

# **Developing a Louisiana Energy Policy**

Prepared by

Charles V. Cusimano  
Chairman, Louisiana Energy Policy Advisory Commission &  
President, Energy Self-Service Oil Company  
Metairie, Louisiana

and

T. Michael French, P.E.  
Member, Louisiana Energy Policy Advisory Commission &  
Director, Technology Assessment Division  
Louisiana Department of Natural Resources  
Baton Rouge, Louisiana

The 50<sup>th</sup> Mineral Law Institute  
LSU Law Center  
Baton Rouge, Louisiana

April 3, 2003

# Introduction

Although Louisiana is one of the highest energy consuming and producing states in the nation, the state has no definitive energy policy. It has a de facto energy policy of “what is, is.” Of course the state has plenty of statutes and regulations that pertain to energy, but all of these evolved over time to address specific issues or concerns of the era, such as conservation laws to prevent the premature waste of a reservoir from overproduction, various tax laws to raise revenue, regulations requiring permits to drill wells, incentives to encourage alternative motor fuels use, regulations on who can generate and distribute electricity, etc. This collection of various laws, rules, policies, and procedures is just that, a collection of diverse items that were developed more or less randomly over the years. A comprehensive evaluation of effectiveness, efficiency, conflict, interaction, need, defects, and deficiencies has never been undertaken. As patterns of supply, demand, technology, and economics have changed over time, the need has increased to reexamine this diverse assortment and to develop a coordinated set of laws, rules, procedures, regulations, incentives, etc., in a comprehensive state energy policy that is proactive and directs the future rather than the current de facto policy that is reactive to external forces.

The two most fundamental elements of an energy policy are: increase supply and reduce demand. The myriad ramifications and derivatives of these two simple-sounding activities are astounding. Expanding them just one increment, though, yields the following basic objectives:

<u>Increase Supply</u>	Increase supply or access to existing energy sources Develop and encourage use of alternative energy sources
<u>Reduce Demand</u>	Develop and encourage energy efficiency and conservation Diversify economy to be less energy dependent

Essentially all of the elements of an energy policy can be reduced back to these four basics.

Much of what is needed in an overall comprehensive energy policy must be implemented on the national level, as many things, such as interstate commerce, are beyond the authority or control of the state. Many issues are regulated at the federal level, and the federal government will likely always hold on to that power. Other issues are beyond the control of the federal government as well. This includes such things as international economics and prosperity that dramatically affect energy supply, demand, and price in a free market. In view of this, though, there are still many energy related initiatives Louisiana can take at the state level to improve and diversify its economy, constructively impact energy production and use, and improve the long term prosperity of its citizens, businesses, and industries.

Governor Mike Foster took a positive step in that direction when in 2001, he issued Executive Orders MFJ 01-49 and 01-59 that established the Louisiana Comprehensive Energy Policy Advisory Commission. This Commission was charged with examining the status of energy policy in the state and with making recommendations to the Governor by the Commission’s expiration date in August 2002 on what the needs and issues are pertaining to energy policy in the state. The recommendations of the Commission are included later in this report.

In this report we provide a brief historical perspective on the birth of the oil and gas industry in the state that created the initial need for regulation in that part of the energy industry in Louisiana. We also discuss,

- The need for energy and Louisiana's dependence on it
- Some significant regulatory agencies and laws
- Issues identified by the Energy Commission
- Other action items for consideration.

# Historical Perspective

**Mineral Law** in Louisiana had its very humble beginnings in the community of Evangeline, Louisiana near Jennings when oil was discovered in September 1901 by Howard Brothers Drilling for Jennings Oil Company. Louisiana's first well was drilled in a rice field on the "Mamou Prairie."

The owner of the property, Jules Clement, noticed bubbles rising from a spot in one of his rice fields after it flooded. With the recent discovery in Spindle Top in mind, he conducted an experiment. He stood an old stovepipe over the bubbles, lit a match and threw it into the pipe. Gas from the bubbles ignited.

Clement told friends about this, and word spread to Jennings, reaching the ears of several interested area businessmen. They quietly secured leases on approximately 2000 acres in the vicinity of the seepage and formed S.A. Spencer & Company. They contacted Scott Heywood, a successful wildcatter in Texas, to see if he would be interested in their prospect. Heywood visited the area and noted that the land formations were much the same as those at Spindle Top and conducted his own tests by lighting the bubbles with matches. When it burned with a red flame, showing smoke at the top of the flame, he was convinced that it was petroleum gas.

Heywood contracted to drill two wells to a depth of 1000 feet each for an undivided one-half interest in the acreage. The contract also provided that he could organize a company to be called the Jennings Oil Company. A drilling rig was moved from Beaumont to drill the well and drilling began on the Jennings Oil Company — Clement No. 1 well on June 15, 1901. Scott Heywood was the superintendent and co-owner. Machinery was shipped from Spindle Top. The derrick was 64 feet high and the drill pipe (stem) was just ordinary line pipe.

Heywood commented that he sometimes wondered how they ever accomplished what they did in those "old days." It was 90 days of working in the hot sun, fighting mud and mosquitos. At about 250 feet there was a very small showing of oil in the mud on the top of a water sand. At around 400 feet they twisted off a string of pipe. It was necessary to give up the hole, move over a few feet and make a new start.

When the specified contract depth of 1000 feet was reached, oil had not been found. Heywood's contract provided that his second well must be started within 30 days after the Jennings Oil Company well was finished. It seemed foolish to him to drill another well to a depth of 1000 feet to acquire his interest. Scott Heywood proposed that Heywood Brothers obtain an agreement from Spencer & Company allowing a second well to be drilled at the bottom of the Jennings Oil Company-Clement No. 1 Well.

A joint agreement was reached between Spencer & Company, Scott Heywood, Jennings Oil Company and Heywood Brothers and the contract was signed on August 11, 1901. Heywood Brothers was to drill to a depth of 1500 feet. If any favorable indications were found, they were to drill to a greater depth, if it was deemed advisable. With no favorable results at 1500 feet, they ran short of drill pipe. A decision had to be made. Should the well be abandoned, or should they drill

deeper? Some of the Heywood brothers wanted to call it a day, but Scott Heywood insisted on getting more drill pipe and going deeper on his own. Alba Heywood felt that the brothers should stay with Scott as long as he wanted to drill.

Scott Heywood shipped in more drill pipe, continued to drill, and, at 1700 feet, struck "a very fine showing of oil-in-sugar sand." More pipe was sent in to finish drilling into the sand, and when finished, there was 110 feet of oil sand. Casing was set with a gate valve for protection. After running the bailer the second time, the well came in, flowing a solid four-inch stream of pipeline oil over 100 feet high.

The well flowed sand and oil for seven hours and covered Clement's rice field with a lake of oil and sand, ruining several acres of rice. Oil sand piled up on the derrick floor and about 100 feet around the derrick to a depth of over one foot. The well finally gave one big gush of oil and sand and shut itself in, sanding up for a distance of 1000 feet in the casing. On the evening of September 21, 1901, a farmer rushed into Jennings with the news that oil had been discovered. Washing, bailing and flushing continued for about 30 days. If the sand could have been controlled in that well, it would have produced over 7,000 barrels per day.

One day when the 2-inch pipe was being removed from the well after washing the sand out, the well began flowing again. Before the removal could be completed, however, the well sanded up over 1,000 feet and stuck the pipe. Failing in an attempt to fish the 2-inch pipe out, the well was abandoned.

But, the boom had begun! To date, over 220,000 wells have been drilled in Louisiana. When production in the federal waters off Louisiana's coast (federal outer continental shelf, or OCS) is included, Louisiana currently ranks first in crude oil production and second natural in gas production, as shown in Figures 1 and 2.

