

**Louisiana Coastal
Economic Drivers-
Oil and Gas
Exploration and Production**

By

Chris C. Oynes

Regional Director
Minerals Management Service
Gulf of Mexico OCS Region

October 24, 2001

Louisiana Coastal Programs 2001
Lafayette, Louisiana

OPEC

Natural Gas Prices

Today \$2.60

Year Ago \$5.30

- **These factors influence oil and gas drivers**
- **My talk today will not focus on them**

Louisiana Coastal Economic Drivers - Oil and Gas

- **Demand for oil and gas**
- **Oil and gas supply from the Gulf**
- **Oil and gas supply through the Gulf**

Demand for Oil and Gas

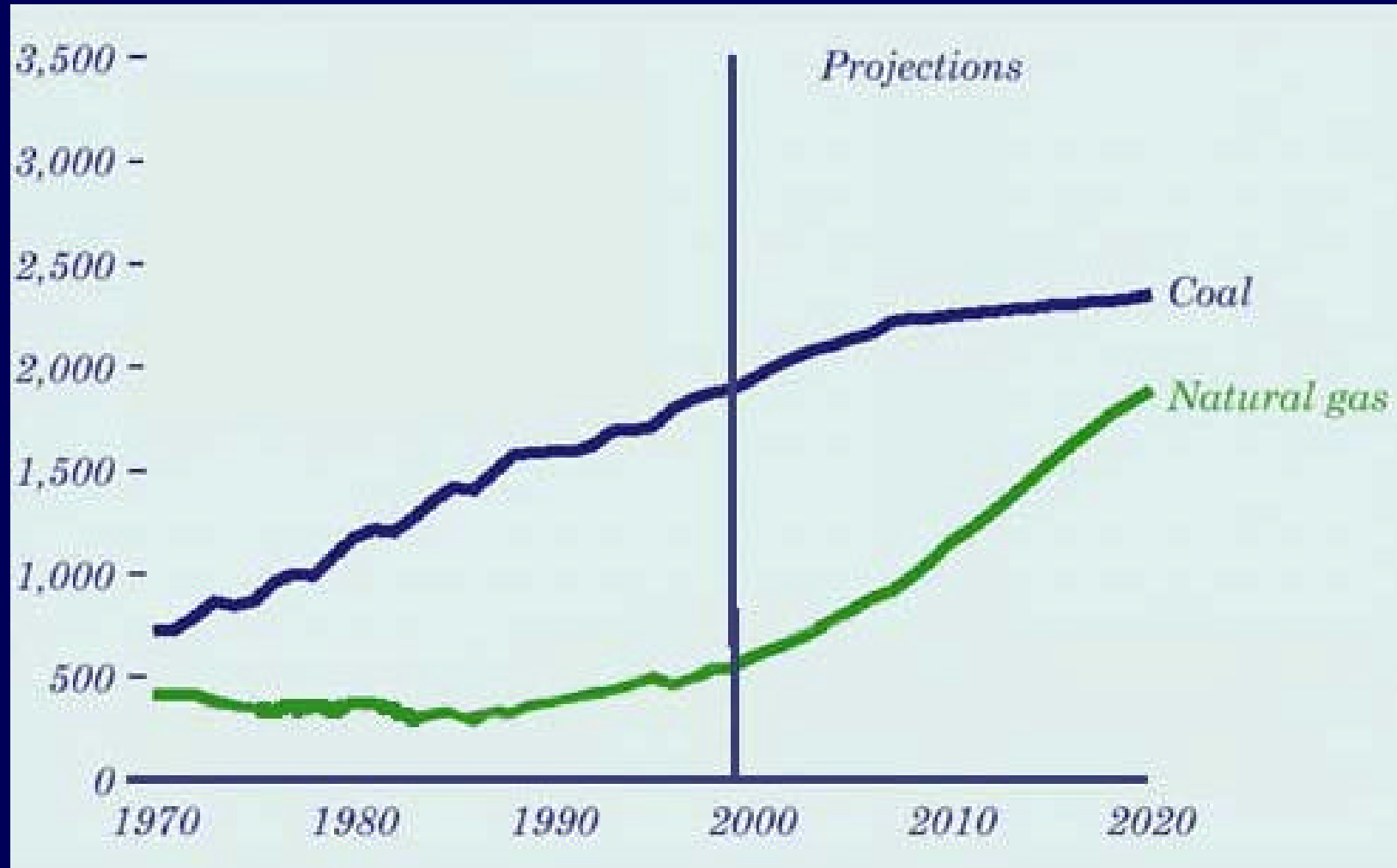
EIA Projection

Energy Consumption by Fuel, 1970-2020 (quadrillion Btu)

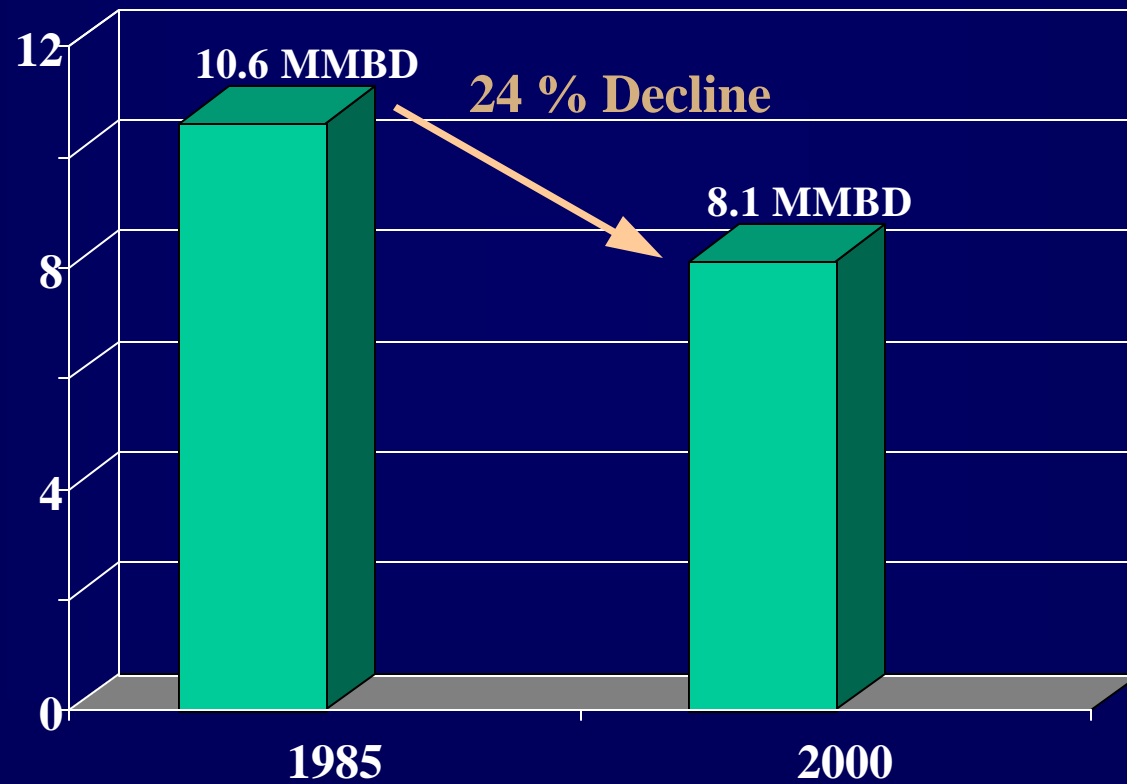


EIA Projection

Electricity Generation by Fuel, 1970-2020 (billion kilowatthours)



