



Using less. Doing more.

Prospective CAA §111(d) Power Plant GHG Rule Meeting

Alliance to Save Energy
Alliance Power Sector Associates
NRDC

Selected Energy NGOs

June 11, 2013

1:00-3:00 PM EDT

Agenda


- Introductions
- Brief context
 - Rodney Sobin, Alliance to Save Energy
- NRDC §111(d) proposal
 - David Hawkins and Derek Murrow, NRDC
- §111(d) legal issues
 - Kyle Danish, Van Ness Feldman
- Discussion

Brief Context

- Apr. 2, 2007, *Massachusetts v. EPA* USSC finds GHGs, incl. CO₂, are air pollutants under CAA.
- Dec. 15, 2009, EPA endangerment finding.
- Dec. 23, 2010, EPA proposed settlement agreement to issue rules on GHGs from certain fossil fueled EGUs.
- Early 2011, EPA listening sessions, comments on potential Carbon Pollution Standard for new EGUs.
- Mar. 27, 2012, EPA proposes standard (§111(b) NSPS).
 - Final rule still pending.
- GHG NSPS would trigger EPA development of emission guidelines to states to regulate existing EGUs (§111(d)).
 - §111(d) little used; scope for state flexibility (“SIP-like”).
 - Various reports/analyses of §111(d) options
 - Role for energy efficiency?
 - NRDC proposal Dec. 2012, revised Mar. 2013



CLOSING THE POWER PLANT CARBON POLLUTION LOOPHOLE: SMART WAYS THE CLEAN AIR ACT CAN CLEAN UP AMERICA'S BIGGEST CLIMATE POLLUTERS



Clean Air Act carbon standards are a powerful tool to protect our climate, health, and America's economy.



LARGE BENEFITS, LOW COSTS

Pollution cuts: 560 million tons less carbon pollution in 2020; twice the reductions from the clean car standards

Health protections: up to 3,600 lives saved, and thousands of asthma attacks and other health incidents prevented in 2020 alone

Clean energy investments: \$90 billion in energy efficiency and renewables investments between now and 2020

Low costs: only \$4 billion in compliance costs in 2020

Large benefits: \$25-60 billion value of avoided climate change and health effects in 2020



POLICY DESIGN

STRONG STANDARDS, MAXIMUM FLEXIBILITY

- **FAIR:** State-specific fossil-fleet average CO₂ emission rate standards
 - Different standard for each state, **recognizing differences** in baseline coal/gas generation mix
 - All **fossil fuel generators** within a state subject to same lbs/MWh standard in 2020 and 2025
- **FLEXIBLE:** Full range of emission reduction measures count
 - Reducing **heat rates** at individual power plants
 - Shifting **dispatch** from high-emissions to low-emissions units
 - Credit for incremental **renewables** and **energy efficiency**
 - States may **opt in to interstate** averaging or credit trading
 - States may adopt **alternative compliance plan** that achieves equivalent emission reductions

