

Natural Gas in the U.S.  
Supply – Demand – Price  
Future Supply  
What BP is doing



## Significant Factors Affecting Price

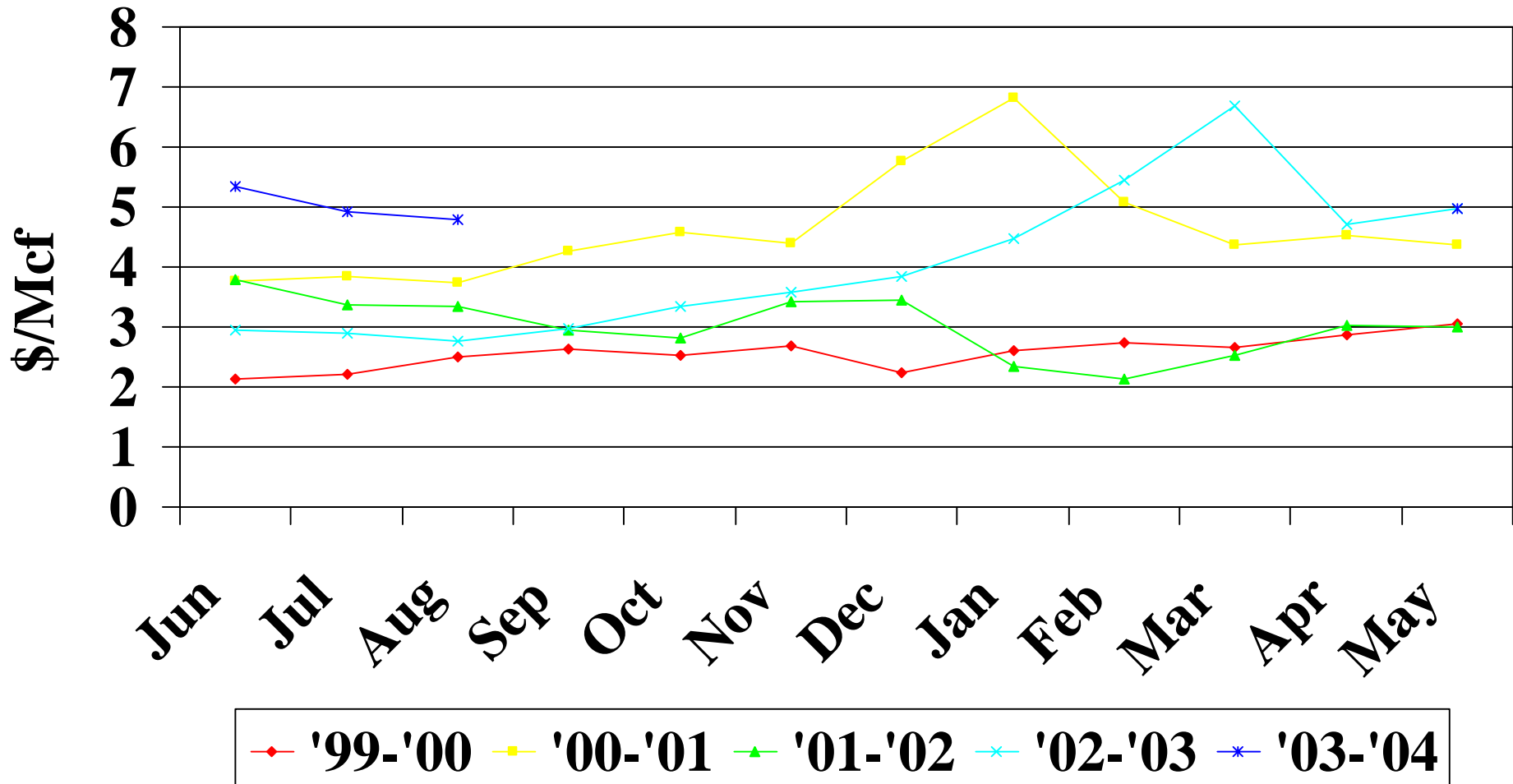
### Economy

- Weather
- Storage
- Supply
- Logistics
- Increasing Demand/New Uses of Gas



# Historical Wellhead Gas Prices

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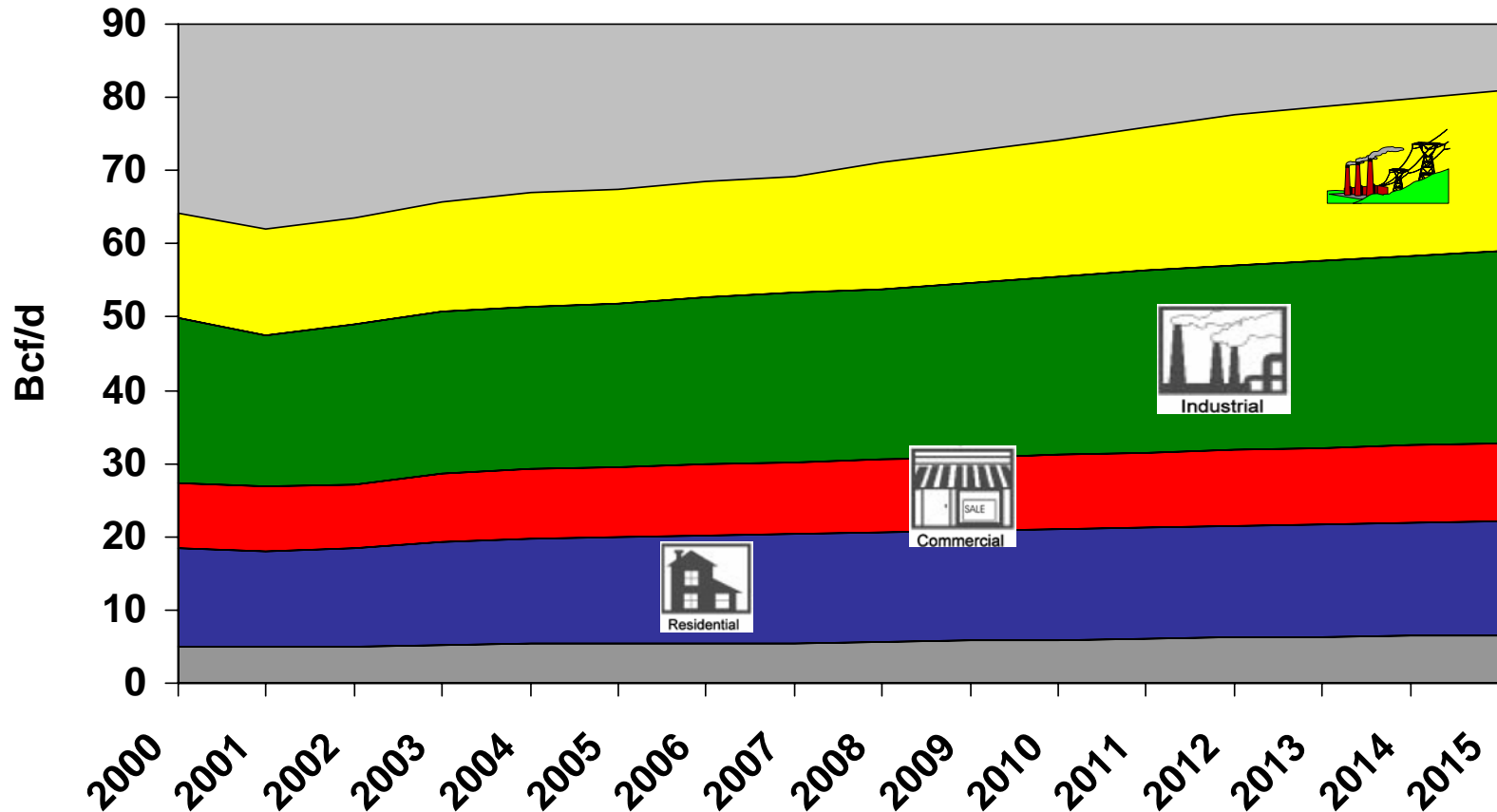


