

# **WILL CAP-AND-TRADE SUFFOCATE CHEMICAL MANUFACTURING JOBS?**

**Presentation to**

**2009 LCA/LCIA Annual Legislative Conference**

**By**

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# WILL CAP-AND-TRADE SUFFOCATE CHEMICAL MANUFACTURING JOBS?

## PRESENTATION OUTLINE

- Introduction
- Climate Legislation Update
- Potential Impacts of Cap-and-Trade on Louisiana
- Louisiana GHG Emissions
- Update on Ozone, Particulate Matter, and GHG Regulation
- Questions/Discussion

# CLIMATE LEGISLATION UPDATE

## Waxman-Markey Status

- Last year the primary climate legislation bill (Lieberman-Warner, S. 2191) failed in the Senate
- This year climate legislation originated in the House (Waxman-Markey, ACESA)
- Waxman sets goal of Memorial Day to get bill out of his committee
- Hearings on Waxman-Markey discussion draft held in Energy and Environment Subcommittee week of April 20th
- Markup moved up from Energy and Environment Subcommittee to full Committee on Energy and Commerce (reportedly scheduled for May 14<sup>th</sup>)
- Following negotiations, Waxman pledges to produce new version of draft legislation this week, while again promising to pass the bill out of the full committee before the Memorial Day recess.
- Recent *Environment & Energy Daily* count of positions for the 435 House lawmakers yields 163 yes, 146 no, and 126 "fence sitters" for house climate bill. Centrist democrats will be key to bill's fate.

**WAXMAN-MARKEY  
THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009  
(ACESA)  
DISCUSSION DRAFT SUMMARY**

**Title I – Clean Energy**

- Renewable Energy
- Carbon Capture and Sequestration
- Clean Fuels and Vehicles
- Smart Grid and Electricity Transmission
- Partnering with the States
- Federal Purchases of Renewable Electricity

**Title II – Energy Efficiency**

- Building Energy Efficiency
- Manufactured Homes
- Appliance Energy Efficiency
- Transportation Efficiency
- Utilities Energy Efficiency
- Industrial Energy Efficiency
- Public and Federal Energy Efficiency

**Title III – Reducing Global Warming Pollution**

- Global Warming Pollution Reduction Program
- Supplemental Pollution Reductions
- Offsets
- Banking and Borrowing
- Strategic Reserve
- Carbon Market Assurances and Oversight
- Additional Greenhouse Gas Standards
- Clean Air Exemptions

**Title IV – Transitioning to a Clean Energy Economy**

- Ensuring Domestic Competitiveness
- Green Jobs and Worker Transition
- Consumer Assistance
- Exporting Clean Technology
- Adapting to Global Warming

# CLIMATE LEGISLATION UPDATE

## Will There Be Federal Climate Legislation This Year?

### Favoring Factors:

#### Obama Administration

- Addressing global warming was among the priorities of President Obama's campaign.
- Obama's recently proposed FY2010 budget includes a greenhouse gas (GHG) emissions reduction program.
- Obama's energy and environment team (Lisa Jackson-EPA; Steven Chu-DOE; Nancy Sutley-CEQ; Ken Salazar-DOI; and Carol Browner-Assistant to the President on Energy and Climate Change) all seem dedicated to confronting global warming.
- The State Department has appointed Todd Stern as its Climate Envoy to work with other nations on global warming issues.

#### Congress

- Both Speaker Pelosi in the House and Majority Leader Harry Reid in Senate are pushing for climate legislation.
- Henry Waxman, new Chair of the House Committee on Energy and Commerce, has called for climate legislation by Memorial Day.
- Barbara Boxer, Chair of the Senate Committee on Environment and Public Works has set a goal of submitting a climate bill prior to the Climate Conference in Copenhagen in December.

#### Vested Interests

- Alternative energy interests, environmental organizations, financial institutions (carbon markets), green businesses, law firms, scientists, etc.

# CLIMATE LEGISLATION UPDATE

## Will There Be Federal Climate Legislation This Year?

### Impeding Factors:

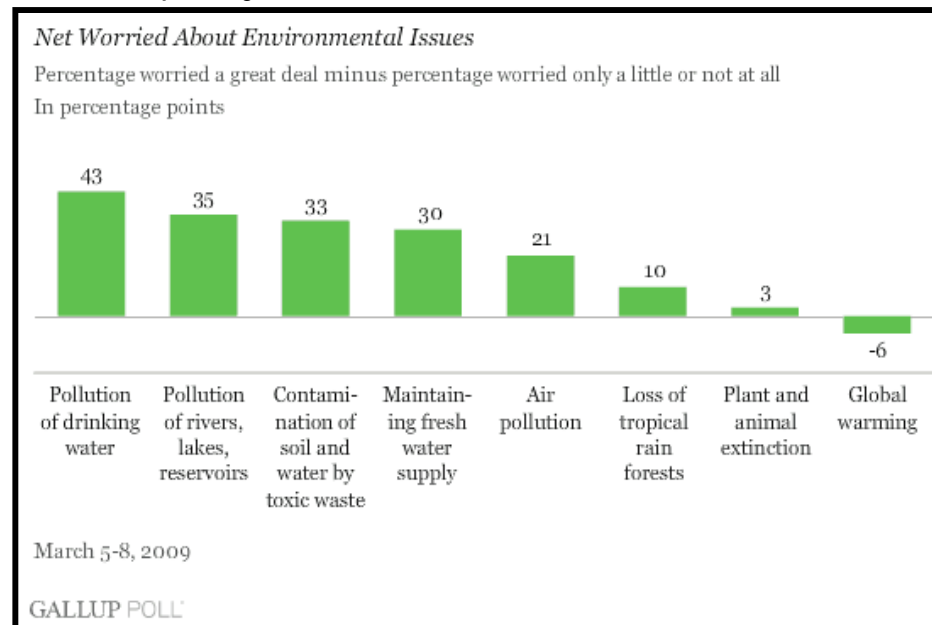
- The severe recession has pushed global warming aside as a major public concern and has focused attention on the cost of GHG regulation.
- Anthropogenic global warming (AGW) is an important issue, but it is not an immediate crisis.
- Climate science has now caught up with global warming alarmism.
- There are large numbers of well respected scientists who question various aspects of the AGW hypothesis and, after years of being marginalized and vilified as “skeptics” or “deniers”, have found their voice (outside mainstream media).
- After years of global warming alarmism, hyperbole, and catastrophic predictions about global warming, polls show that a growing percentage of the American public believes the threat of global warming is being exaggerated.
- Mother Nature is not cooperating with the climate modelers who have predicted increasing global temperatures with increasing atmospheric CO<sub>2</sub> levels.

