

**Annexure 1**  
**(Referred to in Para 3.1)**

### Tariffs quoted by the bidders in the four awarded UMPPs

Name the UMPP	Name of the bidder	Levelised tariff quoted ₹ per unit	Tariff Accepted ₹ per unit
Sasan (Letter of intent issued on 1 August 2007)	Globeleq-Lanco consortium	1.196*	<b>1.196</b>
	Reliance Power Limited	1.196 #	
	Tata Power Company Ltd.	1.412	
	Jai Prakash Associates Ltd.	1.650 #	
	Sterlite Industries Ltd.	1.743	
	Essar Power Ltd.	1.760	
	Jindal Steel and Power Ltd.	1.799	
	NTPC Ltd.	2.126 #	
	Larsen & Toubro Ltd.	2.251	
Tilaiya (Letter of intent issued on 12 February 2009)	Reliance Power Ltd.	1.770	<b>1.770</b>
	NTPC Ltd.	2.391	
	Jindal Steel and Power Ltd.	2.691	
	Sterlite Industries Ltd.	2.972	
Mundra (Letter of intent issued on 28 December 2006)	Tata Power Company Ltd.	2.264	<b>2.264</b>
	Reliance Power Limited	2.661	
	Adani Enterprises Ltd.	2.696	
	Essar Power Ltd.	2.801	
	Larsen and Tubro Ltd.	3.220	
	Sterlite Industries Ltd.	3.746	
Krishnapatnam (Letter of intent issued on 30 November 2007)	Reliance Power Ltd.	2.333	<b>2.333</b>
	Larsen and Tubro Ltd.	2.690	
	Sterlite Industries Ltd.	4.197	

\* Globeleq-Lanco consortium was initially identified as the lowest bidder and was issued the Letter of Intent (LOI). But, the LOI was cancelled in July 2007 on grounds of misrepresentation of facts and the project was awarded to Reliance Power Limited who matched the tariff quoted by Globeleq-Lanco consortium.

# The bidders who extended the validity of their bids and submitted revised price bids subsequent to cancellation of LOI initially issued to Globeleq-Lanco consortium.

**Annexure 2**  
**(Referred to in Para 4.2(i))**

## Technical experience claimed which may not conform to the qualifying requirements

(₹ in crore)

Name of project	Experience claimed by REGL	Experience which may not conform to the qualifying requirements	Reasons for non-conformation of experience claimed	Admissible experience considering available evidence	
Sasan & Mundra *	REL(Generation & T & D projects) - parent	2137.49	2137.49	There was no evidence to show that capitalizations pertained to projects commissioned during the last 10 years. M/s E&Y have stated in their factual note that these are ongoing projects.	0.00
	BSES Kerala Power Limited – Affiliate	594.15	0.00	Can be considered if indirect voting power of parent is also allowed.	594.15
	BSES Yamuna Power Limited – Affiliate	290.04	290.04	M/s E&Y have stated in their factual note that these are ongoing projects	0.00
	BSES Rajdhani Power Limited – Affiliate	348.18	348.18	M/s E&Y have stated in their factual note that these are ongoing projects.	0.00
	Western Electrical Supply Co. of Orissa Limited – Affiliate	128.39	128.39	(i) M/s E&Y have stated in their factual note that these are ongoing projects	0.00
	Northern Electrical Supply Co. of Orissa Limited – Affiliate	134.44	134.44	-ditto-	0.00
	Southern Electrical Supply Co. of Orissa Limited – Affiliate	85.34	85.34	-ditto-	0.00
	Samalkot Power Project – Parent	656.65	0.00	Eligible	656.65
	Wind Farm, Jogimati – parent	41.92	0.00	Eligible	41.92
	<b>Total</b>	<b>4416.60</b>	<b>3123.88</b>	<b>Total</b>	<b>1292.72</b>

Krishna-patnam	REL (Generation & T & D projects) – Parent	2137.49	2137.49	There was no evidence to show that capitalizations pertained to projects commissioned during the last 10 years.	0.00
	BSES Kerala Power Limited – Affiliate	594.15	0.00	Can be considered if indirect voting power of parent is also allowed.	594.15
	Samalkot Power Project – Parent	656.65	0.00	Eligible	656.65
	Wind Farm, Jogimati – Parent	41.92	0.00	Eligible	41.92
	<b>Total</b>	<b>3430.21</b>	<b>2137.49</b>	<b>Total</b>	<b>1292.72</b>
Tilaiya	REL(Generation & T & D projects) – Parent	2254.61	2254.61	There was no evidence to show that capitalizations pertained to projects commissioned during the last 10 years.	0.00
	BSES Kerala Power Limited – parent	594.15	0.00	Eligible	594.15
	Samalkot Power Project – parent	656.65	0.00	Eligible	656.65
	<b>Total</b>	<b>3505.41</b>	<b>2254.61</b>	<b>Total</b>	<b>1250.80</b>

\* REGL (RPL) did not win the Mundra bid but was declared qualified at the RFQ stage

