Argentina-Energy for growth

For the Institute of the Americas-La Jolla-May 26, 2016

Ministerio de Energía y Minería
Presidencia de la Nación

Outline

- The energy sector we inherited.
- Our goals for the medium and long term.
- Going back to “normal”.
- The future we want to build together.
- Investment opportunities.

The energy sector we inherited

- Legal, institutional and functional disorder.
  - Roles and responsibilities not clear.
  - Discretionary decisions and lack of transparency
- Argentina as net energy importer with significant trade deficit
  - Declining oil and gas production
  - Imports of mogas/diesel/LNG since 2007
- Domestic prices not aligned with international prices/costs
  - Government subsidy to entire demand resulting in distorsions
- Electricity shortages as a result of:
  - Insufficient power generation capacity
  - Lack of investment in electricity distribution

Primary energy S/D balance

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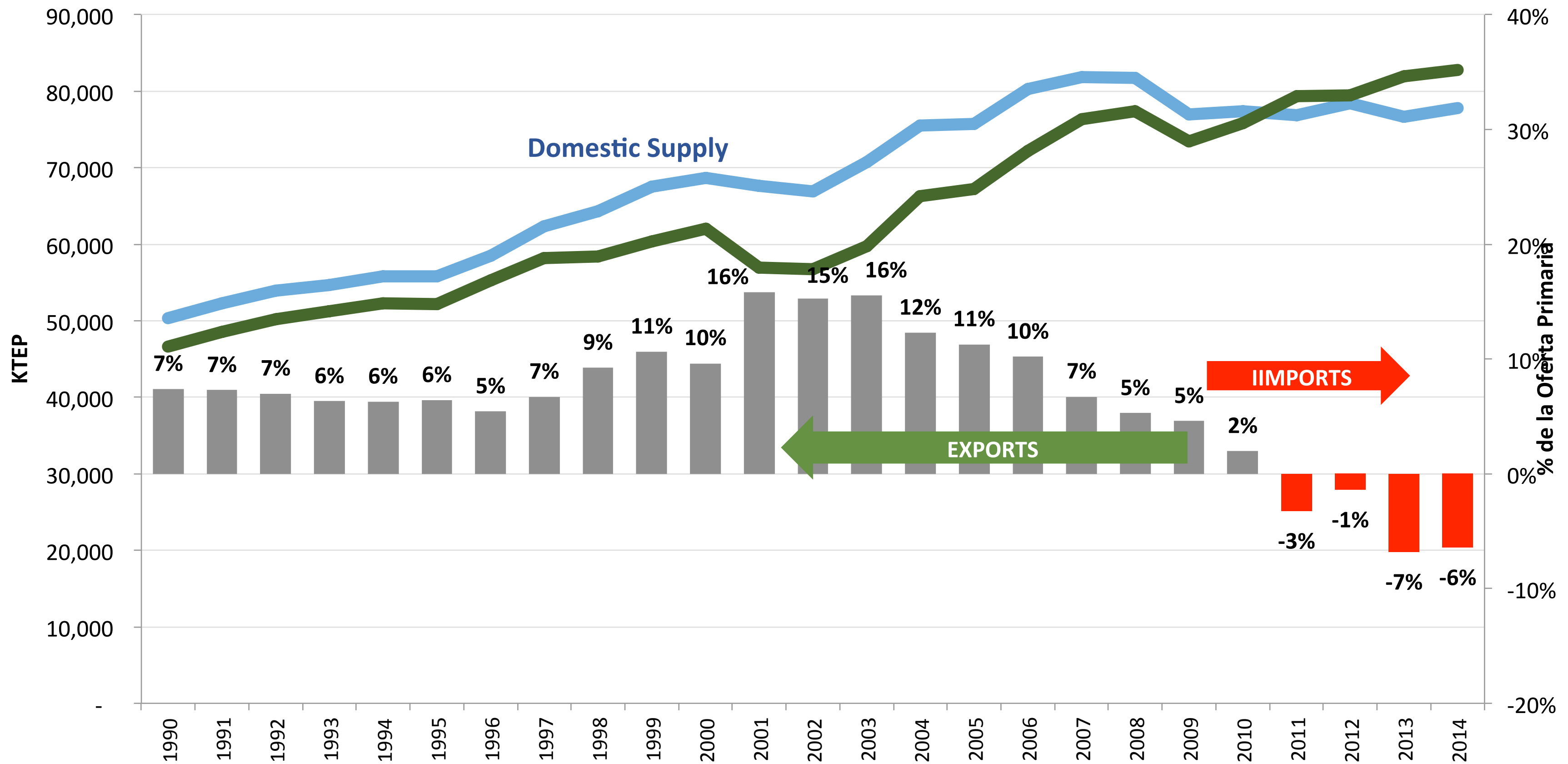