FLEXIBLE COMPLIANCE OPTIONS



HEAT RATE REDUCTIONS



CLEANER POWER SOURCES

FLEXIBLE COMPLIANCE



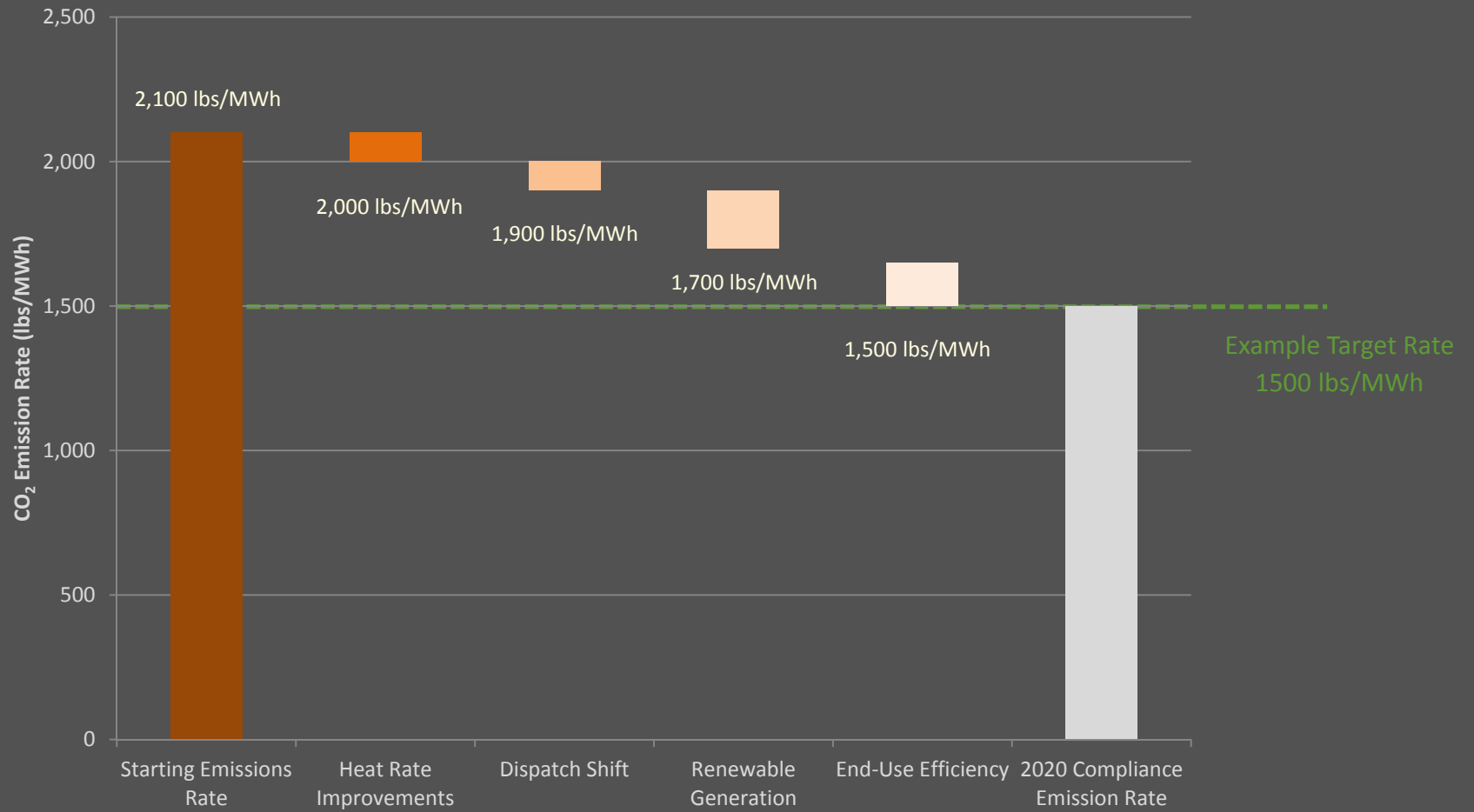
MORE RENEWABLES



INVESTMENTS IN EFFICIENCY



FLEXIBLE COMPLIANCE OPTIONS





SMART STANDARDS DRIVE BILLIONS OF INVESTMENT DOLLARS TOWARD ENERGY EFFICIENCY

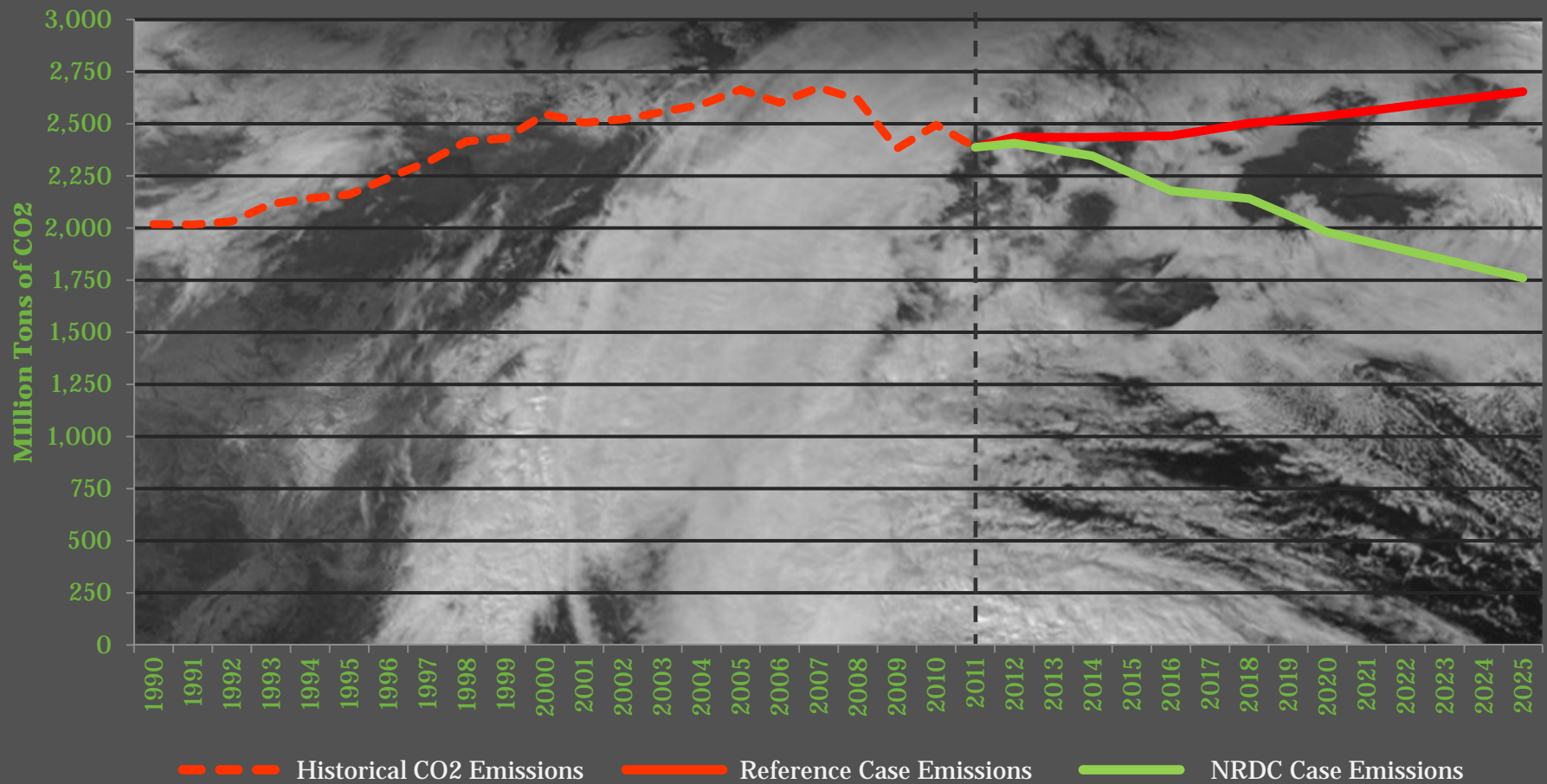


Smart carbon standards encourage states to adopt policies that can drive over \$90 billion in investments toward energy efficiency by 2020, while reducing spending on fuel and power plants. Similarly, states will have an incentive to strengthen and implement their renewable portfolio standards, also driving billions of dollars in investment.



