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

1.0 General:

Name of Developer – M/s Sasan Power Limited (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	intimated by SPL in the
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	2034.21	1879.47
Ash pond	811.4	473.20
Colony	448.37	429.31
Misc.(Intake water channel, Ash pipe line, Road)	237.70	8.91
Coal Transportation	198.68	
Total	3730.36*	2790.89**(74.7%)

^{*}Requirement of land has been revised upward by SPL from 3488 acres as earlier indicated taking into account increased requirement of corridor for intake water channel, coal transportation etc.

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	529	*	* During JMC meeting held on 17.9.2010, SPL
Pvt. Land	1925	*	informed that land for the coal blocks was already
Forest land	5245	*	acquired by CIL and the issue of transfer of land has been finalized with CIL.
Total	7699	*	

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

^{**} During visit of the Inter-Ministerial team at site on 7.7.2010,the area of land already acquired was indicated by SPL as 3244.68 acres. In the latest report the land acquired is shown as 2790.89 acres. During 9th JMC meeting held on 17.9.2010 SPL had confirmed that land for power plant is under their possession and there are no pending issue.

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	Signed on 15.10.08
revised COD	
Signing of PPA for	M/s SPL has revised the CODs from those given in supplemental PPA.
revised COD	SPL has been advised by CEA to intimate the revised schedule to
	procurers and PGCIL.
Transmission lines	To be implemented by PGCIL

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 majority of BOP packages placed. Orders are mainly pending for C& I equipment, LP piping, CW pumps, UAT, LT/HT switchgear, generator, station and switchyard control board.
MGR	Coal will be transported to site by using coal conveyor instead of MGR.

7.0 Progress of work at site:

- Boiler foundation for Unit-3 and Unit-2 has been completed Construction started for Boiler & Power House Building in Unit-1.
- 1835 MT of Boiler structure received at site. 1014 MT of boiler structure erected for Unit-3.
- TG raft casted for Unit-3. Rafting in progress for CEP Pit in Unit-3.
- Construction commenced for Balance of Plant ie. CHP, AHP, Switchyard, Raw Water Reservoir, CW Pump House, Fuel Oil Pump house, Work Shop etc.
- CW pipe laying in progress. About 2131 MT pipe received at site, about 800 MT erected.
- PHB Erection More than 13987 MT structures received at site. 1784 MT erected
- Chimney- shell casting commenced; wind shield casting and flue-can fabrication and erection is in progress.
- Contract awarded for major coal mining equipments like dragline and rope shovels and LOI issued for Dumpers

8. Schedule of commissioning activities for first Unit of 660 MW:

Commissioning Activities		FORM TC-4 (R)	
SI No.	Name of the Works	Schedule Date	Actual Date
A.	Boiler Side		
	Boiler Hydraulic test	March -12	
2	Gas Tightness Test	Oct-11	
3	Air Tightness Test	Oct-11	
4	Bolier light up & Alkali boil-out	July-12	
5	Acid Cleaning	June-12	

6	Commencement/completion of Steam	Oct-12	
	Blowing and Floating of safety valves		
В	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 of June 2010.
1.	64	Aug. 2012	Sept. 2011
2.	70	Feb. 2013	March 2012
3.	76	Aug. 2013	July 2012
4.	82	Feb. 2014	Nov. 2012
5.	88	Aug. 2014	March 2013

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

SI. 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	580.45
	Total	3224.6	3140.33 (97.4%)

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

4.0 Development of Transmission Lines:

Activity	Actual/expected date
Signing of BPTA for revised COD	31.7.08
Signing of PPA for revised COD	31.7.08
Transmission lines	Under implementation by PGCIL