U. S. Oil Production



Oil and Gas Supply From the Gulf

GULF OF MEXICO OCS REGION



Energy from the Gulf Federal OCS

Past (Total Reserves*)
65 Bbbl

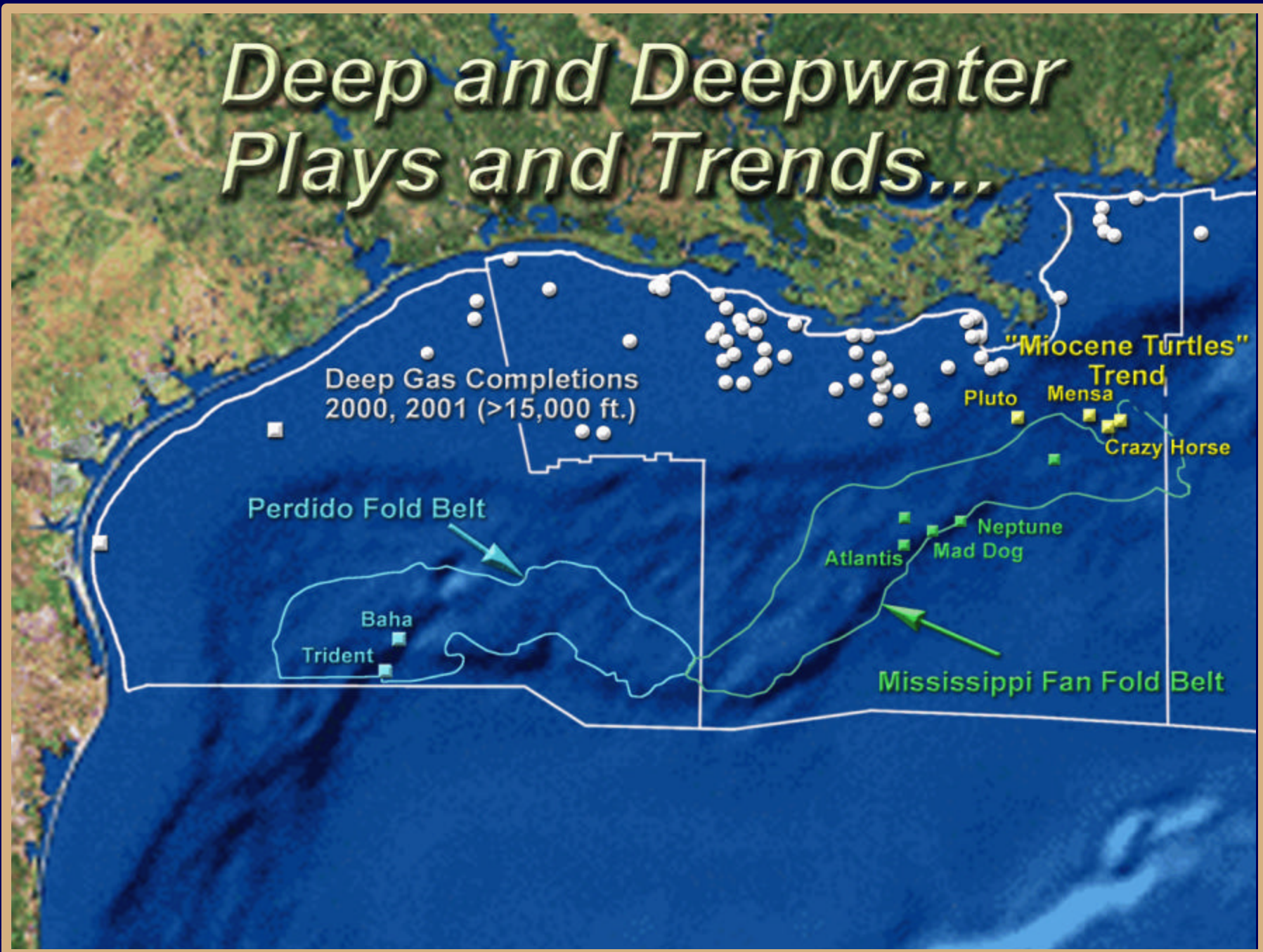
Future (Mean UCRR**)
71 Bbbl

Source: MMS, 2000 Assessment

*** Reserves = Cumulative production plus remaining proved reserves**

**** UCRR = Undiscovered conventionally recoverable resources**

Deep and Deepwater Plays and Trends...

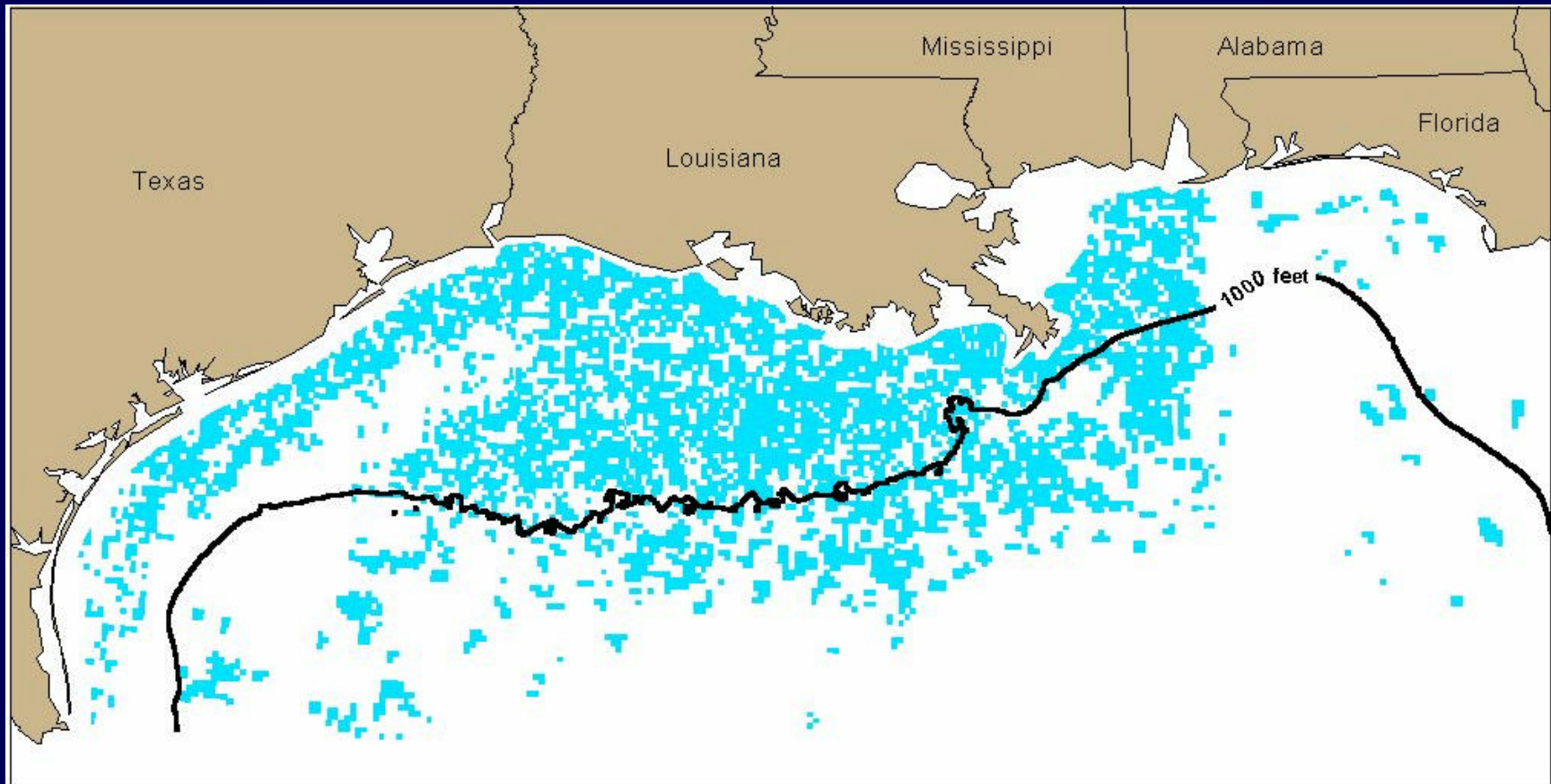


Recycling Leases in the Gulf: Newly Available Blocks Bid On

	<u>Available</u>	<u>Bid On</u>	(Shallow)
1999	636	177	(101)
2000	878	225	(165)
2001	810	310	(192)

