Implementing U.S. Climate Policy through the Inflation Reduction Act

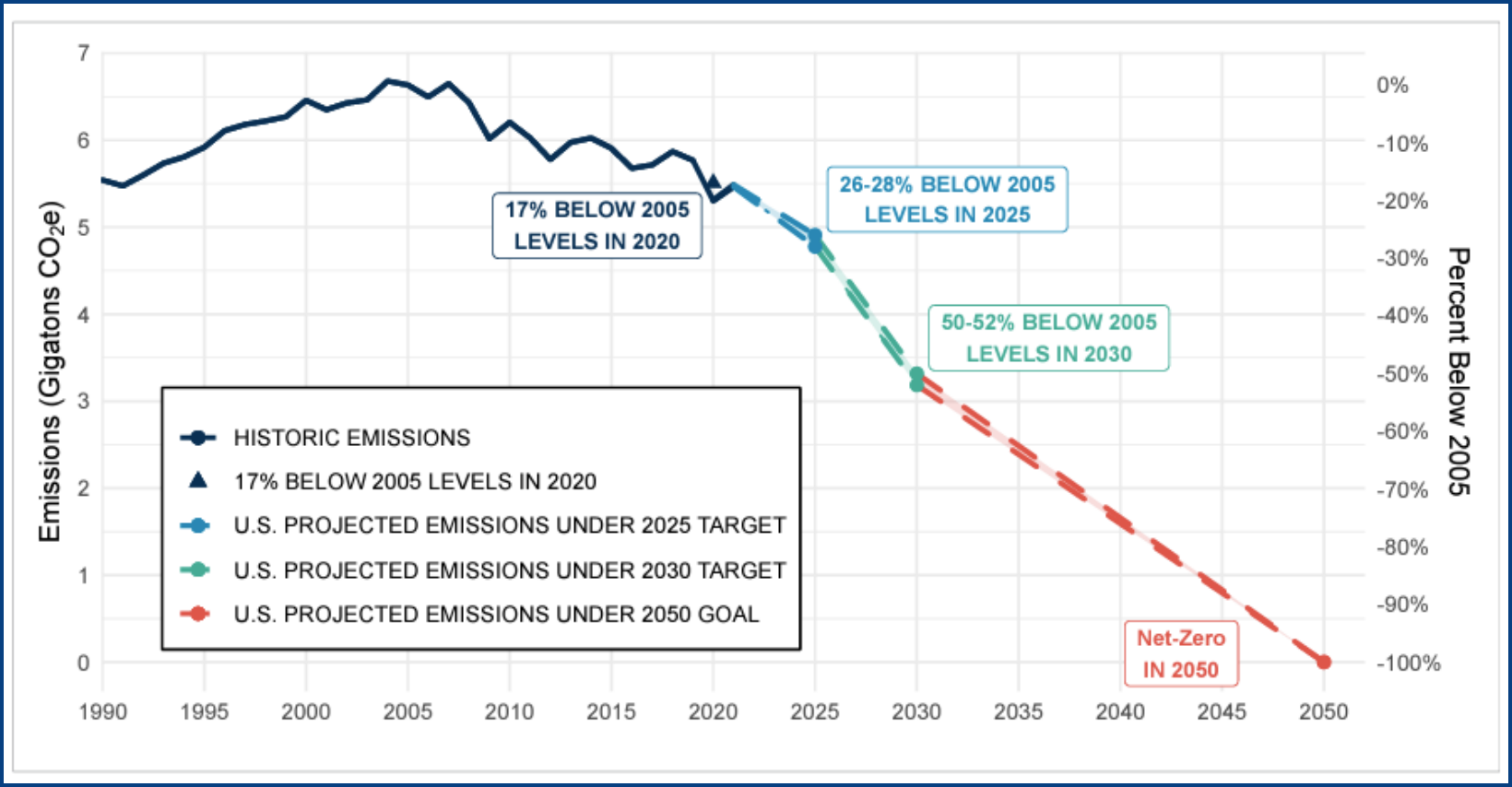
Joseph E. Aldy
Harvard Kennedy School

U.S. Climate Policy in Global Context
CEPR/EAERE Webinar Series on Climate Policies
February 2023

HARVARD Kennedy School
JOHN F. KENNEDY SCHOOL OF GOVERNMENT

U.S. Greenhouse Gas Emissions

The Biden Administration's Ambitious Climate Policy Goals



Source: The Long-term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050, November 2021.

