

Regional Perspectives on Natural Gas Supply and Demand

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Comisión Reguladora de Energía

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I. Natural Gas Market

2003 highlights of the Mexican Gas Industry



1. Natural Gas production ✎ 4.49 bcfd

2. Natural Gas imports ✎ 0.76 bcfd

3. Natural Gas consumption ✎ 5.25 bcfd

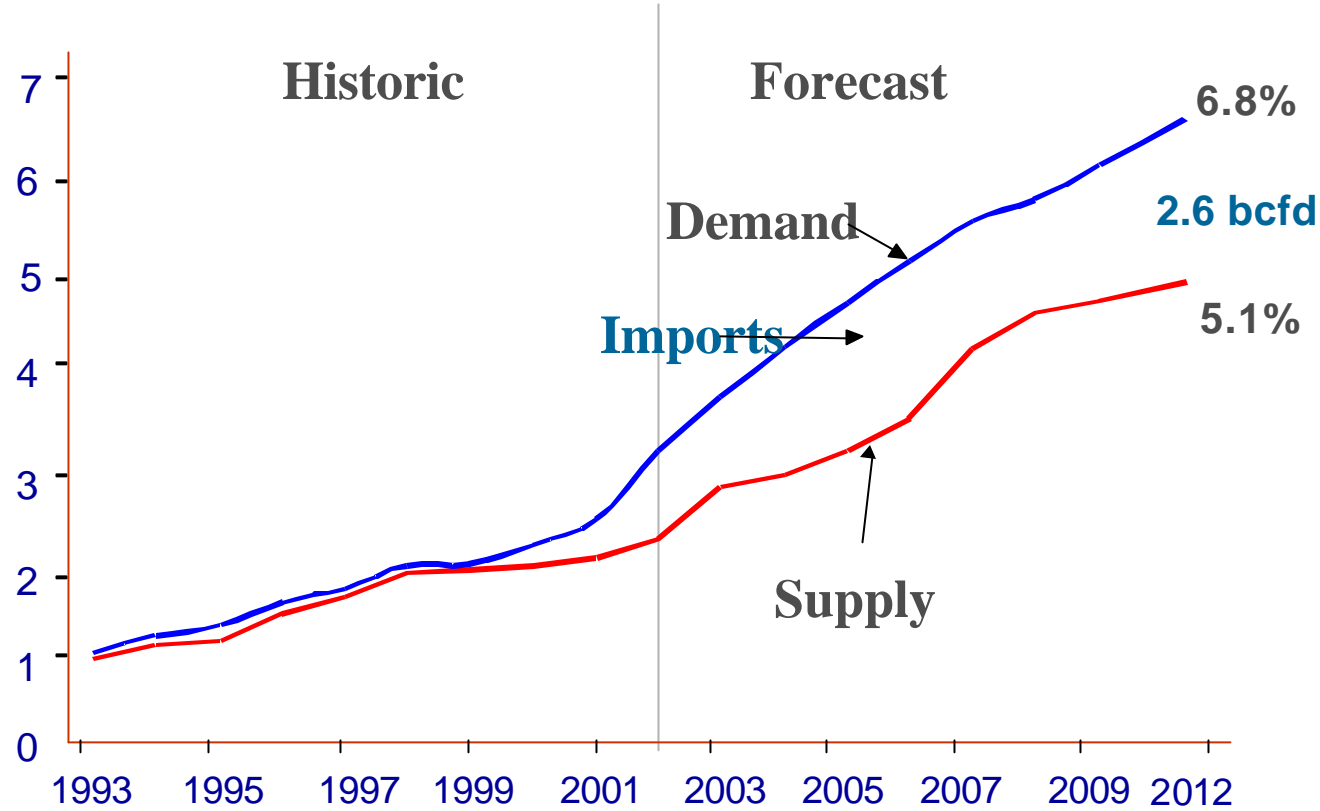
Power Generation	35%	Industry	22%
Pemex	41%	Other	2%

4. Until 2003 the 138 total permits granted by CRE represents 4.98 billion dollars in investment commitments for storage, transportation & distribution