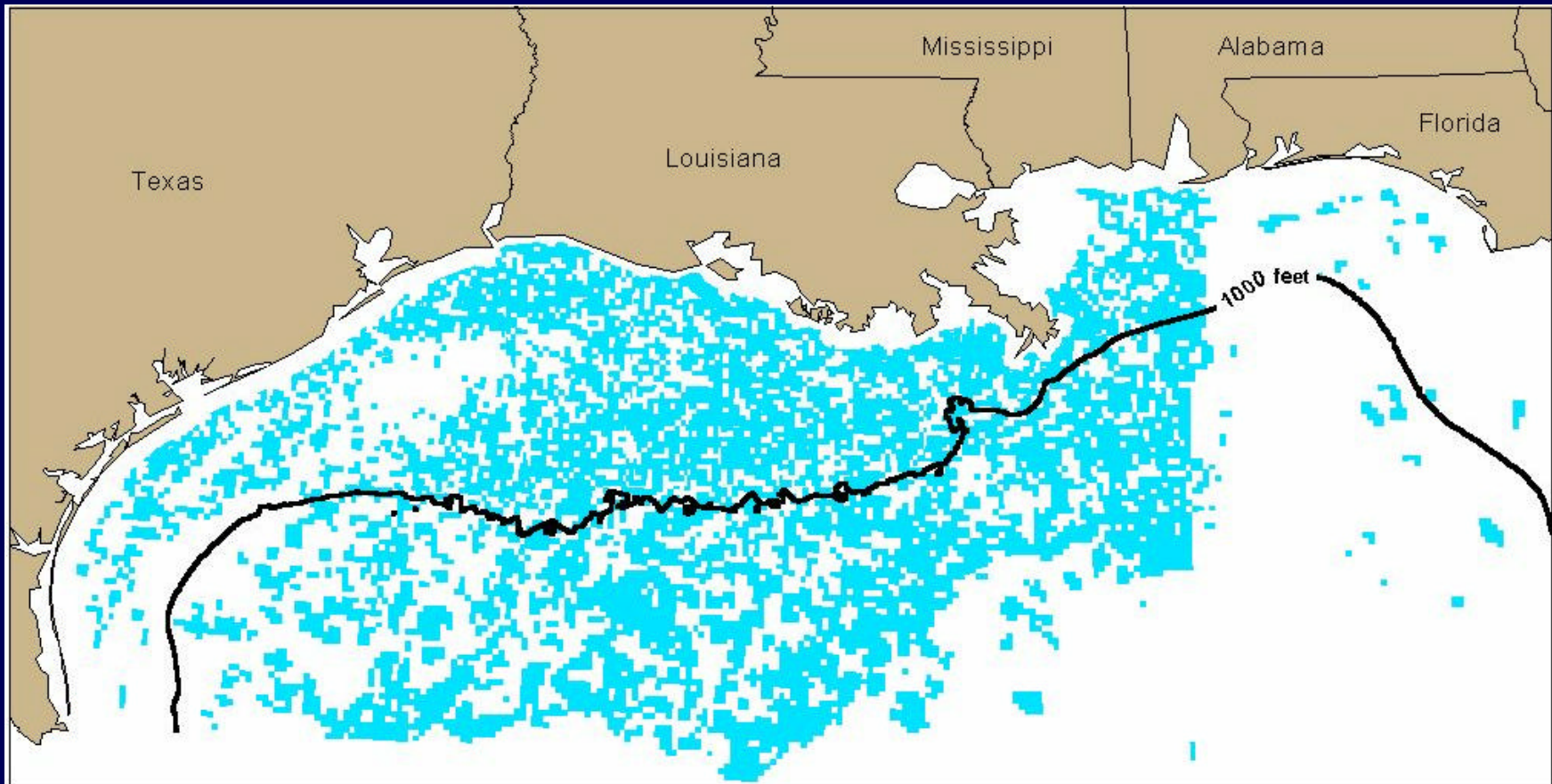
GOM Active Leases

(as of December 1, 1995)

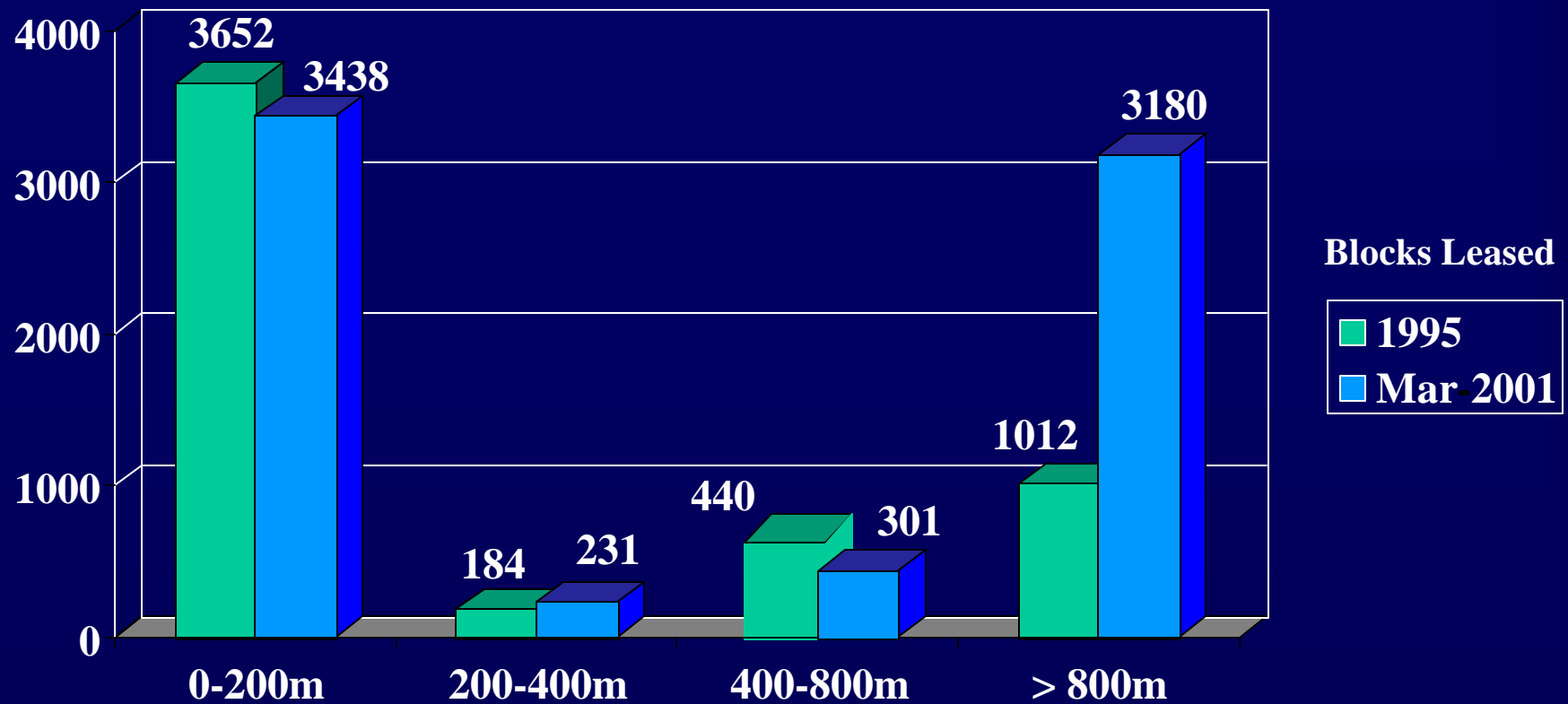


GOM Active Leases

(as of March 1, 2001)



