

January 2004

Louisiana Energy Topic

Department of Natural Resources

Technology Assessment Division

A Supplement to LOUISIANA ENERGY FACTS on Subjects of Special Interest

AMERICA'S WETLANDS: ENERGY CORRIDOR TO THE NATION

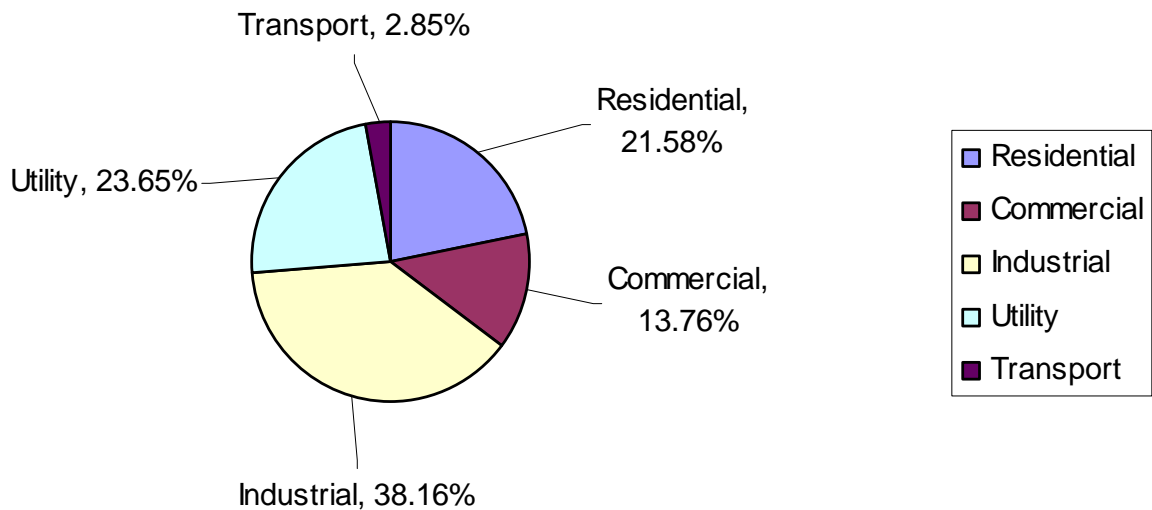
Located in Louisiana's Wetlands Resources, the Henry Hub is America's Natural Gas Energy Portal
Part 5 of 7

by
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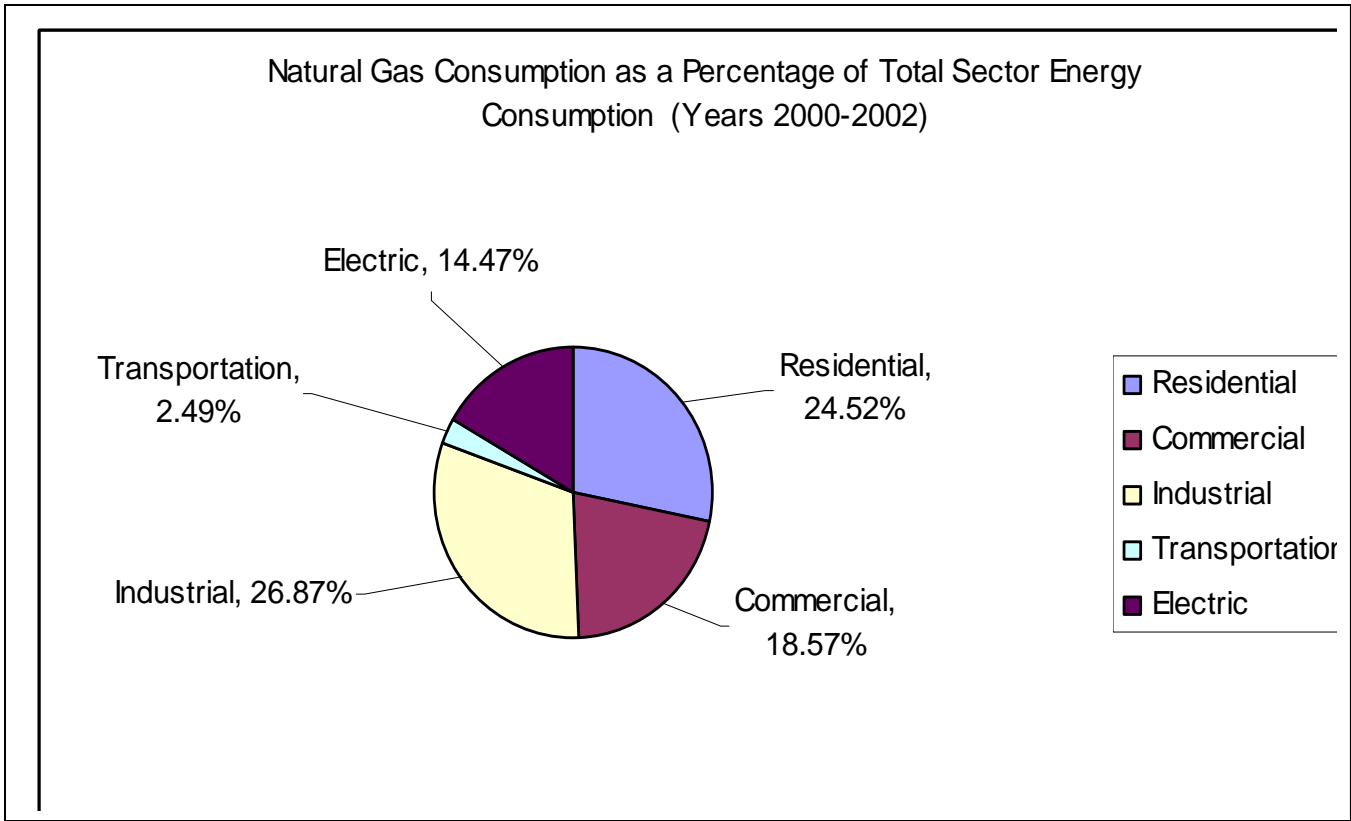
The Chairman of the Board of Governors of the Federal Reserve System, Dr. Alan Greenspan, recently provided high visibility testimony regarding the critical importance of a dependable supply of natural gas for the nation's economy before the Congress of the United States. Natural Gas provided close to 24% of the nation's energy sources over the 3 year period 2000-2002 (see Part 2 of this 7 part series).

