

Central Electricity Authority
Brief status of Progress of activities for Sasan UMPP

1.0 General:

Name of Developer:	–	Sasan Power Ltd (Reliance Power Ltd.)
Date of LOI:	–	01.08.2007
Date of Transfer of SPV to developer:	–	07.08.2007
Date of signing of PPA (Effective date):	–	07.08.2007

2.0 Commissioning Schedule:

Unit No.	Months from the date of PPA signing (7.8.2007) as provided in PPA	Schedule COD as worked out from date of signing of PPA	Revised schedule of COD as per Supplemental PPA signed by SPL and Procurers on 15.10.2008	Latest Schedule as Indicated by the developer	COD by the developer
1.	69	06.05.2013	Dec. 2011	31.01.2013	
2.	76	06.12.2013	Mar. 2012	30.04. 2013	
3.	83	06.07.2014	Jun. 2012	31.07.2013	
4.	90	06.02.2015	Sept. 2012	31.10.2013	
5.	97	06.09.2015	Dec. 2012	28.02.2014	
6.	104	06.04.2016	Mar. 2013	30.06.2014	

3.0 Land Acquisition:

	Total Area (acres)	Acquired (acres)
Main Plant	2028	2008
Ash pond	812	786
Colony	449	439
Misc.(Intake water channel, Ash pipe line, Road)	238	227
Coal Transportation	196	125
Total	3723	3585(96.2%)

MOEF Clearance for Forest Land: Final Clearance from MOEF received on 16.04.09.

4.0 Coal Mine development:

	Total Area (acres)	Acquired (acres)	Remarks
Govt. Land	477	317	Issue of overlapping land for NCL under CBA Act to be resolved. Forest application for Chhatrasal coal block to be sent by PCCF to MOEF.
Pvt. Land	1768	620	
Forest land	5243	630	
Total	7488	1567(20.9%)	

4.1 Environment Clearance for Coal Mine (Mohar and Mohar Amlohri): Environment Clearance issued on 10.12.08.

Forest Clearance for Coal Mine (Mohar and Mohar Amlohri): Final Forest Clearance received in May, 2010.

Environment Clearance for Coal Mine (Chhatrasal): Public hearing completed on 10.6.09. Presentation to EAC made on 25.11.09. Clearance awaited.

Forest clearance for Coal Mine (Chhatrasal): Application for forest clearance submitted on 16.7.09 at state level.

5.0 Development of Transmission Lines:

	Remarks
Signing of BPTA for revised COD	Signed on 15.10.08
Signing of PPA for revised COD	M/s SPL has revised the CODs from those given in supplemental PPA.
Transmission lines	All works associated with unit No. I to IV already awarded.

6.0 Procurement Activities:

Activity	Status
Financial Closure	Achieved on 20.4.09
Order for Main Plant	Order placed on M/s SEC China, NTP issued to EPC contractor on 1.7.08.
Order for BOP	Orders for BOP packages placed.
MGR	Coal will be transported to site by using coal conveyor instead of MGR.

7.0 Progress of work at site:

Power Plant

- Boiler foundation for Unit-1, 2, 3, 4 & 5 completed and for Unit-6 is in progress.
- 1,50,674 MT BTG material about 30% of the total supplies shipped by M/s Shanghai Electric.
- Unit # 3 & # 2 Boiler pressure parts erection in progress. Unit #1, # 4 & # 5 Boiler structure erection in progress .
- Unit # 3, # 2, #1 & # 4 ESP frame and structure erection in progress.
- More than 14,377 MT PHB and bunker bay structure erection completed for Unit-3, 2 & 1.
- TG deck casting completed for Unit # 3, column lift in progress for Unit # 2,1,4,5 & 6.
- Condenser and TG erection commenced for Unit # 3.
- Chimney No.1 190 mtr and Chimney No.2 45 mtr shell concreting completed.
- CW pipe laying of 5.1 km out of 5.9 km completed for Block-I (Unit – 3, 2, & 1).
- 400KV switch yard stringing work is in progress and 765KV Switchyard tower erection in progress.
- Cooling tower sump concreting for Block-I & II in progress. Unit # 3 CT FRP structure erection commenced;
- DM plant vessel erection in progress.
- Concreting for PT plant clariflocculator is in progress.
- HDPE lining of raw water reservoir pond-1 in progress.

- Fuel oil tank erection in progress.
- Stacker / Reclaimer foundation work in progress.

Power Plant Off site works

- 32.6km Raw water pipe laying completed;
- Raw Water Intake Pump House sump concreting in progress
- Pier shaft and deck concreting for OLC conveyor bridge at Kanchan and Mayer river in progress.
- 132KV & 33KV Transmission line tower erection in progress;
- Township: 108 Hostel room construction completed and put in use.192 Nos. Houses and Hostel building at advance stage of completion.

