Rewriting the Rules: Environmental Tax Policy in a Shifting Legal Landscape

Chair: Bridget J. Crawford, President, American Tax Policy Institute and Professor, Pace University School of Law

Moderator: Colin J. Lingle, Ph.D., Pace Energy and Climate Change Center

Michael Hamersky, Pace Energy and Climate Change Center

Seth Hanlon, Tax Law Center, New York University School of Law

Tracey M. Roberts, Sanford University Cumberland School of Law

Amish Shah, Holland & Knight LLP

American Tax Policy Institute

Pace Energy and Climate Center
ELISABETH HAUB SCHOOL OF LAW

Land Use & Natural Resources
LAW CENTER

Samford University
Cumberland School of Law

Rewriting the Rules: Environmental Tax Policy in a Shifting Legal Landscape

Michael Hamersky
Executive Director
Pace Energy and Climate Center

Tax Credit

['taks 'kre-dit]

Money that taxpayers can subtract from the income taxes they owe.

Investment Tax Credit

Historically Targeted Solar and Smaller Renewables

Percentage (30%) of System Cost

Intended to Incentivize Investment

ITC Extensions and Expirations

Legislation	Enacted Date	Availability Period
Energy Tax Act of 1978	11/9/1978	10/1/1978 – 12/31/1982 • *10% for solar and wind (refundable)*
Crude Oil Windfall Profit Tax Act of 1980	4/2/1980	1/1/1980 – 12/31/1985 • *15% for solar and wind (non-refundable)* • *Additional technologies now eligible*
Tax Reform Act of 1986	10/22/1986	1/1/1986 – 12/31/1986 *15%* 1/1/1987 – 12/31/1987 *12%* 1/1/1988 – 12/31/1988 *10%*
Technical and Miscellaneous Revenue Act of 1988	11/10/1988	1/1/1989 – 12/31/1989 *10%*

Credit not applicable to wind

ITC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period
Omnibus Budget Reconciliation Act of 1989	12/19/1989	1/1/1990 – 9/30/1990 *10%*
Omnibus Budget Reconciliation Act of 1990	11/5/1990	10/1/1990 – 12/31/1991 *10%*
Tax Extension Act of 1991	12/11/1991	1/1/1992 – 6/30/1992 *10%*
Energy Policy Act of 1992	10/24/1992	10% credit made permanent
Energy Policy Act of 2005	8/8/2005	1/1/2006 – 12/31/2007 *30%*
Tax Relief and Health Care Act of 2006	12/20/2006	1/1/2007 – 12/31/2008 *30%*
Emergency Economic Stabilization Act of 2008	10/3/2008	1/1/2009 – 12/31/2016 *30%* • *Credit allowed to offset Alt. Minimum Tax* • *Small Wind (100 kW or less) made eligible, capped at $4,000*

Credit not applicable to wind

ITC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period
American Recovery and Reinvestment Act	2/17/2009	• *Ability to claim ITC in lieu of PTC (must be placed in service in 2009 – 2012, later extended)* • *Ability to claim grant in lieu of ITC (must commence construction in 2009 or 2010, later extended to 2011)*
Tax Increase Prevention Act of 2014	12/19/2014	• *ITC in lieu of PTC extended retroactively through 12/31/2014*

Consolidated Appropriations Act of 2016	12/18/2015	1/1/2017 – 12/31/2021
		• *Credit expiration changed to commenced construction date from placed in service date*
		• *ITC in lieu of PTC extended retroactively through 12/31/2019 for wind*
		• *Phaseout for PTC wind introduced:*
		    • *20% reduction in 2017*
		    • *40% reduction in 2018*
		    • *60% reduction in 2019*

ITC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period
Bipartisan Budget Act of 2018	2/9/2018	• *ITC for small wind extended and phaseout introduced:* • *26% ITC in 2020* • *22% ITC in 2021*
Further Consolidated Appropriations Act of 2020	12/20/2019	• *ITC in lieu of PTC extended to 12/31/2020* • *Phaseout for PTC wind amended:* • *20% reduction in 2017* • *40% reduction in 2018* • *60% reduction in 2019* • ***40% reduction in 2020***

