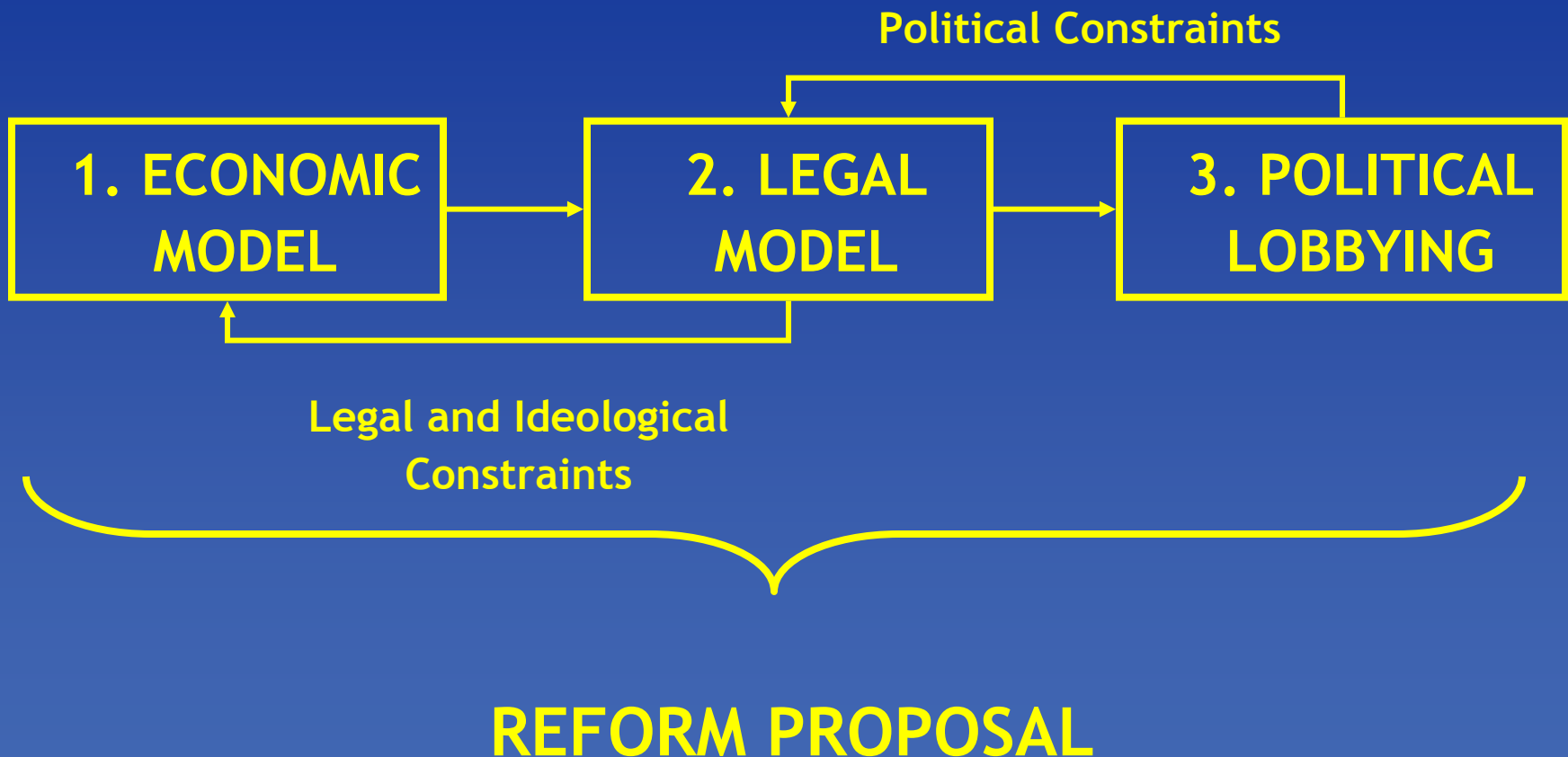




Market Design and Institutions: Pricing, Regulation, Competition.