**Annexure-3**  
**(Referred to in Para 4.3)**

### Details of Excess land agreed with successful bidders in respect of SPVs

		As per CEA norms *	Land agreed	Difference
		(In acres)	(In acres)	(In acres)
<b>(A) Coastal Gujarat Power Ltd. (For Mundra UMPP)</b>				
A	Main Power Plant	840	1524	684
B	Ash Dyke	390	595	205
C	Other Facilities (MGR System, Intake outfall channel)	150	499	349
D	Township	150	450	300
	<b>Total</b>	<b>1530</b>	<b>3068</b>	<b>1538</b>
<b>(B) Coastal Andhra Power Ltd. (For Krishnapatnam UMPP)</b>				
A	Main Power Plant and colony	990	1915.90	925.90
B	Ash Pond	390	533.56	143.56
C	Other Facilities outside plant area	150	176.22	26.22
	<b>Total</b>	<b>1530</b>	<b>2625.68</b>	<b>1095.68</b>
	<b>Grand Total</b>			<b>2633.68</b>

\*CEA's Report of December 2007 on the land requirement of Thermal power stations.

**Annexure -4**  
**(Referred to in Para 5.1(vii))**

## A chronology of the events relating to grant of permission for use of surplus coal from captive mines of Sasan UMPP for Chitrangi Project

Event	Month/Date
Issue of Request for Qualification (RFQ) for Sasan UMPP	31.3.2006
Opening of RFQ	1.6.2006
Issue of Request for Proposal (RFP) for Sasan UMPP	21.8.2006
Allocation of captive coal blocks for Sasan UMPP	Moher & Moher Amlohri extn.- 13.9.2006
Ministry of Power requested Ministry of Coal to allocate another coal block to meet the requirements of Sasan UMPP	October 2006
Ministry of Coal allocated Chhatrasal Coal block to Sasan UMPP	26.10.2006
Opening of RFP	7.12.2006
Issue of Letter of Intent (LOI) to Globeleq-Lanco consortium (the lowest bidder)	28.12.2006
Complaint against award of LOI to Globeleq-Lanco Consortium	Feb 2007
Complaint against Globeleq Lanco examined by PFC, MoP and E-GoM (constituted on 14 June 2007)	February 2007 to July 2007
Cancellation of LOI to Globeleq-Lanco consortium	26.7.2007
Issue of LOI to Reliance Power Limited (second lowest bidder who matched the bid of Globeleq-Lanco)	1.8.2007
Signing of agreements for award of Sasan UMPP to RPL	7.8.2007
Chief Minister/Madhya Pradesh's letter to Prime Minister recommending diversion of surplus coal from captive mines of Sasan UMPP to Chitrangi project of RPL	2.11.2007
RPL submits a mining plan for Moher and Moher Amlohri Extn coal blocks with annual production of coal of 12 Million Tonne	March 2008
E GoM meetings to <i>inter alia</i> discuss the issue of use of surplus coal	28.5.2008 and 14.8.2008
E GoM recommendation for use of surplus coal for other projects of RPL	14.8.2008
RPL submits revised mining plan for Moher and Moher Amlohri Extn for 20 Million Tonne per annum indicating a surplus of coal over the requirements of 16 Million Tonne per annum for Sasan UMPP	September 2008
In-principle approval of Ministry of Coal to the E GoM recommendation to use surplus coal from captive mines of Sasan UMPP in Chitrangi project of RPL	18.11.2008

Filing of Writ petition in High court by Tata Power Company Ltd against the permission to RPL to use surplus coal from Sasan UMPP to Chitrangi project	3.1.2009
Date of raising the issue first by Audit	16.3.2009
Approval of mining plan for Chhatrasal Coal block for production of 5 Million Tonne per annum.	March 2009
Rejection of petition of Tata Power Company Limited by High Court on the ground of suppression of material fact , absence of <i>locus standii</i> of Tata Power Limited to maintain the writ petition and on account of the time taken for approaching the Court for relief.	13.4.2009
Issue of Draft Performance Audit Report on 'Working of SPVs in PFC' to management	20.10.2009
Specific approval of MOC for use of surplus coal in Chitrangi project (gazette notification)	17.2.2010
Issue of Management letter by Audit to PFC	16.6.2010
Issue of Management letter by Audit to the Ministry of Power	27.8.2010
Filing of Special Leave Petition by Tata Power Ltd in Hon'ble Supreme Court.	5.5.2009
Issue of draft audit observation to Ministry of Power with financial implication	29.8.2011
Issue of follow-up Audit report to management of PFC	14.9.2011
Issue of follow-up report to Ministry of Power	12.10.2011
Reply of the Ministry of Power	14.12.2011
E GoM meeting wherein the issue of withdrawal of permission for use of surplus coal from Sasan UMPP to Chitrangi project was inter alia discussed. E-GoM directed the Ministry of Power to revert back after obtaining views of Attorney General of India	5.12.2011
Ministry of Power to revert back to EGoM after obtaining the views of Attorney General of India	March 2012