Coal Mine:

- Mining Lease signed with GoMP;
- Explosive Magazine license obtained and in use;
- OB removal commenced;
- Rope Shovel, Dumpers and Drill assembly in progress;
- 4 large size Dozer components received at site and two were assembled and put in operation;
- Mine End substation super structure work and 33KV power line stringing in progress.
- Mine end R&R: 50 Dwelling units construction completed and school construction in progress.

8.0 Schedule of commissioning activities for first Unit of 660 MW :

Commissioning Activities		FORM TC-4 (R)	
Sl No.	Name of the Works	Schedule Date	Actual Date
A.	Boiler Side		
	Boiler Hydraulic test	March -12	
2	Gas Tightness Test	June, 12	
3	Air Tightness Test	June,12	
4	Bolier light up & Alkali boil-out	July-12	
5	Acid Cleaning	June-12	
6	Commencement/completion of Steam Blowing and Floating of safety valves	Oct-12	
B	Turbine Side		
1	Commencement/completion of Oil Flushing	Aug-12	
2	Putting TG on barring gear	Sept-12	
3	Insulation of T.G.	June-12	
4	Turbine Rolling	July-12	
5	Generator Dry out	Aug-12	
6	Synchronization	Nov-12	
7	Loading on Coal	Jan-13	

Brief status of Progress of activities for Mundra UMPP

1.0 General:

Name of Developer: – Coastal Gujarat power Ltd (CGPL) of Tata Power Ltd.
Date of LOI: – 28.12.2006
Date of Transfer of SPV to developer: – 22.04.2007
Date of signing of PPA (Effective date): – 23.04.2007

2.0 Commissioning Schedule:

Unit No.	Months from the date of PPA signing (22.4.2007) as provided in PPA.	Schedule COD as worked out from the date of signing of PPA	Revised Schedule of COD as per Supplemental PPA of July 2008 and as per latest progress report.	COD As per latest progress report
1.	64	Aug. 2012	Sept. 2011	Feb 2012*
2.	70	Feb. 2013	March 2012	May 2012**
3.	76	Aug. 2013	July 2012	Sept 2012
4.	82	Feb. 2014	Nov. 2012	Nov 2012
5.	88	Aug. 2014	March 2013	Feb 2013

* Unit-1 synchronized on 8.1.2012. COD will depend on achieving optimum operation using low grade coal.

** Synchronization of Unit-2 will depend on experience of Unit-1 performance with optimized coal.

3.0 Land Acquisition details are as follows: (area in acres)

Sl. No	Type of Land	Total area	Area acquired
(i).	Government Land	1240.42	1240.42
(ii).	MSEZ land	541.14	541.14
(iii).	Private Land	447.24	444.77
(iv)	Forest Land	321.2	321.2
(v)	Approach cum public Road	12.35	12.35
(vi)	Others (Sea water outfall channel)	662.21	662.21
	Total	3224.6	3222.13 (97.38%)

3.1 MOEF Clearance for Forest Land: Final Clearance received on 10.6.09.

4.0 Development of Transmission Lines:

	Scheduled Date	Actual/exp ected date	Remarks
Signing of BPTA for revised COD	-	31.7.08	No issue
Signing of PPA for revised COD	-	31.7.08	No issue
Transmission lines • Mundra-Bachhau	Jan,2011	Aug,2011	-

<ul style="list-style-type: none"> Bachhau-Ranchodpura Mundra-Limbdi (192 Km Part line) Mundra-Limbdi Mundra-Jetpur 	June,2011	Sep 2011	-
	June,2011	Nov 2011	ROW problem near Mundra.
	June,2011	Feb 2012	-
	June,2011	Mar 2012	-

5.0 Others:

	Remarks
Financial Closure	Achieved on 24.4.08
Order for Main Plant	i) For Turbo Generator – order placed on Toshiba Corporation of Japan on 20.8.07 ii) For Steam Generator order placed on Doosan Heavy Industries & Construction Company, Korea on 15.5.07.
Order for BOP	All packages awarded.