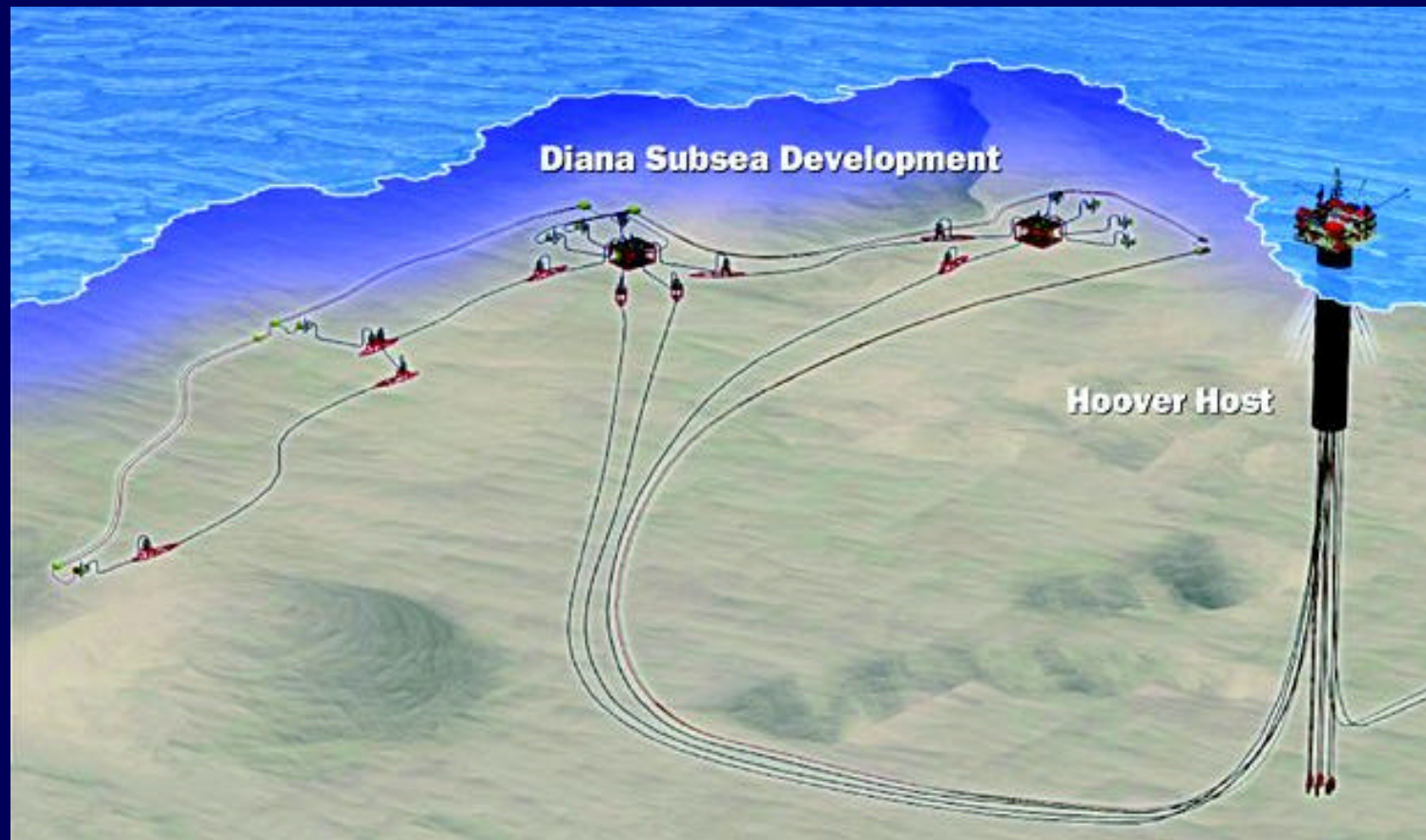
Expanded Deepwater Leasing



Deepwater

- **Deepwater development has accelerated rapidly**
- **11 projects in production in 1995**
- **37 projects in production in early 2001**
- **Technology of production systems has evolved rapidly**