Natural Gas Is Used As A Source Of Energy In All Sectors Of The Economy

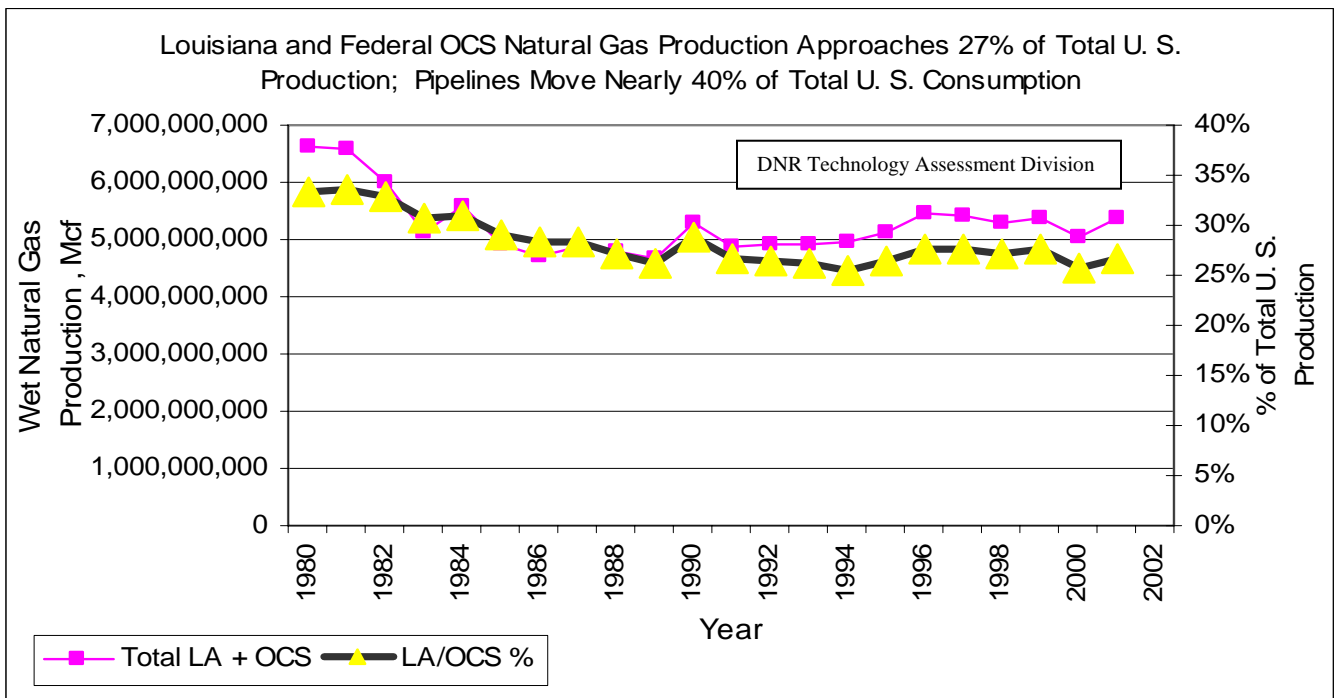
During the 3 Year period 2000-2002, Natural Gas Consumption was Equitably Distributed across all Sectors of the Economy (except Transportation)



