

# Key Structural Challenges to Mexico's Electric Power Sector Reform

**ENERGY POLICY**  
INTER-AMERICAN DIALOGUE

Mexico's Energy Reform:  
What's Next for Gas and Electricity?

Presented by  
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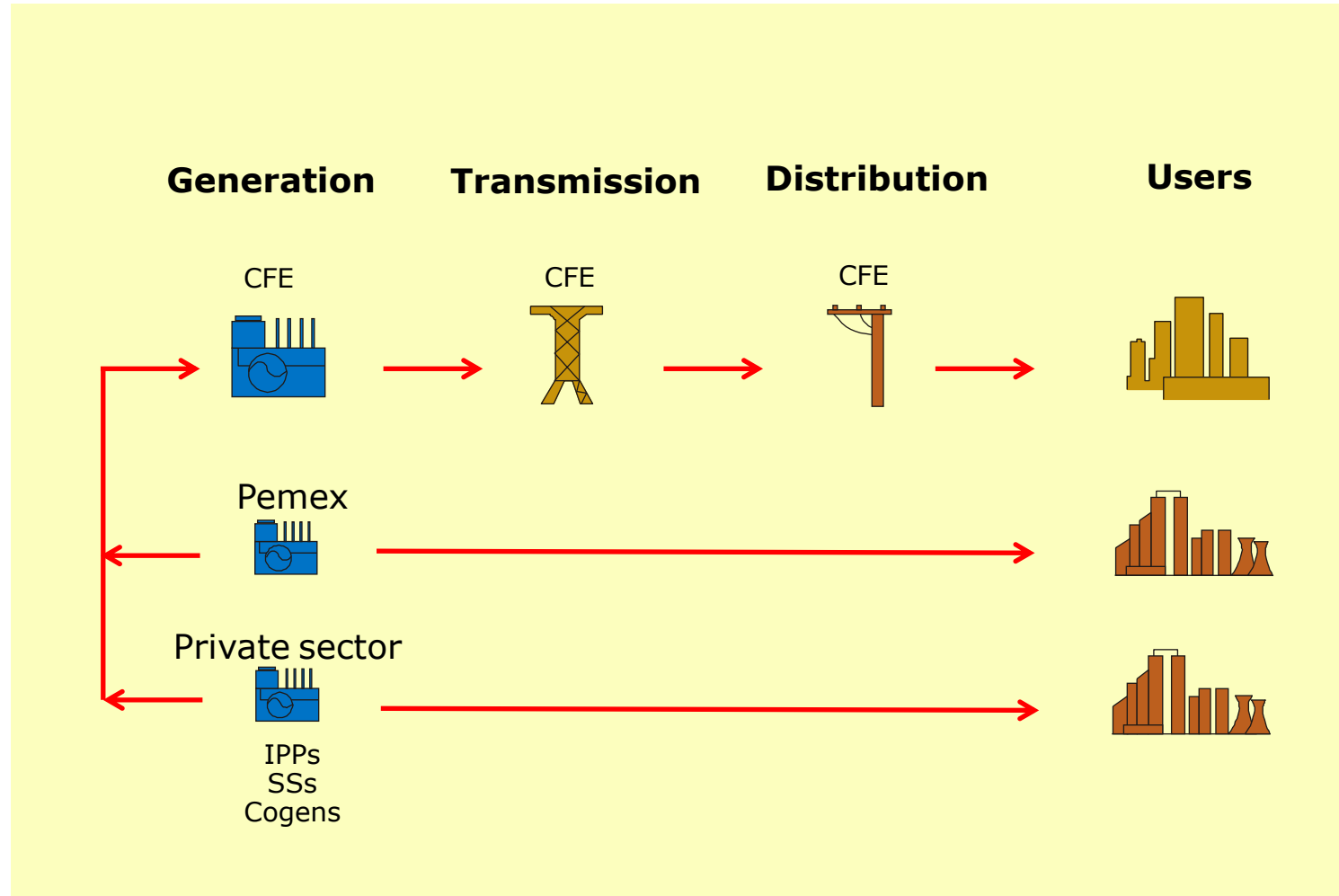
## Key Objectives of the Reform

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1. Lower electricity prices by
  - Reducing CFE's electricity production costs
  - Reducing technical and non-technical T&D losses
  - Streamlining/Strengthening CFE
2. Reduce the GOM's CapEx Burden/Open sector to private investment
  - Establish competitive generation market\*
  - Further investment in renewable electricity\*
  - Create co-investment opportunities in T&D\*

