Testimony before the Michigan House of Representatives Energy & Technology Committee

Steve Ewing

1/25/06

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Impact on customers

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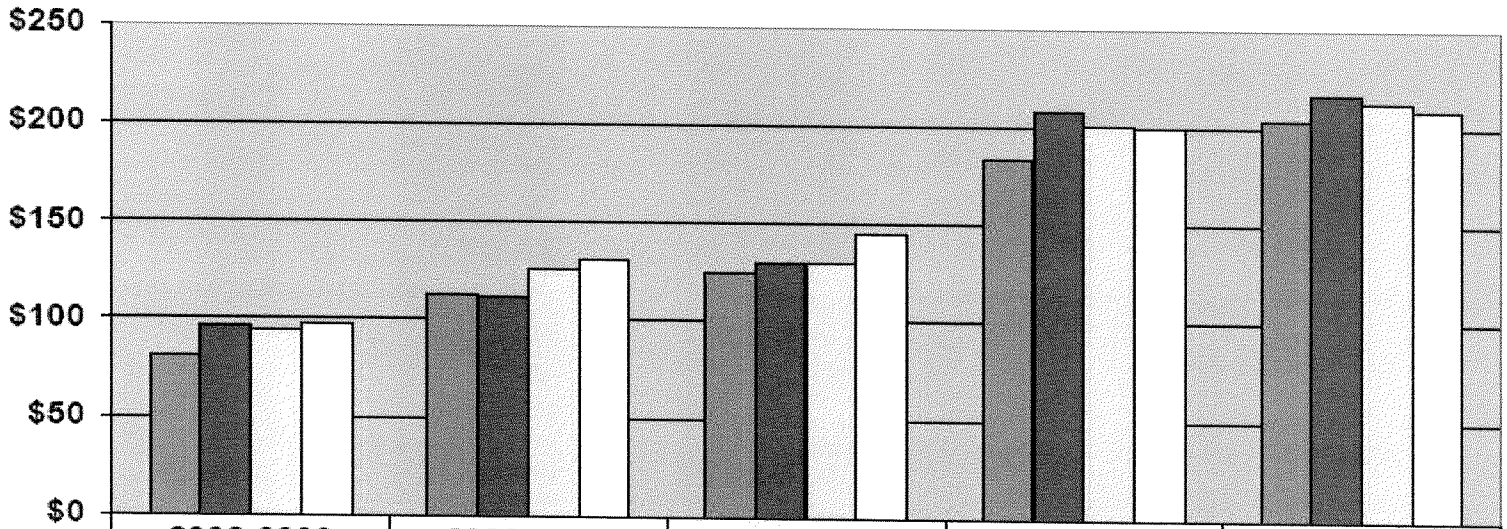
Exhibit: S-1 (RGO-1 Reopener)
Witness: RGOzar
Date: 10-17-2005
Page No: 2 of 6

Michigan Residential Gas Customer Monthly Winter Bill (Nov- March)
(Normal Weather, 2005- 2007 Projected)



	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Consumers	$81	$113	$125	$183	$204
MichCon	$96	$112	$130	$208	$217
Semco	$95	$126	$130	$201	$213
Aquila	$97	$131	$145	$200	$209

Source: Michigan Public Service Commission

The Gas Cost Recovery Factor

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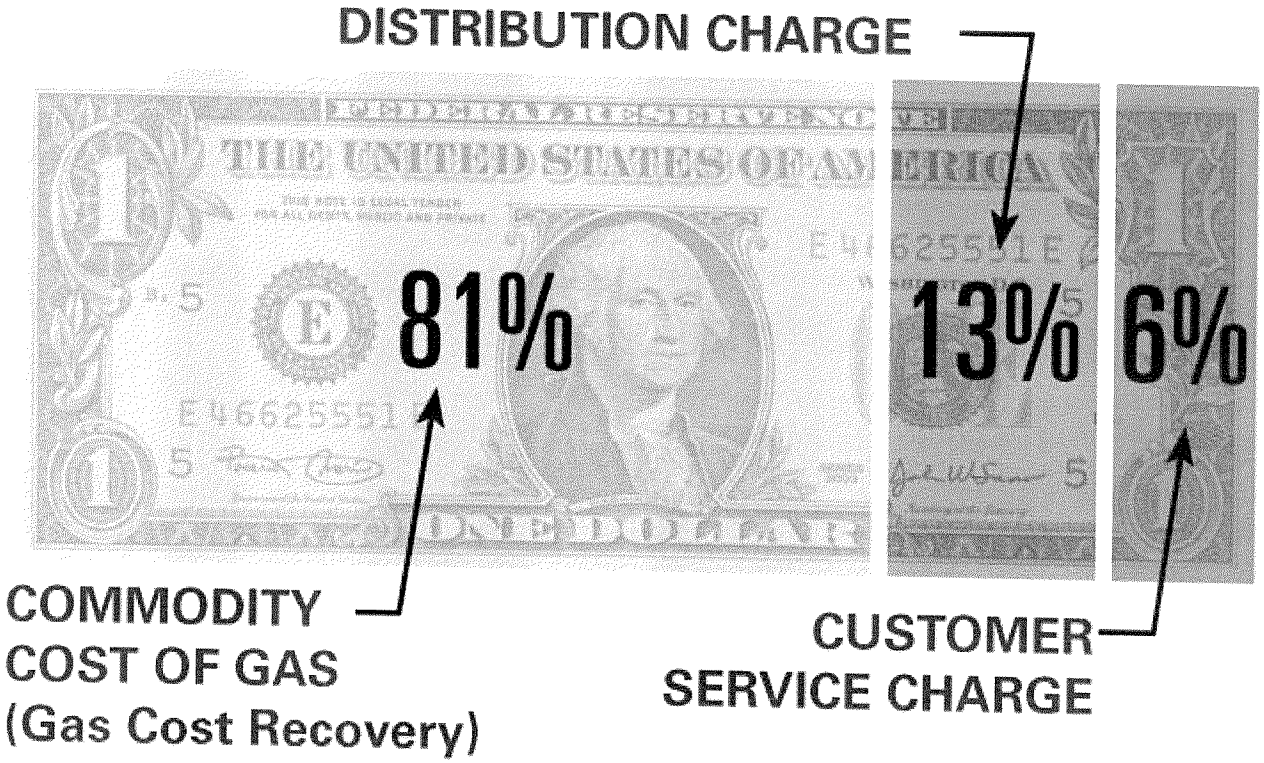
- The largest portion of a customer's natural gas bill is for the natural gas itself. This cost is a pass-through without any mark-up.