BIG REDUCTIONS

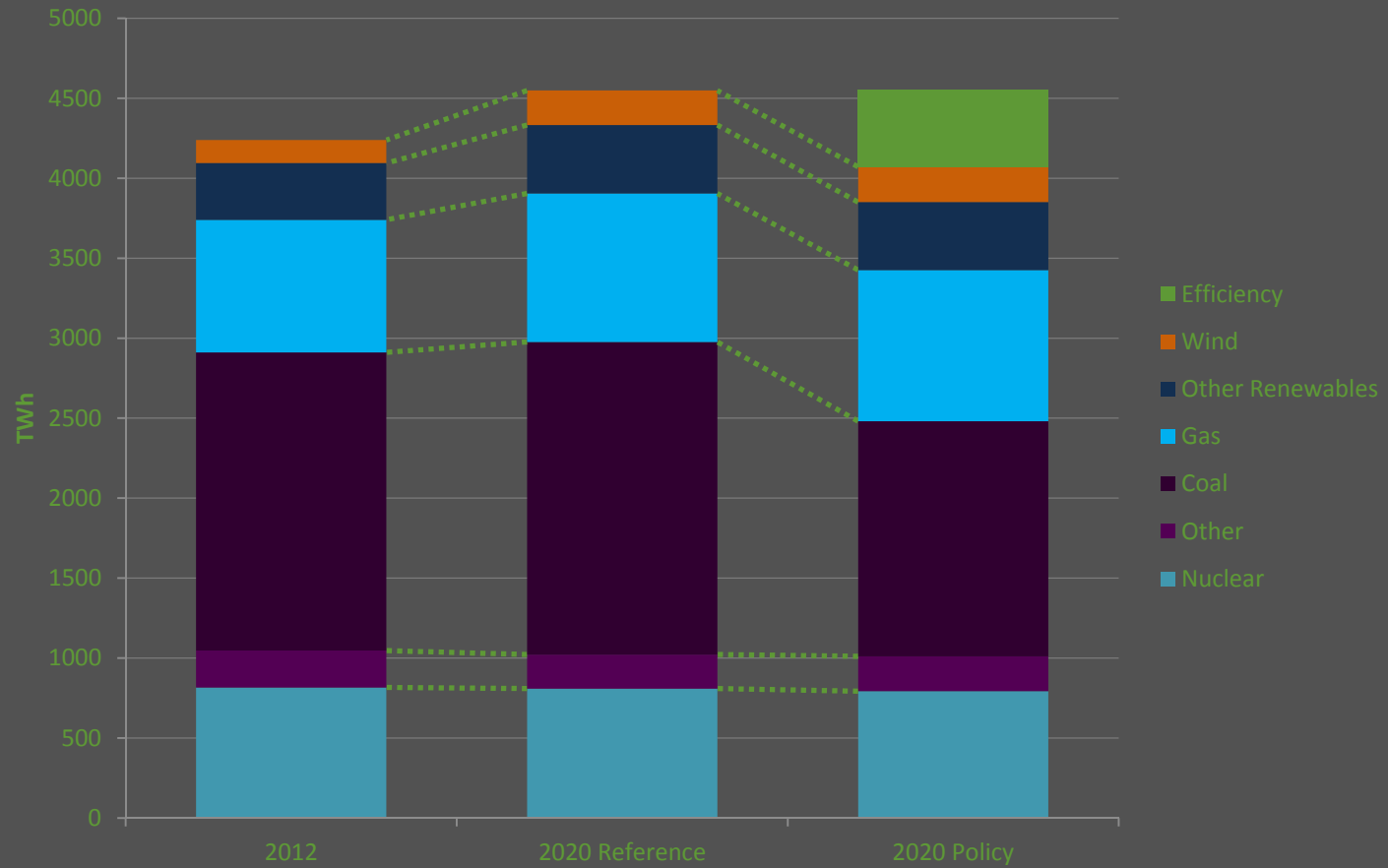
Historical and NRDC-Projected Power Sector CO2 Emissions



Source for historical CO2 emissions data: EIA.