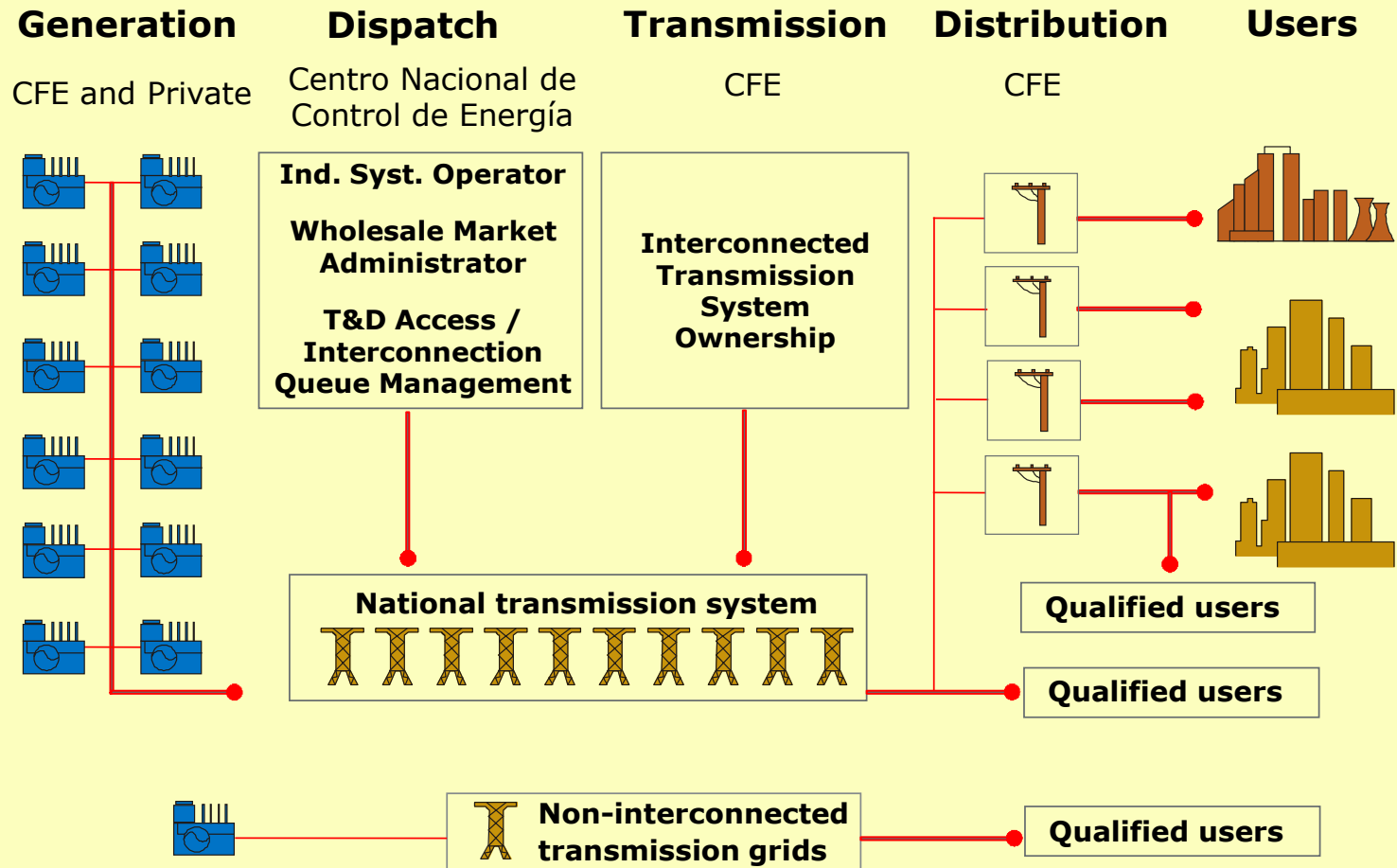
(\*) Will require accelerated institutional strengthening of SENER and CRE in order to properly regulate competition, set prices for Clean Energy Certificates and design attractive contracts for private sector participation in the financing, construction, maintenance, management, expansion and operation of T&D infrastructure

# Current Structure of Mexican Electric Sector



# Proposed New Sector Structure

*Full Competition | Reserved for the Mexican State w/ Limited Private Participation*