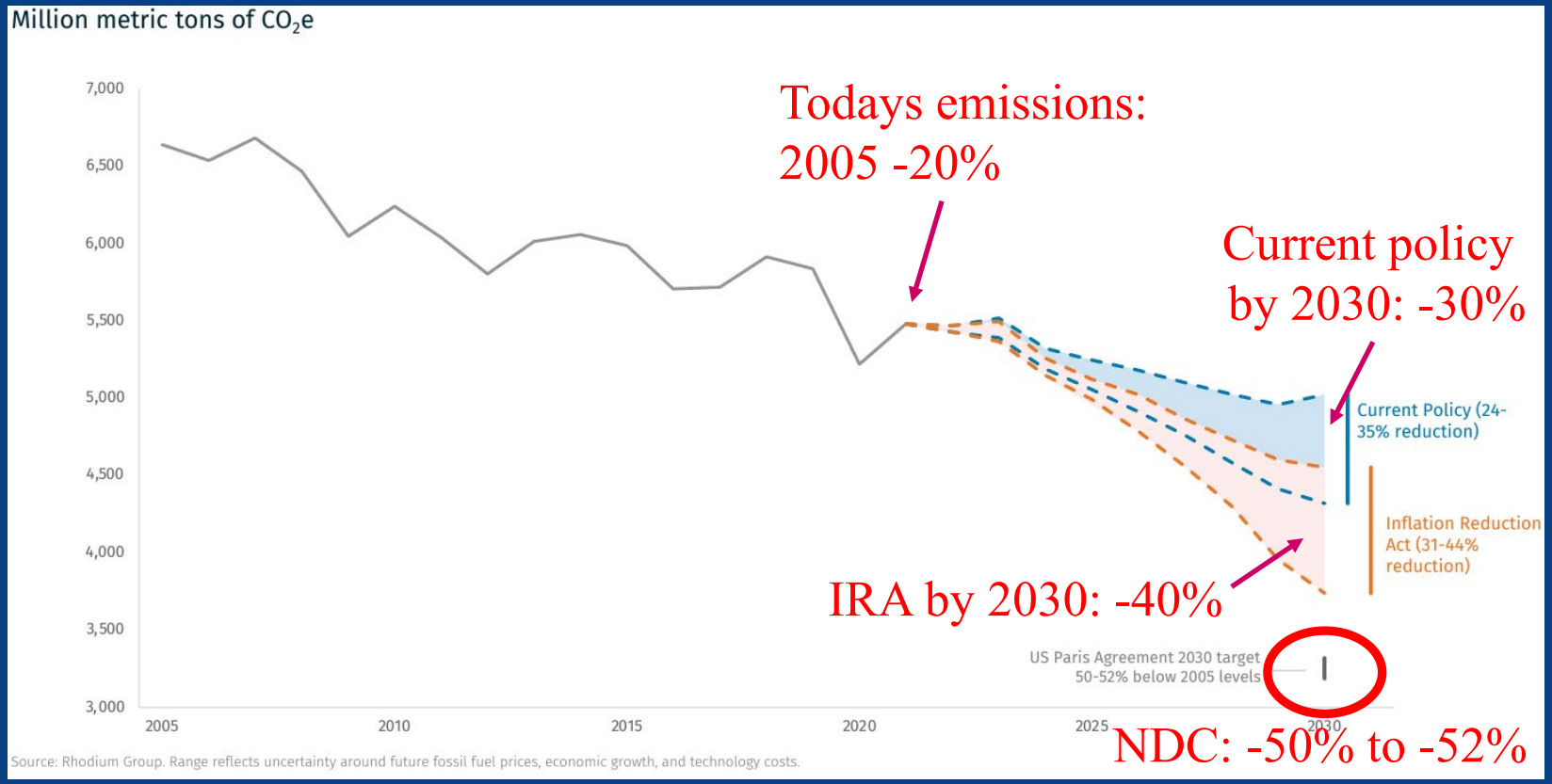
Policy Objectives

Policy constraints of Budget Reconciliation as the legislative vehicle

Inflation Reduction Act

- $369 billion clean energy subsidies over 10 years
- $270 billion in tax expenditures
  - Power sector: $160+ bn
  - Fuels and vehicles: $35 bn
  - Energy efficiency and residential: $37 bn
  - Clean energy manufacturing: $37 bn
- Spending on energy loan guarantees, low-income communities, diesel buses, land use, etc.

