# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Suo Motu Petition No. 18/SM/2015 Along with IA Nos. 50/2017 and 44/2018

Coram: Shri P.K. Pujari, Chairperson Dr. M.K. Iyer, Member

Date of Order: 25th of April, 2019

#### In the matter of

Suo-motu Petition in the matter of declaration of commercial operation of Units 20 to 50 of Mundra Ultra Mega Power project developed by Coastal Gujarat Power Limited.

## And In the matter of

- Managing Director, Coastal Gujarat Power Ltd.
   SantTuka Ram Road, Carnac Bunder, Mumbai-400 021
- Managing Director, Gujarat Urja Vikas Nigam Ltd. Sardar Patel Vidyut Bhawan, Race Course, Vadodara – 390 007, Gujarat
- Managing Director, Maharashtra State Electricity Distribution Company Ltd. 4<sup>th</sup> Floor, Prakashgad, Plot No. G-9, Bandra (East), Mumbai-400051, Maharashtra
- The Chairman and Managing Director, Ajmer Vidyut Vitaran Nigam Ltd. Hathi Bhata, Old Power House, Jaipur Road, Ajmer-305001, Rajasthan
- The Chairman and Managing Director, Jaipur Vidyut Vitaran Nigam Ltd.
   Vidyut Bhawan, Janpath, Jaipur-302005, Rajasthan

- The Chairman and Managing Director, Jodhpur Vidyut Vitran Nigam Ltd. New Power House, Industrial area, Jodhpur-342003, Rajasthan
- 7. The Chairman and Managing Director, Punjab State Power Corporation Ltd. The Mall, Ablowal, Patiala-147 001, Punjab
- Managing Director, Uttar Haryana Bijli Vitaran Nigam Ltd.
   C-16, Vidyut Sadan, Sector-6, Room No. 329, Panchkula-194 109, Haryana
- Managing Director,
   Dakshin Haryana Bijili Vitaran Nigam Ltd.
   Vidyut Sadan, Vidyut Nagar, Hissar-125 005
- General Manager,
   Western Regional Load Despatch Centre (WRLDC)
   Plot No. F-3, Central Road,
   MIDC Area, Marol, Andheri (East), Mumbai-400093
- M/s Black & Veatch Consulting Private Ltd. Pride Parmar Galaxy, 10/10 + A 3<sup>rd</sup> Floor, Sadhu Vaswani Chowk, Pune-411 001, Maharashtra

.....Respondents

12. Shri M.C. Bansal Energy Consultant, E-5/85, 1<sup>st</sup> Floor, Arera Colony Bhopal-462016, Madhya Pradesh

....Proforma Respondent

### **Parties Present:**

- 1. Shri C.S. Vaidyanathan, Senior Advocate, CGPL
- 2. Shri Abhishek Munol, Advocate, CGPL
- 3. Shri Kunal Kaul, Advocate, CGPL
- 4. Shri M. G. Ramachandran, Advocate, GUVNL
- 5. Ms. Anushree Bardhan, Advocate, GUVNL
- 6. Shri Sitesh Mukherjee, Advocate, WRLDC
- 7. Shri Divyanshu Bhatt, Advocate, WRLDC
- 8. Ms. Divya Chaturvedi, Advocate, B&V S
- 9. Shri Saransh Shaw, Advocate, B&V

- 10. Ms Parichita Chaudhary, Advocate, PSPCL
- 11. Shri Anand K.Ganeshan, Advocate, PSPCL
- 12. Shri S. K. Sahoo, CGPL
- 13. Shri Anik Kumar, Energy Watchdog

#### <u>ORDER</u>

In terms of the Guidelines on Competitive Bidding Guidelines notified by the Government of India under Section 63 of the Act, Power Finance Corporation as the Bid Process Coordinator created a Special Purpose Vehicle, namely, Coastal Gujarat Power Limited (CGPL), for the purpose of selection of a bidder for development of Mundra UMPP and supply of power to the Procurer States of Gujarat, Maharashtra, Rajasthan, Punjab and Haryana. Tata Power was declared the successful bidder for Mundra UMPP in terms of the competitive bidding carried out by the Power Finance Corporation and accordingly, Letter of Intent was issued to Tata Power on 28.12.2006. Consequently, in terms of the provisions of the Request for Proposal, Tata Power acquired 100% shareholding of the SPV on 22.4.2007. A Power Purchase Agreement (PPA) dated 22.4.2007 was executed between Coastal Gujarat Power Limited (CGPL) and five procurers who are the distribution companies in the Procurer States. On 31.7.2008, a Supplemental Power Purchase Agreement (SPPA) was entered into between CGPL and the Procurer States to prepone the scheduled commercial operation date (SCODs) of all the Units. The Original SCOD, Revised SCOD and Actual COD of the Units are as under:

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Original SCOD	22.8.2012	22.2.2013	22.8.2013	22.2.2014	22.8.2014
Revised SCOD	30.9.2011	31.3.2012	31.7.2012	30.11.2012	31.3.2013
Actual COD	7.3.2012	30.7.2012	27.1.2012	21.1.2013	22.3.2013

- 2. This Suo Motu petition has been initiated on the basis of a reference received through Security and Exchange Board of India Limited (SEBI) wherein a complaint was made by one Shri M. C. Bansal alleging irregularities in declaration of COD of Units 20 to 50 of the Mundra Ultra Mega Power Project (also referred to as Mundra UMPP) of Coastal Gujarat Power Limited (CGPL). Shri M.C. Bansal, retired engineer from Madhya Pradesh Electricity Board, had made allegations as to COD of these Units in his letters addressed to Secretary, Ministry of Corporate Affairs, Government of India and Shri Rajeev Kumar Agarwal, Whole Time Member (SEBI). SEBI forwarded the letters to the Commission for taking necessary action.
- 3. The Secretary of the Commission sought the comments of CGPL and Western Regional Load Despatch Centre (WRLDC) on the letter of Shri Bansal. The responses of CGPL and WRLDC were received vide letters dated 27.07.2015 and 14.07.2015 respectively. Shri Bansal has alleged that CGPL has declared COD in respect of the Units 20, 30, 40and50 without these Units having demonstrated the operating at 95% of the Contracted Capacity for continuous period of 72 hours as required under Article 6.3.1 read with Schedule 4 and Schedule 5 of the Power Purchase Agreement (PPA) dated 22.4.2007.
- 4. After consideration of these documents, the Commission was of the view that the matter needs to be examined further and, therefore, the Commission initiated this Suo Motu Petition under Regulation 24 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 (hereinafter referred to as "Conduct of Business Regulations" or "CBR") and directed issue of notices to Coastal Gujarat Power

Limited (CGPL), the Procurer States, Independent Engineer as well as WRLDC to explain the facts and circumstances leading to declaration of COD of Units 20 to 50 of the Mundra UMPP. Further, the Commission in exercise of its power under Regulation 74 (d) of the Conduct of Business Regulations directed the Respondents to place on record all the relevant documents relating to the Performance/commissioning Tests, COD and scheduling of power from these Units, and in particular, the following information:

- (a) The procedure prepared by the Independent Engineer for conducting Performance/Commissioning Test.
- (b) The performance of the Units 20 to 50 of Mundra UMPP during the Performance/Commissioning Test.
- (c) The details alongwith a copy each of correspondence between CGPL and WRLDC regarding the Performance/commissioning Test and declaration of COD.
- (d) Observations/comments of the Procurer States on the performance of Units20 to 50 of the Mundra UMPP during the Performance/commissioning Tests and on the Final Test Certificate issued by Independent Engineer.
- (e) The correspondence between CGPL and Procurer States with regard to the Performance / commissioning Test, acceptance of the Final Test Certificate of the Independent Engineer and declaration of commercial operation of Units 20to 50 of Mundra UMPP.

- (f) Details of the discussion held in the meeting under the aegis of CEA on 29.5.2015 and the outcome thereof, alongwith minutes of the meeting, if any.
- (g) Any other material or submission that the respondents intend to make which is of relevance to the issue under consideration in the present proceedings.
- 5. In response to the Suo Motu Petition, CGPL, POSOCO/WRLDC, Independent Engineer, Distribution Companies of Gujarat, Maharashtra and Shri M.C. Bansal have filed their replies providing the relevant information sought by the Commission. CGPL has filed another reply raising the preliminary issue of *locus standi* of Shri M.C. Bansal and also the jurisdiction of the Commission to initiate the present proceedings.
- 6. The Commission, after hearing the parties on the preliminary issue raised by CGPL, vide order dated 22.8.2017 held that present proceedings under Regulation 24 read with Regulation 74 of the CBR were maintainable and that Shri M.C. Bansal should be allowed to participate in the proceedings. The parties were directed to file their final submissions. Relevant portion of the said order dated 22.8.2017 is extracted as under:

"14.CGPL has further submitted that Mr. Bansal is not an aggrieved party as he is neither a party to the PPA nor a beneficiary/resident of the five Procuring States who avail supply of electricity from Mundra UMPP. CGPL has further submitted that in this case, consumer interest is duly taken care of by this Commission, the Procurers, WRLDC and CGPL and therefore, Mr. Bansal ought not to be permitted to abuse the process of law by making scurrilous allegations or participating in the present proceedings. It may be noted that based on the allegations brought out in the complaint, the Commission has initiated the present proceedings Suo Motu to investigate into the veracity of the allegations. Regulation 19(1) of CBR provides that the Commission may appoint any officer or any other person to represent consumer's interest if considered necessary in the proceedings before it. Thus, it is the discretion of the Commission to allow a person to represent consumer interest, irrespective of whether he is an aggrieved/affected party or not.Mr. Bansal has been arrayed as a Proforma Respondent in the proceedings to assist the Commission. We are of the view that no prejudice will be caused to CGPL if Mr. Bansal is allowed to participate in the present proceedings and to assist the Commission.

