodology for Section 22001
22003	Biofuels Infrastructure and Agriculture Market Expansion	No	We do not track biofuel infrastructure in the EPS.
22004	USDA Assistance for Rural Electric Cooperatives	Yes	We assume a $500/kW incentive is enough to retire all majority owned co-op coal plants. We get data on co-op ownership shares from EIA 860. We exclude industrial CHP and non-CHP, because those facilities have different economics and offtakers (available on request; file is large). We also remove any plants that are already slated to be retired and therefore already included in our planned retirements data. Data on outstanding coal debt is taken from public sources as listed below. We allocate the reductions between 2023 and 2030.
22005	Additional USDA Rural Development Administrative Funds	No	Out of scope for model

23001	National Forest System Restoration and Fuels Reduction Projects	Yes	We sum forestry funding that aligns with the scope of the Energy Policy Simulator's LULUCF sector, then assign it to either the model's 'forest management' or 'afforestation and reforestation' potential. We then find the policy setting that matches total government spend over the period of 2023-2031. For Section 23001, we only include the protection of old-growth forests funding and exclude hazardous fuels reduction and vegetation management, which are outside the scope of the model. We then adjust our BAU forestry projections and policy potential accordingly. The EPS assumes forest management practices need to be consistently implemented in every year in order to maintain emissions reductions. To be conservative, we phase out forest management practices incentivized by the IRA over a period of 4 years rather than assume permanent reductions.
23002	Non-Federal Land Forest Restoration and Fuels Reduction Projects and Research	Yes	We sum forestry funding that aligns with the scope of the Energy Policy Simulator's LULUCF sector, then assign it to either the model's 'forest management' or 'afforestation and reforestation' levers. We then find the policy setting that matches total government spend over the period of 2023-2031. For Sections 23002 and 23003, we include all funding.
23003	State and Private Forestry Conservation Programs	Yes	See Methodology for Section 23002
23005	Administrative Costs	No	Out of scope for model
Banking			
30001	Enhanced Use of Defense Production Act of 1950	No	Out of scope for model
30002	Improving Energy Efficiency or Water Efficiency or Climate Resilience of Affordable Housing	No	This section is not covered in the Annual Energy Outlook. Our back of the envelope calculations indicate the emissions savings from this program are quite small, and we therefore opt not to manually adjust Annual Energy Outlook energy demand projections for residential buildings.
Commerce			
40001	Investing in Coastal Communities and Climate Resilience	No	Out of scope for model

40002	Facilities of NOAA and National Marine Sanctuaries	No	Out of scope for model
40003	NOAA NEPA	No	Out of scope for model
40004	Oceanic and Atmospheric Research and Forecasting for Weather and Climate	No	Out of scope for model
40005	NOAA Computing Capacity and Research for Weather, Oceans, and Climate	No	Out of scope for model
40006	Acquisition of Hurricane Forecasting Aircraft	No	Out of scope for model
40007	Alternative Fuel And Low-Emission Aviation Technology Program	No	Out of scope for model
Energy and Natural Resources			
50121	Home Energy Performance-Based, Whole-House Rebates	No	This section is not covered in the Annual Energy Outlook. Our back of the envelope calculations indicate the emissions savings from this program are quite small, and we therefore opt not to manually adjust Annual Energy Outlook energy demand projections for residential buildings.
50122	High-Efficiency Electric Home Rebate Program	No	This section is not covered in the Annual Energy Outlook. Our back of the envelope calculations indicate the emissions savings from this program are quite small, and we therefore opt not to manually adjust Annual Energy Outlook energy demand projections for residential buildings.
50123	State-Based Home Energy Efficiency	No	Out of scope for model

