



**CRE**

COMISION  
REGULADORA  
DE ENERGIA

LNG: When East Meets West  
LNG Express

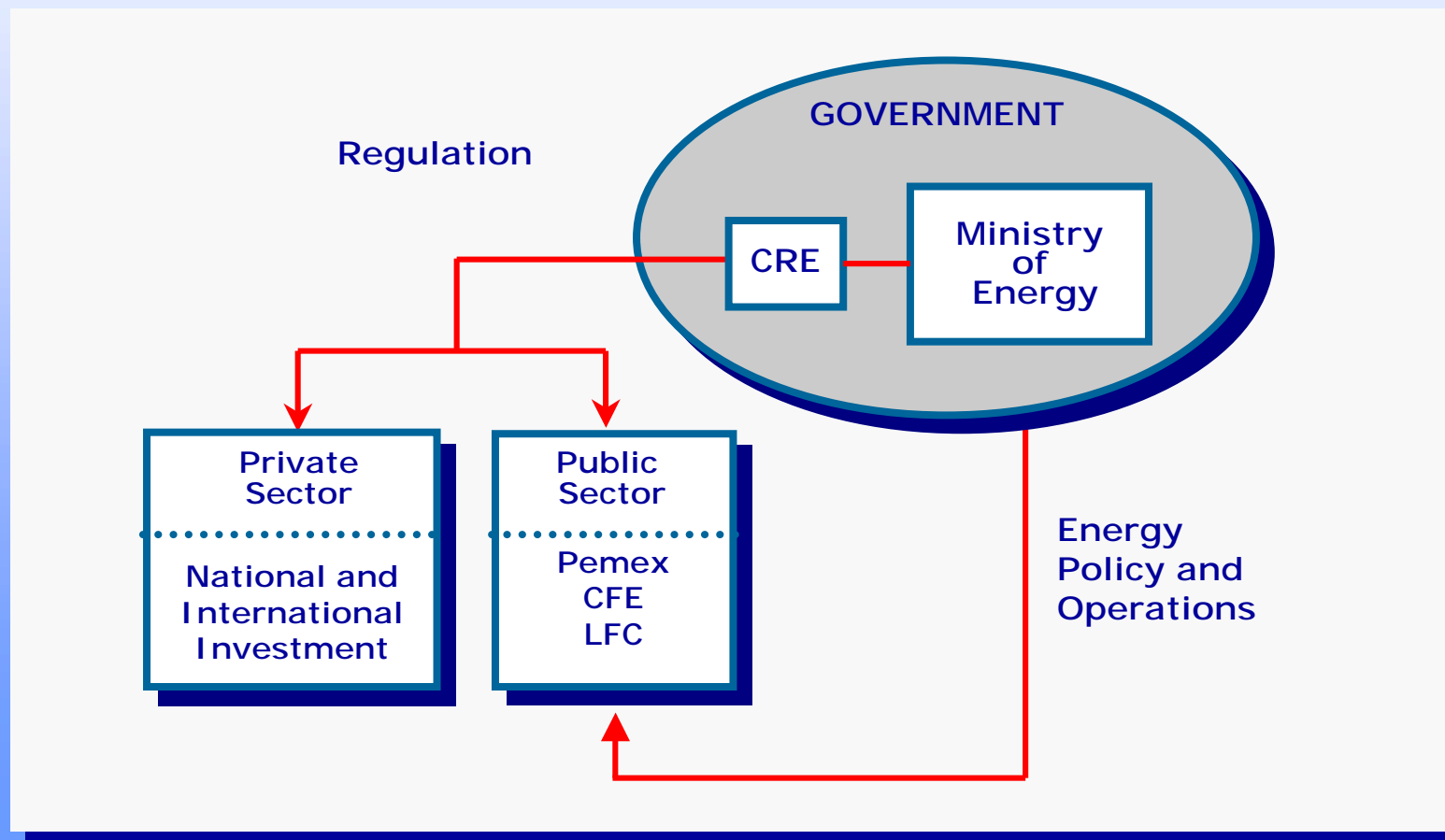
# **Introduction of LNG into Mexico: Regulatory Issues to Consider**

April 25, 2003  
Long Beach, California

- I. Regulatory Framework
- II. Natural Gas Market
- III. LNG Projects in Mexico
- IV. Final Remarks