Crude Oil-Production/Reserves

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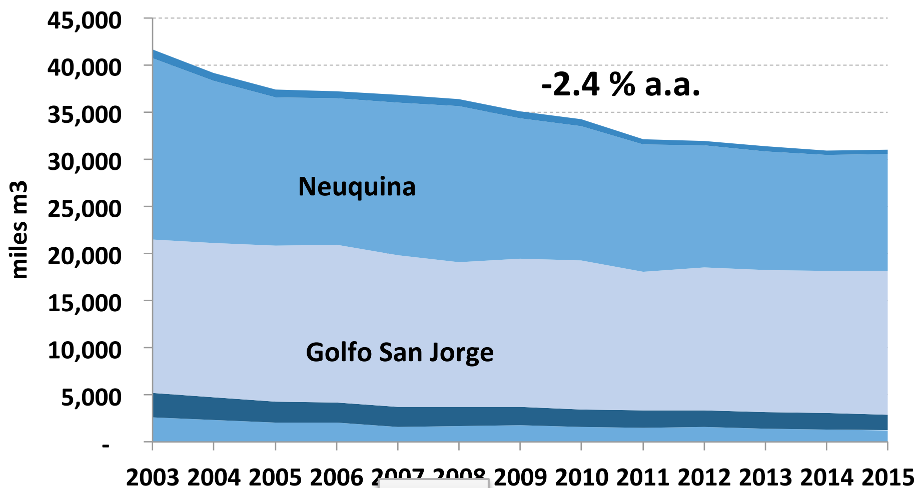
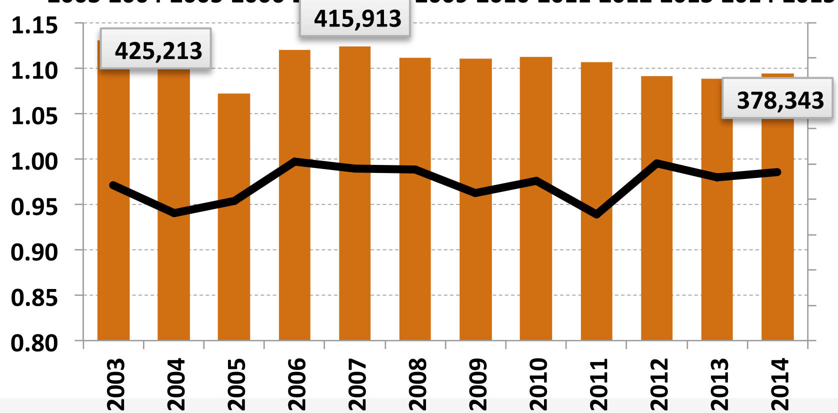
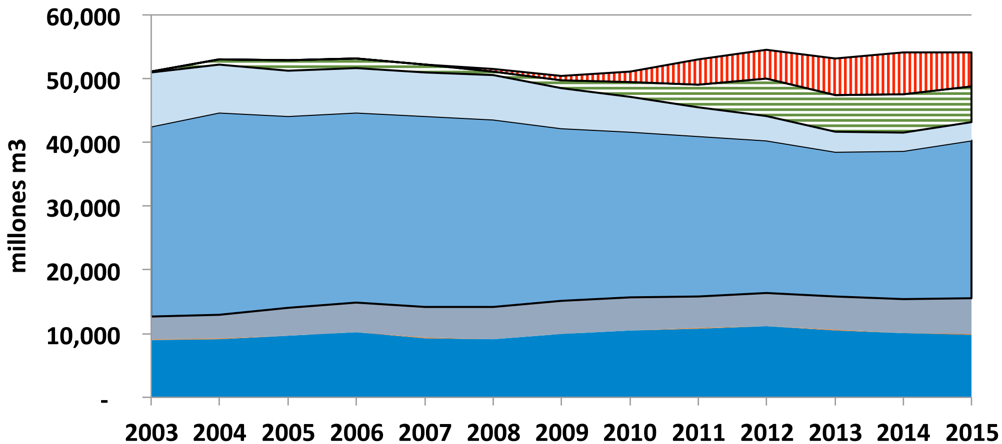
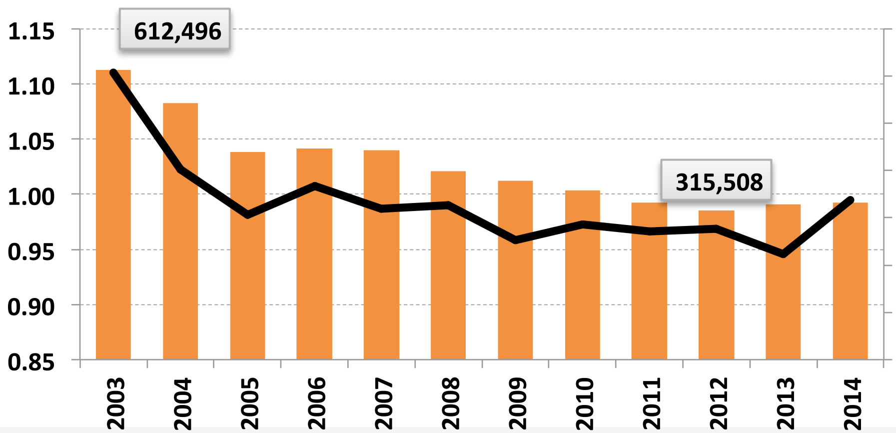