### **Changing Trends**

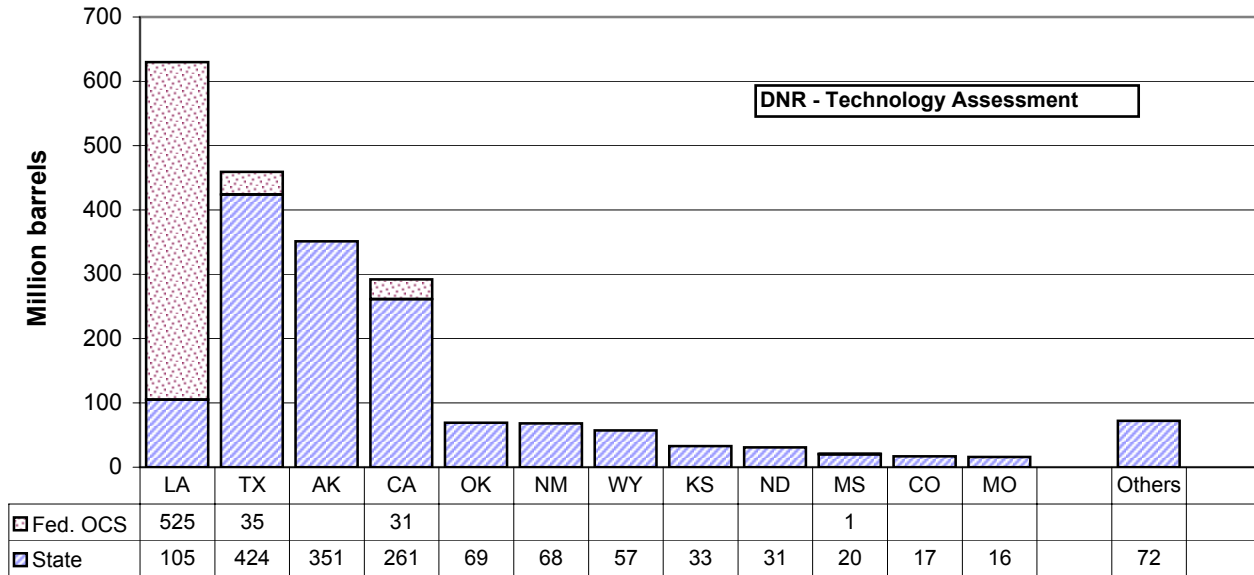
Unfortunately, within Louisiana's borders, which includes up to 3 miles offshore, this Louisiana controlled production has fallen dramatically since its peak, as shown in Figures 3 and 4. Louisiana annual oil production has fallen to, approximately, 96 million barrels (mmbbl), or 17% of its peak of 566 mmbbl in 1970. Similarly, Louisiana annual natural gas production has fallen to approximately 1.4 Trillion Cubic Feet (TCF), or 25% of its peak of 5.5 TCF in 1970. It is only this Louisiana controlled production within its borders on which Louisiana collects severance taxes. Louisiana shares royalties with the federal government in the Section 8g transition zone from three miles to six miles offshore. Beyond six miles offshore, Louisiana receives no revenue for production in federal waters.

As production within Louisiana borders has declined, refinery capacity has increased in inverse proportion. This dramatic trend is shown in Figure 5, which illustrates how Louisiana has transformed from principally a production state to principally a processing state with all of its petrochemical plants and petroleum refineries. In 2001 (the latest data available), Louisiana ranked 2<sup>nd</sup> in refining capacity and 2<sup>nd</sup> in primary petrochemicals production. In a September Department of Natural Resources survey, Louisiana had an operating refinery capacity of over 2.7 million barrels

per day. The actual annual throughput for the year ending September 30, 2001, was 926 million barrels, more than half of which was imported foreign oil.

Figure 1

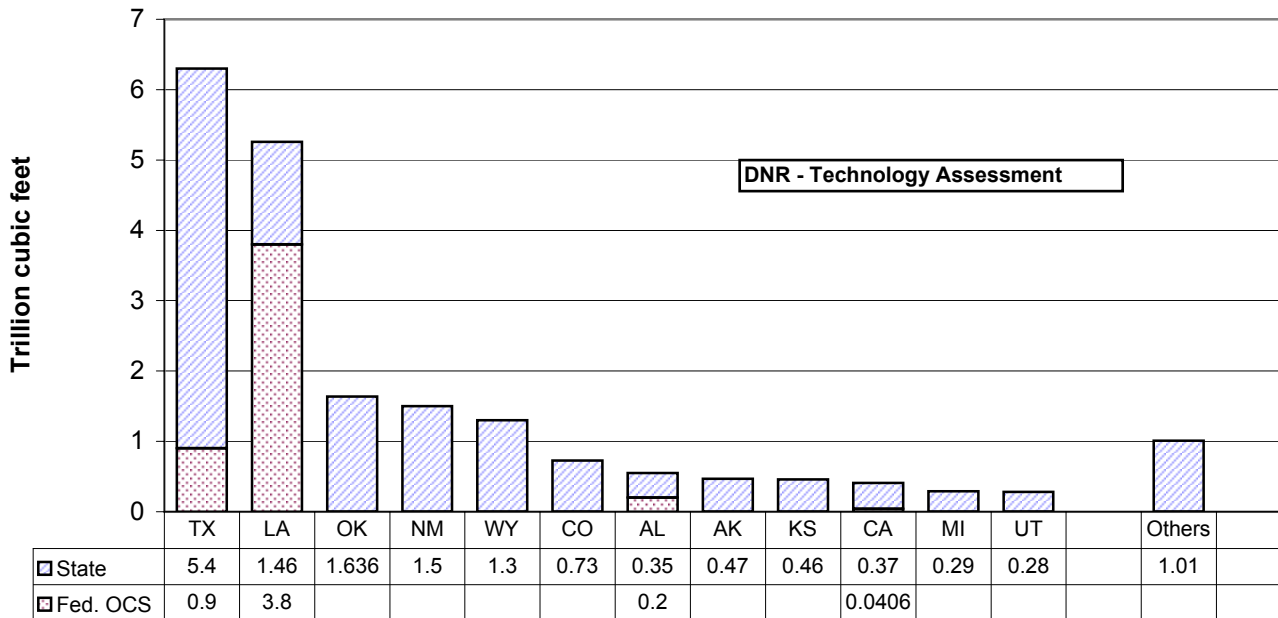
### CRUDE OIL PRODUCTION RANKING



Source:DOE-Energy Information Administration

Figure 2

### NATURAL GAS PRODUCTION RANKING



Source:DOE-Energy Information Administration

Figure 3

### LOUISIANA STATE OIL PRODUCTION Actual and Forecasted Through Year 2030

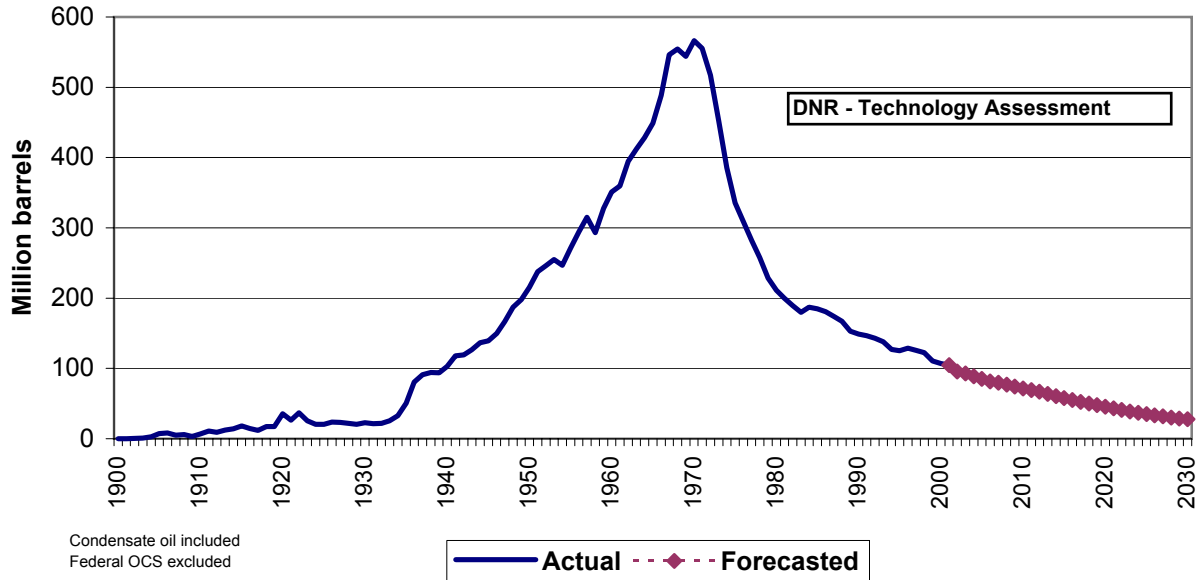
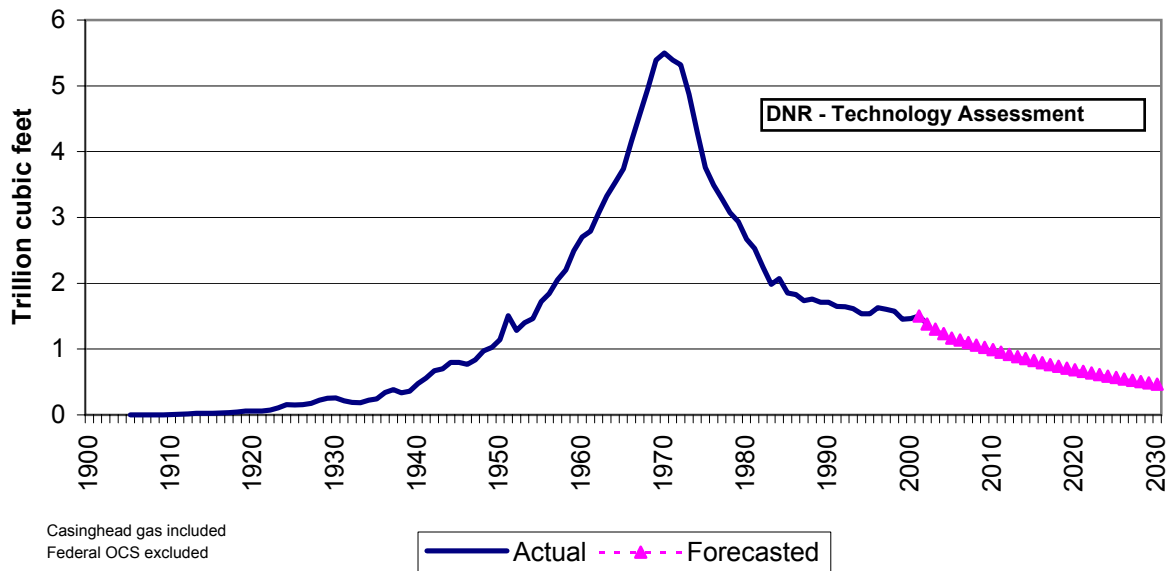