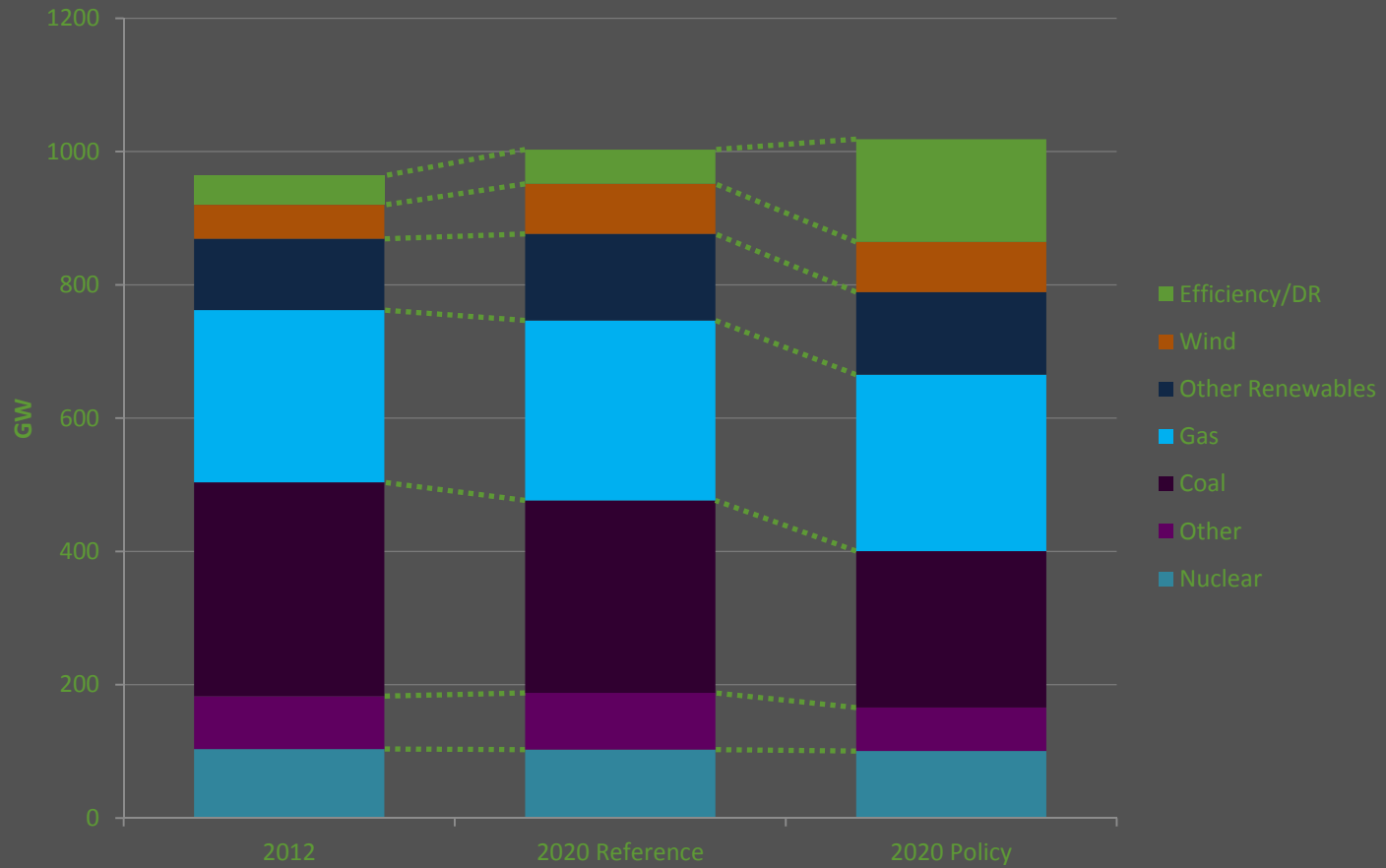


PROJECTED GENERATION CHANGES IN THE U.S. POWER SECTOR



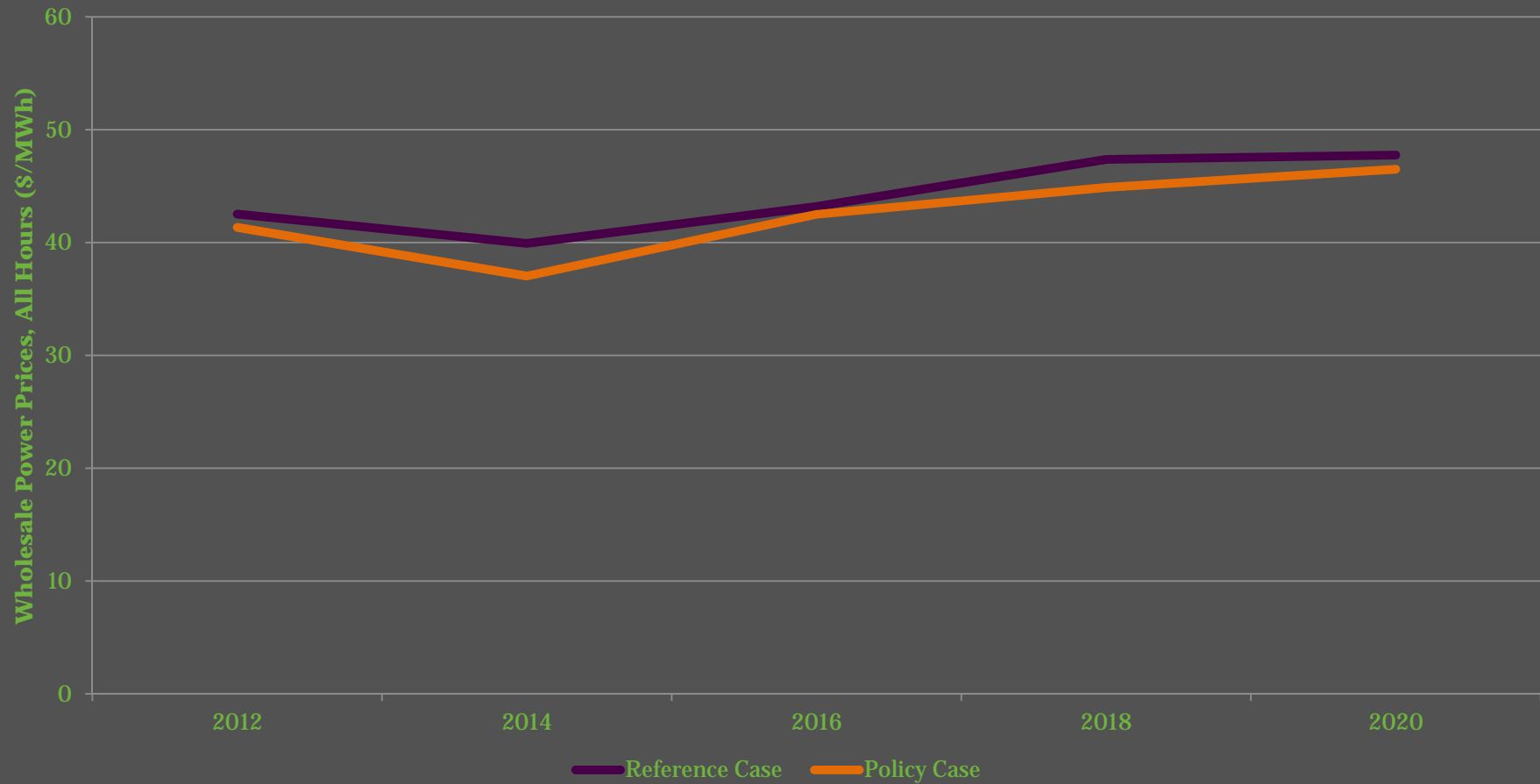