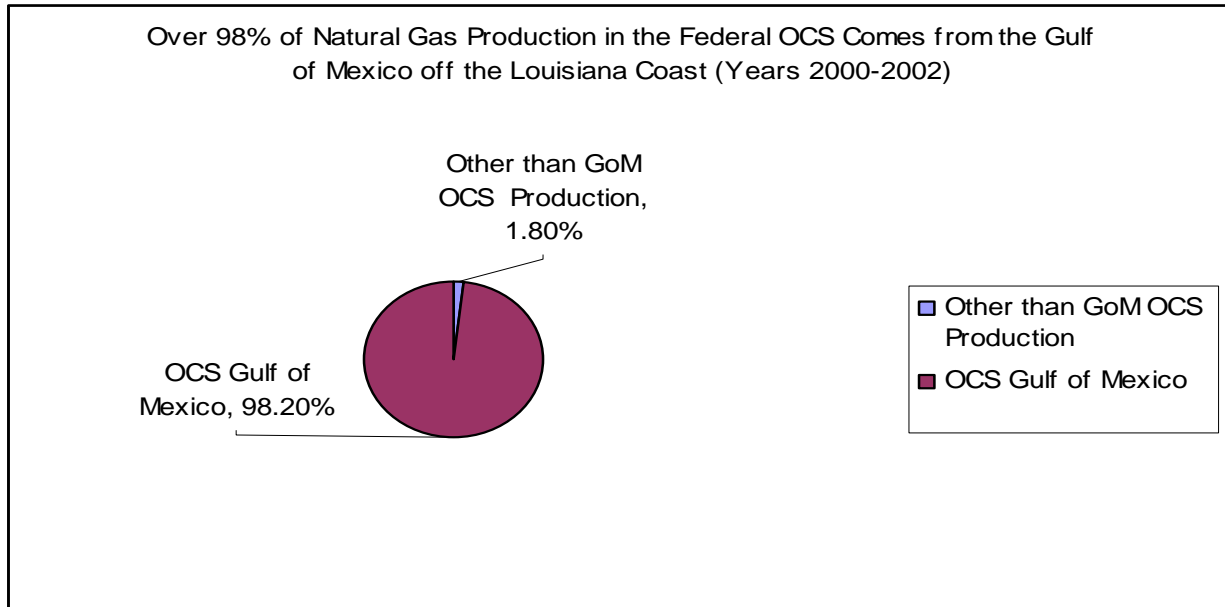
In Each Of These Sectors, Natural Gas Is A Material Source Of Energy (Except For Transportation)



America's Wetland Resources Again Provide An Important Energy Portal For Serving The Needs Of The Nation's Citizens And Industry



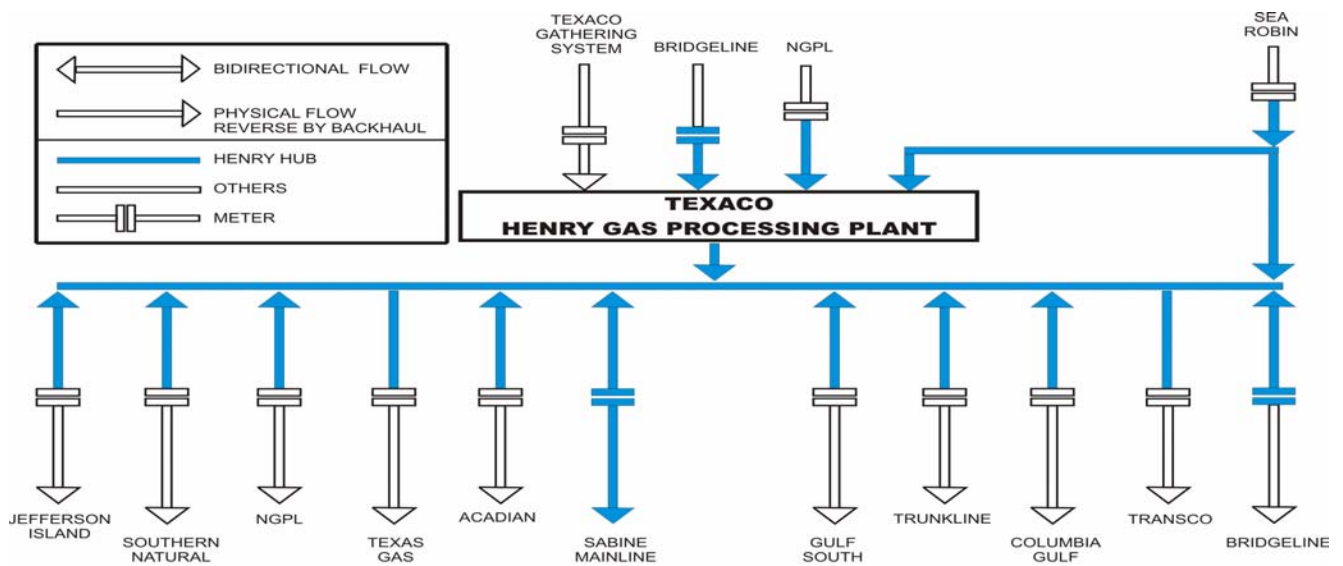
From The Federal Outer Continental Shelf (OCS) In The Gulf Of Mexico Off The Louisiana Coast, Natural Gas Flows Through The State's Wetlands To The Rest Of The United States



