Analysis of
The Lieberman-Warner Climate Security Act (S. 2191)
Using
The National Energy Modeling System (NEMS)

A Report by the
American Council for Capital Formation
and the
National Association of Manufacturers

Analysis Conducted by
Science Applications International Corporation (SAIC)

ACCF
AMERICAN COUNCIL FOR CAPITAL FORMATION

NAM National Association of Manufacturers

Assumptions Used in Modeling: Technology Build Constraints (2030 Build Limits)

	High Cost Scenario	Low Cost Scenario
Nuclear	10 GW	25 GW
IGCC w Sequestration	25 GW	50 GW
Biomass	Max 3 GW/Year	Max 5 GW/Year
Wind	Max 3 GW/Year	Max 5 GW/Year
NGCC w Sequestration	25 GW	50 GW

Assumptions Used in Modeling: Other Specifications

	High Cost Scenario	Low Cost Scenario
Offsets	15-20%	Greater than 20%
Oil Price Profile	AEO2007 High Profile Side Case	AEO2008 Ref Price Profile
Natural Gas Prices	Not Constrained	Not Constrained
Cellulosic Ethanol	With HR.6 – Not Constrained	With HR.6 – Not Constrained
Banking	No Banking	No Banking
HR.6 (Key items that could be modeled)	Yes	Yes
Allowance Prices	Not Constrained	Not Constrained

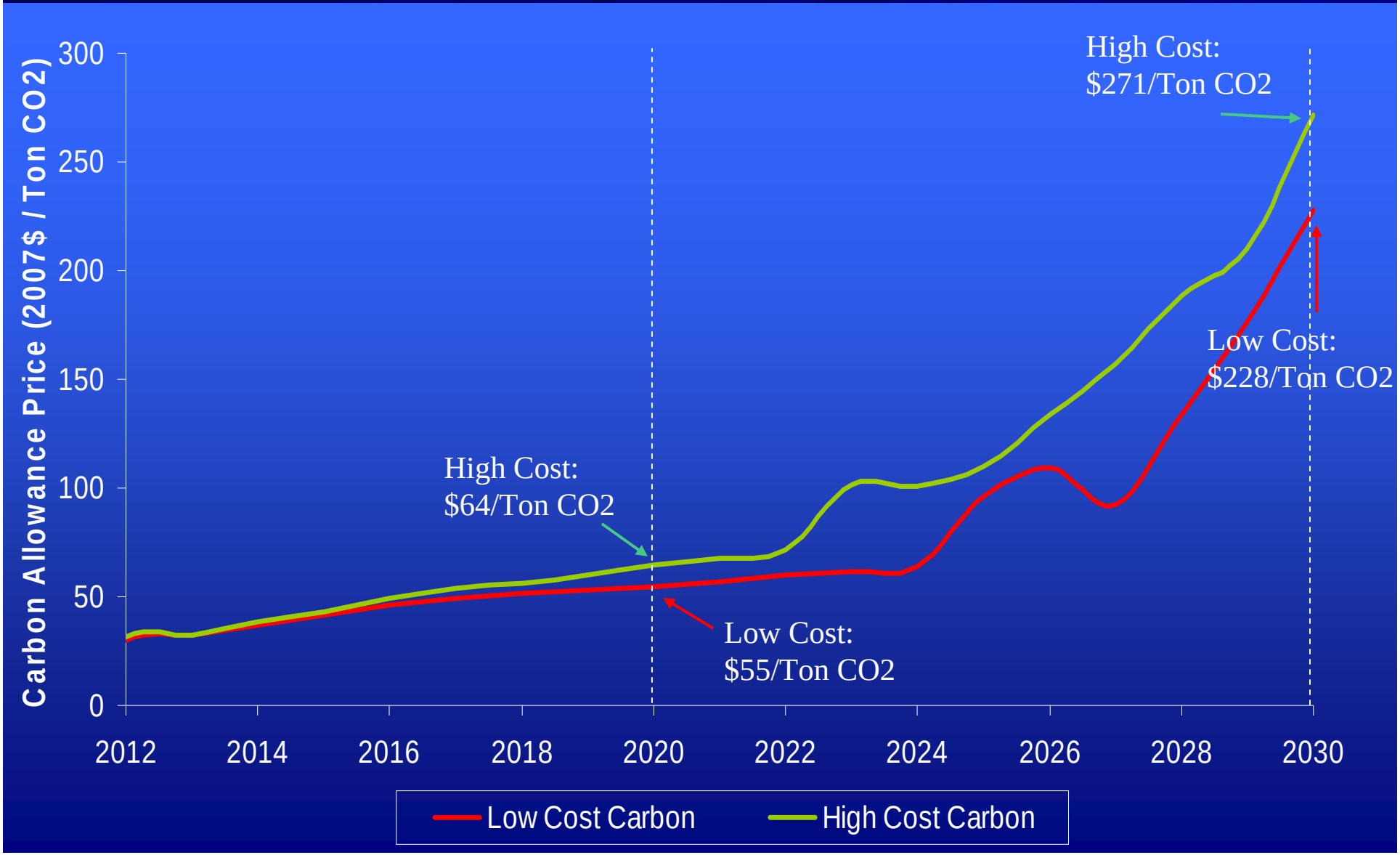
Assumptions Used in Modeling: Technology Total Capital Requirement (2008$/kW)