•Source: <http://tonto.eia.doe.gov>

# Future U.S. Natural Gas Demand



•Source: EIA Annual Energy Outlook, 2003



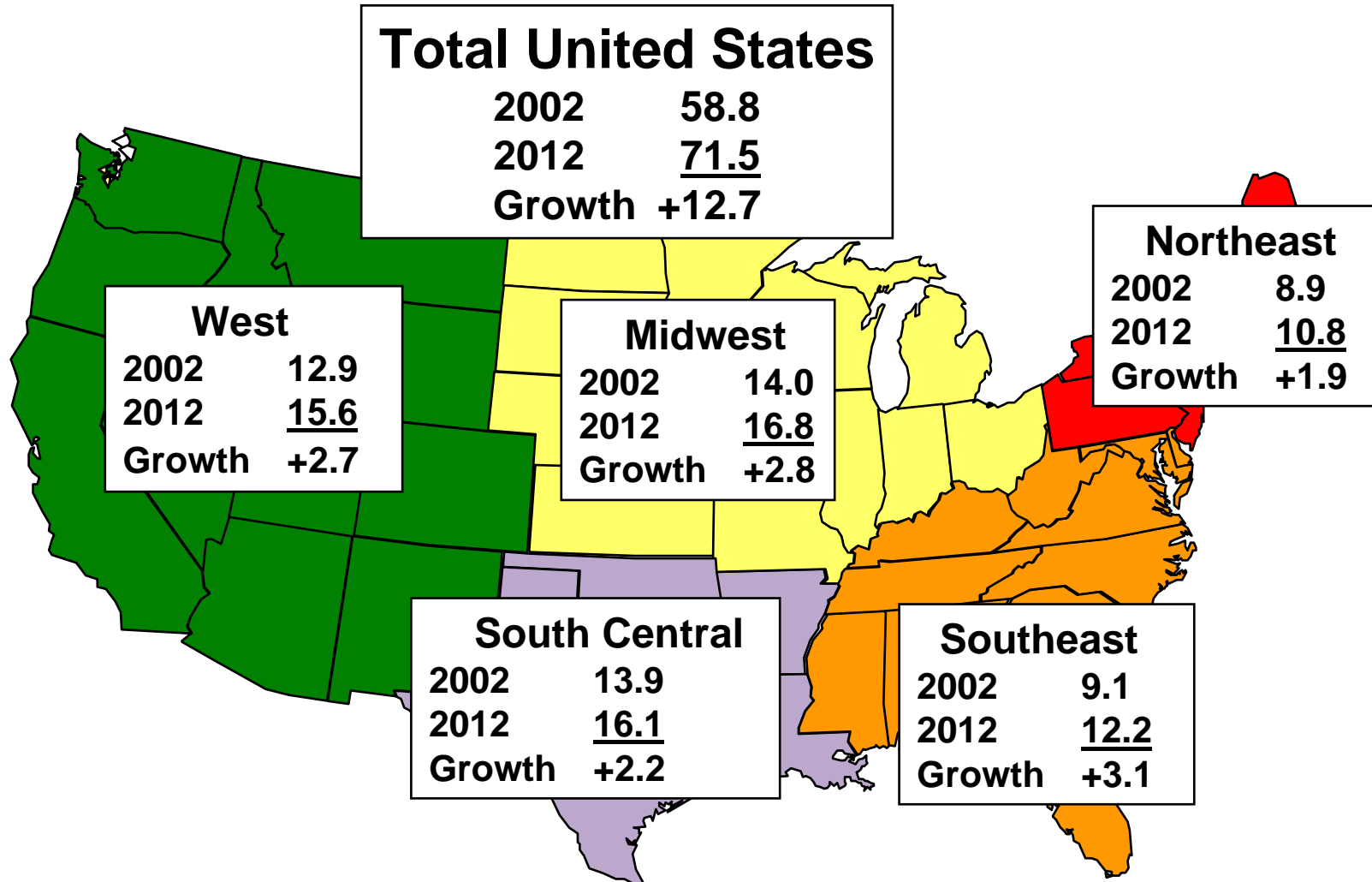
- Demand is expected to grow in all power sectors, led by power generation
- Over 90% of recently constructed generation projects are gas fired