Progress on U.S. Emission Goals: "20-30-40"



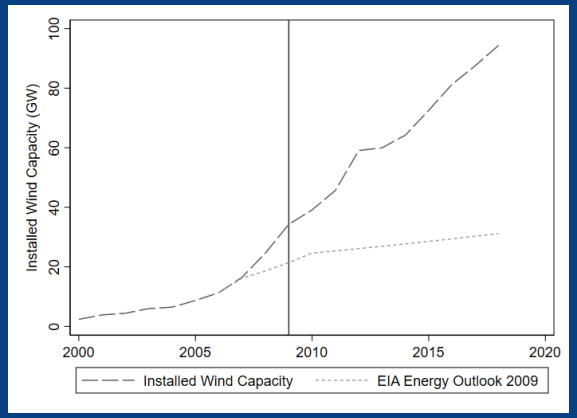
IRA Policy Design Issues and Opportunities for Research

Uncertainty in Outcomes

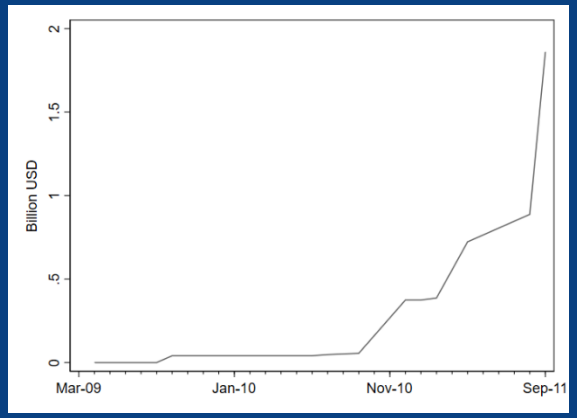
- Tax expenditures vs. appropriations vs. credit instruments
- Statutory interpretation, technological change, politics

Lessons from ARRA 2009

Wind Capacity, 2000-2018



Loan Guarantee Credit Subsidies



Industrial Policy: Illustration of Wind Power Subsidies

Production Tax Credit for renewable power

- 3.4¢/kWh if project satisfies
  - Wage & apprenticeship — Union
  - Domestic content — Buy American
  - Energy community
  - Low-income community — Place-based Policies

- 0.5¢/kWh if it fails to meet all of these conditions

Markets for Tax Credits

- Most IRA clean energy tax credits are transferable
  - Direct pay provision for a special class of developers
- Transferability intended to address limited supply in tax equity market
  - Reduce the ~15% haircut renewable developers faced when monetizing tax credits through tax equity
- In 2023, this market could > $10 billion
  - What information and institutions are necessary for market efficiency?

Emerging Technology Neutrality

- Starting in 2025, emission-based PTC and ITC
- Hydrogen PTC varies with CO2 intensity of production
- Methane fee on oil and gas operations*
- CCS tax credit (valued per unit of stored carbon)
- Is subsidy design better reflecting the cost-effectiveness we associate with carbon pricing?

Performance Evaluation

- Justice40 Initiative and the need for evaluation
- Program design, data collection, and ex post evaluation
- Learning and policy updating
- Integrate with Learning Agendas under the Foundations for Evidence-based Policymaking Act

Contact Information

Joseph E. Aldy
Professor of the Practice of Public Policy
Harvard Kennedy School
79 John F. Kennedy Street
Cambridge, MA 02138
e: joseph_aldy@hks.harvard.edu
v: 617-496-7213
i: http://scholar.harvard.edu/jaldy
t: @josephaldy