ITC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period

Consolidated Appropriations Act of 2021	12/27/2020	• *ITC in lieu of PTC extended to 12/31/2021*
		• *Phaseout for PTC wind amended:*
		    • *20% reduction in 2017*
		    • *40% reduction in 2018*
		    • *60% reduction in 2019*
		    • ***40% reduction in 2020 and 2021***
		• *Phaseout for small wind amended*
		    • *26% ITC in 2020 – 2022*
		    • *22% ITC in 2023*
		• *New tax credit for offshore wind*

Inflation Reduction Act	8/16/2022	1/1/2022 – 12/31/2024 • *Transitioning to technology-neutral credit through 2034 or later* • *Labor provisions* • *Bonus Credits*

Production Tax Credit

- Historically targeted wind and large renewables
- Based on energy production over several years
- Pay set price ($0.015)/kWh

PTC Extensions and Expirations

Legislation	Enacted Date	Availability Period and Details
Energy Policy Act of 1992	10/24/1992	1/1/1993 – 6/30/1999 (6.5 yrs)
Ticket to Work & Work Incentives Improvement Act	12/17/1999	7/1/1999 – 12/31/2001 (2.5 yrs)
Job Creation and Worker Assistance Act	3/9/2002	1/1/2002 – 12/31/2003 (2 yrs)
Working Families and Tax Relief Act	10/4/2004	1/1/2004 – 12/31/2005 (2 yrs)
Energy Policy Act of 2005	8/8/2005	1/1/2006 – 12/31/2007 (2 yrs)
Tax Relief and Health Care Act of 2006	12/20/2006	1/1/2008 – 12/31/2008 (1 yr)
Emergency Economic Stabilization Act of 2008	10/3/2008	1/1/2009 – 12/31/2010 (2 yrs) 10/3/2008 – 12/31/2011 (marine) 1/1/2009 – 12/31/2009 (wind – 1 yr)

Credit expired before renewal

PTC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period and Details
American Recovery and Reinvestment Act	2/17/2009	1/1/2011 – 12/31/2013 1/1/2010 – 12/31/2012 (wind – 3 yrs) • *Ability to claim ITC in lieu of PTC (must be placed in service in 2009 – 2012)* • *Ability to claim grant in lieu of ITC (must commence construction in 2009 or 2010, later extended to 2011)*
American Taxpayer Relief Act of 2012	1/2/2013	1/1/2013 – 12/31/2013 (wind – 1 yr) • *Credit expiration changed to commenced construction date from placed in service date*
Tax Increase Prevention Act of 2014	12/19/2014	1/1/2014 – 12/31/2014 (1 yr) • *ITC in lieu of PTC extended retroactively through 2014*

