RESOURCES for the FUTURE

Climate Policy Developments in the US

Dallas Burtraw

Mistra Carbon Exit

Delivering on Climate Targets

September 18-19, 2023

Three legs of US climate policy

Regulation

Pricing

Subsidies

Important Federal Action Updates Since Nynäs Havsbad, June 2022

✓ Bipartisan Infrastructure Law

- Electric vehicle EV charging, public transportation
- Demonstration projects: hydrogen hubs ($9.5B), carbon dioxide removal

✓ Justice 40

- Proposed Guidelines for Regulatory Impact Assessments (OMB)
- Bonus credits under the IRA in ‘energy communities’

✓ Clean Air Act Regulations

- Transportation vehicle fuel efficiency standards
- Electricity sector GHG standards, air pollution

✓ Build Back Better => ***Inflation Reduction Act***

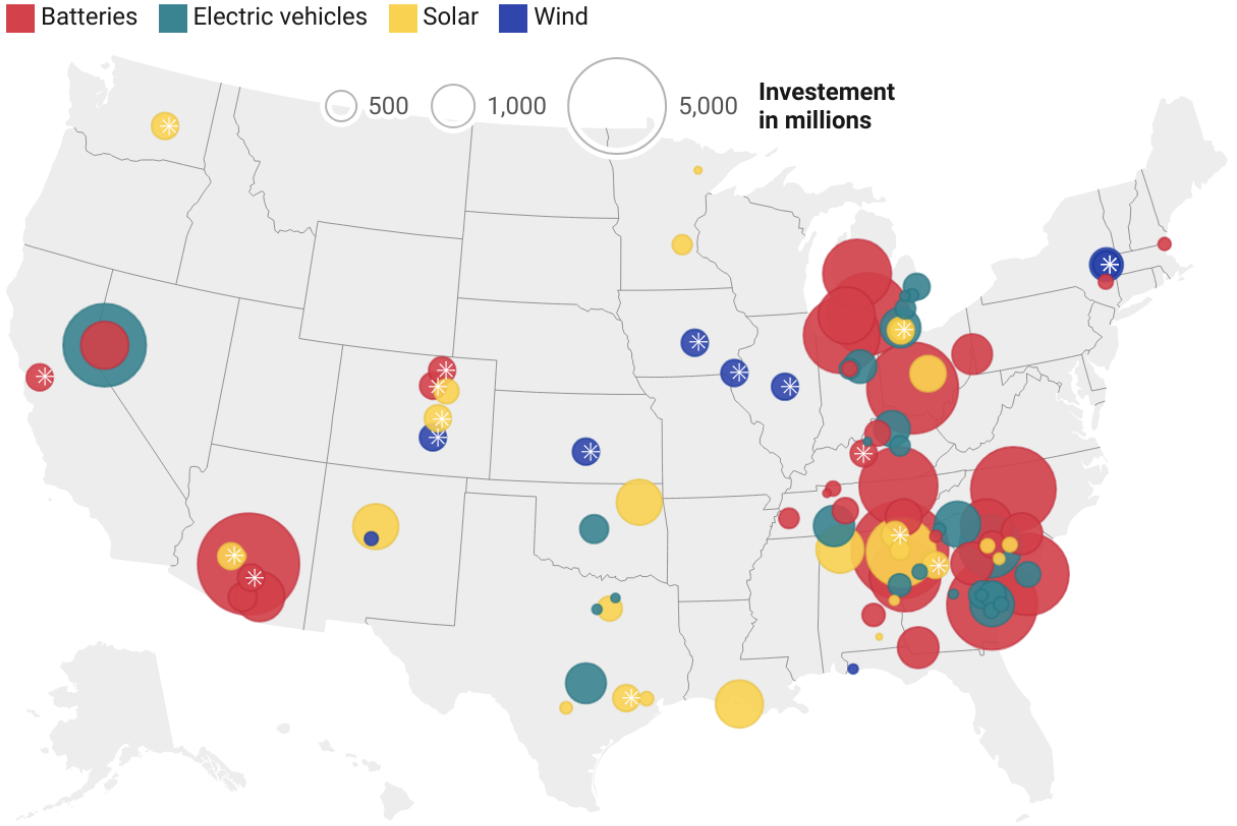
- Clean energy tax credits (~$370 billion to $600 billion – not bounded)
- Progressive via electricity price effect and “pay for” corporate tax

? Security & Exchange Commission: Disclosure of Climate Risks

? Emissions Intensity Border Carbon Adjustment (“US advantage”)

Clean energy manufacturing projects announced since Inflation Reduction Act passage

New planned factories or expansions unveiled from August 2022 to August 2023



✳ Starred projects have not announced investment amounts. Job numbers are for permanent positions estimated by companies.