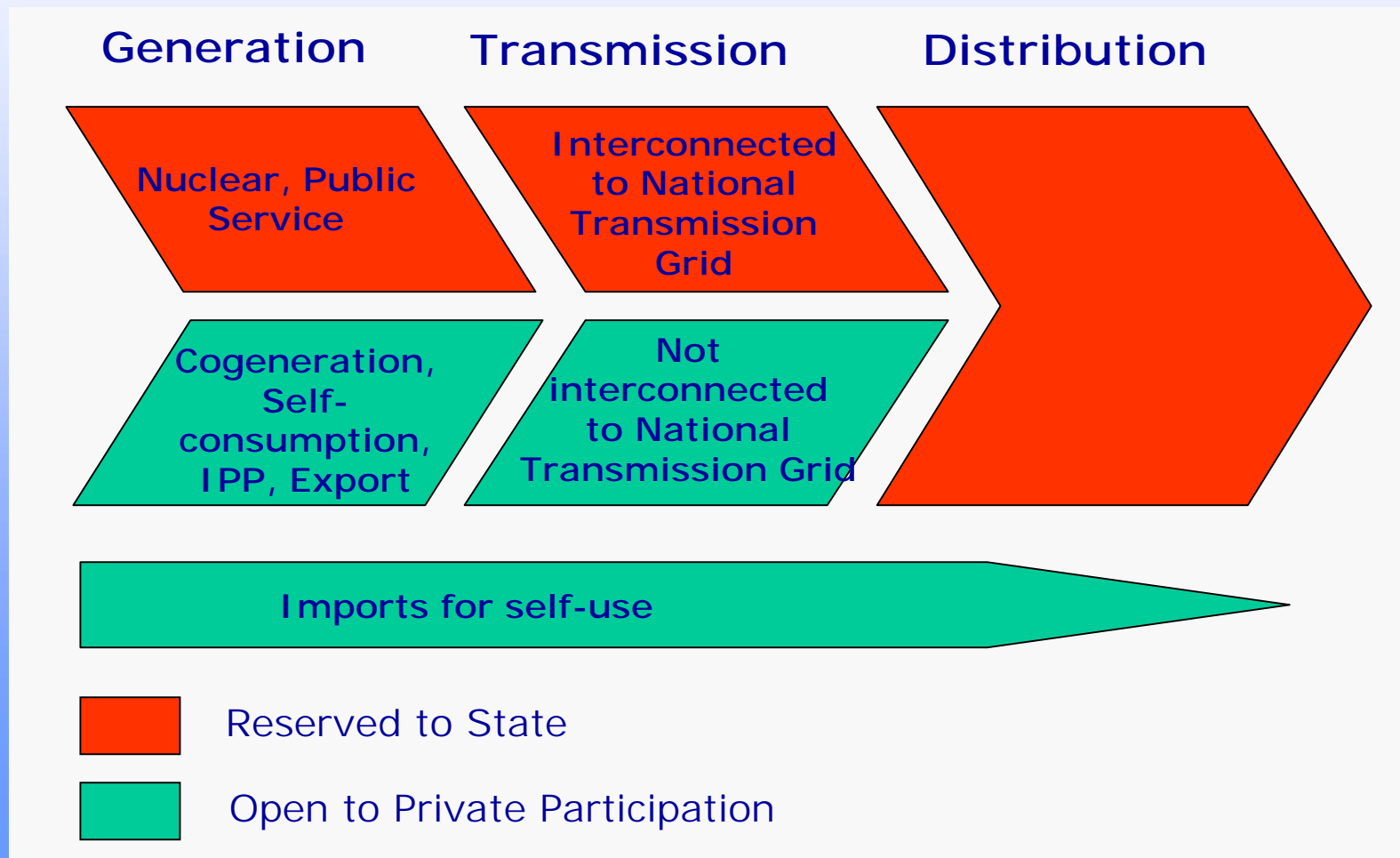
# I. Regulatory Framework

- The Energy Regulatory Commission (CRE) is the body responsible for regulating public and private activities in the electricity and natural gas industries



# Activities Open to Private Participation

- Since 1992, private companies can generate or import electricity

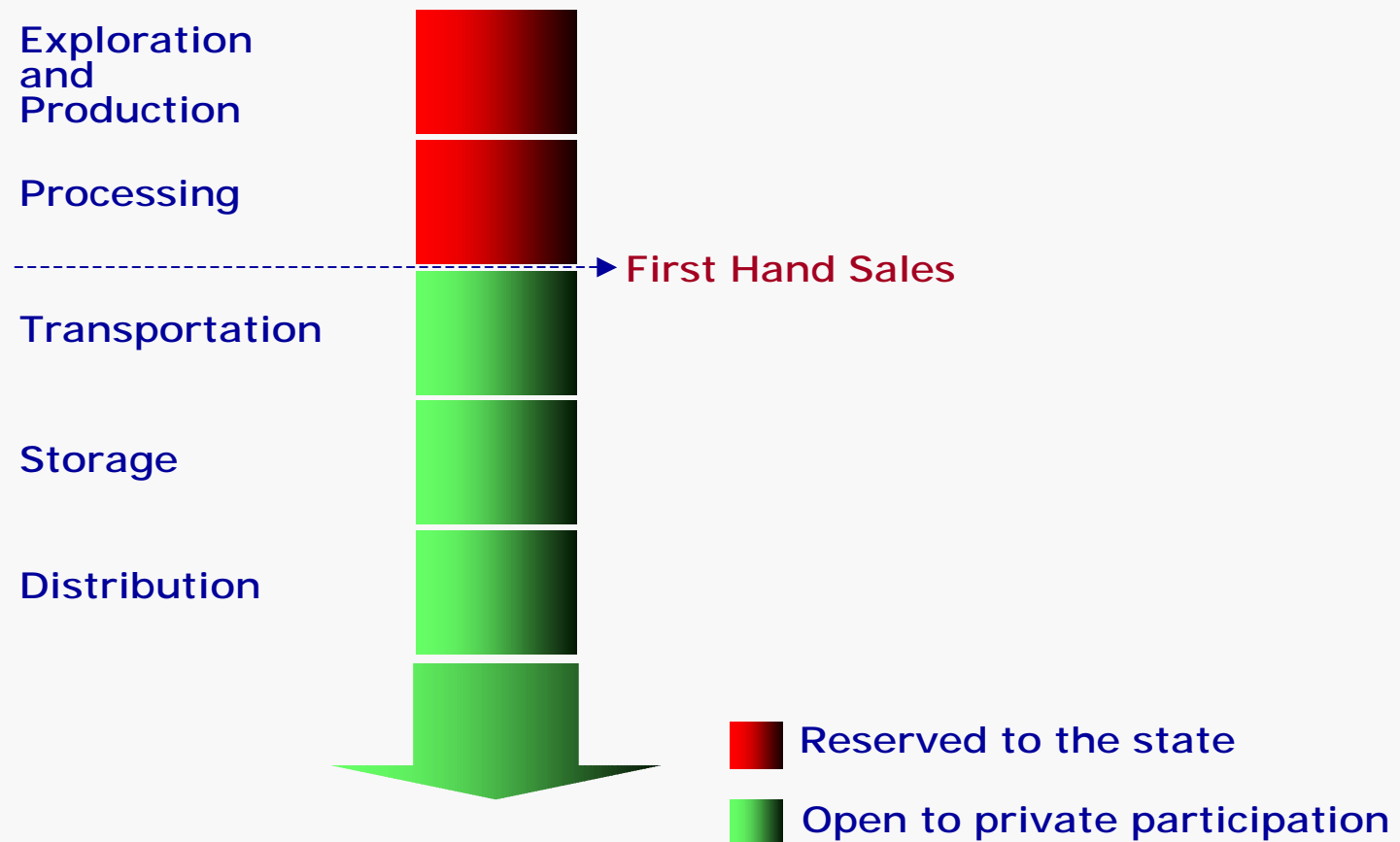


- Since 1994, the CRE has granted 214 Power related permits for a total capacity of 19,733 MW

Type	Permits	Capacity (MW)	Investment (USD million)
Self-Supply	153	6,310	4,581
Cogeneration	35	2,158	1,204
IPP's	17	9,277	5,102
Import	7	41	12
Export	6	2,186	1,388
<b>TOTAL</b>	<b>218</b>	<b>19,973</b>	<b>12,288</b>

# Activities Open to Private Participation

- Since 1995 downstream activities are open to private investment



- The CRE has granted 123 permits that represent more than USD 2.5 billion in investment commitments in the Natural Gas Industry

Type	Permits	Length (miles)	Estimated Investment (million USD)
Transport	102	7,180	1,588
Open Access	16	6,790	1,385
Self-use	86	390	203
Distribution	21	16,311	988
TOTAL	123	23,491	2,576