Gas Prices

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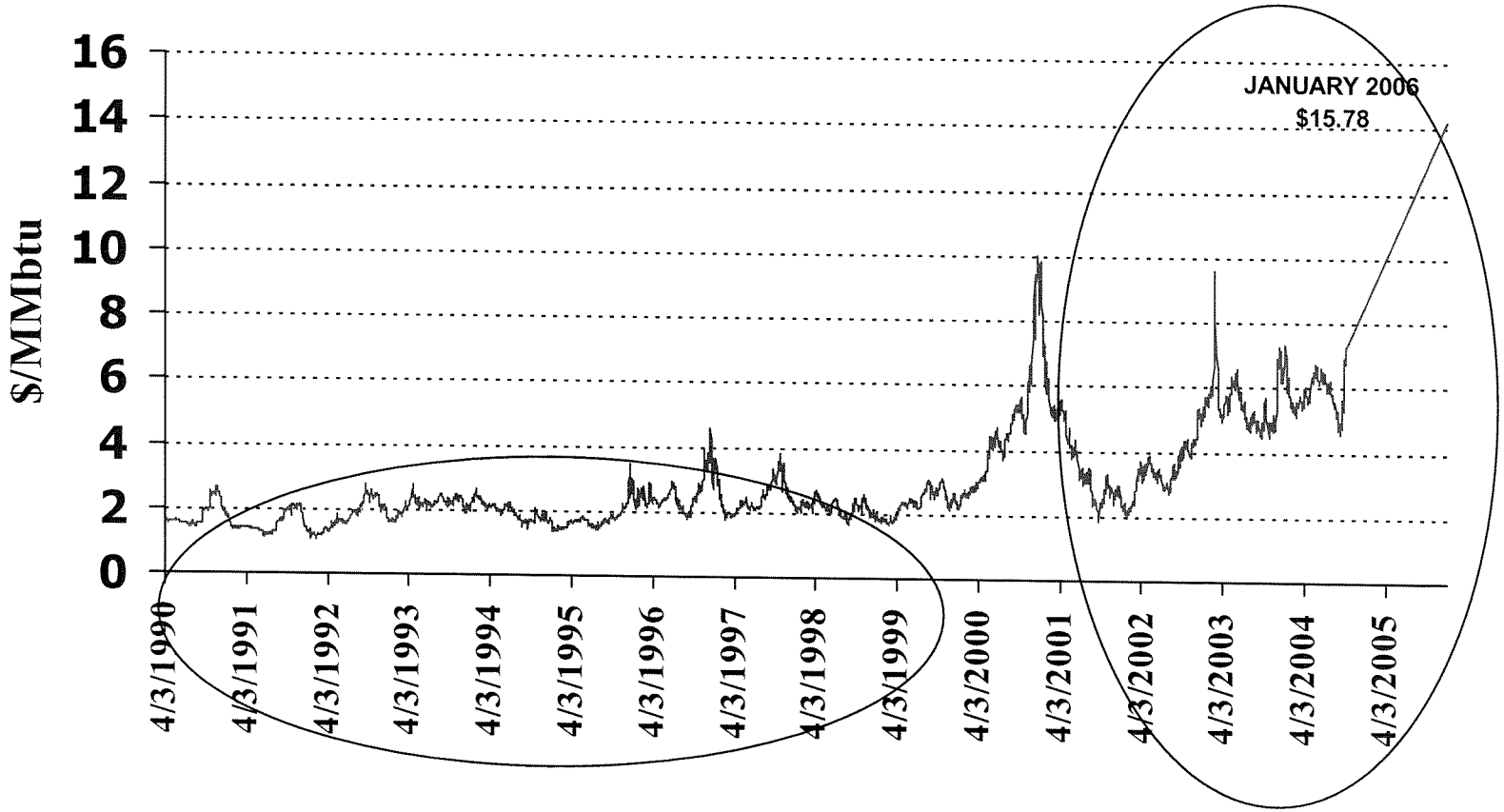