Map: Canary Media • Source: Jack Conness, American Clean Power, Canary Media analysis of public announcements

Expected Green Technology Adoption

Expected demand for clean electricity technology

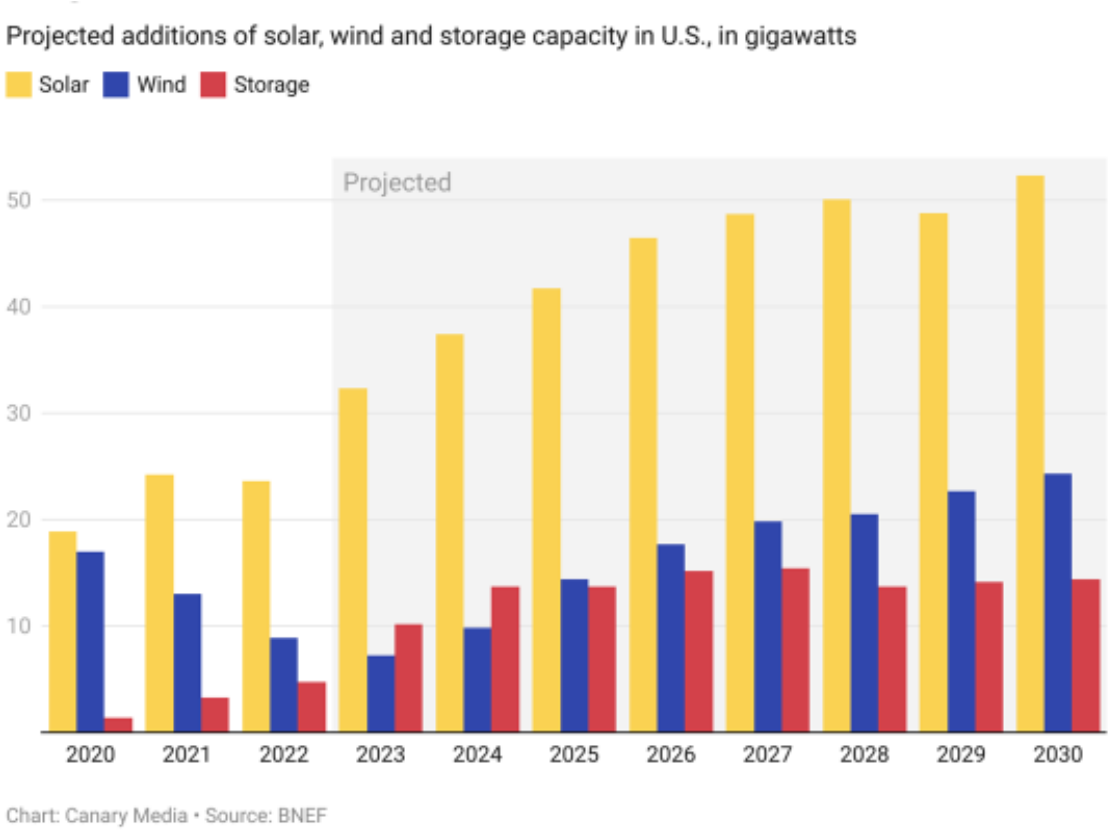


Chart: Canary Media • Source: BNEF

Expected EV and plug-in hybrid adoption

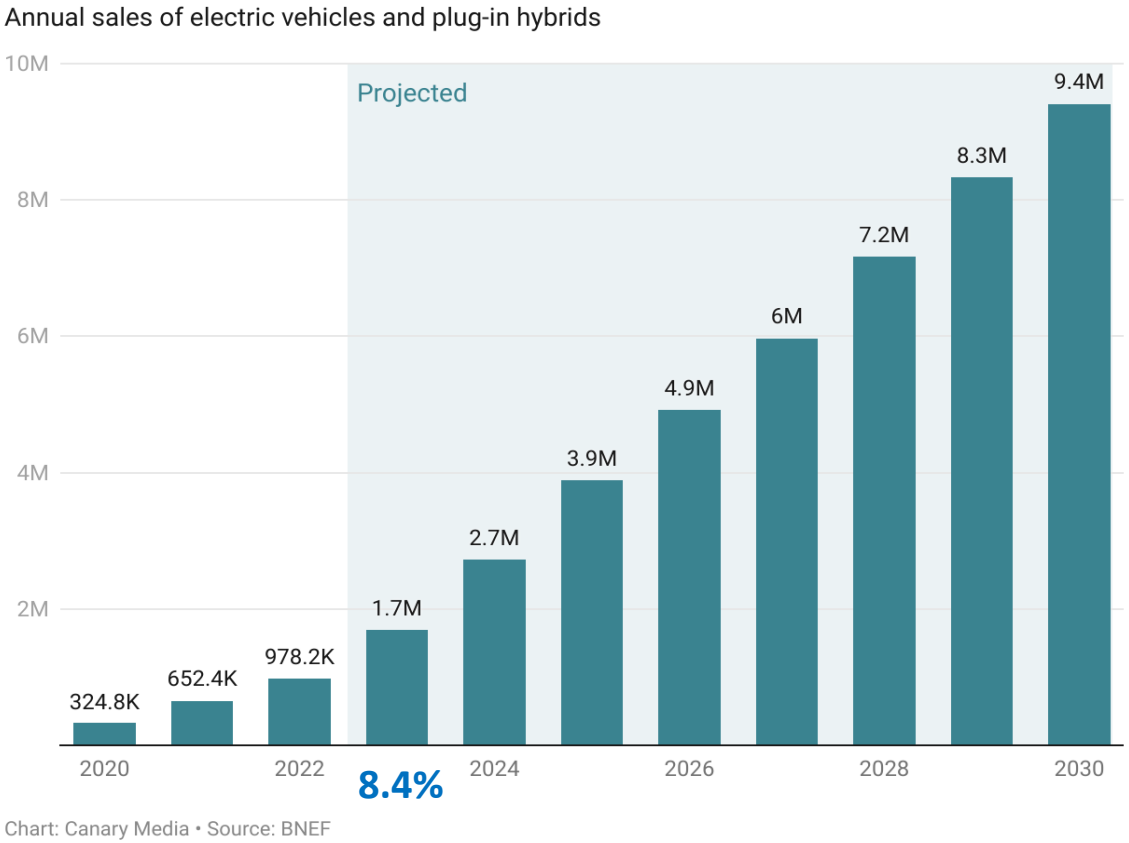
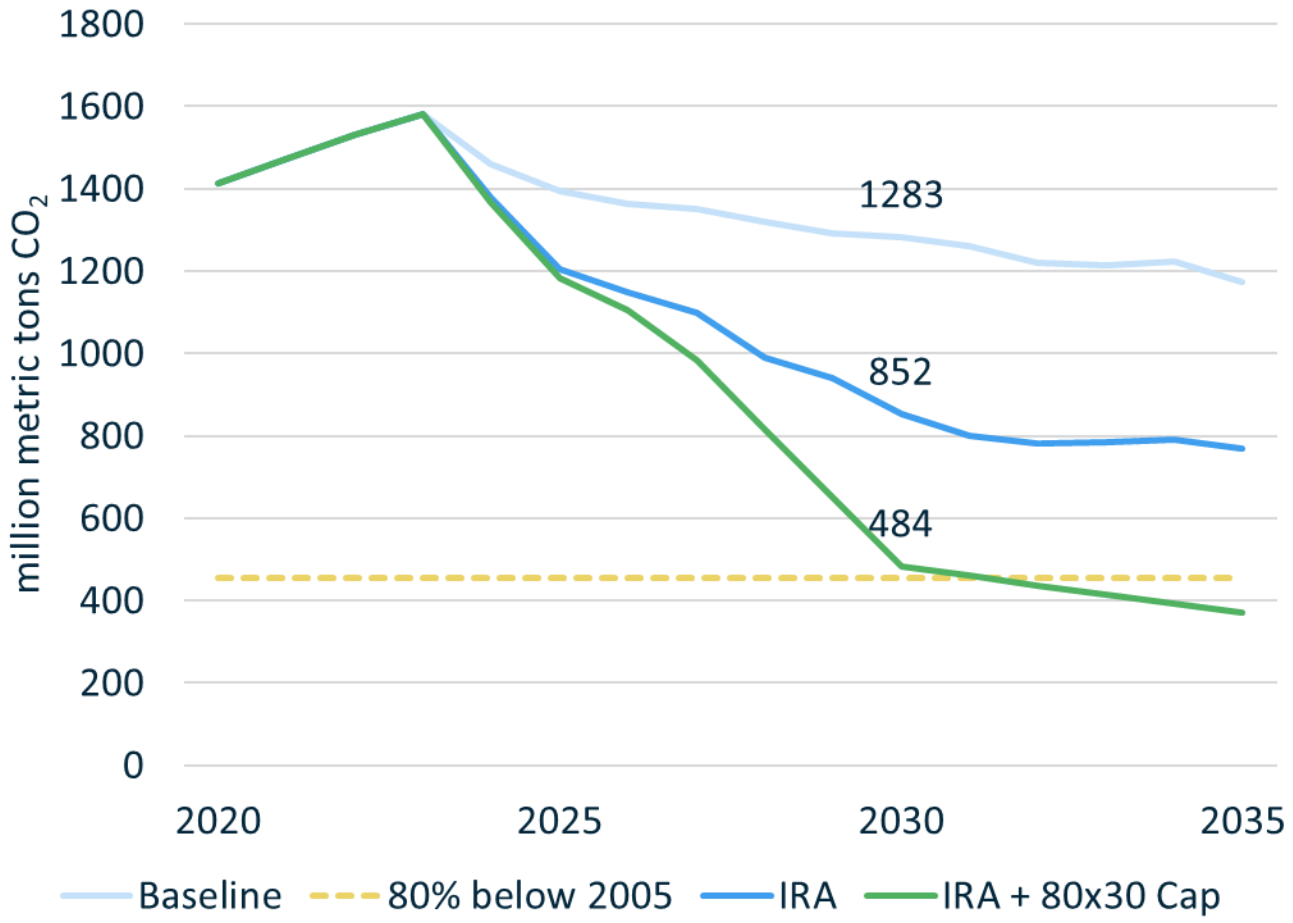