- 15. In the light of the above discussion, we hold that the present proceedings under Regulation 24 read with Regulation 74 of the CBR are maintainable and the Commission has the necessary jurisdiction under Section 79(1)(b) read with the Competitive Bidding Guidelines and adjudicatory provisions in the PPA to look into the alleged irregularities in the COD of the Units of Mundra UMPP and issue appropriate directions as may be considered necessary.
- 16. In the meanwhile, Energy Watchdog has filed an IA No. 50/2017 in the present proceedings to be allowed to participate as an intervenor in the matter. Notice is issued in the said IA on its admissibility. Decision with regard to Energy Watchdog being allowed as an intervenor shall be taken after hearing CGPL and Procurers.
- 17. CGPL, Procurers, WRLDC and Independent Engineer have made their submissions on merit. However, all parties are directed to make their final submissions, by 11.9.2017".
- 7. In the meantime, on 29.12.2016, Energy Watchdog filed an IA No. 50/2017 seeking permission to participate as an intervener in the matter and made the following prayers:
  - "(a) Allow the Intervenor to intervene in the instant Petition;
  - (b) Declare that the Units 20, 30, 40 and 50 of the CGPL's Mundra Plant have not completed the trial as per the PPA;
  - (c) Declare that the certificate issued by the Independent Engineer (IE) in respect of Unit Nos. 20,30, 40 and 50 were not in accordance with the PPA; and
  - (d) Declare that the power scheduled/injected from 20,30, 40 and 50 for the period from the date of COD as infirm supply and be charged accordingly and excess paid be funded to Discoms."
- 8. The Commission allowed Energy Watchdog to participate in the proceedings and to file its submissions without being formally impleaded as a party to the petition and CGPL was directed to share relevant documents with Energy Watchdog.
- 9. The matter was further heard on 19.4.2018. The representative of Energy Watchdog and learned counsels for CGPL, IE, GUVNL and WRLDC made their submissions. The Commission, after hearing the parties, through the Record of Proceedings directed WRLDC to submit the details with regard to time-blocks during

which backing down instructions were given to Units of CGPL during trial run and reasons for giving such backing down instructions. After hearing the Parties, the Commission reserved the order in the Petition, subject to the necessary filings by the parties.

- 10. In compliance of the Commission's ROP of hearing dated 19.4.2018, WRLDC filed its affidavit on 11.5.2018 providing 15-minute generation data of Units 10 to 50 of Mundra UMPP during the trail run, the time-blocks during which the back-down instructions were issued by WRLDC and the reasons for issuing the back-down instructions. On 23.5.2018, Energy Watchdog, CGPL and IE filed their written submissions.
- 11. On 1.6.2018, WRLDC filed additional affidavit clarifying that while submitting its earlier data, WRLDC inadvertently did not furnish the data for 27.10.2012 and time-wise block data for that date was erroneously represented as zero. The said mistake was sought to be rectified by placing on record complete injection data of the Unit 30 of CGPL's generating station on 27.10.2012.
- 12. Subsequently, on 6.6.2018, CGPL filed IA No. 44 of 2018 seeking to counter the additional allegations made in the affidavit of 23.5.2018 filed by Energy Watchdog. The IA was heard on 3.7.2018 and the Commission directed CGPL, WRLDC and B&V (Independent Engineer) to file their submissions by 24.7.2018. Accordingly, the IA No. 44/2018 was disposed of. CGPL filed its additional submissions dated 24.7.2018. Order in the petition could not be issued and in the meanwhile one of the Members of the Coram who had heard the Petition on 19.4.2018 demitted office. Therefore, the matter

was further listed for hearing on 6.9.2018. During the hearing, learned senior counsel for CGPL requested for time to file reply to the additional affidavit filed by Shri M.C. Bansal. The Commission vide ROP of hearing dated 6.9.2018 directed the respondents to file their replies to the additional affidavit filed by Shri M.C. Bansal by 17.9.2018. Accordingly, CGPL filed an affidavit dated 17.9.2018 and WRLDC filed its additional affidavit on 25.9.2018. The Commission reserved order after hearing held on 11.12.2018.

### **Submissions of the parties:**

- 13. Shri Bansal vide its affidavit dated 25.4.2016 and written submissions dated 19.5.2018 has submitted as under:
  - (a) The most important factor to be considered while carrying out the commissioning test is that the machine should run continuously for 72 hours without a break or reducing the load. This is because of the fact that maximum stress is developed in a generating unit in the last 8-10 hours and the generating units generally fail in the last leg of the test. Any reduction in load during the continuous period of 72 hours reduces the stress on the power generator, allowing even an undercapacity power plant to pass the capacity test. This position has now been confirmed by the Hon'ble Supreme Court in the case of All India Power Engineer Federation and others Vs. Sasan Power Limited [(2017) 1 SCC 487] (hereinafter referred to as the Sasan Power Judgment). The Independent Engineer wrongly issued the Commissioning Test Certificates even when the criteria prescribed in the PPA were not met.

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- (b) CGPL's Units 20 to 50 did not run at or above 95% of the Contracted Capacity (Contracted Capacity of CGPL's Units being 760 MW; 95% of this capacity is 722 MW) continuously for 72 hours. CGPL, WRLDC, the Procurer States or the Independent Engineer cannot waive off/violate the provisions of the PPA. Once Units 20 to 50 of Mundra UMPP failed their commissioning tests (as required under Schedule 5), these Units were required to be de-rated by the stakeholders as per Article 6.3.4 of the PPA.
- (c) CGPL, Independent Engineer and WRLDC have failed to mention that failure of Units 40 to 50 is due to reasons solely attributable to CGPL. Unit 40 failed due to a wet coal issue. This has nothing to do with grid restrictions. CGPL deliberately used wet coal to save Unit 40 from breakdown. As regards Unit 50, it was under breakdown due to strainer choke and GTR phase PRV inspection. WRLDC provided full support by asking load relief, but even then Unit 50 was under breakdown.
- (d) WRLDC has a significant role to play when commissioning tests are carried out. Since all the five Units of Mundra UMPP are located in the same premises, relief during commissioning tests was available to Mundra UMPP. WRLDC extended a helping hand to CGPL by asking for reduction of load from Units under commissioning tests without utilizing the capacity available in Mundra UMPP's system. Hence, WRLDC has illegally helped CGPL prevent the breakdown of its Units.
- (e) CGPL had wrongly declared COD of Units 20 to 50 and did so with the malafide

intent of cheating the Procurer States by charging full tariff as against recovering the charges of infirm power. The impact of wrongful declaration of COD of Units 20 to 50 of Mundra UMPP is Rs. 20,000 crore to the Procurer States. Hence, public interest is adversely affected and it is necessary to remedy the same by striking down the wrongfully declared COD of these Units.

- 14. We note that Shri Bansal has written letters to various government departments, including CBI, CVC, PMO alleging criminal nexus between the Procurer States, WRLDC and CGPL in wrongful declaration of COD of Units 20 to 50 of Mundra UMPP. While we have made Shri Bansal a proforma respondent vide our orders dated 31.12.2015 and 22.8.2017, Shri Bansal has chosen not to appear before the Commission when the matter was listed for hearing on 9.3.2018, 19.4.2018, 3.7.2018, 6.9.2018 and 11.12.2018.
- 15. Energy Watchdog in its affidavits/ written submissions dated 29.12.2016 and 23.5.2018 has submitted as under:
  - (a) WRLDC's initial report to the Commission confirmed that there were massive dips and fluctuations during the trial period. WRLDC acknowledged that the said dips and fluctuations in load were caused on account of backing down or increasing generation instructions issued by WRLDC.
  - (b) The readings provided by WRLDC to the Commission were on a graph for every 02:45 hours period, instead of 15 minutes time-periods. This was deliberately done by WRLDC to hide its nexus with CGPL.

- (c) On an analysis of the various instructions issued by WRLDC to CGPL during the testing of Units 30 to 50, it is seen that there is no co-relation between WRLDC's instructions and the actual output of the Units. WRLDC, it appears, has issued the instructions to CGPL belatedly only for the purpose of matching it with the actual output of the Unit. A clear nexus between CGPL, WRLDC and the Independent Engineer is apparent.
- (d) The generation of Units 30 to 50 during the trial phase is far below the desired level. In terms of Article 6.3.1 read with Schedule 5 of the PPA, the Performance Tests are deemed to have been passed only if the Unit operates continuously at not less than 95% of Contracted Capacity for consecutive 72 hours. Therefore, the certification by B&V (the Independent Engineer) leading to COD of Units 30 to 50 of Mundra UMPP, even though the said Units had failed to pass the Performance Test, is evidence towards criminal nexus between CGPL, WRLDC and B&V.
- (e) Mandatory requirement of Article 6.3.1 read with Schedule 5 of the PPA cannot be waived. As per the PPA read with Sasan Power Judgment and Order of the Commission in case of Barh generating station of NTPC, it is settled law that a Unit can be said to be commissioned only when it runs continuously for 72 hours at or above 95% of contracted capacity.
- (f) Since CGPL has failed the Performance Tests, it is required to re-take the said tests as per provisions of the PPA. Till that time, the power injected from Units 20 to 50 should be treated as infirm power. Infirm power so injected should be

treated as Unscheduled Interchange ("UI") and CGPL's compensation for injection of such infirm power should be in terms of Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 (hereinafter referred to as "the 2009 Connectivity Regulations").

- (g) By paying the tariff for such infirm injection, the Procuring States have suffered a loss of about Rs. 12,180 crore as on 31.12.2016 and the same needs to be recovered from CGPL along with interest.
- 16. WRLDC vide its affidavits dated 14.1.2016, 11.5.2018, 1.6.2018 and 25.9.2018 has submitted that while declaring the COD and commencement of scheduling from Units of Mundra UMPP, WRLDC has followed the provisions of the 2009 Connectivity Regulations and the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred to as "the Grid Code"). WRLDC has further submitted as under:
  - (a) PPA entered into between CGPL and the Procurer States is a bilateral agreement and no procedures were submitted to WRLDC by Independent Engineer or CGPL for conducting its performance/commissioning tests.
  - (b) WRLDC has placed on record the ex-bus injection as recorded by the energy meters during the trial runs of Units 20 to 50. Further, WRLDC facilitates testing of generating units whenever the same is required by the generating stations. However, this testing is permitted based on the prevailing grid conditions. If

required, restrictions are imposed to secure grid operations. During the trial run of Units 20 to 50 of CGPL, WRLDC had imposed restrictions on infirm injection due to grid restrictions. Regulation 8(7) of the 2009 Connectivity Regulations and Clause 6.4.12 of the Grid Code empowers RLDCs to pass appropriate directions to secure grid operations.

