Annex – 2

(Tables)

Table 1: Design rating of the Bhusawal TPS (100 % MCR)

Sl. No.	Particular	Units	Unit 3	Unit 4	Unit 5
01	Unit installed capacity	MW	210	210	210
02	Unit de-rated Capacity (present)	MW	210	210	210
03	Gross over unit efficiency	%	36.35	36.35	36.35
04	Unit design heat rate	kcal/kWh	2367	2367	2367
05	Station capacity (study present)	MW	620		
06	Station heat rate	kcal/kWh	2367		

Table 2: Capacity and age of units

No of Units	Unit Capacity (MW)	De-rated Capacity (MW)	Date of commissioning	Make	
				Boiler	Turbine
1	2		3	4	5
Unit-3	210	210	26-Apr-1979	BHEL	BHEL
Unit-4	210	210	10-Jul-1980	BHEL	BHEL
Unit-5	210	210	30-Jan-1981	BHEL	BHEL

Table 3: Performance against MERC parameters

Year	Generation (MUs)			
	Petitioned	MERC Approved	Achieved	
2008-2009	5852	6058	5560.249	
2009-2010	5434	6058	5484.885	
2010-2011	5429	6058	5029.253	
2011-2012(Upto Dec.11)	4325.8	6058	3040.547	
Year	A V F (%)			
	Petitioned	MERC Approved	Achieved as per	
			MERC	CEA
2008-2009	75.91	78.58	72.15	85.39
2009-2010	70.49	78.58	72.82	85.92
2010-2011	70.42	78.58	71.03	85.55
2011-2012(Upto Dec.11)	71.17	78.58	68.82	85.46
Year	P L F (%)			
	Petitioned	MERC Approved	Achieved as per	
			MERC	CEA
2008-2009	75.91	78.58	73.40	72.13
2009-2010	70.49	78.58	72.82	71.15
2010-2011	75.42	78.58	71.03	62.24
2011-2012(Upto Dec.11)	71.17	78.58	68.90	64.84
Year	Auxiliary Consumption (%)			
	Petitioned	MERC Approved	Achieved	
2008-2009	9.54	9.74	9.74	
2009-2010	10.91	9.74	9.86	
2010-2011	11.51	10.95	10.56	
2011-2012(Upto Dec.11)	11.17	10.95	11.02	
Year	Heat Rate (kcal / kwh)			
	Petitioned	MERC Approved	Achieved	
2008-2009	2984	2832.7	2984	

2009-2010	3107	2774.3	3070
2010-2011	3126	2721.9	2907
2011-2012(Upto Dec.11)	2840	2721.9	2887
Year	**Sp. Oil Consumption (ml / kWh)**		
	Petitioned	**MERC Approved**	**Achieved**
2008-2009	3.92	3	4.38
2009-2010	5.23	3	3.90
2010-2011	3.95	3	9.08
2011-2012(Upto Dec.11)	5.3	3	7.50
Year	**Transit Loss in Coal (%)**		
	Petitioned	**MERC Approved**	**Achieved**
2008-2009	1.0	0.8	0.409
2009-2010	3.4	0.8	1.790
2010-2011	2.0	0.8	1.530
2011-2012(Upto Dec.11)	2.0	0.8	1.489

Stage-I (2*125 MW) Units were in service upto June-11

Unit-1 Decommissioned on 26/06/2011

Unit-2 Decommissioned on 30/06/2011

Table 4: Classification of measures for convenience of project management.

Project Code	Project Name
P-1	To measure , monitor coal consumption and reduce coal loss
P-2	To measure , monitor water consumption and reduce water loss
P-3	To measure and monitor coal quality
P-4	To measure , monitor fuel oil consumption and reduce fuel oil loss
P-5	Improvement in monitoring of heat rate & auxillary consumption
P-6	Improvement in condition monitoring system
P-7	Improvement in purchase and procurement procedure
P-8	Improvement in maintenance procedures and decisions
P-9	Improvement in ABT and GCR
P-10	Improvement in operation procedures and decisions
P-11	Improvement in HRD training and quality circle
P-12	Upgradation & technology interventions in the system
P-13	Improvement of heat rate & auxiliary consumption
P-14	Improvement in workplace area

NTPS Monthly Station Energy Sheet (Values in Mus.)

	Gross Gen.	ABT ex-bus export	diff (UAT+losses)	UAT LV	GTR + UAT losses	ABT ex-bus Import	Stn X'mer HV/LV Cons.	Remote Auxiliaries	APC as per LV	APC at Ex-bus	diff in APC	% APC as per Internal Metering	% APC at Ex-Bus ABT	% diff in APC	Stn. PLF%
Apr-11	451.10	408.76	42.35	35.14	7.21	11.40	11.43	0.11	46.67	53.86	7.18	10.35	11.94	1.59	71.20
May-11	492.27	447.29	44.98	40.00	4.98	10.45	10.39	0.08	50.47	55.51	5.04	10.25	11.28	1.02	75.19
Jun-11	391.81	354.28	37.54	33.85	3.68	9.85	9.80	0.10	43.74	47.48	3.74	11.16	12.12	0.95	63.34
Jul-11	256.96	233.49	23.47	22.10	1.37	10.43	10.37	0.10	32.57	33.99	1.42	12.67	13.23	0.55	54.82
Aug-11	179.31	161.56	17.74	17.63	0.11	7.53	7.48	0.09	25.21	25.37	0.16	14.06	14.15	0.09	38.25
Sep-11	174.76	156.30	18.46	16.66	1.80	7.45	7.38	0.10	24.15	26.01	1.86	13.82	14.88	1.07	38.53
Oct-11	292.05	263.88	28.17	25.83	2.34	8.86	8.94	0.09	34.86	37.13	2.27	11.94	12.71	0.78	62.31
Nov-11	364.48	332.80	31.69	27.21	4.47	8.90	8.80	0.11	36.12	40.69	4.57	9.91	11.16	1.25	80.35
Dec-11	437.81	400.85	36.96	32.07	4.89	9.09	9.07	0.09	41.23	46.15	4.91	9.42	10.54	1.12	93.41
Apr-11 to Dec-11	**3040.55**	**2759.19**	**281.36**	**250.50**	**30.85**	**83.96**	**83.65**		**335.02**	**366.19**	**31.16**	**11.02**	**12.04**	**1.02**	**64.84**

1.015	Metering diff losses % of power gen
0.320	excitation power part as measured by CPRI
0.695	
0.26	GT losses computed by CPRI & included trajectory
0.43	addition to arrive for GT losees (Actual manufactures data)