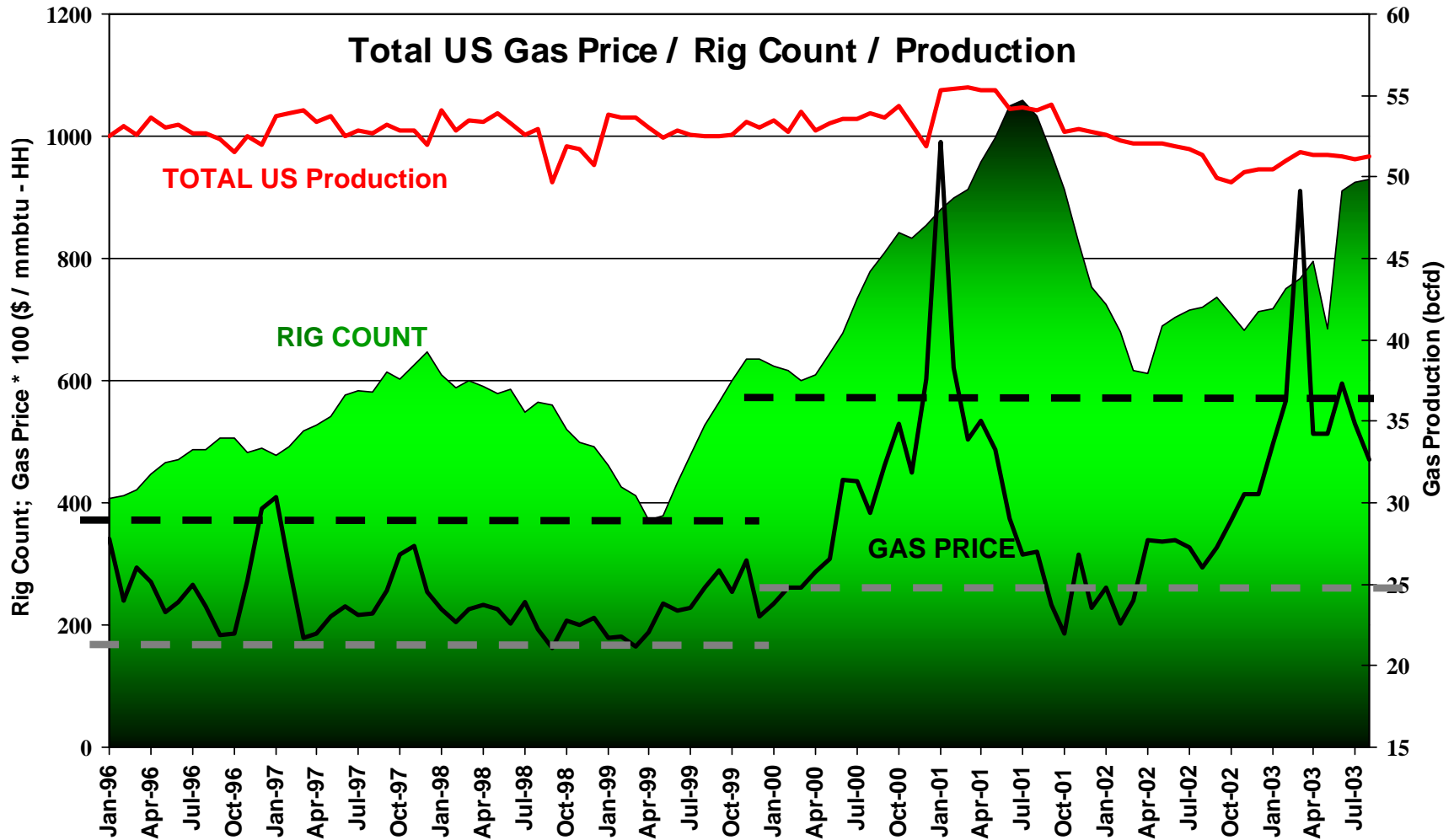
# U.S. Demand Outlook

Source: EIA, AEO 2003



Does not include Estimated Pipeline, Lease & Plant (8.8%)