6.0 Progress of work at site:

S. No.	Activity	Schedule date of start	Actual Date of start	Status/Remarks
6.1.0	Boiler Erection			
6.1.1	Unit-1	12.05.08	5.06.08	Synchronized on 8.1.2012.
6.1.2	Unit-2	21.08.08	2.09.08	Hydro test completed on 22.9.2010. Boiler light-up completed on 19.8. 2011.Steam blowing completed on 3.10.2011.
6.1.3	Unit-3	25.12.08	12.02.09	Boiler hydro test done on 22.3.2011. Boiler light-up completed on 21.12. 2011
6.1.4	Unit-4	30.04.09	12.05.09	Hydro test completed on June.2011.
6.1.5	Unit-5	03.09.09	30.08.09	Hydro test completed on 12.11.2011.
6.2.0	TG Erection			
6.2.1	Unit-1	April,2010	16.12.09	TG put on barring gear on 2.2.2011.
6.2.2	Unit-2	Oct,2010	1.4.10	TG put on barring gear on 29.6.2011.
6.2.3	Unit-3	Feb,2011	10.10.10	TG put on barring gear on 18.11.2011..
6.2.4	Unit-4	June,2011	24.1.11	TG erection commenced on 24.1. 2011. Condenser erection started on 6.6.2011.TG Box-up on 27.9.2011.
6.2.5	Unit-5	Oct,2011	27.5.2011	TG Erection commenced on 27.5.2011. Condenser erection started on 20.11.2011
6.3.0	Chimney(Shell concreting)			
6.3.1	No.1(2-flue)	2.01.09	8.12.08	Work completed.
6.3.2	No.2(3-flue)	3.06.09	24.03.09	Flue Can and duct fabrication and erection are in progress.
6.4	400 kV Switch Yard			
6.4.1	Erection	13.1.10	3.12.09	Work completed for Unit-1.
6.5	Internal CHP			
6.5.1	Excavation, Structural fabrication, Structural erection ,Equipment erection	10.8.08	2.4.09	Works completed. The coal is being stacked at site.

7.0 Commissioning Activities:

M/s CGPL has intimated the following schedule of Commissioning Activities:

Sl.No.	Name of Works	Schedule	Actual	Forecast
A	Unit -1			
1	Boiler Side			
	Hydro test Start	Aug.2010	31.03.2010	
	Boiler Light-up	Feb.2011	22.3.2011	
	Steam Blow-off	Apr.2011	29.3.2011(Start)	Completed on 23.5.2011.
	Safety valve floating	Apr.2011		Oct,2011
2	TG Side			
	TG Box-up	Feb.2011	14.09.2010	
	Oil Flushing Compln.	Feb.2011	24.12.2010	
	Barring Gear	Feb.2011	02.02.2011	
3	Unit Synchronization	May,2011	Unit Synchronized on 8.1.2012	
4	COD	Sept. 2011		Feb,2012
B.	Unit -2			
1	Boiler Side			
	Hydro test Start	Feb.2011	22.09.2010	
	Boiler Light-up	Aug.2011	19.8. 2011	
	Steam Blow-off	Oct.2011	3.10.2011	
	Safety valve floating	Oct.2011		Feb,2012
2	TG Side			
	TG box-up	Aug.2011	07.01.2011	
	Oil Flushing Compln.	Aug.2011	30.4.2011	
	Barring Gear	Aug.2011	29.6.2011	
3	Unit Synchronization	Nov.2011		Feb,2012
4	COD	Mar.2012		May,2012
C	Unit-3			
1	Boiler Side			
	Hydro-test Start	June 2011	22.3.2011	
	Boiler Light-up	Dec.2011	21.12.2011	
	Steam Blow-off	Feb.2012		Feb,2012
	Safety valve floating	Feb.2012		July,2012
2	TG Side			
	TG box-up	Dec.2011	8.6.2011	
	Oil Flushing Compln.	Dec.2011	26.9.2011	
	Barring Gear	Dec.2011	18.11.2011	
3	Unit Synchronization	Mar.2012		July,2012
4	COD	July,2012		Sep,2012
D	Unit-4			
1	Boiler Side			
	Hydro test Start	Oct.2011	23.6.2011	
	Boiler Light-up	Apr.2012		Apr.2012
	Steam Blow-off	June,2012		May.2012
	Safety valve floating	June,2012		Sep,2012
2	TG Side			
	TG box-up	Apr.2012	27.9.2011	

	Oil Flushing Compln.	Apr.2012		Feb.2012
	Barring Gear	Apr.2012		Mar.2012
3	Unit Synchronization	July,2012		Sep,2012
4	COD	Nov.2012		Nov,2012
E	Unit-5			
1	Boiler Side			
	Hydro test Start	Feb.2012	12.11.2011	
	Boiler Light-up	Aug.2012		Sept.2012
	Steam Blow-off	Oct.2012		Oct.2012
	Safety valve floating	Oct.2012		Dec.2012
2	TG Side			
	TG box-up	Aug.2012		Mar.2012
	Oil Flushing Compln.	Aug.2012		June,2012
	Barring Gear	Aug.2012		Jul.2012
3	Unit Synchronization	Nov.2012		Dec.,2012
4	COD	Mar.2013		Feb.2012

Brief status of Progress of activities for Krishnapatnam UMPP

1.0 General:

Name of Developer - Coastal Andhra Power Ltd. (CAPL) (Reliance Power Ltd.)
Date of LOI – 30.11.2007
Date of Transfer of SPV to developer – 29.1.2008
Date of signing of PPA (Effective date) – 23.03.2007

2.0 Commissioning Schedule:

Unit No.*	Schedule COD as worked out based on Power Purchase Agreement	Revised COD scheme as per supplemental/ Amended PPA	COD As per latest progress report
1.	September, 2013	June 2013	@
2.	April, 2014	Oct.2013	
3.	October, 2014	Feb. 2014	
4.	April, 2015	June 2014	
5.	October, 2015	Oct 2014	
6.	-	Feb 2015 *	

*The developer had originally proposed 5x800 MW units. Subsequently the developer has obtained consent of procurers for change in unit size. CERC approval received for change in Unit configuration to. 6x660 MW. Amended PPA for 6x660 MW has been executed with the procurers.