# CLIMATE LEGISLATION UPDATE

## Will There Be Federal Climate Legislation This Year?

### Public Opinion

- *The O'Leary Report*/Zogby poll conducted April 24-27 found only 30% support cap-and-trade.
- Rasmussen Reports , May 11 – Congress pushes cap-and-trade, but just 24% know what it is. Given a choice of three options, just 24% of voters can correctly identify the cap-and-trade proposal as something that deals with environmental issues.
- According to Gallup's 2009 Environmental Survey, more Americans say the (global warming) problem is exaggerated rather than underestimated.
- In a recent poll conducted by the Pew Research Center, global warming ranked last among 20 concerns preselected for the poll by Pew.



# CLIMATE LEGISLATION UPDATE

## Will There Be Federal Climate Legislation This Year?

### Mother Nature Not Cooperating

- Mother Nature is not cooperating with the climate modelers who have predicted increasing global temperature with increasing atmospheric CO<sub>2</sub> levels.
- Even though CO<sub>2</sub> levels continue to climb, global temperature data reported by NASA satellite-based temperature measurements show a decade-long trend of declining global temperatures.
- The year 2008 was significantly cooler than 2007 and well below the average global temperatures over the past 30 years.
- An international weather service recently reported that the North Atlantic and North Pacific Oceans are now both cooler than normal for the first time in 15 years.
- Global sea-ice extent has recovered from recent lows and is growing.
- There have recently been a number of scientific studies pointing to continued climate cooling over the next 15-20 years.
- NASA reports we are entering a very deep solar minimum – the quietest the sun's been in over a century. In 2008, the sun set a number of records: a 50-year low in solar wind pressure; a 12-year low in solar irradiance, and a 55-year low in solar radio emissions. A number of scientists suggests that a quiet sun leads to a cooling climate.



# CLIMATE LEGISLATION UPDATE

## Will There Be Federal Climate Legislation This Year?

- There is still strong political pressure to produce climate legislation this year, although the probability for success seems to have fallen recently (especially the cap-and-trade element).
- There also seems to be growing political interest in prioritizing healthcare reform legislation over climate legislation at this time.
- Given current circumstances, a “no regrets” approach to climate legislation might be the most prudent course of action, where emphasis is placed on increased energy efficiency, energy conservation, and sources of renewable energy. This will give us GHG reductions from actions that make economic and energy security sense, while we continue to research and resolve uncertainties in the science of climate change and consequences of a national cap-and-trade program.
- What happens between now and Memorial Day will be telling.

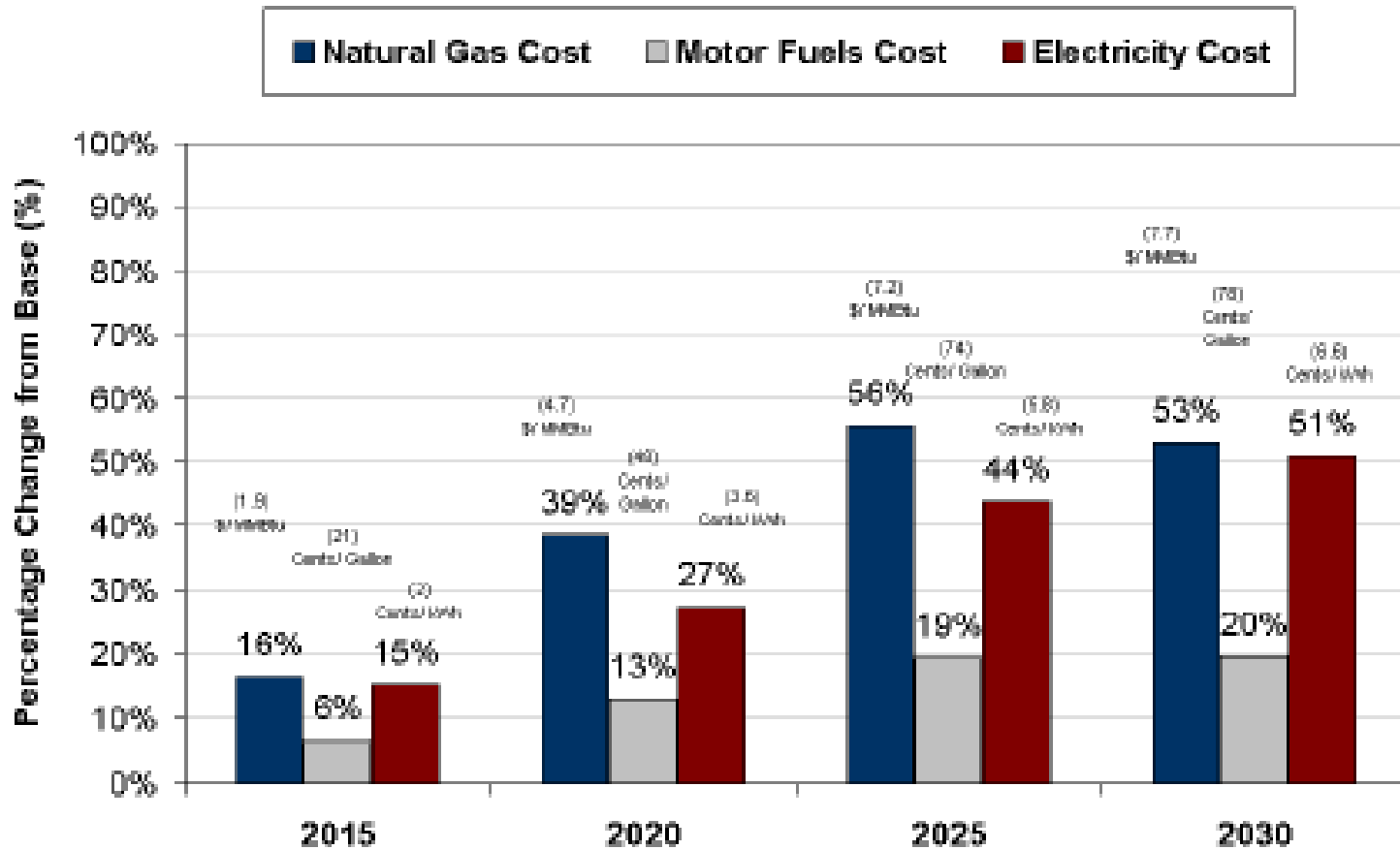
## POTENTIAL IMPACTS OF WAXMAN-MARKEY CAP-AND-TRADE

- CBO – The recent (May 7, 2009) CBO analysis update research of previous cap-and-trade proposals and estimates that a 15% reduction in greenhouse gases (GHG) would *cost American families between \$700 and \$2,200 a year* in increased energy and consumer goods prices.
- EPA – The cap & trade policy has a *relatively modest impact on U.S. consumers assuming the bulk of the revenues from the program are returned to household.*
- CRA International – By 2030, *net U.S. job losses could hit 3.2 million*, while *household purchasing power would shrink by more than \$2,100.*
- Duke Energy – Barack Obama's plan to raise revenue from an emissions trading system *would increase electricity bills by as much as 40%* in some U.S. states.
- Moody's – U.S. *electricity prices are likely to rise 15 to 30 percent* if a national cap on carbon dioxide is instituted.
- Energy Intelligence Group – U.S. EIA calculates that *natural gas prices will likely rise 14% to 49.5% from 2005 baseline levels by 2015.*
- Washington Times – Obama's climate plan could *cost industry close to \$2 trillion*, nearly three times the White House's initial estimate.