	High Cost Scenario	Low Cost Scenario
Nuclear	3,410	3,410
IGCC	2,640	2,640
NGCC	1,100	1,100
Supercritical PC	2,200	2,200
IGCC w SEQ	3,696	3,696
NGCC w SEQ	2,090	2,090
Wind-Onshore	2,000	2,000
Wind-Offshore	3,800	3,800
Biomass	3,968	3,968

Impact of Lieberman-Warner Bill on the United States Compared to Baseline Forecast

	Low Cost Case			High Cost Case		
	2014	2020	2030	2014	2020	2030
Loss in GDP	-0.8%	-0.8%	-2.6%	-1.6%	-1.1%	-2.7%
Loss in Jobs (millions)	-0.85	-1.22	-3.04	-1.86	-1.80	-4.05
Loss in Household Income (2007$)	-$1,010	-$739	-$4,022	-$2,779	-$2,927	-$6,752

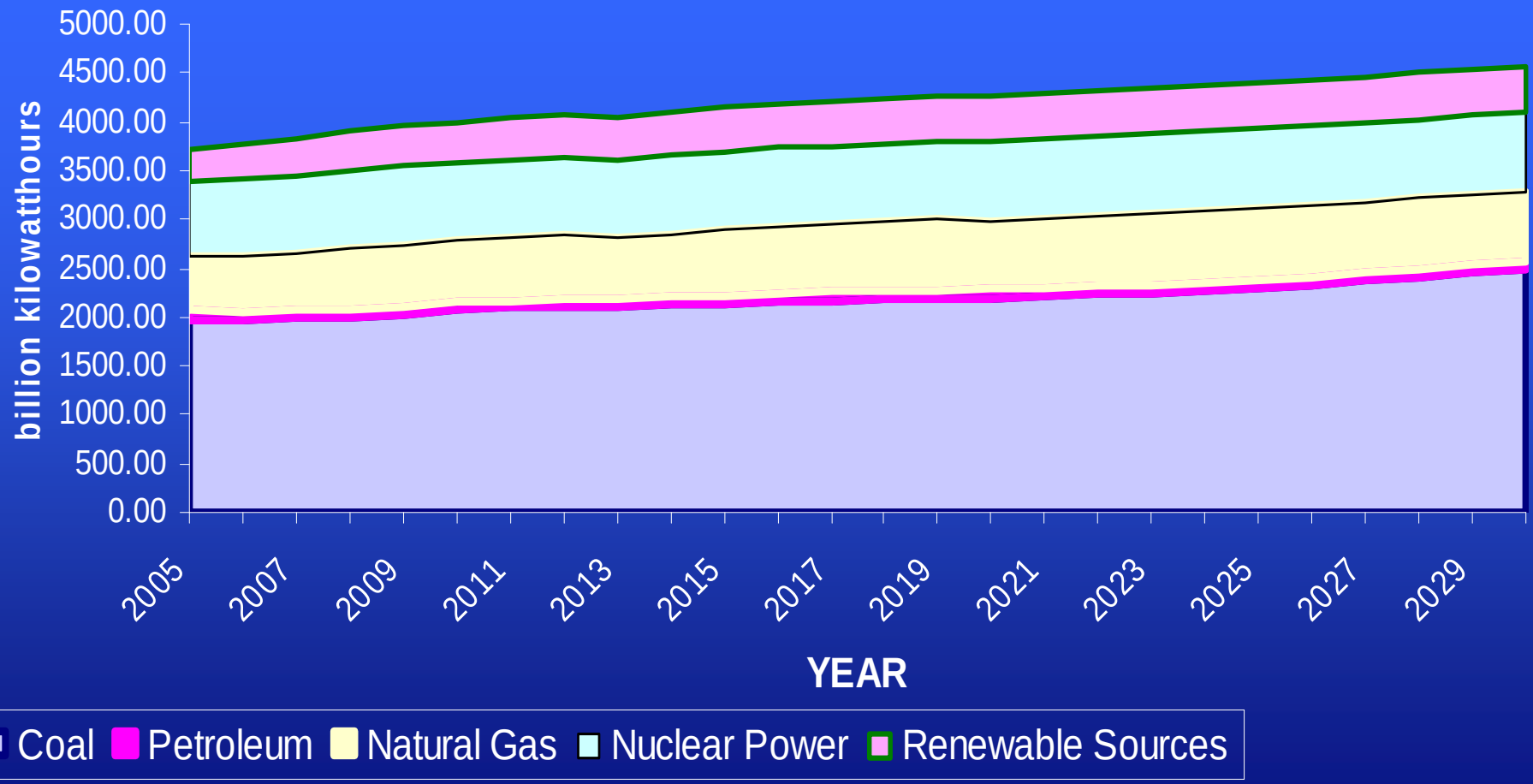
Macroeconomic Impact of Lieberman-Warner Bill: Carbon Allowance Price (2007$/Ton CO2)



