NATIONAL OCEAN INDUSTRIES ASSOCIATION

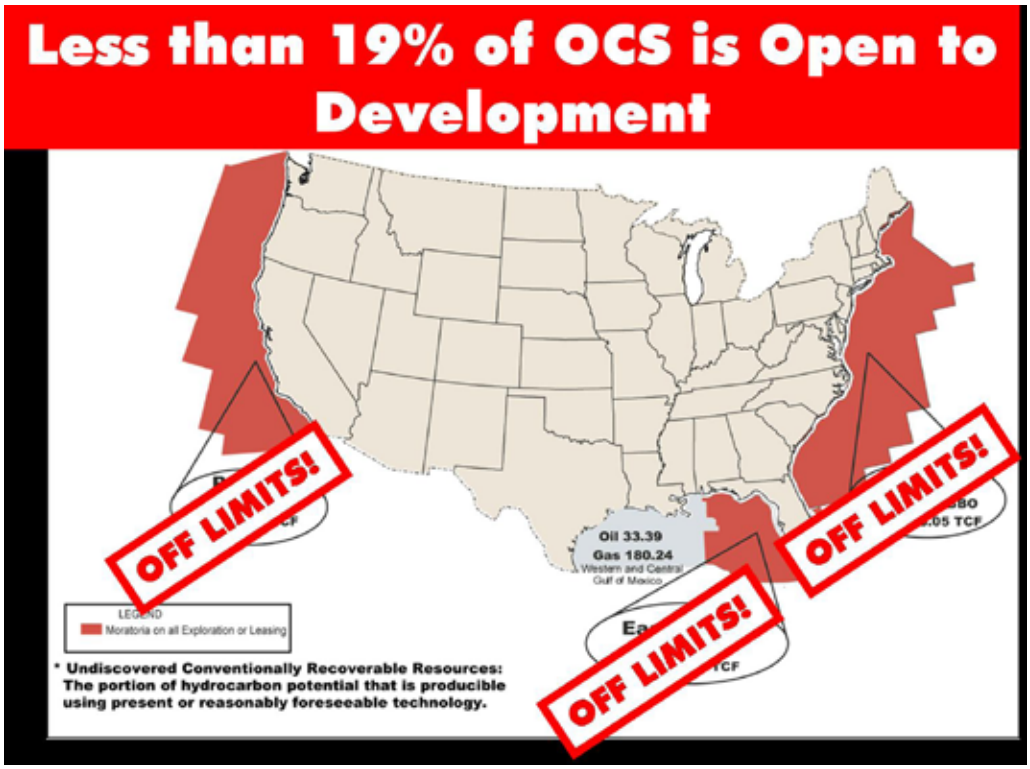
ENERGY CHALLENGES FOR ALABAMA AND THE NATION

NOIA'S MISSION IS TO SECURE RELIABLE ACCESS TO THE NATION'S VALUABLE OFFSHORE ENERGY RESOURCES IN ORDER THAT THEY MAY BE DEVELOPED, PRODUCED AND SUPPLIED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER.

Today, energy prices are on the rise across the nation. This affects individual citizens, industrial consumers, and the agricultural industry. But why is this so?

It all comes back to supply and demand. As the economy has grown, the demand for energy has grown every year. At the same time, however, policymakers have refused to make any changes to increase available supplies of energy. For example, over 80% of the nation's oil and natural gas resources on the Outer Continental Shelf is completely off-limits to exploration and production, despite a decades-long record of safe offshore production in the Central and Western Gulf of Mexico.

What can be done? Energy consuming states must make themselves heard and push for changes to policies like this that limit energy supply. This is key to long-term strategies to control prices and maintain economic growth and employment at home.



1120 G Street, NW, Suite 900, Washington, DC 20005 Tel 202-347-6900 Fax 202-347-8650 www.noia.org

ENERGY PRICES: A NATIONAL PERSPECTIVE

- In the last 25 years, our energy consumption has grown by 30 percent, while supply only increased at half that rate. In just the past decade, as our economy grew, energy consumption increased by more than 12 percent. But our domestic production increased by less than one-half of 1 percent.

- Between now and 2030 – less then 25 years from now – we will need 55 percent more electricity than we generate today and consumption of all sources of energy are expected to increase:
  - *Petroleum by 41 percent*
  - *Natural gas by 33 percent*
  - *Coal by 41 percent*
  - *Renewable energy by 39 percent*

- The Energy Information Administration predicted on Jan. 11 that the average U.S. home heating bill in 2006 will increase by $257, or 35 percent, for natural-gas heat; $275, or 23 percent, for oil heat; and $184, or 17 percent, for propane heat.

