

# **The CLEAR Act**

**Carbon Limits and Energy for  
America's Renewal**

December 2009



# What is the CLEAR Act?

- A simple, market-based way to reduce CO<sub>2</sub> emissions while protecting household incomes.
- An innovative policy that limits fossil carbon as it enters commerce, sends consistent, economy-wide price signals on fossil fuels, and recycles most of the revenues to households.
- A source of funding for new clean energy investments, mitigation of a broad suite of greenhouse gases, climate change adaptation, and other climate-related priorities.
- A policy that safeguards the climate by cutting greenhouse gases in keeping with state-of-the-art science.

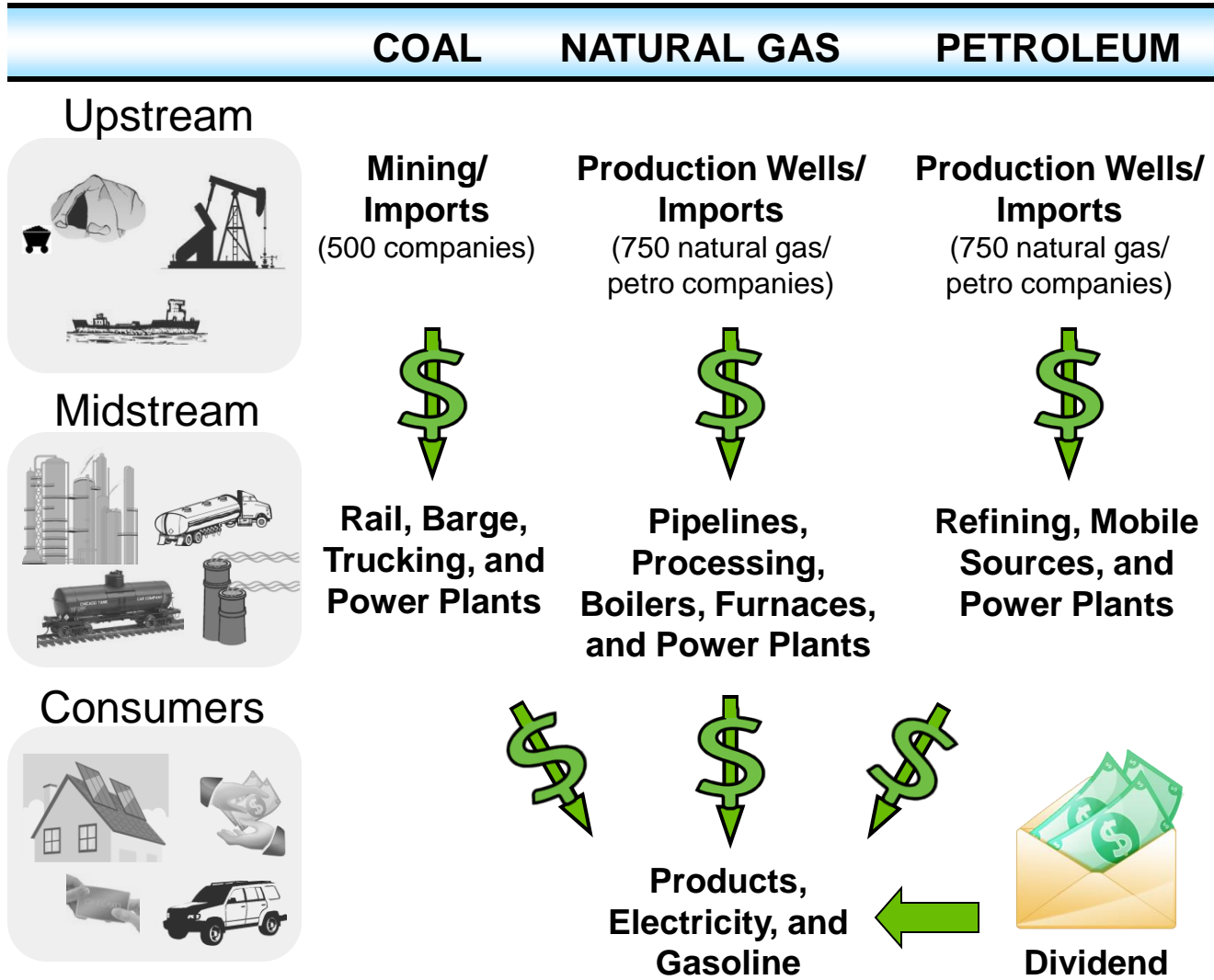


# Policy Overview

- Upstream cap on fossil carbon achieves broad, economy-wide coverage of fossil carbon.
- Carbon cap in conjunction with additional measures to reduce non-CO2 greenhouse gases meet global warming emissions reduction standards:
  - 20% emissions reduction (from 2005 level) by 2020;
  - 30% emissions reduction (from 2005 level) by 2025;
  - 42% emissions reduction (from 2005 level) by 2030;
  - 83% emissions reduction (from 2005 level) by 2050.
- 100% auction establishes accurate price signal and protects consumers from industry windfalls.
- Equal monthly dividends to all individuals residing legally in the U.S. from 75% of auction revenues -- keeps all but the wealthiest 20% (who use the most energy) whole.
- Dedicated energy and climate fund from 25% of auction revenues pays for key climate programs.
- Price safeguards act as insurance against price volatility and excessive costs. Policy does not add to federal deficit



# Upstream Cap on Fossil Carbon



**Upstream cap covers all fossil carbon entering the economy, completely and equitably**

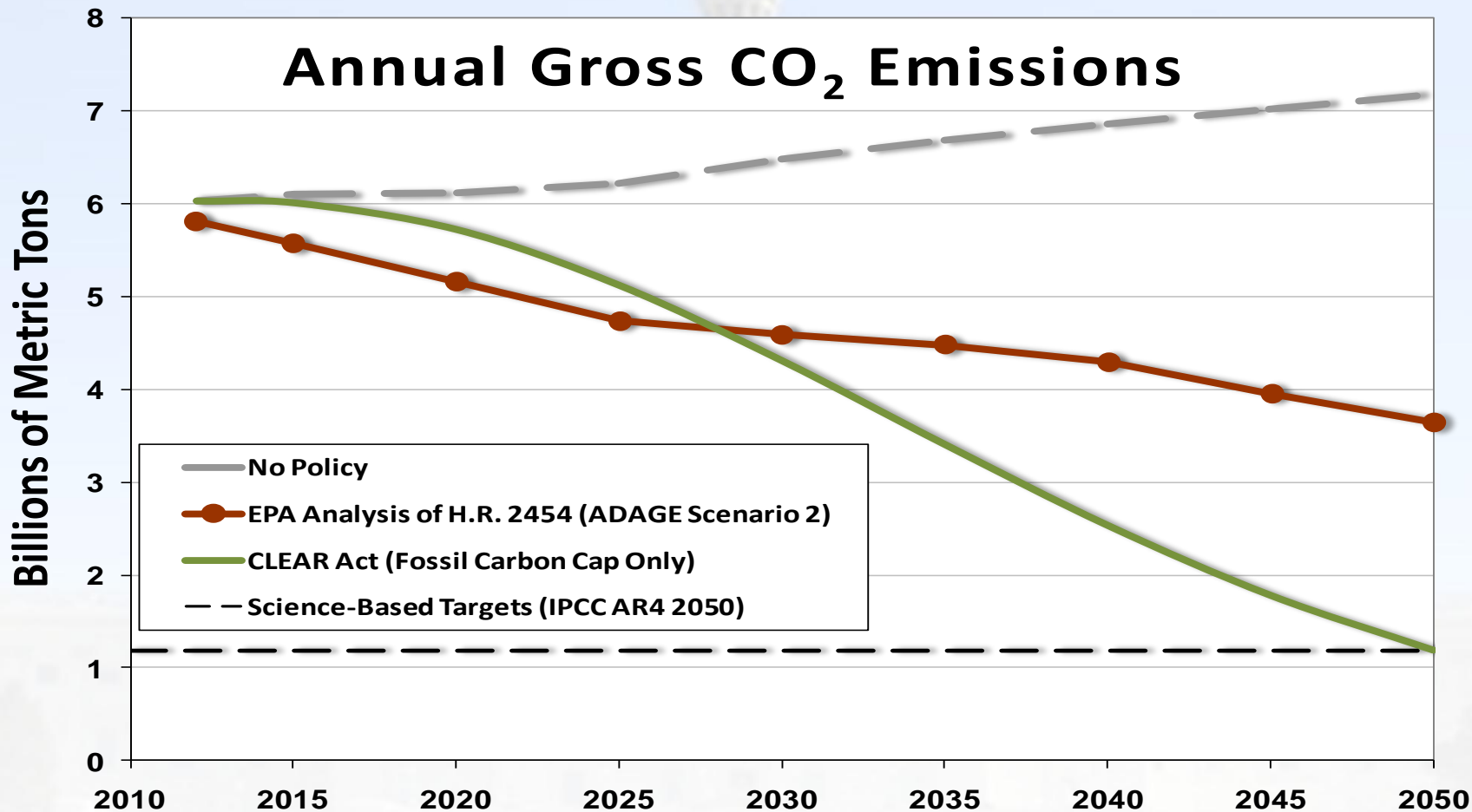
**Only a few thousand entities with compliance obligation ensure minimal and accurate regulation**