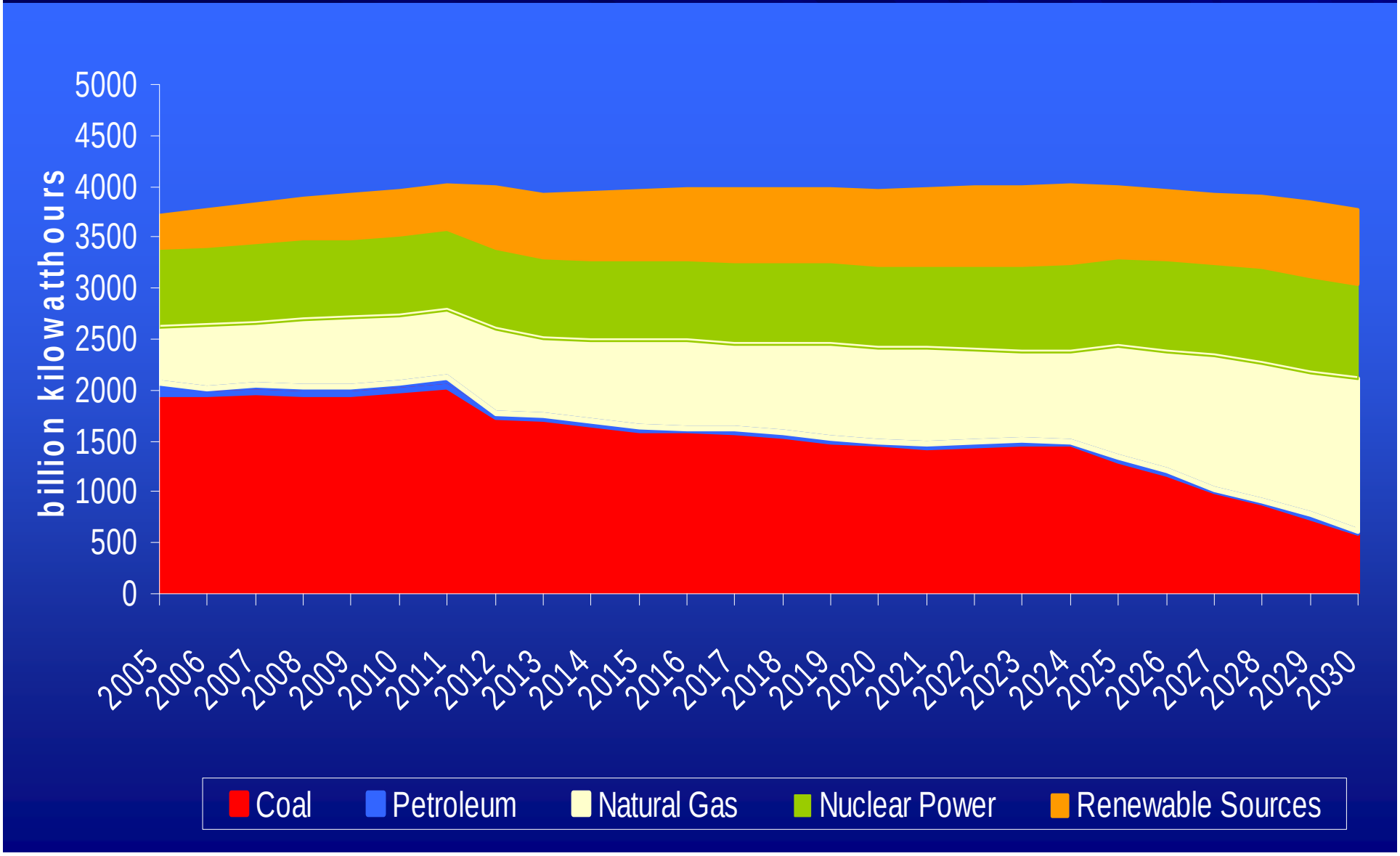
Impact of Lieberman-Warner Bill on the United States: Change in Energy Prices Compared to Baseline Forecast