Natural Gas Accounts for Roughly One-Fourth of U.S. Primary Energy Consumption

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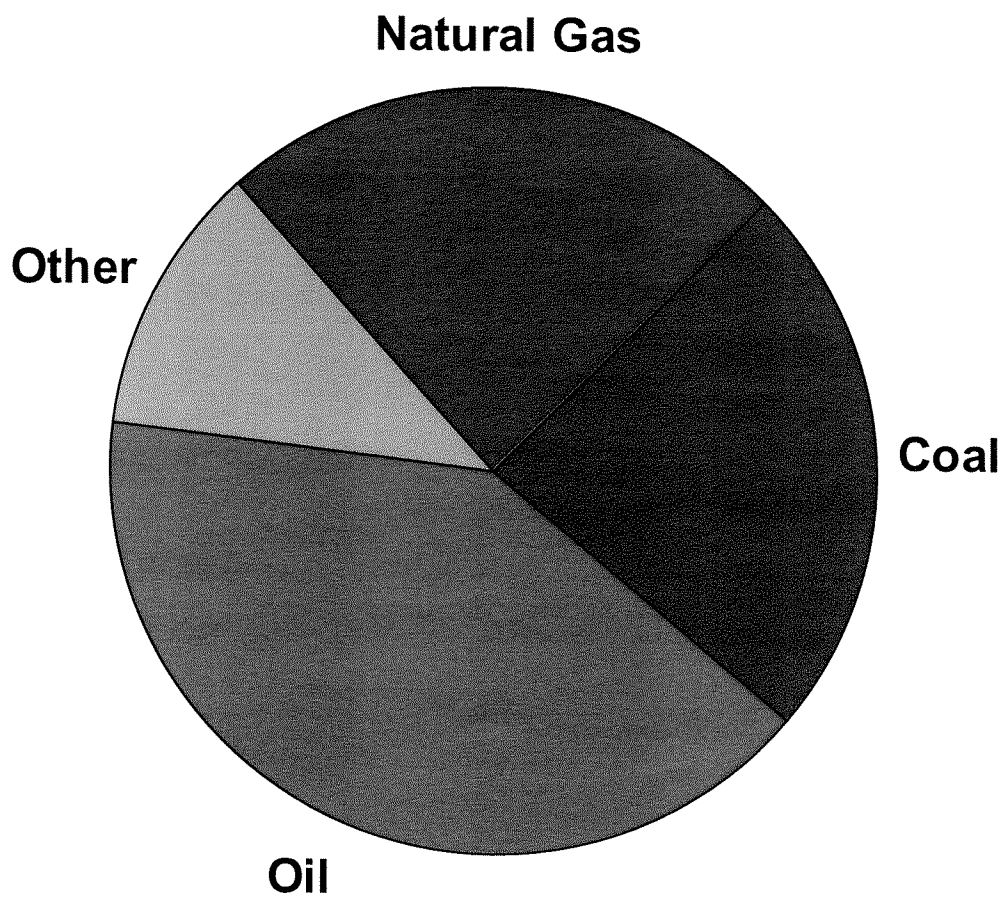

Source: Dept. of Energy, Energy Information Administration

Natural Gas Distribution Process

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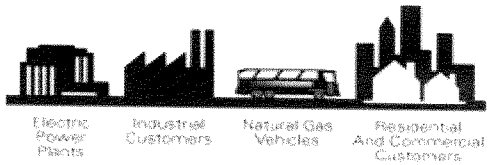
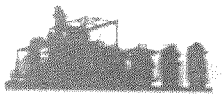
NATURAL GAS COUNCIL

How Natural Gas Gets To Consumers





Compressor Stations

Natural gas is a naturally occurring hydrocarbon that consists mostly of methane. It is usually found in underground formations of porous rock, and found either alone or in association with oil. During the **production process**, wells are drilled into the porous rock and pipes are used to bring the natural gas to the surface. In most wells, the pressure of the natural gas is enough to force it to the surface and into the gathering lines.

Gathering lines link production areas to central collection points. Some natural gas gathering systems include a processing facility, which removes such impurities as natural gas liquids, water, carbon dioxide or sulfur that might corrode a pipeline, or inert gases such as helium that could reduce the energy value of the gas.

The pipeline **transmission system**, the "interstate highway" for natural gas, consists of 280,000 miles of high-strength steel pipe 20 inches to 42 inches in diameter. It moves huge amounts of natural gas thousands of miles from producing regions to local natural gas utilities. Compressor stations every 70 miles boost the pressure that is lost through the friction of gas moving through steel pipe.

Local distribution companies are the "city streets" for natural gas. This is where meters measure the gas, and where a sour-smelling odorant is added to help customers smell even small quantities of natural gas. The local gas company then uses distribution pipes, or "mains," to bring natural gas service to most U.S. homes and nearly 5 million businesses. To help ensure reliable service, local natural gas companies can store natural gas underground for use during peak demand, such as cold days. Underground storage accounts for about 20 percent of the natural gas consumed each winter, on average.

