



NATIONAL
OCEAN
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ASSOCIATION

ENERGY CHALLENGES FOR INDIANA 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.

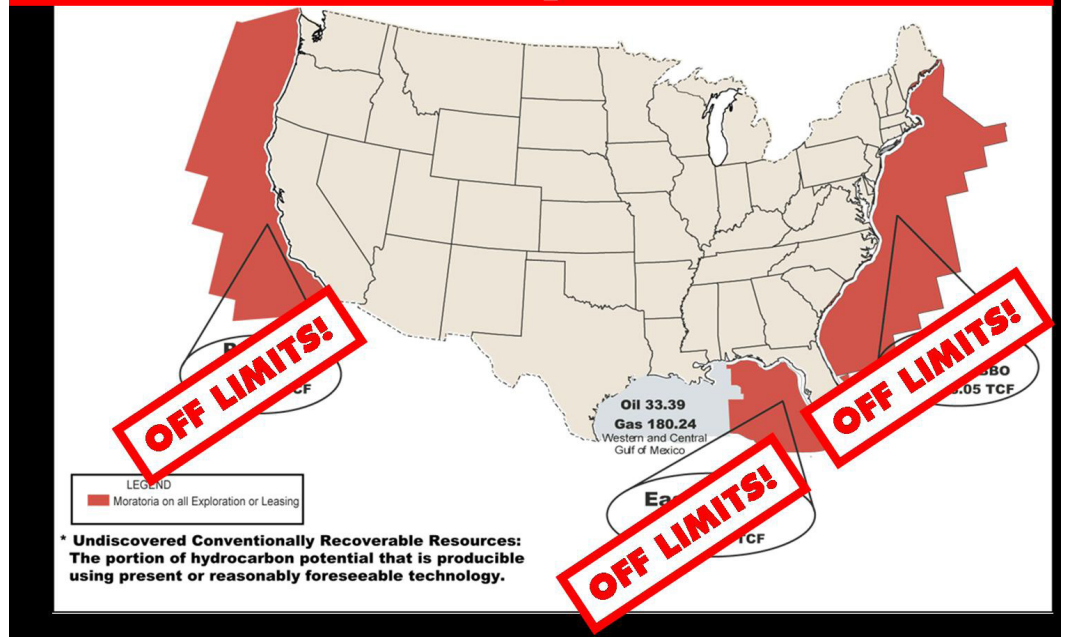
Today, energy prices are on the rise across the nation. This affects individual citizens, industrial consumers, and the agricultural industry. But why is this so?

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.



Less than 19% of OCS is Open to Development



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 – just less than 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:
 - o *Petroleum by 41 percent*
 - o *Natural gas by 33 percent*
 - o *Coal by 41 percent*
 - o *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.
 - o *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.



INDIANA ENERGY CONSUMPTION, OUTLOOK AND ITS ECONOMIC IMPACT:

- Indiana will spend approximately \$14 billion for imported energy in 2006 including, natural gas, coal and petroleum.
- Today, 75 percent of Indiana’s energy expenditures leave the state to pay for coal, natural gas, and oil products.
- The primary sources of energy for Indiana are as follows: coal - 53 percent; petroleum - 29 percent; natural gas – 17 percent; and renewables – 1 percent.
- Over the past two years, petroleum has increased in price by 50 percent while natural gas prices have increased 50 percent in just one year.
- Indiana power plants rank 12th in the nation in electricity sales. Currently, 13 percent of the state’s generating capacity, and “peaker” plants run on imported natural gas. As natural gas prices rise, these plants either do not generate electricity or do it expensively.
- Indiana is the sixth-largest natural gas consuming state in the nation.
- Indiana consumers pay the 4th lowest electric rates in the nation
- Purdue University’s State Utility Forecasting Group (SUFU) predicts that Indiana will need over 10,600 megawatts of additional electricity – the equivalent of 15 new base load plants by 2023. Indiana has not built a new base load generation plant in the last 20 years.
- The SUFU estimates that Indiana will become a net importer of electricity in three years, forcing the state to rely on outside markets that cannot be controlled by the state’s energy producers.
- While coal still supplies over 90 percent of electric generation in Indiana, over 50 percent of coal consumed comes from outside of the state. Current Indiana coal reserves equal roughly 17 billion tons and Indiana mines roughly 35 million tons a year.
- According to the U.S. Department of Energy, Indiana consumes 42,352 barrels of petroleum every day, an increase of 7,058 barrels from 1999.
- Indiana produced an estimated 1.3 million barrels of petroleum in 2003, down substantially from just 10 years earlier, and represents only 3.7 percent of the petroleum the state consumes annually.
- In January 2005, Indiana had no E85 pumps, but by August 2006, the state had more than 40 E85 pumps in commercial use making the state one of the top five states in E85 retail availability.
- At least three new biodiesel production facilities are being planned in the State at this time, and others are emerging. In March 2006, Indiana became the home of what will be the world’s largest soy biodiesel facility.