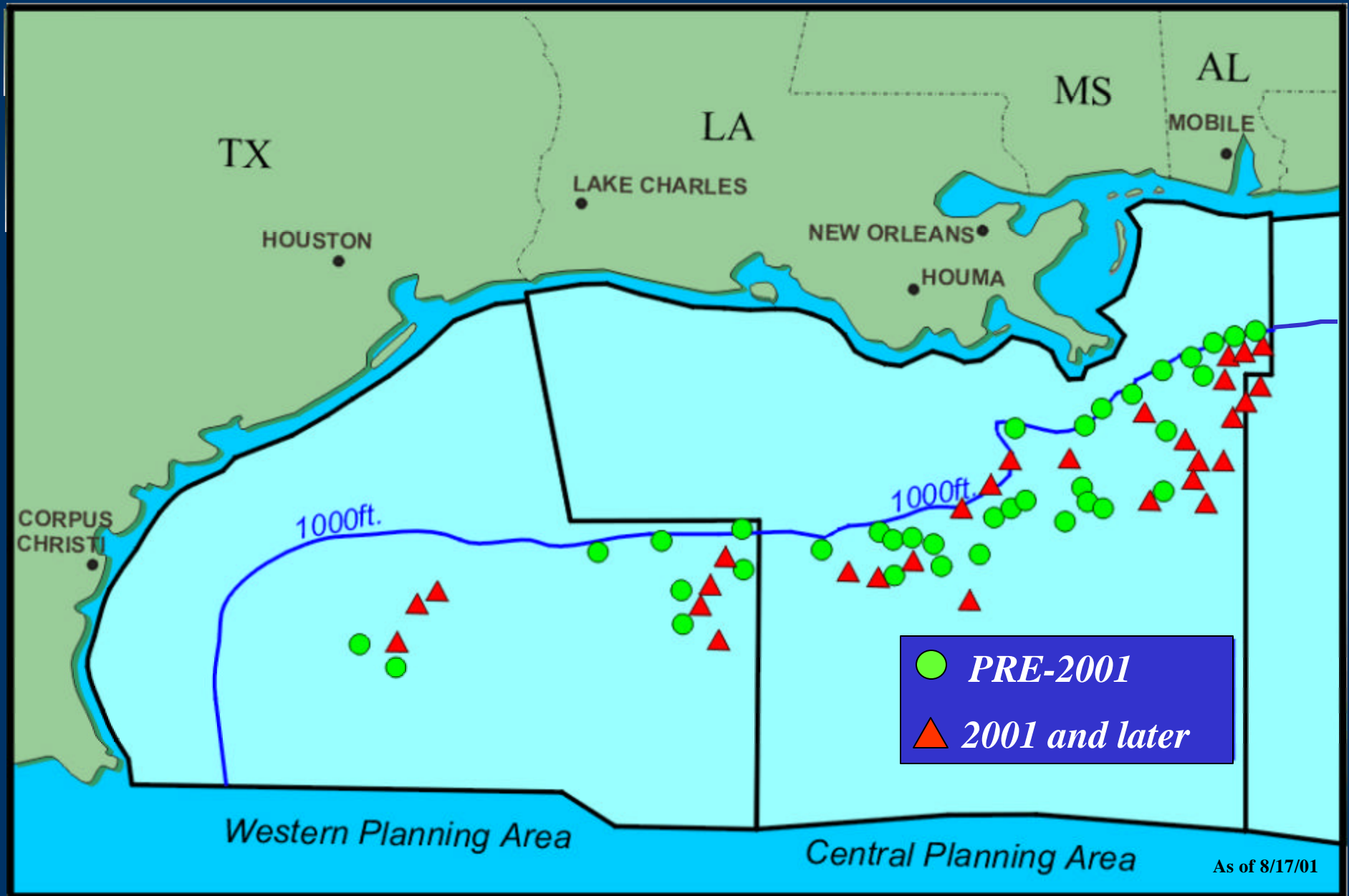
Spar - Diana Hoover



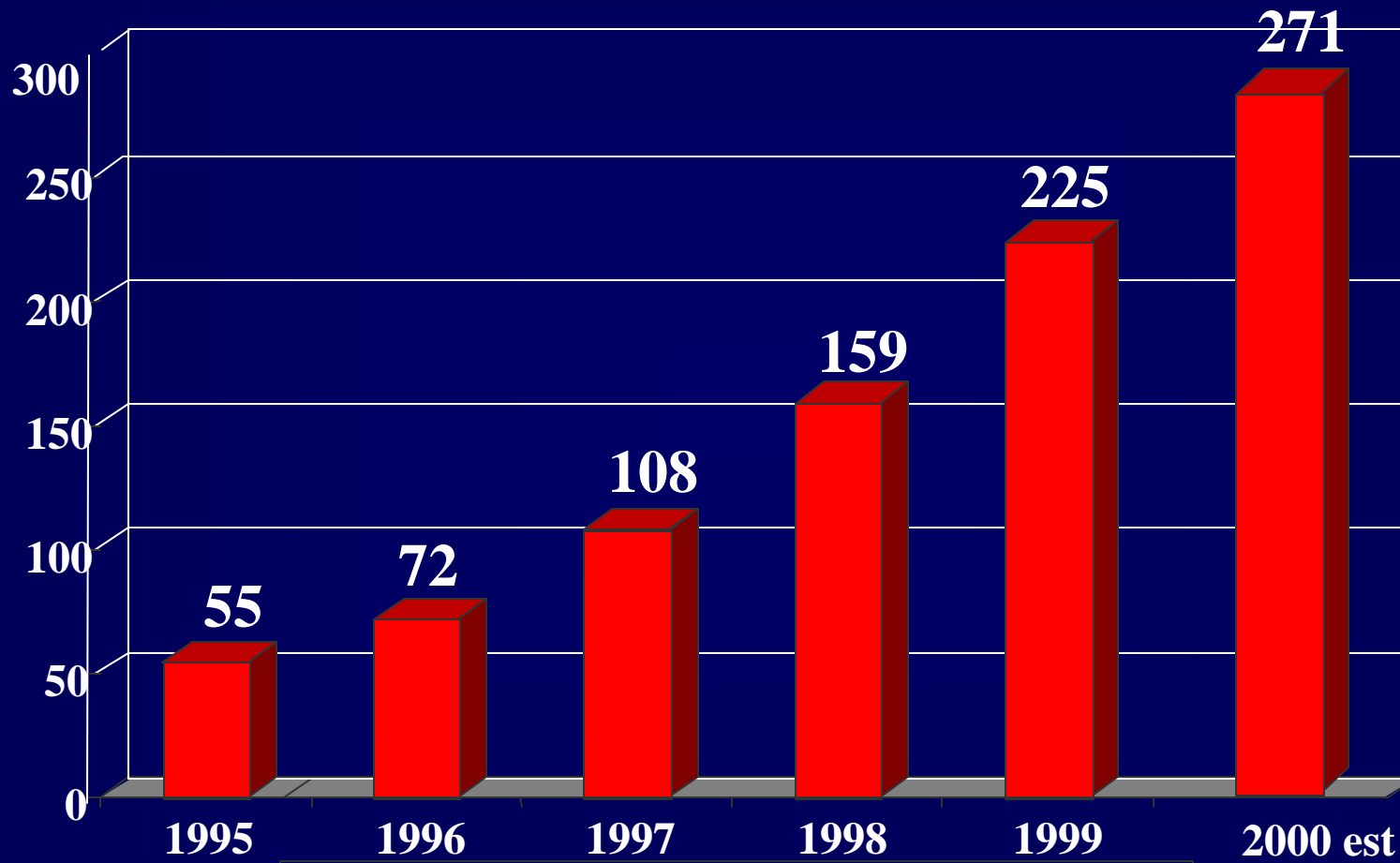
2002 Deepwater Production Starts



Deepwater Production Starts



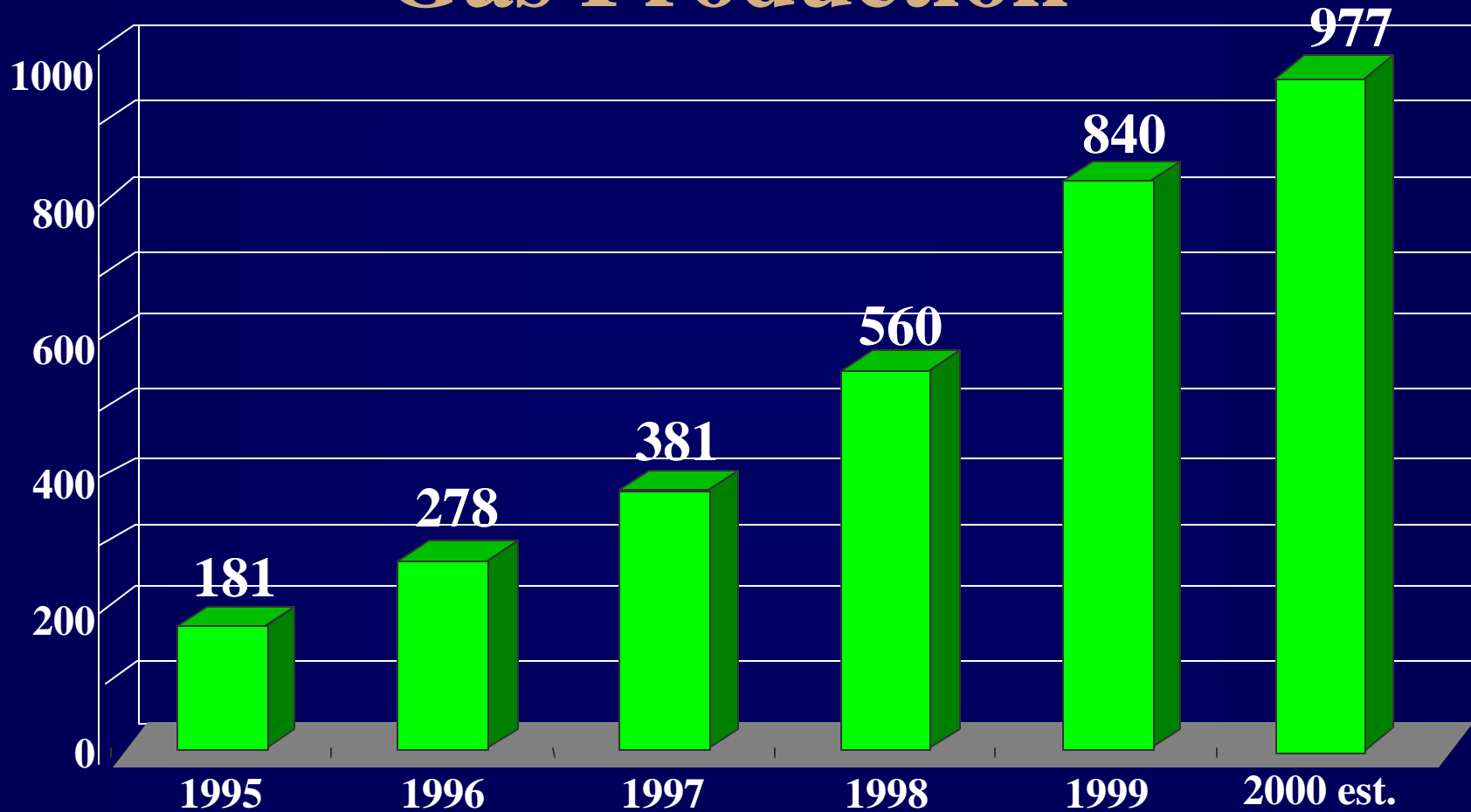
Gulf of Mexico Deepwater Oil Production



■ Millions of Barrels Per Year