# Pemex's Transmission and Private Open Access Pipeline



# Natural Gas Geographical Distribution Zones



## II. Natural Gas Market

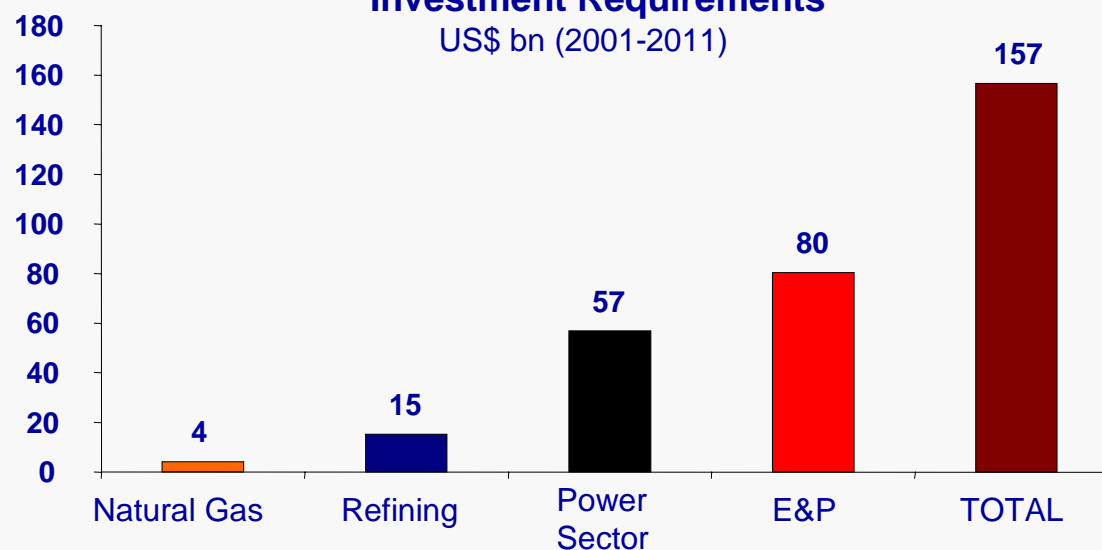
# Balance in the Energy Sector (1992-2011) and Investment Requirements

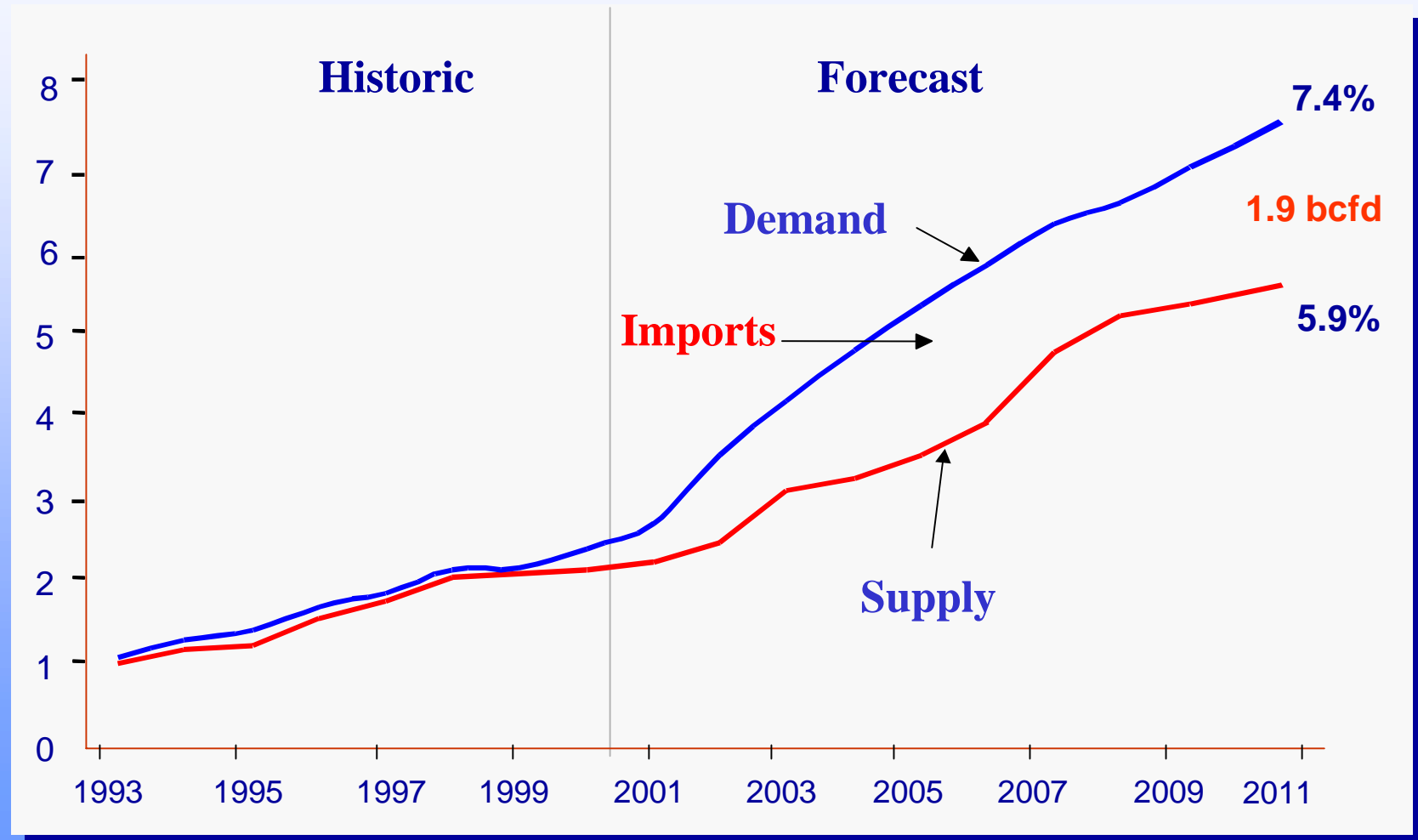
## Supply-Demand of energy products in Mexico (average annual percent change)

	History		Prospective	
	1992-2001		2002-2011	
	Domestic Demand	Domestic Supply	Domestic Demand	Domestic Supply
Electricity	5.1	5.2	5.6	5.7
Natural Gas	4.7	4.8	7.4	5.9
Natural Gas (Excluding Pemex)	1.9	2.8	10.2	8.4
LPG	4.2	2.7	3.0	3.1