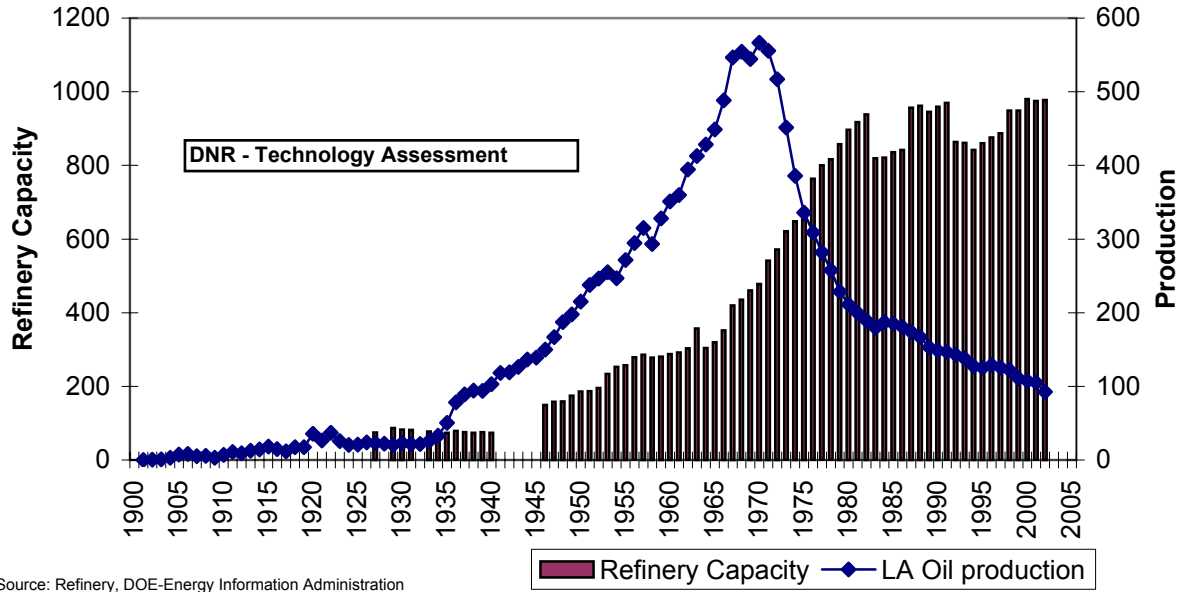
Figure 4

### LOUISIANA STATE GAS PRODUCTION Actual and Forecasted Through Year 2030





**Figure 5**  
**REFINERY CAPACITY VERSUS STATE PRODUCTION**



Source: Refinery, DOE-Energy Information Administration  
 Production, DNR-Technology Assessment Division

# Louisiana Dependence on Energy

Energy is the lifeblood of an industrialized nation. Energy is a key economic driver for the country. For the state of Louisiana, energy is not only the lifeblood, but also the bread, butter, and oxygen of our economy. In the United States, the availability of energy has generally been taken for granted, but recent blackouts in California and other parts of the country have highlighted the need for addressing energy shortages. A reliable supply of energy is essential for economic development and expansion. Therefore, continuing efforts to improve energy conversion and energy efficiency, and to develop clean energy technology are vital for both the nation and the state.

When there is a ripple in the energy sector, Louisiana gets whammed. Louisiana, on our own acts like, and the rest of the nation treats us like, a colony that is here to develop our natural resources for their benefit. As long as we keep developing oil and gas, and sending oil, natural gas, refined products, petrochemicals and electricity to them in cheap abundance, they give us lip service, and little more. Once our resources are depleted, or a cheaper alternative is found to replace them, we will be left to fend for ourselves just like a colony. But, unlike a colony, which might be given independence once its purpose is served, Louisiana will still be yoked to our masters in Washington and expected to continue to do such things as send more National Guardsmen than our proportionate share to the hot spots of the world like Iraq and Afghanistan. Louisiana is called on to do more than its share to defend freedom and our nation and to keep the foreign oil supply flowing, much of which is processed in Louisiana.

The state's petroleum and natural gas flow balances are shown in Figures 6 and 7 which illustrate just how much the U.S. depends on Louisiana as an energy resource supplier to the nation. These figures do not take into account the vast volumes of energy intensive bulk basic chemicals Louisiana petrochemical industries ship out of the state.

Louisiana's economy is more dependent on energy, its availability and its affordability, than any other state except Alaska. Though, in absolute size, Texas' energy industry is about three times the size of Louisiana's, Texas' economy is far more diversified and much less dependent on the fortunes of the energy sector. This reason alone is sufficient incentive for Louisiana to take a more progressive look at energy policy and its implications for our state. Much energy policy must be implemented on a national basis by the federal government; hence, Louisiana should be a leader in shaping national energy policy. There are also many energy issues that can and should be addressed at the state level that need focused attention for both the short and long term goals of investment and quality jobs for Louisiana citizens.

The extreme dependence of Louisiana's economy on energy can be readily appreciated by looking at a few statistics. In the following figures, Louisiana is compared to three other states — Missouri, North Carolina, and Texas and in some to the U.S. average. Missouri is similar to Louisiana in size and population but has very little oil and gas production. North Carolina is another southern state and has almost no oil and gas production, but has been recognized for its very progressive economic development. Texas, of course, is a sister state with much larger oil and gas production, but with a more diversified economy that is not as dependent on energy as Louisiana.