Chart: Canary Media • Source: BNEF

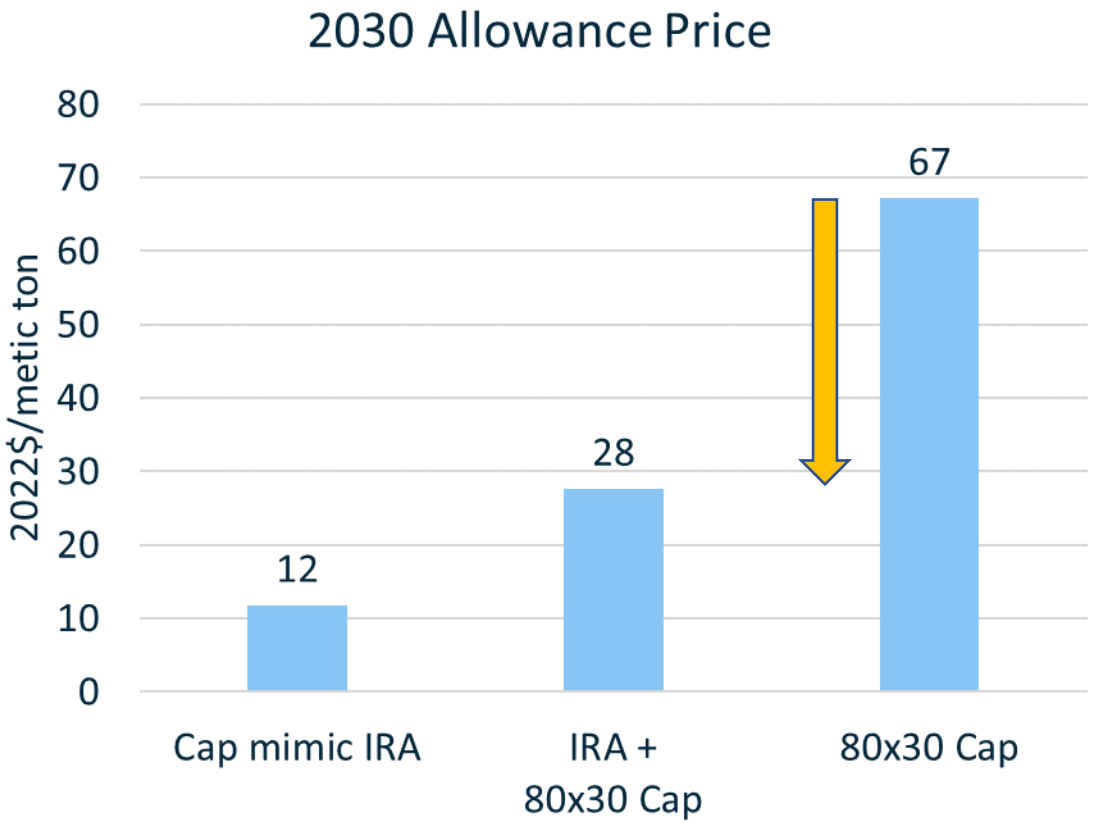
The IRA gets the US electricity sector closer, but still 369 million tons short, of Biden's 2030 goal (80x30)