Deepwater = 1000 ft. +

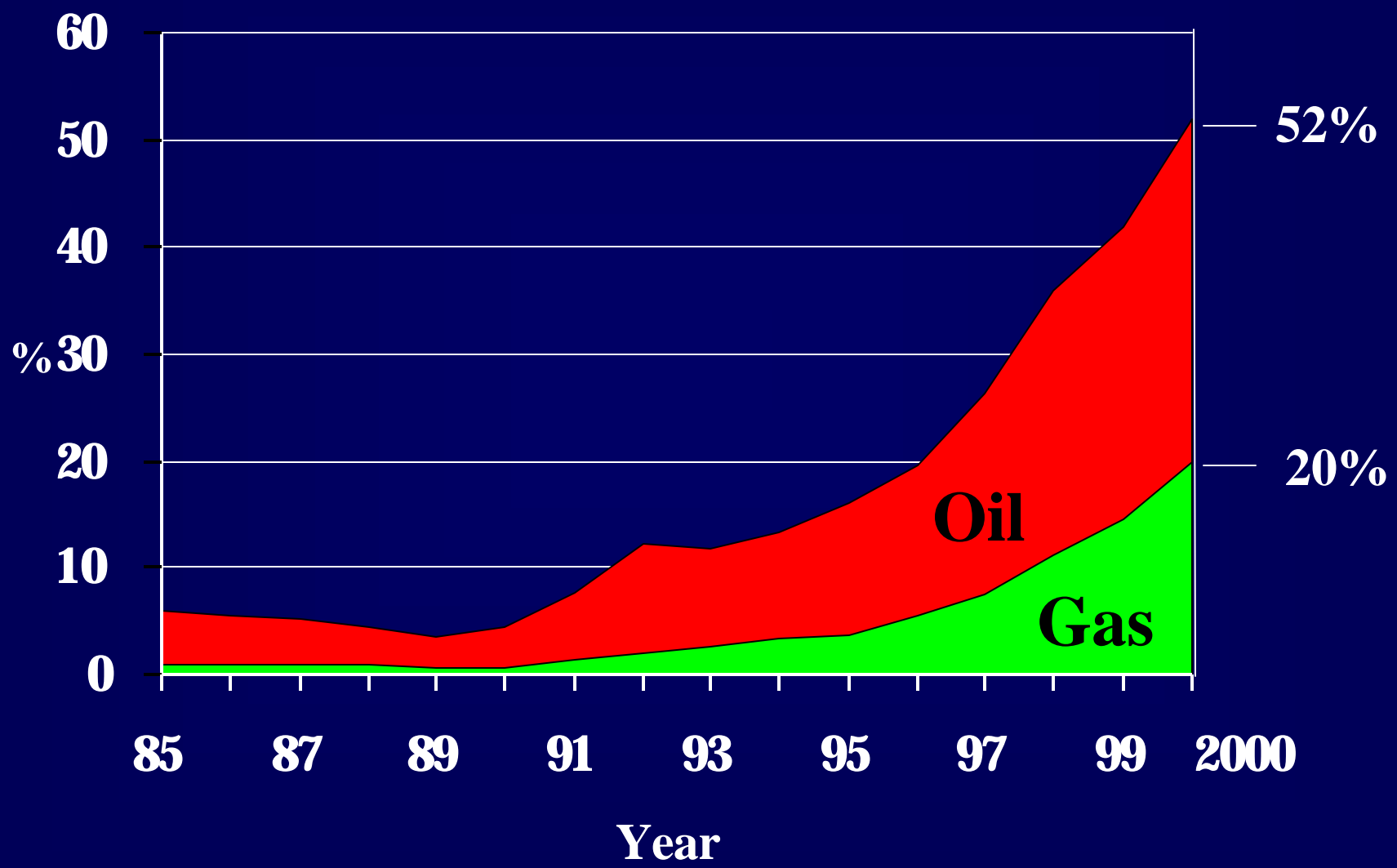
Gulf of Mexico Deepwater Gas Production



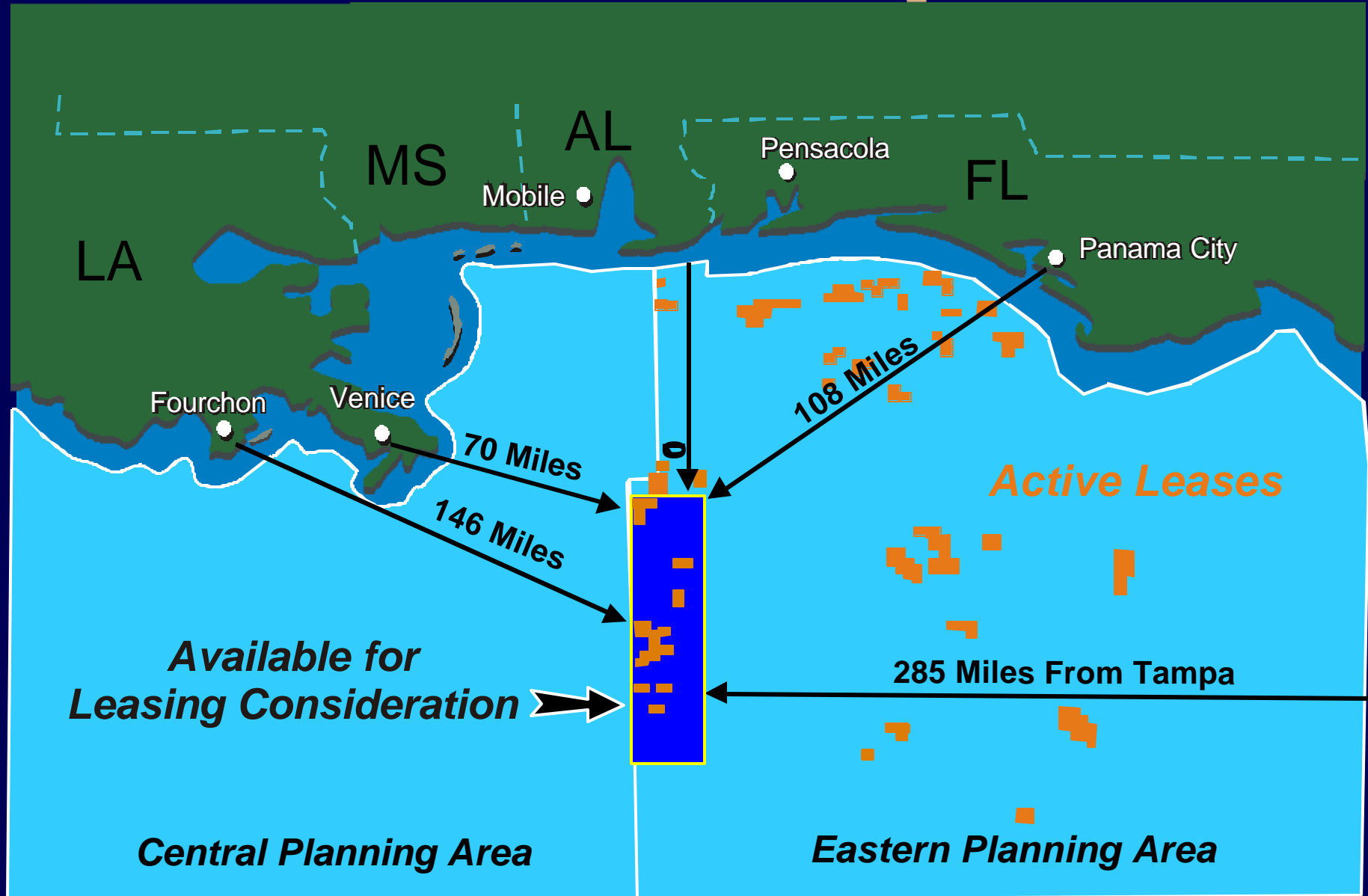
■ Billions of Cubic Feet (BCF) Per Year

GOM OCS Deepwater Production

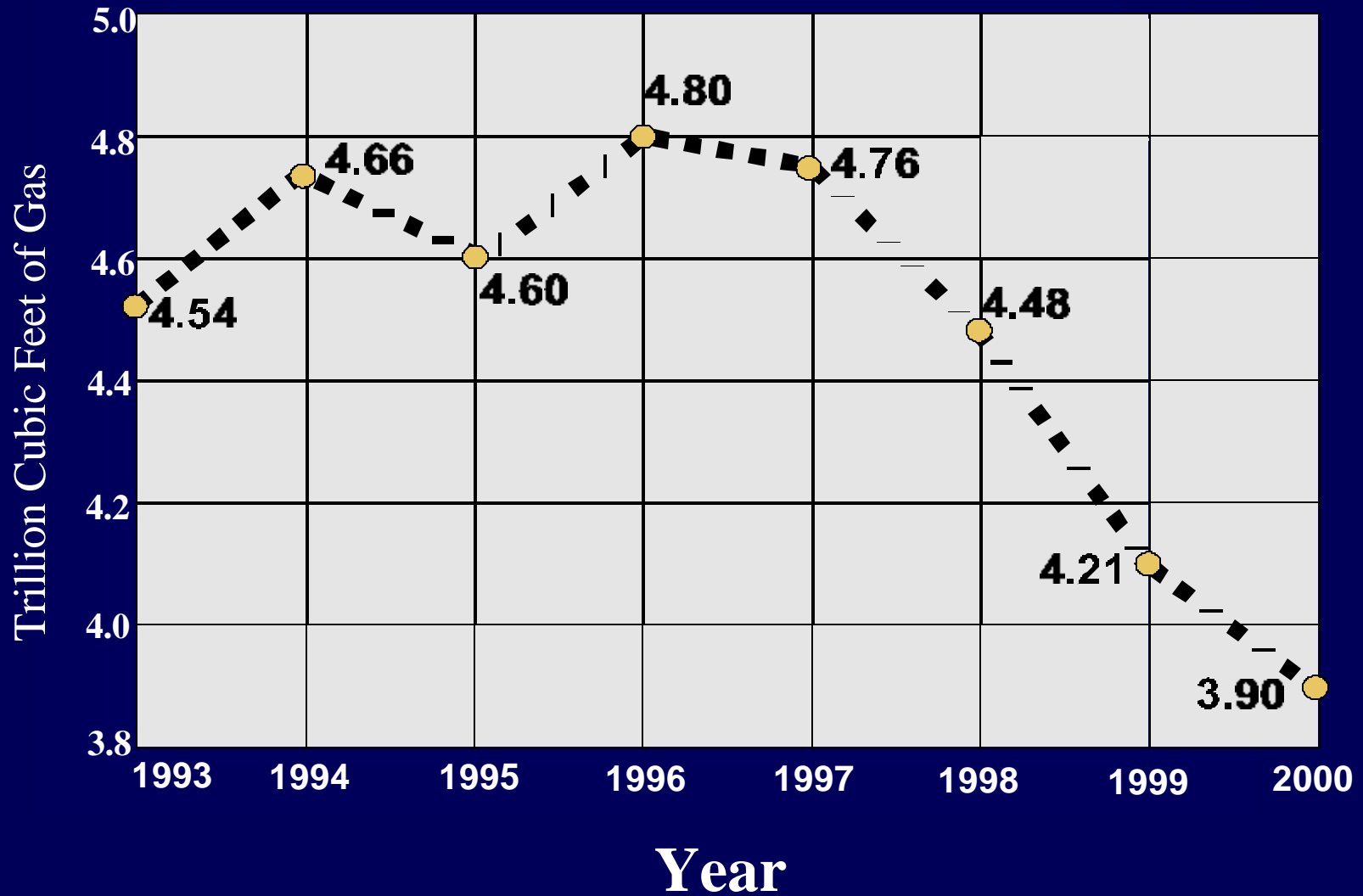
(% of total Gulf of Mexico)