**Price signal passed downstream, leaving all midstream user revenue neutral**

**Price signal passed through to end consumers who are reimbursed with dividend**



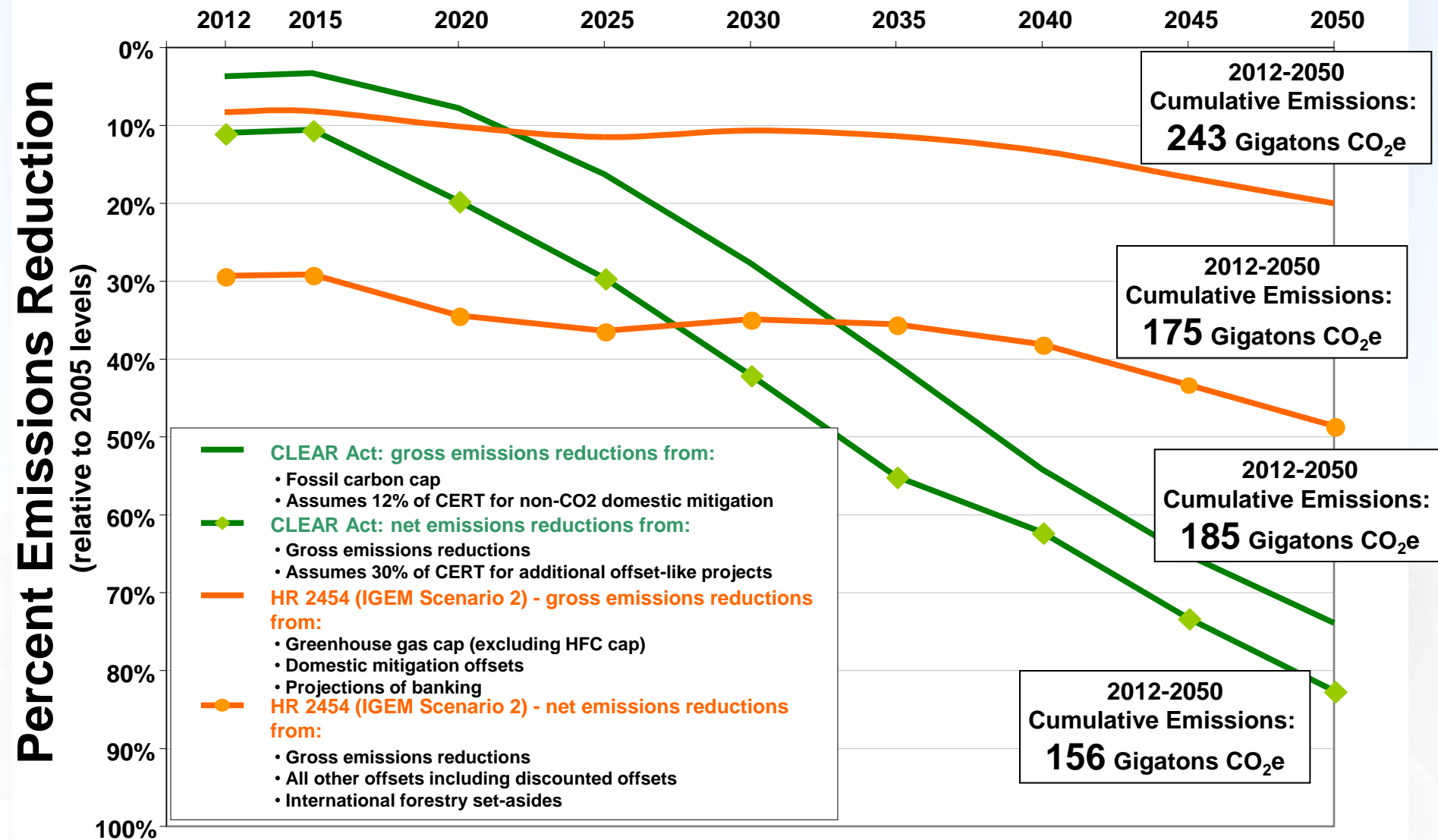
# Fossil Carbon Limits



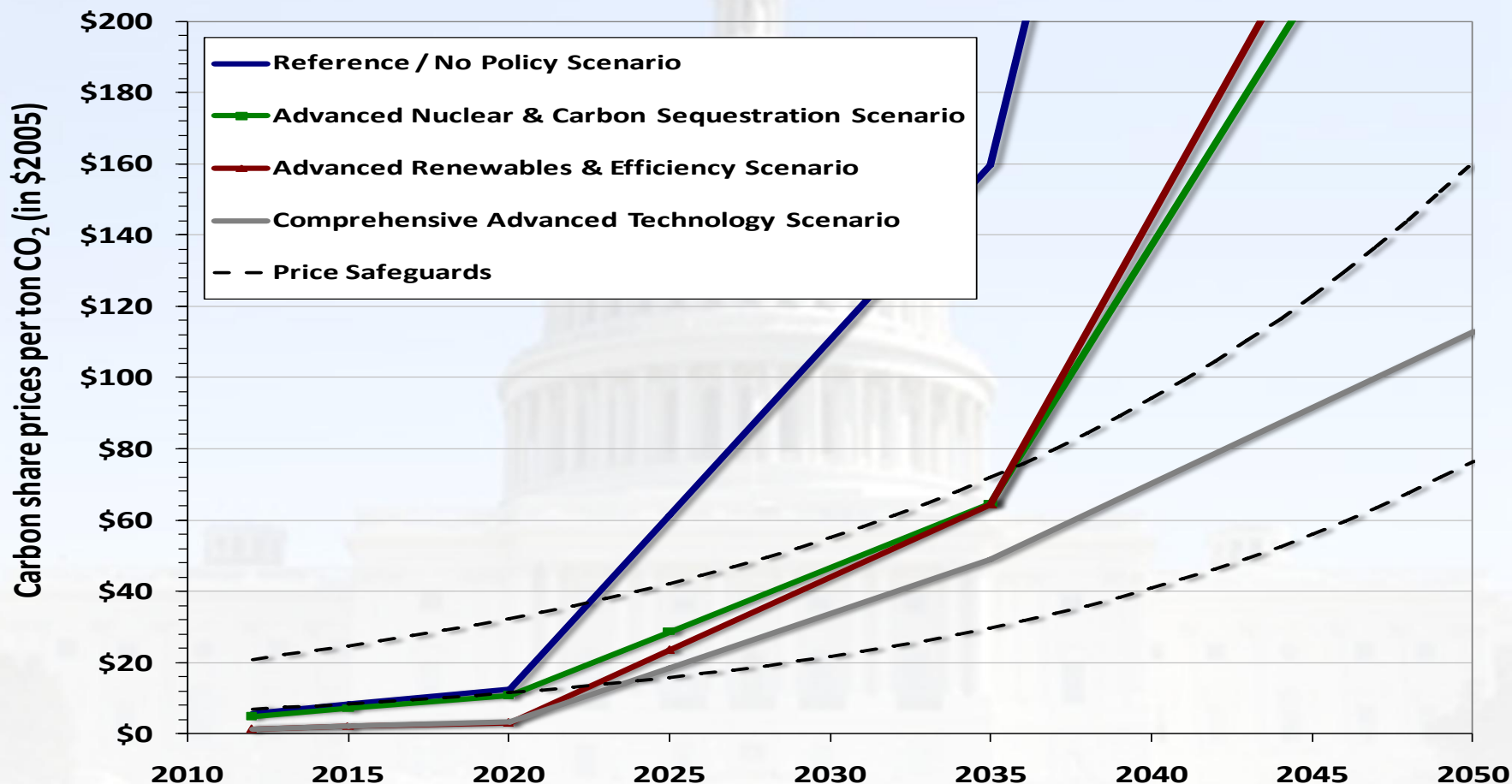
- Reasonable and knowable emission reduction curve allows time for technological breakthroughs and avoids premature dismantling of capital investments.
- Emissions still decline by 80+ percent of 2005 levels by 2050.