## Tariff based Comparison

Calculation References	Additional capacity because of surplus coal (Note 4)	Percentage Deducted (Note 1 and 2)		Apportionment of Capacity between the two tariff levels (1241 MW @ ₹2.45 & remaining MW @ ₹3.702) (Note 3)		Units (kWh) produced with surplus coal (MP)	Units (kWh) produced with surplus coal (UP)
		6	7.50	Madhya Pradesh (MP) - contracted amount -1241 MW	Uttar Pradesh (UP)- After meeting MP's contracted amount		
Year 1 ( megawatts)	461	433.34	400.8395	400.8395	0	3160218618	0
Year 2-16( megawatts)	2075	1950.5	1804.2125	1241.0000	563.2125	9784044000	4440367350
Year 17 (megawatts)	1383	1300.02	1202.5185	1202.5185	0	9784044000	4440367350
Year 18 (megawatts)	1153	1083.82	1002.5335	1002.5335	0	9784044000	4440367350
Year 19 (megawatts)	1153	1083.82	1002.5335	1002.5335	0	9784044000	4440367350
Year 20 (megawatts)	922	866.68	801.679	801.6790	0	9784044000	4440367350
Days in a year	Hours in a day	Conversion- mega to kilo watt	PLF/ Efficiency (note 5)	Total Units per MW		9784044000	4440367350
				365	24		

## Notes:

- 6% auxiliary consumption has been taken.
- 7.5% of power generation committed to be supplied to MP at variable cost is assumed to be supplied from 2075 MW which would be generated from the surplus coal from Sasan Project.
- 1241 MW of power committed to be supplied to MP at ₹2.45 per unit is assumed to be supplied from 2075 MW which would be generated from the surplus coal from Sasan. It is presumed that the balance power will be given to UP at ₹3.702 per unit.
- As per proposal given by RPL to MOC surplus coal would generate 461 MW in the first, 2075 MW every year thereafter upto 16th year and 1383 MW, 1153 MW and 922 MW in the 17th, 18th, 19th and 20th year respectively.
- Plant Load Factor for Chitrangi has been considered as 90% as per the proposal of RPL for use of incremental coal.

Financial Benefit to RPL

Year	Discount Rate - 11.08%					MP					UP							
	Chitragiri - Levelised tariff	Sasan - Levelised tariff	Difference	Wheeling charges and CDM	Units (kWh) produced	Undue benefit - MP (in ₹)	Chitragiri levelised tariff	Sasan - Levelised tariff	Difference	Wheeling charges and CDM	Units (kWh) produced	Undue benefit - UP (in ₹)	Chitragiri levelised tariff	Sasan - Levelised tariff	Difference	Wheeling charges and CDM	Units (kWh) produced	Undue benefit - UP (in ₹)
1	2.450	1.196	1.254	0.834	3,160,218,618	2,635,622,327	3.702	1.196	2.506	-0.42	0	0	3.702	1.196	2.506	2.086	0	0
2	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
3	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
4	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
5	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
6	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
7	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
8	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
9	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
10	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
11	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
12	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
13	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
14	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
15	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
16	2.450	1.196	1.254	0.834	9,784,044,000	8,159,892,696	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292	3.702	1.196	2.506	2.086	4,440,367,350	9,262,606,292
17	2.450	1.196	1.254	0.834	9,480,655,854	7,906,866,982	3.702	1.196	2.506	2.086	0	0	3.702	1.196	2.506	2.086	0	0
18	2.450	1.196	1.254	0.834	7,903,974,114	6,591,914,411	3.702	1.196	2.506	2.086	0	0	3.702	1.196	2.506	2.086	0	0
19	2.450	1.196	1.254	0.834	7,903,974,114	6,591,914,411	3.702	1.196	2.506	2.086	0	0	3.702	1.196	2.506	2.086	0	0
20	2.450	1.196	1.254	0.834	6,320,437,236	5,271,244,655	3.702	1.196	2.506	2.086	0	0	3.702	1.196	2.506	2.086	0	0
					Undue benefit without discounting : MP	151,395,953,227					Undue benefit without discounting : UP	138,939,094,382						
					NPV of Undue benefit : MP	58,823,136,932					NPV of Undue benefit : UP	59,698,493,999						
					Total Undue benefit without discounting	290,335,047,608					NPV of Total Undue benefit	118,521,630,930						

- Note:**
- The financial impact of wheeling charges (₹0.38/kwh) and CDM charges (₹0.04/kwh) to be incurred in Chitragiri Project has been considered while calculating the undue benefit.
  - The levelised tariff quoted by RPL for Chitragiri for MP and UP @ ₹ 2.45 and ₹ 3.702 per kWh respectively and for Sasan @ ₹ 1.196 per kWh has been taken as the annual tariff rate from year 1 to year 20.
  - Levelised tariff are based on values as on the date of bid opening for the respective cases.
  - Discount factor to calculate the NPV has been taken as the currently (April 03, 2012) prescribed CERC rate of 11.08%.
  - Escalation in costs have not been considered for Sasan as well as Chitragiri (UP and MP). As a consequence the actual gain to RPL may vary.
  - Moher, Moher-Amlohri and Chhatrasal are located at a distance of 20 km from Sasan Project and 40 km from Chitragiri Project. Since Railways' freight remains same upto a distance of 100 km the financial impact of transportation cost has not been worked out