- (c) During the synchronization and subsequent declaration of COD of each Unit, Mundra UMPP had communicated to WRLDC, namely the (i) advance intimation on synchronization of each Unit with the grid; (ii) advance intimation on proposed 72 hours trial run to be carried out for each Unit, (iii) declaration of COD of each Unit, (iv) copy of test certificates issued by Independent Engineer for each Unit and (v) letters from the Procurer States on acceptance of Final Test Certificates by Independent Engineer.
- (d) With regard to observations/comments of the Procurer States on the performance of Units 20 to 50 of Mundra UMPP during the Performance/commissioning Tests and on the Final Test Certificate issued by IE, WRLDC has placed on record the acceptance letters received from the Procurer States which are summarized as under:

S. No.	Unit	Confirmatio n Provided by	Letter date	Letter Reference No.	Acceptance Letter Issued by
1	Unit 20	PSPCL	3-Aug-12	02561/62	Superintending Engineer (ISB), PSPCL Patiala
2		GUVNL	7-Aug-12	GUVNL: GM (COMM) : 1867	General Manager (Commercial), GUVNL Baroda
3	Unit	PSPCL	28-Feb-13	0343/ISB-581	Dy. Chief

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	30				Engineer (ISB), PSPCL Patiala
4		MSEDCL	27-Feb-13	CE/PP/CGPL/ 006050	Chief Engineer (PP-Cell), MSEDCL Mumbai
5		GUVNL	26-Nov-12	GUVNL: GM (COMM): 2616	General Manager (Commercial), GUVNL Baroda
6		RDPPC	15-Feb-13	CE/RDPPC/F. CGPL/D.631	Chief Engineer, RDPPC, Jaipur
7	Unit	PSPCL	28-Feb-13	0343/ISB-581	Dy. Chief Engineer (ISB), PSPCL Patiala
8	40	MSEDCL	27-Feb-13	CE/PP/CGPL/ 006045	Chief Engineer (PP-Cell), MSEDCL Mumbai
9		RDPPC	21-Mar-13	Dir/Power trading/F./D.18 4	Director (Power Trading), RDPPC, Jaipur
10	Unit 50	GUVNL	21-Mar-13	GUVNL: GM (COMM): 504	General Manager (Commercial), GUVNL Baroda
11		PSPCL	22-Mar-13	0533/ISB-581	Dy. Chief Engineer (ISB), PSPCL Patiala

- (e) WRLDC has not received the minutes of the meeting held on 29.5.2015 at CEA. However, CGPL in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations"), had intimated all the Procurer States and WRLDC regarding time period of the trial run. As per the PPA, CGPL's Units also demonstrated MCR (Maximum Continuous Rating) through successful trial run. The generators carried out the trial run purely in accordance with the provisions of the PPA, which is a bilateral contract between the CGPL and the Procurer States.
- (f) From the data available, it is seen that Units 20 to 50 had successfully completed trial run at MCR as per the 2009 Tariff Regulations. The details of trial run

submitted by WRLDC for Units 20, 30, 40 and 50 for the Project is as under:

Unit Number	Capacity in MW	Date of CoD	72 hrs. trial run period	No. of Time blocks* at or above MCR
20	830	30/07/2012	1145 hrs. of 25/7/2012 to 1205 hrs. of 28/7/2012	256
30	830	27/10/2012	1400 hrs. of 23/10/2012 to 0200 hrs. of 27/10/2012	142
40	830	21/01/2013	1830 hrs. of 16/1/2013 to 2045 hrs. of 19/1/2013	241
50	830	22/03/2013	1215 hrs. of 17/3/2013 to 0045 hrs. of 21/3/2013	247

- (g) The Hon'ble Supreme Court in Sasan Power Judgment has not held that the commissioning tests must be carried out for 72 consecutive hours notwithstanding stability of the grid or situations of transmission congestion. In any case, the Sasan Power Judgment is not applicable in this case.
- 17. Lead procurer, Gujarat Urja Vikas Nigam Limited (GUVNL), vide its affidavit dated 22.1.2016 has submitted as under:
  - (a) GUVNL along with other Procurer States had appointed Black and Veatch (B&V) as the Independent Engineer as per the PPA provisions. Out of the four Units under question in the current proceedings, the Units 20, 30 and 40 had reached 95% of the contracted capacity and further operated at 95% continuously other than when load restriction was imposed by WRLDC. Therefore, any back down during the period was due to the load restriction by WRLDC and no issue has been reported otherwise for the generating units for not operating continuously

for 72 hours.

- (b) With regard to Unit 50, the plant was required to back down for other reasons in addition to the grid restrictions. GUVNL vide letter dated 3.9.2014 sought explanation from the Independent Engineer on the declaration of commercial operation for Unit 50 which had not operated at 95% continuously due to reasons other than load restriction of WRLDC.
- (c) Independent Engineer vide letter dated 23.9.2014 clarified that the Unit 50 had reached 95% without any alarm or trips and all major equipment was running fine. The Unit 50 had to back down due to BFP Strainer Choke which was expected as the Unit had run only for few hours before it went into reliability run. Further GT R Phase PRV Inspection was carried out due to oil leak and there was no major threat to the safety or generation ability. The duration of back down was 1.5 hrs whereas the Performance Test had been extended by 12.5 hrs beyond 72 hrs. Independent Engineer enclosed the sample record of generation from 24.3.2013 to 31.3.2013 wherein declared capacity was 760 MW and from total of 56.5 hrs, the supply of power from Unit 50 was more than 95% of Contracted Capacity (i.e. 722 MW). The reason for load of less than 95% was due to power surrender from Procurer States or Unscheduled Interchange due to frequency variation. Independent Engineer has also enclosed the load restriction details for the four Units during their performance test.
- (d) The Performance Test of the generating station (stipulated for 24 hrs) was undertaken from 06:00 hrs of 30.3.2013 up to 15:00 hrs of 31.3.2013 for which

Final Test Certificate was given by IE. As per the detailed report, the generating station output test was successfully completed without any unit tripping or interruption for continuous operation of thirty three (33) hours out of which the station load was maintained above 95% of the Contracted Capacity for twenty four (24) hours. The lower station load for nine (9) hours was due to the grid restriction and not for any technical failure.

- (e) Therefore, non-achievement of continuous operation for 72 hours at 95% as per PPA was due to grid restriction by WRLDC and not for any technical failure in the Units and that CGPL had undertaken the tests pursuant to the consent from WRLDC and had also requested WRLDC not to impose the load restriction since the machines were under Performance Test. However, the load restrictions were imposed during testing on which the generator has no control.
- (f) As per the provisions of the PPA, Independent Engineer is required to issue Final Test Certificate regarding satisfactory performance of a unit and the unit is required to be commissioned on the day after the date when all the Procurer States received the Final Test Certificate of Independent Engineer. M/s Black & Veatch had issued the Final Test Certificates for the Units of Mundra UMPP from time to time.
- (g) Further, power station Performance Test was also successful i.e. without any unit tripping or interruption in continuous operation, as has been detailed by B&V in its report.

- (h) In the circumstances mentioned above, the declaration of commercial operation was accepted by GUVNL.
- (i) Since for the declaration of COD, CGPL has declared normative availability of 80% of the Contracted Capacity as per the PPA and supplied power as per the Schedule to the Procurer States, there has been no issue on availability of power as per the targeted PLF of the Contracted Capacity from the Mundra UMPP. In case COD is not accepted by the Commission, the supply of power from CGPL to the Procurer States would be treated as infirm power. As per 2009 Connectivity Regulations, such infirm power would be treated as unscheduled injection into the grid and would not be considered as supply of power to the Procurer States. In that case while CGPL will get the benefit of UI from UI pool account for such unscheduled injection, the Procurer States will not receive the benefit of such infirm power.
- (j) COD of Units 20 to 50 has been accepted by GUVNL without any mala-fide intentions and in the interest of consumers at large. There is no financial loss to the Procurer States as the fixed cost/ capacity charges have only been paid on declaration of normative availability of 80%.
- (k) The Sasan Power's case is different from the present case and the same has no bearing on the present case.
- 18. CGPL vide its affidavits/ written submissions dated 13.5.2016, 31.5.2016 and 20.5.2018 has submitted as under:

- (a) PPA is a statutory contract where various elements of common law of contract stand altered and subjugated to the governing statutory framework. In terms of the Grid Code, the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 (hereinafter referred to as "the Open Access Regulations"), the 2009 Connectivity Regulations and Procedure for Short Term Open Access in Inter State Transmission (Bilateral Transaction), the RLDCs have the power to direct, cancel or re-schedule any transaction, if such directions are issued in the interest of grid security and stability.
- (b) In terms of Article 6.3 read with Schedule 5 of the PPA:
  - (i) A Unit is, *inter alia*, required to run at or above 95% of the Contracted Capacity, meet the ramp rate test and supercritical performance test. The tested capacity of a Unit has to achieve 95% of its Contracted Capacity for it to be declared as commissioned. If the Unit runs for a continuous period of 72 h2ours at or above 95% of its Contracted Capacity, then the above Unit is deemed to be commissioned.
  - (ii) However, the IE has discretion to declare/ certify a Unit as commissioned when such Unit is unable to continuously run for 72 hours at or above 95% contracted capacity, where the Unit has a tested capacity of not less than 95% and the said Unit has met all other parameters/ tests prescribed in Schedule 5.
- (c) Article 6 read with Schedule 5 of the PPA read in accordance with the other

provisions of the PPA and in accordance with applicable law, leads to the conclusion that energy can be injected into the grid subject to grid/ system constraints/ availability. Further, the Grid Code empowers RLDCs to issue instructions for increasing/ decreasing the drawal/generation in case of contingencies, i.e. overloading of lines/transformers, abnormal voltages, threat to system security and such directions are to be immediately acted upon. CGPL cannot be penalised for adhering to the said instructions.

- (d) As per the PPA, Independent Engineer has been jointly appointed by CGPL and the Procurer States. Further, PPA requires the Independent Engineer (an expert authority) to independently assess the COD of the units not only in accordance with the terms of the PPA but also taking into account the ground realities. Due to these practical considerations, Independent Engineer has been granted discretion to approve the commissioning test if he is satisfied with the same. If the Independent Engineer is satisfied that the Units are capable of sustained operation during the life of the PPA, then he can approve the Performance Tests even when the units have not operated continuously for 72 hours at or above 95% of the Contracted Capacity. In any case, CGPL has met all the other tests which have been prescribed under the PPA.
- (e) As per the PPA, the Procurer States and IE have to be satisfied about the trial run before declaration of COD. Article 6.3.1 and Schedule 5 provides that even if required load is not achieved in consecutive 72 hours, IE can certify the tests. Parties have to be satisfied; it is a commercial efficacy and business principle.

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- (f) There were certain interruptions during the Performance Tests of Units 20 to 50, primarily on account of load restrictions imposed by WRLDC. WRLDC in its letter dated 14.07.2015 to the Commission has acknowledged that during the commissioning/performance tests of Units 20 to 50, CGPL was constrained to back down its Units due to restrictions imposed by WRLDC on infirm injection on account of grid/ system constraints.
- (g) Units of Mundra UMPP were commissioned in accordance with the PPA under the supervision of IE (jointly appointed by CGPL and the Procurer States in accordance with the PPA provisions). From the facts of the commissioning of Units 20 to 50, it can be noted that:
  - (i) Unit 20 of Mundra UMPP had run continuously for 72 hours, out of which the Unit had run at 95% or above of the contracted capacity for a continuous period of 64 hours. For the remaining 8 hours, the Unit could not be run at or above 95% of the Contracted Capacity on account of backing down instructions received from WRLDC. Once the tests were complete, the Independent Engineer prepared and issued the Final Test Certificate (FTC), which was accepted by the Procurer States.
  - (ii) Unit 30 was operated for a continuous period of 82 hours out of which the Unit was run at 95% or above of its Contracted Capacity for approximately 36 hours. For the remaining 46 hours, the Unit could not be run at or above 95% of its Contracted Capacity on account of backing

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down instructions received from WRLDC. Once the tests were complete, the Independent Engineer prepared and issued the Final Test Certificate (FTC), which was accepted by the Procurer States.

