

ARR and Tariff Revision application of REL for FY 07

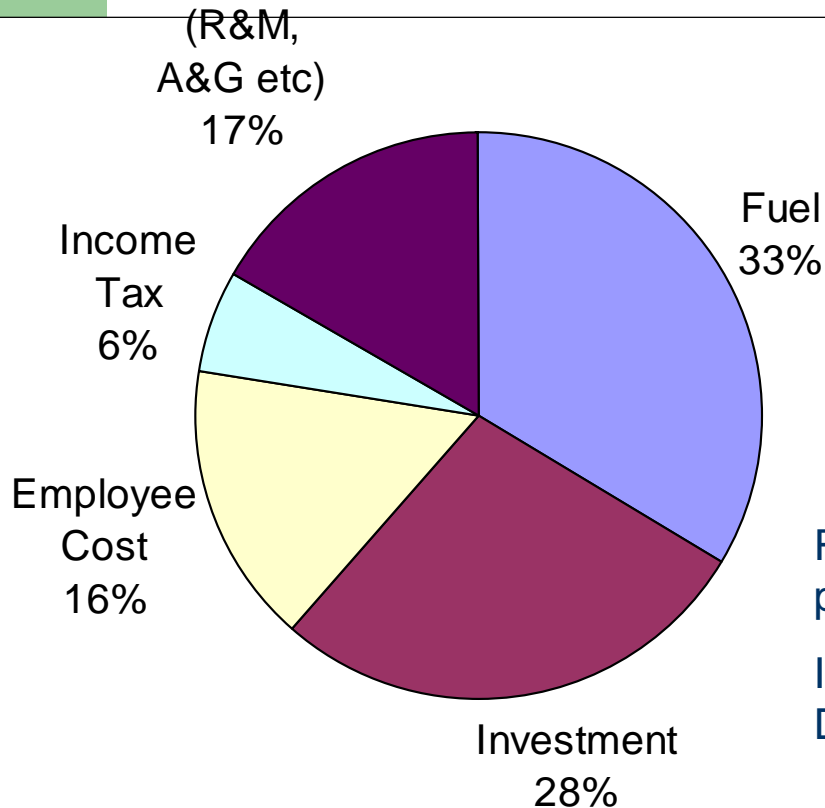
Prayas Energy Group

12 June 2006

Public Hearing, Mumbai



Major Components of REL ARR



Profits, Depreciation,
Interest, Income Tax = 34%

Employee Cost = 16%

REL ARR excluding power
purchase cost

Investment includes RoE,
Depreciation and interest

Effective Tariff Hike for FY 07

	04-05 (Actual)	05-06 (Actual)	06-07 (Existing)	06-07 (Proposed)
Total sales (MU)	6502	6895	7248	7248
Total ARR recovered from retail tariff (Rs Cr)	2236	2585	2709	3003
Average realization (Rs/kWh)	3.44	3.75	3.74	4.14
Tariff increase in FY 06-07 (Rs Cr)				294

