ENERGY INFRATECH PVT. LTD

Redefining Project Management – from Concept to Commissioning

DISCUSSION ON

CERC DRAFT TARIFF REGULATIONS 2009-14

Date: 03 & 04th Nov. 2008

Thermal and Hydro power consultant

GAP IN INVESTMENT

- Impression was created by many that generating companies earn huge returns on their investment
- The reality is reflected through the Return on net worth as below:

Company	2005-06	2006-07	2007-08
NHPC	4.87%	5.59%	5.81%
NTPC	14.16%	15.57%	16.10%

Source: Published Annual Report on the website

- Out of 50000 MW hydro initiative, DPR for only 6540 MW completed upto 30.09.2008 (Source : CEA website)
- Out of 148701 MW of hydro potential identified, only 21.95% has been constructed and only 9% is under construction
- Huge risk such as geology, insurgency, land acquisition, etc. in power sector and if the return is not adequate, investment may not come in big way
- Only sector wherein the lenders insist for long term selling arrangement, whereas in other capital intensive industry like mining, petroleum, etc. no such expectation from the lenders

GAP IN INVESTMENT

Contd.

- Financial closure is achieved with certain tariff regulations and any change during implementation affects investors confidence and risk perception of the project, such as hydrology risk shifted to the generating co. , reduction in incentives, etc. will have adverse impact
- Before the long term hydro policy, the investors have committed investments by giving concessions such as additional free power, project premium, etc. on the assumption tariff based bidding will be available to hydro projects. As hydro policy states that tariff based bidding is not possible for hydro projects, those commitments given to the State Governments (before hydro policy) should be pass through to the generators

ISSUES ALREADY COVERED

- Return On Equity – 18%
- Tax on UI and Incentive – To be a pass through
- Reduction in Incentive – 0.65% to 0.33% of AFC
- Interest on Working Capital – 45 days to 60 days for receivables
- Special allowance for capital expense – to be given to hydro as is proposed for thermal
- Additional Capitalization
- R&M
- Deemed Generation for reasons beyond control of generator

DEPRECIATION

- Difficult to get the loan with the door to door maturity period of 20 years
- In the interest of beneficiary, loan component beyond 70% is to be considered for depreciation as it gives lower tariff
- In case of BOOT, the transfer value is 'NIL' after the concessionary period and hence, the depreciable value has to be 100% for such projects
- The life of the project for the purpose of depreciation in case of BOOT projects should be based on the concessionary period and not on normative life as proposed in the draft regulation
- In other cases, existing regulation including AAD needs to continue

O&M EXPENSE

- 1.5% of Capital Cost is very low for new Hydro Projects
- Example of Salal Hydro Project, the least O&M Expense among NHPC projects, is analyzed as below:
  - O&M expenses escalated to 2009-10 level: Rs. 14.10 lacs per MW
  - Total O&M Expenses in 2009-10 for Salal :Rs. 9729 lacs p.a.
  - For similar Capacity new hydro project

    assuming capital cost of Rs. 6 crs. per MW

    O&M expense as per norm : Rs. 6210 lacs p.a.
  - Allowed O&M charges 36% lower than actual
- There is a case for increasing to minimum of 2.5% of Capital Cost for new Hydro Projects
- Escalation to be linked to price index rather than historical

HYDROLOGICAL RISK

- Risk of hydrology is being passed on to the generating companies
- If it happens in the initial years of commissioning, the generator will be defaulting in loan repayment
- Design energy is based on historical hydrological data which is quite variant from the actual discharge data
- The existing mechanism needs to continue

MERIT ORDER DESPATCH & PROGRESSIVE DECLINE OF INCENTIVES

- With the introduction of Capacity Charge Apportionment Factor (CCAF) of 50% in case energy charge is more than the lower variable cost of thermal station of concerned region, there would be spillage of water, which is zero cost energy
- Year after year the secondary energy charges will come down, when the variable cost of thermal will go up
- If the energy rate is pegged, the incentive for higher availability will further go down
- Progressive decline of incentive year after year is what is proposed
- Is the development nearing saturation that we need to roll back?
- We propose that the concept of CCAF should be dropped and the incentive and secondary energy charges should be treated the same way as is being done now

CDM BENEFITS

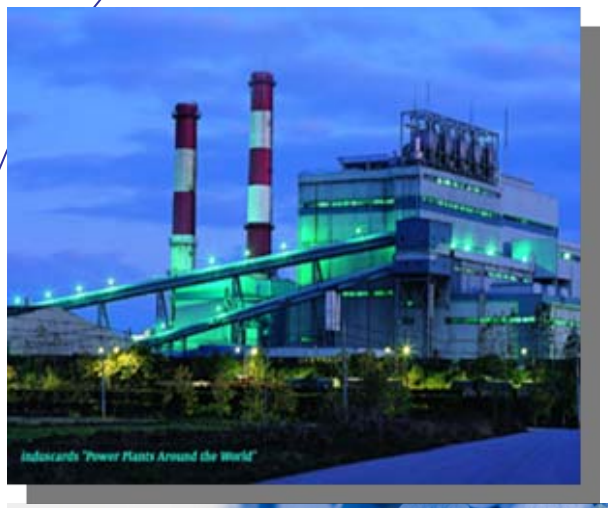
- The CDM benefits are given to the hydro power projects to make them attractive for investment and viable economically.
- The mechanism has been devised to encourage innovation in technology, which will make the world greener and cleaner.
- If such benefits are withdrawn partially or fully, this will definitely affect the investment climate in the hydro power sector.

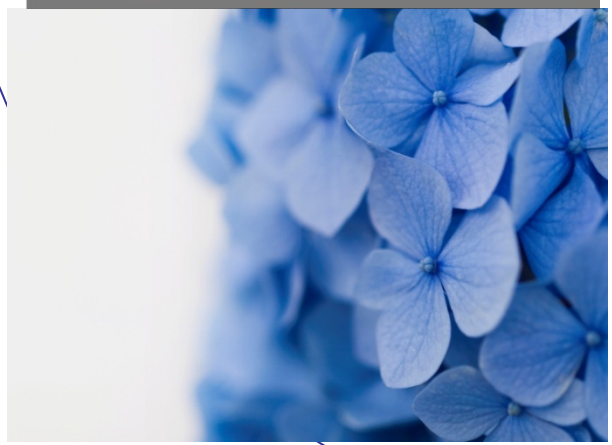
NAPAF

- For new stations NAPAF has not been fixed in the draft regulations
- A point being made that due to better technology availability should be better. However, teething problems are expected in the initial years and bathtub curve is typically present in any project life cycle irrespective of the technology
- Accordingly, NAPAF of new stations may be fixed at 40 % (or 5 % less than the design PLF) for ROR with pondage/storage stations and 85 % for purely ROR stations in the first 2 years and for later years it may be increased by 5%.
- Normative Annual Plant Availability Factor (NAPAF) has been increased based on average past performance, which means that eventually there will be no incentive effectively, but only a disincentive for performance

CONCLUSION

- Bottom line of the generator should not be allowed to go less than the ROE and the following are the factors in the draft regulations which can adversely impact and will be viewed by lenders as major risk factors:
  - ✓ O&M Expense of 1.5% for new projects
  - ✓ Hydrology risk – will be perceived to be happening in the initial years of commissioning
  - ✓ Higher NAPAF leading to possible disincentive
  - ✓ Depreciation leading to cash flow shortage





THANK YOU