

# Financing of Power Sector Projects in India



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# Presentation Objective...

*The Objective of this presentation is to discuss financing issues & funds availability for Power sector projects in the XI plan and evaluate possible funding options*

# Presentation Structure...

- XI Plan Period
  - Capacity addition targets
  - Funds Requirement
- Sources of Funding for Power Sector
- Measures to bridge Financing gap
- Key Financing Issues for Banks

# XI Plan Period – Projected Capacity Addition

## Generation Sector

- Planned capacity addition of 78,577 MW
- Additional 40,500 MW through DDG, CPP, Merchant power plants and new & renewable sources of energy

## Transmission Sector

- Inter-regional transmission capacity addition of 23,600 MW
- Transmission systems for power evacuation from specific projects
- Addition of 765 kV & HVDC transmission systems

## Distribution Sector

- Upgradation of sub-transmission & distribution networks
- APDRP & RGGVY
- Other distribution projects, viz. metering loss detection & reduction etc.

## Other Areas

- Research & Development (R&M)
- Human Resource Development (HRD)
- Demand Supply Management (DSM)
- R&M of existing generation plants

# XI Plan Period – Funds Requirement

*(All figures in Rs Crore)*

	Total
Generation sector	596,396
Transmission sector	140,000
Distribution sector	309,177
R&M / HRD / R&D / DSM etc.	18,204
<b>Total</b>	<b>1,063,777</b>

*Source: Report of Working Group on Power for XI Plan – January 2007*

*Considering a Debt-Equity ratio of 70:30, debt requirement for the power sector works out to Rs 712,414 crore while equity requirement works out to Rs 351,363 crore for the XI Plan period*

# Sources of Funding

- Equity
  - Internal resources
  - MoP, GoI allocation
  - States for state sector projects
  - Direct Investment/FDI
  - IPOs & Offer for sale
  - Newer emerging avenues like PE funds, Infrastructure funds

# Sources of Funding

- Debt
  - Indian Banks & FIs incl. PFC, REC, IDFC & IIFCL
  - ECAs & ECBs
  - Insurance Funds
  - Bonds
  - Multilateral funding (ADB & World Bank)
  - Newer instruments like Subordinate debt
- Special Schemes like APDRP & RGGVY

# Funds Availability for Generation Sector

(All figures in Rs Crore)

	State	Central	Private	Total
<b><u>Funds Requirement</u></b>				
- Debt	105,910	157,266	154,301	417,477
- Equity	45,390	67,400	66,129	178,919
<b>Aggregate Requirement</b>	<b>151,301</b>	<b>224,665</b>	<b>220,430</b>	<b>596,396</b>
<b><u>Funds Availability</u></b>				
- Debt	102,314	132,124	46,676	281,114
- Equity	-	53,484	66,129	119,613
<b>Aggregate Availability</b>	<b>102,314</b>	<b>185,608</b>	<b>112,805</b>	<b>400,727</b>
Financing Gap - Debt	3,596	25,142	107,625	136,363
Financing Gap - Equity	45,390	13,916	-	59,306
<b>Aggregate Financing Gap</b>	<b>48,987</b>	<b>39,057</b>	<b>107,625</b>	<b>195,669</b>

1. Debt funds availability for Generation sector considered at ~62% of total debt availability based on historical trends
2. Ratio for debt funds availability for State, Central & Private sector considered at 45:43:12 based on historical trends

# Key Observations & Issues

## Equity Funding

- No problems envisaged in equity funding of private sector generation projects – 100% FDI already permitted
- State sector projects to be severely affected on account of funds shortage for equity investment – Reflection of overall poor health of state government finances
- Equity funding gap least in case of central sector generation projects – can be reduced further through funding at D/E ratio of 80:20; However,
  - Not all banks are comfortable lending @ 80:20 for all projects
  - CERC Tariff Regulations lead to a 70:30 D/E structure

# Key Observations & Issues

## Debt Funding - Constraints in Funding

- Debt funding for projects constrained by exposure norms of Banks / FIs / other lending agencies
  - RBI Exposure norms: 20% for single borrower & 50% for Group (% of NW)
  - Bank Prudential norms: 12.5%–15.0% of total bank advances for the sector
- State sector projects also likely to face shortage of debt funding
  - Most banks may find it difficult to finance state sector projects due to poor state finances
  - Exposure ceiling of PFC / REC may get reduced with application of RBI Prudential norms for systemically important NBFCs
- ECB tenor normally < 10 yrs leading to repayment mismatch
- ECA not easily available esp. from China which is emerging as largest supplier

*Limited size of domestic Debt markets & recent restrictions on raising ECBs likely to be a major bottleneck in achieving capacity addition targets for Power sector in the XI Plan period*

# Key Observations & Issues

## Debt Funding - New Trends

- Tariff based bidding leading to evolution of newer debt structures to enable lower levelised tariff
  - Back end bullets
  - Take out financing
- Subordinated debt to substitute equity
- Rupee appreciation in last year leading to higher demand for ECB and ECA funds; However, sub-prime crisis leading to lower availability of ECBs
  - Comparison to be made between fully hedged ECB and rupee funds

*New debt structures to minimize cost of borrowing*

# Measures to bridge Financing gap

- Introduction of newer financing instruments, especially for mobilizing direct investment by individuals in power sector development
- Higher reliance on equity instruments e.g. IPO/offer for sale by profit-making power sector companies / utilities
  - Will help ensure availability of additional equity funds
  - Equity gap in Central sector may get substantially bridged through this measure

# Measures to bridge Financing gap *(ctd.)*

- Tie-up of ECAs in addition to ECBs as a source of funds
  - E.g., lot of equipment sourcing from China but no ECAs from China.
  - Bilateral dialogue required to encourage funding from Sinosure.
- Inclusion of funding for small generation projects
  - All commercial banks are required to lend at-least 40% of the aggregate bank advances to the Priority sector
  - Likely projects for inclusion in priority sector - DDG projects, micro & mini hydro projects, wherein investment in P&M is less than Rs 10 crore; Projects based on new & renewable energy sources typically supply power to remote & unprivileged areas

# Key Financing Issues for Banks

- Stricter environment-related norms on account of Kyoto protocol – banks may find it difficult to extend lending to projects which fail to comply with revised norms which are more stringent
- Operationalization of Basel II norms from April 2008 onwards
  - Undrawn commitments to be counted towards exposure – would attract commitment charges
  - Mandatory credit rating

# Conclusion

- Under existing system, shortage of both debt & equity funding likely for power sector – Capacity addition targets may not be met on account of funds shortage
- Strong power sector companies need to leveraged their good health to tap financial markets and PE/infra funds for raising equity
- Urgent need to adopt measures to improve financial health of state government utilities –
  - Enhance internal resource generation
  - Develop more projects on PPP basis
- Domestic debt markets not large enough to meet funds requirement for the power sector – ECA and ECB funding to be explored
- Greater direct participation by general public in power sector development – mobilize financial resources through Power bonds etc.

*Thank You*