# U. S. Domestic Gas Supply Challenge



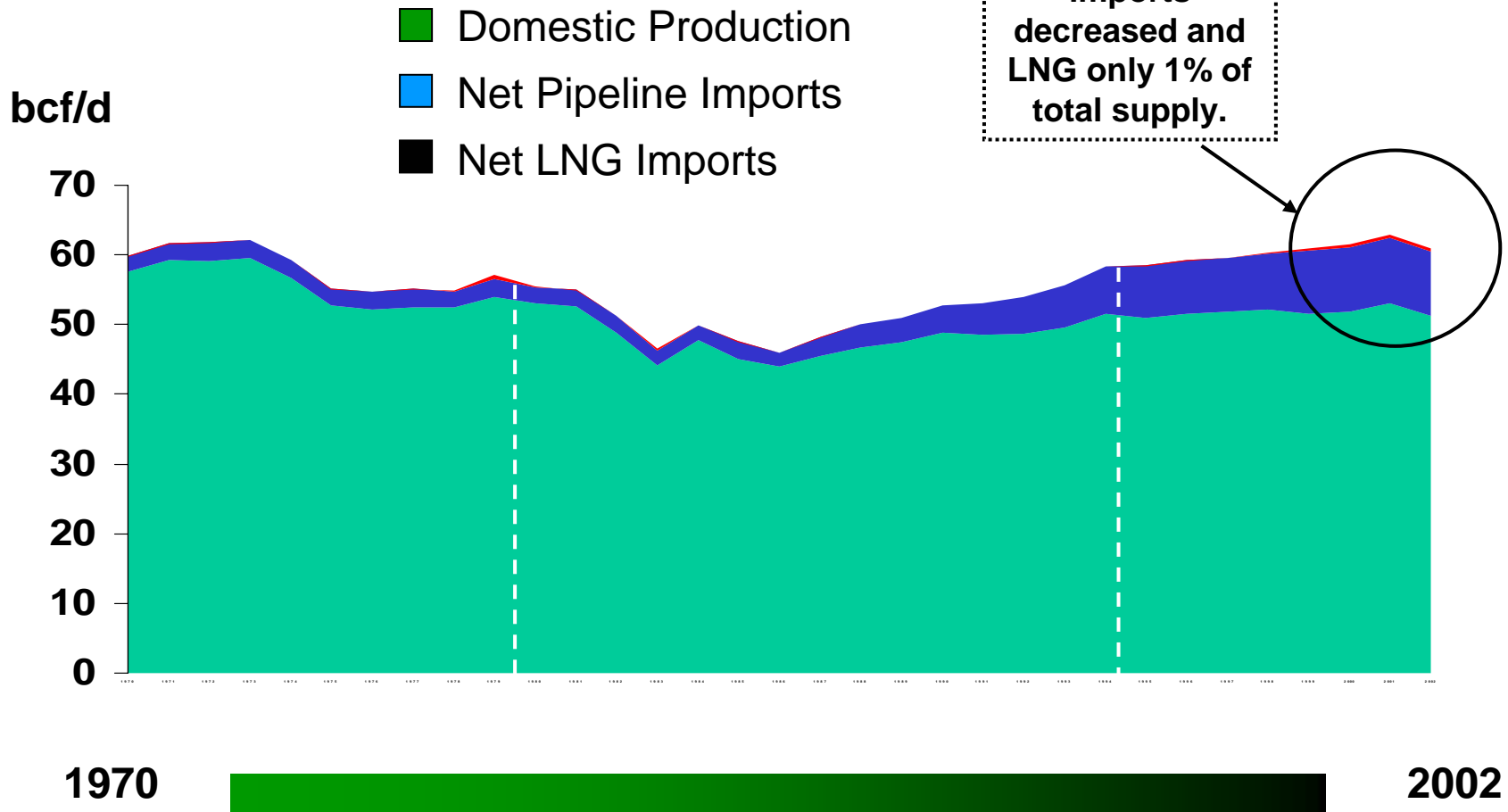
# North America Supply Demand Outlook



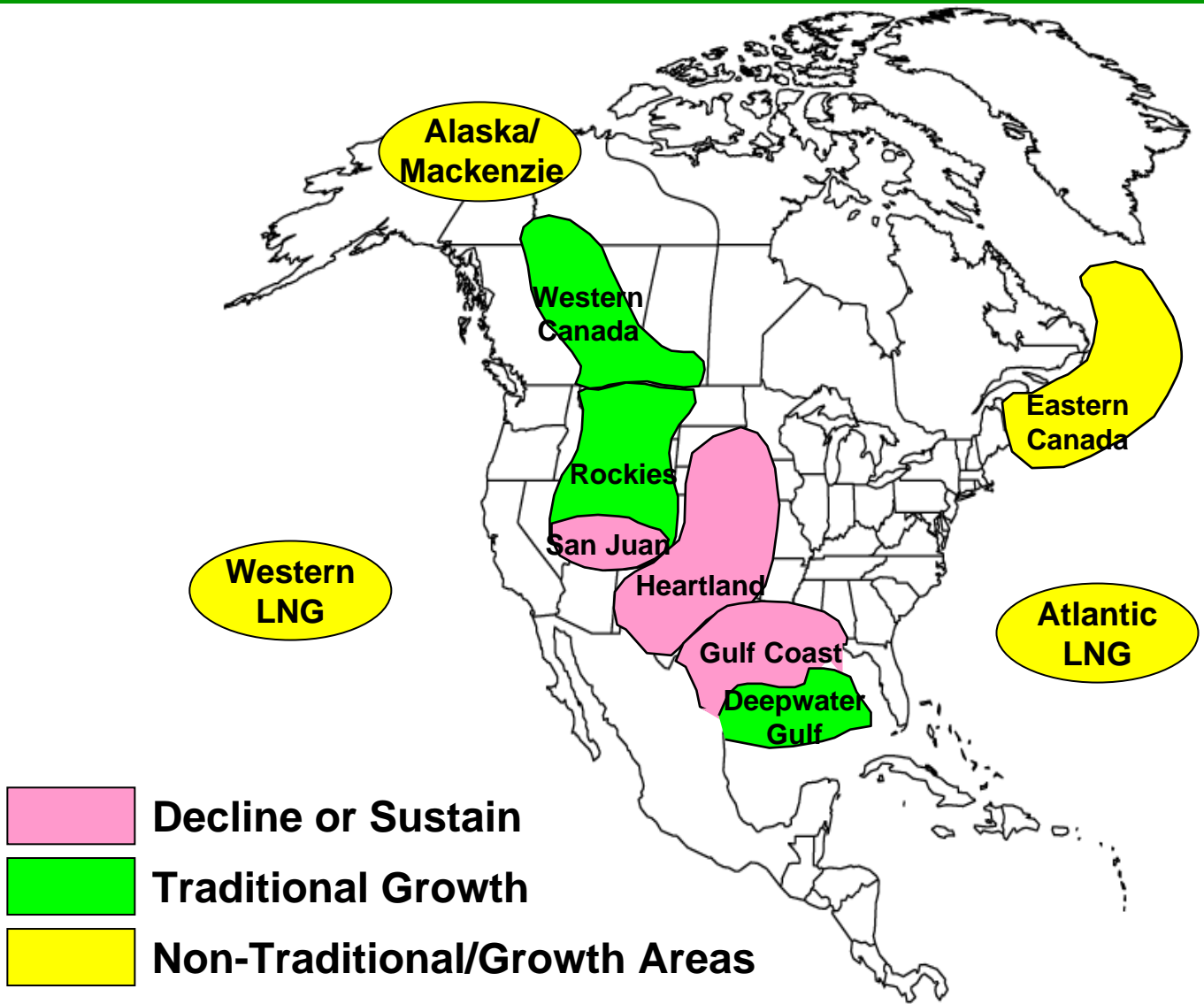
# U.S. Increased Reliance on Foreign Gas