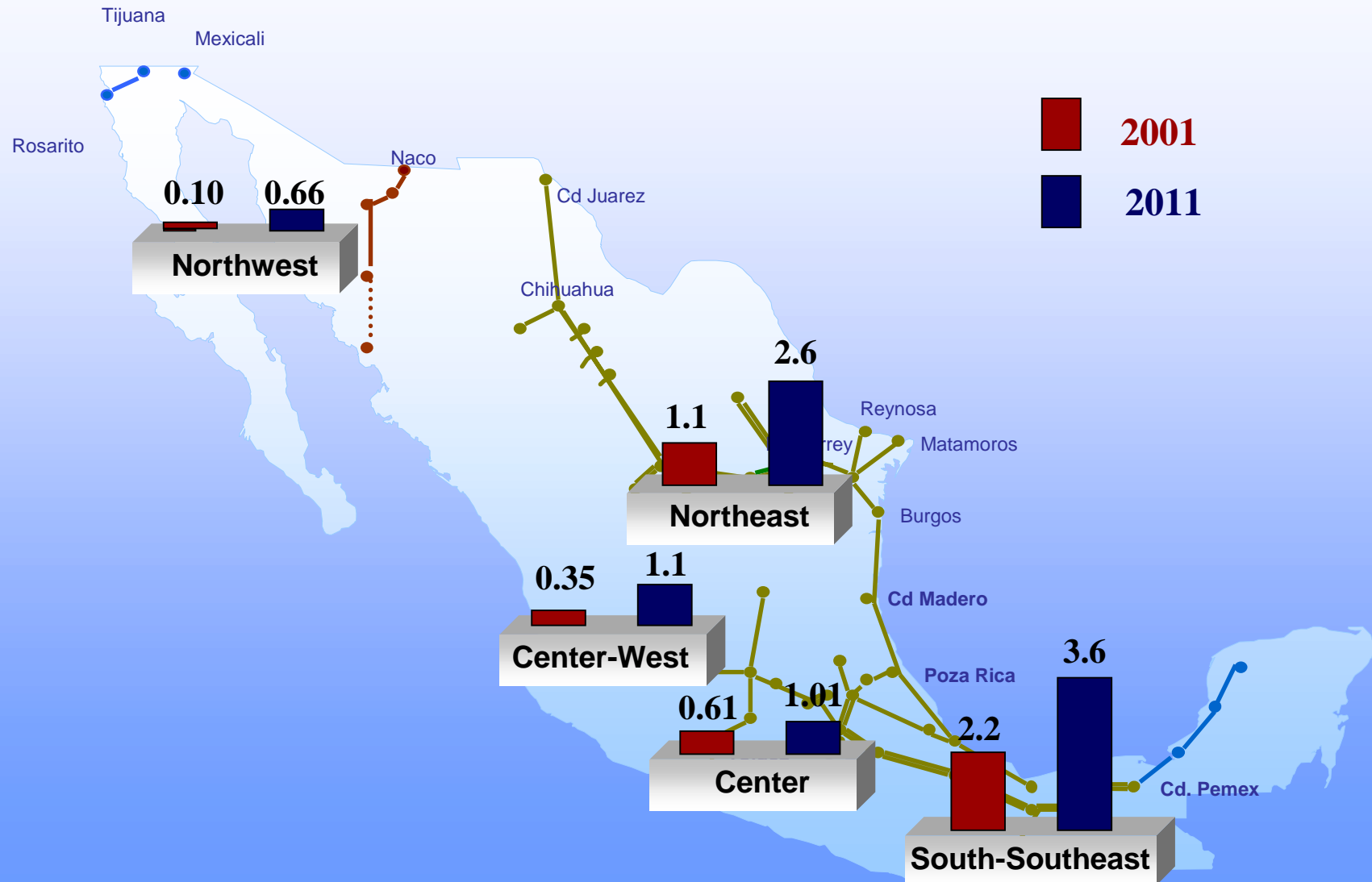
## Investment Requirements

US\$ bn (2001-2011)