PROJECTED CAPACITY CHANGES IN THE U.S. POWER SECTOR





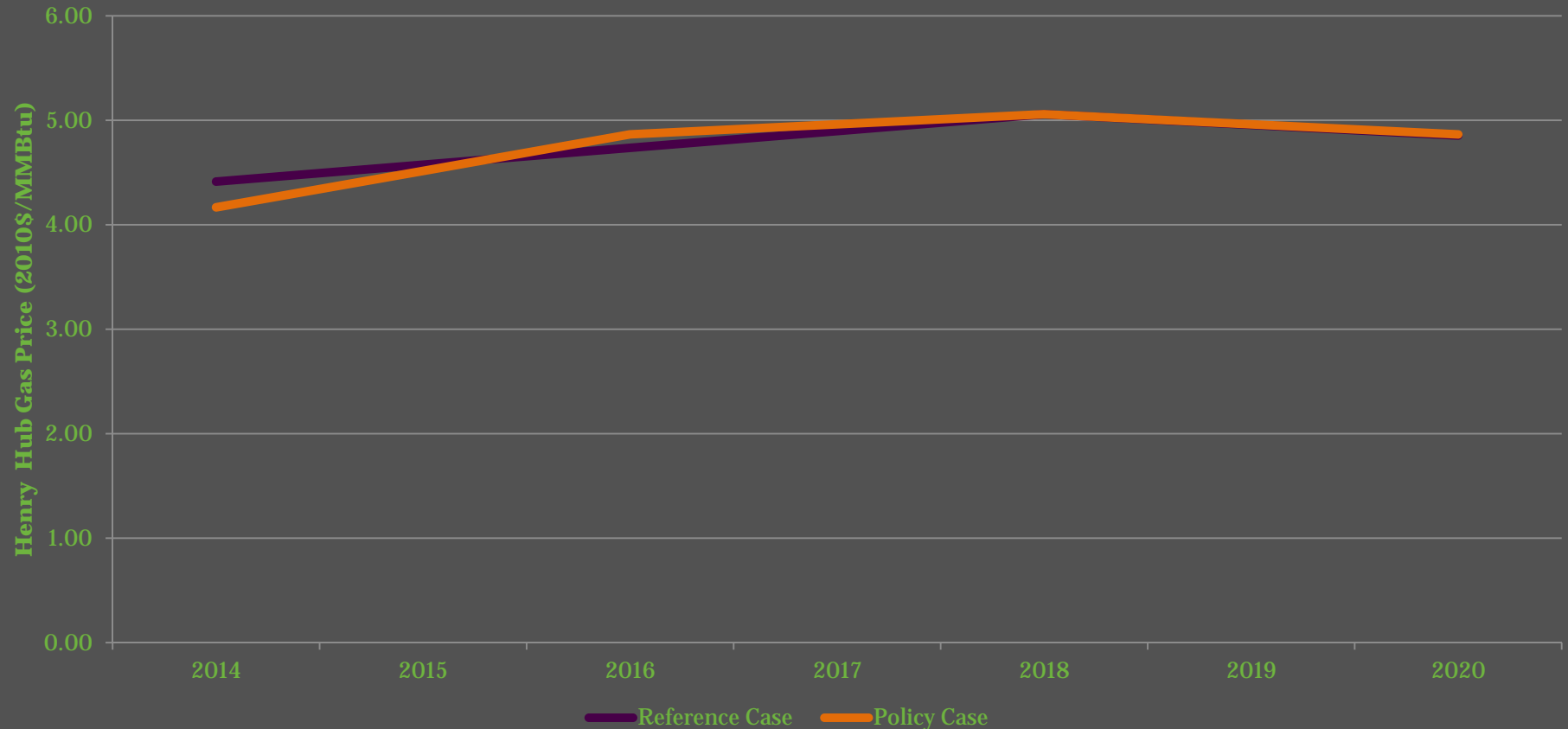
COMPARATIVE WHOLESALE POWER PRICES FIVE-REGION AVERAGE (2010\$/MWh)