Figure 6

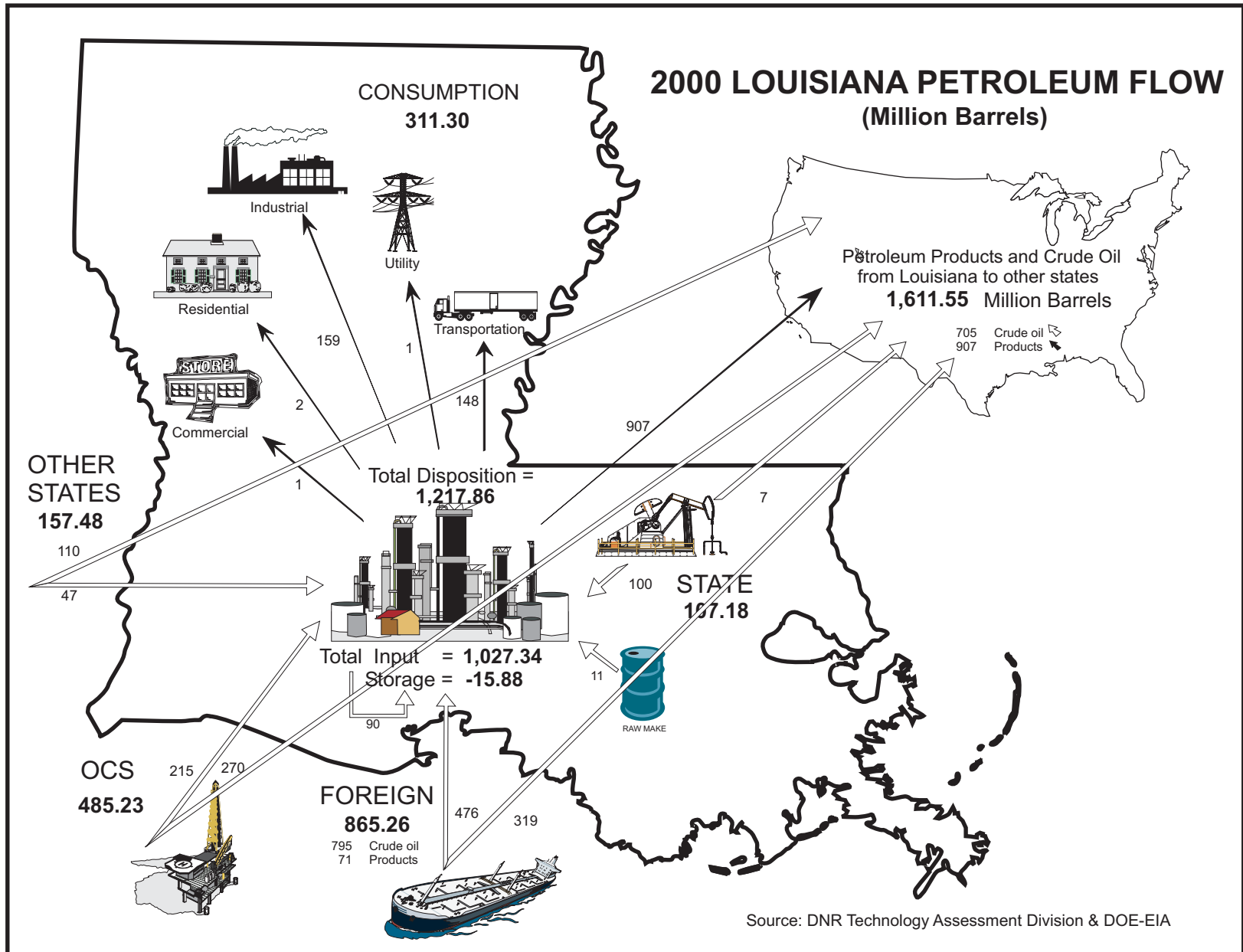


Figure 7

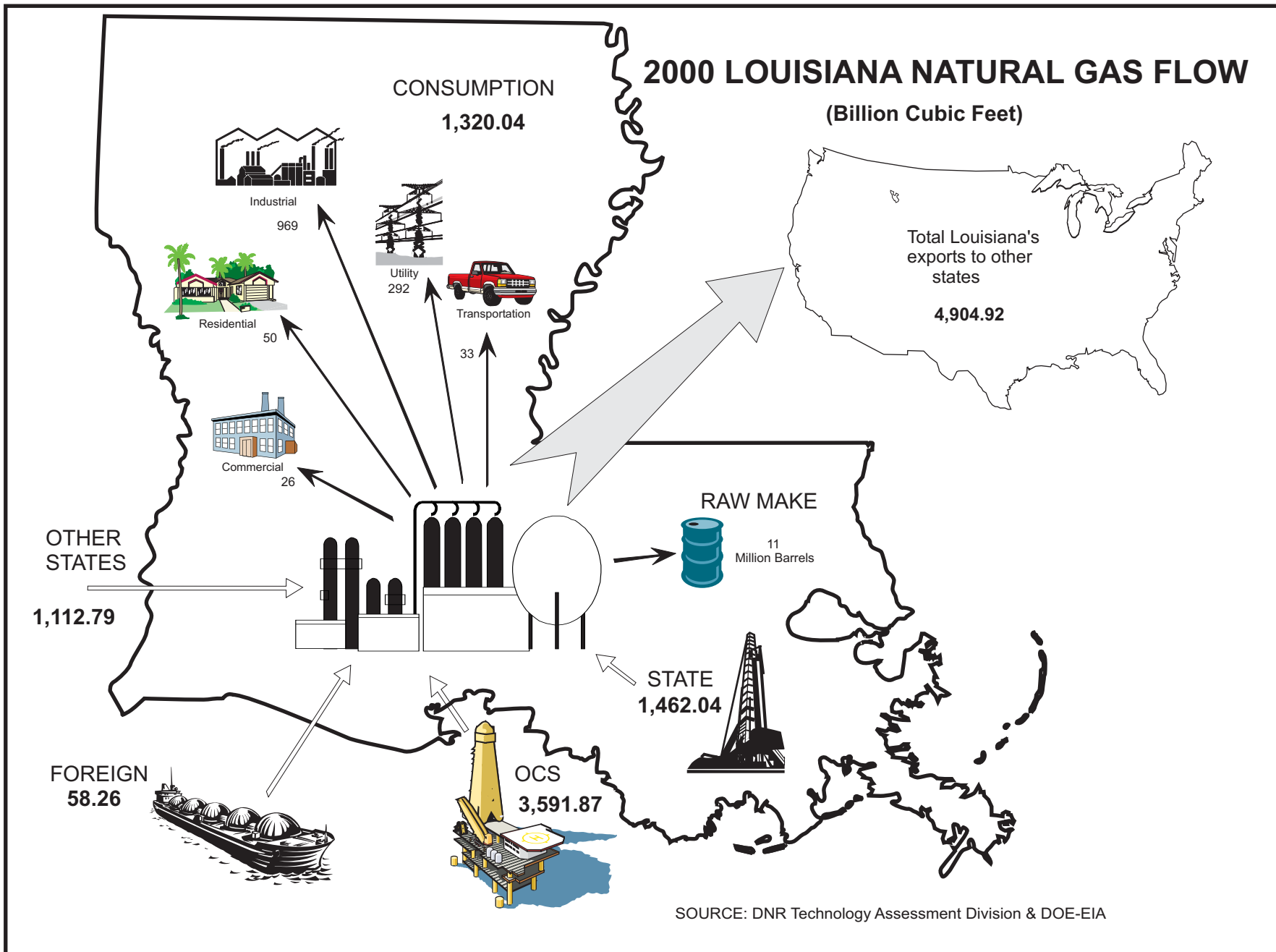


Figure 8 shows the gross state product (which is for a state what the gross domestic product is for the total U.S. economy) and population of these four states. The ratio of Gross State Product (GSP) to population is greater for the other three states than for Louisiana. This is easier to see by looking at Figure 9, which shows the GSP per capita. Louisiana is by far below the levels of the other three states and the U.S. average, both Missouri and North Carolina which have little oil and gas production, and which have greater populations and consume less energy than Louisiana, and Texas, which has a much greater population and much larger energy consumption, but which also has a more diversified economy which is less dependent on energy consumption than Louisiana. The energy dependence of each state's economy is shown in Figure 10, which shows the ratio of GSP to state energy consumption in Billion British Thermal Units (BTU's). It is obvious that Louisiana falls way below Missouri, North Carolina, the U.S. average, and even massive energy producing and consuming Texas. For information, energy consumption per capita is shown in Figure 11.

What do all of these statistics mean? Perhaps what they indicate is that, relative to other states, Louisiana's economy is overly dependent on energy production and consumption. Energy production and consuming industries are good for our state and have brought us most of the prosperity that we have enjoyed. Drawing from the experiences and examples of other states, though, it is apparent that economic prosperity can be achieved with a much lesser reliance on energy production and consumption. Energy is an essential commodity and effective use of energy does produce prosperity. Also, someone has to produce energy supplies somewhere, because it does not produce itself out of nothing, unless the Second Law of Thermodynamics could be repealed to make perpetual motion machines possible. Therefore, we might as well continue to produce as much energy as we can economically do so in Louisiana. We should also remove impediments to energy production and do what is reasonable to maintain a viable oil and gas production industry.

What these statistics do tell us, though, is that, if we used energy more efficiently, and diversified the state's economy to be less dependent on energy consumption, we do not have to sacrifice prosperity. In fact, we might have a more prosperous economy if, over time, we could reduce its dependence on energy consumption. The state should also be on the forefront of developing new conventional and alternate energy resources and supplies, as few states have more to lose than Louisiana if energy is too expensive or unavailable to feed the industries that are currently the economic engines of the state. The state could, and should, through tax policies, economic development policies, research priorities, and other means support the development and use of energy efficiency and diversification of the state's economy into a less energy dependent one. Which of the examples in Figure 12 would we rather be like?

Figure 8

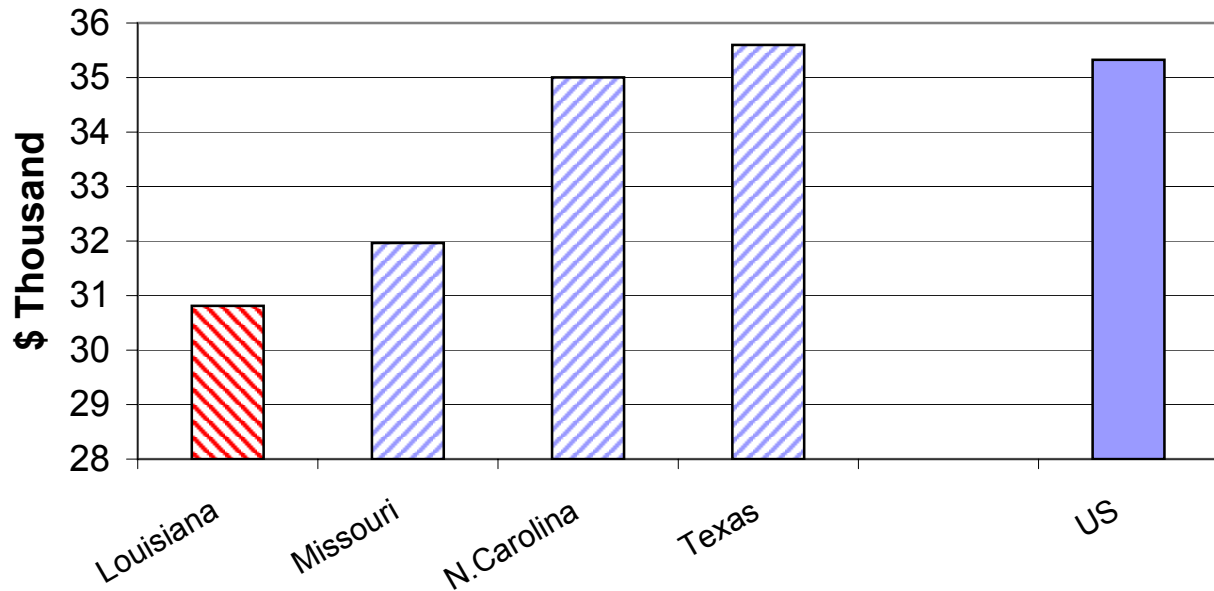
# Gross State Product and Population



Sources: GSP, Department of Commerce-Bureau of Economic Analysis  
Population, Northeast Midwest Institute