## US Gas Supply 1970-2002

Note that Canadian gas imports decreased and LNG only 1% of total supply.



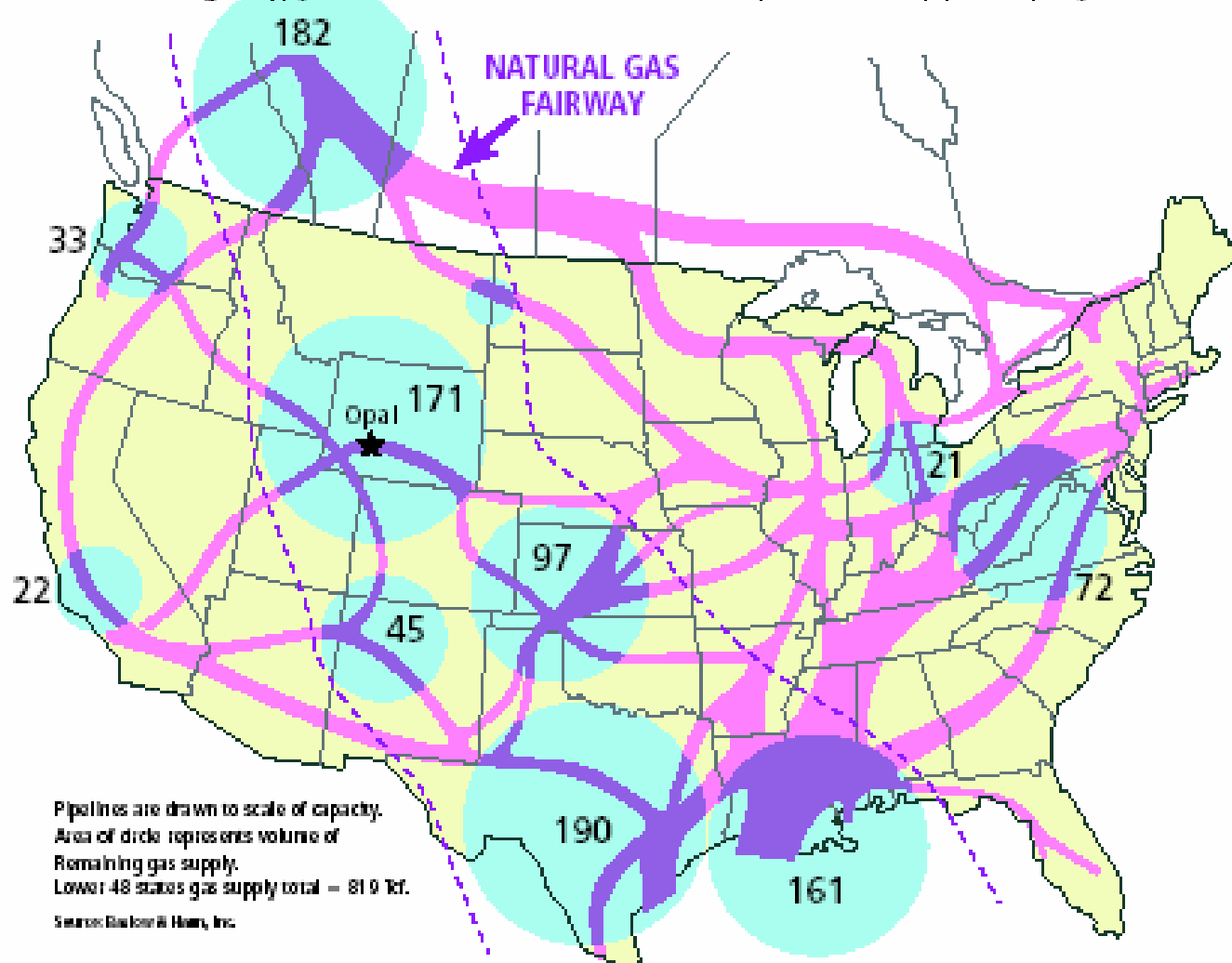
# Non-traditional and traditional supply sources are needed