(iii) Unit 40 of Mundra UMPP was operated for a continuous period of 72 hours without any interruption or tripping of the Unit. The Unit had run at 95% or above of its Contracted Capacity for a period of 58 hours. For approximately 13.25 hours, the Unit could not be run at or above 95% of its Contracted Capacity on account of backing down instructions received from WRLDC. Further, due to a wet coal issue, the Unit could not be run at or above 95% of Contracted Capacity for 35 minutes. The back down in generation was not due to equipment failure, unit tripping or events of similar nature. Once the tests were complete, the Independent Engineer prepared and issued the Final Test Certificate (FTC), which was unequivocally accepted by the Procurer States.

(iv) Unit 50 of Mundra UMPP had run for a continuous period of 84.50 hours, without any interruption or tripping of the Unit. Out of the said period of 84.50 hours, the Unit was run at 95% or above of its Contracted Capacity for a total period of 60.5 hours. For the remaining 24 hours, Unit 50 could not be run at or above 95% of its Contracted Capacity due to backing down instructions issued by WRLDC; BFP Strainer cleaning (choking of BFP strainer is not regarded as an abnormal operational condition in case of a newly commissioned unit); and GT Oil Leakage.

Once the tests were complete, the Independent Engineer prepared and issued the Final Test Certificate, which was unequivocally accepted by all the Procurer States.

- (h) CGPL backed down its units under commissioning instead of its commissioned units in terms of the directions of WRLDC. In terms of clause 12.2 of Procedure for Short Term Open Access in Inter State Transmission (Bilateral Transaction), in case of curtailment of power due to transmission constraint or to maintain the grid security, short-term transactions are to be curtailed first followed by mediumterm transactions and thereafter long-term transaction.
- (i) The Performance Test Reports prepared by the Independent Engineer for Units 20 to 50 records the reasons why the Units were not able to operate continuously for 72 hours at or above 95% of Contracted Capacity (grid restrictions etc.) and no dispute has been raised either by Independent Engineer, any of the Procurer States or any statutory bodies on the issue of declaration of COD of Units 20 to 50 of Mundra UMPP.
- (j) After the COD of Units 20 to 50 of Mundra UMPP, CGPL also undertook the Power Station Performance Test. The entire power station was operated continuously for 33 hours out of which the power station was run at 95% of contracted capacity for a period of 24 hours.
- (k) In any case, Mundra UMPP has been in continuous operation for a substantial period of time without facing any failures or glitches or breakdowns. CGPL has

generated and scheduled the electricity to the Procurer States in accordance with the provision of the PPA, even though CGPL has been suffering losses on every unit of electricity generated by it.

- (I) Sasan Power's case is different compared to the present case as Unit-I of Sasan UMPP had not been able to achieve 95% of contracted capacity despite being allowed to do so by WRLDC. In the present case, CGPL had achieved 95% or more of Contracted Capacity without any concerns or issues and the only reason for not operating continuously at 95% of Contracted Capacity for 72 hours was due to load restriction imposed by WRLDC. Therefore, the Sasan Power Judgment is not applicable in the facts of the present case.
- (m)Even otherwise, the intent of the commissioning tests, including the Performance Tests of running of Units continuously at or above 95% of their Contracted Capacities, is to assess the capabilities of such Units for sustained operations during the life of the PPA. An element of discretion has been granted to the IE to assess the capability of the units while declaring COD of a Unit. If the IE is satisfied that the Units are capable of sustained operations during the life of the PPA, then the Performance Test can be approved, even where a Unit does not run continuously for 72 hours, due to any reason, including system/ grid constraints (and not tripping/ equipment failure) or any other ancillary reasons. This interpretation is in line with the Sasan Power Judgment and the Commission's orders in the Sasan Power case.
- 19. MSEDCL, vide its affidavit dated 17.6.2016, has submitted as under:

- (a) As per Article 6.3 of the PPA, COD of all the five Units has been considered based on the Final Test Certificate submitted by the Independent Engineer, provisions of the PPA and as per the approval given by WRLDC. COD for each of the Units has been considered by all the beneficiaries.
- (b) As per the Schedule 5 of the PPA, which provides the clarification of the Performance Tests, such unit shall be deemed to have passed the tests, if the Unit operates continuously for seventy two hours at or above 95% of its contracted capacity as existing on the effective date and within the electrical systems limits and the functional specifications. Further, the electrical system is subject to the grid constraints and such other technical dependencies for which alternative procedures are given in the PPA as provided in the Schedule 5 of the PPA. Therefore, the grid constraint can be one of the reasons to be considered for non-operation of the Unit continuously for 72 hours at 95% contracted capacity.
- (c) MSEDCL vide its letter dated 17.9.2014 requested Independent Engineer to offer its comments on Shri M.C. Bansal's letter. Independent Engineer has disagreed with interpretation of data made by Shri Bansal and denied the defamatory allegations made therein vide letter dated 30.10.2014.
- (d) MSEDCL vide letter dated 7.11.2015 requested CGPL to provide more clarification regarding COD. CGPL vide letter dated 17.11.2015 informed MSEDCL that the allegations are completely baseless, devoid of merit, malicious and denied in toto.

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- (e) MSEDCL has acted as per the provisions of the PPA and Independent Engineer relied on these provisions while issuing the Final Test Certificate for declaration of commercial operations of Units 20 to 50 of the Mundra UMPP. If the Commission finds any merit in the grievance submitted by Shri M.C. Bansal, the Commission may take appropriate action taking into consideration the relevant technical and legal provisions contained in the PPA and technical factors considered in the Final Test Certificate issued by the Independent Engineer and letters/ submissions made by WRLDC while deciding on the subject matter in the Petition.
- 20. Independent Engineer (M/s Black & Veatch Private Ltd) vide its affidavits/written submissions dated 22.2.2016, 23.5.2018, 20.6.2018 and 17.9.2018, has submitted as under:
  - (a) During the test of Unit 20 from 25.7.2012 to 28.7.2012, the Unit has dispatched above 95% load for 64 hours of the test period and the average dispatch over 72 hours of test was above 95% of the Contract Capacity. Due to the imposition of grid restrictions by WRLDC on account of tripping of distribution lines Limdi-1 and Limdi-2, the generation got hampered in the final 8 hours of the Performance Test. Independent Engineer did not pursue extension of the test hours since the average despatch from Unit 20 over 72 hours testing was over 95% of the Contracted Capacity. Pursuant to the test, B&V vide letter dated 28.7.2012 issued the FTC for Commercial Operation for Unit 20 to the Procurer States.

- (b) Subsequently, CGPL conducted the stipulated test on Unit 30 in presence of B&V from 23.10.2012 to 27.10.2012. The said Unit operated consecutively for 82 hours out of which 36 hours were at or above 95% of its Contracted Capacity of 760 MW thereby fulfilling the requisite conditions. For the remaining hours, the Unit was running normally at a lower capacity as had been instructed by WRLDC considering the grid security. During the ongoing test procedure, B&V wrote an email on 24.10.2012 to CGPL O&M Head, stating therein that if Unit 30 was not operated at full load for a significant amount of time during the test, B&V would not be able to validate the test. B&V also stated that the COD test would need to be extended until sufficient number of hours is completed at full load. In response, CGPL wrote an email dated 24.10.2012 to B&V, stating that the matter was being discussed with WRLDC on priority. Finally, as a good engineering practice, B&V expected Unit to run at or above 95% of the contracted capacity for at least 50% of the hours out of total of 72 hours. Accordingly, the test was extended for a period of 10 hours. Pursuant to the test, B&V vide letter dated 27.10.2012 issued the FTC for Commercial Operation for Unit 30 to the Procurer States.
- (c) CGPL conducted the stipulated test on Unit 40 in presence of B&V representative from 16.1.2013 to 19.1.2013. The said Unit 40 was also required to operate at Contracted Capacity of 95% or more for 72 consecutive hours for declaration of COD. However, due to grid restrictions, Unit 40 load could be maintained only for 58 hrs at or above 95% of its Contracted Capacity of 760 MW. Grid restrictions were applied by WRLDC due to high frequency of 50.7 Hz

and the said Unit ultimately ran below 95% of Contracted Capacity for 13.5 hours but this was not on account of unit performance. There were two other instances when the Unit 40 was brought down below 95% capacity totalling 35 minutes as a result of wet coal (leading to tripping of coal mill). Thus Unit 40 clocked 58 hours of operation at or above the 95% of Contracted Capacity. Therefore, B&V did not pursue to extend the test beyond the stipulated 72 hours. Pursuant to the test, B&V vide letter dated 20.1.2013 issued the FTC for Commercial Operation for Unit 40 to the Procurer States.

- (d) Thereafter, CGPL conducted the stipulated test on Unit 50 in presence of B&V representative from 17.3.2013 to 21.3.2013. The said Unit 50 demonstrated continuous operation of 84.5 hours. The said Unit ran at or above 95% of the Contracted Capacity for 60.5 hours and below 95% load for 24 hours (17 hours due to BFP strainer cleaning, 1.5 hours due to GT Oil leakage and 5.5 hours due to grid restriction). There were 3 scenarios on which the plant was required to back down below 95% contracted capacity:
  - (i) Grid operator (WRLDC) asked the plant to back down to 200 MW for a duration of 5.5 hours.
  - (ii) BFP Strainer Choke Unit 50 load was brought down to clean the strainers and then ramped back to full load and the test period was extended to compensate for those hours.

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- (iii) GT R phase PRV inspection Oil leak was inspected and there was no major threat to safety of the plant or its generation ability.
- (e) Performance Test was extended by 12.5 hours beyond the stipulated 72 hours to account for some of the above noted interruptions. Only the hours required for the BFP strainer cleaning and the hours for the GT phase inspection were considered for extending the test duration. Out of the 17 hours for the BFP strainer cleaning, time of 6 hours for the load ramp up and ramp down was not considered in the extended hours. The machine ran above 95% of the Contracted Capacity for 60.5 hours out of the 84.5 hours for which it was run. Pursuant to the test, B&V vide letter dated 21.3.2013 issued the FTC for Commercial Operation for Unit 50 to the Procurer States.
- (f) Subsequently, CGPL conducted the Power Station Performance Test in presence of B&V from 30.3.2013 to 31.3.2013. The test results demonstrated continuous operation for 24 consecutive hours at or above 95% of the contracted capacity of the generating station i.e. 3800 MW (for 5 units of 760 MW each).
- (g) B&V has adhered to the contractual provisions and performed all the tasks mentioned therein. Only after analyzing the plant data during the tests, bearing in mind the grid restrictions imposed by WRLDC that B&V has certified that the Units of Mundra UMPP were available to produce above 95% of Contracted Capacity and that there were no fatal flaws in the plant design/ operation.