**Figure 9**

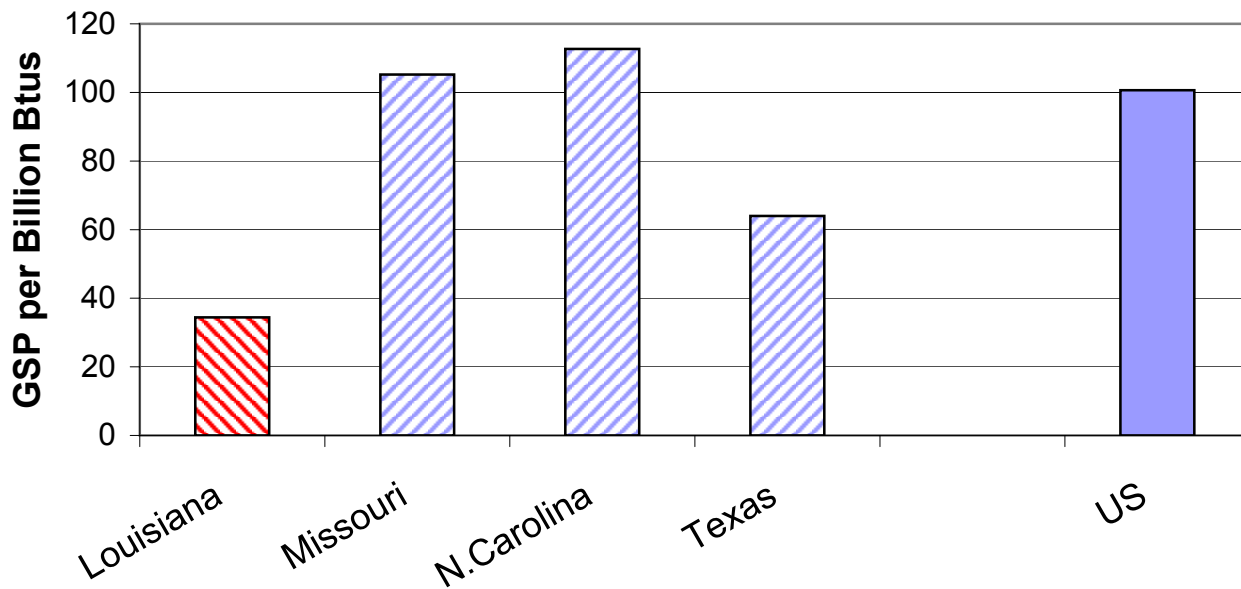
**Gross State Product per Capita**



Source: Department of Commerce-Bureau of Economic Analysis

**Figure 10**

**Gross State Product per Billion BTUs**



Source: Department of Commerce-Bureau of Economic Analysis

Figure 11

# Energy Consumption per Capita

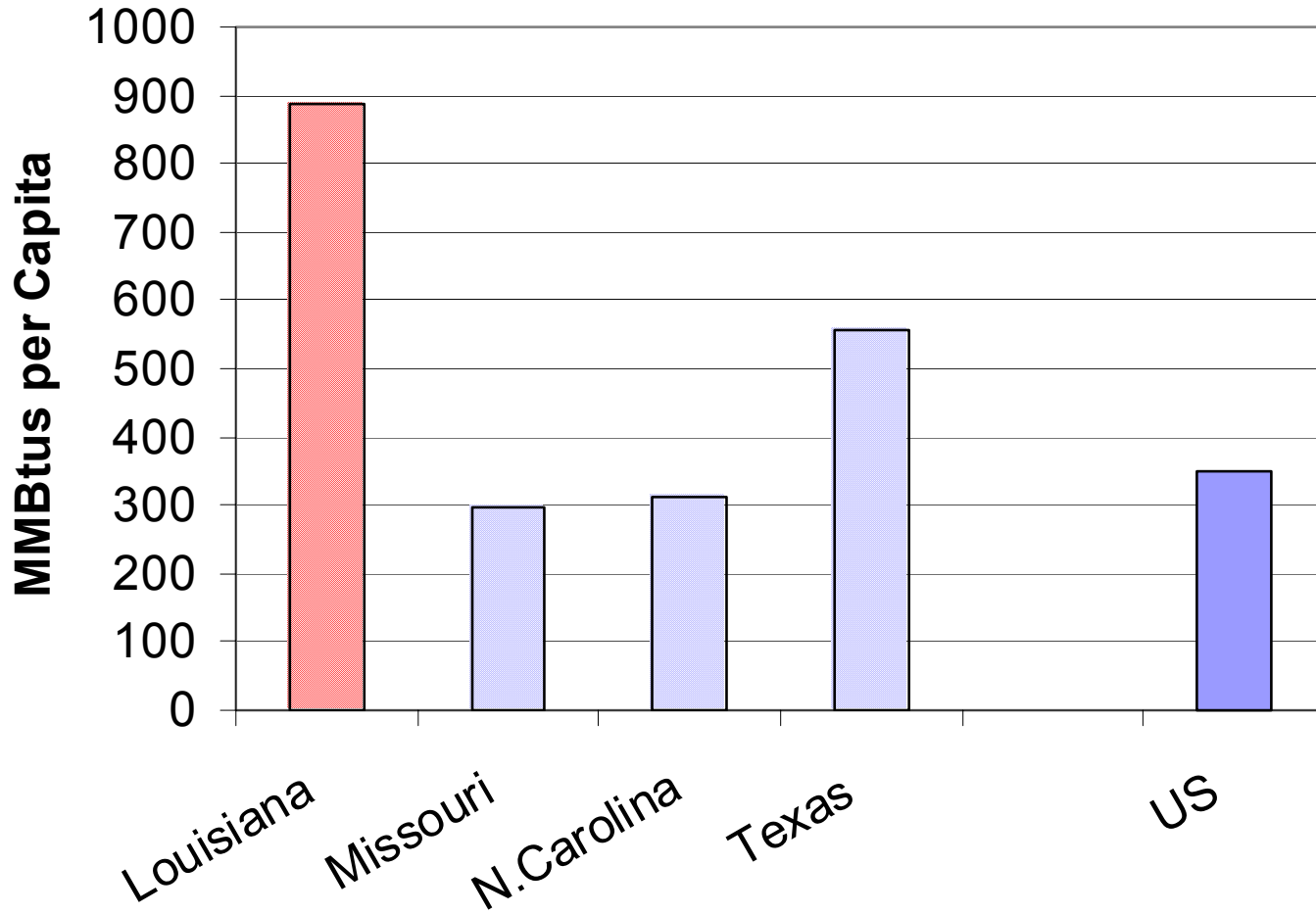
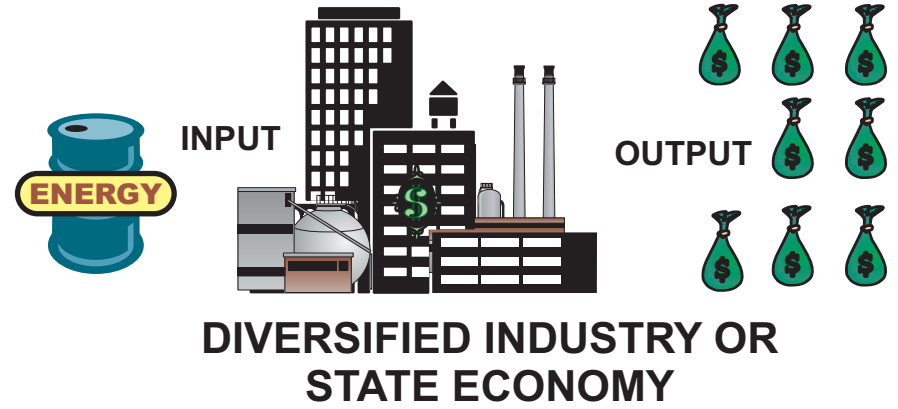
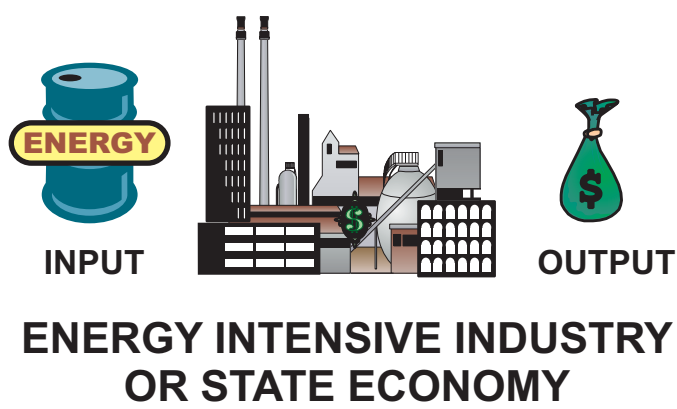