Natural Gas Supply Association
805 15th Street, NW, Suite 510
Washington, D.C. 20005
(202) 326-9300
www.ngsa.org

Independent Petroleum Association of America
1101 16th Street, NW
Washington, D.C. 20036
(202) 857-4722
www.ipaa.org

Interstate Natural Gas Association of America
10 G Street, NE, Suite 700
Washington, D.C. 20002
(202) 216-5900
www.ingaa.org

American Gas Association
400 N. Capitol Street, NW, Suite 400
Washington, D.C. 20001
(202) 824-7000
www.aga.org

Lower-48 Dry Gas Production Vs. Dry Gas Productive Capacity

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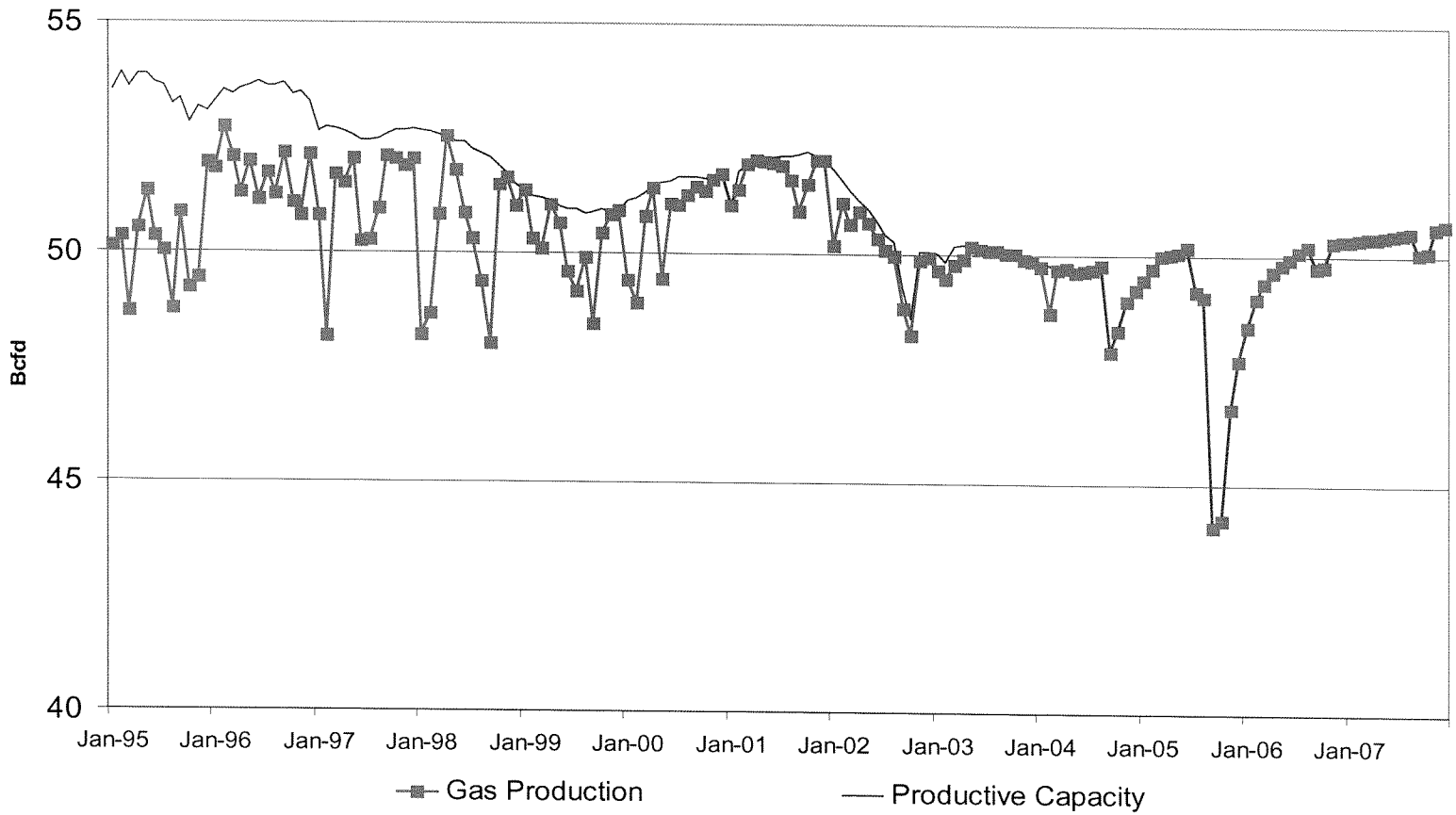

Source: Energy and Environmental Analysis, Inc.