- (h) B&V on 23.9.2014, in reply to GUVNL's letter dated 3.9.2014, regarding trial conducted for Unit 50, has explained that one of the goals of a performance test was to ensure that any fatal flaws in the plant design/ operation are addressed before COD of the plant is declared. B&V further informed that Unit 50 reached 95% of the Contracted Capacity without any alarms or trips. All major equipment were found to be running fine.
- (i) The Final Test Certificates issued by B&V do not suffer from any infirmities/ irregularities as alleged by Shri Bansal and Energy Watchdog. The fact that the language used by B&V is the same in all the FTCs, is of no relevance since the FTCs are as per the format provided in the Independent Engineer Agreement. The test report in relation to the Performance Test of Units 20 to 50 of Mundra UMPP has been issued in accordance with Article 6 and Schedule 5 of the PPA.
- (j) The backing down instructions issued by WRLDC overrides the contractual obligation of the parties to operate the Units at 95% of the contracted capacity. In this regard, B&V has relied upon the judgment of the Hon`ble Supreme Court in the case of *PTC India Limited* v. *CERC &Ors.*: [(2010) 4 SCC 603].
- (k) It is noteworthy that none of the Units have reported any issues with operation, post the trial runs. Therefore, the objective behind the trial runs was achieved.
- (I) At the time of testing of Units 20 to 50, there were no regulations/ guidelines to be followed. Therefore, the Performance Tests were conducted in accordance with instructions received from WRLDC; those contained in the PPA; good

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engineering practices; and prudent utility practices prevalent for such testing of units of a power plant.

- (m)The Performance Tests of Units 20 to 50 were conducted with a view to test the capability of boiler-turbine-generator of the Units and the sustained and stable operation of the same for a significant period of time. Once B&V satisfied itself of the ability of the said units, it issued the FTCs.
- (n) During the trial run of a Unit, infirm power is injected into the grid. If the power injected into the grid exceeds the power drawn, grid stability is threatened leading to a breakdown of the entire grid. Therefore, WRLDC monitors injection and drawal of power into the grid and relays instant instructions to entities to increase/ decrease generation/ withdrawal. All entities are duty bound to comply with WRLDC instructions.

#### **Analysis and Decision:**

21. The present Petition was initiated on basis of complaint filed with SEBI by Shri Bansal as regards the alleged irregularities in the commissioning of Units No. 20 to 50 of CGPL's Mundra UMPP. The scope of dispute raised by Shri Bansal and Energy Watchdog is restricted to non-compliance of provisions of the PPA related to Performance Test during continuous running of Units 20 to 50 of Mundra UMPP at or above 95% of its Contracted Capacity. It is in this context that the affidavits, replies and written submissions have been filed by the parties. We have considered all the affidavits, replies, written submissions and supporting documents filed by the parties. The following issues arise for our consideration:

- (a) **Issue No. 1**: Whether the terms of the PPA require a Unit to run continuously for 72 hours at or above 95% of its Contracted Capacity, for declaring the same as duly commissioned? And whether the Hon`ble Supreme Court judgment in the case of Sasan Power is applicable in the present case?
- (b) **Issue No. 2:** Whether the Commission's order dated 20.9.2017 in Petition No. 130/MP/2015 in case of NTPC Barh is applicable in the present case?
- (c) **Issue No. 3**: Whether in light of the facts and circumstances of the present case, Units 20 to 50 of CGPL's Mundra UMPP have been duly commissioned?

Issue No. 1: Whether the terms of the PPA require a Unit to run continuously for 72 hours at or above 95% of its Contracted Capacity, for declaring the same as duly commissioned? And whether the Hon'ble Supreme Court judgment in the case of Sasan Power is applicable in the present case?

- 22. Energy Watchdog and Shri Bansal have submitted that the PPA requires a unit to run continuously for 72 hours at or above 95% of its Contracted Capacity before declaring COD of the Units. Since the same has not been achieved by Units 20 to 50 of CGPL's Mundra UMPP, they cannot be said to be duly commissioned in accordance with the provisions of the PPA. They have stated that this position has now been confirmed by the Sasan Power Judgment. Even otherwise, such wrongful declaration of COD cannot be waived by the Procurer States as the same would not be in public interest.
- 23. Per contra, CGPL has submitted that the commissioning of Units 20 to 50 of Mundra UMPP have been duly carried out in terms of the PPA; has been certified by the Independent Engineer; and accepted by the Procurer States and WRLDC. According to

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CGPL, the commissioning of a unit does not necessarily require it to run for a continuous period of 72 hours at or above 95% of its Contracted Capacity., As long as the Units run at or above 95% for a considerable period of time and as long as it also clears all other tests prescribed in Schedule 4 and Schedule 5 of the PPA to the satisfaction of the Independent Engineer jointly appointed by the Procurer States and CGPL, the COD of Units can be declared. The role of an Independent Engineer, as an authority certifying the commissioning of the units, assumes significance when a Unit is unable to run continuously for 72 hours at or above 95% of the Contracted Capacity. The facts of the Sasan Power Judgment have been mis-interpreted and mis-understood by Energy Watchdog and Shri Bansal. Moreover, they are not applicable to the present case. Infact, the Sasan Power Judgment has nowhere prescribed that a generating unit has to run for a continuous period of 72 hours at or above 95% of its Contracted Capacity, for it to be declared duly commissioned. Unlike Sasan Power case, there is no mis-declaration/ early declaration of COD in the present case and no benefit has been derived by CGPL while declaring COD of its Units. Declaration of COD and its subsequent acceptance by the Procurer States/ Independent Engineer/ WRLDC cannot be said to be contrary to public interest. WRLDC, the Procurer States and the Independent Engineer have duly certified the commissioning of Units 20 to 50 of CGPL's Mundra UMPP to be in accordance with the terms of the PPA.

24. We have considered the submissions of the parties. The primary contention of Shri Bansal and Energy Watchdog is that the Units of CGPL did not fulfill the requirement of PPA relating to operating of Units at or about 95% of Contracted Capacity for a continuous period of 72 hours and despite not achieving that the

Independent Engineer has issued the Final Test Certificate. They have also stated that the Procurer States have not gone into specifics of the commissioning procedure and they have simply accepted the Final Test Certificate issued by the Independent Engineer. They have also questioned the role of the WRLDC in the whole process. In fact, they have accused that the WRLDC has colluded with CGPL and given backing down instructions to match with flaws in the Units of CGPL. They have further stated that generator, the Procurer States, Independent Engineer and WRLDC have declared/accepted the COD of CGPL Units in contravention to the Sasan Power Judgment. In their view, the Sasan Power Judgment is squarely applicable in the present case. Their interpretation of this Judgment is that a Unit has to run continuously for 72 consecutive hours at 95% of its Contracted Capacity for it to be declared under commercial operation.

25. For deciding the issue, it is necessary to analyze whether the facts of the Sasan Power Judgment can be made applicable to the present case. It is a settled position of law that, a decision is only an authority for what it actually decides. Every judgment must be read as applicable to the particular facts proved, or assumed to be proved, since the generality of the expressions which may be found there, is not intended to be exposition of the whole law, but governed and qualified by the particular facts of the case in which such expressions are to be found. It is, therefore, not profitable to extract a sentence here and there from the judgment and to build upon it because the essence of the decision is its 'ratio-decidendi' and not every observation found therein. In light of the settled principles of law regarding the 'ratio-decidendi', the applicability of the Sasan Power Judgment is to be considered in the facts of present case.

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- 26. Article 6.2 read with Schedule 4 and Schedule 5 of the PPA dated 22.4.2007 between CGPL and Procurer States deals with the commissioning of a Unit, which is extracted as under:
  - "6.2 Commissioning
  - 6.2.1 The Seller shall be responsible for ensuring that each Unit is Commissioned in accordance with Schedule 5 at its own cost, risk and expense.
  - 6.2.2 The Seller shall give all the Procurers and the Independent Engineer not less than ten (10) days prior written notice of Commissioning Test of each Unit.
  - 6.2.3 The Seller (individually), the Procurers (jointly) and the Independent Engineer (individually) shall each designate qualified and authorised representatives to witness and monitor Commissioning Test of each Unit.
  - 6.2.4 Testing and measuring procedures applied during each Commissioning Test shall be in accordance with the codes, practices and procedures mentioned in Schedule 5 of this Agreement.
  - 6.2.5 Within five (5) days of a Commissioning Test, the Seller shall provide the Procurers (jointly) and the Independent Engineer with copies of the detailed Commissioning Test results. Within five (5) days of receipt of the Commissioning Test results, the Independent Engineer shall provide to the Procurers and the Seller in writing, his findings from the evaluation of Commissioning Test results, either in the form of Final Test Certificate certifying the matters specified in Article 6.3.1 or the reasons for non-issuance of Final Test Certificate.
  - 6.3 Commercial Opération

A Unit shall be commissioned on the day after the date when all the Procurers receive a Final Test Certificate of the Independent Engineer stating that:

- (a) the commissioning Tests have been carried out in accordance with Schedule 5 and are acceptable to him; and
- (b) the results of the Performance Test show that the Unit's Tested Capacity, is not less than ninety five (95) percent of its Contracted Capacity as existing on the Effective Date...."

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SCHEULE 4: FUNCTIONAL SPECIFICATION

1.1	Grid Conditions at Interconnection Point		
S. No	Description / Voltage Level	400 kV	220 kV
i)	Nominal Voltage kV	400	220
ii)	Maximum Voltage kV	420	245
iii)	Minimum Voltage kV	380	198
iv)	Lightning impulse withstand voltage (kVp)		
	a) Line	1550	1050
	b) Transformer (winding)	1300	950
	a) Other Cubetation Familians and and transfer and bushings	4.405	4050
	c) Other Substation Equipment and transformer bushings	1425	1050
v)	Switching impulse withstand voltage (kVp)		
	a) Line	1050	NA

	b) Transformer (winding)	1050	NA
	c) Other Substation Equipment and transformer bushings	1050	NA
	Rated Breaking current capability of switchgear (kA) for 1 sec.	50	40
vii)	Fault clearance time (ms) (1st stage of protection)	100	100
viii)	Creepage Distance (mm/kV)	31	31

1.2	Generating Units			
a)	Frequency	Nominal	Hz	50
		Variation	%	+3 to -5
				20 to 27 (As per
b)	Voltage	Nominal	kV	manufacture standard
		Variation	%	+5 to -5
	Combined voltage and			
c)	frequency	Variation	%	+5 to -5
d)	Power Factor			0.90 lagging to 0.95 leading

#### 1.3 Ramp Rate

All Units of the Power Station shall be capable of increasing or decreasing their output (generation level) by not less than one percent (1%) per minute. Such capability shall be demonstrated during the Unit load of more than 50%.