@ The developer has since, June,2011 stopped the construction work at the project site citing new regulation of the Govt. of Indonesia as the reason which prohibits sale of coal, including sale to affiliate companies, below bench mark price. Ministry of Power has requested Government of Andhra Pradesh to discuss the matter with other procurers and the developer.

3.0 Land Acquisition details are as follows:

	Total Area (acres)	Acquired (acres)
Main Plant & Colony	1915.90	1913.65
Ash pond	533.56	484.03
Misc.(Approach road, coal conveyor corridor, sea water intake area)	176.22	148.85
Total	2625.68	2546.53 (97%)

4.0 Development of Transmission Lines:

Indemnification Agreement signed between PGCIL and all the procurers.

5.0 Status

90% Boundary work completed. Leveling of site in Main Plant completed. Piling work carried out for Chimney, CW pump house and TG foundation. Ground improvement works done for Cooling Tower Area. Approach road constructed, Area drains, plant roads, permanent stores were taken-up for construction.

Brief status of Progress of activities for Tilaiya (Jharkhand) UMPP

1.0 General:

- **Name of Developer** – Jharkhand Integrated Power Ltd. (Reliance Power Ltd.)
- **Date of LOI** – 12.02.2009
- **Date of Transfer of SPV** – 07.08 .2009
- **Date of signing of PPA (Effective date)** – 07.08 .2009
- **Joint Monitoring Committee constituted** – 16.09.2009

2.0 Commissioning Schedule:

Unit No.	Months from the effective date i.e. Transfer of SPV(07.08.09) as provided in PPA	Schedule COD as worked out from effective date
1.	69	May 2015
2.	74	Oct. 2015
3.	79	March 2016
4.	84	August 2016
5.	89	Jan 2017
6.	93	June 2017

3.0 Land Acquisition Details. (Area in Acres)

	Total Area	Acquired
Main Plant & Colony	1406	186
Ash pond	972	284
Ash corridor	3.3	-
Water corridor	31.04	-
Total	2412.34	470 (19.48%)

4.0 Coal Block Land:

Total Area (acres)	Acquired (acres)	Remarks
11120	-	Application for acquisition of private & government land is in process at Distt. Administration. Forest Diversion proposal has been processed at District Forest Deptt. and forwarded to PCCF Ranchi. ToR for coal block received on 29.7.2010. Approval of Mining Plan for Kerendhari B & C obtained on 29.10.2010.

5.0 Status of Preconstruction Activities

S No.	Activity	Status/Remarks
5.1.0	Studies & Investigation	
5.1.1	Survey & Soil Investigation	Study in progress
5.1.2	Drainage	Study Under progress
5.1.3	Raw Water intake(Bathymetric)study	Final report received
5.1.5	Testing of construction material and mix design	Study Under progress
5.1.6	Seismic study	Study completed .Final report received.
5.1.7	Ash pond leaching study	To be awarded
5.1.8	Logistic study	To be awarded

5.1.9	MGR route study	Under progress.
5.2.0	Engineering	
5.2.1	Appointment of engineering consultant	Being Identified.
5.2.2	Appointment of Independent Engineer	Awaited.
5.3.0	Pre-Award Works	
5.3.1	Site Office, Stores & Miscellaneous Civil Works	In process
5.3.2	Boundary Wall/Fencing	Offers received
5.3.3	Site leveling	Not due as yet
5.3.4	General area lighting	Not due as yet
5.3.5	Construction colony	Possession of land awaited.
5.3.6	Construction water	Not due as yet
5.3.7	Construction power	Consent received from JSEB,BOQ being finalized.
5.3.8	Labour Camp	Not due as yet
5.4.0	EPC & BTG Award	EPC contract executed with R Infra. LOI placed for BTG with SEC, China in Sept, 2010 (However, no advance has been paid). NTP is yet to placed.
5.5.0	Financing	
5.5.1	Appointment of advisor/arranger	Being identified
5.5.2	Appointment Lender's Engineer	Being identified.
5.5.3	ECB Approval	In principle approval of RBI received for raising ECBs of USD 2 Billion on 31.3.2010.