NTPC Submissions on Draft CERC Tariff Regulations for 2014-19

Public Hearing – 15.01.2014

Introduction

- As mandated in EA-2003, Hon'ble Commission has been providing an enabling & transparent regulatory framework, balancing consumer interest and facilitating investment in the power sector.
- CERC Regulations have always facilitated NTPC's capacity addition. As a result, NTPC added 12040 MW during 2008-13.
- In 2012-13, NTPC contributed over 27% of total generation with 18.44% share in total capacity of the country.

Introduction (...Contd.)

- NTPC commends Hon'ble Commission for the Draft Regulations for 2014-19 for eliminating ambiguity in many provisions & including provisions to take care of R&M beyond useful life, recognising need of certain capex at fag end, employee future pay revision with sincere hope of inclusion of PRP, retaining Debt Equity ratio, etc.
- While NTPC would be submitting detailed comments, we are presenting our submissions on certain critical issues.

Incentive Linked to Availability

- CERC shifted to incentive linked to availability in past Regulations supported by strong logic – citing …*'service rendered is capability to supply power'.*
- PLF is beyond generator's control.
- Linking to PLF inconsistent with ABT principles.

Therefore, incentive linked to availability may be retained.

Operational Norms

- Proposed norms not achievable in future.
- High PLF would not be sustainable due to:
  - Fuel shortages.
  - Deteriorating coal quality—GCV Trend
  - Aging/old units.
  - Suppressed demand.