	Contractor Training Grants		
50131	Assistance for Latest and Zero Building Energy Code Adoption	No	This section is not covered in the Annual Energy Outlook. Our back of the envelope calculations indicate the emissions savings from this program are quite small, and we therefore opt not to manually adjust Annual Energy Outlook energy demand projections for residential buildings.
50141	Funding for Department of Energy Loan Programs Office	No	Out of scope for model
50142	Advanced Technology Vehicle Manufacturing	No	Out of scope for model
50143	Domestic Manufacturing Conversion Grants	No	Out of scope for model
50144	Energy Infrastructure Reinvestment Financing	No	Out of scope for model
50145	Tribal Energy Loan Guarantee Program	No	Out of scope for model
50151	Transmission Facility Financing	No	The EPS now endogenously adds transmission infrastructure as new resources are added to the grid. Our back of the envelope calculations of transmission incentivisized by these sections is much lower than the amount of transmission already added to the grid in our BAU scenario.
50152	Grants to Facilitate the Siting of Interstate Electricity Transmission Lines	No	The EPS now endogenously adds transmission infrastructure as new resources are added to the grid. Our back of the envelope calculations of transmission incentivisized by these sections is much lower than the amount of transmission already added to the grid in our BAU scenario.

50153	Interregional and Offshore Wind Electricity Transmission Planning, Modeling, and Analysis	No	The EPS now endogenously adds transmission infrastructure as new resources are added to the grid. Our back of the envelope calculations of transmission incentivisized by these sections is much lower than the amount of transmission already added to the grid in our BAU scenario.
50161	Advanced Industrial Facilities Deployment Program	Yes	This program has a maximum government spend of 50% of total project costs and $6 billion in funding. We assume 40% public/60% private. We also add in $3 billion from the 48C program for industry. We then use EPS data on the costs to implement industrial efficiency policies to calculate annual efficiency improvements. We manually adjust energy demand projections from the Annual Energy Outlook by the expected efficiency improvements. We assume industrial efficiency will improve through 2031 when the funding window ends.
50171	Department of Energy Oversight	No	Out of scope for model
50172	National Laboratory Infrastructure	No	Out of scope for model
50173	Availability of High-Assay Low-Enriched Uranium	No	Out of scope for model
50221	National Parks and Public Lands Conservation and Resilience	No	Out of scope for model
50222	National Parks and Public Lands Conservation and Ecosystem Restoration	No	Out of scope for model
50223	National Park Service Field Employees	No	Out of scope for model
50231	Bureau of Reclamation Domestic Water Supply Projects	No	Out of scope for model

50232	Canal Improvement Projects	No	Out of scope for model
50241	Office of Insular Affairs Climate Change Technical Assistance	No	Out of scope for model
50251	Leasing on the Outer Continental Shelf	No	Out of scope for model
50261	Offshore Oil and Gas Royalty Rate	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
50262	Mineral Leasing Act Modernization	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
50263	Royalties on All Extracted Methane	No	Not included in the Annual Energy Outlook, which we use as a primary source for fuel prices
50264	Lease Sales Under The 2017-2022 Outer Continental Shelf Leasing Program	Yes	Included in the Annual Energy Outlook, which we use as a primary source of input data
50265	Ensuring Energy Security	No	Not included in the Annual Energy Outlook, which we use as a primary source for fuel prices
50271	United States Geological Survey 3D Elevation Program	No	Out of scope for model
50281	Department of the Interior Oversight	No	Out of scope for model
50301	Department of Energy NEPA	No	Out of scope for model
50302	Federal Energy Regulatory Commission NEPA	No	Out of scope for model

50303	Department of the Interior NEPA	No	Out of scope for model
Environment and Public Works			
60101	Clean Heavy-Duty Vehicles	No	Our back of the envelope calculations indicate that incremental vehicle sales due to this section will be lower than the amount of heavy-duty vehicles deployed in the BAU case (due to a combination of economics and sales requirements through Advanced Clean Trucks states). Therefore, we do not make any manual adjustments to vehicle sales, which are calculated endogenously in the model.
60102	Grants to Reduce Air Pollution at Ports	No	Out of scope for model
60103	Greenhouse Gas Reduction Fund (Technology Accelerator)	Partial	Using the cost for distributed solar, we calculate the capacity of distributed solar deployed each year due to the $7 billion carve-out for zero-emission technologies in low-income and disadvantaged communities. We do not attempt to calculate the energy and emissions impacts of the remaining funding. The EPA has not yet announced the criteria for qualifying projects, making it difficult to predict which types of projects will be funded.
60104	Diesel Emissions Reductions	No	There is not enough specificity in this section to determine what types of projects will be funded or what their impact will be.
60105	Funding for Air Pollution Monitoring	No	Out of scope for model
60106	Funding to Address Air Pollution at Schools	No	Out of scope for model
60107	Low Emissions Electricity Program	No	Out of scope for model
60108	Funding for Section 211(O) of the Clean Air Act	No	Out of scope for model
60109	Funding for Implementation of the American Innovation and Manufacturing Act	Yes	The American Innovation and Manufacturing Act is assumed to be met in our BAU.