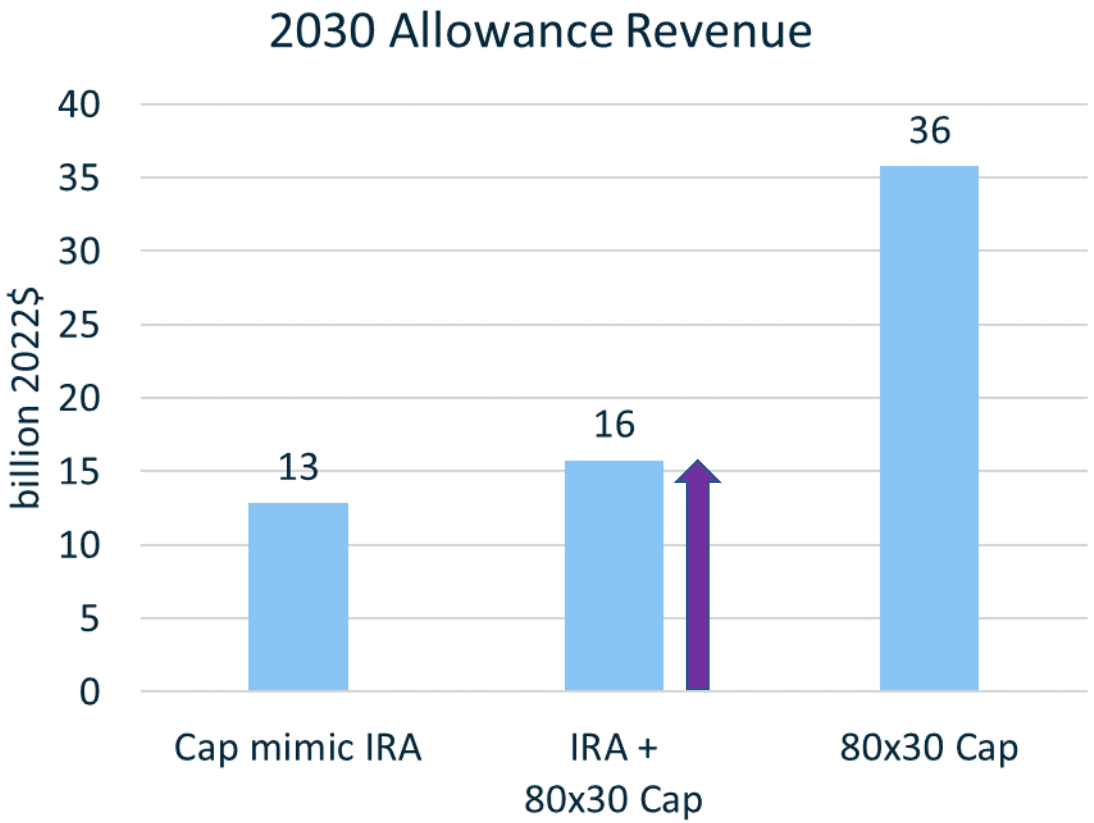


- Electricity sector emissions in 2005 for the contiguous US were 2280 million metric tons
- Electricity sector emissions are expected to continue to fall gradually even in the no-policy baseline
- The IRA adds to and accelerates emissions reductions

Burtraw et al. 2023

The IRA reduced the carbon price necessary in the US electricity sector to reach the 80x30 goal by more than half (Burtraw et al. 2023)