# CLEAR Act Actually Decarbonizes Economy



# Price Safeguards



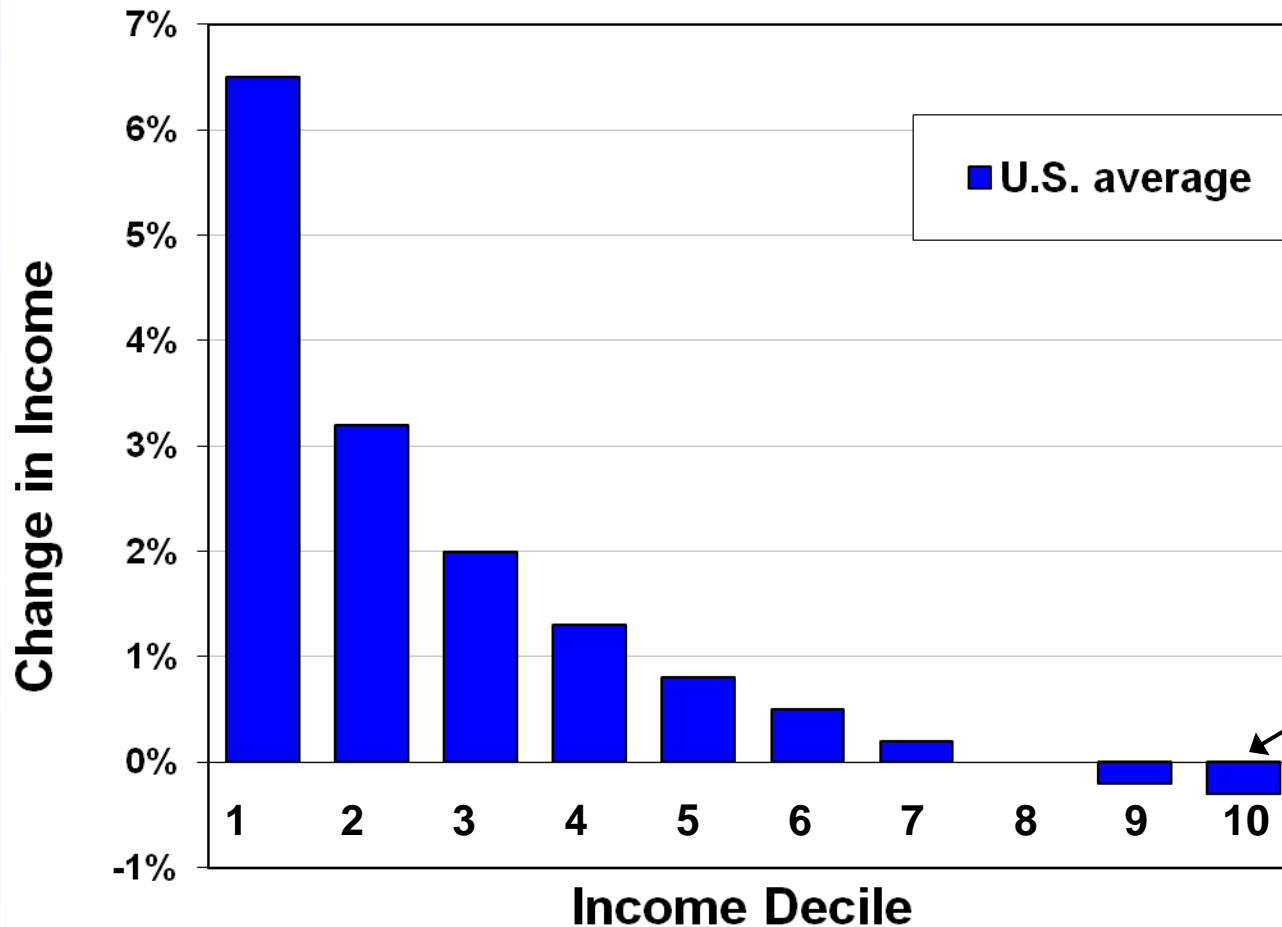
- Floor (\$7) and ceiling (\$21) prices rise annually at 6.5% and 5.5% real rates, respectively.
- All valid bids are accommodated at the safety valve price.
- All revenues from carbon share sales in excess of the cap at the ceiling price are directed to the CERT Fund, explicitly for non-CO<sub>2</sub> greenhouse gas mitigation.