#### SCHEDULE 5: COMMISSIONING AND TESTING

- 1.1 Performance Test
- (i) (a) The Performance Test shall be conducted under any and all ambient conditions (temperature, humidity etc.) and any and all Fuel qualities that may exist during the time of the Performance Test and no corrections in final gross and net output of the Unit will be allowed as a result of prevailing ambient conditions or Fuel quality.
  - (b) The correction curves will only be used if the Grid System operation during the Performance Test exceeds Electrical System Limits.
  - (c) The Performance Test shall be deemed to have demonstrated the Contracted Capacity of the Unit under all designed conditions and therefore no adjustments shall be made on account of fuel quality or ambient conditions.
  - (d) The Seller shall perform in respect of each Unit a Performance Test, which such Unit shall be deemed to have passed if it operates continuously for seventy two consecutive hours at or above ninety five (95) percent of its Contracted Capacity as existing on the Effective Date and within the Electrical System Limits and the Functional Specifications.
- ii. For the purposes of any Performance Test pursuant to this sub-article 1.1, the Electrical System Limits to be achieved shall be as follows:
  - (a) Voltage

The Unit must operate within the voltage levels described in the Functional Specification for the duration of the Performance Test. If, during the Performance Test, voltage tests cannot be performed due to Grid System, data supplied from tests of the generator step-up transformers and generators supplied by the manufacturers shall be used to establish the ability of the Unit to operate within the specified voltage

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limits.

- (b) Grid System Frequency
  The Unit shall operate within the Grid System frequency levels described in the Functional Specification for the duration of the Performance Test.
- (c) Power Factor
  The Unit shall operate within the power factor range described in the Functional Specification for the duration of the Performance Test. If, during the Performance Test, power factor tests cannot be performed due to the Grid System, data supplied from tests of the generators and the generator step-up transformers supplied by the manufacturers shall be used to establish the ability of the Unit to operate within the specified power factor range.
- (d) Fuel quality and cooling water temperature
  The Unit must operate to its Contracted Capacity with Fuel quality and water temperature available at the time of Testing and no adjustment shall be allowed for any variation in these parameters.
- lii. As a part of the Performance Test, the Seller shall demonstrate that the Unit meets the Functional Specifications for Ramping rate as mentioned in Schedule 4. For this purpose, representative samples of ramp rates shall be taken, by ramping up or down the gross turbine load while maintaining the required temperatures and temperature differences associated with each ramp rate within the turbine while maintaining all other operational parameters within equipment limits.
- iv Further, as a part of the Performance Test, the Unit shall tested for compliance with parameters of Supercritical Technology
- 1.2 Testing and Measurement procedures applied during Performance Test shall be in accordance with codes, practices or procedures as generally/ normally applied for the Performance Tests
- 1.3 The Seller shall comply with the prevalent Laws, rules and regulations as applicable to the provisions contained in this Schedule from time to time...."
- 27. CGPL carried out Performance Test in terms of the above provisions of the PPA. Though all the units ran above 95% of the contracted capacity during testing, they could not run continuously for a period of 72 hours as stipulated in the PPA. CGPL, Independent Engineer, WRLDC and Procurer States agree that the units could not run continuously at above 95% of the contracted capacity for 72 hours on account of load restrictions imposed by WRLDC from the point of view of grid security. However, Mr Bansal and Energy Watchdog have vociferously argued that in the light of the judgement of the Hon'ble Supreme Court in Sasan Case, the Units 20 to 50 of Mundra

UMPP of CGPL could not achieve the 95% of the contracted capacity during testing and therefore, the COD of these units should be declared invalid.

- 28. Though the PPA provisions in case of Sasan as well as CGPL are almost similar, the facts in both cases are vastly different. Let us recapitulate the facts leading to the judgement of the Hon'ble Supreme Court in Sasan Case:
  - (a) Unit 3 of Sasan UMPP has an installed capacity of 660 MW. As per the provisions of the PPA, for performance test, the unit was required to operate at 95% of the contracted capacity for a continuous period of 72 hours. Sasan Power Limited carried out the Performance Test from 1518 hrs of 27.3.2013 till 1600 hrs on 30.3.2013 but could achieve only 101.38 MW i.e. only 16.34% as against the requirement of 95% of the contracted capacity of 660 MW.
  - (b) The Independent Engineer issued a Test Certificate dated 30.3.2013 that the Unit 3 achieved commercial operation with a tested capacity of 101.38 MW. The Independent Engineer attributed the tested capacity of 101.38 MW as against 95% of the contracted capacity to restrictions imposed by WRLDC. In the Certificate, the Independent Engineer also stated that the unit could not be tested for certain parameters of supercritical technology due to grid restriction.
  - (c) Sasan Power Limited declared the commercial operation of Unit 3 from 0000 hrs of 31.3.2013. Sasan Power sent declared capacity of sasan UMPP for 31.3.2013 for 620.4 MW. Subsequently Sasan Power Limited gave declaration of 660 MW for continuously for four days.

- (d) WRLDC asked Sasan Power Limited to get consent from all Procurers for scheduling to the de-rated capacity of 101.38 MW.
- (e) MPPMCL as the lead procurer in its letter dated 31.3.2013 informed WRLDC that if Sasan Power Limited was agreeable to the performance test to a de-rated capacity of 101.38 MW, then the same would be agreed by MPPMCL. MPPMCL in its letter dated 2.4.2013 also advised Sasan Power Limited to go for increasing the tested capacity beyond certification by the Independent Engineer in accordance with clause 6.3.3 of the PPA. MPPMCL further stated that in the period between the performance test and next performance test, the unit's contracted capacity and available capacity would be considered as 101.38 MW and its availability factor shall be calculated accordingly. Other Procurers accepted the MPPMCL's decision to scheduling of power corresponding to the tested capacity.
- (f) Since Sasan Power Limited declared capacity above 101.38 MW i.e. 220 MW to 620 MW, WRLDC advised Sasan Power Limited in its letter dated 5.4.2013 to restrict the generation upto 101.38 MW.
- (g) Against this background, WRLDC filed Petition No.85/MP/2013 seeking the following relief:
  - "(i) Look into the veracity of the certificate issued by the Independent Engineer in view of deliberate suppression and misrepresentation of the facts and issue suitable direction to Respondent no. 2 to desist from such acts.
  - (ii) Kindly look into the matter of Respondent No. 1 indulging into intentional misdeclaration of parameters related to commercial mechanism in vogue and has purported to declare the part (de-rated) capacity of 101.38 MW as commercial on

the grounds of load restriction by WRLDC and issue suitable directions in the matter.

- (iii) Issue specific guidelines with respect to declaration of COD of the generators who are not governed by the CERC (Terms and Conditions of Tariff) Regulations, 2009 to be in line with CERC regulations so that the same can be implemented in a dispute free manner and eliminate any possibility of gaming by generator.
- (iv) The Commission may give any further directions as deemed fit in the circumstances of the case."
- (h) The Commission vide its order dated 20.6.2013 disposed of WRLDC's Petition with the following directions:
  - "27. In view of the above discussion, we are of the view that the certificate given by the Independent Engineer for declaration of COD for 101.38 MW cannot be sustained. Consequently, we direct that SPL shall undertake fresh testing of the unit to achieve the tested capacity in accordance with the provisions of Article 6.3.1 read with Schedule 5 of the PPA. The power injected by the generating station till declaration of COD by SPL shall be treated as infirm power in accordance with the regulations of the Commission.
  - 28. In view of our directions in Para 24 above, there is no requirement to any directions on the first and second prayer of the petitioner. As regards, the third prayer for issue of specific guidelines with declaration of COD in respect of the generators other than those governed by the tariff regulations of the Commission, we are of the view that there is need for clarity and accordingly direct the staff to examine the issues and submit a proposal for consideration of the Commission. The guidelines issued by Central Electricity Authority/Ministry of Power and the existing provisions of the 2009 Tariff Regulations should be kept in view."
- (i) Aggrieved by the decision of the Commission dated 20.6.2013, Sasan Power Ltd. filed Appeal No. 149 of 2013, before the Appellate Tribunal. The Appellate Tribunal by its Judgment dated 21.8.2013 set aside the Commission's order dated 20.6.2013 and remanded the matter back to the Commission to decide the issues afresh after hearing the parties concerned.
- (j) Subsequent to the remand, the Commission after hearing the parties, vide its order dated 8.8.2014 held that COD has not been declared in case of Unit 3 of

Sasan UMPP in accordance with the provisions of the PPA. As regards the certificate issued by Independent Engineer, the Commission held that it was not in order and could not be sustained. The Commission took note of the fact that in accordance with its directions dated 20.6.2013, Sasan Power carried out performance test in June 2013 and again from 11.8.2013 to 14.8.2013. The Independent Engineer issued a Final Test Certificate for the testing undertaken from 11.8.2013 to 14.8.2013 and certified that the unit ran for 72 hours at above 95% of the contracted capacity, even though there was dip to 575.627 MW in one time block. Taking into account the explanation of WRLDC that intermittent variations for short durations have been allowed while declaring the COD of the generating stations in other cases, the Commission accepted COD of Unit 3 of Sasan UMPP as 16.8.2013.

(k) The above order was challenged by Sasan Power Limited and the Independent Engineer, namely, Lehmeyer International (India) Limited before the Appellate Tribunal in Appeal No. 233 of 2014 and 266 of 2014 respectively. The Appellate Tribunal in its judgement dated 31.3.2016 held that WRLDC had acted in an arbitrary manner in restricting the load during the trial operation; the Central Commission had gone beyond the prayers made in the petition; the Independent Engineer was fully justified in issuing the certificate dated 30.3.2013; there was no violation of the provisions of the Act, Rules or regulations in declaration of COD at a de-rated capacity of 101.38 MW; and the Procurers by accepting COD at 101.38 MW have waived their rights to insist on COD at 95% of the contracted capacity. Accordingly, Appellate Tribunal set aside the order of the Commission.