Source: Pemex, Ministry of Energy & CRE

Natural Gas Challenges in Mexico

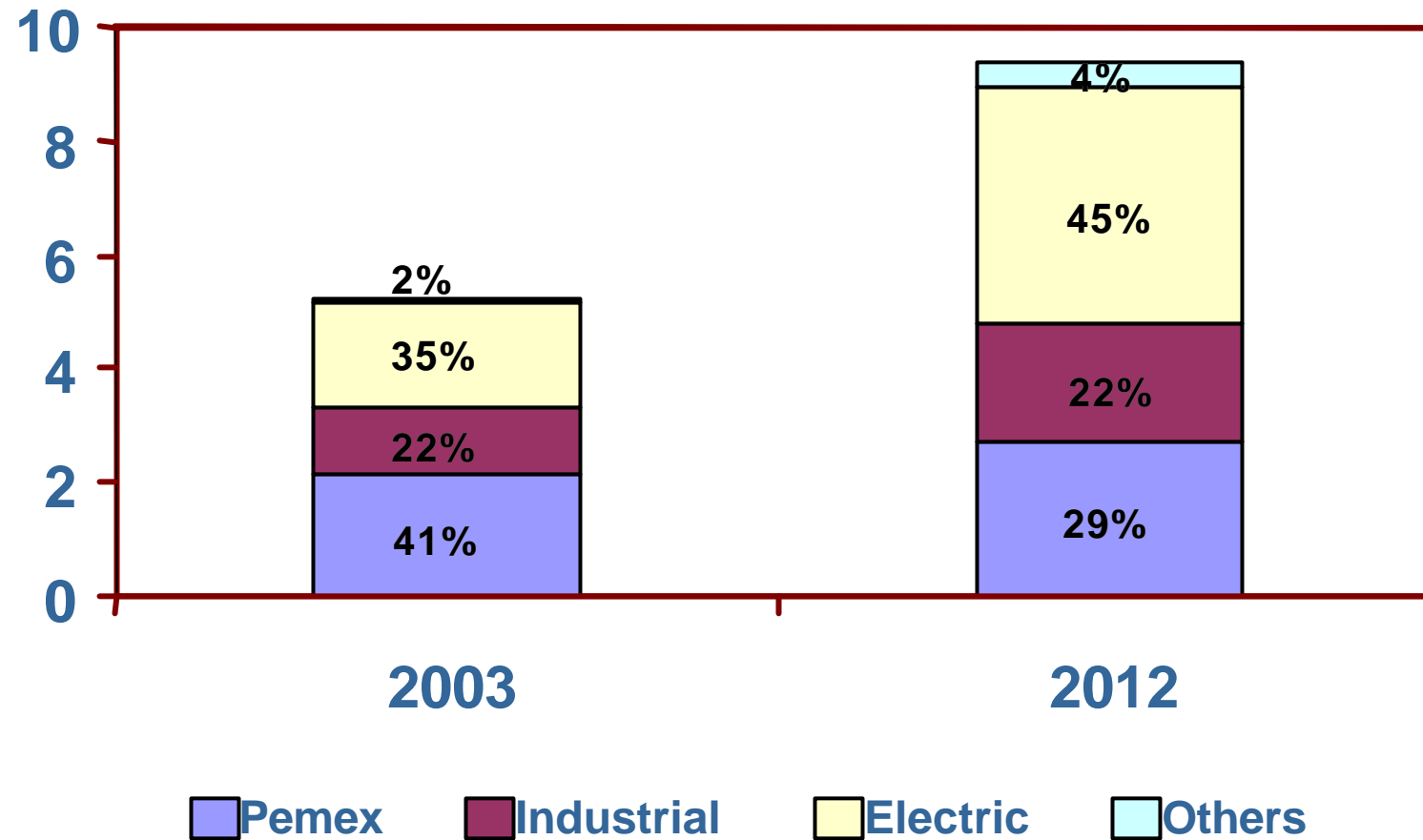
In the next ten years demand for Natural Gas will increase 6.8% annually while supply will grow at a rate of 5.1%