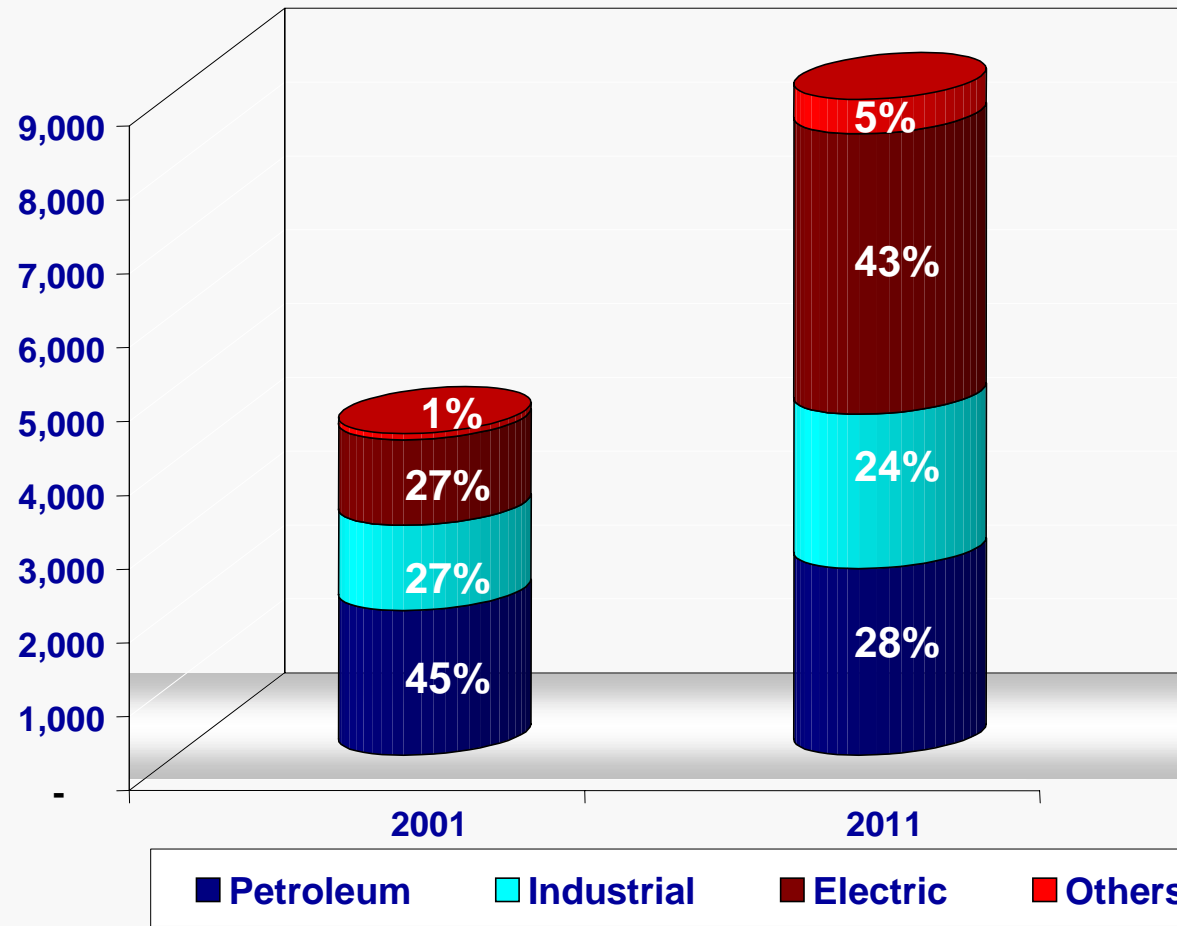


# Regional Growth in Natural Gas Demand (Bcfd)



# Mexico's Energy Sector Demand (2001-2011)

**Natural Gas Demand by Sector**  
(million of cubic feet per day)

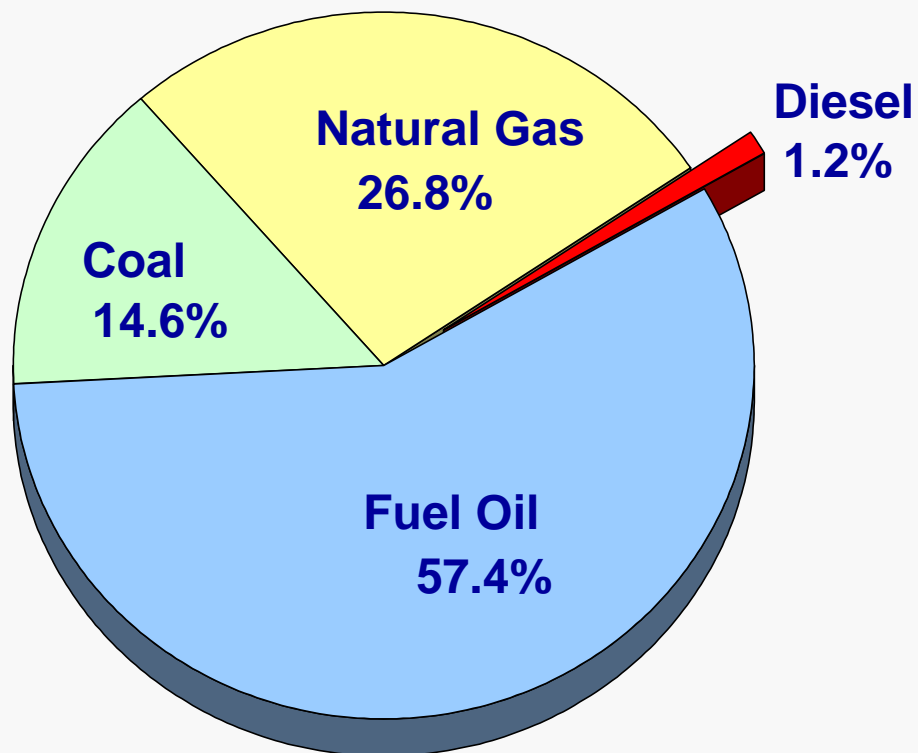


<sup>1</sup> Others: Residential, services and transport

# Fuel Consumption for Power Generation

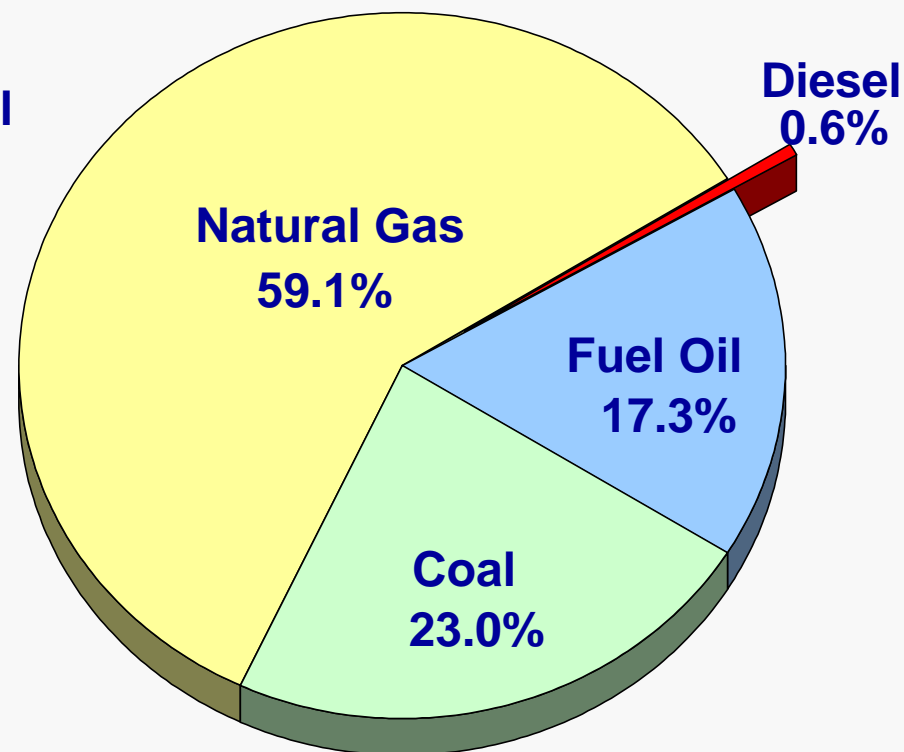