# Areas to Develop

## NATURAL GAS PIPELINES AND VOLUME OF REMAINING SUPPLY (Tcf)

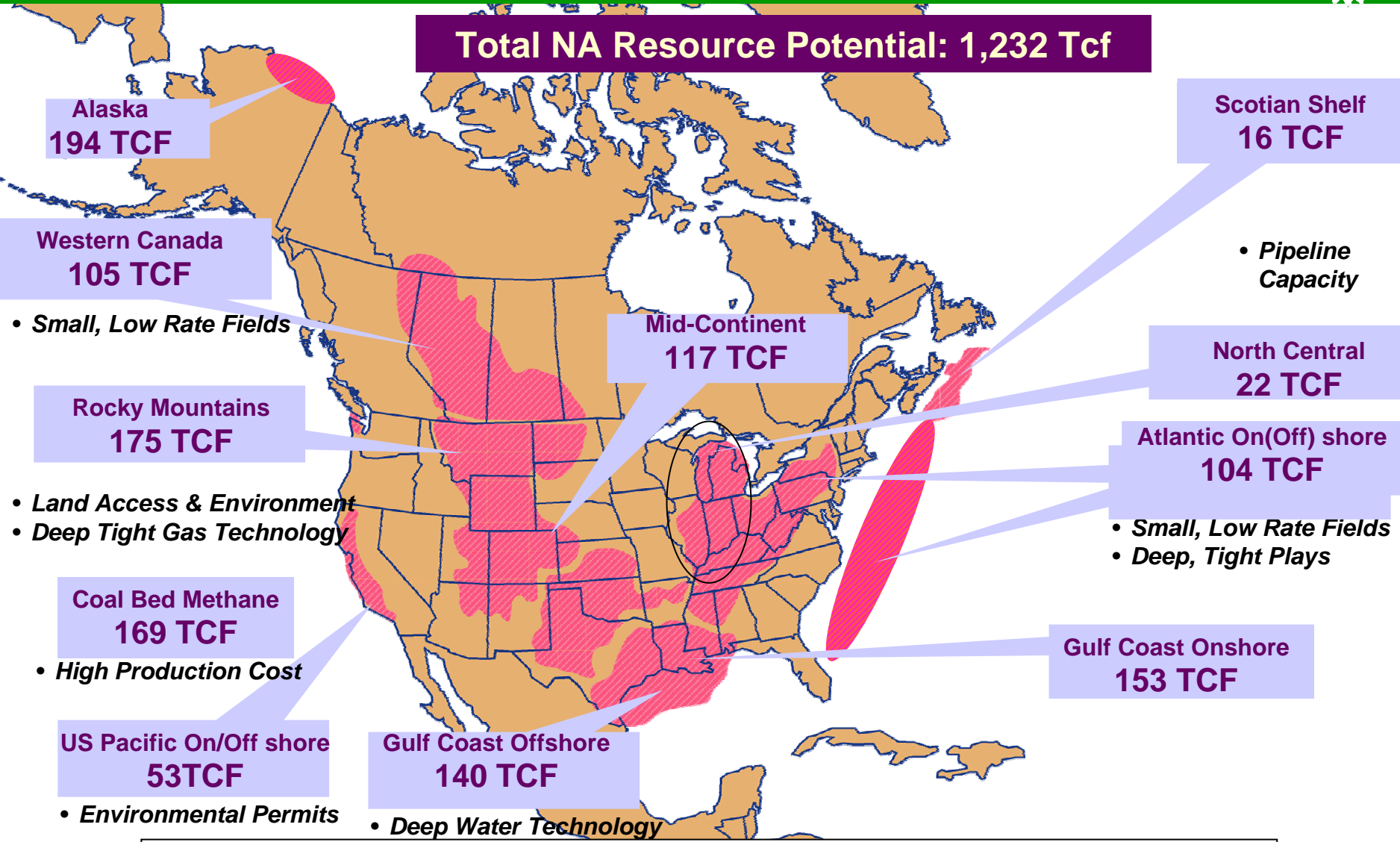
The pipeline system is underbuilt in relation to the natural gas resource in the Central Rocky Mountains.  
 This gas supply is underutilized and undervalued as a consequence of lack of pipeline capacity.