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.	6.0 Progress of work at si	Schedule	Actual	Status/Remarks
		date of start	Date of start	
6.1.0	Boiler Erection			
6.1.1	Unit-1	12.05.08	5.06.08	98.5% erection completed. Boiler Hydro test completed on 31.3.10.
6.1.2	Unit-2	21.08.08	2.09.08	82% erection completed. Hydro test completed on 22.9.2010.
6.1.3	Unit-3	25.12.08	12.02.09	72 % erections completed.
6.1.4	Unit-4	30.04.09	12.05.09	57.2 % erection completed.
6.1.5	Unit-5	03.09.09	30.08.09	32.5 % erection completed.
6.2.0	TG building Erection			
6.2.1	Unit-1	14.08.08	13.08.08	TG Box up achieved on 14.9.2010. Oil flushing is expected to commence in Nov, 10
6.2.2	Unit-2	19.12 08	12.02.09	TG erection commenced on 01.04.10. Stator erection and rotor insertion completed.
6.2.3	Unit-3	24.04.09	29.05.09	TG deck cast. TG erection is expected to commence in Nov,10.
6.2.4	Unit-4	28.08.09	23.10.09	TG deck column cast. Preparation in progress for TG deck casting. Structural fabrication work continues. Erection of main frame structures completed. Balance erection in progress.
6.2.5	Unit-5	01.01.10	27.12.09	TG deck column cast. Structural fabrication work continues .Erection of main frame structures completed and other erection in progress.
6.3.0	Chimney(Shell concreting)			
6.3.1	No.1(2-flue)	2.01.09	8.12.08	Flue Can and ducts fabrication completed. Flue can and ducts erection work in progress.
6.3.2	No.2(3-flue)	3.06.09	24.03.09	Flue can and ducts fabrication work in progress.
6.4	400 kV Switch Yard			
6.4.1	Tower Erection	13.1.10	3.12.09	All 39 towers of Unit-1erected. Work in progress in other unit towers. Equipment erection and stringing (within switchyard) work in progress.
6.5	Internal CHP			
6.5.1	Excavation, Concreting, Structural fabrication, Structural erection ,Equipment erection	10.8.08	2.4.09	Balance Excavation in Tunda-Vandh road area. Structural fabrication completed. Concreting, Structural erection, Equipment erection work is in progress.

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

SI.No.	Name of Works	Schedule	Actual	Forecast
Α	Unit -1			
1	Boiler Side			
	Hydro test Start	Aug.2010	31-Mar-10	
	Boiler Light-up	Feb.2011		Jan, 2011

	Steam Blow-off	Apr.2011		Feb, 2011	
	Safety valve floating	7101.2011		Feb, 2011	=
2	TG Side			1 00, 2011	-
	TG Box-up	Feb.2011	14.9.2010		_
	Oil Flushing Compln.	Feb.2011		Nov.2010	
	Barring Gear	Feb.2011		Dec.2010	_
3	Unit Synchronization	May,2011		Apr.2011	_
4	COD	Sept. 2011		June,2011	
B.	Unit -2			, -	\neg
1	Boiler Side				
	Hydro test Start	Feb.2011	22.9.2010		
	Boiler Light-up	Aug.2011		May, 2011	
	Steam Blow-off	Oct.2011		July,2011	
	Safety valve floating	Oct.2011		July,2011	
2	TG Side				
	TG box-up	Aug.2011		June,2011	
	Oil Flushing Compln.	Aug.2011		June,2011	
	Barring Gear	Aug.2011		June,2011	\exists
3	Unit Synchronization	Nov.2011		Sept.2011	
4	COD	Mar.2012		Dec.2011	
С	Unit-3				
1	Boiler Side				
	Hydro-test Start	June 2011		Feb.2011	
	Boiler Light-up	Dec.2011		Aug.2011	
	Steam Blow-off	Feb.2012		Oct.2011	
	Safety valve floating	Feb.2012		Oct.2011	
2	TG Side				
	TG box-up	Dec.2011		Aug.2011	
	Oil Flushing Compln.	Dec.2011		Aug.2011	
	Barring Gear	Dec.2011		Aug.2011	
3	Unit Synchronization	Mar.2012		Nov.2011	
4	COD	July,2012		Feb.2012	_
D	Unit-4	00.3,20.2		1. 00.2012	-
1	Boiler Side				_
	Hydro test Start	Oct.2011		June,2011	_
	Boiler Light-up	Apr.2012		Dec.2011	\exists
	Steam Blow-off	June,2012		Feb.2012	\exists
	Safety valve floating	June,2012		Feb.2012	٦
2	TG Side	,			\exists
	TG box-up	Apr.2012		Dec.2011	\exists
	Oil Flushing Compln.	Apr.2012		Dec.2011	
	Barring Gear	Apr.2012		Dec.2011	\exists
3	Unit Synchronization	July,2012		Mar.2012	\exists
4	COD	Nov.2012		June,2012	\exists
E	Unit-5	•	•		\exists
1	Boiler Side				\Box
	Hydro test Start	Feb.2012		Sep.2011	
	Boiler Light-up	Aug.2012		Mar.2012	
	Steam Blow-off	Oct.2012		May,2012	
	Safety valve floating	Oct.2012		May,2012	
	TG Side				
2	1 d Side				-

	TG box-up	Aug.2012	Mar.2012
	Oil Flushing Compln.	Aug.2012	Mar.2012
	Barring Gear	Aug.2012	Mar.2012
3	Unit Synchronization	Nov.2012	June,2012
4	COD	Mar.2013	Sept.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.	Months from the effective date i.e. Transfer of SPV (29.1.08) as provided in PPA	Schedule COD as worked out from the date of Transfer of SPV	Scheduled COD as informed during 9 th JMC meeting held on 13.5.2010*
1.	68	September, 2013	1 st unit - June 2013
2.	75	April, 2014	2 nd unit - Oct.2013
3.	81	October, 2014	3 rd unit - Feb. 2014
4.	87	April, 2015	4 th unit - June 2014
5.	93	October, 2015	5 th unit - Oct 2014 6 th unit - 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 i.e. 6x660 MW. Supplemental PPA under execution with procurers.