America's Wetlands and The Henry Hub

The Henry Hub, owned and operated by Sabine Pipe Line LLC, a subsidiary of ChevronTexaco, is located near Erath, Louisiana, in Vermillion Parish. The Henry Hub is the nexus of 13 natural gas pipeline systems that draw supplies from prolific offshore and onshore gas fields in Louisiana and Federal OCS waters. These crucial supplies are then shipped to markets along the East Coast as far North as the New England area, east and west across the Gulf Coast, north into the Midwest, and even up to the Canadian border.

A Schematic Drawing of the Henry Hub



SOURCE: Sabine Pipeline Rev. 4 / 01

These 13 pipeline systems include 9 interstate and 4 intrastate lines. Flow capacity through the Henry Hub is approximately 2 billion cubic feet per day (2,000,000 Mcf/day). Completing this nexus is a natural gas

processing plant for stripping liquids from the natural gas stream, and 10 billion cubic feet of salt dome cavern storage capacity operated by Bridgeline Holdings L.P., a wholly owned subsidiary of ChevronTexaco. This combination of facilities, direction of flow around the nation, and pure physical volume make the Henry Hub the most vigorous trading point in the North American natural gas market.

America’s Wetlands Resources and the New York Mercantile Exchange (NYMEX)

Following a sustained period of years of gradual deregulation, the wellhead price of natural gas became completely deregulated as of January 1, 1993. Market prices for commodities are volatile over time, and natural gas is no different. Therefore, the NYMEX recognized the need for the service of price discovery for producers and consumers of natural gas, a product that is fungible, i.e., interchangeable for purposes of storage and shipment, has a very large number of suppliers and consumers, and experiences a price volatility as demand and supply fluctuate over time, in fact, can fluctuate hourly in response to variations in weather conditions.

In April 1990 NYMEX began offering a standardized contract for trading natural gas futures. A Futures contract is a firm commitment to make or accept delivery of a specified quantity and quality of natural gas during a specific month in the future, at a price agreed upon at the time of the commitment. Rarely do these contracts result in the actual delivery. Instead, traders generally offset their futures contract before contracts mature. In this way, both buyer and seller can lock in their profit/cost from the transaction (i.e., manage their financial risk exposure in a volatile price market).

The futures market allows industry participants flexibility in forward planning. This flexibility was further enhanced by the introduction of a natural gas options market in October 1992. The major appeal of an options contract is that the holder of the option is afforded price protection, but still has the ability to participate in favorable market moves (i.e., upward price movements, if a producer for example, above the contracted price of the commodity). The buyer of an option contract does not have any obligation to deliver the commodity. His only up front financial exposure is the cost of the option. Should the market move against the position the only cost incurred is the cost of the option. However, should the price move in the option holders favor the option has unlimited upside potential.

Futures vs. Options

	<u>Futures</u>	<u>Options</u>
Risk	Unlimited risk on long and short positions	Defined and limited on purchase of puts and calls; unlimited on sale
Price Protection	Establishes fixed price	Establishes floor or ceiling price protection
Margin	Required on long and short positions	Futures style margins for sellers, margin contained in cost of premium for buyers
Hedging	Long, short, spread	Multiple hedging strategies

Source: http://www.nymex.com/jsp/education/option_info.jsp

Taken together, prolific natural gas production both onshore and offshore in Louisiana, multiple pipeline systems delivering natural gas, the large natural gas processing plant for extraction of liquids, and the salt cavern storage facility connected to the site renders the Henry Hub the most viable of major natural gas delivery points in North America and, hence, plays an extraordinarily prominent role in the daily life and financial stability of America’s consumers, corporations, and the nation’s energy security.

NOTE: The Department of Natural Resources wishes to thank the staff at ChevronTexaco and Sabine Pipeline LLC for their assistance in reviewing, and constructively contributing to, this article on the Henry Hub. Also, the NYMEX web site, <http://www.nymex.com> provides a more detailed explanation of Futures markets operations.