# Refund Covers Consumer Costs

Net Impact of Cap and Refund



- 75% of auction revenues distributed on an equal per capita basis returned tax-free each month to all individuals residing legally in the U.S.
- Several existing programs prove this is logistically possible

Nationally, only the top two income deciles incur a net cost after the refund.

Source: *Boyce and Riddle (2009)*, assumes 80% refund, \$25 per ton permit price.





# Energy and Climate Trust Fund (1)

The **Clean Energy Reinvestment Trust (CERT) Fund** accelerates and eases the transition to a green economy through:

- Targeted and region-specific transition assistance to workers, communities, industries, and small businesses of the United States experiencing the greatest economic dislocations due to efforts to reduce carbon emissions and address climate change and ocean acidification;
- Targeted and region-specific compensation for early retirement of carbon-intensive facilities, machinery, or related assets in the United States that are stranded by new market dynamics;
- Targeted relief for energy-intensive industries, including agriculture and forestry, that export their goods or products to countries that do not impose similar limits or fees on fossil fuels;
- Training and development programs to prepare United States workers for careers in energy efficiency, renewable energy, and other emerging clean technology industries;
- Mitigation of greenhouse gases other than carbon dioxide from fossil carbon and non-greenhouse substances that exacerbate or accelerate climate change (such as black carbon);



# Energy and Climate Trust Fund (2)

- Cost-effective domestic and international projects that verifiably reduce, avoid, or sequester greenhouse gas emissions, such as agriculture, forestry, or other land use practices;
- Investments in low and no carbon energy and fuels research, development, and deployment activities;
- Projects or initiatives that verifiably increase energy efficiency or energy productivity;
- Projects or initiatives that support residential fuel switching, particularly home heating oil;
- Projects and loans that verifiably increase energy efficiency and otherwise might not be undertaken without assistance;
- Weatherization and energy efficiency improvements of low-income and public buildings;
- Funding for climate change or ocean acidification mitigation and adaptation projects, activities and research to increase the resilience of human populations and communities, fish and wildlife, and managed and unmanaged terrestrial, aquatic and marine ecosystems in areas and countries in which impacts are likely to be most severe;
- Programs that protect or advocate for energy consumers;
- Ensuring that the program does not contribute to the Federal budget deficit.



# Carbon Leakage

The CLEAR Act requires border equalization fees for the “production-process carbon” in imported, energy-intensive commodities as long as they are:

- Consistent with all trade agreements to which the United States is a party, including World Trade Organization (WTO) obligations
- Applied only to imports from countries without comparable carbon limits or fees
- Restricted to industries with demonstrable disadvantages and international exposure



# Carbon Sequestration

The CLEAR Act also offers robust incentives for the commercialization and adoption of carbon capture and sequestration technologies:

- A midstream entity sequestering carbon would be granted carbon shares commensurate with the amount of fossil carbon that is embedded or sequestered, which can then be monetized.
- These “bonus” carbon shares are issued in addition to shares auctioned under the CLEAR Act’s upstream cap because this fossil carbon is permanently prevented from release into the atmosphere.
- Compensation is provided to manufacturers who purchase fossil fuel feedstocks used to produce goods (like plastics or fertilizer) that permanently embed carbon and prevent its release to the atmosphere.