Credit expired before renewal

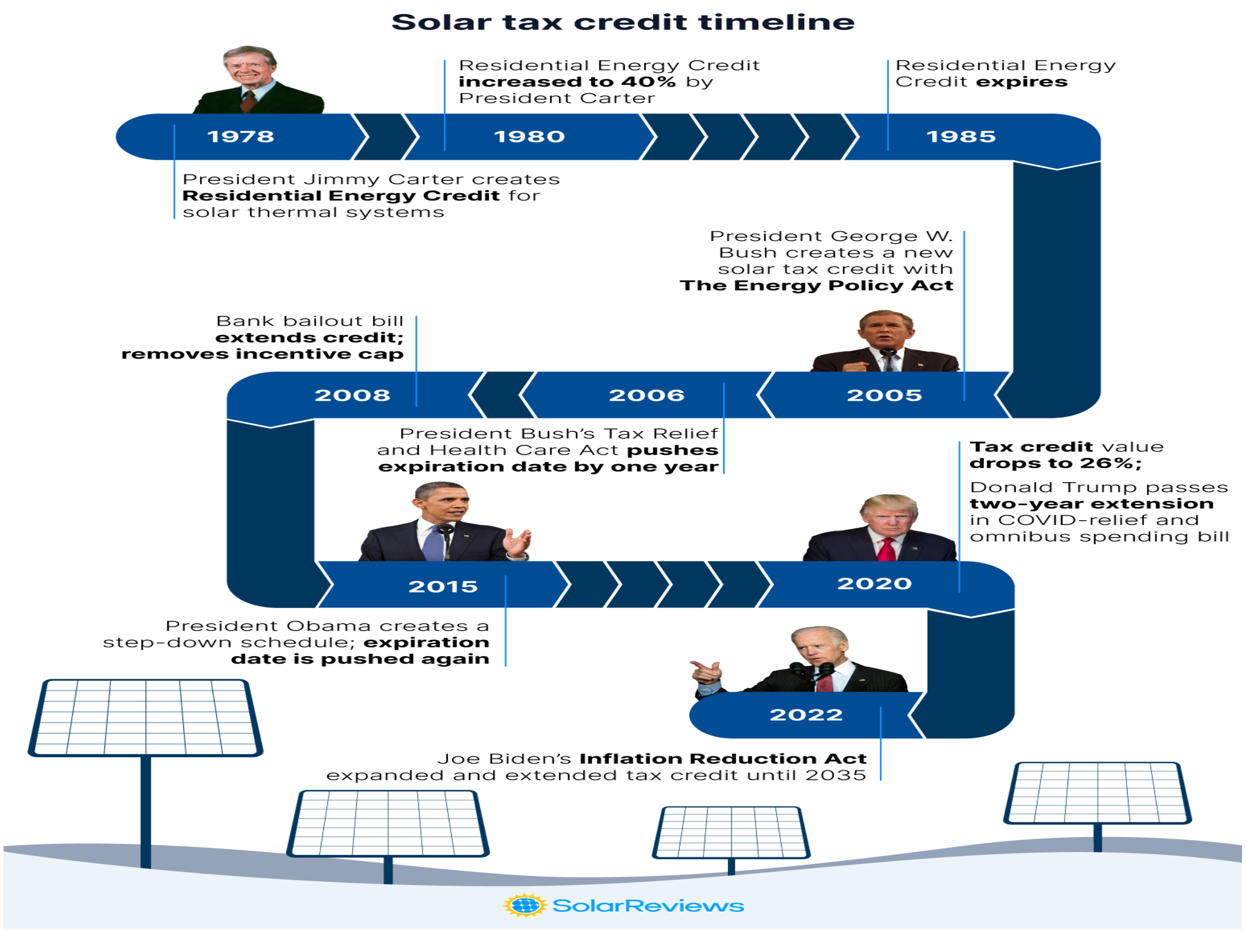
PTC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period and Details
Consolidated Appropriations Act of 2016	12/18/2015	1/1/2015 – 12/31/2016 (2 yrs) 1/1/2015 – 12/31/2019 (wind - 5 yrs) • *ITC in lieu of PTC extended to 12/31/2016* • *PTC phaseout for wind introduced. Dates are for beginning construction:* • *20% reduction in 2017* • *40% reduction in 2018* • *60% reduction in 2019*
Bipartisan Budget Act of 2018	2/9/2018	1/1/2017 – 12/31/2017 (non-wind) • *ITC in lieu of PTC retroactively extended to 12/31/2017*
Further Consolidated Appropriations Act of 2020	12/20/2019	1/1/2018 – 12/31/2020 (all technologies) • *ITC in lieu of PTC extended to 12/31/2020* • *Wind phaseout extended: 40% reduction in 2020* ** Wind phaseout remained at 60% reduction for 2019* *** PTC had previously expired for non-wind technologies before renewal*

Credit expired before renewal

PTC Extensions and Expirations (Cont.)

