



NATIONAL
OCEAN
INDUSTRIES
ASSOCIATION

ENERGY CHALLENGES FOR IDAHO 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 – 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.

IDAHO ENERGY CONSUMPTION:

- Idaho spends over \$3.7 billion each year on energy, ranking 40th nationally in total energy consumption.
- In 2004, Idaho's energy consumption by sector was: 37.9% industrial, 24.5% transportation, 22% residential, and 15.6% commercial.
- Between 1980 and 2001, Idaho's electricity consumption increased by 7.3 billion kilowatt-hours, averaging a 2.1% increase year-over-year.
- Increasing demand for electricity is pressuring utilities to invest in new generation and transmission infrastructure, driving up energy prices for consumers.
- Hydropower fuels 86% of Idaho's electric generation, followed by natural gas (13%) and wood and waste (1%). Seven of Idaho's 10 largest generating facilities run on hydroelectric power. The Snake River Basin and several smaller river basins offer Idaho some of the greatest hydroelectric power resources in the Nation.
- Natural gas demand in the Mountain Census Region – Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming – is projected to remain high, increasing by 2.8% from 2.45 Bcf per day in 2007 to 2.52 Bcf per day in 2008.



IDAHO ENERGY RESOURCES AND PRODUCTION:

- Idaho does not produce any coal, oil or natural gas. The State relies on imported fossil fuels for approximately 80 percent of its energy needs.
- The State receives petroleum products from refineries in Montana and Utah via two petroleum pipelines.



IDAHO ALTERNATIVE / RENEWABLE ENERGY:

- By 2015, 8 percent of the Idaho's electricity supply is expected to come from non-hydro renewable energy sources.
- Idaho has substantial renewable energy potential; the mountain areas have substantial geothermal and wind power potential.
- Recent wind mapping studies estimate Idaho has approximately 18,000 Megawatts of wind generation potential, the 13th largest potential in the U.S.
- At the beginning of 2007, 75 Megawatts (MW) of wind power capacity was operational in Idaho with nearly 1,900 MW of additional wind generation proposed from 13 projects throughout the state.
- Idaho has a large geothermal resource in springs and wells. A 13 MW project at Raft River will be the only active geothermal electric generation plant in the state. Recently, the developers have committed to a second 13 MW phase, and have projected total resources of up to 90 MW at the site.



- The Western Governors’ Geothermal Task Force Report listed six potential sites in Idaho with 860 MW of total generation capacity from geothermal energy.
- Idaho has a number of potential biomass and biofuels opportunities. Idaho’s largest existing use of biomass energy is in the industrial sector, where wood fuels constitute approximately 14 percent of energy consumption.
- In 2003, Idaho had ethanol production capacity of one million gallons, and a 2002 report estimated that 25 percent of the state’s production of wheat, barley, and corn could be refined for a potential 98 million gallons of ethanol per year.

INCREASING ENERGY PRICES HURT MANUFACTURING INDUSTRIES, IMPERILING IDAHO JOBS:



- Idaho’s economy is energy intensive, and energy-consuming industries include mining, forest products, and transportation equipment.
- Idaho’s manufacturing sector is one of the State’s largest industries. As of November 2006, Idaho was home to approximately 65,000 manufacturing jobs paying employees an average of \$42,800 per year, 40% higher than the average for the State. Rising energy costs hurt the expansion of many of these jobs.
- Chemical manufacturing – which depends on natural gas as a critical input – accounted for \$155 million in Idaho exports and directly supported nearly 2,000 jobs in 2005. These jobs, however, are in jeopardy due to the high price of natural gas.
- Idaho has more than 21 million acres of forested land, and its forest products industry employs more than 12,000 workers with an annual payroll exceeding \$593 million.
- Today, energy is the third largest manufacturing cost, at 18%, for the forest products industry, eclipsing even employee compensation.
- Nationally, more than 230 forest products mills have closed and 180,000 jobs – 12% of the industry’s national employment – have been lost since 2000 when energy prices started to rise. Likewise, many of Idaho’s paper and wood manufacturing jobs are endangered by the high price of natural gas.