# Carbon “Offsets”

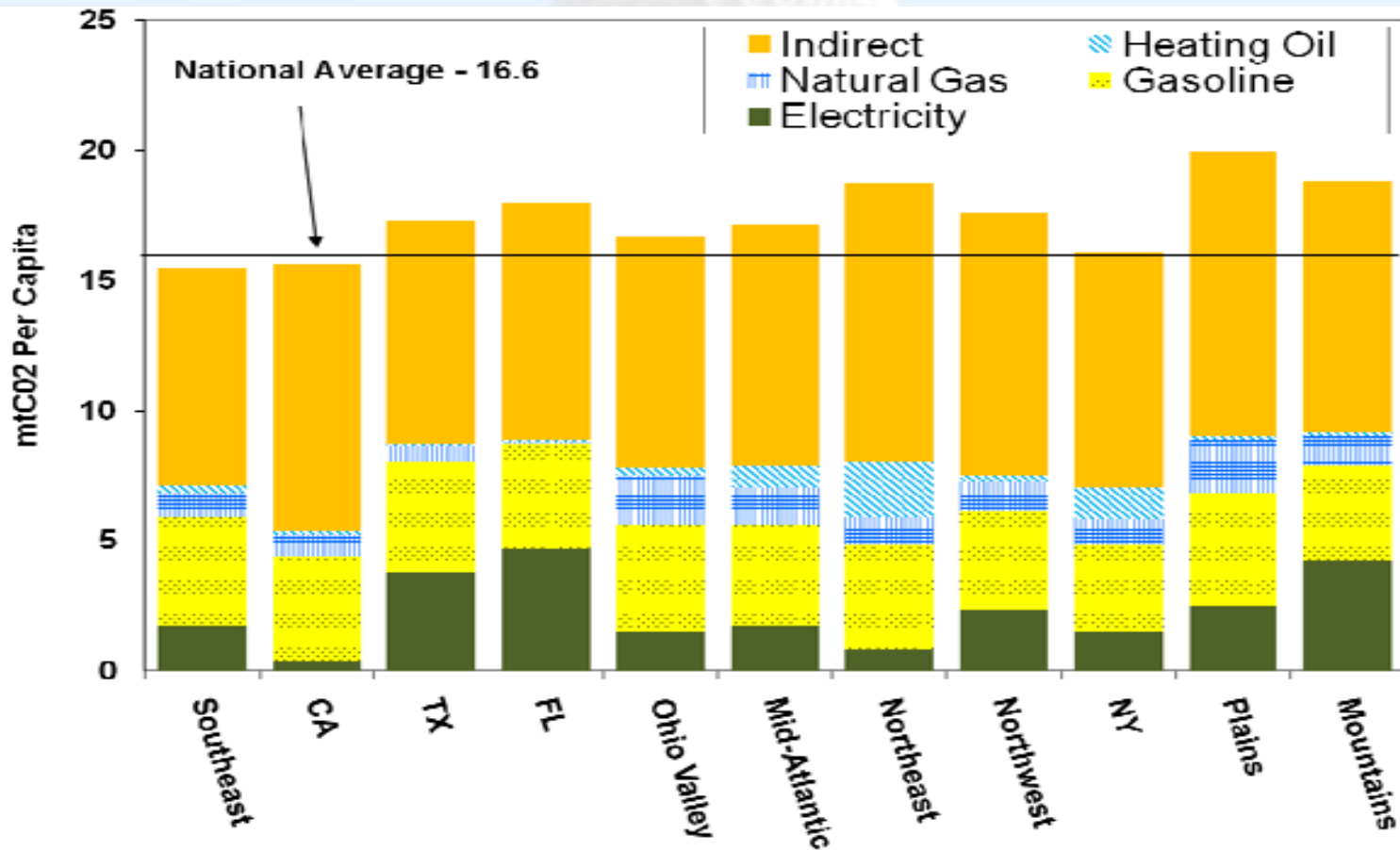
The CLEAR Act provides direct funding for a wide variety of agriculture, forestry and energy efficiency projects, but treats them as additional mitigation activities, rather than substitutes for emissions reductions, commonly known as “offsets.”

- Treating these projects as additional allows the CLEAR Act to achieve its mitigation targets while avoiding excessive reliance on questionable international agriculture and forestry activities.
- By prohibiting the use of offset-like activities to satisfy compliance obligations, the CLEAR Act achieves a true decarbonization of the economy and ensures that emitters change their behaviors and practices to reduce carbon intensity.



# Carbon Equality

Under the CLEAR Act's upstream cap, regional fossil fuel intensities do not vary widely and fossil carbon prices are passed downstream equally to all users, so the program will not result in significant net regional redistribution of income.