- Declining trend reflecting lower investment in exploration and production.
- Export tax imposed on crude export resulted in lower domestic price.
- Decline of Medanitos from Neuquén forced imports of light crude in 2015
- 2015: Local price maintained at 77 US$/Bbl when WTI below 50

Natural Gas production/reserves





- Declining trend forced to stop export to Chile in 2007.
- Local price fixed around 2.0 US$/ MBTU and not enought to maintain investment/production
- Imports from Bolivia
- LNG imports using 2 floating gasification plants.

Energy trade balance (BUS$)

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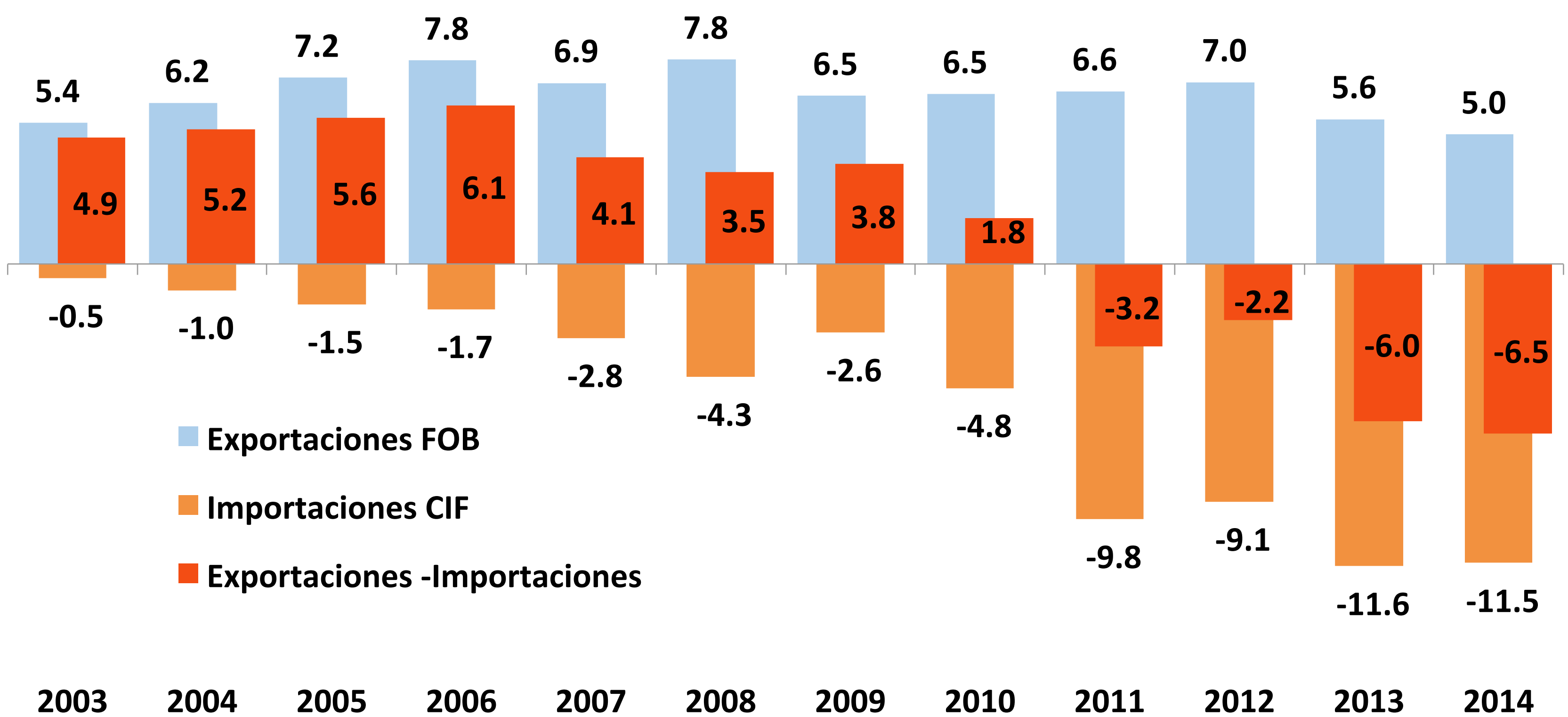