INCREASING ENERGY PRICES SQUEEZE THE STATE’S UNIVERSITY AND INDIVIDUAL CONSUMERS:

- According to the University of Idaho, the campus spends more than \$3.3 million annually for power and fuel expenses, thus taking away potential resources from the students.
- Energy expenditures consume approximately 8 percent of median household income in Idaho. The average Idaho household spent approximately \$3,000 on energy in 2003. This figure includes monthly electricity and natural gas



bills as well as an estimate of Idaho's gasoline expenditures.

- Home heating costs have risen significantly, regardless of the energy source used. Natural gas is responsible for heating 45% of Idaho's homes, followed by electricity (34%), other/none (10%), liquefied petroleum gas (6%), and fuel oil (5%).
- In 2006, Congress and the State provided home heating assistance for more than 33,900 Idaho households, a 5% increase from 2005.



INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:

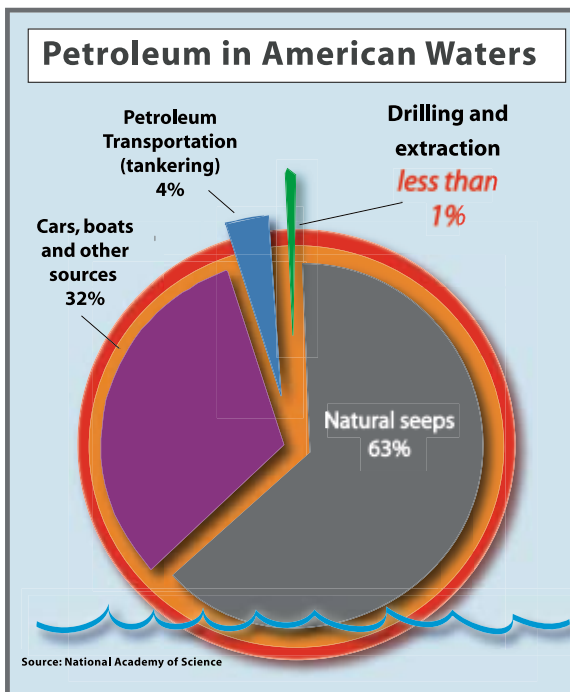
- Idaho is home to more than 25,000 farms and ranches, covering more than 11.7 million acres, and generating more than \$4.4 billion in farm receipts in 2005. The top agricultural products in the State are dairy products (\$1.4 billion), cattle and calves (\$1 billion) and potatoes (\$522 million).
- Idaho is the 2nd largest milk producing state in the twelve western U.S. states and ranks 4th in the total U.S. It is estimated that the dairy industry of Idaho employs more than 19,400 individuals in the production, processing, transportation, and distribution of its milk and milk products. Across the nation, dairy farmers have been impacted by high energy costs, which raise prices for feed stock, motors, lighting, and transportation.
- Increasing energy costs – in the form of higher prices for transportation, electricity, and related costs in the feed and ingredient processing industries – have resulted in dramatic changes in the feed and cattle industries. For example, corn, the most popular feed grain, requires large amounts of fertilizer and irrigation water, both of which are sensitive to energy costs.
- Wheat and barley are important agricultural product in Idaho, generating more than \$491 million in cash receipts in 2005, but on-farm energy expenses for irrigation water have increased dramatically. In 1998, Idaho farmers and ranchers spent nearly \$72 million irrigating more than 2.2 million acres. In 2003, Idaho farmers and ranchers spent more than \$102 million irrigating 2.3 million acres.
- The agriculture industry uses energy directly in grain production, drying, and marketing, and indirectly through many of the purchased inputs such as fertilizer and agricultural chemicals.
- The Economic Research Service of the United States Department of Agriculture estimates that principal crop related expenses in 2007 – seeds, fertilizers, and pesticides – will be \$36.1 billion, up 5% from 2006. This would be the fourth straight increase of \$1.8 billion or more.



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