



NATIONAL  
OCEAN  
INDUSTRIES  
ASSOCIATION

# ENERGY CHALLENGES FOR MONTANA 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.

## MONTANA ENERGY CONSUMPTION AND OUTLOOK:



- Montana generates more electricity than it consumes, with power plants capable of generating 5,100 MW (megawatts) of electricity. An annual average of 3,000 aMW (1 aMW=8,760 MWh) was produced in the period 1999-2003. During that time, Montana consumption accounted for slightly more than half of production, with Montana sales and transmission losses averaging less than 1,600 aMW.

- Montana generation is powered almost entirely by coal (63 percent) and hydro (35 percent) (1995-2003 average). Over the last 15 years, about 25 percent of Montana coal production has gone to generate electricity in the state.

- According to the October 2004 report “Understanding Energy in Montana:”

- Electricity: The cost of electricity has changed dramatically since 2000. The average price per kWh for residential customers was 7.6 cents in 2003, up from 6.5 cents in 2000. The average price per kWh for commercial customers was 6.5 cents in 2003, up from 5.6 cents in 2000; for industrial consumers, the comparable figures are 4.5 cents and 4.0 cents.

- Natural Gas: Most natural gas produced in Montana comes from the north-central portion of the state. In-state gas production has been increasing in recent years, standing at 86.1 billion cubic feet in 2003, and Montana both exports some of this production to other states and imports (from Alberta, Canada) some natural gas for its own consumption. Total statewide consumption has averaged 60-70 billion cubic feet per year, and is only expected to increase at less than one percent annually in coming years.

- Coal: Montana is the sixth largest producer of coal in the United States, with over 37 million tons mined in 2002 from eight mines across the state. The largest was Westmoreland’s rosebud mine at Colstrip, producing 10-11 million tons per year. About 95 percent of the coal consumed in Montana is used to generate electricity.

- Petroleum: In 2003, Montana petroleum production was 19.3 million barrels, and the state is home to four refineries with a combined capacity of 181,200 barrels/day. Montana refineries now use around 60 million barrels of crude a year, providing almost all the petroleum products consumed in the state (30 million barrels in 2003). The remaining 55 percent of the liquid fuels produced at Montana refineries is exported. The transportation sector is the single largest user of petroleum. In 2001, 38 percent of petroleum consumption was in the form of motor gasoline and 28 percent was distillate, mostly diesel fuel.



## INCREASING ENERGY PRICES HURT MANUFACTURING AND WOOD PRODUCT INDUSTRIES, IMPERILING MONTANA JOBS:

- In Montana, the average price for natural gas for industrial customers has risen 138 percent since 1999.
- In April 2006, Montana was home to more than 19,400 manufacturing jobs, paying employees an average of \$35,340/year, 32 percent higher than the state's overall average. Unfortunately, rising energy costs have contributed to the loss of more than 3,100 of these high-wage manufacturing jobs since 2000.
- Chemical manufacturing – which depends on natural gas as a critical input – accounted for more than \$129 million in Montana exports in 2005. These manufacturing jobs are also in jeopardy due to the high price of natural gas.
- Montana's forest products industry is one of the state's top manufacturing industries, employing nearly 11,000 workers with an annual payroll over \$327 million. Montana's paper and wood manufacturing workforce represents more than 24.8% of the state's total manufacturing workforce, but these jobs are also in jeopardy due to the high price of natural gas. Today, energy is the third largest manufacturing cost for the forest products industry (18% for pulp and paper mills), growing quickly enough to eclipse employee compensation.