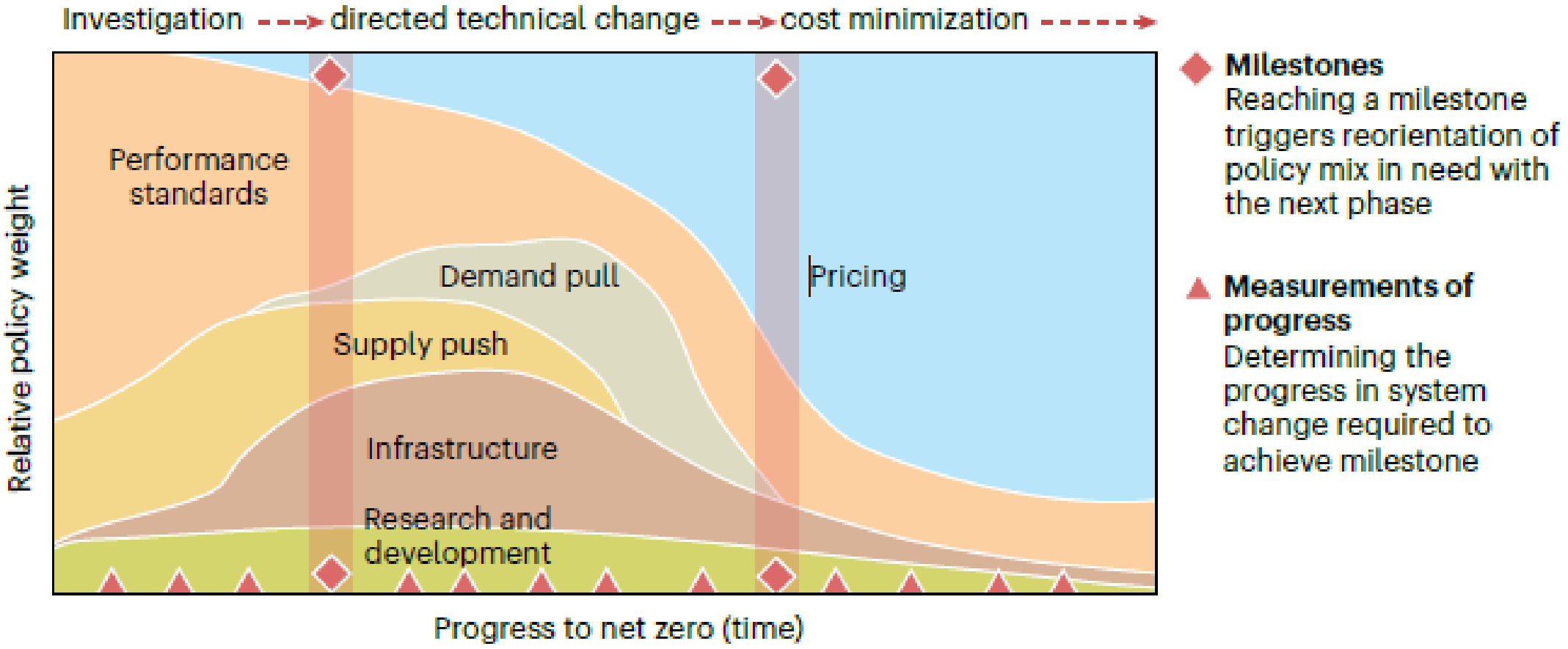




Bistline, Mehrotra, and Wolfram (2022) similarly find $12/ton *economywide* price in 2030 yields IRA emissions levels.

The 80x30 cap (carbon price) yields $16 billion in net new revenue.

- Net zero compels policy that strengthens the long-term policy credibility that is necessary to bring forward private investment.
- The role for iterative benefit-cost re-balancing is diminished, while the role for pricing remains ultimately crucial for long-term deep carbon reductions.



Dolphin, Pahle, Burtraw, Kosch, *Nature Climate Change* 2023

Things to Watch

- Siting and Permitting (federal, state, and local issues)
  - Up to four year wait for new renewable generation facilities
  - *Not In My Backyard* for large renewable projects
  - Regulation of electricity transmission
- Subsidies and Regulations for Industrial Emissions
- State-Level Action Continues
  - 23 Climate Alliance states; 12 have net zero targets
  - California Scoping Plan looks at 40%, 48%, 55% by 2030
    - Moderate role for pricing; large role for big tech; transportation underperforming
  - Washington (2023), New York (2025) introduce ambitious carbon pricing
  - 12 state Regional Greenhouse Gas Initiative electricity sector pricing
- US Treasury Rules for Hydrogen Tax Credits
- Farm Bill; Defense Reauthorization
- New Opportunities for Carbon Pricing?