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	130.49
Total	2625.68	2530.96 (96.4%)

4.0 Development of Transmission Lines:

PGCIL has planned development of Transmission lines as per commissioning schedules.

5.0 Preconstruction Activities:

SI.No.	Activity	Schedule date	Actual Date	Status/Remarks
	Studies & Investigation			
5.1	Soil Investigation	Mar 09	May 09	Completed
5.2	Area Drainage Studies	Mar 09	Feb 10	Scheme finalized.
5.3	Water intake study	Dec 08	Dec. 08	MoEF(CRZ) clearance obtained on 12.06.09 for on shore pump house.
5.4	Testing of construction material and mix design	Jan 09	Jan 09	Completed
5.5	Seismic study	Sep 08	Sep 08	Completed
5.6	Ash pond leaching study	Mar 09	Nov. 09	Completed
5.7	Fuel Logistic study	Dec 08	Dec 08	Completed
5.8	Railway Siding study	Mar 09	Feb,09	In principle approval received from South

				Central Railway on 17.07.09.
6	Engineering			1
6.1	Main Plant and Equipment	As per PPA	-	a. LOI for BTG issued by EPC Contractor.b. CERC approval received for Change in Unit configuration.c. Supplementary PPA yet to be executed with procurers.
6.2	Appointment of Independent Engineer			Issue discussed in 9 th JMC meeting. Procurers to furnish comment on the proposal of M/s CAPL. Lead procurer intimated to engage separate agencies for the role of Independent Engineer (IE) & Lenders' IE.
7.0	Pre-Award Works			
7. 1	Site Office, Stores & Miscellaneous Civil Works	Apr 09	June 09	Completed.
7.2	Boundary Wall/Fencing	Sep, 10	Sep, 10	Work in progress .Work stopped by land owners at some places due to non payment for CJFS land disputes.
7.3	Area grading in main plant area	Dec.09	May.10	BTG area filed up to 2.9 m and ready for pilling work. Major areas work completed.
7.4	Construction power substation (Within Plant boundary)	Mar 09	May. 09	Substation completed. Lines charged.
8.0	Financing			
8.1	Appointment of advisor/arranger	Dec 08	Dec 08	IDBI appointed as lead arranger for Rupee loan. PFC appointed as Co lead arranger.
8.2	Financial Closure	-	-	Total debt requirement is tied up for the project and loan documents signed on 7.7.2010
8.3	Escrow Account	Feb.08	Procurers to open Escrow Account	Opening of Escrow Account by procurers awaited.

Govt. of India <u>Central Electricity Authority</u> <u>Brief status of Progress of activities for Tilaiya (Jharkhand) UMPP</u>

1.0 General:

Name of Developer – 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
 Third meeting of JMC held on - 20.09.10

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	1405	186
Ash pond	972	284
Ash corridor	3.3	-
Water corridor	27.4	-
Total	2407.7	470 (19.52%)

4.0 Coal Block Land:

Total Area (acres)	Acquired (acres)	Remarks
11554		Application for land acquisition submitted. Survey of the land is in progress. Mining plan is finalized. Mining plan presented to MOC on 12.7.2010. ToR received. EIA study is in progress

5.0 Status of Preconstruction Activities:

SI.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	Water intake study	Under progress
5.1.4	Bathymetric survey for intake water	Daft report received, same is being finalized.
5.1.5	Testing of construction material and mix design	Study Under progress
5.1.6	Seismic study	Study Under progress
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	Lead procurer to take action.
5.3.0	Pre-Award Works	
5.3.1	Site Office, Stores & Miscellaneous	To be initiated
	Civil Works	
5.3.2	Boundary Wall/Fencing	To be initiated
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 delayed
5.3.6	Construction water	Not due as yet
5.3.7	Construction power	Application submitted to JSEB
5.3.8	Labour Camp	Not due as yet
5.4.0	Financing	
5.4.1	Appointment of advisor/arranger	Being identified
5.4. 2	Appointment Lender's Engineer	Being identified.
5.4.3	ECB Approval	In principle approval of RBI received for raising ECBs of USD 2 Billion on 31.3.2010.