

Economic impact assessment of the Inflation Reduction Act (IRA)

Biden-Harris Administration–U.S. Department of the Treasury under the Biden-Harris Administration

A contribution to the 'Compendium of Practice from a Global Community of Ministries of Finance and Leading Organizations: Economic analysis and modeling tools to assist Ministries of Finance in driving green and resilient transitions'

Topic: Addressing the climate policy questions facing Ministries of Finance: the economic and fiscal impacts the green transition

June 2025

Access the full Compendium at www.greenandresilienteconomics.org

This contribution was prepared at the request of, and with guidance from, the Ministry of Finance of Denmark as Lead of the Coalition's Helsinki Principle 4 initiative 'Economic Analysis for Green and Resilient Transitions' and its Steering Group, with input from its Technical Advisory Group. The views, findings, interpretations, and conclusions expressed are those of the authors. While many Coalition members and partners may support the general thrust of the arguments, findings, and recommendations made in this contribution, it does not necessarily reflect the views of the Coalition, its members, or the affiliations of the authors, nor does it represent an endorsement of any of the views expressed herein by any individual member of the Coalition.

© The authors, 2025

Licensed under <u>CC BY-NC 4.0</u>.

Under the Biden-Harris Administration, the U.S. Treasury Office of Economic Policy produced a series of featured stories in news releases on the Inflation Reduction Act (IRA), the largest investment in clean technology and carbon pollution reduction in U.S. history. The purpose of these was to communicate the economics of the IRA to a broad audience.

The feature on the Inflation Reduction Act: pro-growth climate policy (Van Nostrand and Levinson, 2023) describes how climate policies such as the IRA promote economic growth. First, since climate change causes economic damages, mitigating and adapting to climate change protects and expands the economy by lessening the harmful effects (CEA and OMB 2023). In addition to reducing climate warming pollution, the IRA also aimed to lessen other air pollutants, such as sulfur dioxide and particulate matter. Reductions in such pollutants improve the health of communities proximate to the pollution sources, improving the economy by bolstering worker productivity (Aguilar-Gomez 2022; Mahajan et al., 2022). Another way the IRA was to stimulate growth was by funding research and development (R&D), which spurs innovation in clean technology with spillover benefits to other industries. Without Government support, private markets underinvest in R&D because R&D produces a public good, and they particularly underinvest in climate-related R&D because climate change mitigation benefits are also a public good (Armitage et al., 2023). Finally, the IRA can lower U.S. reliance on fossil fuel markets, which are subject to price volatility linked to initiating and exacerbating recessions (Kilian 2008).

The feature on the Inflation Reduction Act's Benefits and Costs (Levinson et al., 2024) underscores the strong economic case for the IRA. It quantifies some of the benefits described above using modeling results from academic research. A recent paper in *Science* projects that the IRA's global benefits for climate change mitigation through 2050 could accumulate to over US\$5 trillion (Bistline et al., 2023). Lower bound estimates of the local air pollution health benefits range from US\$20 billion to US\$49 billion in 2030 alone (Mahajan et al., 2022; REPEAT 2022; Roy et al., 2022). The U.S. Treasury report concludes that highly publicized estimates of the *fiscal* cost of the IRA overstate its *economic* costs because the tax credits paid by the Federal Government are received as benefits to U.S. drivers who purchase electric vehicles, homeowners who make energy efficiency upgrades, and investors who build clean manufacturing factories and renewable energy power plants.

The feature titled *The Inflation Reduction Act: A Place-Based Analysis* (Van Nostrand and Ashenfarb, 2023) and its subsequent update¹ highlight that the IRA benefits disadvantaged communities. The pieces analyze data on new announcements of clean investments from the Rhodium Group and MIT Clean Investment Monitor (CIM). Renewable energy facilities are growing throughout the U.S., and are growing fastest in so-called Energy Communities. This growth demonstrates that the clean energy transition can benefit communities that have been historically reliant on fossil fuels for economic vitality. Between the IRA being passed in December 2023 and the 2024 Q1 update, 275% of new clean facility announcements were in counties with median incomes below the U.S. aggregate median income, and 84% were in counties with college graduation rates below the U.S. aggregate college graduation rate.

