

# **Long Term PPA between MSEDCL and Lanco (Teesta VI hydro project)**

Comments/Suggestions  
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9<sup>th</sup> January 2007  
Public Hearing, Mumbai

# Demand Forecast and Capacity Addition

- | Despite growing power shortages, MSEDCL has failed to
  - Submit scientific demand forecast despite MERC directives and repeated requests by us
  - Do an integrated capacity addition plan for meeting the demand
  
- | There is no doubt that peaking power is required to meet the growing peaking demand

# PPA between MSEDCL and Lanco Energy

## I Salient Features

- Power generated at Lanco's Teesta VI hydro project
- Teesta VI – 500 MW run-of-river project in Sikkim
- Long term PPA of 25 years
- MSEDCL to purchase 2121 MU for first 15 years and 2049 MU for next 10 years
- Estimated generation tariff of 2.32 Rs/kWh

è The proposal lacks clarity and has severe data gaps

# Concerns regarding proposal ...1

- | No technical validation session by MERC
- | Inconsistency in MSEDCL's approach
  - Routes available for power purchase
    - | Tariff based Competitive Bidding
    - | PPA route – capital cost and other technical details have to be approved by MERC
  - è *Unfortunately present proposal falls under neither of the two routes*

# Concerns regarding proposal ...2

- | Insufficient data
  - Key technical details of the project are left blank!
    - | Most crucial inputs for determining the capital cost
    - | Have a significant bearing on tariff and viability of project
  - No basis provided for the capital cost
    - | Claimed cost of Rs 2997 Cr or 6 Cr/MW
    - | No break up of the cost provided into various components
  - No details on generation pattern and seasonal variation in power output from the project

# Seasonal variation in generation ..1

- | Significant variation in water flow in Teesta river
  - Key determinant of power generation
  - Design discharge for rated capacity generation = 531 m<sup>3</sup>/sec
  - Average lean season flow = 82.5 m<sup>3</sup>/sec
    - | Minimum flow requirement in the river = 10%
- è Average discharge available for power generation in lean season = 74.25 m<sup>3</sup>/sec

# Seasonal variation in generation ..2

- I Average Lean Season generation
  - Average discharge available for power generation in lean season = 74.25 m<sup>3</sup>/sec
  - è *Average availability of 14% or 70 MW in lean season*
  
  - Lean season for a NE Himalayan glacial river like Teesta is November to April
  - è *Full capacity generation available only between June and September*
  - è Teesta VI power would not be available during peak demand season in Maharashtra (Dec-Jan and Apr-May)

# Seasonal variation in generation ..3

- | CEA's Preliminary observations on Teesta VI
  - Plant will generate at full capacity only during three monsoon months
  - Power generation from Teesta VI is fully dependent on outflows of Teesta V
  
- è *Teesta VI should not be qualified as a peaking plant*



# Generation Tariff

...1

- | Fixed tariff of Rs 2.32/kWh
  - Never mentioned clearly in the PPA
  - Schedule D of PPA uses “sales to MSEDCL of 2121 MU/year...” as an assumption for estimating the tariff !
  - è No clarity about the generation tariff in case of lower generation from Teesta VI

# Generation Tariff

...2

- | Higher D:E ratio
  - D:E ratio envisaged by Lanco for project financing is 80:20
  - D:E ratio used for tariff calculation is 70:30 resulting in higher tariff
  - è *Benefit of higher D:E ratio should be passed on to consumers*
- | Landed cost of power
  - ER CTU Charges not included by MSEDCL
  - STU charges need be added for landed cost at MSEDCL boundary
  - è An obligation for 25 years of non-peaking power primarily available in monsoon at a landed cost of well above 3 Rs/u

# Prayers

1. Direct MSEDCL to submit the DPR of Teesta VI
2. Direct MSEDCL to submit detailed break-up of the capital cost and scrutinize thoroughly
3. NOT to approve the PPA without getting details of the generation and capital cost
4. NOT qualify Teesta VI as a peaking plant
5. Ascertain that tariff should not increase despite lower energy generation
6. Pass on the benefits of higher debt component to consumers