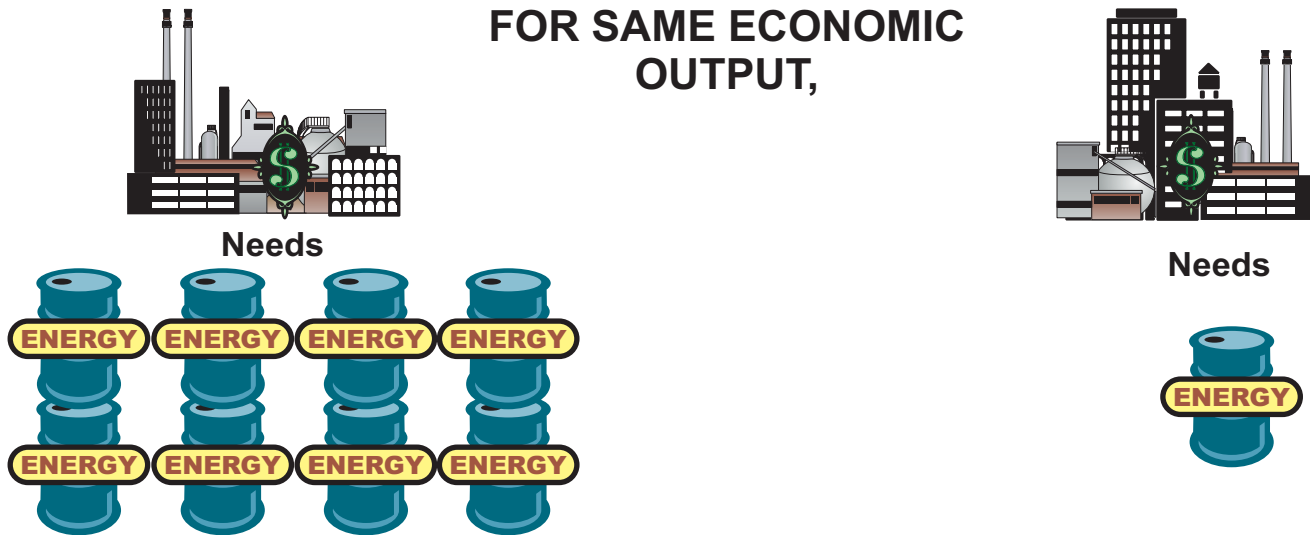


Figure 12

# State Economic Energy Dependence Example



—16—



# Regulatory Agencies and Acts

With emergence of the petrochemical industry in Louisiana came the beginning of many new needs. This discovery has bound all Louisianans in some way. The oil discovery influenced the needs for oil explorers, rig suppliers, manpower, rental equipment of many kinds, seismic equipment, drilling additive products, disposal, transportation, production and resale of oil, gas, and petroleum products. Because the petrochemical industry creates problems, as well as, solutions, Louisiana acted quickly to enact regulations covering exploration and development of the oil and gas industry.

Environmental concerns have always been a major issue for the state of Louisiana, which is heavily dependent on energy-intensive chemical and petrochemical industries. The discharge of gases and liquid petroleum, as well as the consumption of energy to operate plants, has, from the beginning, been of utmost concern. The state, therefore, has a vested interest in clean power and energy. From the inception of the oil industry, the state has taken steps through legislation and regulation to safeguard its offshore and onshore lands and to reduce the industry's environmental impact.

## **Louisiana Commission for the Conservation of Natural Resources**

The first state agency to regulate the energy industry was the Louisiana Commission for the Conservation of Natural Resources, which was created in 1908. The Commission's purpose was to address general problems of conservation in the state. Act 127 of 1912 reorganized the Conservation Commission (renamed in 1910), giving it authority to make regulations to protect state resources. Some of the regulations established as a result of Act 127 were to require drilling permits be filed with maps of well locations, to require the use of surface casing and cement, and to require that abandoned wells be plugged.

## **Louisiana Department of Conservation**

The Louisiana Department of Conservation was created in 1916 and came under the control of a single officer entitled the Commissioner of Conservation. Act 133 of 1924 made it illegal to pollute the natural waterways of the state with salt water, oil, and other substances. This was the first recorded incidence of environmental action taken on the oil industry by the state legislature.

Act 157 of 1940, the Louisiana Conservation Statute, was enacted for the purpose of developing a sound program of conservation in the state and established the Office of Conservation — the principal state agency regulating the oil and gas industry in Louisiana. It was subsequently adopted as Title 30 of the Revised Statutes of 1950. It is headed by the Commissioner of Conservation. Statewide Order No. 29-B was first promulgated in 1943.

## **Department of Natural Resources**

During the reorganization of Louisiana State Government in 1976, the Department of Natural Resources (DNR) was established. The Office of Conservation within DNR retained much of its autonomous jurisdiction over the oil and gas industry, maintaining its primary statutory responsibility for regulation and conservation of oil, gas, lignite, and other natural resources in areas such as the drilling and production of oil and gas wells, and disposal of the associated exploration and production waste. The DNR Office of Conservation's objectives are: to conserve oil, gas, and lignite resources; to regulate the exploration and production of oil, gas and other hydrocarbons and lignite; to control and allocate energy supplies and distribution; and to protect public safety and the state's environment from oilfield waste, including regulation of underground injection and disposal practices.

Saltwater disposal well regulations were added in 1961 and amended in 1982 to include federally mandated language under the Environmental Protection Agency (EPA) approved Underground Injection Control (UIC) Program. The first commercial facility regulations were established in 1980. The first oilfield pit rules were added in 1986.

### **Louisiana State Mineral Board**

The State of Louisiana is the largest landowner in the state, and with the rapid development of marshlands, water bottoms became increasingly important as drilling sites. Consequently, in 1936, Louisiana created the State Mineral Board which is charged with leasing all state-owned land and water bottoms for development and production of any mineral, liquid or gaseous hydrocarbon (oil and gas) purposes. This public property includes road beds, water bottoms, and lands adjudicated to the state at tax sales. It is also the responsibility of the Board to administer all leases to ensure maximum development and production and to ensure full compliance with the terms and conditions of the respective leases.

The Mineral Board was placed under the Department of Natural Resources when state government was reorganized in 1976. The Board manages significant portions of its responsibilities through committees that review with the staff all matters requiring board approval and make recommendations to the composite board.

### **Office of Mineral Resources**

The Office of Mineral Resources was established to provide staff support to the State Mineral Board in granting and administering leases on state-owned lands and water bottoms for the production and development of minerals, primarily oil and gas, for the purpose of optimizing revenue to the state from the royalties, bonuses and rentals generated therefrom.

# Comprehensive Energy Policy Advisory Commission

Governor Mike Foster issued Executive Orders MFJ 01-49 on October 25, 2001 and MFJ 01-59 on December 7, 2001. MFJ 01-49 established the Louisiana Comprehensive Energy Policy Advisory Commission. MFJ 01-59 was issued to make ancillary changes to the provisions of the first order. The Commission consisted of 24 members. One member was the Speaker of the Louisiana House of Representatives, and another was a designee of the President of the Louisiana Senate. The remainder of the members were appointed by the Governor from a wide range of backgrounds with different connections to, or knowledge of, the energy picture in Louisiana. This included members from academia, industry, and government with backgrounds in economics, engineering, geology, law and other fields. The Governor appointed Charles V. Cusimano as the Chairman of the Commission. The Commission was charged with examining energy problems, economics, technology and policy in the state and with making recommendations to the Governor by the Commission's expiration date in August 2002 on what the needs and issues are pertaining to energy policy in the state.

It was February 19 by the time the Commission could be fully assembled and hold its first meeting. The time period from February to the expiration in August was not much time for the breadth of issues the Commission had to address. The Commission divided into five sub-topic discussion groups which met separately to identify and discuss different energy issues and topics to bring to the attention of the full Commission.

The Commission met numerous times and had topic sub-group meetings that met and advised the full Commission. Several guest speakers, who are authorities in their fields, made presentations to the Commission at some of the meetings. Guest speakers made presentations on litigation in the oil field, the outlook for natural gas production, the economic and environmental benefits of electrical cogeneration in Louisiana, natural gas production and supply outlook, natural gas hydrate potential, fuel cell power generation, and energy capital and financing.

The Commission issued two official resolutions which were sent to the Governor for his action. One was a resolution supporting H.B. 236 of the 2002 Regular Session of the Louisiana Legislature for the reinstatement of expired 1994 Act 2 drilling incentives for the re-entry of inactive wells. A copy of the resolution is provided at the end of this chapter. The Legislature did enact H.B. 236 as Act 74. The other resolution the Commission issued for the Governor to act on was a request that the President and Congress enact tax credits for the drilling of deep wells onshore and offshore. A copy of that resolution is included at the end of this chapter. A white paper submitted to the Governor with the resolution is available upon request.