## Are lower electricity prices feasible?

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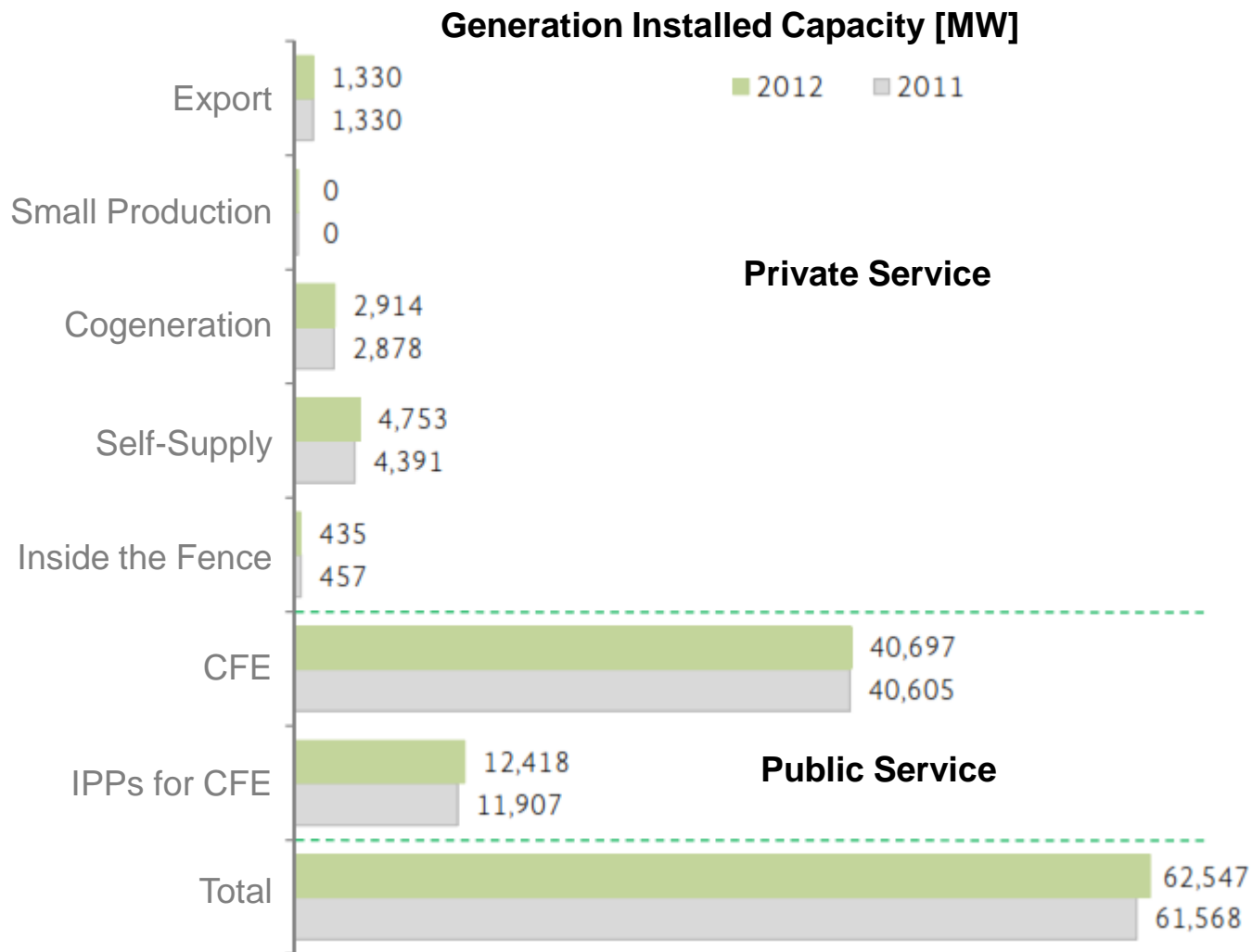
- How much can they go down?
  - Residential 24% < 2013 US Avg.
    - ◆ Most 30-42% of cost – only DAC 49% above cost
  - Small commercial 11-17% above cost
  - Medium voltage 14% above cost
  - High voltage essentially 2-6% above cost
- New/expanded NG pipeline capacity will reduce oil-fired generation
- Reducing distribution technical losses (15.3%) and theft (5.8%) would help some
  - Technical loss reduction will require significant new investment and time
  - Commercial loss reduction will require legal/police action

## Is competition in generation feasible in the short-term?

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- CFE owns or controls ~85% of all generation capacity
- Effective competition in two-years would require:
  - The creation of multiple independent gencos out of CFE generation portfolio
  - Some of these would still be dominant in transmission constrained areas
  - Massive divestiture of CFE generation in a short time could result in firesale prices
  - Significant grid investments would be needed to accommodate inter-regional competition

# CFE is by far the dominant generator in all regions in Mexico







## What outcomes are less uncertain at this time?

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The sector will be open to further private investment

- Replacement/repowering of CFE's old generation plant would open investment opportunities, compensation for capacity above variable cost will be required
- Renewable Generation: Grandfathering of existing contracts w/subsidies will reassure current investors and properly priced CELs would attract new investment
- Reduction in technical and non-technical losses through innovative shared risk/reward contracts with CFE could bring investments in distribution grid modernization

However, introduction of competition in generation could be hampered by:

- Capacity limits of CFE's transmission grid and NG pipeline system
- Difficulties in satisfactory solution to CFE's market dominance

## Nicolás Puga, MSc Partner

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Over 25 years experience as a senior energy advisor to electric utilities and generation and transmission companies in the analysis of electric power and natural gas markets, generation and transmission project development, utility resource supply planning, and renewable energy resource development. Mr. Puga has assisted clients across energy markets in Canada, the U.S., México, Central and South America.

Prior to joining Bates White, he worked in México for the Comisión Federal de Electricidad and the Instituto de Investigaciones Eléctricas.

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