Power generation demand exacerbates supply concerns

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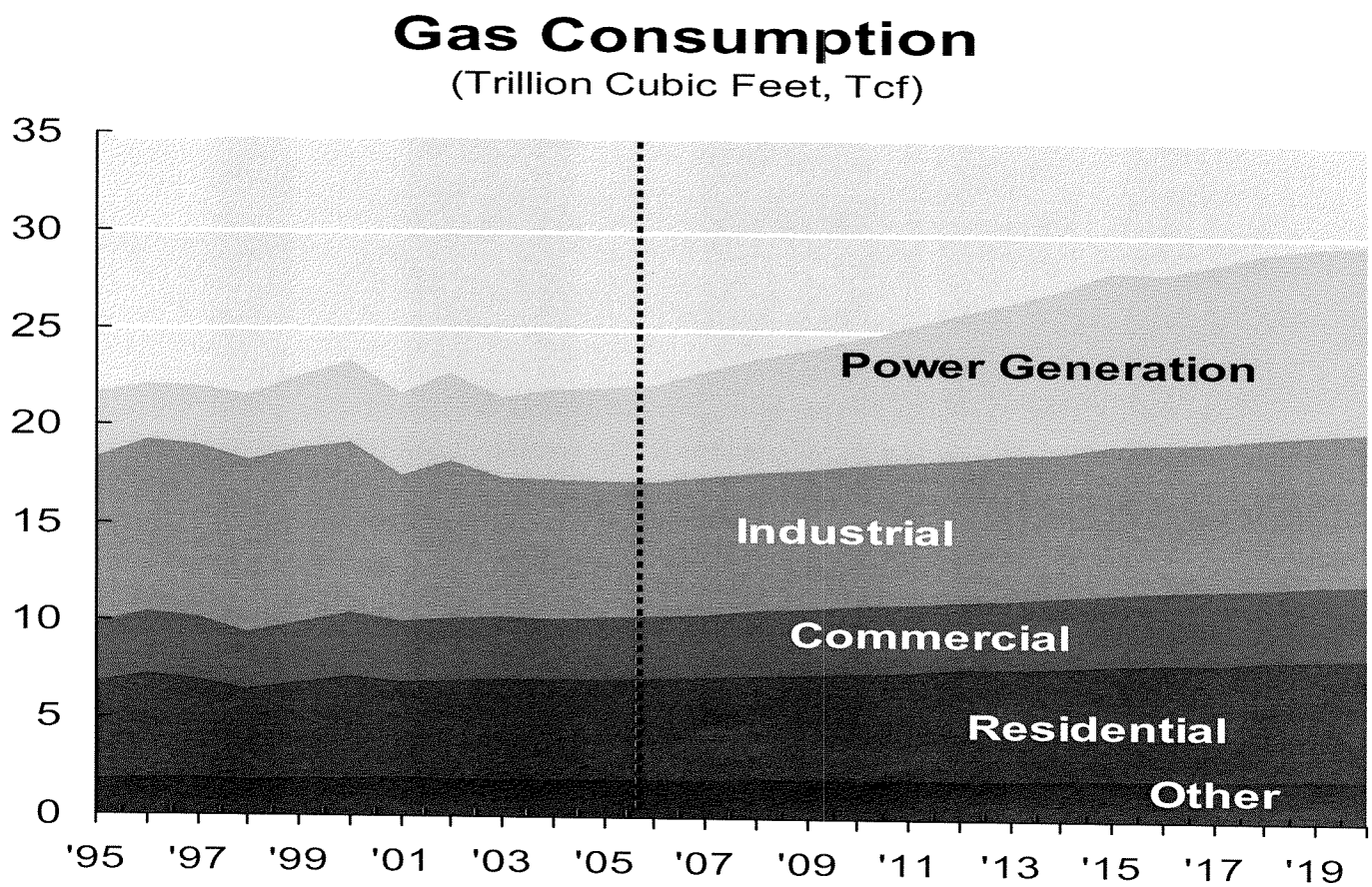

Source: Energy and Environmental Analysis (EEA)

Hurricane Impact: Gulf Coast production disrupted

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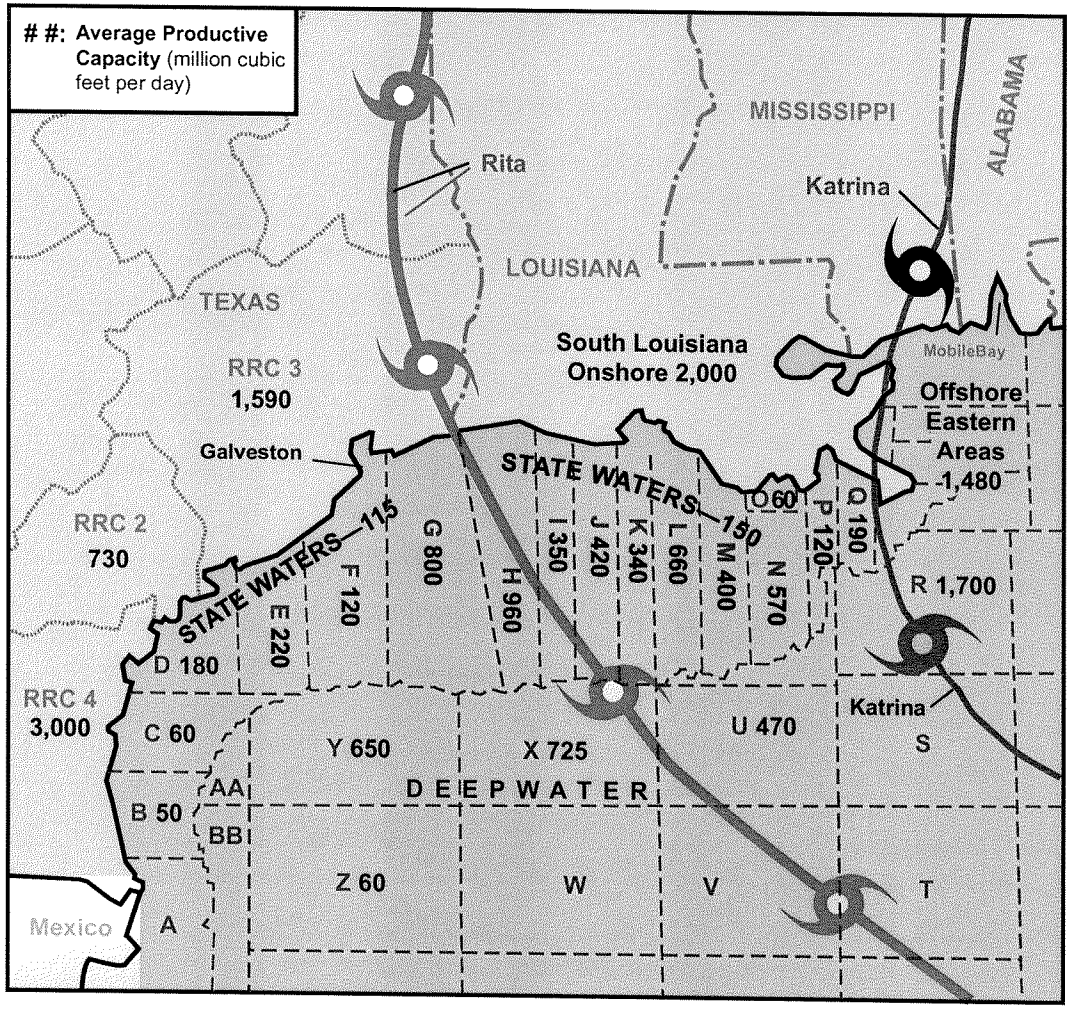