*Source: Natural Gas Prospective, Ministry of Energy, Mexico 2003

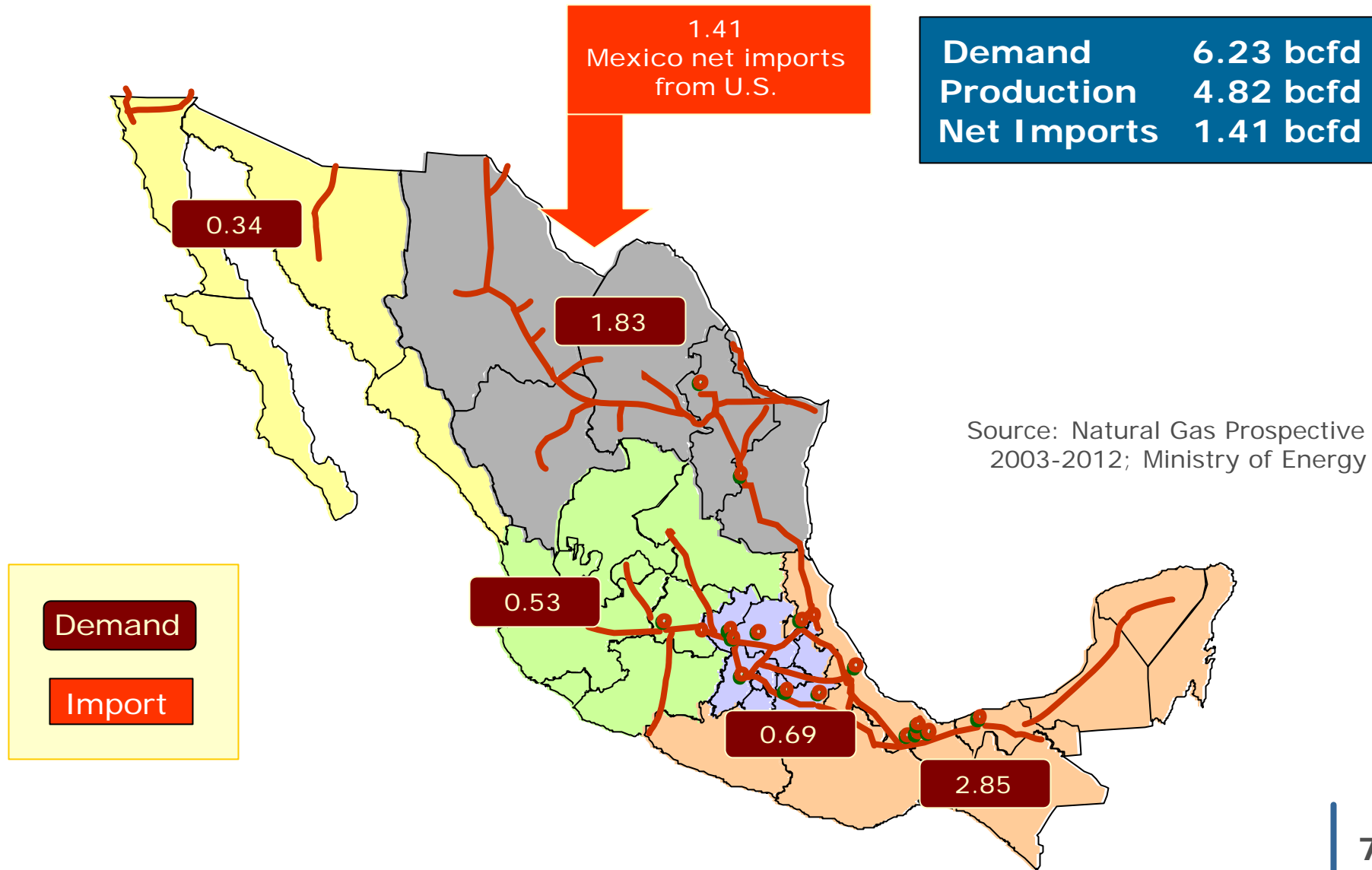
To meet growing demand Mexico needs to increase production and further diversify imports