# NA Gas Resource Potential



**Total NA Resource Potential: 1,232 Tcf**

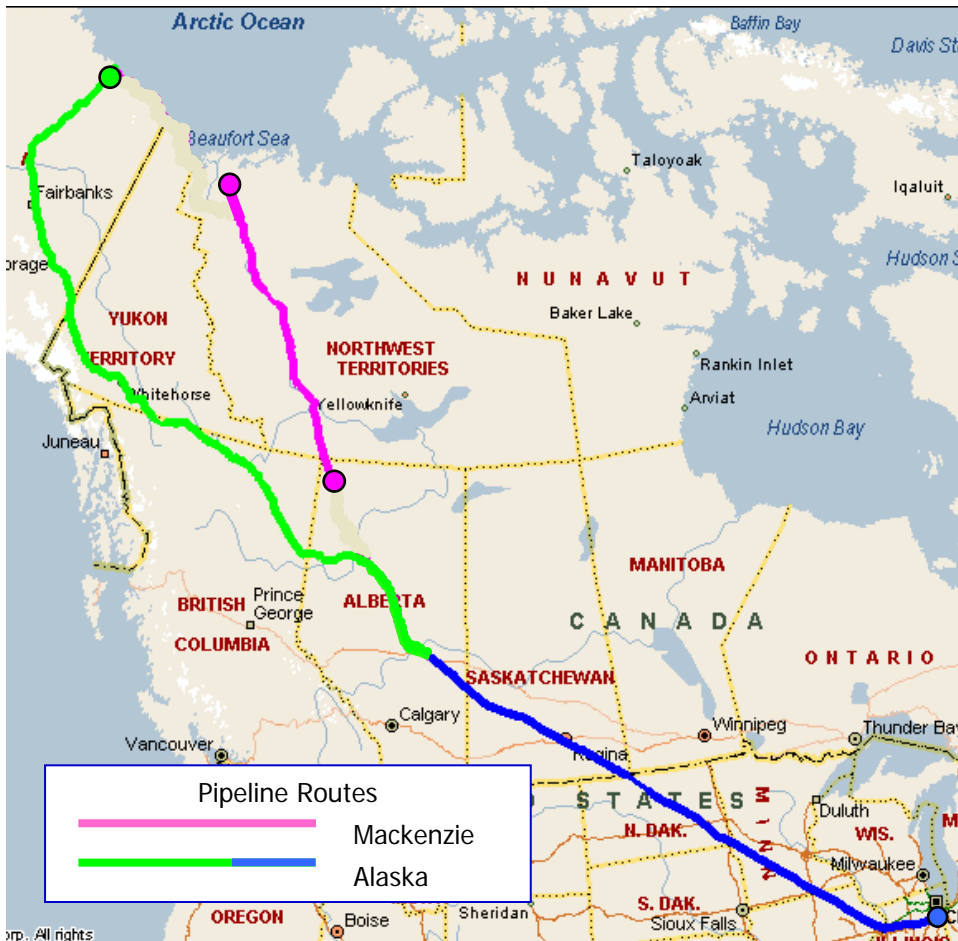


Resource potential is substantial, however technical and access hurdles remain

# Arctic Gas Can Close a Third of the Prospective Supply Gap



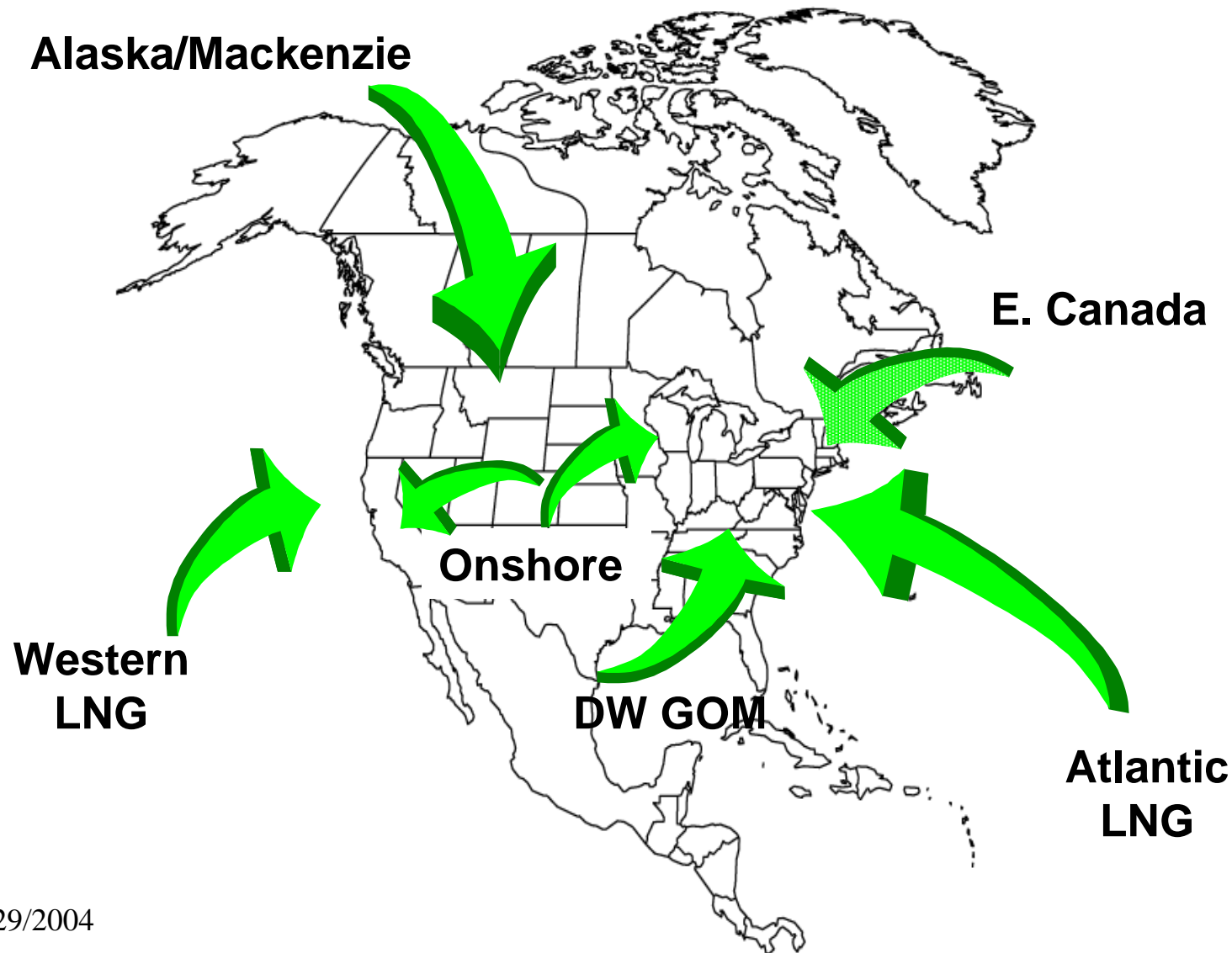
The Alaska & Mackenzie Gas Pipelines are the key basin-opening infrastructures



- Alaska's North Slope has substantial gas resources: 35 TCF discovered, 100 TCF potential
- Transportation is the main cost. A buried pipeline is the most efficient way to market
- Both Northern and Southern routes were studied and could be safely built and operated.
- Costs approximately \$20 billion to build a 4.5 bcfd pipeline with expansion capability to 5.6 bcfd
- Toll to U.S. markets is approximately \$2.40/mcf



# BP -- Part of the Solution



# What BP is Doing to Enhance Gas Supplies



- Investing more than \$1 billion in 2003 to maintain and increase gas production in the traditional and growth areas in the U.S.
- Initiating new LNG production in Trinidad with US as its natural market
- Actively pursuing re-gas terminals on the east coast
- Supporting new pipelines from the Rockies and San Juan to deliver gas from that area (Cheyenne Plains Pipeline, Kern River Pipeline, and others)
- Pursuing an Alaska pipeline project
- And we are adopting conservation and efficiency measures in our own manufacturing operations.

# BP As Part of the Solution



- More specifically, we are investing heavily in existing producing areas in Texas, Louisiana, New Mexico, Oklahoma, and Kansas.
  - In 2003 we have begun a multi year well drilling program, investing \$140-\$150 million, and expecting to drill some 300 wells.
- In a similar program, in the Northern Rockies, in 2003, we expect to drill 121 new wells with a budget of over \$133 million.
- BP is a leader in deep water drilling, with a vital stake in deep water Gulf of Mexico drilling.

# In Summary



- Even though there are a number of challenges- the market is working and is the most efficient way of meeting them.
- In the short term there are steps that producers, consumers, regulators and government take..