➔ Tariff hike = 40 paise/kWh or **11%**

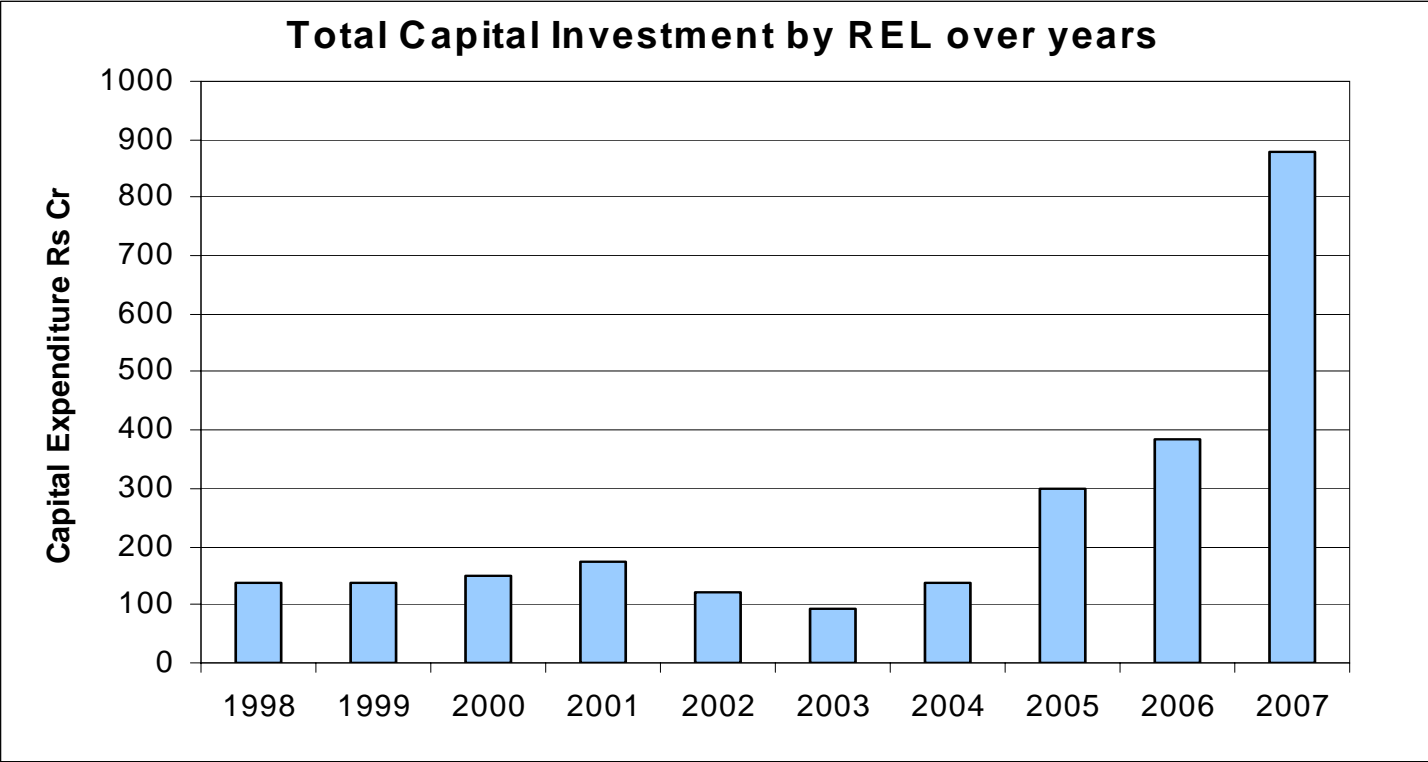
➔ If TPC hike factored, effective tariff hike = **30%**

Uniform Retail Tariff

- Reduces accountability of the licensee
 - Other issues
 - Inappropriate comparison with other services
 - Argument could be stretched to entire state
 - What happens to MSEDCL consumers in Mumbai (Mulund, Bhandup) ?
 - Differential tariffs already in place for MSEDCL area
- ➔ Request MERC not to approve uniform tariff in Mumbai

Capital Expenditure

...1



Capital Expenditure over years

	FY 03	FY 04	FY 05	FY 06	FY 07
Capital investment in the year (Rs Cr)	92	137	299	384	877
Total energy input to REL system (MU)		7156	7457	7923	8351
Actual Maximum Demand (MVA)	1226	1274	1272	1331	1398
CapEx (Rs /input kWh)		0.19	0.40	0.48	1.05
CapEx (Rs Cr/maximum MVA)	0.08	0.11	0.23	0.29	0.63

→ Growth in CapEx is disproportionately sharper than system demand growth

Capital Expenditure: Some Examples ...1

- Receiving Stations (122 Cr)
 - Last 5 yr actual CAGR (2.1%) is much lower than that projected by REL (5%)
- Meters and instruments (169 Cr)
 - MERC in-principle clearance of 74 Cr
 - Details should be submitted
- Service Lines (68 Cr)
 - Supply code allows recovery of service line cost

Capital Expenditure: Some Examples ...2

- 11 kV and LT cables (144 Cr)
 - At normative cost this is equal to thousands of Ckt km of 11 kV line AND 2000 ckt km LT line
 - Need and cost should be re-evaluated (against present assets)
- Distribution Transformers (82 Cr)
 - At normative cost this is equal to 8000 new DTs
- Mobile DG sets & DTs
 - Already provided in Disaster Management Plan