Mexico's Energy Sector Demand (2002-2012)

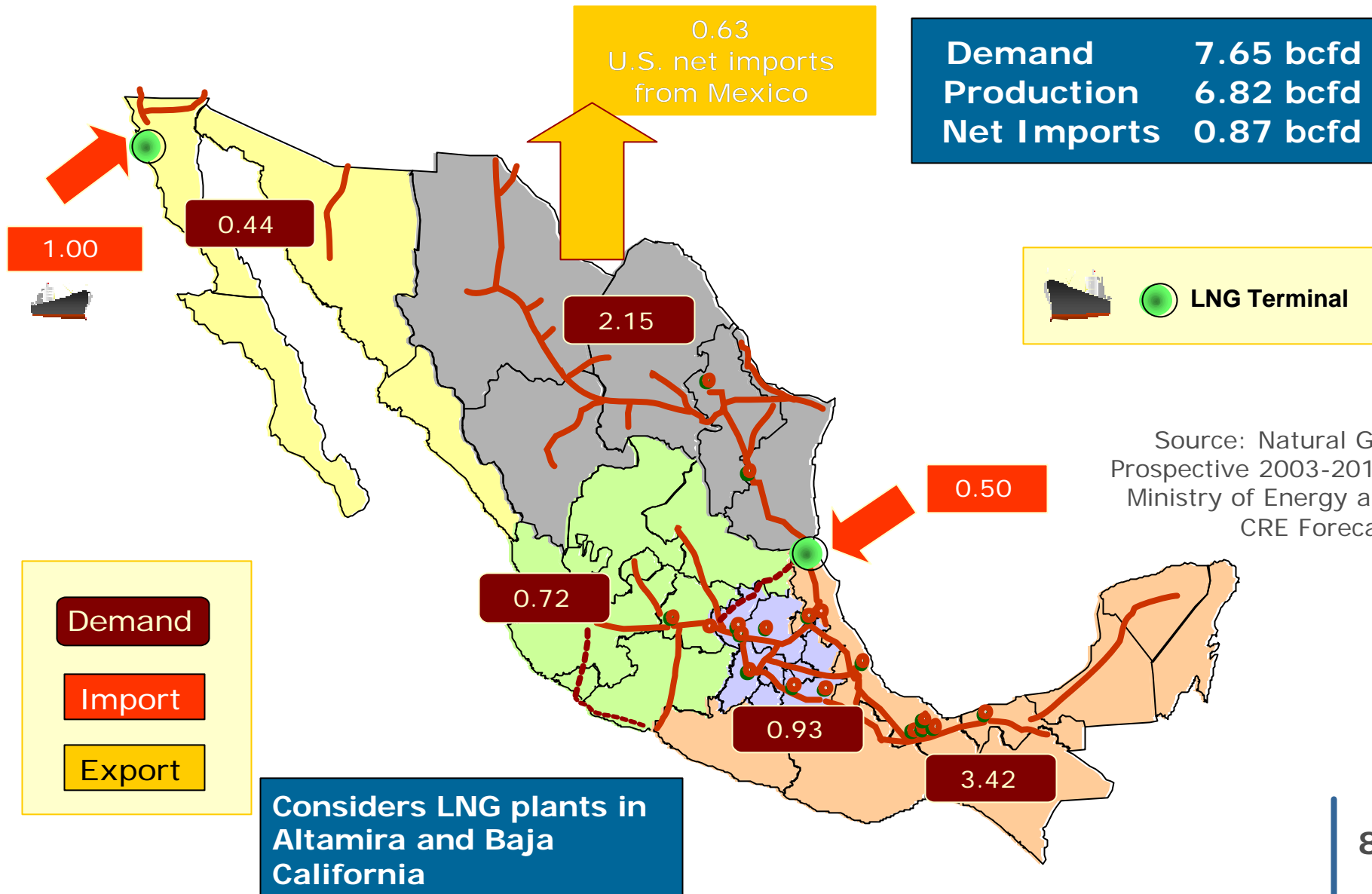


Source: Natural Gas Prospective, Ministry of Energy, Mexico 2003

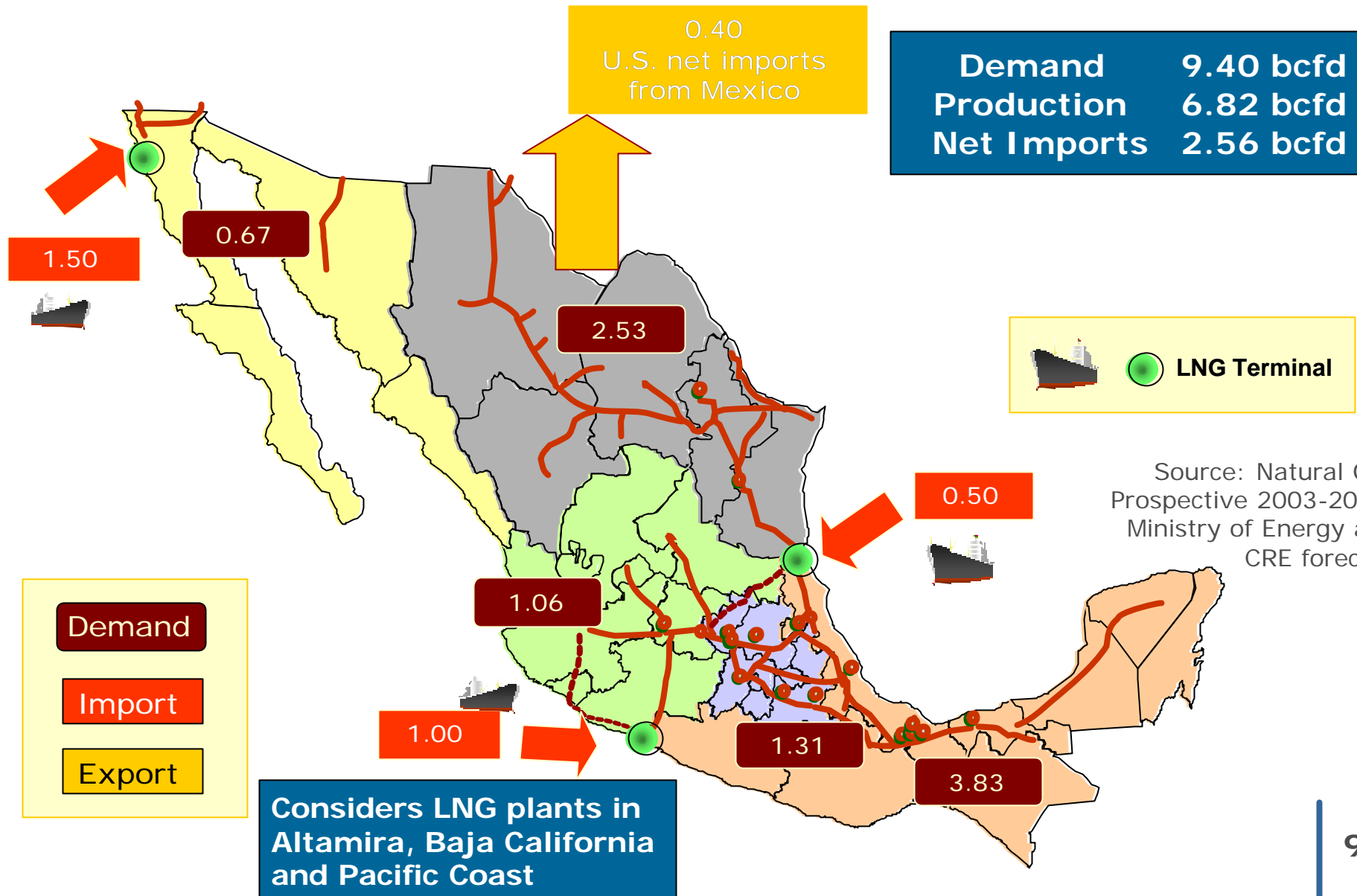