**2001**

**4,369 Terajoules/day**

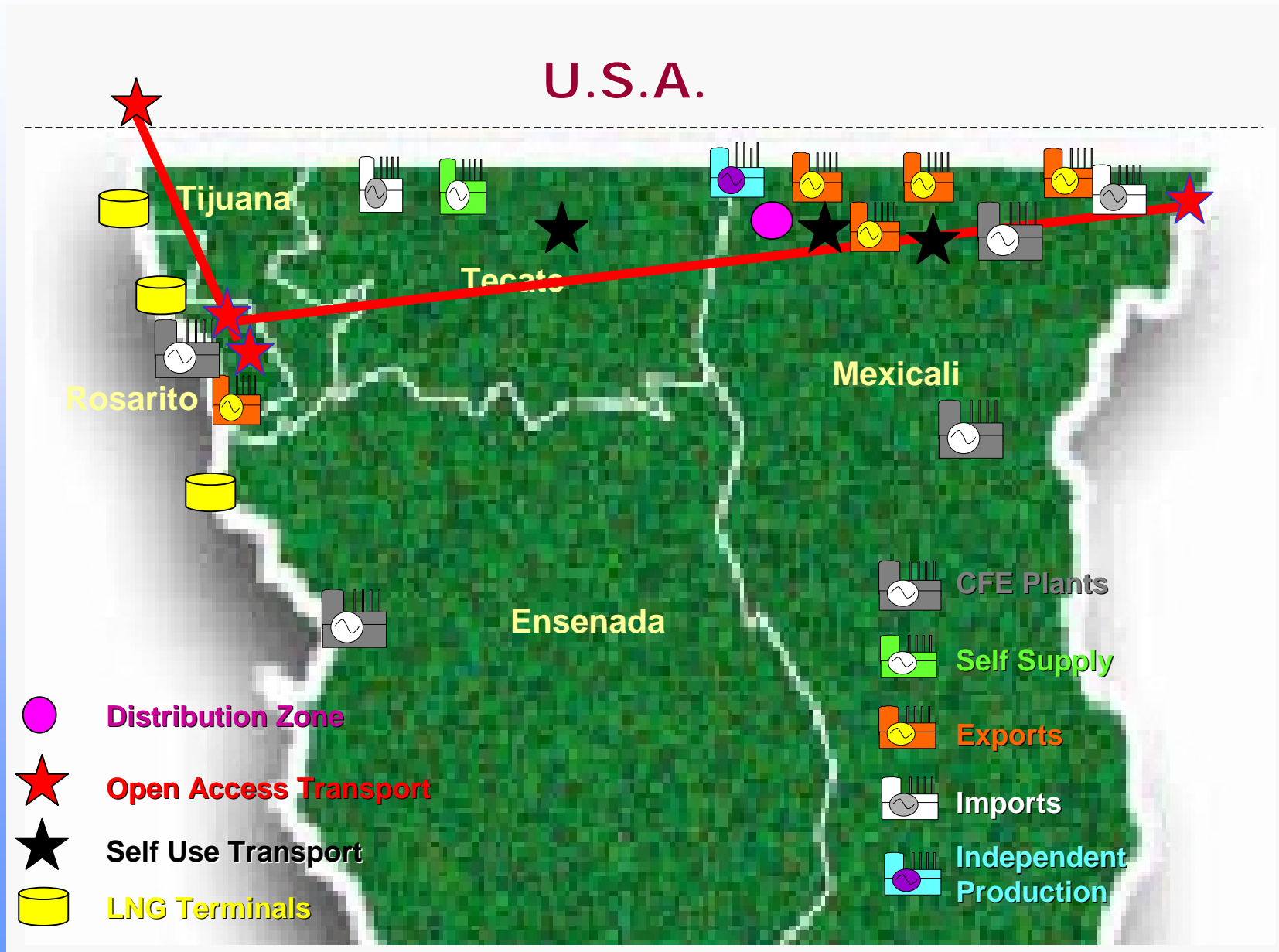


**2011**

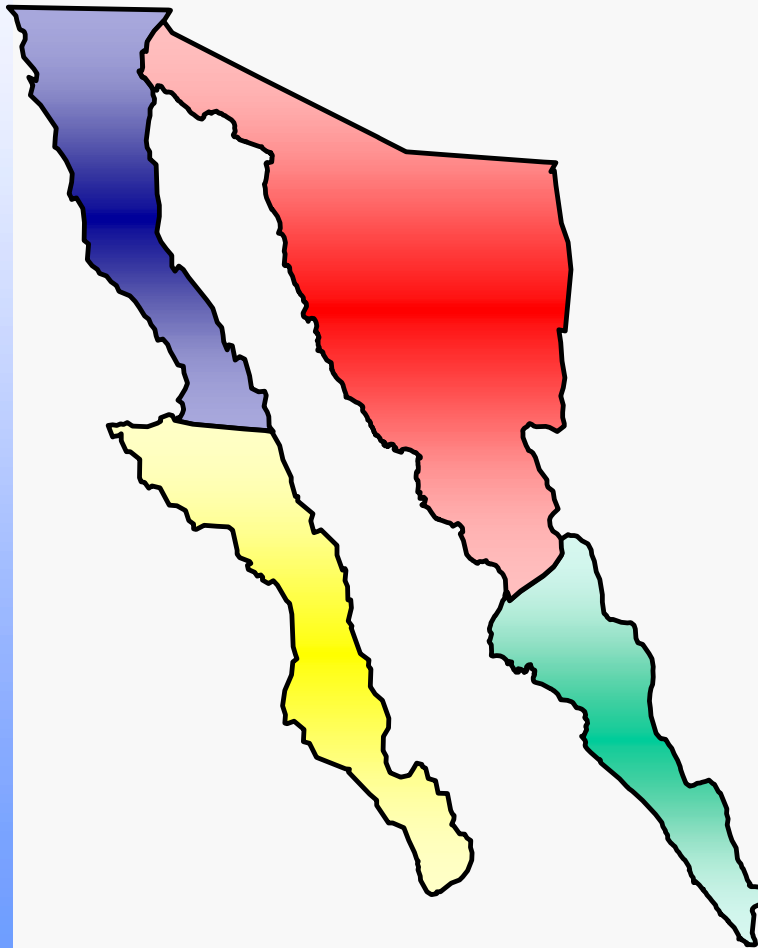
**6,184 Terajoules/day**



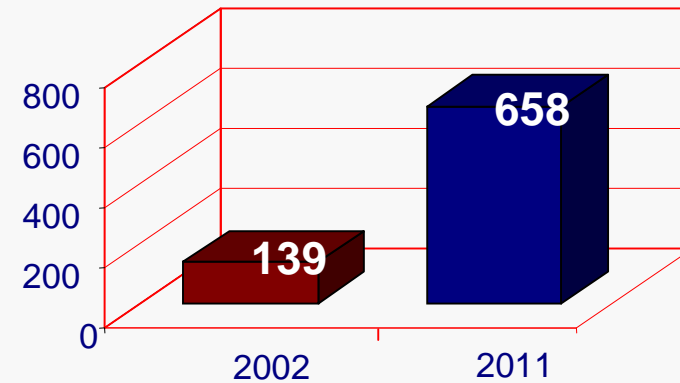




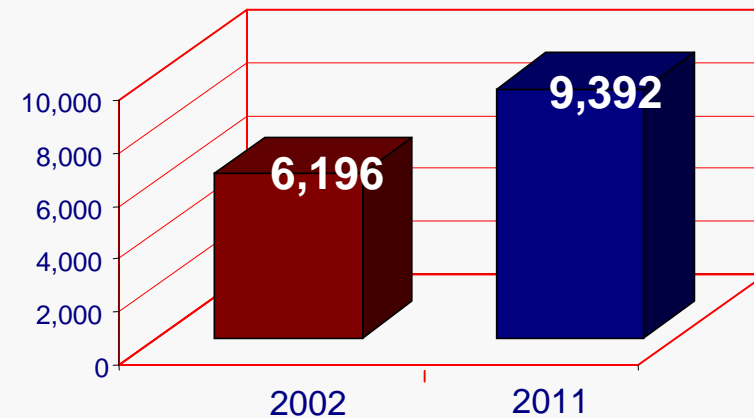
# Natural Gas and Electricity Markets Prospective in Northwest Region