## POTENTIAL IMPACTS OF WAXMAN-MARKEY CAP-AND-TRADE (Continued)

- ConocoPhillips official – said that the *estimated \$68 billion the U.S. EIA estimated refiners would pay annually* under a \$25/ton carbon tax includes collections of end-users' carbon taxes in addition to levies on refiners' greenhouse gases..
- Dr. Arthur Laffer - because fossil fuels (oil, coal, and natural gas) provide 86 percent of current U.S. energy needs and it is not currently feasible to substitute contribution of alternative energy sources in the near-term, *"a GHG cap could effectively become an energy production cap -- or an energy supply shock."*
- Douglas Elmendorf, Director, Congressional Budget Office – Under a cap-and-trade program, *consumers would ultimately bear most of the costs of emissions reductions*. Firms that used emission allowances for CO<sub>2</sub> would generally pass along to consumers the cost of using those allowances in the form of higher prices for their products – regardless of whether the government sold emission allowances or gave them away.
- OpEd, Washington Examiner – President Obama wants to prevent “runaway global warming,” by slashing U.S. carbon dioxide emissions to below 1990 levels by 2050. According to Oak Ridge National Laboratory data, *this would return the country to emission levels last seen in 1905*.
- Sharon Begley, Newsweek – We Can't Get There from Here. *Political will and a price on CO<sub>2</sub> won't be enough to bring about low-carbon energy sources*. (to attain 2050 goals we will need Nobel-caliber discoveries).
- Berkshire Hathaway CEO Charlie Munger – An artificial market in government-mandated carbon credits would be *"monstrously stupid to do right now"*.

# POTENTIAL IMPACTS OF WAXMAN-MARKEY CAP-AND-TRADE



Source: CRA Model Results using publicly available data, 2009

Note: Values in \$2008

# ESTIMATED SECTOR IMPACTS OF A \$10/TON CO<sub>2</sub> TAX

## General Equilibrium Effects on Employment and Capital of a \$10/ton CO<sub>2</sub> Tax (percent change)

	EMPLOYMENT			CAPITAL
	Short Run	Medium Run	Long Run	Long Run
<b>Manufacturing Industries</b>				
Food	-0.38	0.06	0.08	0.02
Textile	-1.13	-0.52	-0.32	-0.38
Apparel	-1.03	-0.10	0.05	0.00
Lumber, wood, paper	-0.53	-0.25	-0.10	-0.18
Petroleum refining	-0.78	-5.64	-3.86	-3.93
Chemical and plastics	-1.74	-0.81	-0.47	-0.55
Nonmetallic mineral	-1.20	-0.67	-0.42	-0.49
Primary metals	-1.57	-1.10	-0.69	-0.77
Fabricated metals	-0.33	-0.44	-0.30	-0.37
Transportation equipment	-1.14	-0.32	-0.15	-0.23
Electrical machinery	-1.00	-0.05	0.21	0.13
Other machinery/misc. mfg.	-0.72	-0.55	-0.33	-0.41
<b>Nonmanufacturing Industries</b>				
Agriculture	-0.54	-0.12	-0.09	-0.09
Coal mining	-11.01	-8.12	-10.15	-10.13
Oil mining	-5.60	-2.14	-2.77	-2.80
Gas	-4.95	-5.71	-9.15	-9.17
Other mining	-0.49	-0.80	-0.99	-0.98
Electrical utilities	-1.35	8.08	3.52	3.44
Construction	-0.42	-0.35	-0.33	-0.40
Transportation	-0.67	-0.46	-0.34	-0.43
Services	-0.17	0.18	0.16	0.07

Source: Ho, Morgenstern, and Shih, Resources for the Future, Dec. 2008

# ESTIMATED IMPACTS OF S. 2191 (LIEBERMAN-WARNER) CAP & TRADE ON LOUISIANA

## Estimated Economic Impact of S. 2191 in Louisiana

Year	Gross State Product Loss (\$millions)	Non-Farm Employment Loss	Manufacturing Jobs Lost	Personal Income Lost (\$millions)
2012	509.69	-1,607	-126	-252.45
2020	-1,037.00	-667	-4,701	-494.69
2025	-1,890.39	-6,577	-11,348	-1,227.57
2030	-1,631.88	-4,255	-19,075	-1,548.38

Table 1 • WM 1930-LA [heritage.org](http://heritage.org)

## Changes in Household Energy Prices in Louisiana Due to S. 2191

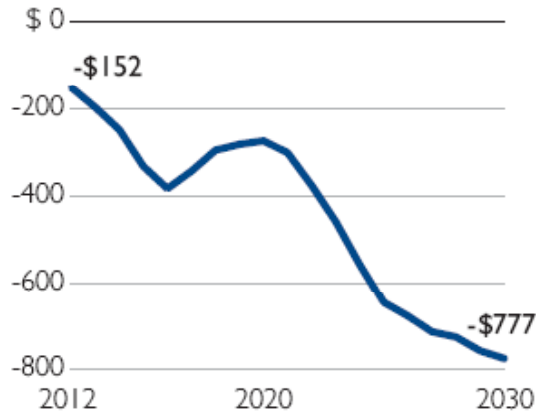
	Current Cost	2025 with Current Law in Place	2025 with Lieberman-Warner in Place	Dollar Difference
Electricity	\$1,382.71	\$1,968	\$2,436	\$467
Natural Gas	\$564.78	\$795	\$882	\$86
Gasoline	\$1,876	\$1,850	\$2,223	\$373

Note: The current annual cost of natural gas is based on consumption and prices as of 2006, the most recent data available. The annual cost of gasoline is based on the average price of regular unleaded in each state on May 20, 2008.