- The price of U.S. natural gas has hit peaks recently of about $15/million btu's, the rough equivalent of paying $7 a gallon for gasoline.
  - *This is more than double what they pay in China, and 50 percent higher than prices in the United Kingdom. The U.S. price is 20 times what Saudi Arabians pay.*

- High energy prices, particularly for natural gas, have cost the economy 2.8 million jobs since 2000.

- More than 100,000 lost jobs in the chemical industry, and the closure of 70 chemical facilities in 2004 alone, have resulted from high prices of natural gas.

- During the 2003 and 2004 growing seasons, farmers paid more than $6 billion in added energy-related expenses, a 41% increase over 2004, according to USDA's Economic Research Service.

ALABAMA ENERGY OUTLOOK AND CONSUMPTION:

- Alabamans spend over $12.6 billion each year on energy, ranking the state 16th nationally in total energy consumption, according to 2003 EIA state energy data.
- Total energy consumption in Alabama increased by 295 trillion British thermal units (Btu) between 1980 and 2001, an average of 0.8 percent. Electricity consumption rose by 98.5 trillion Btu during the same period, an average annual increase of 2.2 percent.
- In 2003, Alabama's Industrial sector accounted for 45.4 percent of the state's energy consumption, followed by 22.6 percent for transportation, 19.1 percent for residential and 12.9 percent for commercial.
- Alabama relies predominantly on coal-fired plants to produce the majority of the state's electricity. The remainder comes from nuclear, hydroelectric, natural gas generation, and petroleum-fired generation.
- In 2005, Alabama's production of coal was 21 million short tons. The Energy Information Administration estimates the state has reserves of 355 million short tons of recoverable coal. Most of the coal extracted comes from underground mines, some of which are among the deepest in the United States. Tuscaloosa, Walker, and Jefferson are the leading coal-producing counties.
- Although Alabama produces large amounts of coal, the state relies on deliveries from other states to meet roughly half of its energy demand.
- Alabama is home to two of the nation's largest nuclear power plants, and ranks 5th among nuclear power-producing states.
- Natural gas is Alabama's most valuable resource, generating more than one-half of the state's income from fossil fuels. In 2006, the state was projected to produce 316 billion cubic feet of natural gas, ranking Alabama 10th nationally in gas production. The state has an estimated reserve of 3.9 trillion cubic feet of natural gas. The annual offshore gas production from Alabama state waters accounts for approximately 50 percent of the State's total gas production.
- Production of coalbed methane gas accounts for 35 percent of the total state production. At the end of 2005, 4,500 wells were producing coalbed natural gas from 13 established fields. Most of the wells are located in the Warrior basin and in Tuscaloosa and Jefferson Counties.
- The first oil wells drilled in the southeast were in 1865 in Alabama. Currently the state ranks 15th nationally in the production of liquid hydrocarbons, and has 6,000 wells producing 5.2 million barrels of oil annually. The state has an estimated 55 million barrels of crude oil in reserve.
- According to Energy Information Administration forecasts, natural gas prices in the East South Central Census Region will remain high, increasing from 0.46 Bcf per day to 0.52 Bcf per day. Natural gas demand for the industrial

sector in the East South Central region will increase from 1.23 billion cubic feet (Bcf) per day in 2006 to 1.37 Bcf per day in 2008 while commercial sector demand is projected to increase from 0.34 Bcf per day to 0.37 Bcf per day.

- The Southern Company is piloting a biomass gasification project at their Wilsonville Development facility, utilizing wood to create energy. The company is also using biomass at the Plant Gadsden by co-firing switchgrass with coal in their boilers.
- The city of Eufaula is using bioenergy to power the city's school bus fleet. Using recycled restaurant grease, the system hopes to run all their buses on biodiesel.
- Alabama also currently has three landfills that are producing methane for energy production and another 21 identified as potential sites. Overall, the state has 46 facilities involved in the production of biopower.
- In January 2007, the Governor announced that Alabama is switching its state fleet of 3,000 vehicles to E-85, a flexible fuel.
- In February 2007, the Alabama Governor formed a committee to develop a comprehensive alternative energy strategy.

(Data is drawn from the U.S. Department of Energy's Energy Information Administration)

INCREASING ENERGY PRICES HURT MANUFACTURING INDUSTRIES, IMPERILING ALABAMA JOBS:

- According to Manufacture Alabama, energy costs and supply volatility have become perhaps the most serious competitive challenge facing manufacturers in Alabama, considerably increasing the threat of further loss of good manufacturing jobs to foreign competitors.

- As of September 2006, Alabama was home to more than 299,700 manufacturing jobs, paying employees an average of $44,600/year, 19 percent higher than the average wage and salary for the state. Rising energy costs have contributed to the loss of more than 51,700 of these high-wage manufacturing jobs since 2000.