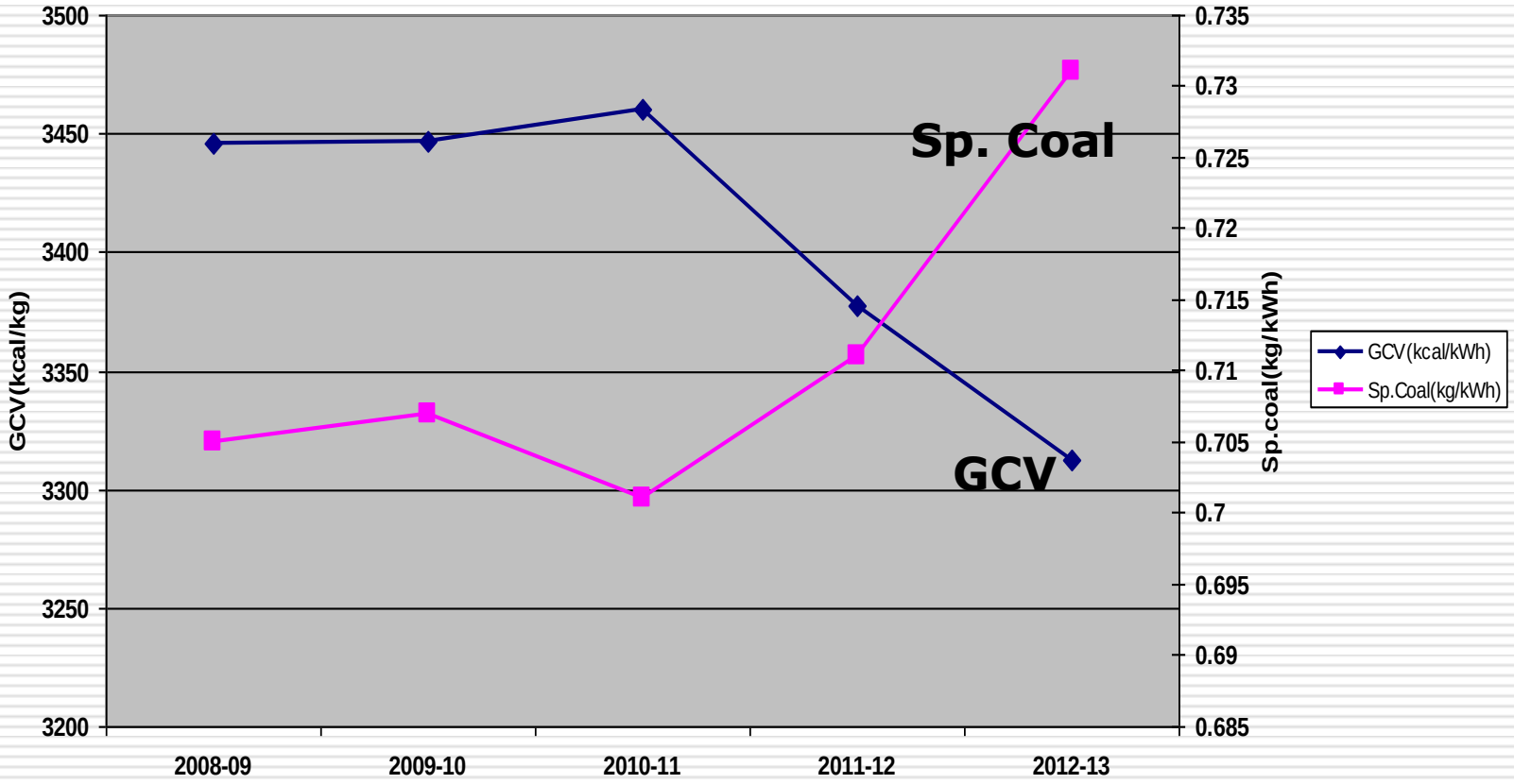
Coal Quality Trend

Year	NTPC Avg. GCV (Kcal/ kg)	Sp. Coal (Kg/Kwh)
2008-09	3445	0.705
2009-10	3445	0.707
2010-11	3458	0.700
2011-12	3379	0.711
2012-13	3311	0.730

Deteriorating coal quality (from 3458 to 3311 kcal/kg) has impacted all operation parameters (heat rate, APC & SFC) adversely.

Coal Quality Trend

NTPC-GCV vs Sp. Coal



Operational Norms

- Proposed norms not achievable in future.
- High PLF would not be sustainable due to:
  - Fuel shortages.
  - Deteriorating coal quality.
  - Aging/old units ---Vintage
  - Suppressed demand.

Vintage of Units

Units	Age of units in years		
	>25	20-25	15-20
Coal - 60-110 MW	11	1	1
Coal – 200 MW	18	8	6
Coal – 500 MW	4	6	4
GT/ST	0	20	7
Total	23	35	18

Aging of Units leads to deterioration of operating norms (heat rate, APC & SFC).

Operational Norms

- Proposed norms not achievable in future.
- High PLF would not be sustainable due to:
  - Fuel shortages.
  - Deteriorating coal quality.
  - Aging/old units.
  - Suppressed demand - PLF Trend
    URS
    Partial Loading

PLF of Coal Stations

Year	National	NTPC
2007-08	78.5%	92.2%
2008-09	77.2%	91.1%
2009-10	77.5%	90.8%
2010-11	75.1%	88.3%
2011-12	73.3%	85.0%
2012-13	70.0%	83.0%
2013-14(up to Dec'13)	64.62%	79.14%

As a consequence of suppressed demand, the national and NTPC PLF is falling sharply.

Coal Stations – Unrequisitioned Surplus (URS)

YEAR	URS (MU)
2010-11	7808
2011-12	6663
2012-13	7808
2013-14 (up to Dec'13)	16744

In 2013-14, URS in NTPC coal stations has significantly increased.

Impact of Partial Loading on Heat Rate

Station	Heat Rate in Kcal/kwh at various Loading (%)			Change in Heat Rate (kcal/kwh)	
	100	80	60	100 to 80 %	80 to 60 %
Sipat 660 MW	2202	2224	2277	-22.1	-52.7
Simhadri II 500 MW	2278	2332	2415	-54	-84
Unchahar III 200 MW	2293	2343	2431	-49.9	-87.5

Operational Norms (Contd…)

- Norms to be based on country wide average & not on basis of top performers.
- Actual heat rate, APC & SFC of many stations / stages post grid disturbance (July/August 2012) are higher than proposed norms.
- Existing operating Norms may be retained

Heat Rate of NTPC stations / stages

Station	Normative Heat Rate		Actual Heat Rate	Gap (Proposed – actual)
	2009-14	2014-19 proposed	2013-14 (up to Nov'13)	
Tanda	2825	2750	2793	-43
Talcher Kaniha Stg-1	2425	2375	2412	-37
Rihand Stg-1	2385	2335	2364	-29
Singrauli Stg-2	2425	2375	2398	-23
Sipat Stg-1	2350	2306	2329	-23
Farakka Stg-3	2443	2375	2394	-19
Dadri Coal Stg-2	2425	2375	2393	-18
Sipat Stg-2	2425	2375	2390	-15
Vindhyachal Stg-4	2425	2375	2388	-13
Farakka Stg-1	2500	2425	2435	-10
Rihand Stg-2	2425	2375	2383	-8
Unchahar Stg-1	2500	2425	2427	-2
Farakka Stg-2	2425	2375	2377	-2
Kahalgaon Stg-1	2500	2425	2427	-2
Badarpur	2825	2750	2751	-1