**Natural Gas Demand Growth**  
(million of cubic feet per day)



**Electricity Capacity Growth**  
(MW)

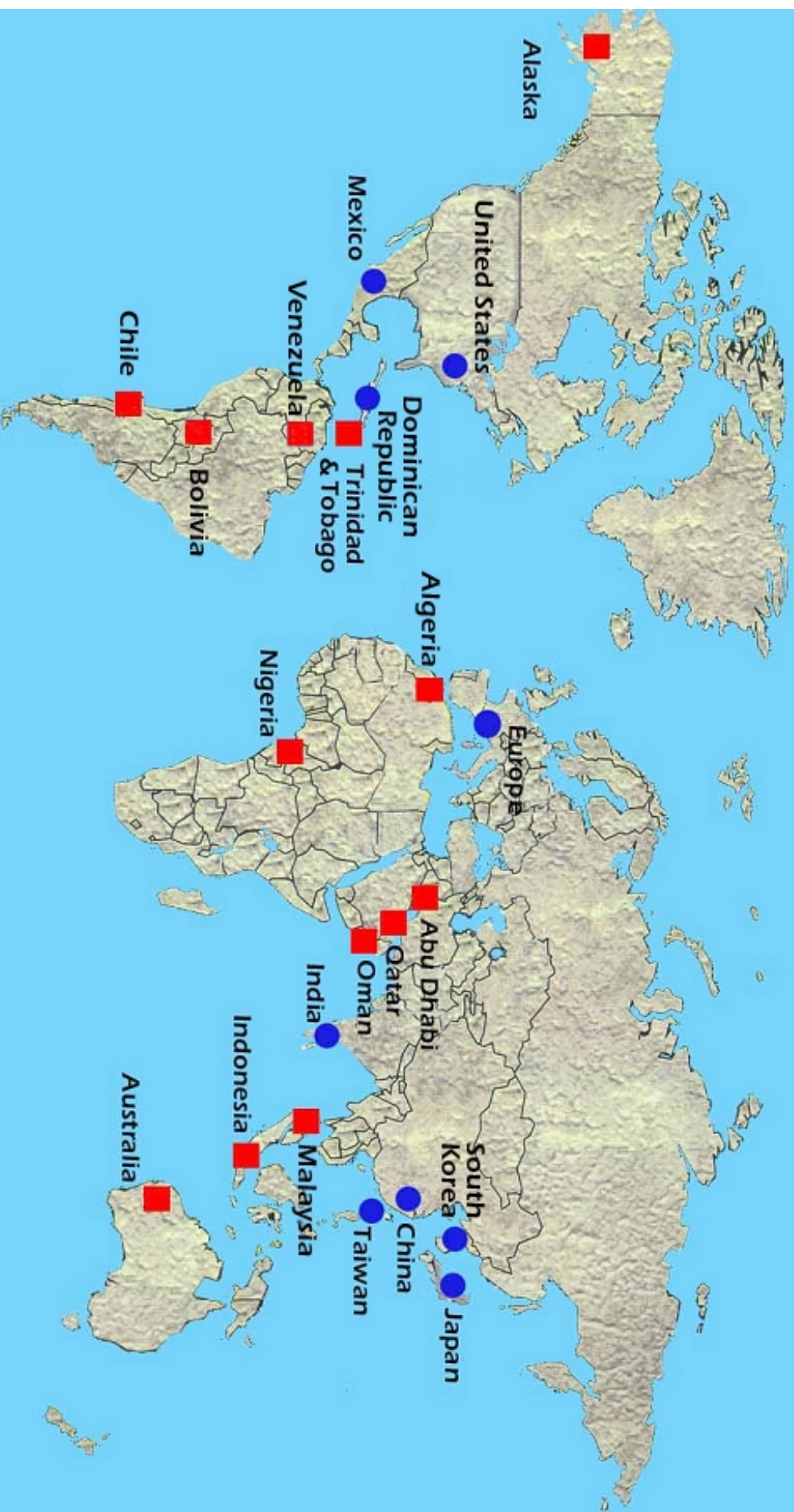


### III. LNG Projects in Mexico

# World LNG Market

■ LNG Export Terminals

● LNG Receiving Terminals





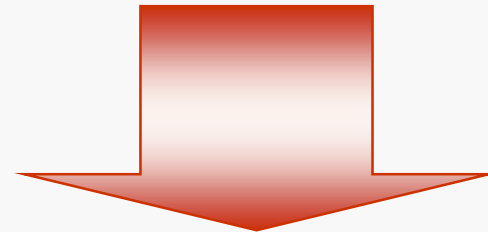
## Advantages:

---

- ✓ Additional supply
- ✓ Expansion of combined cycle generation plants
- ✓ Regional development
- ✓ Controls eventual peaks
- ✓ Stabilizing prices

- Companies have expressed their interest in building LNG terminals in Mexico
- Investors will take all the risk without government guarantees
- The government has adapted the regulatory framework in order to provide certainty to investors

- The main points for LNG regulations are:
  - ✓ Safety
  - ✓ Open Access
  - ✓ Tariffs