Natural Gas Balance – 2004



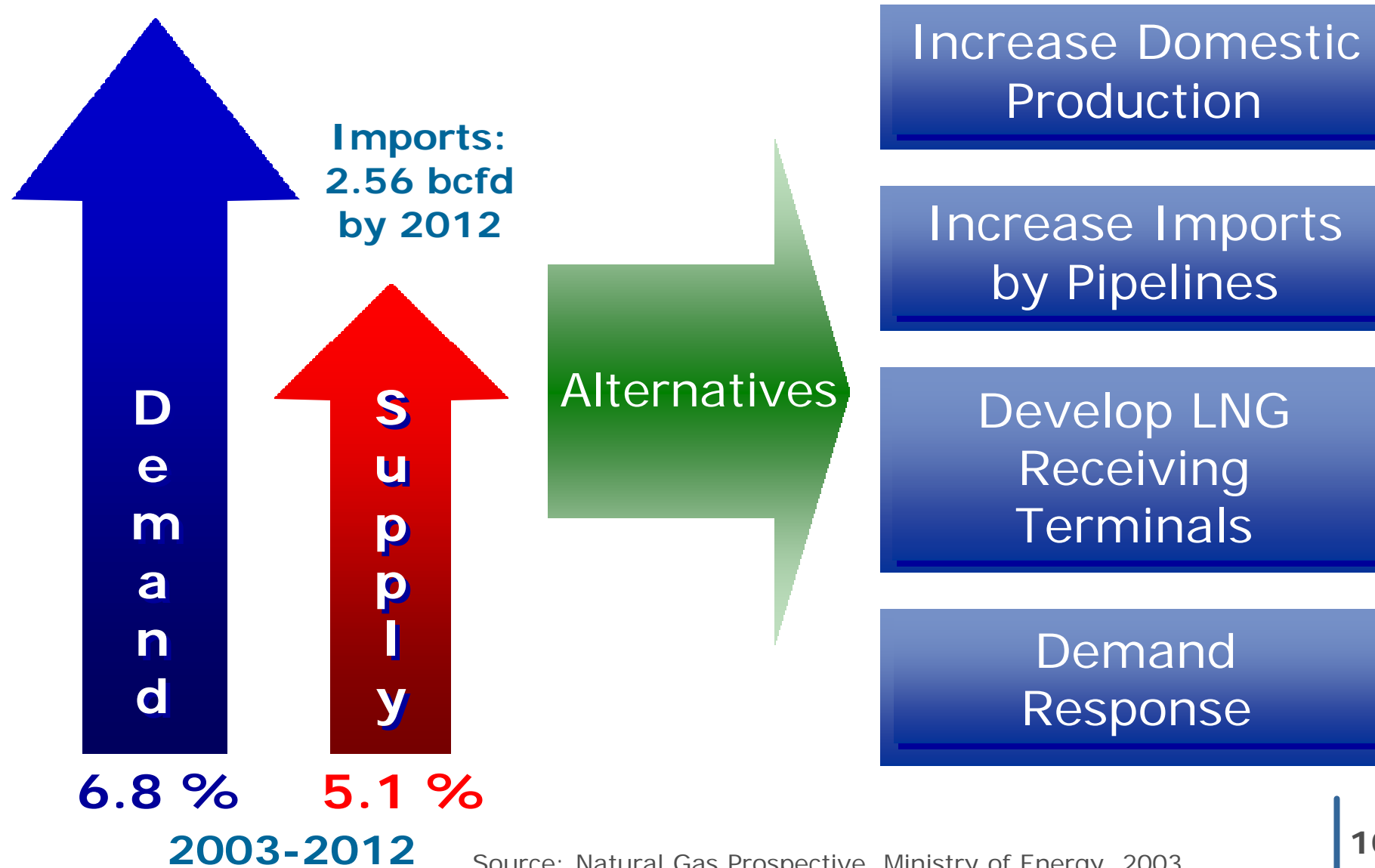
Natural Gas Balance – 2007 (Prospective)



Natural Gas Balance – 2012 (Prospective)