Producing Areas

- A: South Padre Island
- B: North Padre Island
- C: Mustang Island
- D: Matagorda
- E: Brazos
- F: Galveston
- G: High Island
- H: West Cameron
- I: East Cameron
- J: Vermilion
- K: South Marsh Island
- L: Eugene Island
- M: Ship Shoal
- N: South Timbalier
- O: South Pelto
- P: Grand Isle
- Q: West Delta
- R: Mississippi Canyon
- S: Atwater Valley
- T: Lund
- U: Green Canyon
- V: Walker Ridge
- W: Keathley Canyon
- X: Garden Banks
- Y: East Breaks
- Z: Alaminos Canyon
- AA: Corpus Christi
- BB: Port Isabel

Source: Cambridge Energy Research Associates.
Updated October 2005.
40916-81

Katrina Damaged Rig

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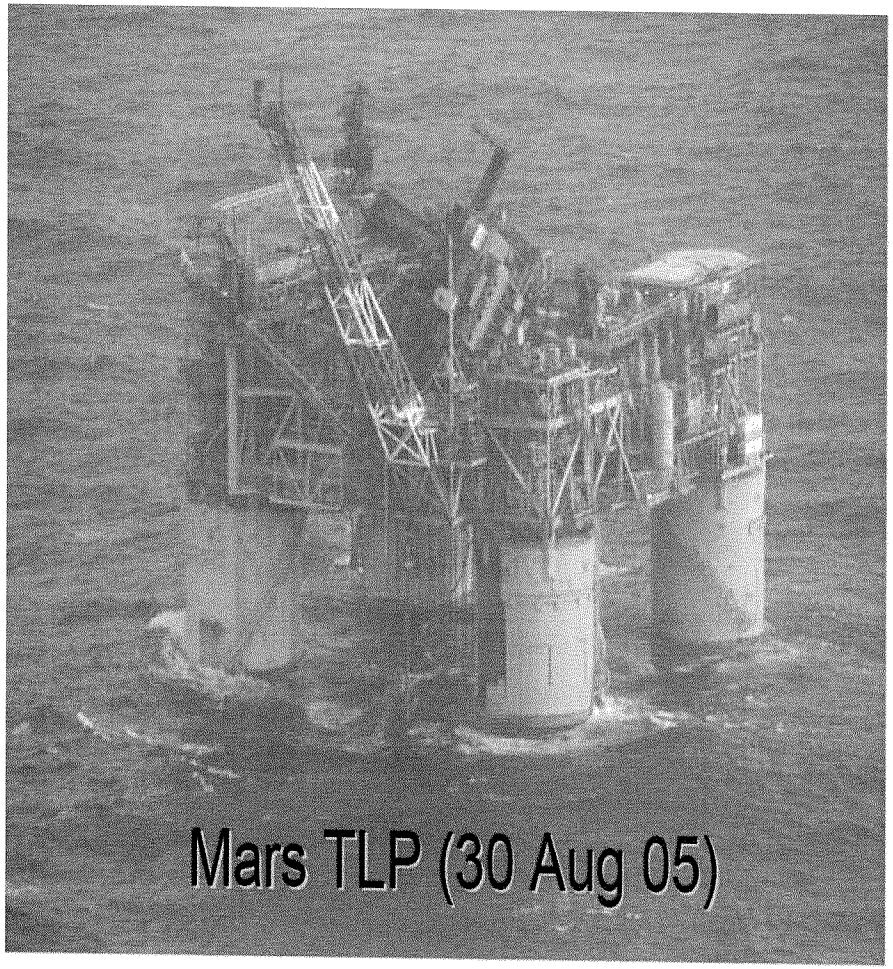