- Like most emerging economies Mexico's Depends on Foreign Direct Investment (FDI) to finance its growth, the Electricity Industry is not an exception.
- Historically, Mexican law and policy barely tolerated FDI, but then shifted to actually seeking such investment starting in the 1980s.
- This policy shift contributed to the power sector's legal reform in 1992 and allowing private investment for IPPs, Self generation, and Cogeneration.
- The success of this reform has been hampered by legal (constitutional) and structural constraints.
 - The Constitution explicitly forbids private investment for any activity linked to **public service**.
 - The sector is operated as a **vertically integrated monopoly**.

- There is a general consensus amongst stake holders, political parties, and legislators that a major change in the Industry is needed.
- Since 2000, two approaches have been promoted to solve the Electricity Industry's problems:
 - Restructure the Electricity industry to introduce market forces.
 - Restructure the Electricity industry by reducing private participation and make it self sufficient (French EDF model).
- Mexico's Ministry of Energy has had to consider the **economic, legal and political environment** surrounding the Mexican Electricity Industry in order to design a the best possible structure.



The economic model Chosen for the Mexican Electricity system has to achieve the following goals:

1. Legal certainty for private investment
2. Compatible incentives to attract new cost - efficient technology
3. Reliable Service
4. Predictable prices

The means to achieve this should be:

1. Open the generation market to attract several suppliers
2. Promote demand response customer choice
3. Regulation of natural monopolies (System operation, Transmission & Distribution)
4. Incentive compatible trading arrangements

Economic model: options

ISSUES	OPTIONS	CHOICES
Market / Trading Model	<ul style="list-style-type: none">• Wheeling Model• Integrated Model• Decentralized Model	Hybrid: Decentralized contract model with a centralized unbalance market.
Transmission Model / Ownership	<ul style="list-style-type: none">• Separate ISO and Transmission• Integrated ISO and Transmission	Separate ISO and Transmission.
Retail Access	<ul style="list-style-type: none">• How far do you want to implement customer choice?	As far as possible with a comprehensive transition plan

Legal Model: one important constraint

The Electricity Industry is currently defined in the Constitution as a Public Service exclusive to the State.

• Amend the Constitution removing the mention of Public Service (i.e. President Zedillo's Reform Proposal)

• Redefine the scope of Public Service in the Electricity industry in order to allow Private Investment and Competition

Considering:

- The 1999 negotiation for President Zedillo's proposal, and
- The resolution of the supreme court over the sale of excess capacity by Self generators and Cogenerators.

It was necessary to work around the definition of Public Service and its scope, i.e. **create a consumption boundary over which users would be considered out of Public Service.**

Political Constraints

Since:

1. Ownership of the current CFE and LFC assets are generally thought of as strategic.

2. CFE is generally regarded as an exemplary Public Company.

3. California's Power Market crisis

It is imposible to:

- Divest publicly owned Generation and Distribution assets.
- Create a Public Transmission company.
- Separate CFE into several publicly owned Generation, and Distribution companies.
- Create an open price market without price controls.

Economic model subject to Legal and Political Constraints



LEGAL AND POLITICAL CONSTRAINTS

SOLUTIONS

- Customer choice limited by a “Public Service” boundary

- Large users can choose their power supplier (40% of demand over boundary)

- CFE will remain vertically integrated

- Creation of an ISO with operational control over CFE’s transmission assets
- Regulation of Prices for CFE’s generation, transmission and distribution services
- Regulation of CFE in contract and unbalance market

- Lack of confidence in open power markets

- Private generators may enter the unbalance market only as price takers

The Reform proposal addresses all of its objectives and provides:

1. “Constitutional support” for private investment
2. Introduction of correct incentives based on a contract market coupled with an unbalance market based on marginal costs of public plants
3. Reliability of service improvements boosted by diversification of investment sources
4. Clear and predictable price formation process based on a cost market and regulated transmission and distribution tariffs.



Market Design and Institutions: Pricing, Regulation, Competition.