- While the temptation is to focus solely on the short term, we need to address the longer term issues. Government policy needs to address the long term issues..
- BP is a major part of the solution to meet customer energy needs.

# State Governments Play Vital Role



- State governments
  - Regulate locations and grant permits for gas wells, gathering lines, processing plants
  - Establish safety regulations and enforce environmental regulations
  - Tax production and often personal property used in production.
  - BP works closely with state governments as we provide energy resources.

# What State Governments Can Do



## States can:

- Assure that state agencies allow regulated utilities to manage risk in gas purchases to help avoid consumer price spikes.
- Work with local & Federal agencies to expedite permitting of LNG facilities, natural gas wells, plants and pipelines in an environmentally responsible manner.
- Develop state tax policies that encourage the use of solar and wind energy, and conservation.
- Monitor and participate in FERC activities to encourage additional pipelines and producer access to pipeline capacity.
- Producing states can encourage investment in mature producing areas with tax incentives for production from marginal wells, high cost wells, and wells that use 3D/4D technology.

# Federal Energy Policy Should:



- Include Alaska Gas Pipeline & allow the development of arctic gas.
- Allow natural gas development on federal lands with untapped resource potential and where development can occur consistent with environmental values.
- Provide an efficient process for making decisions on permit applications and resolving conflicts.
- Provide tax incentives for infrastructure development.
- Provide tax incentives for alternate energy like solar and wind generation.

# Natural Gas Supply/Demand



Natural gas remains a preferred source of energy.

There are adequate reserves in North America, if they can be developed and delivered.

Government policy should encourage development in an environmentally safe manner.

The market place will continue to respond to changing conditions.

BP is part of the solution and will continue to invest in bringing gas to consumers in the U. S.