Note: Generation-weighted average of PJM, Southeast (excluding Florida), MISO, NYISO, ISO-NE, accounting for 60% of national generation



COMPARATIVE HENRY HUB GAS PRICES NATIONAL AVERAGE (2010\$/MMBtu)



Note: For the purposes of this assessment, natural gas prices are a projection of IPM based on assumed natural gas supply fundamentals and the power sector gas demand resulting from NRDC specified assumptions. Natural gas supply curves for the forecast years were developed based on the amount of resource available and the E&P finding and development costs (fixed and



SAVING LIVES AND REDUCING COSTLY HEALTH PROBLEMS



CARBON LIMITS WILL CUT OTHER POLLUTANTS AND...

save as many as 3,600 lives

prevent over 23,000 asthma attacks

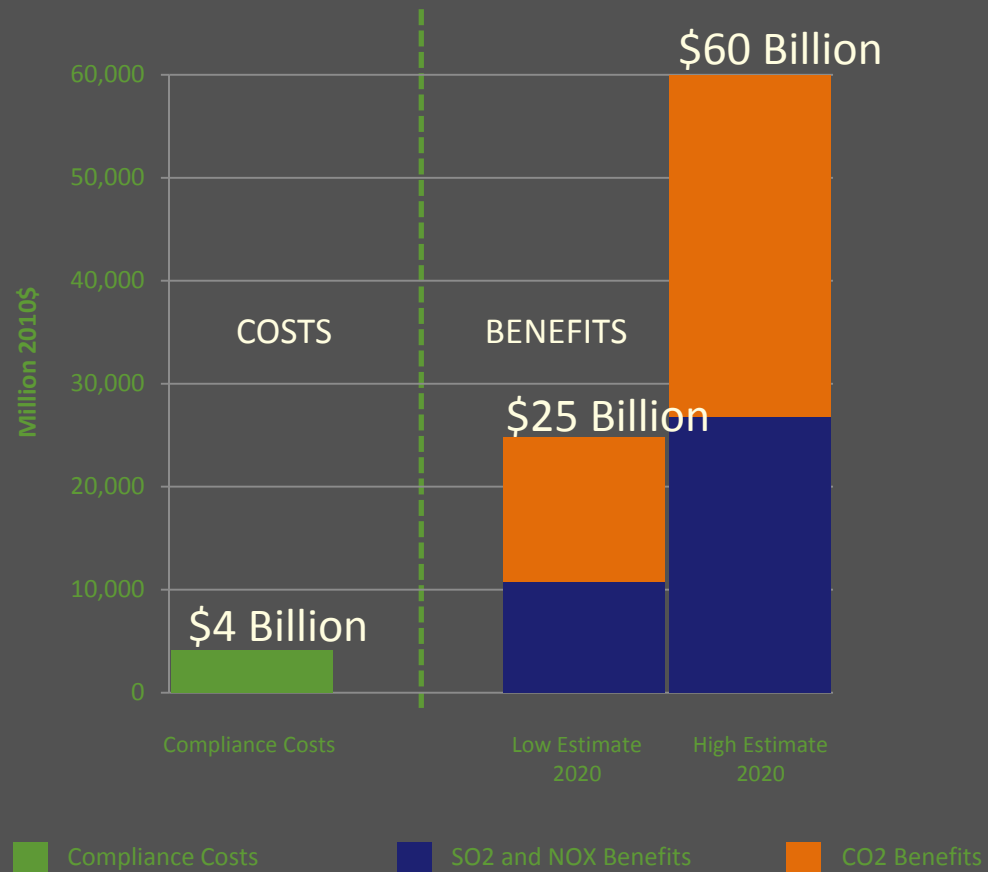
avoid over 2,300 emergency room visits and hospital admissions