Our goals for 2015-2019

- Normalize regulatory agencies and energy markets operation.
- Improve energy access and efficient use by households and productive sectors.
- Ensure energy supply.
- Diversify energy supply incorporating renewables to Argentina energy matrix.

Agencies and markets back to normal

- Emergency Decree to manage electricity crisis/shortages

- New authorities nominated in ENRE-ENARGAS and state own companies
  - Independent directors with minimum intervention of Energy Ministry
  - Plans to start process for selection of new directors based on respective laws

- Electricity and gas prices adjusted to reflect cost of production
  - Significant increase passed to consumers/Still some gap in power generation
  - Subsidy to low-income households mantained
  - RTI (Revisión Tarifaria Integral) process initiated

- Moving to competitive markets with contracts between producers/ consumers in the medium term.

Achieve energy security/Supply demand

- Reverse the declining trend and increase oil and gas production.
  - Enable legal/macro conditions for private investment.
  - Boost the development of *Vaca Muerta* working with provinces/investors

- Improve integration with neighboring countries.
  - Natural gas imports from Bolivia and Chile in the short term.
  - Enhance electricity connection and exchange with neighboring countries.
  - Develop some joint binational projects.

- Boost investment in energy infrastructure.
  - Focus on power generation and distribution in the short term.
  - New law and regulatory framework for renewables.
  - Develop key hydro and nuclear projects to replace fossil fuels imports.

