NATIONAL OCEAN INDUSTRIES ASSOCIATION

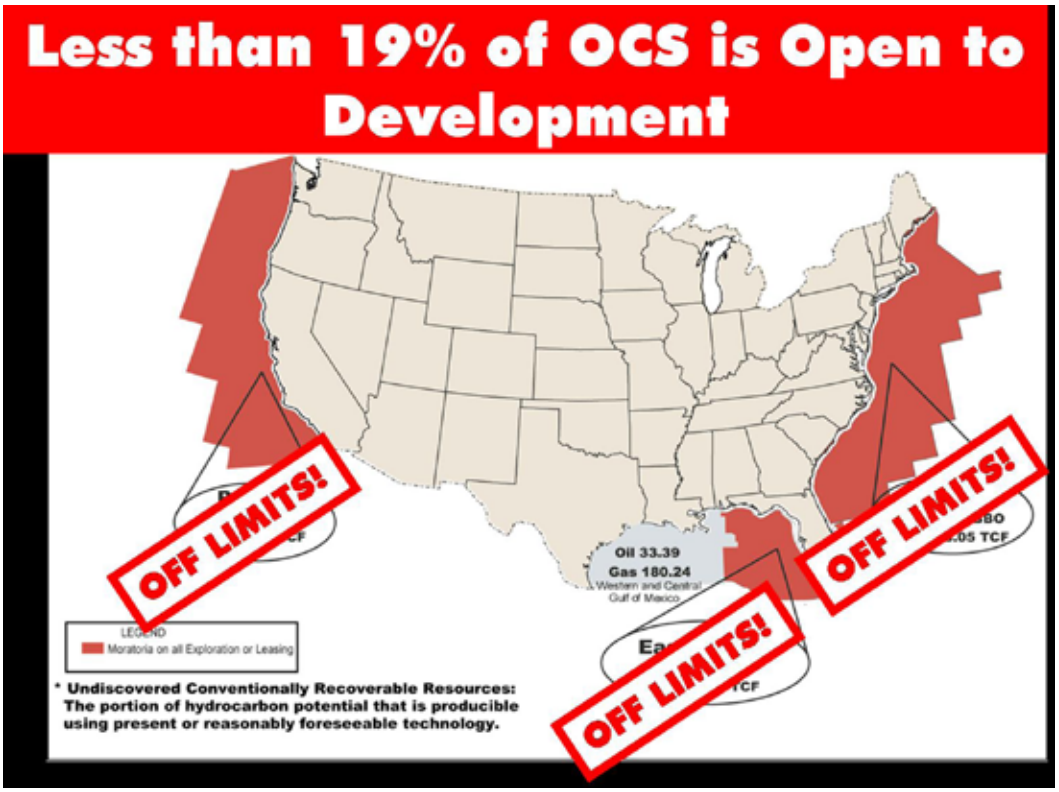
ENERGY CHALLENGES FOR UTAH AND THE NATION

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.



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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 then 25 years – we will need 55 percent more electricity than we generate today and consumption of all sources of energy are expected to increase:
  - *Petroleum by 41 percent*
  - *Natural gas by 33 percent*
  - *Coal by 41 percent*
  - *Renewable energy by 39 percent*

- In 2006, consumers may pay as much as 48 percent more for natural gas than last year and at least 31 percent more for home heating oil.

- 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.
  - *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.

AN ENERGY PLAN OF ACTION FOR UTAH

UTAH ENERGY CONSUMPTION:

- Utah spends over $5.6 billion each year on energy, ranking 36th nationally in total energy consumption.
- In 2004, Utah's energy consumption by sector was: 31% transportation, 29% industrial, 20% residential, and 20% commercial.
- Between 1980 and 2001, Utah's electricity consumption increased by 12.5 billion kilowatt-hours, averaging a 3.8% 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.
- Coal fuels 93% of Utah's electric generation, followed by natural gas (4%), hydropower (1%), geothermal (1%), and other (1%).
- In Utah, the use of natural gas for electric generation increased by 30% between 1996 and 2006.
- 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.

UTAH ENERGY RESOURCES AND PRODUCTION:

- Currently, the State ranks 14th nationally in the production of liquid hydrocarbons, with more than 7,000 oil and gas wells producing 18 million barrels of oil and 350 billion cubic feet of natural gas annually.
- The State has an estimated 250 million barrels of crude oil in reserves and 4 trillion cubic feet of natural gas in reserves.
- Utah is home to 3 of the Nation's 100 largest oil fields and 2 of the Nation's 100 largest natural gas fields. Drilling operations and wells are concentrated in the Uinta and Paradox basins in eastern Utah.
- Utah's oil shale deposits, concentrated in the Uinta Basin in the east-central part of the State, hold tremendous promise. Although smaller than those found in Colorado or Wyoming, much of the State's high-grade deposits are located close to the surface in thick seams.
- Utah ranks 14th nationally in coal production, the majority of which comes from 13 underground mines located primarily in Carbon, Emery and Sevier counties. The State has an estimated 280 million short tons of coal in reserves.
- Utah accounts for only 2% of U.S. coal production. More than one-half of that production is consumed in-state for electric generation, and most of the surplus coal is shipped by rail to Nevada and California.
- The State also has five petroleum refineries, located in the Salt Lake City area, that process crude oil from Utah and other mountain states.