Table 2 • WM 1930-LA [heritage.org](http://heritage.org)

## Change in Personal Income

Statewide per household, adjusted for inflation, 2012-2030

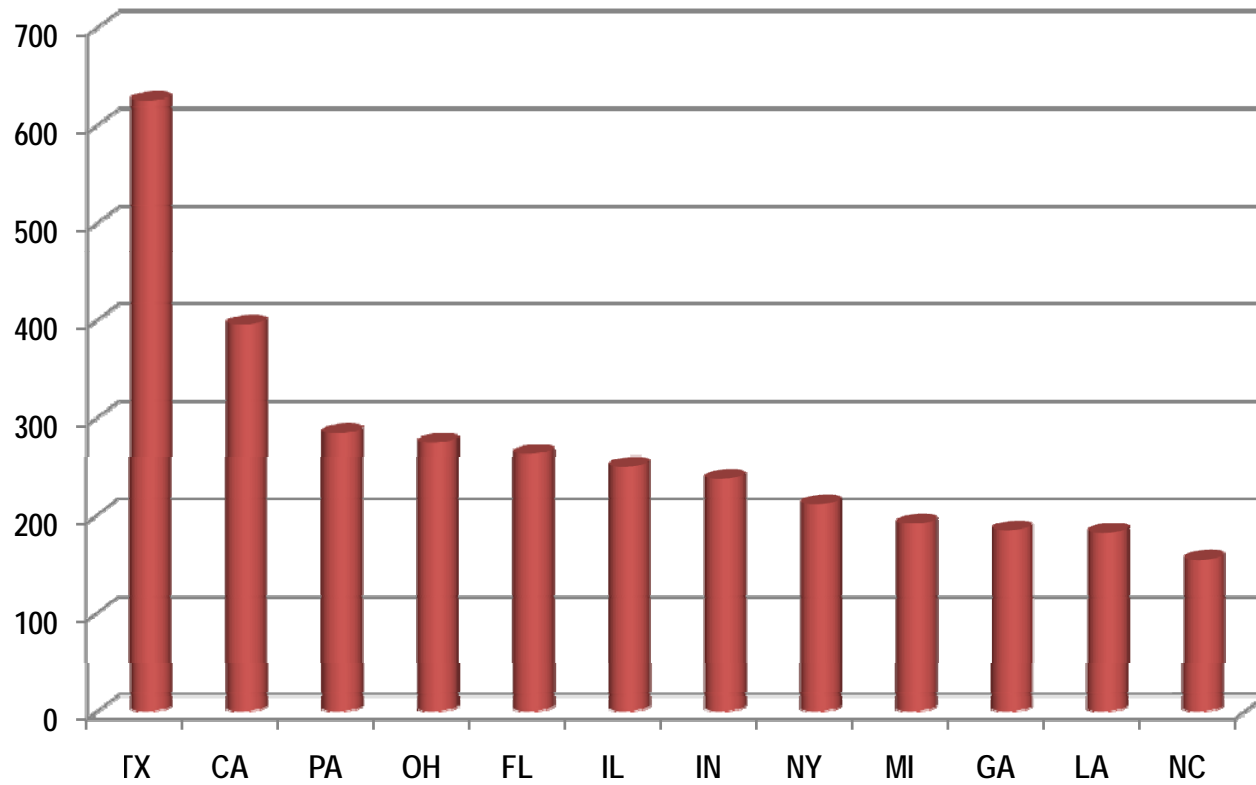


- 6,577 Nonfarm jobs lost in 2025
- \$1.9 Billion gross state product lost in 2025

Source: The Heritage Foundation, May, 2008.

# LOUISIANA GHG EMISSIONS

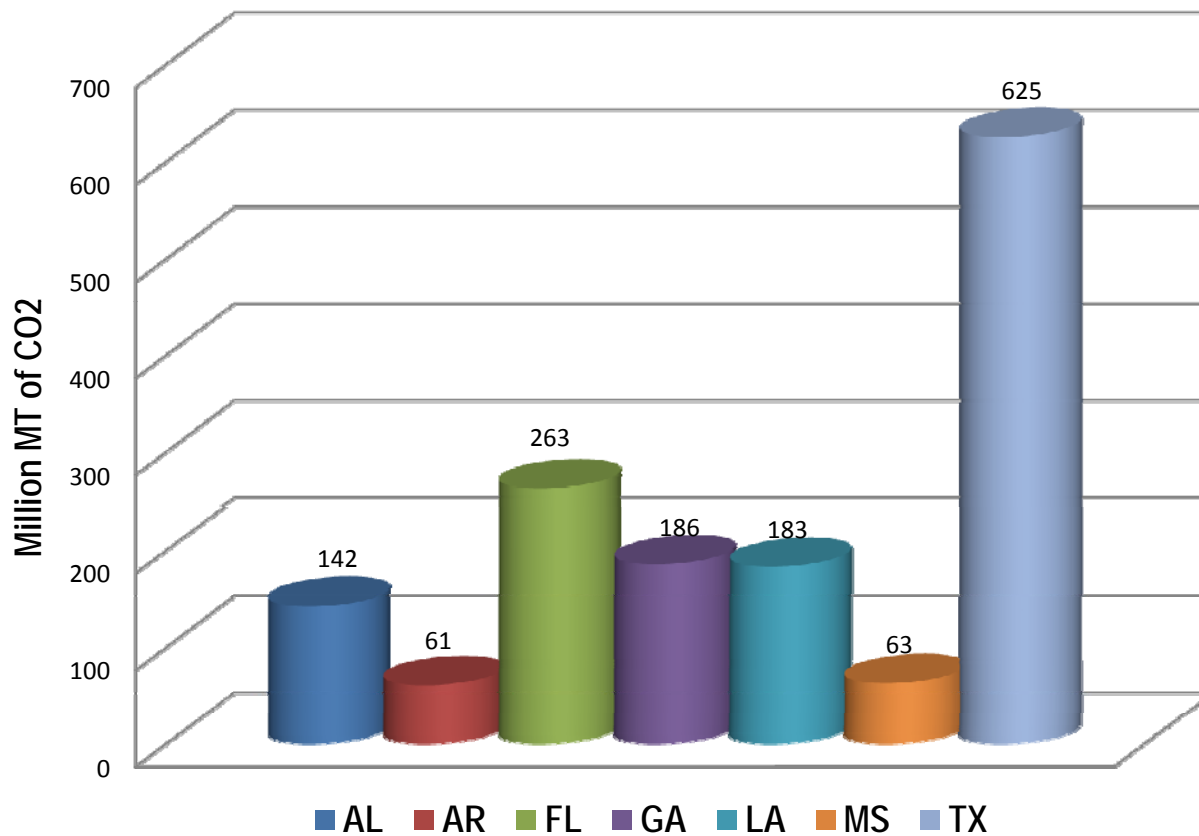
TOP TWELVE STATES FOSSIL FUEL COMBUSTION EMISSIONS (2005)  
(MILLION METRIC TONS OF CO<sub>2</sub>)



Data Source: EIA, 2008.