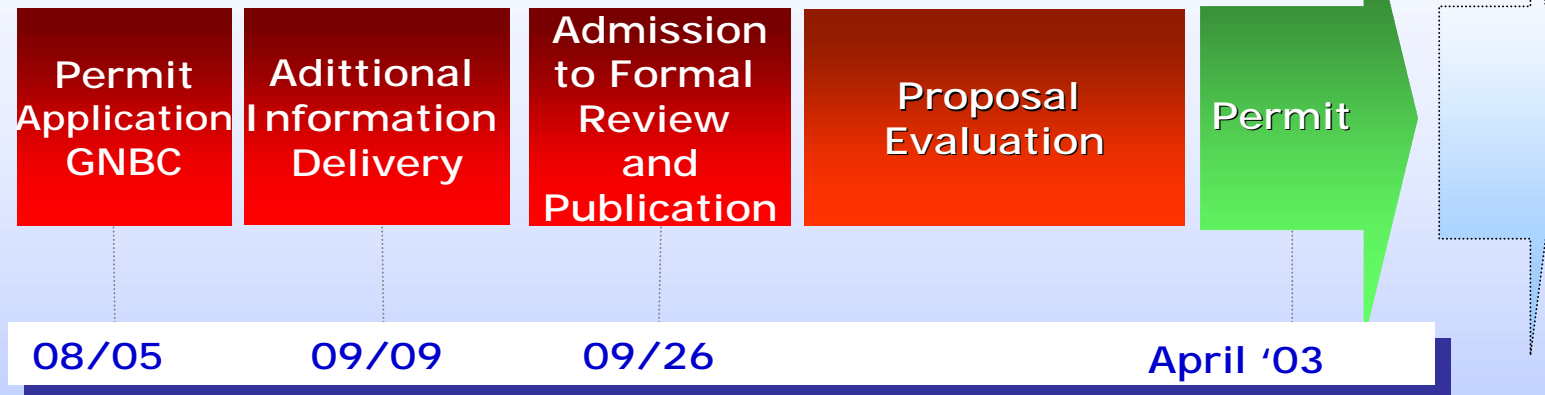


## Regulatory Consistency

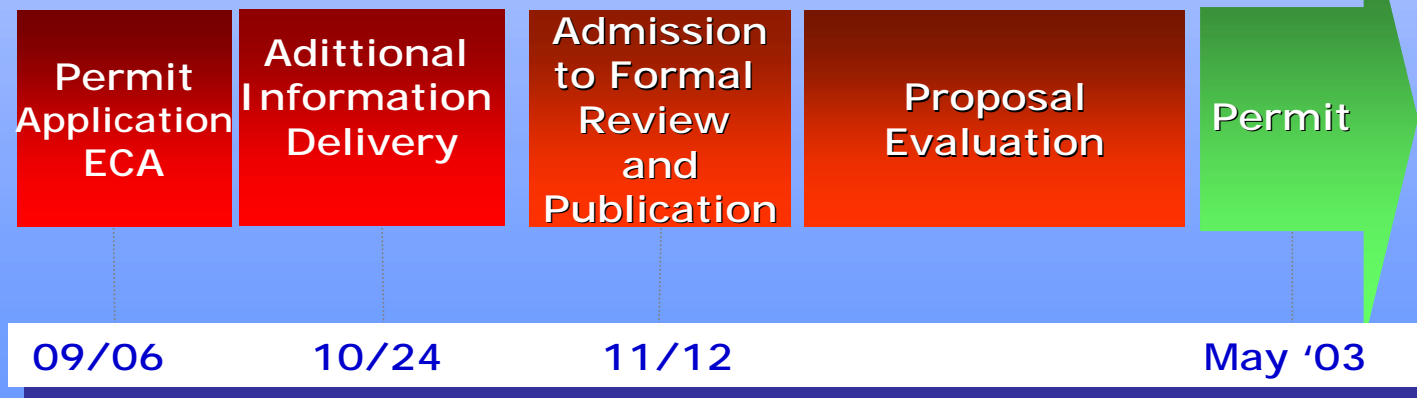


# LNG Future Projects in Baja California

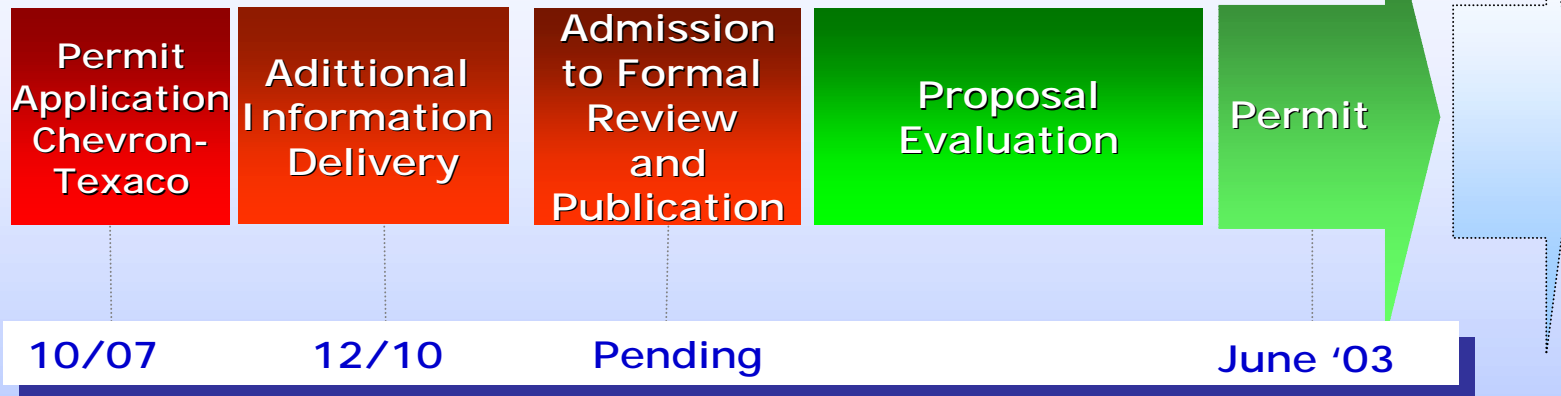
## 1) Gas Natural Baja California (GNBC)



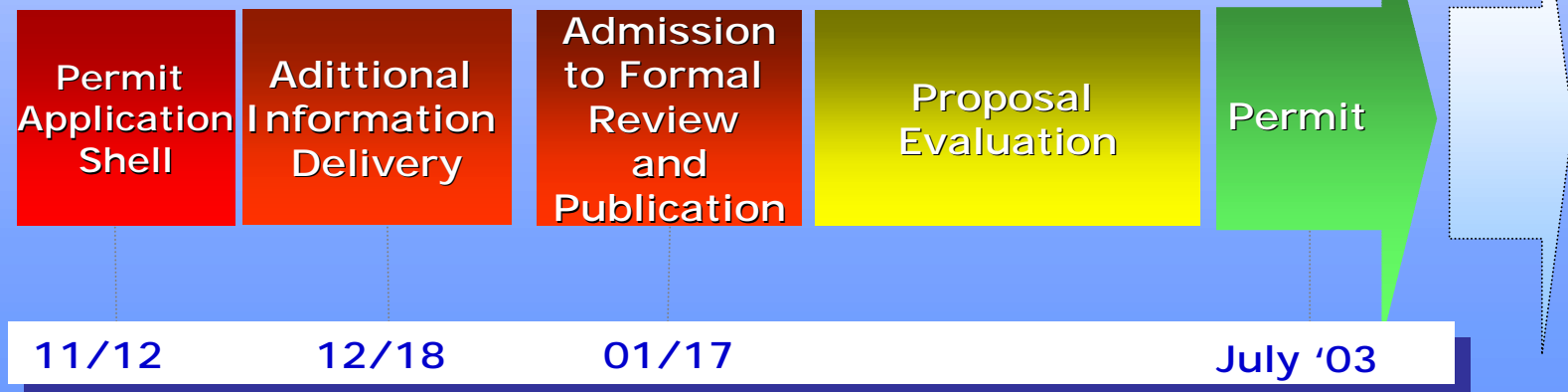
## 2) Energía Costa Azul (ECA)



## 3) Chevron-Texaco de México



## 4) Shell Baja California



## V. Final Remarks

Mexico needs to:

- ✓ Satisfy the growing demand for natural gas and electricity
- ✓ Diversify its sources of natural gas
- ✓ Ensure the efficient use of natural resources, with the least possible harm to the environment
- ✓ Expand the pipeline network and reinforce the national grid
- ✓ Develop gas storage capacity to supply peaking requirements
- ✓ Guarantee competitive conditions in the marketplace

- ✓ In the next 10 years the energy sector will require investments for over 157 billion dollars
- ✓ Mexico's energy regulatory framework is permanently adapting to current trends
- ✓ LNG projects will become an alternative supply of gas for the North America Market



**CRE**

COMISION  
REGULADORA  
DE ENERGIA

***[www.cre.gob.mx](http://www.cre.gob.mx)***