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- (I) The said judgement was challenged by All India Power Engineer Federation in Civil Appeal Nos. 5881-5882 of 2016 and others in the Hon'ble Supreme Court. In its judgement dated 8.12.2016, Hon'ble Supreme Court set aside the judgement of the Appellate Tribunal and upheld the order of the Commission.
- 29. Important issues decided by the Hon'ble Supreme Court in the said judgement are as under:
  - (a) "....In the first step to be taken by the seller, the unit producing electricity has to be synchronized to the grid system. It is only after synchronization takes place that the unit is to be commissioned. What is important is that at the commissioning stage, the parameters mentioned in Schedule 5 are to be met. The most important parameter mentioned in Schedule 5, when the performance test is to be taken for the purpose of commissioning, is that a unit shall be deemed to have passed such test only if it operates continuously for 72 consecutive hours at or about 95% of its contracted capacity as existing on the effective date and within the electrical system limits and functional specifications. Further, as a part of the performance test, the seller must demonstrate that the unit meets functional specifications for ramping rate separately mentioned in Schedule 4 of the PPA. It is only when such test is passed that a unit can be said to be commissioned under the PPA. This then is to be certified by the independent engineer jointly appointed by the parties under Article 6.3.1, in the form of a final test certificate, which states that (a) the commission tests have been carried in accordance with Schedule 5 and are acceptable to him, and (b)

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the result of the performance test shows that the unit's tested capacity is not less than 95% of the contracted demand as existing on the effective date." (Para 32 of the judgement).

- (b) "It will be seen from this certificate that the tested capacity of the Unit was found to be only 101.38 MW as against 95% of 620 MW i.e. 587 MW. It was also stated that since the unit was operating below 50% of the rated load due to grid restriction, the unit could not demonstrate ramping rate above 50% of rated load in accordance with the Schedule 4 of the PPA." (Para 38 of the judgement).
- (c) "It is unnecessary for us to burden this judgment with the emails that passed between Sasan and WRLDC between 27.3.2013 and 30.3.2013. It is enough for us to state that Sasan contends that it was ready to deliver at 95% of the contracted demand but for WRLDC, and WRLDC states that Sasan was never obstructed by WRLDC, and in fact was not capable of delivering electricity at 95% of the contracted demand at the relevant time. WRLDC appears to be correct in this for the simple reason that if we see the performance of Sasan for the period 1st April to 16th August, 2013, it is clear that various tests were undertaken, but 95% of contract capacity for a continuous period of 72 hours had only been achieved in June even according to Sasan." (para 36 of the judgement).
- (d) "Paragraph 9 of the certificate leaves much to be desired. Obviously, if the tested capacity is 101.38 MW as against the required 95% i.e. 587 MW, the test could not have been carried out in accordance with article 6 read with schedule 5, and

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that despite the fact that ramping up and down could not be achieved, functional specifications stipulated in Schedule 4 of the PPA were said to have been met. We are constrained, therefore, to agree with CERC which in its order dated 8.8.2014 has castigated this certificate. What article 6.3.1 requires is first and foremost a final test certificate of the Independent Engineer. The certificate dated 30.3.2013 given by the Independent Engineer is not a final test certificate. Indeed, it is only in August that a final test certificate was given in accordance with Article 6.3.1 of the PPA by the very same independent engineer. Obviously the commissioning tests could not have been carried out in accordance with Schedule 5, which requires in clause 1.1 (i) (d) that the seller shall perform, in respect of each unit, a performance test, by which such unit shall be deemed to have passed only if it operates continuously for 72 consecutive hours, at or above 95% of its contracted capacity as existing on the effective date. Also, part of the same schedule requires that as a part of the performance test, the seller shall demonstrate that the unit meets the functional specifications for ramping rate as mentioned in Schedule 4, which was again conspicuous by its absence......Even according to the Independent Engineer, 101.38 MW was injected only at 0600 hrs on 28.3.2013 and such a tested capacity for 72 hours continuously could therefore have been certified only at 0600 AM on 31.3.2013. If that be so, the Commercial Operation Date would have been only one day after the date when the test certificate was received by the Procurers. For this reason also, the Test Certificate is not in accordance with Article 6.3.1 of the PPA read with Schedule 5 thereof." (para 39 of the judgement).

- (e) "......It is clear under the Regulations, however, that infirm power can never be supplied to the appellants themselves but can only be supplied to the grid. This being the case, the question that is still posed is whether the two emails read together would amount to a waiver of the right mentioned in clause 6.3.1. Waiver is, as has been pointed out above, an intentional relinquishment of a known right. Waiver must be spelled out with crystal clarity for there must be a clear intention to give up a known right. There is no such clear intention that can be spelled out on a reading of the two emails. All that can be spelled out is that the first email of 31.3.2013 categorically states that the test result is not as per Article 6.3.1, and is not acceptable. The last sentence of this very email then refers to clause 6.3.4 and to a de-rated capacity of 101.38 MW. Thereafter, the email of 2nd April, 2013 expands on the aforesaid last sentence of the earlier email by referring to Article 6.3.4 and Article 11 proviso. This is akin to a 'without prejudice' acceptance of de-rated power, being a non-acceptance of the test certificate dated 30.3.2013 coupled with a desperate attempt to somehow get whatever power is available. But this does not amount to a clear and unequivocal intention to relinquish a known right." (Para 43 of the judgement)
- 30. We have examined the case of Mundra UMPP of CGPL in the light of the observations and principles enunciated by the Hon'ble Supreme Court in Sasan judgement and are of the view that the said case is distinghuishable from the present case in respect of the following:

- (a) CGPL has carried out the Performance Tests of Units 20 to 50. The Units have achieved 95% of the contracted capacity for varying periods but not for a continuous period of 72 hrs. The failure to achieve 95% of the contracted capacity is on account of the grid restrictions imposed by WRLDC. Unlike in case of Sasan Power Limited, WRLDC on affidavit has accepted that injection of power during the Performance Test by Mundra UMPP was restricted on account of grid conditions which its achieving 95% of the contracted capacity for continues period of 72 hrs. In contrast, Sasan UMPP could only achieve 101.38 MW which is about 16% of the contracted capacity as against 95% of the contracted capacity required for the test.
- (b) In case of CGPL, the units achieved the supercritical parameters, unlike in case of Sasan UMPP in respect of the test undertaken in March 2013.
- (c) In case of CGPL, the Independent Engineer has issued a Final Test Certificates for 95% of the contracted capacity in accordance with Article 6.3.1 of the PPA unlike the case of Sasan Power Limited where the final test certificate was issued after carrying out subsequent tests in August 2013. Further, the test certificate dated 30.3.2013 issued in case of Sasan UMPP was not accepted by Procurers and WRLDC. In fact, the Procurers in case of Sasan Power Limited have accepted 101.38 MW as the de-rated capacity till the final test is conducted. On the other hand, in case of CGPL, the Procurers and WRLDC have accepted the Test Certificates and declaration of COD of Units 20 to 50 of CGPL.

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Therefore, the facts in the Sasan Case and the observations of the Hon'ble Supreme Court in the said case are not applicable in the present case.

- 31. The Clause 1.1(i) (d) of Schedule 5 of the PPA provides that a Unit shall be deemed to have passed its Performance Test if it operates continuously for 72 consecutive hours at or above 95% of its Contracted Capacity. The same has been reiterated by the Hon'ble Supreme Court in the Sasan Power Judgment. However, the Hon'ble Supreme Court has not held that a Unit cannot be declared as commissioned if it does not run continuously for 72 hours at or above 95% of its Contracted Capacity. Had this been the interpretation of the Hon'ble Supreme Court as regards this provision of the PPA, it would not have reinstated Commission's Order dated 8.8.2014, where the commissioning of the Unit 3 of Sasan Power was accepted even when during the 72-hour commissioning test, the generation had dipped below 95%. The relevant portion of Order of the Commission dated 8.8.2014 wherein it has approved COD of Unit 3 of Sasan Power even though it had not run for continuous period of 72 hours at or above 95% of the contracted capacity, is as under:
  - "30 Under the provisions of Article 6.3.2 of the PPA, if the commissioning test is not as per Article 6.3.1, the seller is required to retake the relevant test within a reasonable period with prior written notice to the procurers and Independent Engineer. It is noticed that SPL instead of taking appropriate remedial measures under the PPA has vide its email dated 30.3.2013 (Annexure-9 to the petition) to WRLDC intimated the commercial operation of the Unit from 0000 hrs of 31.3.2013 and sent the declared capacity of the Sasan UMPP for 31.3.2013 for 620.4 MW. In our view, SPL has not acted strictly as per the provisions of the PPA. We directed SPL to carry out the revised testing in accordance with the PPA to achieve the unit tested capacity of not less than 95% of the contracted capacity as existing on the effective date. SPL after 31.3.2013 has carried out Performance Test in June 2013 and finally from 11.8.2013 to 14.8.2013. The Independent Engineer has issued the final certificate for commercial operation stating that the plant has been in operation for 72 hours at above 95% of the contracted capacity. However, it has been noticed that there was a single dip to 575.627 MW in one time block between 1745 hrs to 1800 hrs on 12.8.2013. The Commission enquired from WRLDC as to whether such dip in generation during the period of 72 hours the machine

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is being put to test for achievement of super critical parameters could be considered as continuous operation for declaring COD. WRLDC has explained that in case of other generating stations also, intermittent variation for short durations have been allowed while declaring COD of the generating station. It has been stated by SPL that the procurers have accepted the final testing of the unit and declaration of COD in August, 2013. MPPMCL, lead procurer, vide its letter dated 16.8.2013 has accepted the performance test carried out by SPL. Therefore, we consider that the unit has complied with the testing requirement as per the Schedule 5 of the PPA and accept the COD as 16.8.2013."

- 32. The Commission had accepted COD of the Unit 3 of Sasan Power after revised testing was conducted during the period from 11.8.2013 to 14.8.2013 even though the Unit had not run at or above 95% of Contracted Capacity continuously for 72 continuous hours. After the testing, the Independent Engineer had issued the Final Test Certificate and, thereafter, the procures accepted declaration of COD of the Unit. As regards dip of 575.627 MW in one time-block between 1745 hrs to 1800 hours, the WRLDC had stated that intermittent variations for short durations were allowed in case of other generating stations also.
- 33. While performing the Tests, the PPA, *inter alia*, provides that the grid conditions have to be borne in mind as they can impact other the users of the grid. Commissioning is a real time operation, which involves various practical difficulties that may arise during the testing period. Therefore, running of a Unit for a consecutive period of 72 hours at or above 95% of contracted capacity may not be practically possible at all times. Being aware of these practical realities, there is a provision in the PPA of appointing an Independent Engineer, to monitor, oversee and certify the Performance Tests during commissioning.
- 34. The PPA provides that "a unit shall be deemed to have passed such test only if it operates continuously for 72 consecutive hours at or above 95% of its contracted

capacity as existing on the effective date and within the electrical system limits and functional specifications". The Respondent, MSEDCL has stated that the words "within the electrical systems limits" is subject to the grid constraints and such other technical dependencies for which alternative procedures are given in the PPA as provided in the Schedule 5 of the PPA. Therefore, the grid constraint should be factored in while assessing reasons for non-operation of the Unit continuously for 72 hours at 95% of contracted capacity.