The final article the Commission provided to the Governor was an energy issues list the Commission developed as suggestions of items that need attention or that need to be examined as components of any further discussion or development of energy policy in Louisiana. Provided below is the non-prioritized issues list developed in August 2002.

## **Issues List Prepared for Developing an Energy Policy for Louisiana**

- COMPLETED AND DELIVERED TO GOVERNOR: Prepared a resolution supporting H.B. 236 of the 2002 Regular Session of the Louisiana Legislature for the reinstatement of expired 1994 Act 2 drilling incentives for the re-entry of inactive wells. (Copy provided at end of chapter.)
- COMPLETED AND DELIVERED TO GOVERNOR: Prepared a resolution requesting federal incentives for deep subsurface gas drilling. Provided a white paper supporting the recommendation. (Copy, excluding white paper, provided at end of chapter.)
- It should be established that a review should be made by an independent group (i.e., PAR or university economic departments) to analyze the existing structure and the impacts of any proposed tax prior to enacting. Perform a general tax structure review to study the tax structure of the state and the ways it impacts energy use, efficiency, and production, and make recommendations to provide tax-advantaged incentives to encourage energy conservation and production.
- The state should encourage, and not discourage, the siting of new LNG terminals and the expansion of the existing terminal in the state, one of four in the USA. The state should consider certain tax exemptions and encouragements for these potential expansions since as many as 10 to 20 other locations are being considered around the country.
- Develop effective incentives to encourage oil and gas companies to locate more offices in Louisiana to bring staff jobs back into the state to supplement the field operations jobs still located here.
- Explore how to reform utility regulations in the state to remove restrictions that impede developing new electrical cogeneration capacity, and that impede joint cogeneration ventures between adjacent industrial plants, and between industrial plants and electrical utilities.
- Encourage funding of the multi-university (LSU, UNO, Southern, and, possibly, Nicholls State) Clean Power and Energy Research Consortium.

Our Louisiana universities have for the past decade consistently been at the forefront in energy related research. Strong complementary energy-research programs exist on these campuses, and it is, therefore, in the state's interest to harness this expertise toward developing a national center of excellence in the area of clean energy. It is, therefore, proposed to integrate the research and educational activities in clean power and energy on these campuses to form a Clean Power and Energy Research Consortium (CPERC) directed toward the improvement of current technology in power generation and emission reduction.

Six focused efforts are proposed:

1. Improving the efficiency and reliability of gas turbine systems used for power generation.
2. Reducing emissions from power generation and energy producing systems.

3. Effectively utilizing alternative fuels (synthetic gas, biomass, etc.) and renewable energy.
  4. Research and promotion of energy conservation issues.
  5. Educating and training students and the public on energy and power generation issues.
  6. Energy Conservation.
- Develop a blueprint for priorities of energy related technology research at the universities in the state, including a coordinated state effort to form research consortiums among the universities that exploit the synergies of this cooperation to attract larger blocks of research funding for the state rather than each university competing separately.
  - Investigate how to streamline permitting aspects of oil and gas operations by looking at delays in the Louisiana permitting process versus nearby states of Texas, Mississippi, and Oklahoma.
  - Examine how to resolve the conflicts of dual jurisdictions (i.e., state, parish and local agencies) and how to coordinate or eliminate dual jurisdictions and the inherent delays in permitting. Consider giving one state agency final statutory authority to resolve conflicts. Consider redefining all parish rules and regulations, and consolidate them into one state permit.
  - Evaluate the best approach for the state to develop and take advantage of a transparent wholesale electricity market and the opportunities of increasing merchant power plant activity in the state to increase the supply and reduce the price of electricity in the state and the sale out of state.
  - Form collaborative research efforts between universities and industry in the state in areas that Louisiana industry is a leader in the nation, such as petroleum refining, chemical processes, oil & gas production and new energy technology. Research could be directed at such things as catalysts; sulfur reduction in motor fuels; refinery infrastructure improvements; regulatory de-bottlenecking; reformulated gasoline chemistry; natural gas from hydrates; deep drilling technology; improved oil and gas production techniques; conversion of natural gas to liquids; fuel cells for stationary, mobile, and portable applications; electricity production and transmission; converting petrochemical wastes to energy; improving energy efficiency; clean power and energy production, etc., on shore and off shore.
  - Develop ways to take the concept of the state Department of Natural Resources' new Energy Fund to make this method of funding cost-effective energy efficiency improvements available to more parties and to more types of projects. The Energy Fund employs private sector capital and tax exempt bonds to provide the financing for performance based contracts that implement energy efficiency projects in publicly owned buildings. The energy cost savings generated by the improvements are used to pay back the costs of the improvements. This concept could be expanded to privately owned buildings, as well as, possibly to some industrial, transportation, and utility projects. The Energy Fund can also be used to leverage federal funds.
  - Evaluate long term supply, demand, and price projections for the availability and cost of electric power and natural gas and assess the impact on the state's petrochemical industry. Assess the outlook for the competitiveness of this industry and what issues it will likely encounter in economically competing in the next three-to-seven year and ten-to-twenty year

periods. Study options to assist the industry in securing economical fuel, power, and feedstock and in diversifying into more value-added downstream products that are less energy intensive or that employ more energy efficient methods. Evaluate the impact of independent power producers on the preceding.

- Study and make recommendations on power generation and transmission issues in the state, including grid capacity, support for participant-funded expansion, impact of merchant plants, tax on merchant power plant boiler fuel, federal tax on merchant power plant fuel, regional transmission organization structure and flexibility, emission controls, etc.
- Evaluate energy conservation and renewable energy issues in the state and develop viable programs to expand conservation and renewable applications in the state to reduce energy costs and energy supply dependencies. Cover issues such as structural impediments, regulatory constraints and incentives, zoning issues, building energy codes, and infrastructure. Determine how to best integrate conservation and renewable energy applications into environmental planning to reduce ozone and other emissions, and to employ emissions credits trading to offset installation costs and to offset emissions in non-attainment areas. Look at advocacy and educational programs to get people, businesses, and industry to be more tuned in to energy use in order to change wasteful habits and practices and to realize that what is cheap and available today may not be a few years from now. Encourage state funding of energy conservation programs and initiatives at the Department of Natural Resources and at universities in the state.

Energy conservation is one item of great potential for the state to invest in. A barrel, gallon, kilowatt-hour, etc., of energy saved through energy conservation or efficiency measures is equivalent to a perpetual barrel of energy. Unlike new supplies of conventional fuels or developing alternative sources of energy which have to keep being produced and replenished to replace consumed supplies, a conserved barrel of energy never has to be produced or replaced again.

For example, just raising the thermostat setting by one degree Fahrenheit during the air conditioning season and reducing it by one degree Fahrenheit during the heating season in all of the houses and buildings in Louisiana could save approximately 1.742 billion kilowatt-hours (\$258 million) and 2.8 billion cubic feet of natural gas (\$38.8 million) per year to consumers. Likewise, the latest data, which is for the year 2000, indicated Louisiana consumes approximately 2.15 billion gallons of gasoline per year. Increasing automobile efficiency by two percent per year for five years could save drivers in the state 43 million gallons (\$64.5 million) the first year and 224 million gallons per year (\$336 million per year) by the end of the fifth year.

- Determine the complete picture of the role energy plays in the economy of the state and the vulnerabilities of the state to over-dependence on energy production and consumption. Recommend ways to diversify fuel and energy intensity of the economy and of the industry in the state. Study how to assist low income individuals and families, as well as, small businesses threatened by rising energy costs.
- Look at agricultural and industrial potential of the immense renewable energy sources and biomass potential of the state. Assess ways to reduce forest and agricultural wastes and / or

to harvest those wastes for energy production. Promote energy conserving agricultural practices.

- Establish some kind of state economic or tax incentives program to establish price support for natural gas and crude oil production when prices drop below \$2.00 per thousand cubic feet or \$20.00 per barrel, respectively.
- Find a financial and reasonable approach to plugging and abandoning wells with potential of royalty reduction at the re-entry.
- For abandoned leases to be put into production, seek legislation for a reduction of ad valorem taxes.

Additional items added later by the Chairman:

- Develop a tax credit for production and operation in the Outer Continental Shelf (OCS).
- Return depletion allowance to 27.5 percent.
- Investigate the feasibility of increasing the tax depreciation rate for tangible drilling costs to a rate of 60 percent the first year and 40 percent the second year.
- Seek legislation to institute a tax benefit for the repair of OCS equipment (drilling rigs and supplies).