Eastern Gulf of Mexico Proposed Sale 181



GOM Shallow Water Gas Production



Why Focus on Deep Gas

- **Shallow water gas production is declining**
- **Probably has substantial resources (5 - 20 Tcf)**
- **Has potentially high flow rate wells that can offset declining gas production (20 -80 MMcf/d)**
- **Largely undrilled**
- **Focus is sediments deeper than 15,000 ft. in >200m water**
- **Takes advantage of existing infrastructure - producing facilities and pipelines**

Why an Incentive

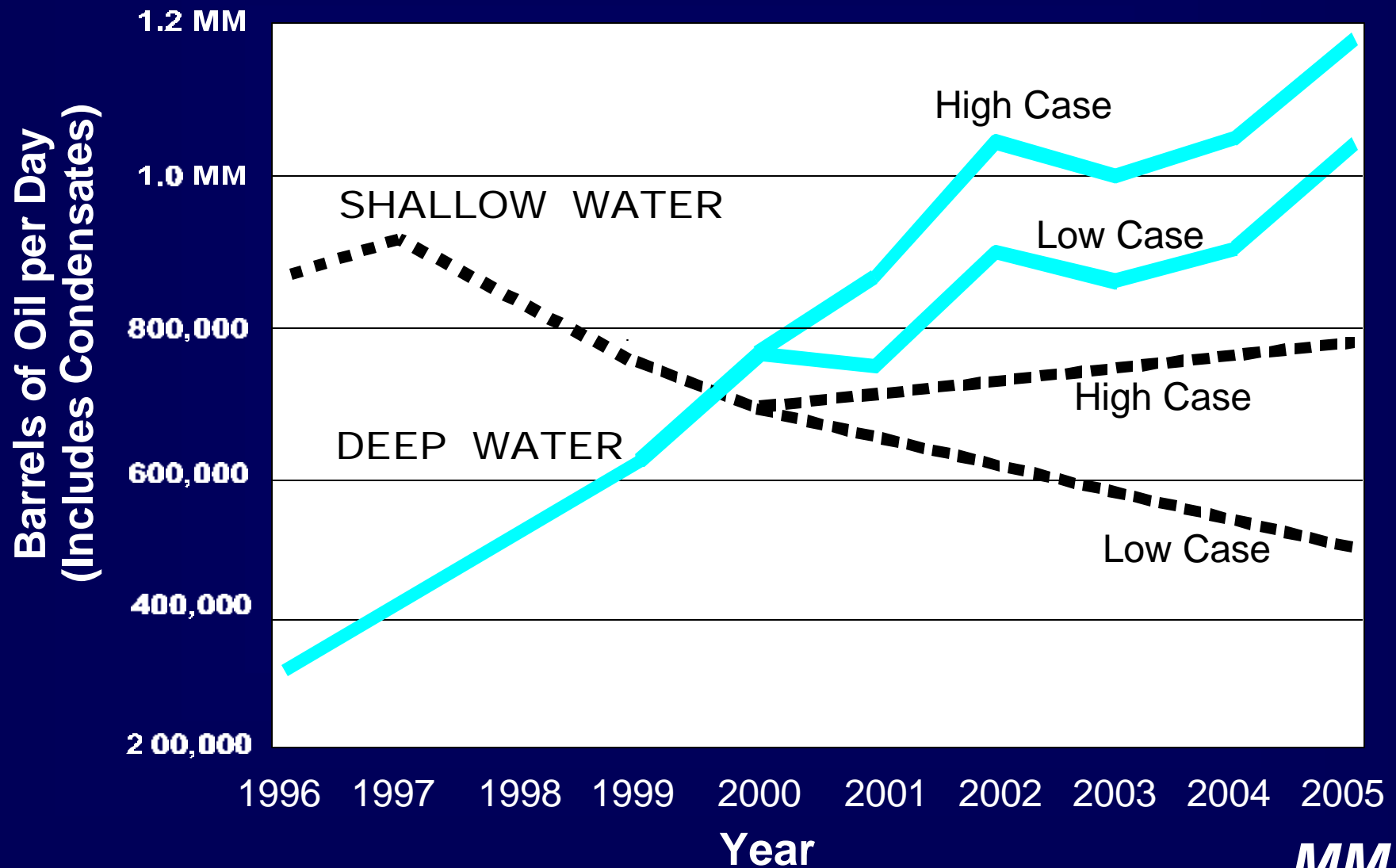
- **Much higher costs to drill deeper wells**
- **Wells would have to deal with high pressure, high temperature, and corrosives (CO₂ and H₂S)**
- **Will require specially designed jack-up rigs**

Shallow Water Incentive

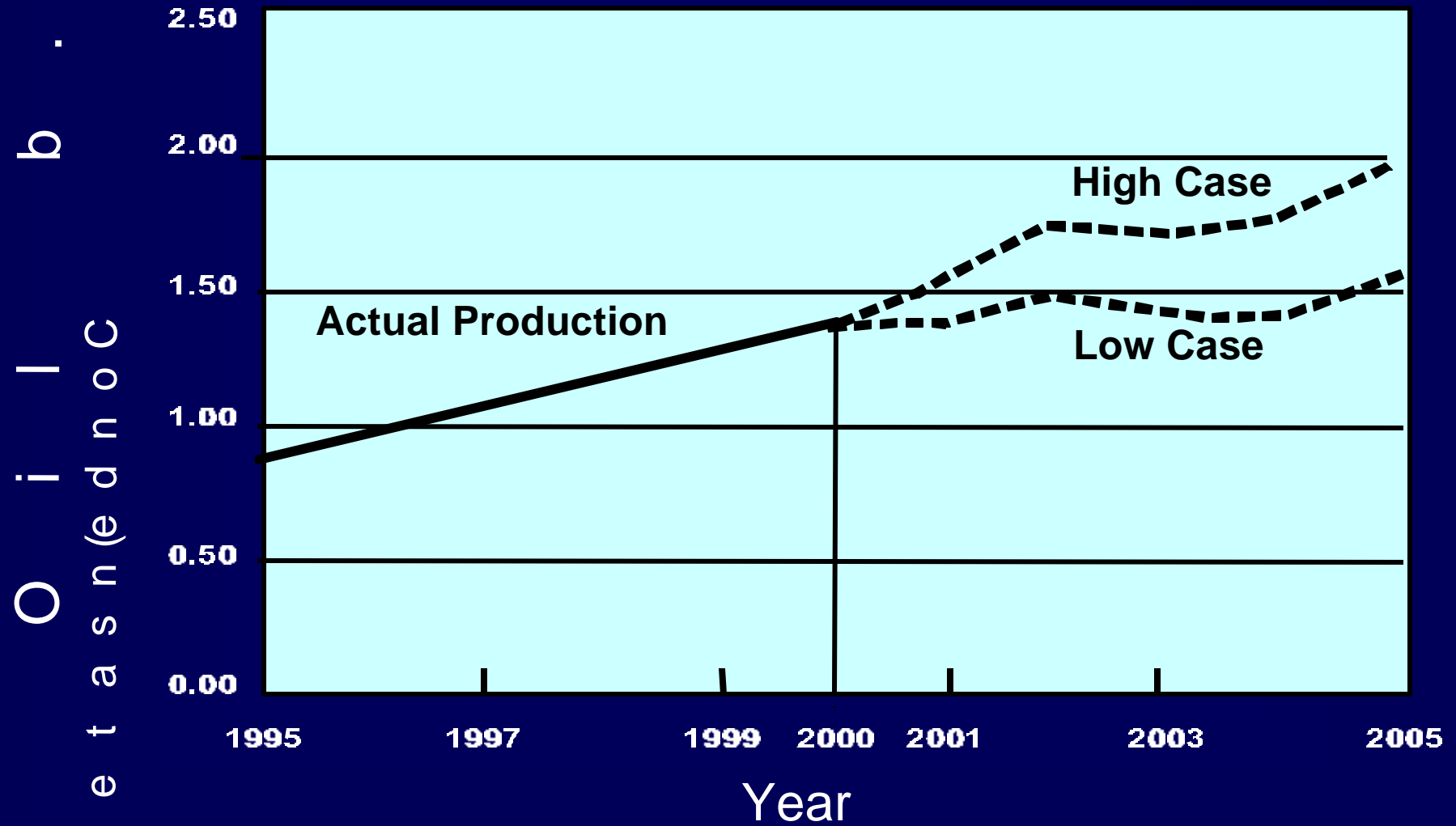
- **In Sale 178 (March 2001), MMS used a deep gas incentive for new leases**
- **Drill a new well greater than 15,000 feet receive first 20 BCF royalty free**
- **Also used in Western Sale 180 - new leases**
- **Looking at deep gas incentives for existing leases**
- **New publication - *Promise of Deep Gas***

