

# Rate of power purchase from Bhandardara HEP - II

Comments/Suggestions

By

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## Overview of the plant

- Commissioned in May 1999
  - Handed over to M/s DLHPPL for 30 years
  - Installed capacity = 34 MW
  - So far, under operation by GoMWRD
  - Water release and hence power generation is controlled by the irrigation schedule
- BHEP II could not be used as a peaking plant without Nilwande Dam
  - Nilwande Dam would be complete only by 2007 (if all schedules are followed as projected)
- Considering supply projections, coming two years are the most critical for MSEB

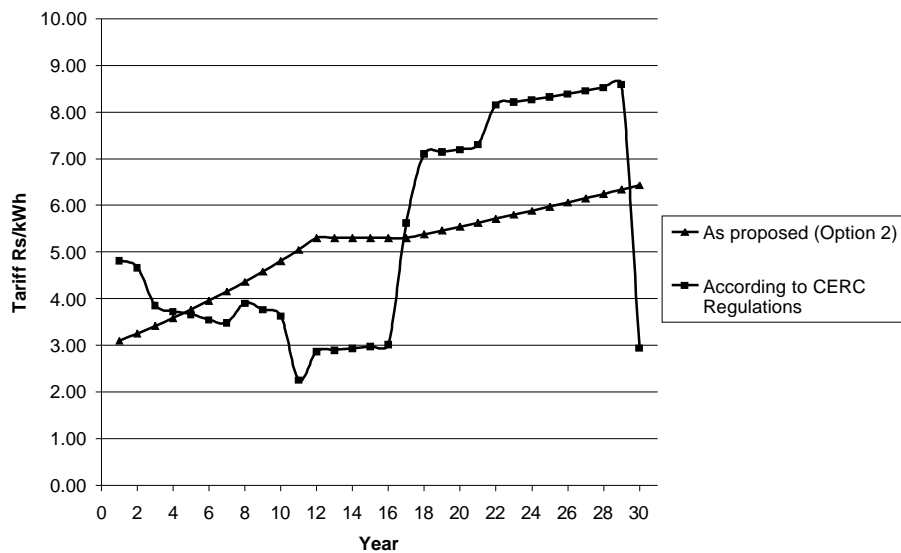
# Overview of the tariff proposal

- Projected energy generation

Year	MW	MU	CUF	Remark
1 – 2	34	34	11%	
3 – 7	34	41	14%	Nilwande Dam at 610/613 m
8 – 30	34	36	12%	Nilwande Dam at 648/653 m

- Total cost of Rs 322 Cr (spread over 30 years with upfront payment of Rs 60 Cr) to GoMWRD
  - Upfront cost during year 1 = Rs 77 Cr

## Proposed tariff for BHEP II



## Main lacunae in the proposal ...1

- Extremely high tariff
  - Levelised tariff over 30 years is 4.36 Rs/kWh

## Main lacunae in the proposal ...2

- Exorbitant R&M cost
  - Project was commissioned in 1999
  - According to GoMWRD, even today plant is in satisfactory operation
    - Successful full load run during 9 – 16 August 2005
  - Proposed R&M cost of Rs 10 Cr (17% of upfront payment of Rs 60 Cr)
    - O&M expenses incurred so far are significantly higher than the CERC norms
  - Such high cost should be disallowed

## Main lacunae in the proposal ...3

- Other factors adding to high capital cost of the project
  - Commitment charges to FIs = 2% of loan
  - Consultant, legal fees etc = 2% of loan
  - Sponsors Development Cost = 2% of upfront payment
  - Performance bank guarantee = 3% of upfront payment
- Total of such costs = ~ 12% of upfront payment of the capital cost (Rs 60 Cr)

## Main lacunae in the proposal ...4

- No comparison with alternatives
  - No other options available have been considered
  - Agricultural feeder segregation
  - Open cycle Gas Turbines
    - Peaking as well as intermediate operation
  - Mass scale DSM scheme using CFLs
    - Great potential of peak relief

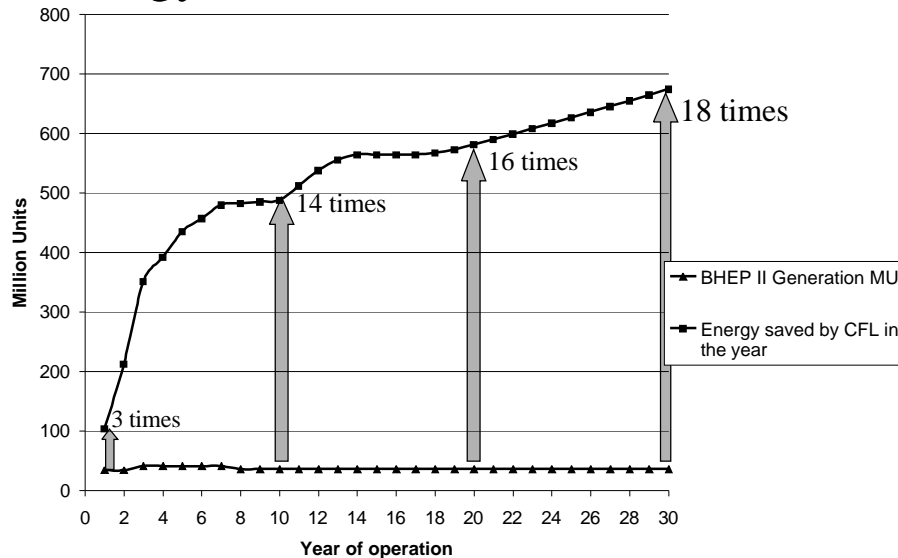
## Comparison with alternative

- The project is proposed to operate as a peaking plant
  - Comparison should be with a peak power provider or a peak reliever
- Let's compare the project output with a DSM scheme using CFLs
  - Environmentally benign option

## Comparison with mass CFL scheme..1

- Mass CFL scheme
  - Distribute CFLs equivalent to yearly cost to utilities on account of power procurement from BHEP II
    - Distribution may be free of cost or at a nominal cost to consumers
- Assumptions
  - CFL cost = Rs 50/piece
  - Daily operation = 4 hours
  - Power saving (at consumer's end) = 45 W/piece
  - Peak coincidence factor = 0.75
  - Life of CFL = 3 years (4400 hours)

## Energy benefit for same annual cost



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## Comparison with mass CFL scheme..2

- Same rigor and efforts as put in for BHEP II would be required to make a successful mass CFL scheme
  - Cost of Rs 50/piece is easily achievable
- è In conclusion, with the current proposal, BHEP II power is 18 times costlier than the other option which is also environmentally benign.

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## Comparison with mass CFL scheme..3

- Huge employment potential
  - CFL scheme can employ thousands through various stages in supply chain
- “Energy benefit of 18 times” is a conservative estimate
  - The energy is saved at consumer’s end (Add 20% T&D losses)
  - Improving efficiency and reducing cost trends in lighting technology

## Another crucial issue

- No obligation on MSEB to purchase this power
    - Clause 3.5.13 of the bidding document
- Quote
- MSEB or its successor entity may or may not purchase electricity generated by the entrepreneur. The bidder will be allowed to use the generated energy as a captive use or he will be allowed to sell the same to any interested consumer located in Maharashtra per the provisions of Electricity Act 2003.*
- Unquote
- It should not be made mandatory for MSEB to procure power from BHEP II
  - The promoter is free to sell this power to a trader or in the market

## Prayer

- Do not allow MSEB to enter into PPA or any Power Purchase arrangement with M/s DLHPPL for power procurement from BHEP II
  - Extremely high cost power
  - 18 times costlier than the alternatives