Major Portions of the Gas Resource Base Are Not Accessible

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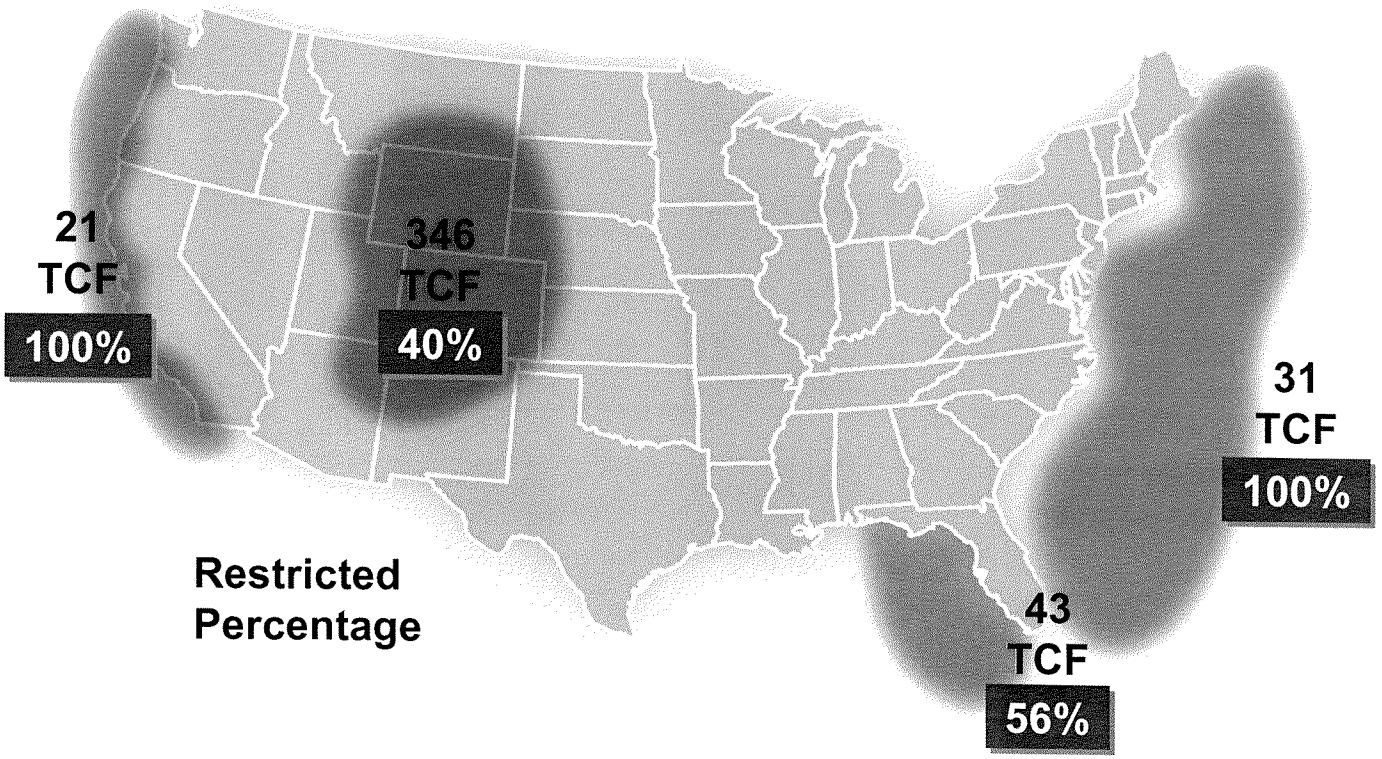

Approximately 29 trillion cubic feet (TCF) of the Rockies gas resources are closed to development and 108 TCF are available with restrictions

IS LNG ECONOMIC?

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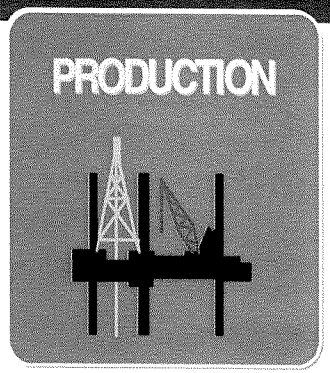

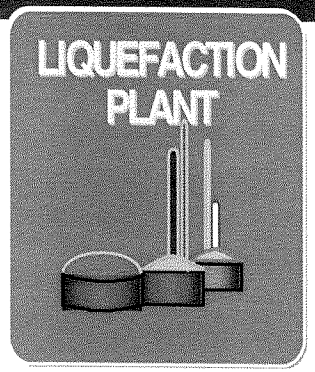

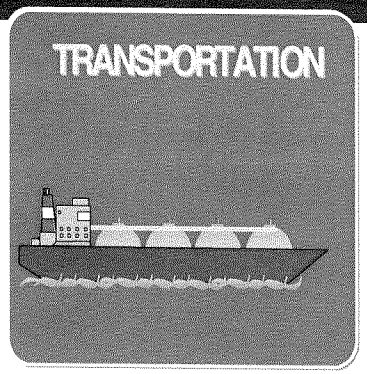

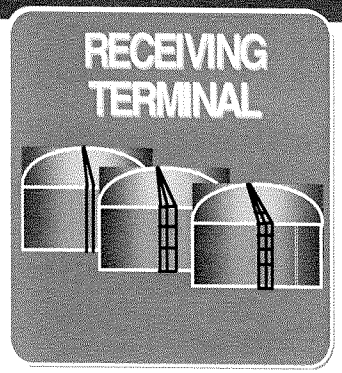

Gas Producer
$0.5-1.0 billion
$0.50-1.00 / MMBtu

Liquefaction
$0.8-1.0 billion
$0.80-1.00 / MMBtu

Shipping*
$0.6-1.2+ billion
$0.50-1.45 / MMBtu

Receiving Terminal
$3-400 million
$0.25-0.40 / MMBtu

Cost out of Plant:
$2.50-3.50/ MMBtu

Depends upon the shipping distance.