## INCREASING ENERGY PRICES SQUEEZE SMALL BUSINESSES AND INDIVIDUAL CONSUMERS:

- In a recent poll conducted by the Montana Chamber of Commerce, higher energy costs ranked second only to healthcare costs as the top financial issue for Montanans.
- Despite one of the warmest winters on record, Montana consumers' heating bills rose an average of 23 percent for natural gas and 24 percent for oil in 2006.
- Natural gas is used by approximately 60 percent of Montana homeowners.
- Home heating costs have risen significantly. The average price paid for 1,000 cubic feet of natural gas by Montana's households rose 79 percent between 2000 and January 2005, according to the U.S. Energy Information Administration.
- Residential electricity consumption for a typical family with gas water heating and gas space heating averages around 7000 kilowatt-hours (kwh) annually. At 8 cents per Kwh, that's \$560 per year on average. Lighting, refrigeration, and clothes drying are the biggest electricity users in typical Montana homes.
- Residential gas consumption in Montana averages around 115 decatherms (dkt) annually. At \$10 per decatherm, that's \$1,150 per year, though local gas rates may vary. Heating is by far the biggest user of gas in a typical Montana home.
- More than half of Montana's residents' energy bills (55 percent) go to home heating, bills that are only getting bigger. The average energy bill for Montana homes heated with natural gas will increase by about \$330 in 2006. Homes heated with heating oil will go up by about \$200. Propane-heated home owners will see their bills rise by about \$175, while electric heating costs will rise by about \$60.



- The number of low-income families in Montana that received federal assistance in paying their home heating bills rose an estimated 18 percent between 2002-2004, according to the National Energy Assistance Director's Association.
- In 2005, Montana distributed over \$15 million in Low Income Home Energy Assistance (LIHEAP) funding to more than 22,000 eligible households to help pay their heating and cooling bills.
- Montana gasoline prices are currently about 20 percent higher than one year ago. At today's prices, Montana households pay about \$3,000 annually for gasoline.

## INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:

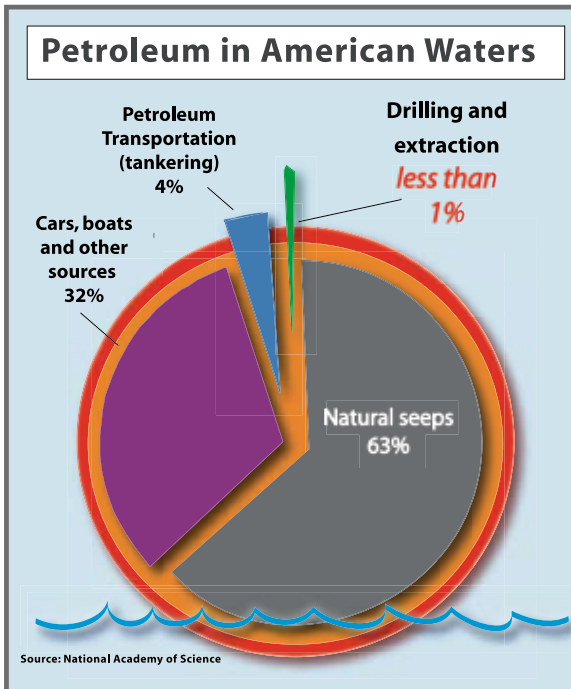


- Montana is home to more than 28,000 farms and ranches covering more than 60 million acres, representing 64 percent of the total state's land area ranking second in the nation behind Texas. Agriculture is Montana's leading industry and a major component of the state's economy. The state's agricultural industry accounts for over one-third of Montana's basic employment, labor income and gross sales, and produces more than \$2.4 billion in annual commodity cash receipts.
- About 52 percent of farm cash income came from livestock and 33 percent from sales of crops, mainly wheat.
- In 2005, the value of Montana wheat and wheat products as an agricultural export was more than \$370 million. Unfortunately, because of the high price of energy, fertilizer costs have gone up by double digits, and, for the first time since the Great Depression, a gallon of diesel fuel is more expensive than a bushel of wheat. For wheat farmers, this dramatic rise in prices is especially acute because more than half the variable cost associated with growing it comes from fuel and fertilizer. In 2006, it will cost 24 to 27 percent more to grow wheat than in 2005.
- The livestock industry also has been impacted by the high energy costs. For many farmers, feed costs represent the largest annual operating cost for most commercial cow-calf enterprises. The high fuel costs are resulting in higher prices for transportation, electricity and related costs in the feed and ingredient processing industry. Additional areas where energy costs are affecting farmers and ranchers include the cost of processing equipment (cost of steel and other metals) and urea (feed and fertilizer grade).
- 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 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**