



NATIONAL
OCEAN
INDUSTRIES
ASSOCIATION

ENERGY CHALLENGES FOR NEVADA 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.



NEVADA ENERGY CONSUMPTION AND OUTLOOK:

- Nevada is the fastest-growing state in terms of population and energy consumption, with consumption increasing nearly 70 percent from 1990 to 2000.
- The average electricity price in the state reached 9.4 cents per kWh (kilowatt-hour) in July 2004, compared to 6.2 cents per kWh in 2000, a 51 percent increase.
- Nevada's energy consumption growth rates are predicted to average 1.3 to 1.5 percent in northern Nevada and approximately 3 percent in southern Nevada.
- Nevada's electric power systems operate almost entirely within two control areas, the Sierra Pacific Power control area and Nevada Power control area. Sierra Pacific Power and Nevada Power serve approximately 93 percent of the demand in Nevada. The Nevada Public Utilities Commission (PUC) has outlined demand forecasts for each of these major energy providers:

The expected annual energy demand growth for Sierra Pacific Power from 2003 to 2013 is 2.1 percent, when output will need to rise to 1,941 MW (megawatt hours). If peak demand continues to grow at 2.1 percent from 2010 to 2025, then the forecast suggests demand will grow by an additional 714 MW to a total peak of 2,655 MW.

The expected annual energy demand growth for Nevada Power from 2005 to 2013 is 3.6 percent, when output will need to rise to 6,813 MW. If peak demand continues at this rate until 2025, then the forecast suggests demand will grow by more an additional 4,300 MW to a total peak of 10,637 MW.

- Electricity and natural gas account for close to 70 percent of total energy consumption in the state. Transport fuels represent the remainder of energy use.
- Nevada has very limited fossil fuel resources and imports all of its natural gas and coal from other states. In 2002, Nevada paid \$2.5 billion to out-of-state energy producers.
- Natural gas prices have risen even more dramatically in recent years. Households in Nevada were paying over \$12 per thousand cubic feet for gas in mid-2004, about twice as much as in 2000.
- According to the 2005 Nevada Energy Efficiency Strategy, Nevada spends \$47 million per year on energy costs for state facilities, with about \$36 million or 77 percent attributable to electricity costs alone.

INCREASING ENERGY PRICES HURT TOURISM, MINING AND MANUFACTURING INDUSTRIES, IMPERILING NEVADA JOBS:

- Nevada's gaming companies are among the largest employers in Nevada. They directly employ nearly 250,000 people, roughly 25 percent of the state's workforce – as of November 2000, according to the Nevada Resort Association.
- According to *Gambling Magazine.com*, the amount of electricity used by a megaresort with 3,000 rooms would power 9,000 three-bedroom homes. At peak demand, just one of these resorts uses more megawatts than a large hospital campus.



- Mining and manufacturing – which contributed \$4.2 billion towards the state’s total economic output of \$81 billion in 2002 – accounted for 44 percent of electricity use for Sierra Pacific Power Company and 36 percent of electricity use for Nevada Power Company. Statewide, these sectors accounted for 17 percent of natural gas use in 2001.
- At Newmont Mining Corporation, the world’s largest gold producer, energy costs have climbed 44 percent in 2005 to more than \$130 million, or 25 percent of all expenses. Today, Newmont is constructing a coal-fired power plant in Nevada to save about \$50 million a year.
- In April 2006, Nevada was home to more than 49,100 manufacturing jobs, paying employees an average of \$42,450/year, 17% higher than the state’s overall average. Unfortunately, rising energy costs have contributed to the loss of more than 6,400 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 \$110 million in Nevada exports in 2005 and support more than 1,150 jobs directly. These manufacturing jobs are also in jeopardy due to the high price of natural gas.
- Nevada’s forest products industry is one of the state’s top manufacturing industries, employing nearly 3,000 workers with an annual payroll over \$99 million. Nevada’s paper and wood manufacturing workforce represents more than 2.4% 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 SCHOOLS, SMALL BUSINESSES AND INDIVIDUAL CONSUMERS:

- The 2005 “Status of Energy in Nevada” report concludes that natural gas and petroleum prices have risen to the point where the cost of electricity and transportation fuels brings hardship to Nevada’s farmers, ranchers, and rural businesses.
- Clark County School District is the fifth largest school district in the country with over 300 schools, and is adding about ten new schools a year. Enrollment is approaching 270,000 students. Utilities – electric, gas, water, and sewer – are the District’s second largest expense after salaries. Utilities were projected to cost over \$63 million for 2003-2004, with electricity at \$41 million, or 65 percent of the utility expense. The District estimates that upwards of two-thirds of the electricity costs are due to space cooling requirements.
- Washoe County School District, one of the top 100 school districts in the country, is also growing rapidly as it approaches 100 schools, adding two new schools a year with enrollment at 64,000 students. Utilities – electric, gas, water, and sewer – were projected to cost \$12-\$14 million for 2003-2004, with about one-half for natural gas and electricity for heating and cooling systems.





Nearly two-thirds (63 percent) of Nevada’s households rely on natural gas heat and, according to the Federal Energy Information Administration, the average residential gas price reached \$12.87 per thousand cubic feet (tcf) in July 2004. At today’s high gas prices, the typical household in Nevada is paying about \$750 per year for natural gas.

- The typical residential customer in a single-family home in Nevada will pay a monthly bill of \$194.60 for 1,800 kilowatt hours of electricity this summer when power consumption peaks with air conditioning use. A customer using 2,100 kilowatt hours would pay \$226.44 this summer before temperatures and power consumption decreases, according to a June 2006 *Las Vegas Review Journal* article.
- Between January 2000 and January 2006, Southwest Gas Corp.’s residential customers have seen bills rise from an average of \$29.11 a month to \$52.43 a month. Southwest Gas serves about 500,000 households in Southern Nevada.
- In Nevada, energy costs account for up to 14 percent of a typical low-income household budget as compared to 3.5 percent for other households.
- In 2005, Nevada distributed over \$3.9 million in Low Income Home Energy Assistance (LIHEAP) funding to more than 17,500 eligible households to help pay their heating and cooling bills. According to the National energy Assistance Directors’ Association, the need for energy assistance jumped 26.3 percent in 2005.

INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:

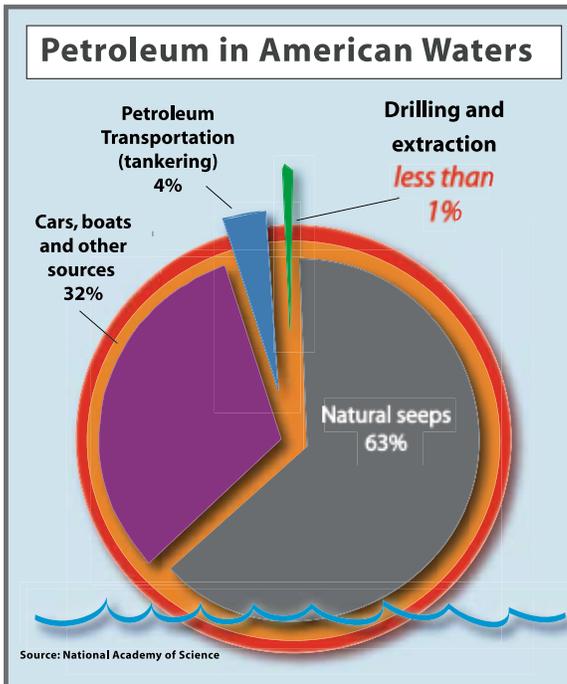
- Nevada is home to more than 3,000 farms covering more than 6.3 million acres. Nevada’s top three agricultural commodities in 2004 – cattle and calves; hay; and dairy products - had a combined value of receipts totaling \$361.8 million.
- Nevada’s alfalfa hay production was forecast to reach 1.238 million tons in 2004, 1.1 percent above last year’s crop and 1 percent above the 2002 crop according to Nevada Agricultural Statistics Service. The increased cost of energy to run pumps for irrigation is impacting hay farmers throughout the United States.
- In 2004, there were about 36 dairy farms in Nevada producing approximately 509 million pounds of milk, up 4.75 percent from 2003. Cash receipts from Nevada milk and cream marketing totaled \$74.9 million, 28.4 percent above the previous year. Across the nation, dairy farmers have been impacted by high energy costs, which raise prices for feed stock, motors, lighting, and transportation.
- 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