Argentina Primary Energy Matrix

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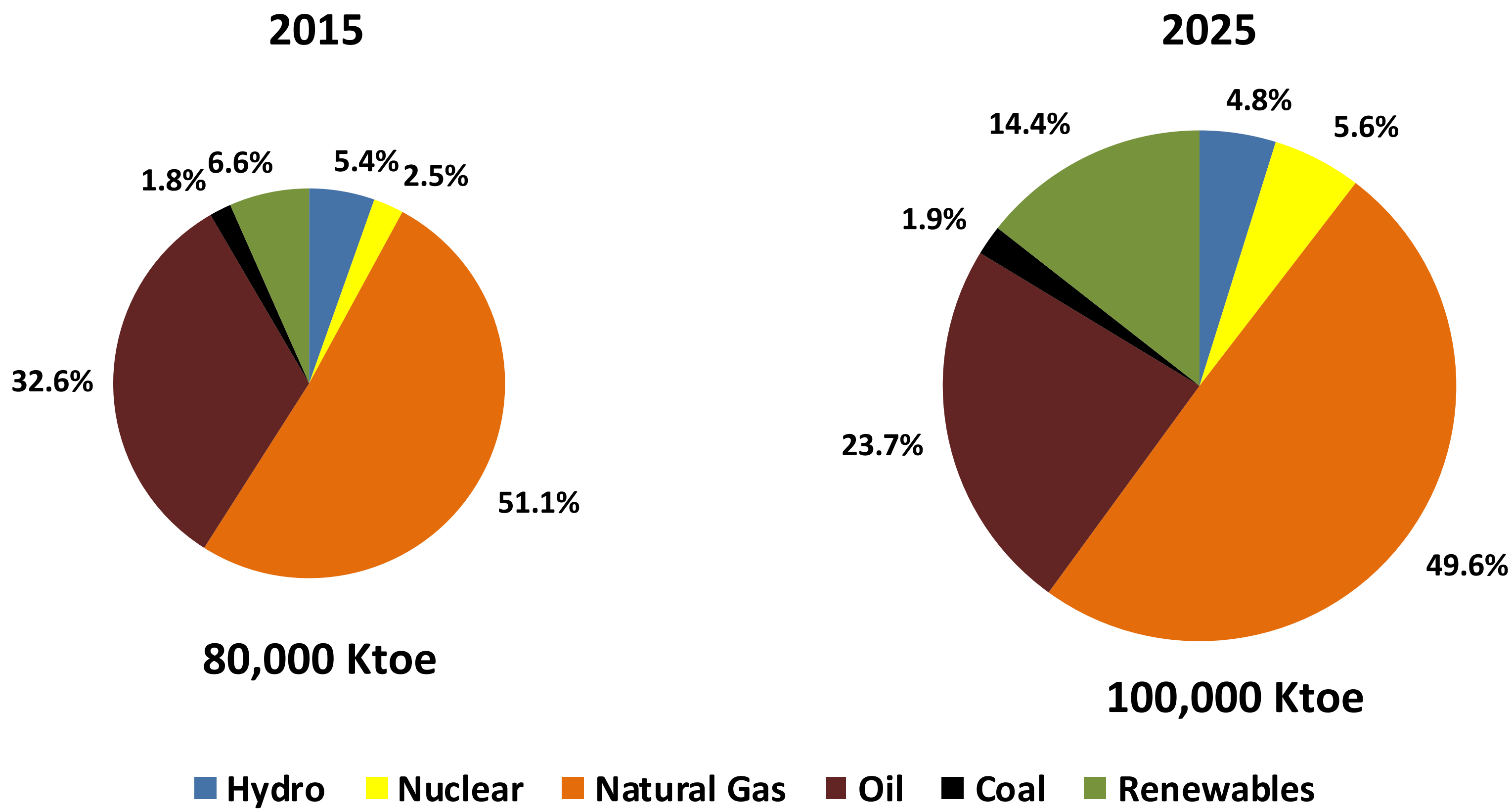
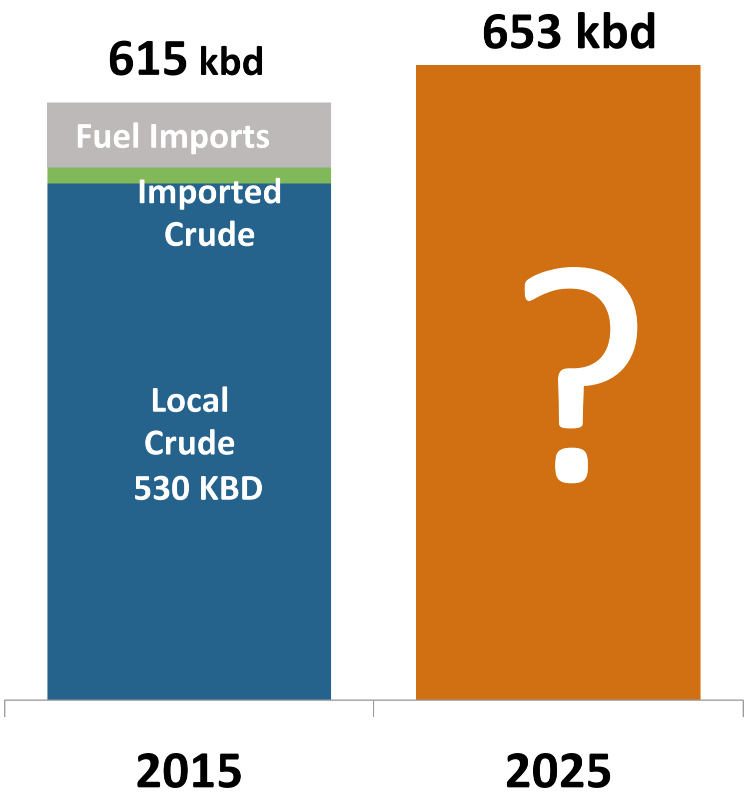
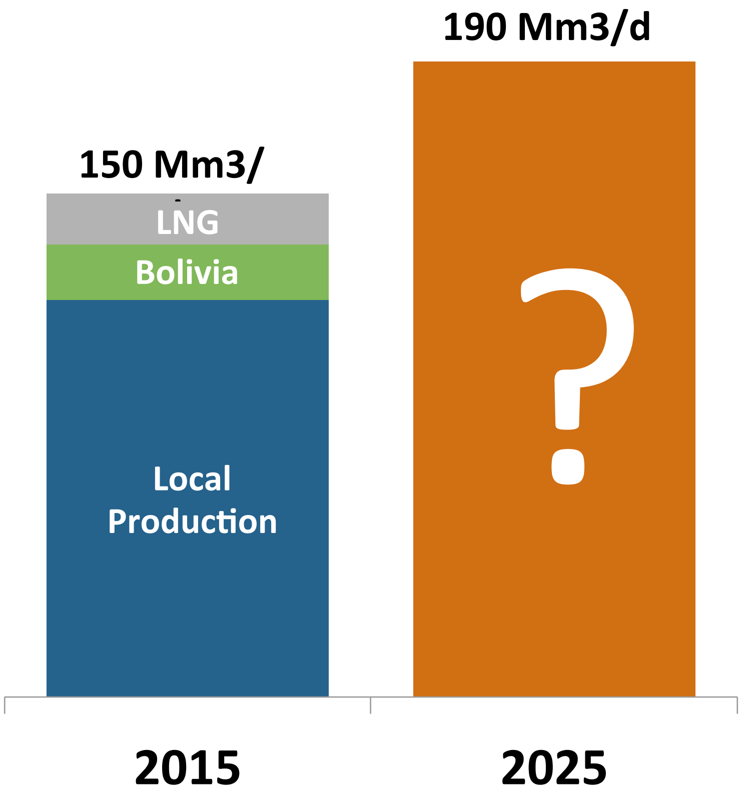