# LOUISIANA GHG EMISSIONS

## 2005 FOSSIL FUEL COMBUSTION CO<sub>2</sub> EMISSIONS

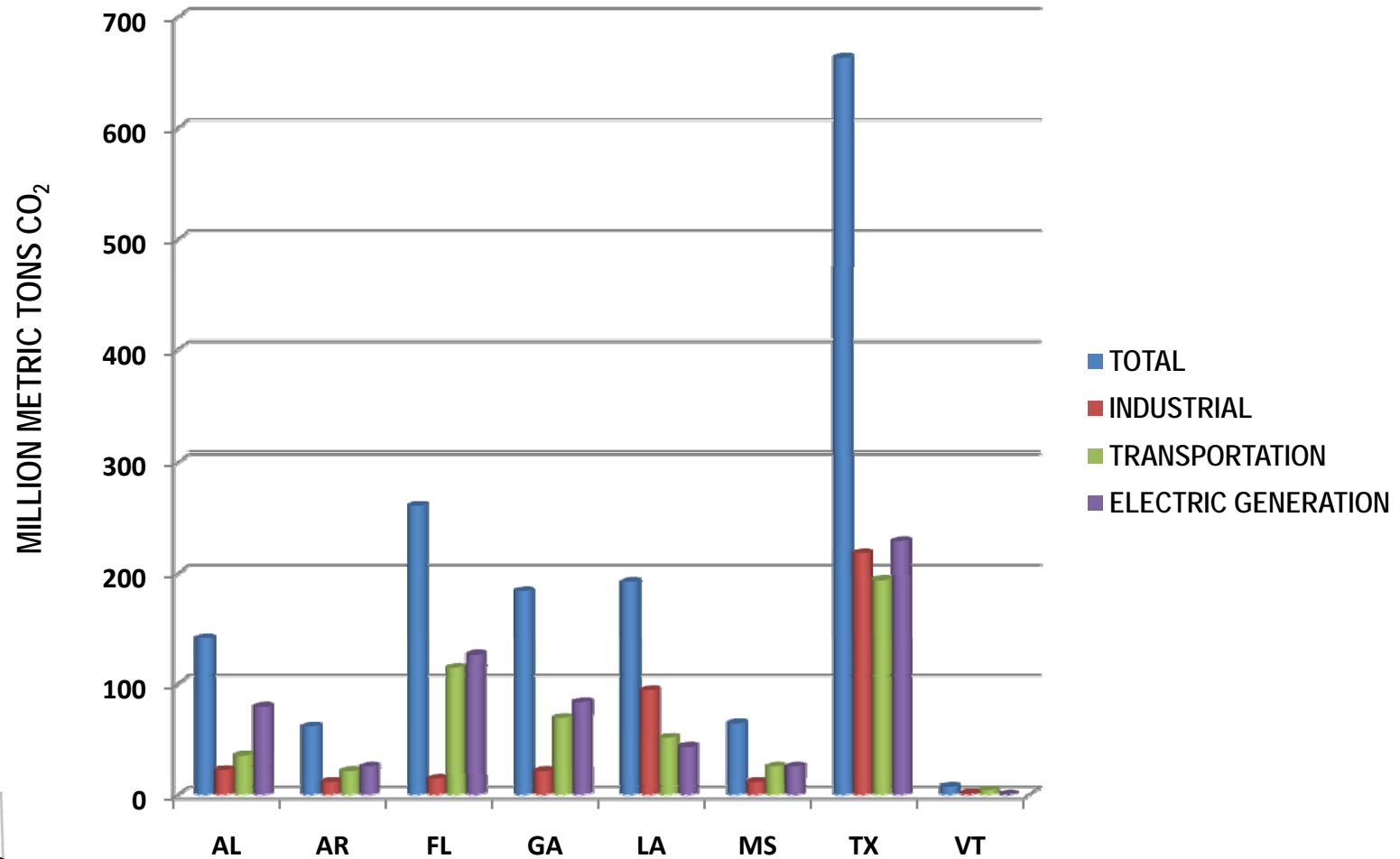


Data Source: EIA, 2008.



# LOUISIANA GHG EMISSIONS

## 2005 Energy CO<sub>2</sub> Emissions by State and Industrial Sector for Fossil Fuel Combustion



Data Source: EIA, 2008.

# LOUISIANA GHG EMISSIONS

CAIT US - Compare Sectors

## GHG Emissions by Sector in 2005 CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, F-Gases (includes land use change)

### United States

Sector	MtCO <sub>2</sub>	%
Energy	6,083.6	101.6
Electric Utilities	2,354.3	39.3
Residential	368.9	6.2
Commercial	276.1	3.8
Industrial	1,035.1	17.3
Transportation	2,042.4	34.1
Fugitive Emissions	56.7	0.9
Industrial Processes	280.2	4.7
Agriculture	434.3	7.3
Land-Use Change & Forestry	-913.2	-15.8
Waste	130.7	2.2
<b>Total</b>	<b>5,985.5</b>	



\* Represents shares of total emissions excluding LUCF.

### Louisiana

Sector	MtCO <sub>2</sub>	%
Energy	192.8	100.4
Electric Utilities	42.9	22.3
Residential	2.5	1.3
Commercial	2.0	1.1
Industrial	93.8	48.8
Transportation	51.5	26.8
Fugitive Emissions	0.0	0.0
Industrial Processes	6.0	3.1
Agriculture	5.4	2.8
Land-Use Change & Forestry	-13.0	-6.7
Waste	0.8	0.4
<b>Total</b>	<b>192.1</b>	



\* Represents shares of total emissions excluding LUCF.

### Texas

Sector	MtCO <sub>2</sub>	%
Energy	668.9	92.6
Electric Utilities	229.6	31.8
Residential	12.3	1.7
Commercial	10.4	1.4
Industrial	217.5	30.1
Transportation	198.6	27.5
Fugitive Emissions	0.5	0.1
Industrial Processes	21.4	3.0
Agriculture	40.6	5.6
Land-Use Change & Forestry	-21.4	-3.0
Waste	12.8	1.8
<b>Total</b>	<b>722.3</b>	