Office of the Secretary's Climate Hub: coordinating climate policy

In support of the Biden Administration's Government-wide approach to addressing climate change, the U.S. Department of the Treasury committed to leveraging the full extent of its capabilities. An essential component of this commitment was the appointment of the first-ever Climate Counselor and the establishment of a Climate Hub in the Office of the Secretary to help set the strategic direction of the Treasury's climate work and coordinate information sharing across the Department. Additionally, the Climate Hub tracked and facilitated progress toward the Treasury's Strategic Plan goal on Combatting the Climate Crisis; identified opportunities for greater climate ambition; helped represent the Treasury's climate work externally with other agencies; and provided additional resources for priority workstreams. The Climate Hub played a critical role in advancing the Treasury's climate

^{1 &}lt;u>https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-a-place-based-analysis-updates-from-q3-and-q4-2023</u> 2 Ibid.

priorities during the Biden Administration, such as the implementation of the IRA, the release of the Principles for Net Zero Financing and Investment, the Principles for Responsible Participation in the Voluntary Carbon Markets, and the announcement of the first ever Federal Insurance Office climate data call.

The Climate Hub team was part of an intentional effort to coordinate rather than centralize the Treasury's climate work. Given all the different ways in which the Treasury's work touches on climate, from domestic finance to international affairs to tax policy, each of these domains requires dedicated staffing and distinct expertise. The Climate Hub worked as a bridge between these specialized domains, partnering and collaborating closely with the Treasury's Departmental Offices and contributing to its domestic and international policy efforts.

Note that disbursement of funds appropriated through the IRA has been paused under the Trump-Vance Administration via Executive Order 14154 on Unleashing American Energy.

References

- Aguilar-Gomez, Sandra, Holt Dwyer, Joshua Graff Zivin and Matthew Neidell (2022) This Is Air: The "Nonhealth" Effects of Air Pollution. *Annual Review of Resource Economics* 14, 403–425.
- Armitage, Sarah, Noël Bakhtian and Adam Jaffe (2023) Innovation Market Failures and the Design of New Climate Policy. In: *Environmental and Energy Policy and the Economy, Vol. 5*, edited by Matthew J. Kotchen, Tatyana Deryugina and Catherine D. Wolfram. Chicago: University of Chicago Press.
- Bistline, John, et al. (2023) Emissions and Energy Impacts of the Inflation Reduction Act. *Science* 380(6652), 1324–1327.
- CEA and OMB (White House Council of Economic Advisers and Office of Management and Budget) (2023) Methodologies and Considerations for Integrating the Physical and Transition Risks of Climate Change into Macroeconomic Forecasting for the President's Budget. White Paper. March 13. <u>https://www.whitehouse.gov/wp-content/uploads/2023/03/CEA-OMB-White-Paper.pdf</u>.
- Kilian, Lutz (2008) The Economic Effects of Energy Price Shocks. *Journal of Economic Literature* 46(4), 871–909.
- Levinson, Arik, Karl Dunkle Werner, Matthew Ashenfarb and Annelise Britten (2024) *The Inflation Reduction Act's Benefits and Costs*. Press Release, 1 March, Department of the Treasury. <u>https://home.treasury.gov/news/featured-stories/the-inflation-reduction-acts-benefits-and-costs</u>.
- Mahajan, Megan, Olivia Ashmoore, Jeffrey Rissman, Robbie Orvis and Anand Gopal (2022) Updated Inflation Reduction Act Modeling Using the Energy Policy Simulator. *Energy Innovation*, August 23. <u>https://energyinnovation.org/publication/updated-inflation-reduction-act-modeling-using-the-energy-policy-simulator/</u>.
- REPEAT (2022) Rapid Energy Policy Evaluation & Analysis Toolkit. <u>https://repeatproject.org/results?comparison=benchmark&state=national&page=1&limit=25#data</u>. Accessed February 2024.
- Roy, Nicholas, Maya Domeshek, Dallas Burtraw, Karen Palmer, Kevin Rennert, Jhih-Shyang Shih and Seth Villanueva (2022) *Beyond Clean Energy: The Financial Incidence and Health Effects of the IRA*. Resources for the Future. <u>https://www.rff.org/publications/reports/beyond-clean-energy-the-financial-incidence-and-health-effects-of-the-ira/</u>.
- Van Nostrand, Eric, and Arik Levinson (2023) *The Inflation Reduction Act: Pro-Growth Climate Policy*. Press Release, 13 November, Department of the Treasury. <u>https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-pro-growth-climate-policy</u>.
- Van Nostrand, Eric, and Matthew Ashenfarb (2023) *The Inflation Reduction Act: A Place-Based Analysis*. Press Release, 29 November, Department of the Treasury. <u>https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-a-place-based-analysis</u>.