60110	Funding for Enforcement Technology and Public Information	No	Out of scope for model
60111	Greenhouse Gas Corporate Reporting	No	Out of scope for model
60112	Environmental Product Declaration Assistance	Yes	We rely on external research reporting a range of emissions outcomes for cement as a result of these initiatives. We implement these in the EPS as energy efficiency (i.e. a reduction in energy consumption in our industrial energy demand file). The estimates include ranges for the combined impact from both procurement pilots and EPD programs. We do not include spillover effects. For concrete, it is assumed that the primary way of lower emissions is through different mixing ratios. For example, existing EPDs suggest significant reductions are possible through using less cement in ready-mixed concrete. Because the concrete and cement sectors are the same in the EPS, this is approximated as a reduction in energy consumption and process emissions rather than a reduction in product demand.
60113(a) & (b)	Methane Emissions Reduction Program (Spending)	No	The BAU scenario inlcudes EPA's Oil and Gas Methane Rules, finalized in December 2023. The Regulatory Impact Assessment for the Oil and Gas Rules do not appear to account for the Methane Fee included in the Inflation Reduction Act, which is still being finalized. To avoid double counting emissions reductions between the programs, we currently only inlcude the effect of oil and gas rules. It is likely there is a very large overlap between the methane emissions reductions we estimated from the Methane Emissions Reduction Program in our 2022 IRA analysis and the EPA's estimated emissions reductions from the Oil and Gas Methane Rules.
60113(e)	Methane Emissions Reduction Program (Revenue)	Yes	Out of scope for model
60114	Climate Pollution Reduction Grants	No	Out of scope for model
60115	Environmental Protection Agency NEPA	No	Out of scope for model
60116	Low-Embodied Carbon Labeling for Construction Materials	Yes	See methodology for section 60112

60201	Environmental and Climate Justice Block Grants	No	Out of scope for model
60301	Endangered Species Act Recovery Plans (NEPA)	No	Out of scope for model
60302	Funding for the United States Fish and Wildlife Service to Address Climate-Induced Weather Events	No	Out of scope for model
60401	Environmental and Climate Data Collection	No	Out of scope for model
60402	Council on Environmental Quality NEPA	No	Out of scope for model
60501	Neighborhood Access and Equity Grant Program	No	Out of scope for model
60502	Assistance for Federal Buildings	No	This section is not covered in the Annual Energy Outlook. Our back of the envelope calculations indicate the emissions savings from this program are quite small, and we therefore opt not to manually adjust Annual Energy Outlook energy demand projections for commercial buildings.
60503	Use of Low-Carbon Materials	Yes	See methodology for section 60112
60504	General Services Administration Emerging Technologies	No	Out of scope for model
60505	Department of Transportation - Federal Highway Administration NEPA	No	Out of scope for model

60506	Low-Carbon Transportation Materials Grants	Yes	See methodology for section 60112
Homeland Security and Government Affairs			
70001	DHS Office of Chief Readiness Support Officer (Clean Procurement)	No	Out of scope for model
70002	USPS Clean Fleets	No	Our back of the envelope calculations indicate that incremental vehicle sales due to this section will be lower than the amount of heavy-duty vehicles deployed in the BAU case (due to a combination of economics and sales requirements through Advanced Clean Trucks states). Therefore, we do not make any manual adjustments to vehicle sales, which are calculated endogenously in the model.
70003	USPS Oversight	No	Out of scope for model
70004	GAO Oversight	No	Out of scope for model
70005	OMB Oversight	No	Out of scope for model
70006	FEMA Building Materials Program	No	Out of scope for model
70007	FPISC	No	Out of scope for model
Indian Affairs			
80001	Tribal Climate Resilience	No	Out of scope for model
80002	Native Hawaiian Climate Resilience	No	Out of scope for model
80003	Tribal Electrification Program	No	Out of scope for model
80004	Emergency Drought Relief for Tribes	No	Out of scope for model