Crude oil still important !



- Moderate crude demand increase reflecting
  - higher efficiency in transportation
  - Lower share in power generation
- + 200 KBD refining capacity expansion needed to replace finished product imports
- Fuel quality improved via lower sulphur and more biofuels.

Natural gas at around 50% share



- Demand increase reflecting economic growth
- Price at atractive level should result in additional investmen/production
- Bolivia likely to continue as base supplier
- Integration with Chile/Uruguay provide alternatives to own LNG facilities
- LNG imports will remain for winter peak shaving even if local production recovers

Renewables replacing fossil fuels in power generation matrix

	2015	Capacity Addition	2025
Thermal	64%	+ 8,000 MW	43%
Nuclear	5%	+ 1,500 MW	10%
Hydroelectric	30%	+3,000 MW	27%
Renewable	1%	+10,000 MW	20%

Total investment = 50 Billions US$

Now is the time of Renewables

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- New renewables law enacted in September last year:
  - Sets 20% targe to be achieved by December 2025.
  - Creates Trust Fund to minimize risk and co-finance projects
  - Provides tax incentives for new capacity
- Regulatory framework defined in March
  - Clearly defined rules for public procurement and competitive mechanisms.
  - Pass-through of market prices to demand..
  - PPAs with CAMMESA but option to opt out to sell to industrial consumers.
- First tender for a total of 1000 MW launched last week
  - Consultation period iin June/July-Bids due August 22nd
  - PPA contracts to be awarded in September for different technologies and locations

Investment opportunities

i. Renewable sector expansion focused on wind, solar, biomass, mini-hydro.
   - Targeting the addition of 10 GW before 2025.
   - Appropriate legal and economic framework.

ii. Addition of 8 GW of thermal capacity in the short and medium term.
   - Completing combined cycles and other current projects.
   - Promoting co-generation.
   - Attracting private sector investment.

iii. Development of large-scale national and binational hydroelectric projects.

iv. Exploring & exploiting the off-shore continental platform.