



NATIONAL
OCEAN
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ASSOCIATION

ENERGY CHALLENGES FOR WISCONSIN 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.



WISCONSIN ENERGY CONSUMPTION:

- In 2004, Wisconsin's expenditures for energy increased by 11.8%, setting a new record of over \$15.5 billion. Among the individual energy sources, petroleum expenditures increased \$1.2 billion, natural gas expenditures increased \$199.4 million, electricity expenditures increased \$205.7 million and non utility coal expenditures increased \$13.3 million. It is estimated that over two-thirds of Wisconsin's energy expenditures leave the state's economy, a drain of over \$10 billion, or about \$4,600 per household.
- Energy consumption in Wisconsin increased 0.2% in 2004 after increasing 0.9% in 2003. Wisconsin's resource use is dominated by the industrial sector of the economy, which consumed 30.5% of total state energy in 2004. Industrial users are primarily dependent on natural gas (39.4%) and electricity (23.1%) for manufacturing processes such as papermaking, printing and food processing.
- Since 1980, overall energy use for commercial activities has increased almost 44%, with electricity use nearly doubling in that same period.
- Energy use for transportation increased 1.9% to an all time high. Diesel fuel consumption has increased by 140% since 1980 as more goods are trucked through the state and heavy equipment use has increased.
- Natural gas in Wisconsin is used primarily for heating and for industrial processes. Over two-thirds of all Wisconsin households use natural gas, as do more than 151,000 businesses. Wisconsin's natural gas prices, on average, increased 9.9% in 2004. Overall, natural gas use has increased almost 25% since 1990.
- Petroleum use in Wisconsin increased 1.8% in 2004 to account for over 29% of Wisconsin's overall resource energy needs, the highest level since 1978. Today, 83% of all petroleum products are used for transportation purposes.
- Electricity consumption in Wisconsin has grown by 2% annually over the past decade. In 2004 alone, electricity sales increased 0.8%. The industrial sector is the largest electricity user in Wisconsin, using 35.9% of total consumption. Commercial and residential sectors are not far behind, using 33% and 28.2% respectively.
- Renewable energy use increased 6.2% in 2004, fueled primarily by an increase in hydropower.





INCREASING ENERGY PRICES HURT MANUFACTURING INDUSTRIES, IMPERILING WISCONSIN JOBS:

- In December 2005, Wisconsin was home to more than 509,000 manufacturing jobs, paying employees an average of \$44,150/year, 28% higher than the state's overall average. Unfortunately, rising energy costs have contributed to the loss of more than 85,100 of these high-wage manufacturing jobs since 2000.
- Chemical, plastic and rubber manufacturing – which depend on natural gas as a critical input – accounted for more than \$1.09 billion in Wisconsin exports in 2005 and support more than 14,520 jobs directly. These manufacturing jobs are also in jeopardy due to the high price of natural gas.
- Wisconsin's forest products industry is one of the state's top manufacturing industries, employing nearly 93,000 workers with an annual payroll over \$3.6 billion. Wisconsin's paper and wood manufacturing workforce represents more than 12% 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 FARMERS AND AGRICULTURAL INDUSTRIES:

- Wisconsin's agricultural, industrial and home heating sectors rely heavily on natural gas. In addition to being a fuel, natural gas is also a feedstock for nitrogen which is used to produce ammonia, the building block of all nitrogen fertilizer products. The availability and cost of natural gas profoundly affect the ability of Wisconsin's farmers to compete in today's agricultural markets.
- In 2004, Wisconsin was home to more than 76,500 farms. Wisconsin's agriculture industry contributed over \$6.8 billion to the state's economy in 2004, with cash receipts jumping 16% from the previous year. The jump was caused by strong milk prices, with milk cash receipts expanding 30% to \$3.69 billion.
- With 15,300 farms, Wisconsin has more dairy farms than any other state – in fact, one-fifth of all the dairy farms in the nation are located here – and produces more milk than any other state, except California. Throughout the nation, many dairy farmers have been impacted by





high energy costs with increases in feed stock prices, and lighting and transportation costs.

- In 2004, Wisconsin's agricultural energy bill increased 9.9%, primarily because petroleum and electricity prices increased. Higher prices resulted in a 15.3% increase in petroleum expenditures and 4.6% increase in electricity prices. Agricultural energy expenditures are split almost equally between electricity and petroleum fuels.
- According to the Food and Agriculture Policy Research Institute, fertilizer costs are up 70% and fuel costs are up 113% since 2002. From 2005 to 2006, the prices are expected to rise another 10 to 15% and almost 10%, respectively.

INCREASING ENERGY PRICES SQUEEZE SCHOOLS, SMALL BUSINESSES AND INDIVIDUAL CONSUMERS:



- Wisconsin school districts are coping with rising energy costs. In the Kenosha Unified School District, for example, schools turned down thermostats in classrooms to lessen unexpectedly high energy bills. In the Niagara School District, officials limited field trips and changed athletic schedules to compensate for the high price of fuel. Appleton Area School District officials expected to spend \$400,000 to \$500,000 more on energy in 2006 than the previous year, forcing administrators to shut off the heat at 3:15 pm every day.

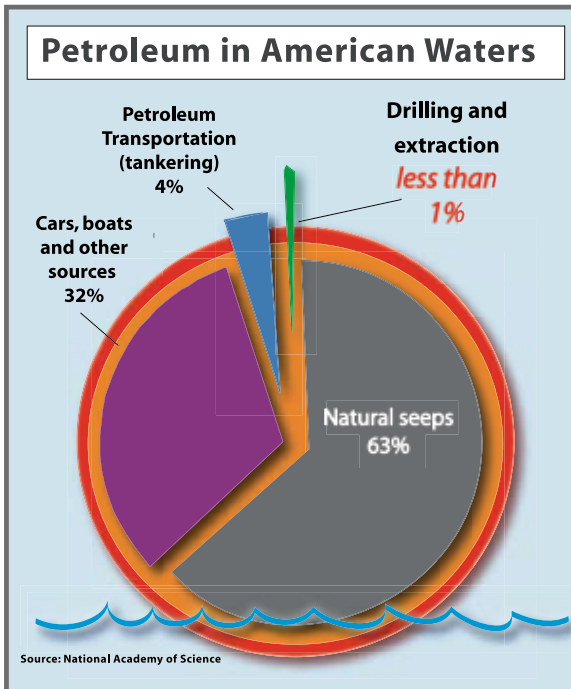
75% of Wisconsin's small businesses said the recent run-up in energy prices has had a negative impact on their business, according to a November 2005 survey by the Wisconsin chapter of the National Federation of Independent Business. 25% of small business owners are coping by reducing energy use, while 17% raised prices, and 16% have absorbed those costs and taken lower earnings.

- Over half of Wisconsin residents' energy bills go to home heating, bills that are only getting bigger. The average energy bill for Wisconsin homes heated with natural gas will increase by \$450 in 2006. Average energy bills for homes heated with heating oil will increase by about \$270. Propane-heated home owners will see their bills rise by about \$230, while electric heating costs will rise by about \$90.
- In 2005, Wisconsin distributed over \$75.3 million in Low Income Home Energy Assistance (LIHEAP) funding to more than 137,000 eligible households to help pay their heating and cooling bills.
- Wisconsin's gasoline prices are currently about 30% higher than one year ago. At today's prices, Wisconsin households pay about \$3,100 annually for gasoline.

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