Natural Gas Challenges in Mexico

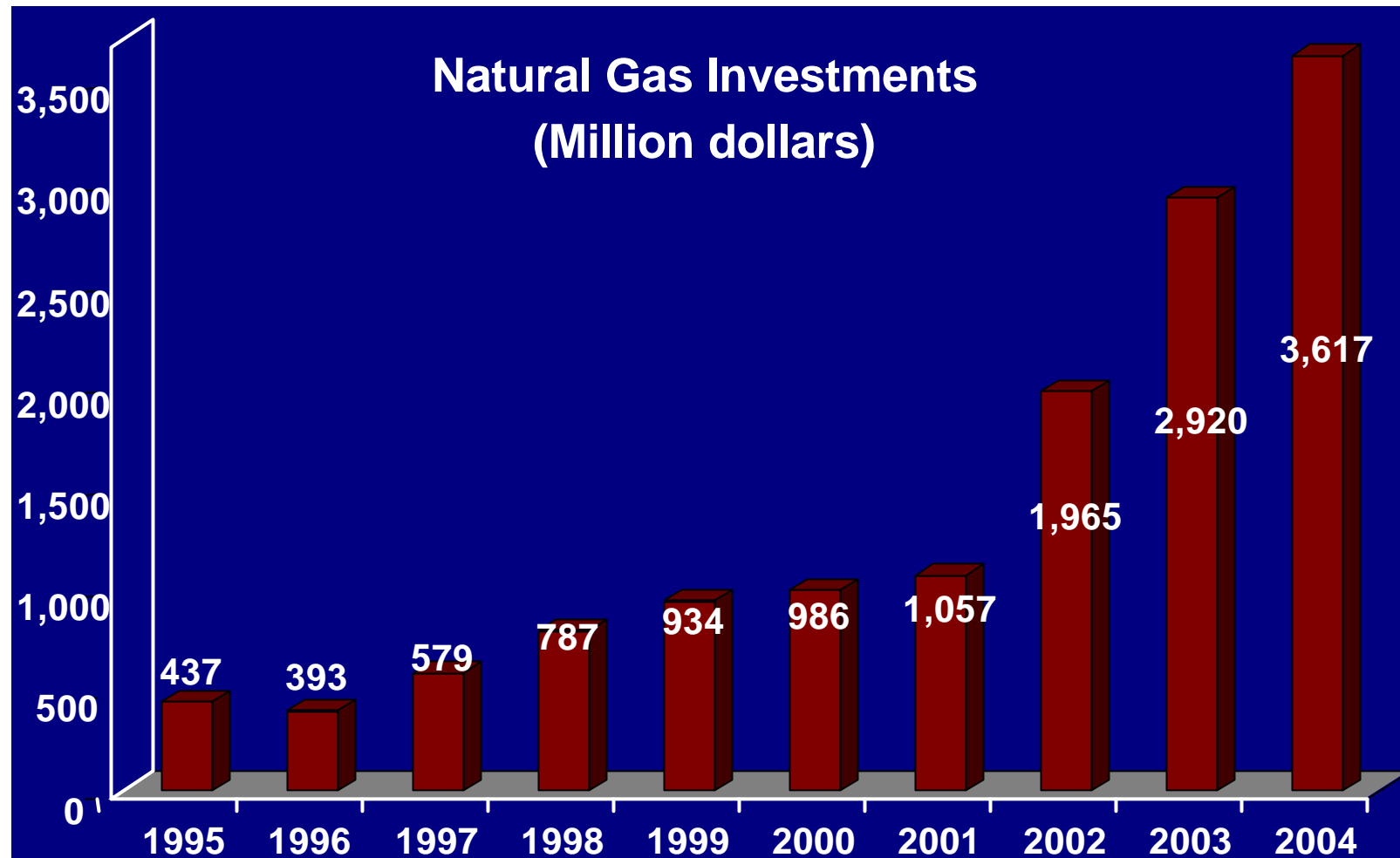


Source: Natural Gas Prospective, Ministry of Energy, 2003

Natural Gas Required Investments



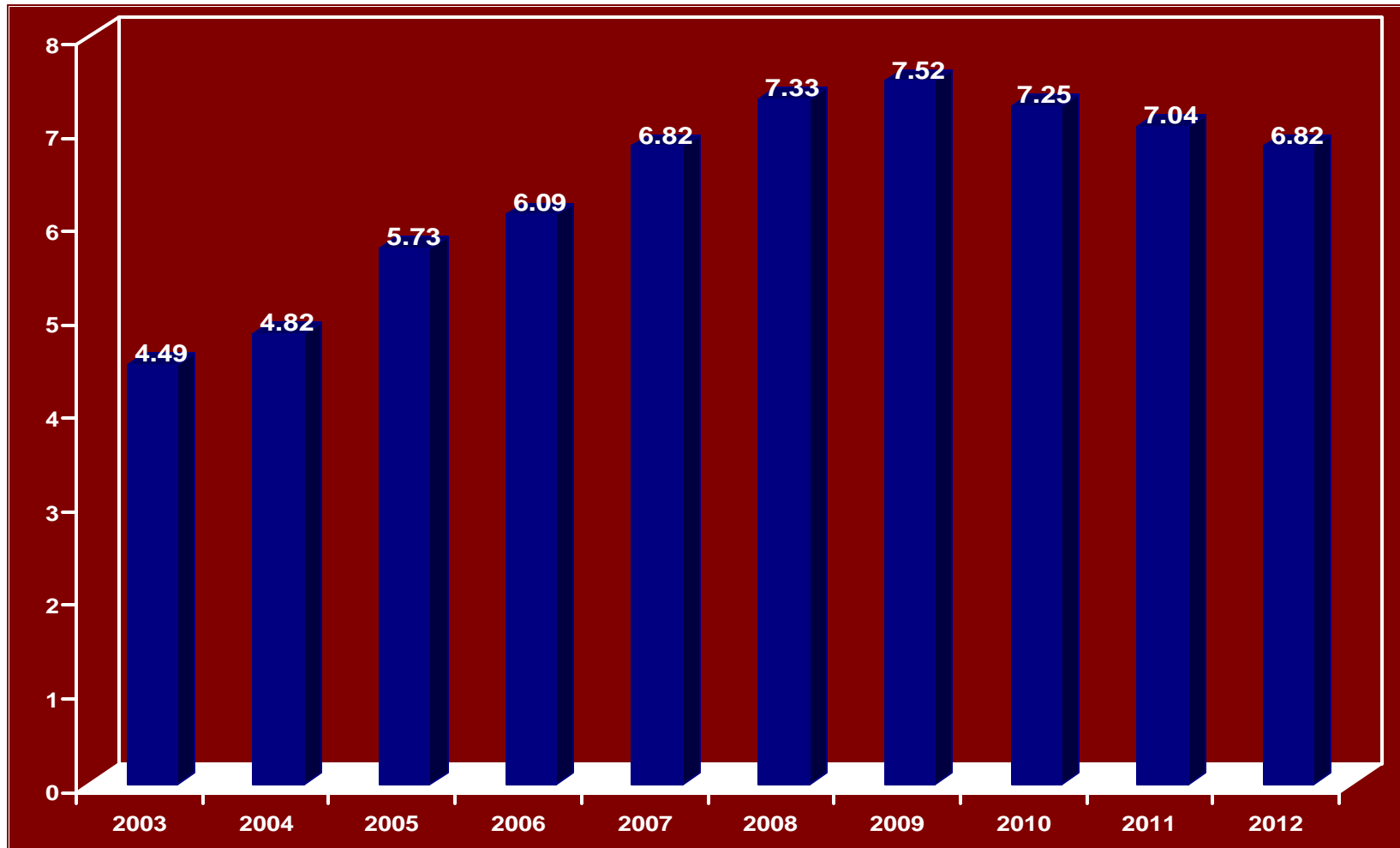
- Over the last 10 years the investments in the natural gas sector has increased in average 26% (13,675 million dollars)