Legislation	Enacted Date	Availability Period and Details
Consolidated Appropriations Act of 2021	12/27/2020	1/1/2021 – 12/31/2021 • *Wind phaseout extended: 40% reduction in 2020 and 2021*
Inflation Reduction Act	8/16/2022	1/1/2022 – 12/31/2024 • *Transitioning to technology-neutral credit through 2034 or later* • *Labor provisions* • *Bonus Credits*


Solar tax credit timeline
1978
President Jimmy Carter creates Residential Energy Credit for solar thermal systems
1980
Residential Energy Credit increased to 40% by President Carter
1985
Residential Energy Credit expires
2005
President George W. Bush creates a new solar tax credit with The Energy Policy Act
2006
President Bush's Tax Relief and Health Care Act pushes expiration date by one year
2008
Bank bailout bill extends credit; removes incentive cap
2015
President Obama creates a step-down schedule; expiration date is pushed again
2020
Tax credit value drops to 26%;
Donald Trump passes two-year extension in COVID-relief and omnibus spending bill
2022
Joe Biden's Inflation Reduction Act expanded and extended tax credit until 2035
SolarReviews

Rewriting the Rules: Environmental Tax Policy in a Shifting Legal Landscape

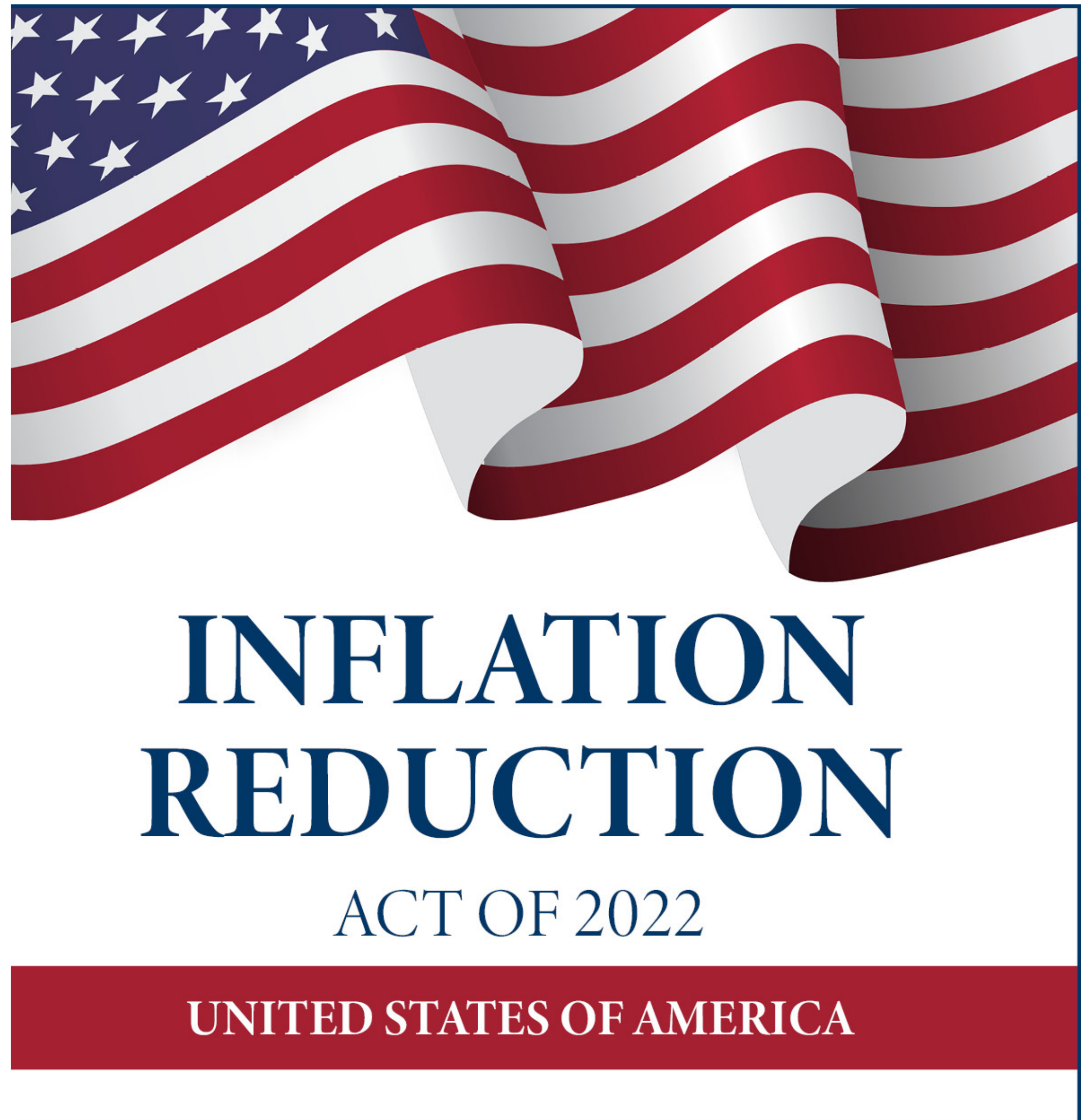
September 8, 2025

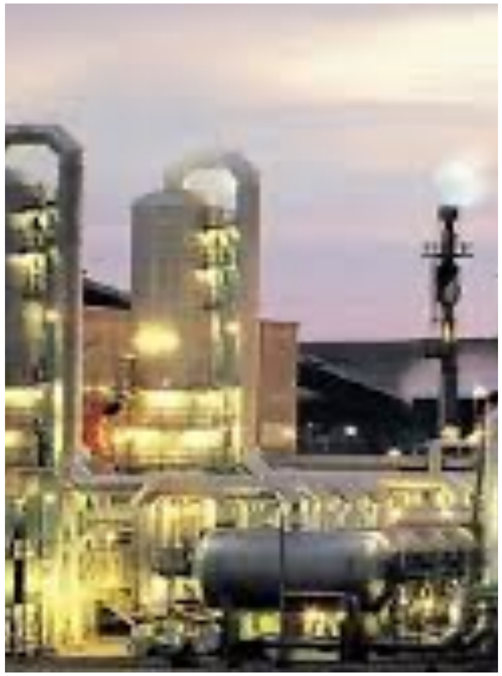
Tracey M. Roberts

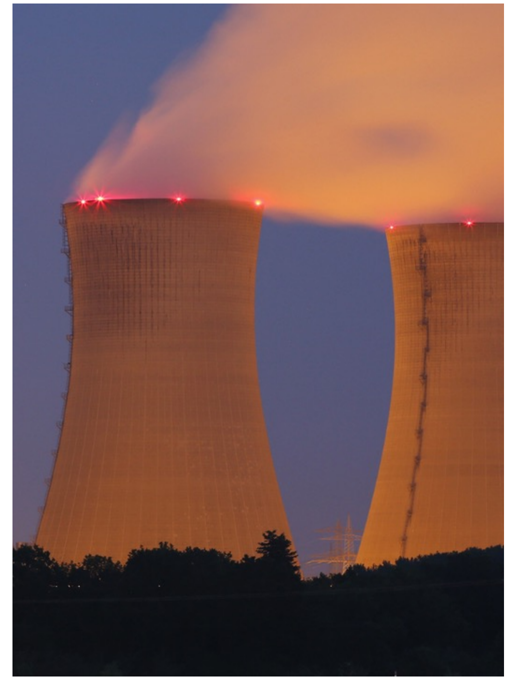
Samford University
Cumberland School of Law

Legislative Precursors

- Energy Tax Act of 1978
- Crude Oil Windfall Profits Act of 1980
- Energy Policy Act of 1992
- Job Creation and Worker Assistance Act of 2002
- Energy Policy Act of 2005
- Energy Improvement and Extension Act of 2008
- American Recovery and Reform Act of 2008
- Bipartisan Budget Act of 2018





Energy Productio n Incentives

- **Clean Electricity Investment Tax Credit,** IRA §13702 (IRC §48E)
  - OBBB §70513
- **Clean Electricity Production Tax Credit,** IRA §13701 (IRC §45Y)
  - OBBB §70512
- **Cost Recovery for Energy Property**, IRA §13703 (§168(e)(3)(B)(vi))
  - OBBB §70509