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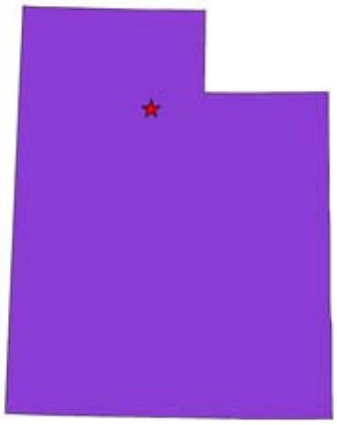
AN ENERGY PLAN OF ACTION FOR UTAH

UTAH ALTERNATIVE / RENEWABLE ENERGY:

- Utah has substantial renewable energy potential; areas with geothermal, wind, and solar power potential cover much of the State.
- At present, renewable resources account for just over 300 megawatts of electric generation capacity in the State. This includes wind, biomass, geothermal, and hydropower production.
- Utah is one of only four states with geothermal electric power plants. The Roosevelt Hot Springs and Cove Fort-Sulphurdale power plants generate 30 megawatts of electricity. Geothermal energy is also used at six commercial greenhouses in the State, as well as for space heating at the Utah State Prison near Bluffdale.
- The southern half of Utah is home to excellent solar resources. The Dangling Rope Marina in Utah's Glen Canyon National Recreation Area, for instance, eliminated the need for more than 65,000 gallons per year of diesel by installing solar panels.
- Utah's Governor is pushing for a 20% total reduction in energy use by 2018. If achieved, this initiative would be equivalent to removing 160,000 vehicles from the State's roadways in a single year, saving an estimated $67 million.

INCREASING ENERGY PRICES HURT MANUFACTURING INDUSTRIES, IMPERILING UTAH JOBS:



- Utah's manufacturing sector is one of the State's largest industries. As of November 2006, Utah was home to approximately 120,000 manufacturing jobs paying employees an average of $39,800 per year, 21% higher than the average for the State. Rising energy costs, however, have contributed to the loss of more than 4,500 of these high-wage manufacturing jobs since 2000.
- Chemical manufacturing – which depends on natural gas as a critical input – accounted for $450 million in Utah exports and directly supported nearly 8,000 jobs in 2005. These jobs, however, are in jeopardy due to the high price of natural gas.
- Utah has more than 15 million acres of forested land, and its forest products industry employs more than 6,000 workers with an annual payroll exceeding $235 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 Utah's paper and wood manufacturing jobs are endangered by the high price of natural gas.

INCREASING ENERGY PRICES SQUEEZE THE STATE'S UNIVERSITIES, SCHOOLS, BUSINESSES AND INDIVIDUAL CONSUMERS:

- Currently the State spends $60 million annually on energy costs in state-owned facilities. Those facilities comprise more than 3,000 buildings covering 40 million square feet.
- According to the University of Utah, the annual power and fuel expenses for the University have increased by 57% in the last five years – from $13 million in 2002 to $22 million in 2006. Consequently, each student now pays an $18 fee to help defray those costs.
- Utah State University currently spends more than $9 million annually on energy resources, accounting for more than 2% of the annual University budget and 60% of the building operation costs.
- Home heating costs have risen significantly, regardless of the energy source used. Natural gas is responsible for heating 85% of Utah's homes, the highest percentage in the Nation, followed by electricity (10%), liquefied petroleum gas (3%), fuel oil (1%), and other sources (1%).
- In 2006, Congress and the State provided home heating assistance for more than 40,000 Utah households, a 15.5% increase from 2005.

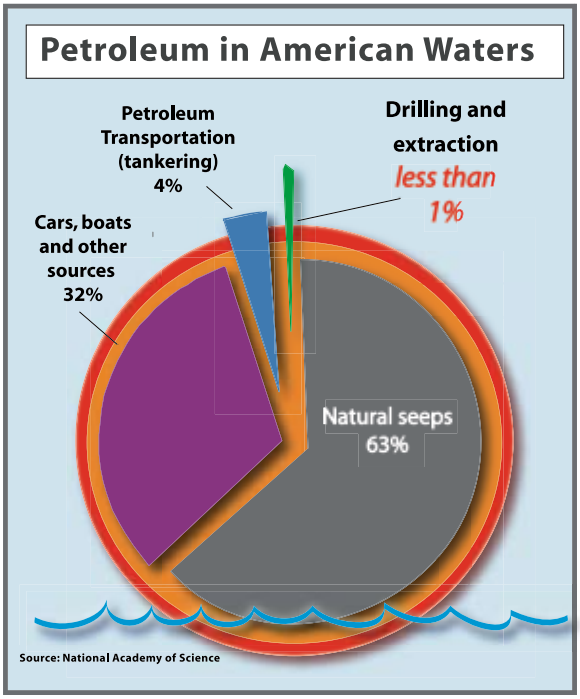
INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:

- Utah is home to more than 15,000 farms and ranches, covering more than 11 million acres, and generating nearly $1.3 billion in farm receipts in 2005. The top agricultural products in the State are cattle and calves ($665 million) and hay ($136 million).
- 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.
- Hay is an important agricultural product in Utah, generating more than $136 million in cash receipts in 2005, but on-farm energy expenses for irrigation water have increased dramatically. In 1998, Utah farmers and ranchers spent nearly $8 million irrigating more than 300,000 acres. In 2003, Utah farmers and ranchers spent more than $14 million irrigating 360,000 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