Investment,Competition and Efficiency in India's Energy Sector

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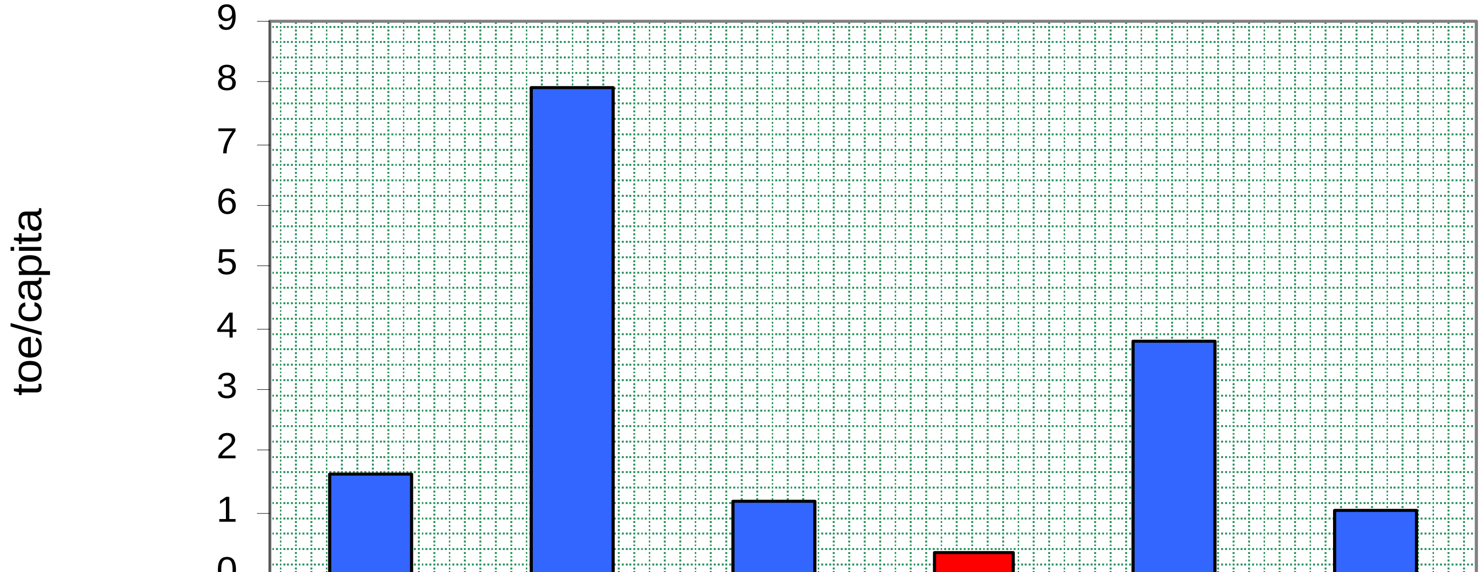
TERI

Energy Poverty

India 5th largest energy consumer yet has one of the lowest per capita energy consumption



	World	USA	China	India	UK	Brazil
Per capita consu	1.60	7.89	1.19	0.36	3.79	1.05

Source- TERI estimates based on BP stats 2006

Resulting From------

- Inadequate availability
- Demand outstripping supply
- Low Plant Load Factor
- High Aggregate Technical & Commercial losses
- Price distortions

Investment Required

- World Bank estimates – annual investment of 5% of GDP (2003-04) equivalent to about Rs.1271.5 billion
- 10th Plan estimates – investment of Rs.4125 billion (average annual investment of Rs.825 billion) on Energy & Water
- Total investment opportunity of about US$ 200 billion over a seven year horizon in electricity*
- Investment need of $15 billion and $8 billion estimated in refining and marketing of oil and gas respectively by 2010*

*Source: Investment Commission of India

Private Investment Flows

Plan Period	Capacity Addition Target (MW)	Share of Private sector (MW)	Private Sector Actual (MW)
IX Plan	40245	17588 (43.7%)	5061 (28.77%)
X Plan	41110	7121 (17.3%)	3455 (48.5%)
XI Plan	68869	9225 (13.4%)	

Reasons for Inadequate Investments

- Inappropriate policies
- Restrictive legal and regulatory framework
- Cumbersome Approval / Clearance Procedures
- Dominance of SOEs and absence of level playing fields
- intelligent

The Electricity Sector

Electricity Sector: Structure

Generation	Public (87%), Private (13%)
Transmission	Public (100%)
Distribution & End-user supply	Public (87%), Private (13%)
Trading	Public (93%), Private (7%)

Sources: CEA General Review 2006 (published by Ministry of Power, Government of India, March 2006), CEA General Review 2006 (published by Ministry of Power, GOI, March 2006) ,

Impediments to Competition [1]

Generation

- Policy, regulatory and legal impediments
  - Availability and pricing of fuel
  - Impediments to sale of captive power
  - Capacity of SEBs to pay
- Dominance of the public sector

Impediments to competition [2]

Transmission

- Availability and pricing of transmission capacity
- PTC holds majority equity in PGCIL and raises questions of monopoly

Distribution and retail supply

- Policy, regulatory and legal impediments
  - Financial viability of distribution
  - Irrational end-user tariffs

The Oil & Gas Sector

Oil & Gas Sector: Structure

Crude Oil Exploration & Production	Public (86%), Private (14%)
Natural Gas Production	Public (78%), Private (22%)
Oil Refining	Public (71%), Private (29%)
Marketing*	Public (86%), Private (14%)

Even after sustained efforts sector still dominated by SOEs

Sources: Petroleum Planning and Analysis Cell (PPAC) 2007 (www.ppac.org), *2005-06 (p) Petroleum Statistics

Competition in India's Oil & Gas Sector

Structural

- Dominance of PSUs in the Petroleum Sector
- GAIL - Monopoly in gas transmission and marketing

Policy

- Investment of Rs.20 billion to enter marketing of transport fuels
- Continuing Government control on prices of Petrol, Diesel, Domestic LPG and PDS kerosene
- Perverse subsidies

Regulatory

- No independent regulator in upstream segment
- Adequacy of PNGRB Act 2006 in promoting competition

Institutional issues in Competition

Interface between Competition Authority and Sector Regulators the context

Competition Act 2002: Section 3 (Anti-competitive agreements), Section 4 (Abuse of dominant position), Section 5 & 6 (Mergers between/among enterprises)

Electricity Act 2003: Section 60 (Regulator to issue directions on abuse of dominant position)

PNGRB Act 2006: Section 11(Board to foster fair trade and competition)

- Sector regulators have powers similar to CCI, but not bound by any guidelines (similar to section 4 Competition Act) to arrive at a decision -
- Reference to CCI for competition related issues by sector regulators not mandatory
- Lack of provisions for two of them to work together on competition issues

Limited clarity on respective jurisdictions

Thank You