Energy Production Incentives: Carve-out of Solar and Wind

- **Clean Electricity Investment Tax Credit,** IRA §13702 (IRC §48E)
  - OBBB §70513: **12.31.2027 PIS deadline** for Solar and Wind ITC*
- **Clean Electricity Production Tax Credit,** IRA §13701 (IRC §45Y)
  - OBBB §70512: **12.31.2027 PIS deadline** for Solar and Wind PTC*
- **Cost Recovery for Energy Property**, IRA §13703 (§168(e)(3)(B)(vi))
  - OBBB §70509: No 5-year MACRS for solar and wind constructed after **12.31.2024**

Energy Production Incentives

Nuclear Incentive

- Zero Emission Nuclear Power Production Tax Credit, IRA §13105 (§45U)
- OBBB §70510: FEOC Rules

Clean Hydrogen

- Clean Hydrogen Production Tax Credit, IRA §13204 (§45V)
- OBBB §70511: **1.1.2028 BOC Deadline**

Carbon Sequestration

- **Credit for Carbon Oxide Sequestration,** §13104 (IRC §45Q)
  - OBBB §70522
  - Allows use in tertiary injectants in enhanced oil or natural gas recovery projects (fracking)

Advanced Manufacturing Incentives

- **Investment Tax Credit for Qualifying Advanced Energy Property** extended, §13501 (IRC §48C)
- OBBB §70515 No reallocation if failure to claim credit allocated within 2 years
- **Advanced Manufacturing Production Tax Credit** §13101 (IRC §45X)
- OBBB §70514: Adds metallurgical coal as an applicable critical mineral for use in steel manufacture through 12.31.2029
- Phase outs 2033-2035 for other critical minerals
- FEOC Rules

Clean Vehicle Incentives

Personal Vehicles

- Plug-in Electric Vehicle Tax Credit, §13401 (IRC §30D)
- OBBB §70502: 9/30/2025 acquisition deadline
- Previously Owned Clean Vehicle Credit, §13402 (IRC §25E)
- OBBB §70501: 9/30/2025 PIS deadline

Commercial Vehicles

- Commercial Clean Vehicle Credit, §13403 (IRC §45W)
- OBBB §70503: 9/30/2025 PIS deadline

Clean Fuels Incentives

- **Alternative Fuel Vehicle Refueling Property Credit,** §13404 (IRC §30C)
  - OBBB §70504: 6.30.2026 PIS deadline
- **Clean Fuel Production Tax Credit**, §13704 (IRC §45Z)
  - OBBB §70521: Prohibits negative emission rates; excludes emissions from indirect land use changes.
  - Extends credit for sales through 12.31.2029.



Green Residential Building Incentives

- Energy Efficient Home Improvement Credit (§25C)
  - OBBB §70505: 12.31.2025 PIS deadline
- Residential Clean Energy Credit (§25D)
  - OBBB §70506: 12.31.2025 Expenditures deadline
- New Energy Efficient Home Credit (§45L)
  - OBBB §70508: 6.30.2026 Home Acquisition deadline