GOM Projection Oil Production

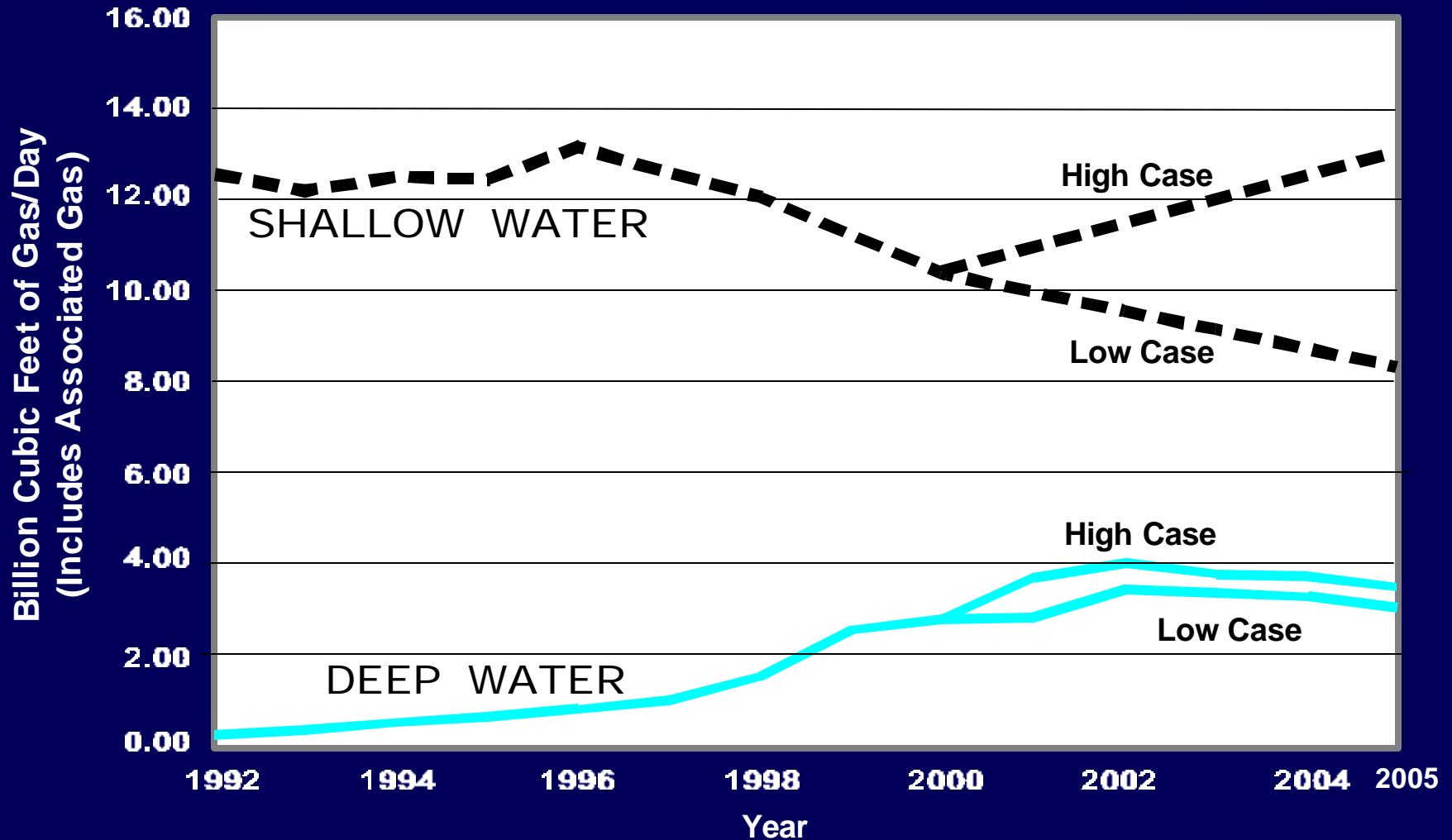
(from MMS Report 2001-044)



Combined Oil Production Gulf of Mexico Projection



GOM Gas Production Projection



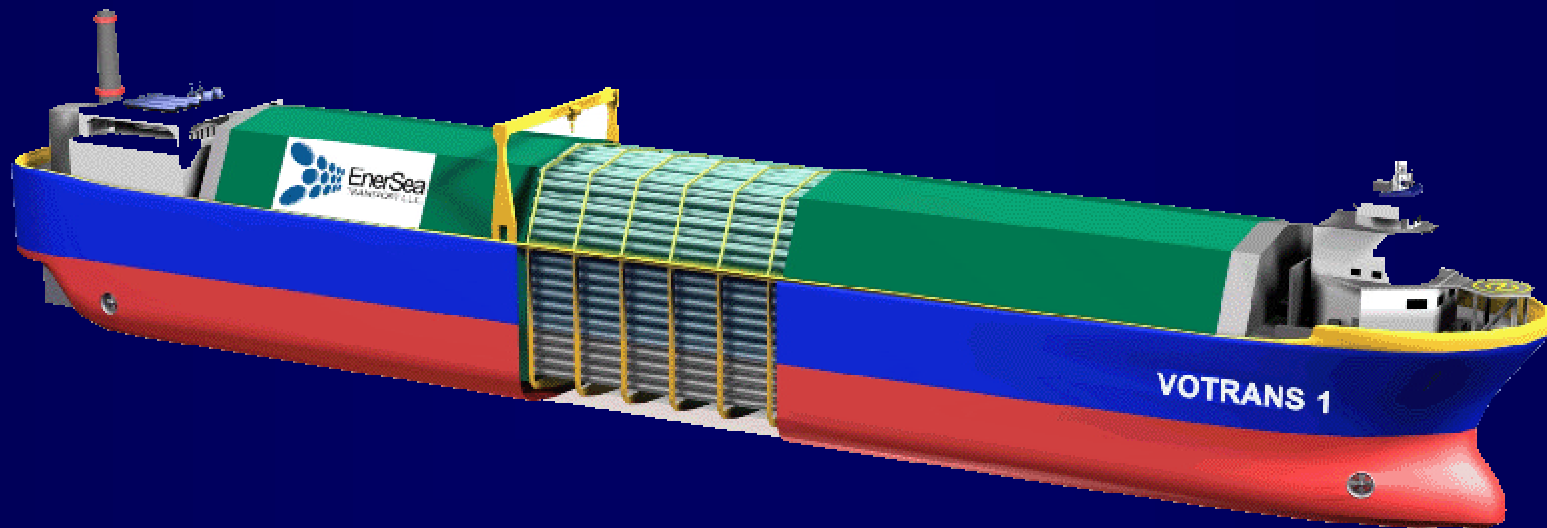
Oil and Gas Supply Through the Gulf

Other Potential Energy Supply



Future Compressed Gas by Ship





MMS

Conclusions

- U. S. demand for oil and gas is expected to accelerate
- Potential supply offshore Louisiana remains large--71 billion barrels BOE
- Deepwater production offshore Louisiana is expected to accelerate
- Deep gas in shallow water is an entirely new province that will be developed
- Transportation of oil and gas through the gulf is expected to accelerate