Capital Expenditure

...3

- CapEx already incurred
 - Detailed evaluation by MERC on conditions in “in-principle” clearance
 - Out of the proposed CapEx, MERC should allow only critical schemes now (safety etc)
 - REL should submit 3 year roll-out plan
 - Should be submitted by REL along with DPRs
 - Gives a long term comprehensive view
- ➔ Any CapEx should stand the tests of usefulness and prudence

Fuel Cost

- REL should blend Indian Raw coal with imported Coal
 - Lower Coal Cost (in Rs/1000 kCal)
 - Calorific value of washed coal is reducing (barely 3% higher than raw coal)
 - Is cost of coal washing justified ?
- Saving of **41 Cr/year**

DTPS Performance

Parameter	FY 05	FY 06	FY 07
Heat rate (kCal/kWh)	2272	2286	2315
Auxiliary consumption (%)	7.5%	7.6%	8.5%
R&M expense (Rs Cr)	21	23	34
CapEx (Rs Cr, excluding FGD)	8	18	62
Coal mix	Indian raw, washed and imported	washed and imported	washed and imported

➔ MERC should analyse DTPS performance in detail

Effect of Normative Generation Parameters

- Use of normative heat rate (2500 kCal/kWh)
 - Historically heat rate is around 2300 kCal/kWh
 - MERC Tariff Regulations, 2005 (Section 26.2)
 - “ *In case of an existing generation station, the Commission shall determine the tariffs having regard to the historical performance of such generating station* ”
- ➔ Increase of ~ 80 Cr (effective RoE for REL = 21%)

Employee Cost ...1

	2004-05 (MERC)	2004-05 (Actual)	2005-06 (Actual)	2006-07 (Projected)
Employee Expense Rs Cr	136	201	201	283
Number of employees	NA	5,281	5,171	5,067
Employee expense as paise/kWh sold	21	31	29	39
Employee expense as Rs/man-month	NA	31,742	32,408	46,564

- Large deviation in FY 05 from MERC approved value
- Actual increase in Rs/man-month is 45%

Employee Cost ...2

- Need to scrutinize employee costs in detail
 - Deviation of 50% from MERC approval in FY 05
- MERC should take a rational approach
 - For example, benchmarking employee productivity in Rs/kWh indexed to say CPI or RPI

True-up for past over recovery

- True-up for FY 05
 - Large deviations from MERC approved value
 - MERC should evaluate REL's performance for FY 05 and consider for true-up
 - Revenue and cost submitted in ARR should be reconciled with audited accounts
- True-up for FAC
 - MERC has already passed the order to consider over recovered FAC for true-up

Determination of Regulatory Equity

- Need for accurate estimation
 - All profits are linked to equity
 - REL has not submitted detailed working of reasonable return for FY 06
 - Equity estimation of REL (1337 Cr)
 - Inclusion of certain Reserves and Appropriations not in conformity with MERC Tariff Regulations and / or Tariff order principles
- ➔ MERC should validate the equity structure and claimed profits

Miscellaneous Issues

- Non-Tariff income
 - MERC should ensure that other income from all sources such as advertising on the bills etc is counted
 - Income from other businesses should also be considered
- Income Tax
 - Actual income tax liability should be used for FY 05 and FY 06
 - ➔ Reduction of 45 Cr
- Accumulated Depreciation for FY 07
 - Results in lower accumulated depreciation than expected

Prayers ...1

1. Determine utility wise separate tariff and adopt a consistent approach throughout the state
2. Capital Expenditure
 - i. Scrutinize CapEx already incurred by REL with reference to conditions in in-principle clearance
 - ii. Direct REL to submit 3 year rolling plan along with DPRs to get comprehensive view about investments
3. Employee Cost
 - i. Scrutinize increased employee cost in previous years
 - ii. Set a rational benchmark

Prayers ...2

4. Fuel Cost

- i. Direct REL to use Indian raw coal and disallow higher cost of washed coal (41 Cr/year)
- ii. Disallow excess transit loss (10 Cr/yr)
- iii. Analyse DTSPS performance and R&M in detail

5. Regulatory Equity

- i. Restate opening equity of REL in conformity with MERC tariff regulations and tariff order principles

6. True-up

- i. Past over recovery in FY 05 and FAC
- ii. Actual income tax paid by licensee in FY 05 and FY 06

Prayers ...3

7. MERC Order should include detailed calculations and analysis as well as responses to comments by public.
8. Soft version (Spreadsheets) with formulae of calculations should be available on MERC's website