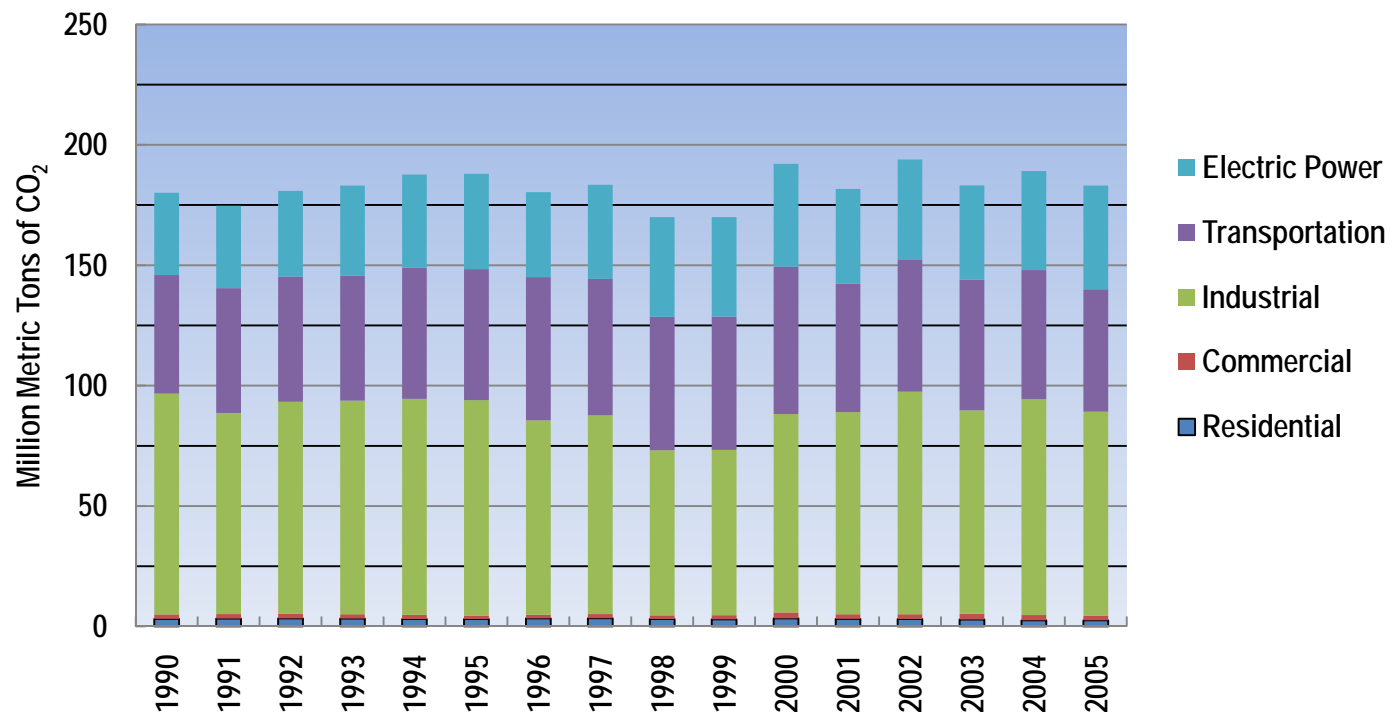
\* Represents shares of total emissions excluding LUCF.



Citation: Climate Analysis Indicators Tool (CAIT US) Version 3.0. (Washington, DC: World Resources Institute, 2009).

# LOUISIANA GHG EMISSIONS

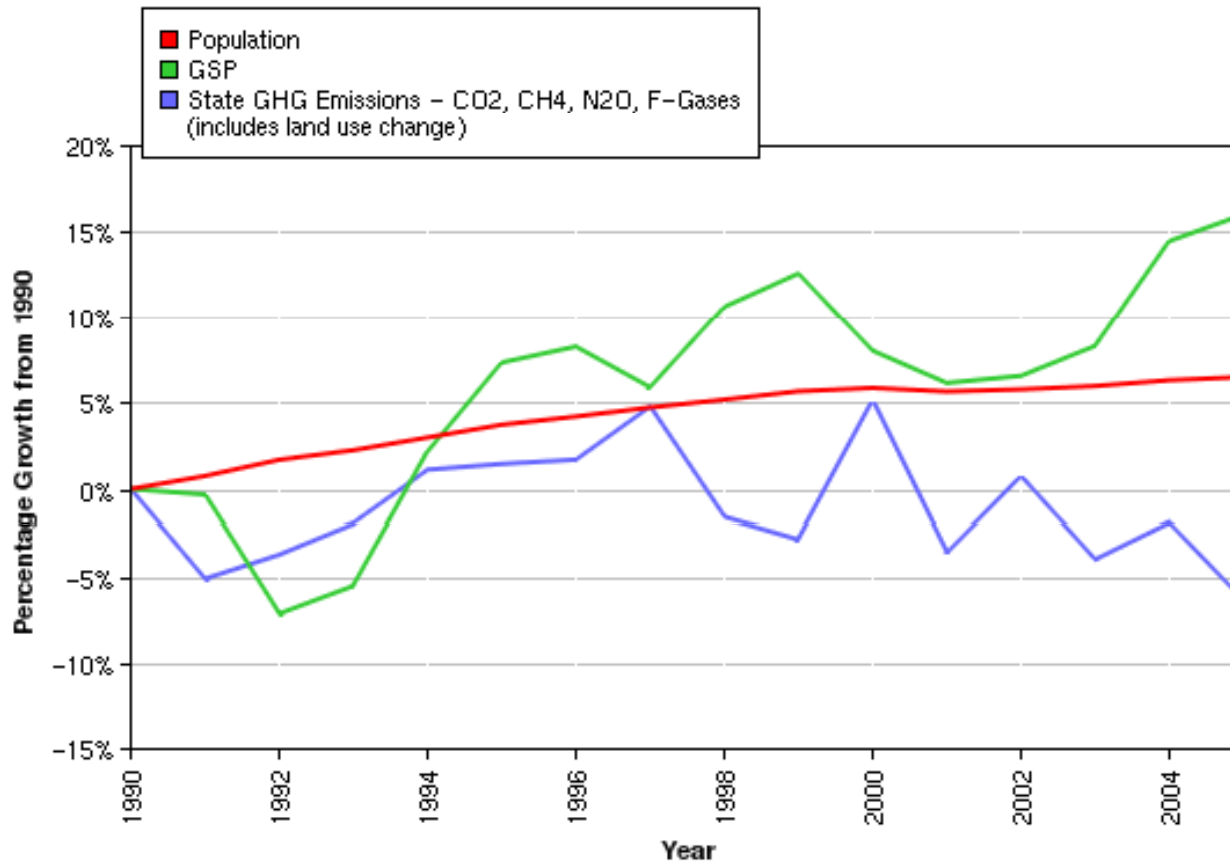
## Louisiana CO<sub>2</sub> Emissions from Fossil Fuel Consumption (1990-2005)