- Chemical manufacturing – which depends on natural gas as a critical input – accounted for more than $1.79 billion in Alabama exports in 2005 and supported more than 9,675 jobs directly. These jobs are also in jeopardy due to the high price of natural gas.

BLCI

- Alabama has about 23 million acres of forested land. Alabama's forest products industry ranks as one of the state's top manufacturing industries, employing more than 43,500 workers with an annual payroll over $2.4 billion. Many of Alabama's paper and wood manufacturing jobs are endangered by the high price of natural gas. Nationally, more than 232 mills have closed and 182,000

jobs have been lost (12 percent of the industry's national employment) since 2000 when energy prices started to rise.

- Today, energy is the third largest manufacturing cost for the forest products industry (18 percent for pulp and paper mills), growing quickly enough to eclipse employee compensation.

INCREASING ENERGY PRICES SQUEEZE BUSINESSES, UNIVERSITIES, AND INDIVIDUAL CONSUMERS:

- Business leaders in Alabama cite rising fuel and energy costs as one of the top five issues facing the state in 2007.
- Between 2000 and 2005, business energy costs in Alabama increased from 9.10 million British thermal units (MMBtu) to 15.29 MMBtu, a 51.3 percent increase.
- The University of Alabama spends $7 - 9 million dollars annually on energy (electricity and natural gas). As a result, the University has a comprehensive energy management program including new design and retrofits to buildings throughout the campus.
- Electricity accounts for heating 46 percent of Alabama's homes, followed by natural gas (38 percent), liquefied petroleum gas (5 percent), and other sources (2 percent).
- In 2006, Congress and the State provided home heating assistance to more than 110,340 Alabama households, a 20 percent increase from 2005. In addition, more than 40,000 Alabama households received cooling assistance, a 21 percent increase in cooling assistance in 2006.

INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:

- Alabama is home to more than 43,500 farms, covering more than 8.6 million acres of land. In 2005, total farm receipts totaled $4.73 billion, an increase of $110 million (2 percent) from the previous year.
- Alabama's top agriculture commodity is broiler chickens, which generate cash receipts of more than $2.41 billion.
- One of the largest operating expenses for poultry growers is the cost of electricity. With more electrical equipment in chicken houses, including computers, ventilation fans, automatic waterers and lights, electric bills keep getting higher and higher.
- Alabama ranks third nationally in peanut production but record high energy prices in 2005-2006, including fertilizer, fuel and chemicals, caused farmers to reduce their 2006 peanut plantings by 26 percent.

A PLAN OF ACTION:

What can be done to increase energy supplies?

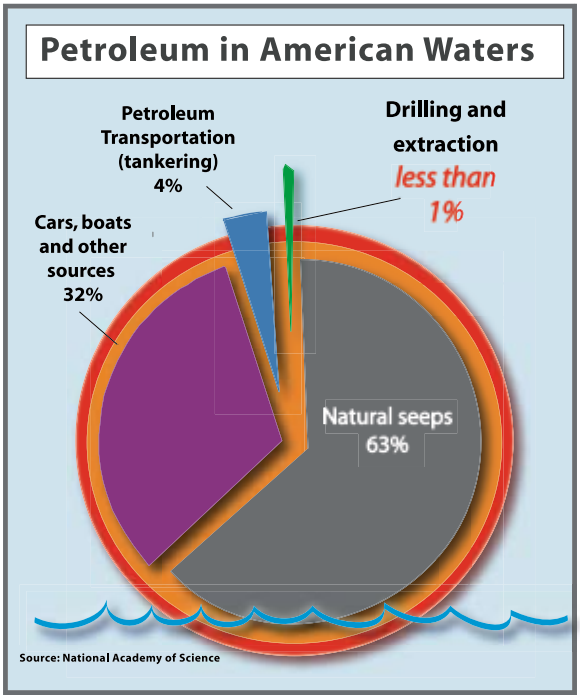
- Call on Congress and the Administration to cultivate a plentiful, diverse and affordable energy supply for America.

- Pursue renewable technologies such as offshore wind and tidal power and the development of offshore methane hydrates.

    - Promote energy conservation and greater efficiency.

    - Increase refining capacity and import facilities.

- Provide access to the Outer Continental Shelf (OCS) for exploration and development of the nation's valuable offshore energy resources in an environmentally responsible manner. Over 80 percent of all federally controlled coastal waters are currently off-limits to energy exploration and production, yet the OCS is conservatively estimated to hold over 419 trillion cubic feet of technically recoverable natural gas resources and 86 billion barrels of oil. This is enough:
    - natural gas to heat 100 million homes for 60 years.
    - oil to drive 85 million cars for 35 years.
    - oil to replace current Persian Gulf imports for 59 years.



Offshore drilling is safe: Less than 1% of oil found in the ocean comes from offshore production, significantly less than results from natural geologic seeps and run-off from land-based sources