	Low Cost Case			High Cost Case		
	2014	2020	2030	2014	2020	2030
Rise in Gasoline Prices	13%	20%	77%	50%	69%	145%
Rise in Residential Electricity Prices	13%	28%	101%	14%	33%	129%
Rise in Industrial Electricity Prices	22%	41%	142%	23%	49%	185%
Rise in Industrial Natural Gas Prices	36%	49%	180%	40%	66%	244%

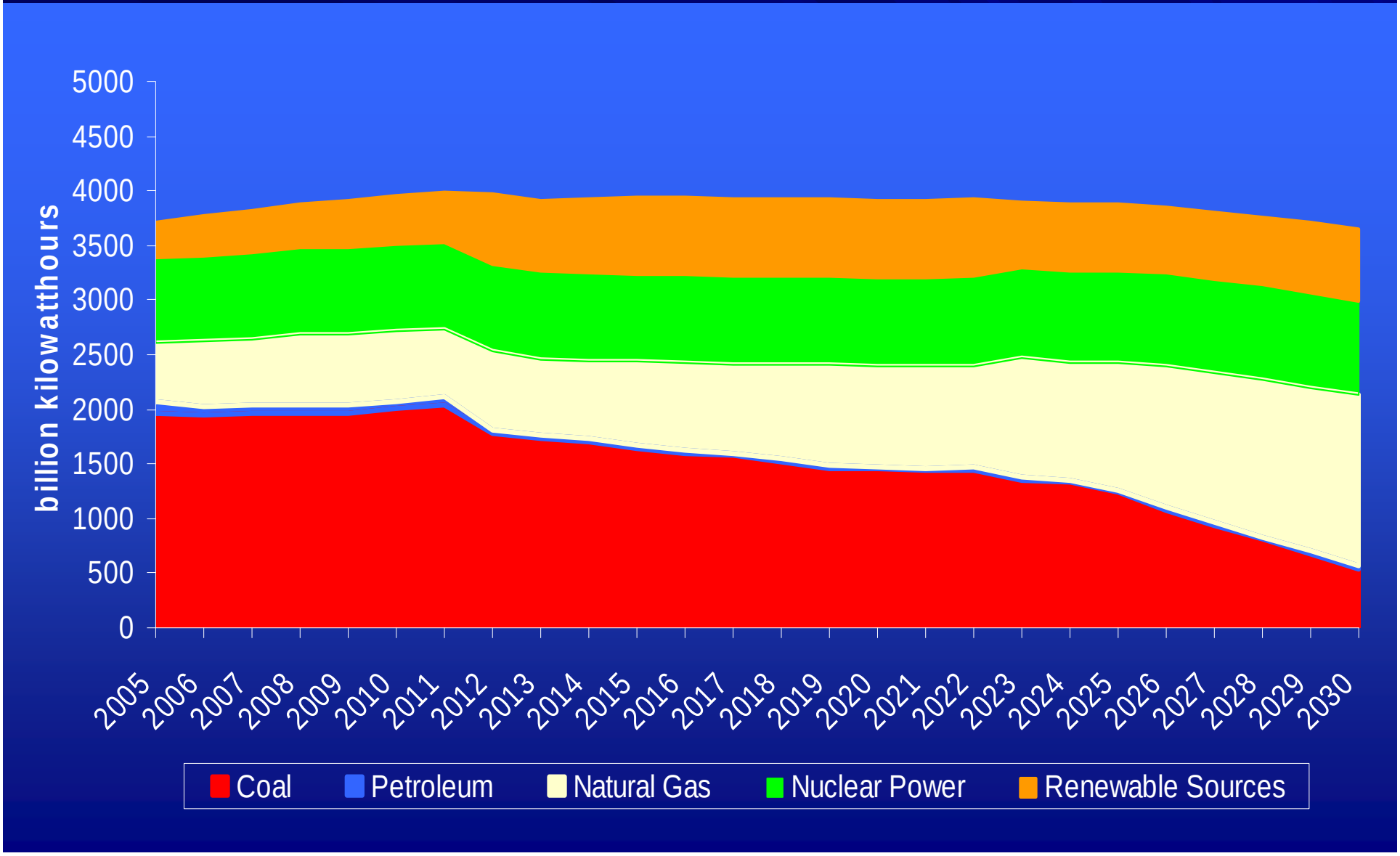
Macroeconomic Impact of Lieberman-Warner Bill: Baseline: Net Generation by Fuel Type



Macroeconomic Impact of Lieberman-Warner Bill: Low Cost: Net Generation by Fuel Type



Macroeconomic Impact of Lieberman-Warner Bill: High Cost: Net Generation by Fuel Type



Macroeconomic Impact of Lieberman-Warner Bill: Total Power Generation