Source: Energy Information Administration

# LOUISIANA GHG EMISSIONS

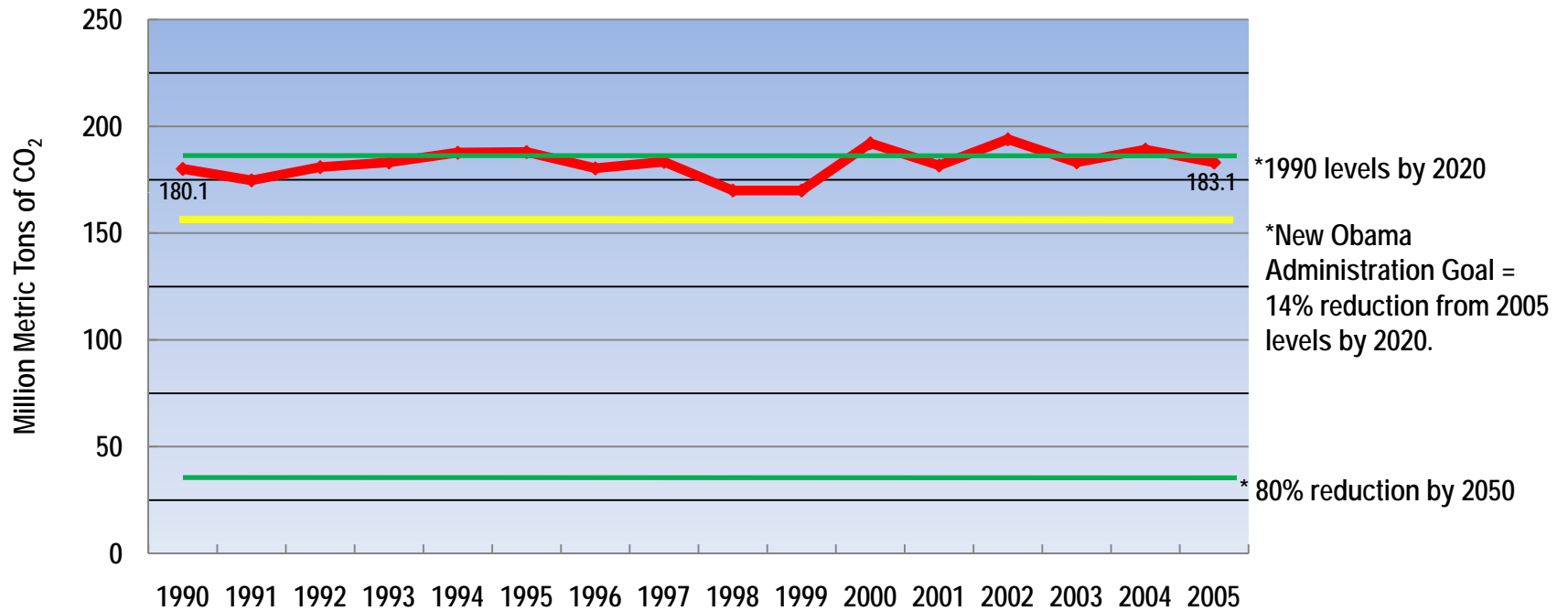
Louisiana, 1990-2005



Source: WRI CAIT-US, 2009

# LOUISIANA GHG EMISSIONS

## National CO<sub>2</sub> Emissions Reduction Goals Applied to Louisiana

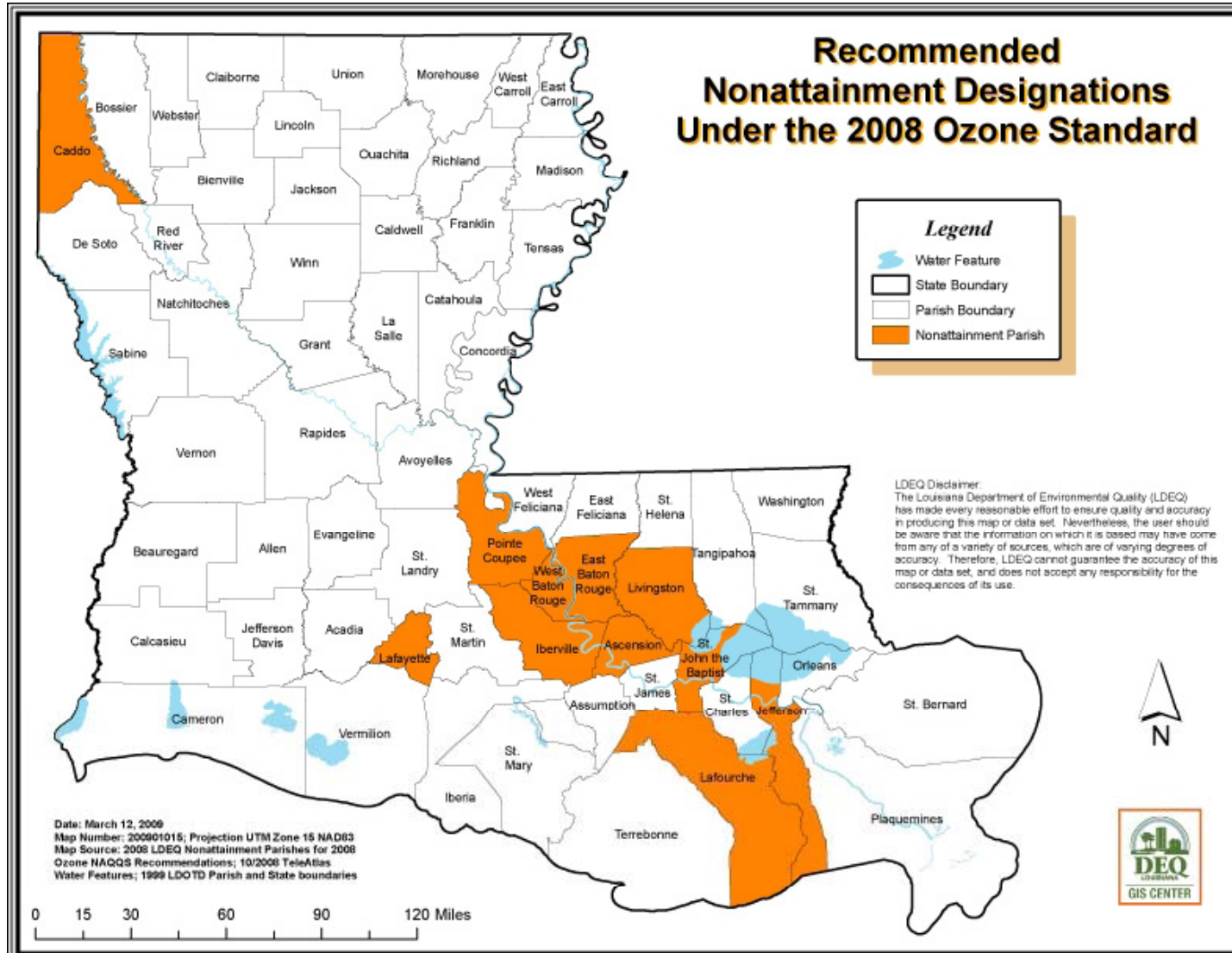


Source: Energy Information Administration

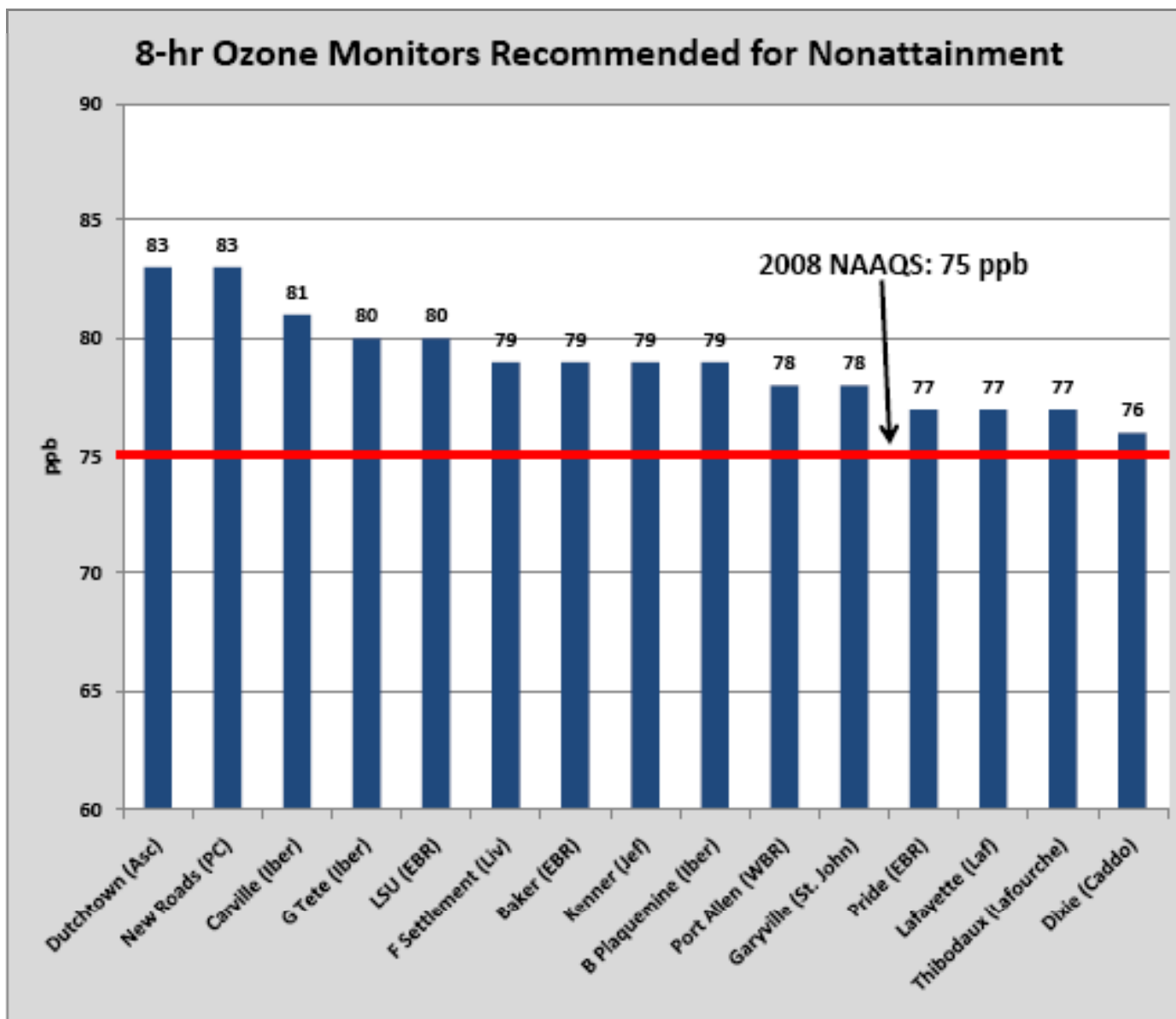
## UPDATE ON OZONE, PARTICULATE MATTER, AND GHG REGULATION

- The Baton Rouge area achieved attainment of the 1-hour ozone standard in 2008. EPA proposed redesignation to attainment in the Federal Register on March 26, 2009.
- The Baton Rouge area achieved attainment of the 1997 8-hour ozone standard in 2008 as well, and is working with EPA for formal redesignation to attainment.
- The State of Louisiana is now in attainment for all national ambient air quality standards.
- LDEQ has submitted its recommendations to EPA for ozone designations under the new 0.075 8-hour ozone standard. EPA is expected to make formal designations by March of next year.
- The courts have remanded the fine particulate ( $PM_{2.5}$ ) standard to EPA for reconsideration. There is a possibility that the standard could be lowered to the initial recommendation of the Clean Air Science Advisory Committee of between 12 and 14 micrograms per cubic meter annual average. The Baton Rouge design value for  $PM_{2.5}$  is currently around 12.9, thus the area may be in jeopardy of nonattainment for fine particulates.

# UPDATE ON OZONE, PARTICULATE MATTER, AND GHG



# UPDATE ON OZONE, PARTICULATE MATTER, AND GHG REGULATION





## POTENTIAL EPA REGULATION OF GREENHOUSE GASES

- In July, 2008, EPA released a *draft rule for carbon sequestration*. The rule spells out requirements for the location, construction, testing, and monitoring of wells used for underground injection. It also prescribes rules for the eventual closing and sealing of these underground sites. Another goal is to create a new series of injection wells under the Safe Drinking Water Act's underground injection control program.
- On March 10<sup>th</sup>, 2009 *EPA proposed federal GHG reporting requirements* that will require data from an estimated 13,000 sources. In general, EPA proposes that suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions submit annual reports to EPA. The gases covered by the proposed rule are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF<sub>6</sub>), and other fluorinated gases including nitrogen trifluoride (NF<sub>3</sub>) and hydrofluorinated ethers (HFE).