Green Commercial Building Incentives

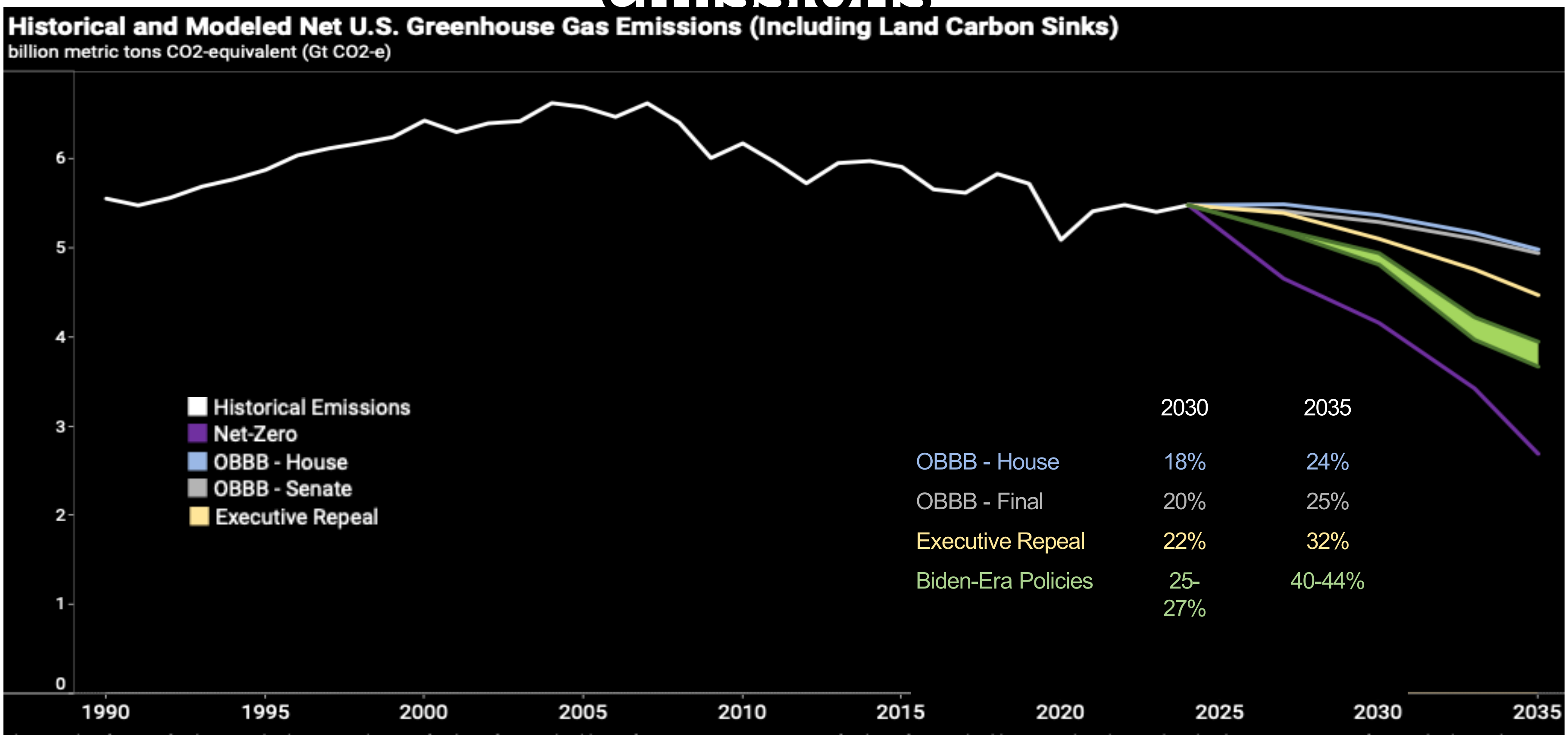
- Energy Efficient Commercial Buildings Deduction IRA §13303 (§179D)
  - OBBB §70507: 6.30.2026 BOC Deadline

§7704(d)(1)(E) Qualifying Income for Publicly Traded Partnerships

- PTPs may receive partnership tax flow-through treatment if 90% or more income is Qualifying Income.
- Investors enjoy the combination of a regular income source and a tax shelter.
- OBBB §70524 includes income from hydrogen storage, carbon capture and storage, advanced nuclear, hydropower and geothermal energy as Qualifying Income