Natural Gas Production (2003-2012)



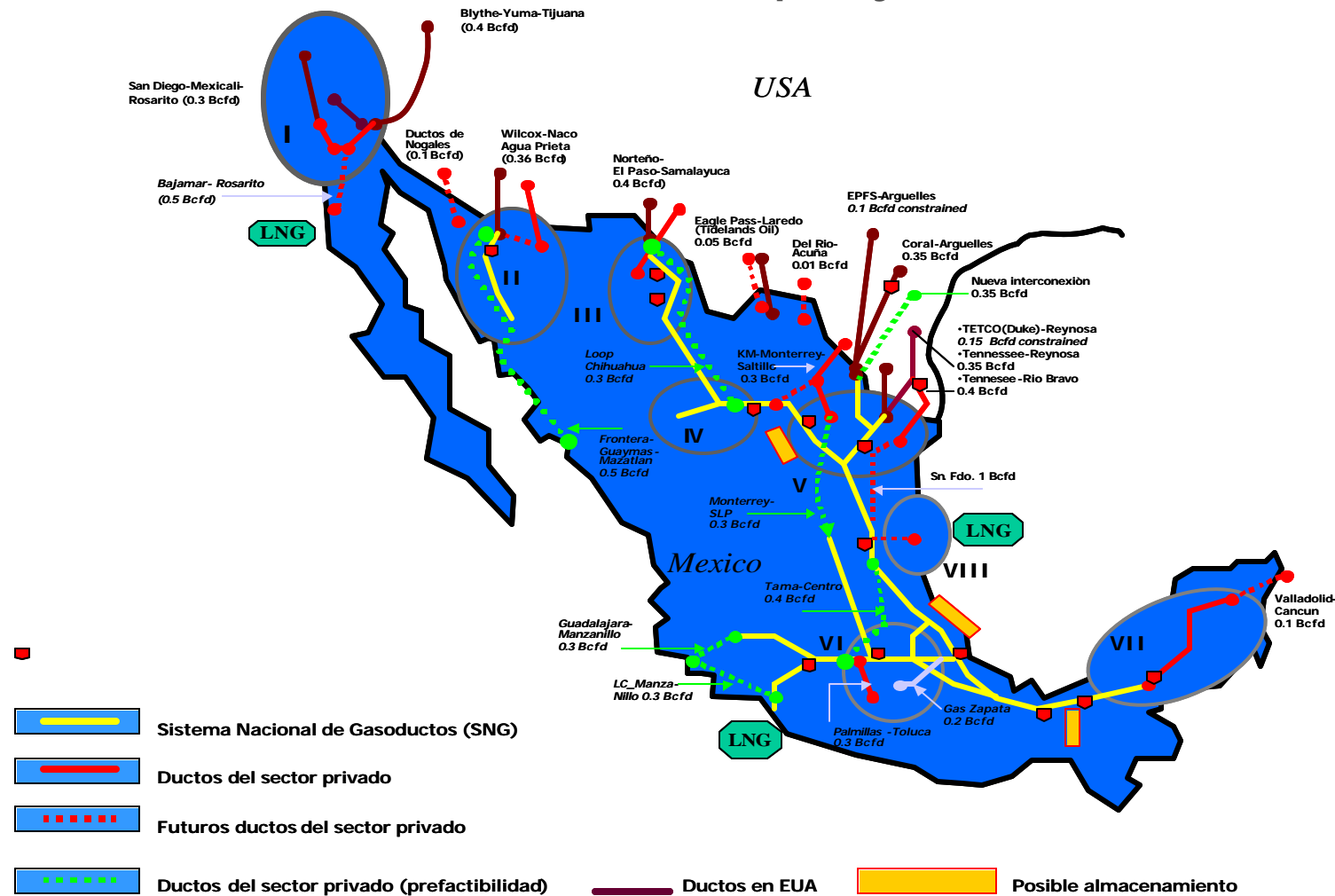
For the next 10 years the production will increase in 5% in average (66.91 bcfd)



Pipeline Interconnection Infrastructure



✎ Fifteen interconnections between Mexico and the U.S. amount to 2.99 bcf/d of cross-border firm capacity.



II. LNG Projects in Mexico

LNG Storage Permits in Mexico

During 2003, the CRE granted 4 permits to build and operate LNG terminals in Mexico

- ✍ Three are located in Baja California and one in the Gulf of Mexico (Altamira, Tamps.)
- ✍ Total firm regasification capacity of 3.6 bcf/d and peak regasification capacity of 4.3 bcf/d
- ✍ Open access requirement on non-contracted capacity
- ✍ Storage and regasification activities subject to regulated tariffs
- ✍ Full containment tanks
- ✍ Benefits: Diversify sources of gas, press prices downwards and increase industry competitiveness

Currently CRE is evaluating an application for an offshore LNG terminal in Baja California