- In April, EPA issued its *proposed Endangerment Finding* – In response to a 2007 court order (Mass. v. EPA) the Administrator is proposing to find that the current and projected concentrations of the mix of six key greenhouse gases—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)—in the atmosphere threaten the public health and welfare of current and future generations. If this is successful, it paves the way for EPA regulation of GHG.

## POTENTIAL EPA REGULATION OF GREENHOUSE GASES (Continued)

- A nominee for a key post in EPA testified to lawmakers recently that *federal greenhouse gas regulation could expose a raft of smaller emitters to litigation*. The potential for smaller emitters to be regulated under the Clean Air Act is one reason why business groups warn that EPA regulation of greenhouse gases could create a cascade of legal and regulatory challenges across a much broader array of sectors.
- According to recent news stories, the Obama administration may lead a *push to amend the ozone reducing Montreal Protocol* to include mandatory reductions in hydrofluorocarbons (HFCs). The man-made chemical is one of six greenhouse gases that EPA determined earlier in April were a danger to public health and welfare.
- According to an April 16<sup>th</sup> news article EPA indicated it will *consider using the Clean Water Act to address ocean acidification*. Opening another front in the Obama administration's efforts to address climate change: the nation's coastal waters.
- *Next?*

## POTENTIAL EPA REGULATION OF GREENHOUSE GASES (Continued)

### This just in –

Dow Jones Newswires, 12 May 2009. OMB Memo: Serious Economic Impact Likely From EPA CO<sub>2</sub> Rules

WASHINGTON (Dow Jones)--U.S. regulation of greenhouse gases such as carbon dioxide "is likely to have serious economic consequences" for businesses small and large across the economy, a White House memo warned the Environmental Protection Agency earlier this year.

The nine-page document also undermines the EPA's reasoning for a proposed finding that greenhouse gases are a danger to public health and welfare, a trigger for new rules.

The memo, an amalgamation of government agencies' comments sent from the Office of Management and Budget to the EPA, is in stark contrast to the official position presented by President Barack Obama and his Cabinet officials. It is likely to give critics of greenhouse-gas regulation ammunition in their political salvos against the administration.

## SOME HELPFUL REFERENCES

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Questions/Discussion/Suggestions?