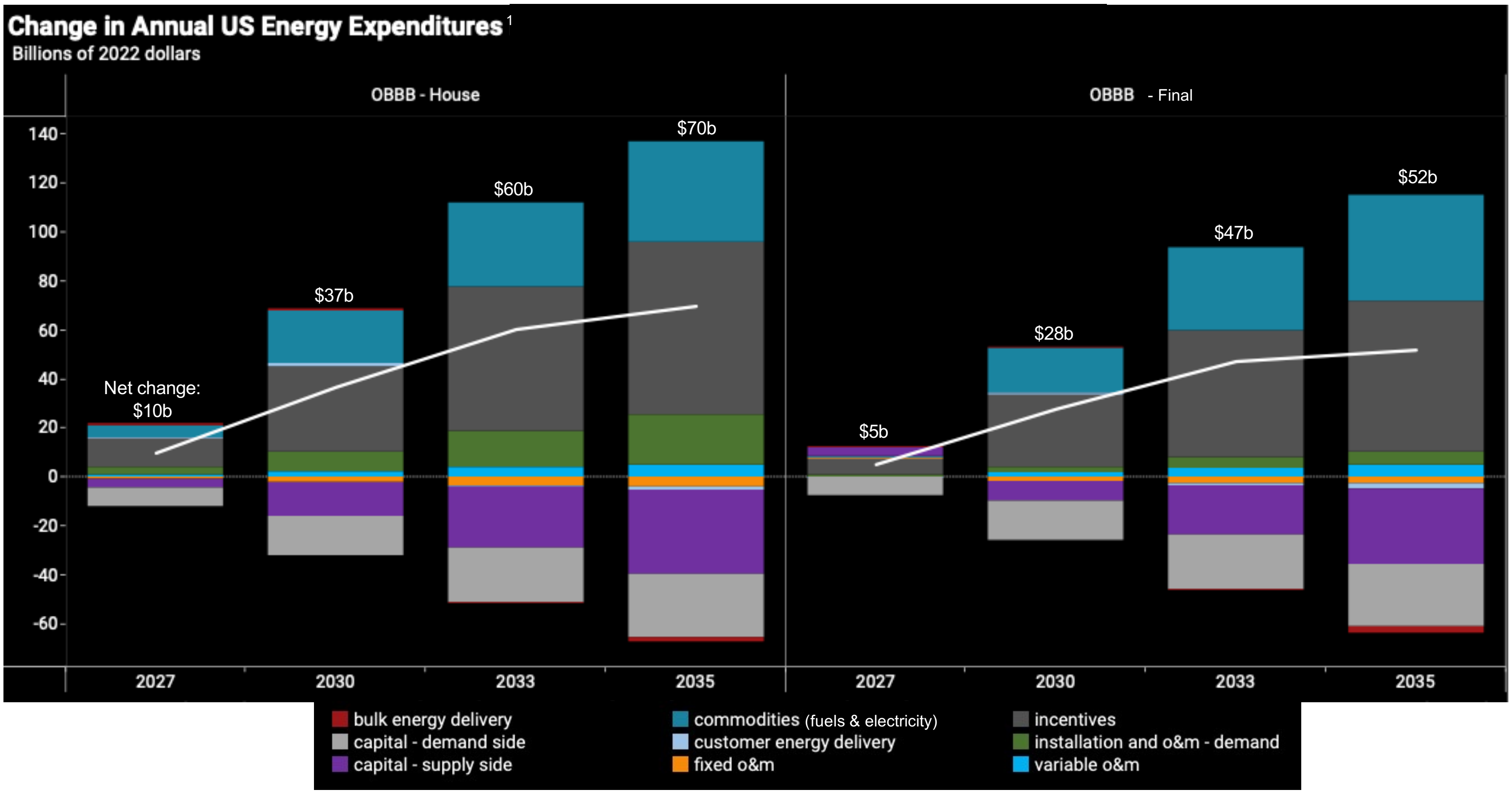
REPEAT: Higher US greenhouse gas emissions

repeatproject.org



REPEAT Rapid Energy Policy Evaluation and Analysis Toolkit

Americans spend >$50b more on energy in 2035



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 increases prices and thus total energy expenditures beyond the levels depicted here.

American Tax Policy Institute

Pace Energy and Climate Center
ELISABETH HAUB SCHOOL OF LAW

Land Use & Natural Resources
LAW CENTER

Samford University
Cumberland School of Law