...LNG Storage Permits in Mexico

	Firms			
	Marathon ^{-/1}	Shell	Shell	Sempra
Location	Tijuana, B.C.	Altamira, Tamps.	Costa Azul, Ensenada, B.C.	Costa Azul, Ensenada, B.C.
Permit Issued	30-Abr-03	31-Jul-03	31-Jul-03	7-Ago-03
Estimated Investment (USD million) ^{-/2}	558	370	747	669
Storage Tanks	2	2	2	2
Storage Capacity (m³)	280,000	300,000	340,000	330,000
Throughput (MMcfd)	750-850	860 ^{-/3}	1 000-1 300	1 000-1 300
EOD ^{-/4}	2007	End of 2006	2007	2007
Possible Supply Sources	Indonesia, Malaysia	Nigeria, Trinidad and Tobago, Algeria, Qatar	Australia, Russia	Bolivia, Australia, Indonesia, Malaysia
Environmental Impact	No	Yes	Yes	Yes
Land Use Permit	No	Yes	No	Yes
CRE's Storage Permit	Yes	Yes	Yes	Yes

^{-/1} The project includes the construction of a wastewater treatment plant, a desalination plant and a power generation plant with a capacity of 1,000 MW

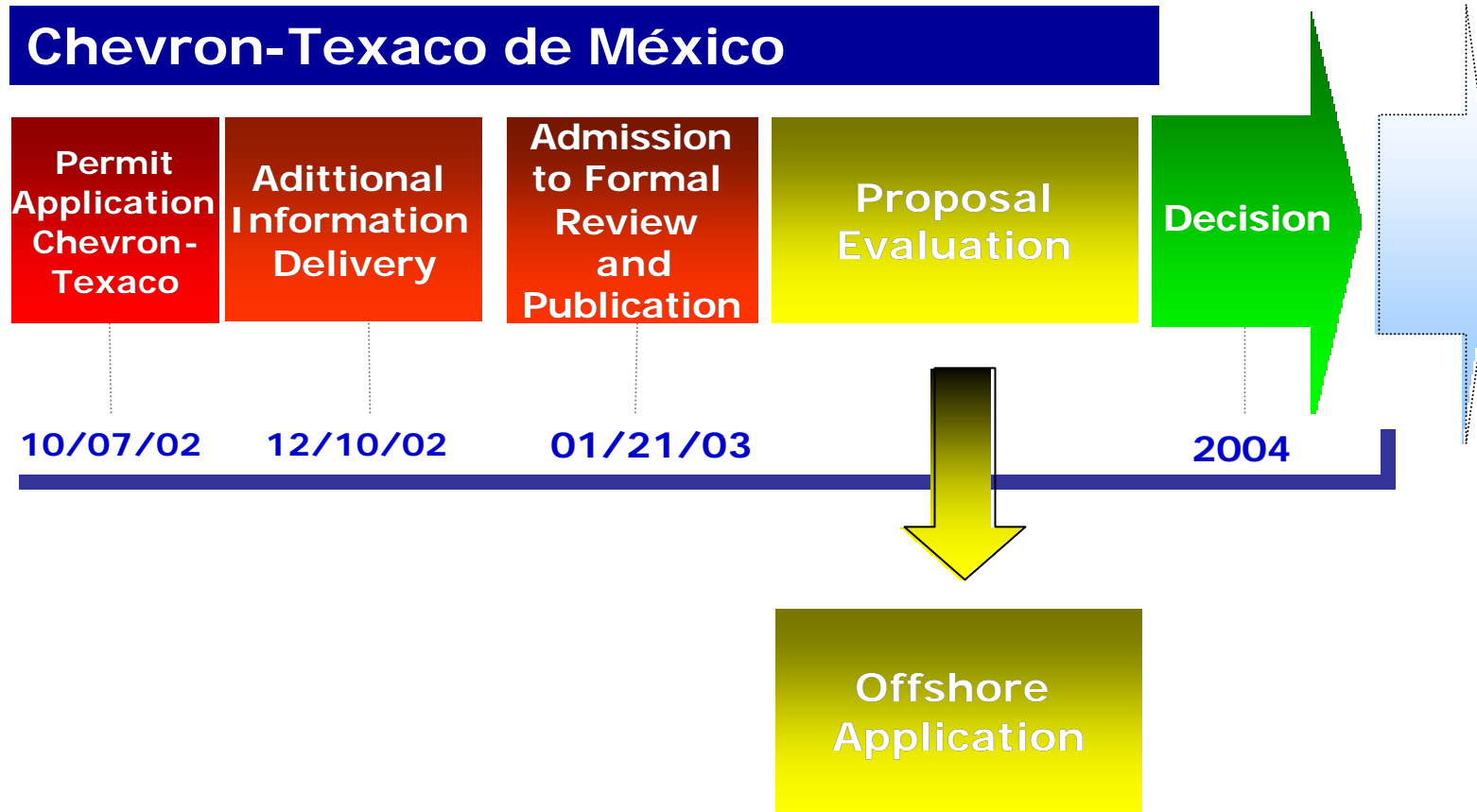
^{-/2} Estimated preliminary figures

^{-/3} Peak capacity of the system

^{-/4} Estimated operation date

Offshore LNG Application

- On July 29, 2003 ChevronTexaco submitted a modification regarding the site for the LNG storage facility to place it in the Pacific Ocean, nearby the Coronado Islands



III. Final Remarks

Final Remarks

- Natural Gas Demand in Mexico is growing faster than Supply
- To meet Demand, the Federal Government is promoting:
 - ✍ Program to increase Supply
 - ✍ Pipeline infrastructure development
 - ✍ LNG Storage Terminals
- LNG regulatory framework is in place and allows the development of these projects
- The CRE has granted four LNG Storage Permits, is evaluating one more, and expects to receive more applications in the near future

www.cre.gob.mx