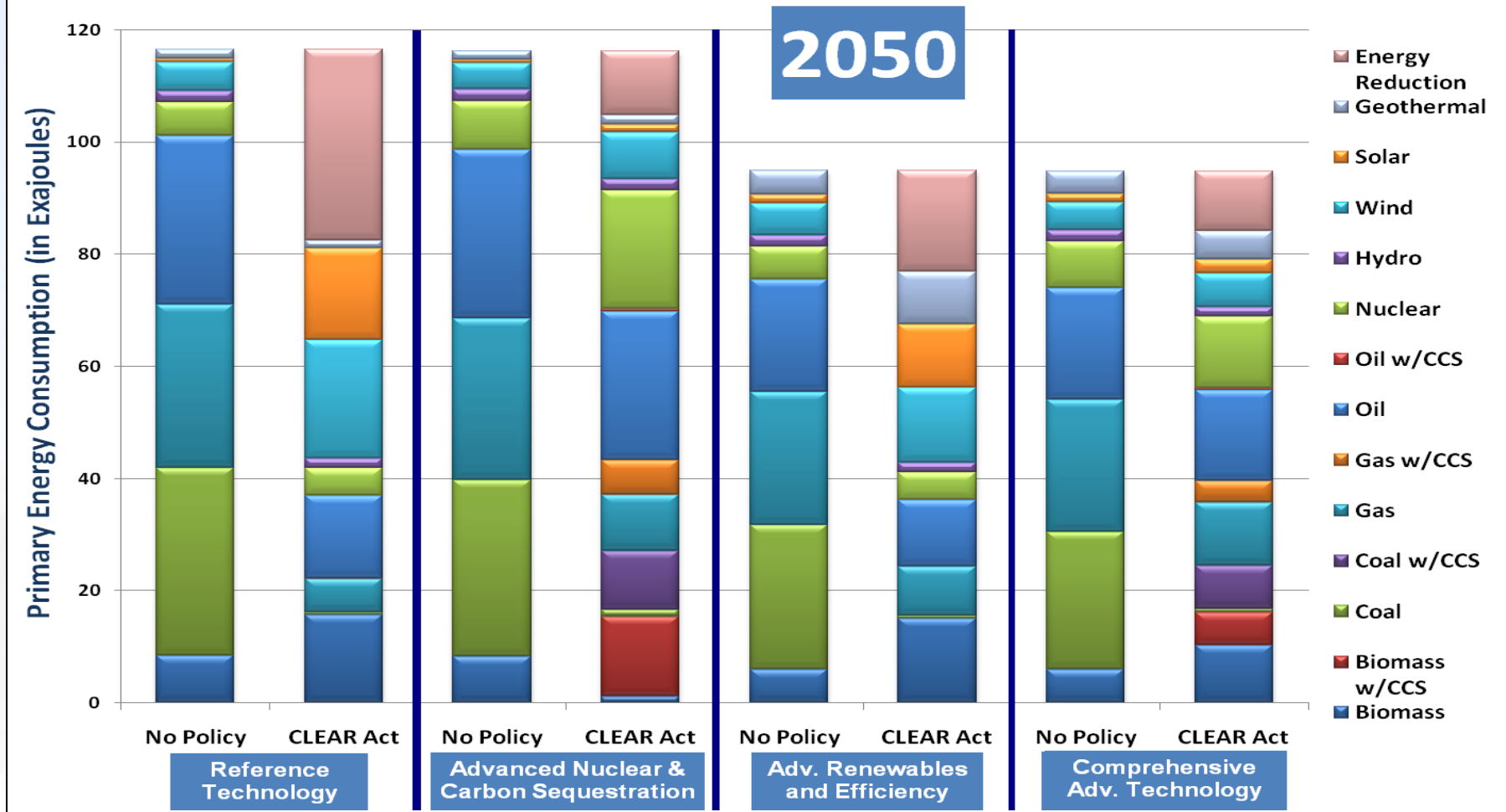
Source: *Burtraw, Sweeney, and Walls (2009), Resources for the Future.*





# Predictable Carbon Price Signal Greatly Diversifies America's Energy Mix

Energy portfolios under four technology scenarios, with and without the CLEAR Act





# Fuel Mix Impact: Renewable Energy

## The CLEAR Act accelerates growth in renewable energy:

- 14% more renewable energy production compared to no policy case by 2020
- 54 - 101% more renewable energy production compared to no policy case by 2035
- 64 - 196% more renewable energy production compared to no policy case by 2050



# Fuel Mix Impact: Foreign Oil Dependence