# Comprehensive Energy Policy Advisory Commission

## A Resolution

### ENDORSEMENT OF LOUISIANA 2002 REGULAR SESSION HB - 236 TO RENEW EXPIRED TAX INCENTIVES FOR RE-ENTRY WELLS

WHEREAS it is the intent, purpose and goal of the Governor's Energy Policy Advisory Commission to examine and investigate possible programs, policies, legislation and suggestions that could enhance the growth of the oil and gas industry in Louisiana; and

WHEREAS it is recognized by this Commission that over the years many steps have been taken to assist the oil and gas industry, including an incentive package commonly know as the Act 2 incentives of 1994, and

WHEREAS this incentive package has proved to be beneficial to the industry, the state and the people, and, accordingly, has been renewed several times in total or in part by the Louisiana Legislature; and

WHEREAS the provision of Act 2 regarding the re-entry of abandoned wells was not re-enacted in 2000 and, accordingly, since that incentive is no longer available to the oil and gas industry, the number of abandoned wells that have been re-entered and brought back into production has declined significantly, thus depriving this state of increased oil and gas production and the associated economic benefits; and

WHEREAS research conducted by the LSU Center for Energy Studies shows how the state and industry has benefited from the presence of this incentive in the past; and

WHEREAS legislation is being offered during the 2002 regular session of the Louisiana Legislature that would again enact the incentive program regarding the re-entry of abandoned wells; and

WHEREAS the Governor's Comprehensive Energy Policy Advisory Commission has reviewed the proposal and has agreed that the renewal of the expired Act 2 incentives for re-entry wells would be beneficial to the state and the oil and gas industry.

THEREFORE, be it resolved that the Governor's Comprehensive Energy Policy Advisory Commission unanimously agrees to urge and recommend that the Honorable M.J. "Mike" Foster, Governor of Louisiana, strongly support the passage and enactment of Louisiana House Bill (HB) – 236 to renew the expired Act 2 incentives for re-entry of inactive wells.

This done and adopted by the Comprehensive Energy Policy Advisory Commission on the twenty-ninth day of April 2002 in Baton Rouge, Louisiana.

Attest:



Charles Cusimano

Chairman,

Governor's Comprehensive Energy Policy Advisory Commission.

# Comprehensive Energy Policy Advisory Commission

## A Resolution DEEP GAS FEDERAL TAX CREDIT

Whereas the Governor of the State of Louisiana, the Honorable Mike Foster, has created a Comprehensive Energy Policy Advisory Commission under Executive Order Numbers MFJ 01-49 and MFJ 01-59; and

Whereas said Executive Orders direct the Commission to develop recommendations; and

Whereas Section 2, Part G. of Executive Order MFJ 01-49 directs the Commission to, “review efforts by the federal government to implement a national energy policy and recommend ways that Louisiana can influence and participate in that plan to benefit the citizens of Louisiana and the nation;” and

Whereas the citizens of Louisiana benefit with jobs and state tax payments when drilling and production for natural gas occurs within the States borders; and

Whereas the Chairman of the Board of Governors of the Federal Reserve System has noted in testimony before the Congress of the United States that, despite an increase in drilling for natural gas, the natural gas deliverability capacity of the U. S. has not increased as one might have expected; and

Whereas the State has within its borders an abundance of reserves of natural gas below the depths of 15,000 feet, capable of adding markedly to the nation’s natural gas deliverability capacity by virtue of its elevated reservoir pressures and temperatures, as contrasted with normal pressure reservoirs and tight sand and coal bed methane reservoirs; and

Whereas said deliverability from deep gas reservoirs can be on the order of eleven (11) times greater than normal pressure reservoir deliverability; and

Whereas the State of Louisiana has itself made available to companies a state tax incentive for exploring for, and producing, deep oil and natural gas reserves at a considerable cost to the state in foregone severance tax revenues (the estimated fiscal effect from August 1, 1994 through 2001, according to the annual Department of Revenue Tax Exemption Budget estimates, has been about \$59,000,000 cumulative); and

Whereas the State tax incentive has been granted in furtherance of the importance of helping the nation achieve an improved degree of energy sufficiency by exploiting natural resources critical to the Nation’s economy regardless of where the produced resource is consumed; and

Whereas the Federal Government has in the past offered tax incentives to the producers of natural gas from tight gas sands, other non-conventional gas sources, and coal bed methane gas reserves for commercializing these natural gas reserves to add to the natural gas deliverability capacity of the United States (the tax credit averaged about \$1.00 per Mcf (thousand cubic feet) of coal bed methane gas produced over the life of the tax credit); and

Whereas this program, known as Section 29 tax credits by its IRS code designation, has been highly successful in stimulating the development of the technology for commercially developing and producing these kinds of natural gas reserves (the drilling investment alone for coal bed methane gas is estimated at \$2 billion for these shallow wells between the years 1990-2000, not including the R&D, the R&D scale up, the facilities needed to drill, or the processing infrastructure to operate and transmit); and

Whereas these deep wells encounter greater difficulty during drilling and completion which results in an exponential increase in cost with depth; and

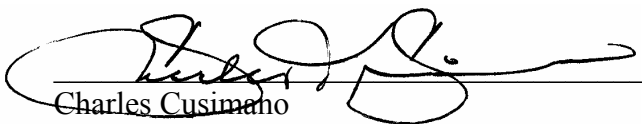
Whereas the commercialization of advanced technology for drilling know how and more powerful drilling equipment is crucial to controlling deep well costs and sustaining reasonably priced natural gas to all consumers; and

Whereas a similarly structured tax credit, applicable to the development of deep natural gas reserves in the United States and its territorial waters (i.e., in the 15,000 to 30,000 ft subsurface depth range) would add immensely to the energy supply and security of the United States from an environmentally clean, and nationally secure, source of energy;

Now, therefore, be it resolved that the Comprehensive Energy Policy Advisory Commission of the State of Louisiana, pursuant to its legally authorized mandate, does hereby unanimously recommended to Governor Mike Foster, and the Legislature of the State of Louisiana, that the President and the Congress of the United States be requested to include in its National Energy Policy legislation a tax credit for the exploration for, and development of, deep natural gas reserves (i.e., 15,000 to 30,000 foot depth), either as part of the new Energy Policy Plan currently under deliberation, or under an extension and expansion of the existing Section 29 legislation, or its equivalent.

This done and adopted by the Comprehensive Energy Policy Advisory Commission on the twenty-ninth day of April 2002 in Baton Rouge, Louisiana.

Attest:



Charles Cusimano  
Chairman,

Governor's Comprehensive Energy Policy Advisory Commission.

Attachment: Statement of Michael French (This white paper is not attached but is available by request.)

Director, Technology Assessment Division  
Office of the Secretary  
Department of Natural Resources  
State of Louisiana

## **Additional Action Items for Consideration**

Retention and growth of the oil and gas industry requires that myths about the industry being a non-technical, no-growth industry must be dispelled. This can be accomplished through an increased emphasis on state production. Tremendous amounts of hydrocarbon resources are still to be developed in Louisiana but require new and innovative technology and a tax structure that does not discourage this development. In addition, the state must recognize the inherent dependence on the energy industry and the potential to develop efficiencies and diversity of supply sources as key to growing our economy.

The following items which evolved from the Energy Commission's deliberations and energy issues list are offered to supplement that list. One outcome of the work of the Energy Commission was the creation of the Energy and Basic Industries Task Force within the Louisiana Economic Development Council to finally incorporate energy specific issues in the state's Vision 2020 master plan for economic development. The first two items below are currently being examined by the Louisiana Economic Development Council for possible inclusion in Vision 2020:

1. Facilitate effective development of efficient, economic, and existent energy resources which are an essential component of Louisiana's economic base by:
  - Preparing an annual report (preferably by Louisiana Department of Economic Development) assessing barriers to development of energy infrastructure, and proposals for eliminating these barriers.
  - Developing a continuous process for streamlining permitting procedures for seismic, drilling, production and pipeline activities to capitalize on Louisiana's natural resources while ensuring Louisiana is competitive with other states.
  - Addressing tort reform in Louisiana as it relates to the scope of environmental and class action litigation.
  - Supporting efforts to provide reliable, competitively priced and affordable energy which is the lifeblood of Louisiana's economy and its basic industries by enhancing extraction of our natural resources and energy infrastructure to the benefit of the state as a whole, and encouraging development of the nation's natural gas supplies.
2. Encourage capital investment in the oil and gas sector, and energy technology to create and retain quality jobs by:
  - Developing a blueprint and funding mechanism for priorities in energy related technology research that is of interest and relevance to Louisiana industries, universities and the state including, but not limited to, alternative fuels, biomass, cogeneration, improving efficiencies, hydrogen-fuel, and improved oil and gas technologies for onshore and offshore development
  - Promoting tax reform for a fair and balanced corporate and business tax structure which promotes and provides incentives for capital investment and eliminates duplicative taxes.

Seeking uniform implementation of the constitutionally mandated fair market value assessment of the surface and subsurface property among all the parishes.

3. Develop a pro-active process for dealing with oyster leases in the coastal zone.
4. Complete a comparative study benchmarking Louisiana oil and gas regulations / incentives vs. other major producing states.
5. Prepare an annual report examining barriers to energy efficiency applications including distributed energy resources (DER) or small power applications, combined heat and power and “cogeneration applications, and demand-side management services (including demand-side bidding during peak emergency periods). This report should include proposals for eliminating these ongoing energy efficiency barriers.
6. Develop an incentive package for promoting lignite methane production.
7. Develop incentive package for promoting hydrogen technologies.
8. Develop incentive package for biomass.

March 20, 2003