Source: Freeport LNG

Worldwide Natural Gas Resources Are Vast

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Global LNG Supply Facilities

Annual Global Consumption
< 2% of World Proved Reserves

Source: *National Petroleum Council*

ALASKAN GAS IS READY AND WAITING

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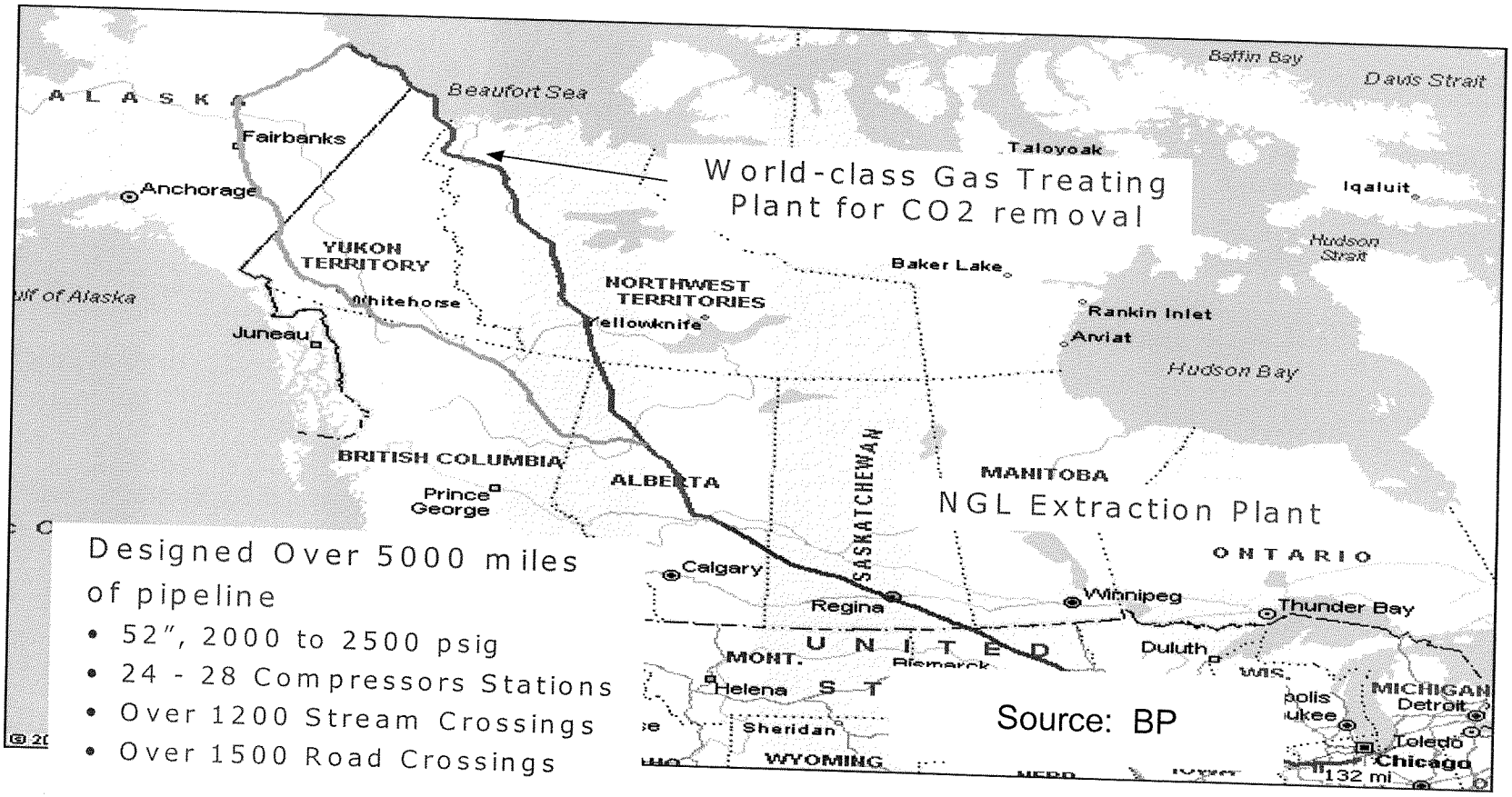

Designed Over 5000 miles of pipeline

- 52", 2000 to 2500 psig
- 24 - 28 Compressors Stations
- Over 1200 Stream Crossings
- Over 1500 Road Crossings

What Can Customers Do?

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- Conserve Energy
  - Dial down
  - Programmable thermostat
  - Change furnace filter
  - Turn down water heater
  - Water heater blanket
  - Caulk
  - Storm windows
- Enroll in budget programs/payment programs
- Call your utility <u>before</u> there's an emergency

Summary of Action Items

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- Increase federal funding for LIHEAP to $5.1 billion
- Communicate
  - High price environment
  - What customers can do to lower bills
  - Where to go for help – go early
  - Avoid potentially dangerous practices
- Increase supply
  - OCS / inter-mountain west
  - LNG
  - Alaskan gas
- Support customer focused energy initiative
  - United Way / DTE Community Energy Initiative
  - Governor Granholm: Save Energy With Ease