Operational Norms (Contd…)

- Norms to be based on country wide average & not on basis of top performers.
- Actual heat rate, APC & SFC of many stations / stages post grid disturbance (July/August 2012) are higher than proposed norms.
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Retention of Pre-tax RoE

- In 2009 CERC shifted to pre-tax RoE at the behest of beneficiaries in order to
  - Limit tax liability of purchasers to RoE.
  - Allow retention of tax benefits by investor for promoting growth.
- Cash flow helps generate negotiating lower interest rates which reduces tariff. (Avg. interest rate of NTPC is around 8% versus SBIPLR of 14.45%)
- NTPC's investment in 14,121 MW under construction representing investment of over Rs.1,04,000 Cr (Rs.36,822 Cr has been invested up to 31.12.2013) shall be in jeopardy.

Retention of Pre-tax RoE (.Contd)

- Passing benefits meant for developers under 80IA of IT Act to beneficiaries shall defeat purpose of the IT Act to attract investments in the power sector.
- Shift to tax recovery based on actual parameters - actual PBT, actual tax paid, is inconsistent with normative approach.
- New projects planned in the coming years as per our PPAs signed with different beneficiaries requiring investment of around Rs. 4,80,000 Cr would be adversely affected.
- Even our focus on Renewables would be highly affected.

Therefore, existing pre-tax RoE may be retained.

Normative Plant Availability

- Existing shortage scenario in domestic coal to continue.
- CSA 2012 for stations commissioned after 01.04.2009 will enable only 53% PLF achievable from domestic coal & 68% from imported coal.
- Constraints in blending imported coal – boiler design, transportation & logistics and impact on variable charges.

Target availability of projects with COD after 01.04.2009 may be set at 70%, commensurate with the FSA.

Even for our stations prior to 01.04.2009, in the coming years it would be difficult to achieve 80%. Hence for these stations it should be 80%.

Return on Equity

- On benchmarking with cost of debt there is a case for higher RoE of around 18%.
- Using Capital Asset Pricing Model cost of equity works out to around 20%. i.e. risk free return of 8.0% , Beta in today's scenario of 1.21 and risk premium of 10%
- Higher RoE of 2-2.5% in view of increasing risks – in project development, operational risks, fuel shortage, increasing environmental consciousness, land acquisition and water availability, etc.

Therefore, RoE of 18-20% may be considered appropriate.

RoE During Construction

- No return on equity during construction which lowers effective returns.
- Delay in construction due to uncontrollable factors beyond utility's control disincentives generators.
- Allowance for Funds Used during Construction (AFUDC) used by other regulators namely FERC of US for infrastructure sector whereby normative rate of return is provided on capital base during gestation period .

Therefore RoE during construction may be provided.

COD Declaration

- Certification by CEA may delay COD of units with financial implications thereby delaying supply of electricity to beneficiaries.
- Other statutory inspections by electricity, boiler inspector, etc are in any case applicable.

CEA certification may not be insisted upon.

COD Declaration

- Annulment of COD on a subsequent date due to lower availability will have issues of billing, accounting, etc. In any case, generator will be losing fixed charge.

Requirement of demonstration of target availability in next month should be dispensed with.

Regulatory Certainty

- Regulators world wide strive for stability as uncertainty increases costs. (FERC has stated regulatory certainty as one of its guiding principles for facilitating investments in power sector)
- Massive capacity addition required if per capita electricity consumption of states like Bihar (122 Kwh) has to be at par with top states like Delhi (1651 kwh)
- NTPC's capacity addition depends on resource generated based on reasonable pre-tax RoE with 80IA benefit, incentive on PAF and marginal contribution.

Regulatory Certainty

- Reversals in approach (pre to post-tax RoE, incentive linked to PLF) & stringent operating norms to affect revenue & jeopardize viability of projects conceived based on 2009 Regulations.
- NTPC may not be able to honour PPAs signed with States (around 1,01,000 MW plus expansions and Renewables allowed in Tariff Policy) & purpose of providing electricity to end consumer would not be served.

In view of above, Hon'ble Commission may consider our suggestions to minimize regulatory risk and to sustain growth & investment in generation.

Thank you