prevent nearly 1.2 million restricted activity and work loss days

AVOIDING UP TO \$26 BILLION IN HEALTH DAMAGES FOR AMERICANS IN 2020 ALONE



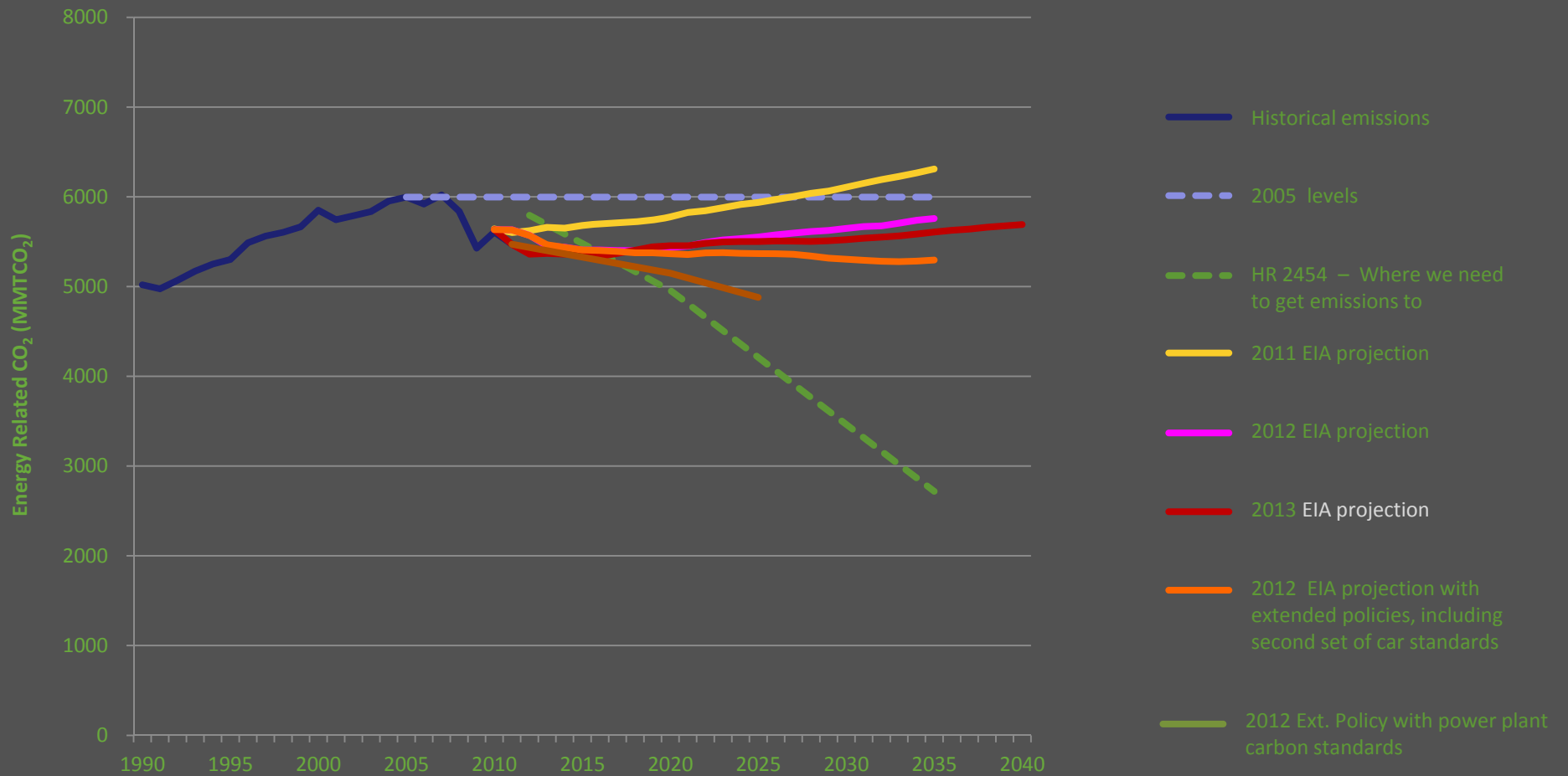
ESTIMATED COSTS AND BENEFITS FROM REDUCTIONS IN CO2, SO2 AND NOX (2020)





STRONG STANDARDS MEAN HUGE EMISSIONS REDUCTIONS

Car and Power Plant Standards Get Us Four-Fifths of the Way to President's 2020 Target (17% below 2005 levels by 2020 Reduction)





For the full NRDC Power Plant Report visit:

<http://www.nrdc.org/air/pollution-standards/files/pollution-standards-report.pdf>



Section 111(d) legal issues

Kyle Danish, Van Ness Feldman

Discussion