(Data is drawn from the “2006 Indiana’s Strategic Energy Plan”)



INCREASING ENERGY PRICES HURT MANUFACTURING INDUSTRIES, IMPERILING INDIANA JOBS:



- In 2004, Indiana's manufacturing sector accounted for approximately 20 percent of the state's jobs. The share of manufacturing jobs in Indiana is 77 percent higher than the national average, and these jobs offer a higher rate of pay than jobs in other sectors of the state's economy
- As of April 2006, Indiana was home to more than 571,900 manufacturing jobs, paying employees an average of \$47,630/year, 37% higher than the average wage and salary for the state. Unfortunately, rising energy costs have contributed to the loss of more than 91,600 of these high-wage manufacturing jobs since 2000.
- Chemical, plastics and rubber manufacturing – which depend on natural gas as a critical input – accounted for more than \$4.9 billion in Indiana exports in 2005 and supported more than 33,000 jobs directly. These jobs are also in jeopardy due to the high price of natural gas.
- Approximately 20 percent of Indiana is forested, accounting for 4.5 million acres of state's land area. Indiana's forest products industry ranks as one of the state's top manufacturing industries, employing more than 49,500 workers with an annual payroll over \$1.6 billion. Indiana's paper and wood manufacturing workforce represents 5.6 percent of the state's total manufacturing workforce, but these jobs are also in jeopardy due to 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.

Indiana's Strategic Energy Plan

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



- An overwhelming 73 percent of Indiana's small businesses said that the recent run-up in energy prices had a negative effect on their business, according to a November 2005 survey by the Indiana chapter of the National Federation of Independent Business. 26 percent of small business owners are coping with the increase by reducing energy use, while 20 percent are absorbing those costs in the form of lower earnings.
- In Lafayette Indiana, since September 27, 2005, Star Taxi & Courier has had a temporary surcharge of \$1 in effect. In March 2006, the city moved to discontinue the surcharge and increase the flat fee from \$2.50 to \$3.50 since gas prices had not decreased since September.
- Since 1998, an increase in energy consumption and cost at Indiana State University has occurred as a result of the campus community's increased information technology demand for electrical power and several major renovation and new construction projects. In 1984-85, Indiana State University had actual electrical costs of \$2,686,033. In 2004-05, ISU's actual costs were \$3,254,749.



- Over half of Indiana's energy bills go to home heating, bills that are only getting bigger. The average energy bill for Indiana homes heated with natural gas will increase by about \$370 in 2006. Homes heated with heating oil or propane will go up by about \$195, while electric heating costs will rise by about \$60.
- In 2005, an estimated 126,000 households throughout Indiana received more than \$53.8 million in Low Income Home Energy Assistance (LIHEAP) funding to help pay their heating and cooling bills.
- Indiana gasoline prices are currently about 35 percent higher than one year ago. At today's prices, Indiana households pay about \$3,400 annually for gasoline.
- Vehicle travel in Indiana increased by 35 percent from 1990 to 2002, increasing from 54 billion miles driven annually to 73 billion miles. Total vehicle travel in Indiana is forecast to increase by another 58 percent by the year 2025, to 115 billion miles driven annually in the state.

INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:



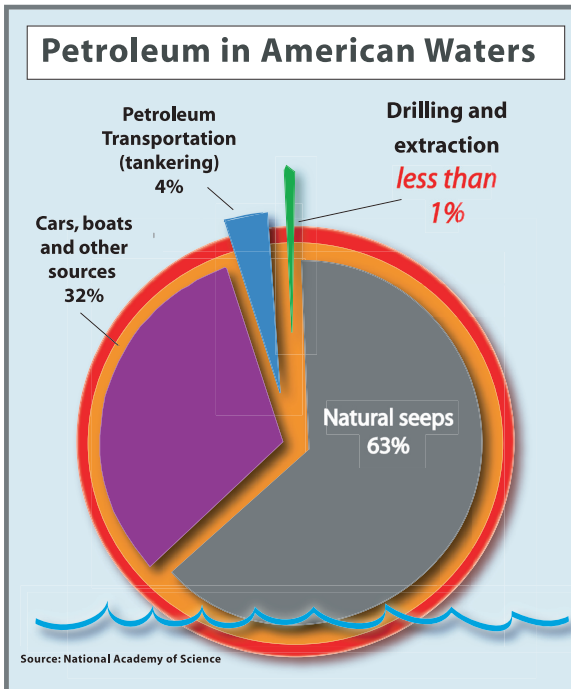
- Indiana is home to more than 59,000 farms, covering more than 15 million acres of farmland.
- Agriculture and agriculture-related biotechnology play an integral part in Indiana's economy. Farming and other related food and agricultural services support over 15 percent of the state's total workforce.
- Indiana farmers received an estimated \$6.1 billion during calendar year 2004 from the sale of all agricultural commodities.
- Indiana is traditionally known for being among the nation's leading producers of grains (corn-5th, soybeans-3rd, and wheat). In 2005, Indiana ranked tenth nationally for the total value of principle crops at \$3.4 billion, 13 percent below the \$3.9 billion total value during 2004.
- Corn produced by Indiana farmers during 2005 totaled more than 888 million bushels, four percent below the 929 million bushels produced during 2004. Soybean production was 263.6 million bushels, 7 percent below the 284.3 million bushels produced the previous year. Winter wheat also declined 10 percent from a year earlier, to 24.5 million bushels.
- According to Purdue University, crop prices are not expected to rise by enough to cover the surging costs for fuel and fertilizer, thus reducing the 2006 net farm income. With surging input costs, record high land values, and struggling grain prices, 2006 will bring a severe cost/price squeeze for crop farmers, as much as 40 percent to 60 percent lower than in 2005.
- In 2006, the total variable costs of producing soybeans and corn in rotation on average Indiana farmland are forecast to increase at least 12 percent, according to Purdue University. Since 2002, the out of pocket costs of producing corn and soybeans in Indiana have been consistently higher on a year-to-year basis.
- According to the Food and Agriculture Policy Research Institute, fertilizer costs are up 70 percent and fuel costs are up 113 percent since 2002. From 2005 to 2006, these prices are expected to rise another 10 percent to 15 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