35. The fact that a Unit achieved 95% of its Contracted Capacity for substantial period of time as well as performed other tests as prescribed in Schedule 5 of the PPA, cannot be ignored and the certificate of the Independent Engineer cannot be discounted only on the ground that the plant did not run at or above 95% of contracted capacity continuously for 72 hours. It is for situations like inability to continuously run for 72 hours, due to reasons beyond the control of the generator, the role of the Independent Engineer assumes importance. This is evident from the fact that Article 6.3 of the PPA provides that the commissioning tests have to be acceptable to the Independent Engineer and that the units tested capacity is not less than 95% of its Contracted Capacity. Provisions of Clause 1.1(i)(d) of Schedule 5 of the PPA, i.e. the unit has to run continuously for a period of 72 hours at or above 95% of its Contracted Capacity for it to be commissioned and provisions of Article 6.3 of the PPA, i.e., the intent and object of appointing an Independent Engineer and vesting him with the role of certifying that the commissioning tests carried out are acceptable to him are required to be read harmoniously. While certifying, the IE would have to factor in grid constraints and the grid operator's instructions to back down, if any. The words 'deemed to have passed...'

as appearing in Clause 1.1(i)(d) of Schedule 5 of the PPA would not have been put without envisaging the above role of IE. Article 3.1.3 read with 6.2.3, 6.2.5, 6.3.1(a), 6.3(b) and [Clause 1.1(ii)(a), Clause 1.1(ii)(c) and Clause 1.2] of Schedule 5 of the PPA, envisages a number of functions to be carried out by the Independent Engineer.

- 36. In light of the above, we are of the view that the CGPL PPA provides that if 722 MW had been injected continuously for 72 hours, then the Unit would be 'deemed' to have passed all performance tests required for a Unit to be commissioned. For all other situations, PPA provides for an Independent Engineer to oversee and monitor the Commissioning of a Unit and, thereafter, certify its commissioning. The Independent Engineer has to certify that the commission tests have been carried out in accordance with Schedule 5 of the PAP and are acceptable to him.
- 37. In case of Sasan Power, the Commission accepted the COD of Unit 3 of Sasan UMPP as 16.8.2013, even though the unit did not run for 72 hours above 95% of the contracted capacity and there was a dip in one time block. Hon'ble Supreme Court in Sasan Case has recognized the date of CoD of Unit 3 of Sasan UMPP as 16.8.2013 and upheld the decision of the Commission. It therefore follows that short variation in the generation can be considered as continuous operation of the unit during trial test. In the case of Unit 40 and 50 of Mundra UMPP, except for 3 occasions, all backing downs of Units 20 to 50 during the test period, were on account of grid restrictions imposed by WRLDC. Therefore, in the light of the decision of the Commission in Sasan Case which has been upheld by the Hon'ble Supreme Court these short variations would be considered as continuous operation.

- 38. In view of the above, we do not agree with submissions of Energy Watchdog and Shri Bansal that the Hon'ble Supreme Court has held that a Unit can be commissioned only if it runs continuously for 72 hours at or above 95% of the Contracted Capacity.
- 39. As regards the issue of consumer interest, in Sasan Power case, the Hon'ble Supreme Court observed that by declaring COD on 31.3.2013, Sasan Power had in effect gobbled up the entire first year's low tariff in one day, thus depriving the consumers of the benefit of cheaper power for the entire year. The tariff of Rs. 0.575 was applicable for 366 days and, thereafter, tariff of Rs. 1.48 was applicable from the 367<sup>th</sup> day. Thus, Sasan Power would have gained immensely if COD had been approved as 31.3.2013. On the other hand, in CGPL' case, the tariff structure is such that the tariff remains constant for first 18 to 19 years. Thus, no benefit in terms of the higher tariff would have accrued to CGPL by preponing of COD. Further, the Scheduled Commercial Operation Date of Unit 1 of CGPL was 22.8.2012 and Unit 1 achieved COD on 7.3.2012. Thus, in terms of the PPA, the first Contract Year started from 7.3.2012 and ended on 31.3.2013 i.e. it was for a period of 1 year and 23 days. Had CGPL's Unit 1 achieved commercial operation on the SCOD i.e. 22.8.2012, CGPL, the first Contract Year would have been for a period of 7 months and 10 days i.e. from 22.8.2012 to 31.3.2013. Thus, by declaring commercial operation on 7.3.2012, CGPL supplied cheap power for a longer period in the first Contract Year. Therefore, it cannot be said that the Procurer States have waived their rights contrary to consumer interest, as alleged by Shri Bansal and Energy Watchdog.

# Issue No. 2: Whether the Commission's order in case of NTPC Barh is applicable in the present case?

- 40. Energy Watchdog has submitted that the facts of COD of Units 20 to 50 of CGPL are similar to the facts of the Unit-IV of Barh generating station of NTPC. Accordingly, CGPL's Units 20 to 50 have not been duly commissioned, since in similar circumstances, the COD of Unit of Barh has been rejected by the Commission. On the contrary, CGPL has distinguished its case from NTPC's Barh case and stated that CGPL's case is not on similar footing.
- 41. A Petition No. 130/MP/2017 was filed by GRIDCO seeking to declare as null and void the COD of Unit-IV of Barh Super Thermal Power Station, Stage-II (660 MW) of NTPC, which was claimed to have been duly commissioned by NTPC on 15.11.2014. GRIDCO had based its case on following grounds:
  - (a) Generation data for the period 12.11.2014 to 14.11.2014 reveals that in none of the time blocks, the Unit-IV of Barh had achieved 156 MWH (i.e. 622 MW at exbus generation after allowing auxiliary consumption of 5.75%). Unit ran at an average of 111 MWH (444 MW) from 00:00 hrs of 12.11.2014 till 24:00 hrs of 14.11.2014 instead of atleast 156 MWH continuously for 72 hrs.
  - (b) As regards NTPC's claim of conducting the trial run between 4.8.2014 and 8.8.2014, GRIDCO had stated that the stand of NTPC is incorrect as generation data for the period between 4.8.2014 to 8.8.2014 revealed that in none of the 15 minutes time block period for the period 4.8.2014 to 7.8.2014, the Unit had achieved MCR/ Installed Capacity. Infact, the unit ran at an average of 148 MWh

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(593 MW) from 4:15 Hrs of 5.8.2014 till 22:00 hrs of 7.8.2014 i.e. for 53.30 hrs only instead of at least 156 MWH continuously for 72 hrs.

- (c) The unit had stopped on 7.8.2014 at 22:00 hrs and again started injecting power from 2:30 hrs of 8.8.2014. The unit had neither attained the full load of 660 MW or 622 MW (considering auxiliary consumption) nor run at continuously for 72 hrs as per the provisions of the 2014 Tariff Regulations.
- 42. NTPC, in its reply before the Commission, admitted to non-compliance of the tests provided in 2014 Tariff Regulations. NTPC justified that Barh has substantially complied with the provisions of the 2014 Tariff Regulations to demonstrate the reliability of its Unit. While stating so, NTPC also stated that the Unit had tripped on 7.8.2014 at 22:30 hrs (for a total period of 4.18 hours) due to spurious operation of protective system due to control system voltage/parameter fluctuation which was beyond the control of NTPC.
- 43. The relevant provision of the 2014 Tariff Regulations governing trial run of generating stations is as under:
  - "5. Trial Run and Trial Operation.- (1) Trial Run in relation to generating station or unit thereof shall mean the successful running of the generating station or unit thereof at maximum continuous rating or installed capacity for continuous period of 72 hours in case of unit of a thermal generating station or unit thereof and 12 hours in case of a unit of a hydro generating station or unit thereof:

Provided that where the beneficiaries have been tied up for purchasing power from the generating station, the trial run shall commence after seven days notice by the generating company to the beneficiaries."

44. On comparison of provisions of this Regulation with that of the PPA of CGPL, we notice that the Regulation does not provide for an Independent Engineer. Also, there is

difference as regards running at specific capacity at 95% of Contracted Capacity in case of PPA of CGPL and at MCR (Maximum Continuous Rating) in case of Regulations. Further, there are no provisions as regards performance tests in the Regulations. Thus, the provisions of PPA in the instant case are not comparable with that of the Regulations under with NTPC generating stations are governed. Moreover, in case of PPA, the COD has to be accepted by the Procurer States, while in case of NTPC plants, it has to be approved by the Commission.

45. In light of the above facts and provisions of the 2014 Tariff Regulations, the Commission rejected the COD of Barh generating station. The relevant part of the order dated 20.9.2017 in Petition No. 130/MP/2015 is extracted as under:

"Issue No. 1: Whether the provisions of the 2014 Tariff Regulations regarding trial run for declaration of COD have been complied with by NTPC before the declaration of COD of the generating station on 15.11.2014?

. . . . . . . . . . .

- 15. With regard to trial run conducted from 5.8.2014 to 8.8.2014, NTPC has submitted that the unit was immediately synchronized to the Grid at 04:08 hrs of 5.8.2014 to restart the trial operation. Thereafter, the Unit ran successfully at almost full load till 10:27 hrs of 8.8.2014 (amounting to 78 hours) with a brief outage from 22:10 hrs of 7.8.2014 to 02:28 hrs of 8.8.2014 i.e. with an outage period of about 04 hrs and 18 minutes. During trial operation, the unit ran continuously for about 66 hrs and again for a period of about 06 hrs generating 43:80 MUs i.e. at 92.21% PLF and had achieved a maximum instantaneous load of 718 MW. NTPC has submitted that the brief outage of about 4 hrs was caused by spurious tripping which is very much inherent in the system but not due to any system deficiency or due to non-readiness of the system.
- 16. Perusal of the trial run data reveals that the unit started the injection of power at 04:15 hrs of 5.8.2014 and attained the full load at 16:30 hrs (block no 66) on 5.8.2014 and unit continued to run up to 22:00 Hrs of 7.8.2014. The unit could run continuously from 04:15 Hrs of 5.8.2014 till 22:15 hrs of 7.8.2014 i.e for 65.45 Hrs only instead of continuously for 72 Hrs and unit could attain the full load in 29 time blocks out of 258 blocks. Unit had stopped at 22:00 Hrs of 7.8.2014 and again started injecting power from 02:45 Hrs of 8.8.2014, and continued operating upto 10:30 hrs. In view of above, trial run could not be stated to be in terms of the 2014 Tariff Regulations.
- 17. With regard to trial run conducted from 11.11.2014 to 15.11.2014, NTPC has submitted that trial run from 11.11.2014 to 15.11.2014 was conducted subsequent to the

rectification work of the boiler structure and was intended to establish the satisfactory boiler structure behavior only and not carried out for the trial run of the unit as per MCR/IC for declaration of the COD of unit.

- 18. Perusal of the actual generation data at generator terminal block-wise during trial run in November, 2014 prior to declaration of COD on 15.11.2014 reveals that unit of the generating station was synchronized to grid during trial run on 3.11.2014. The trial run was conducted from 07:00 hrs of 3.11.2015 to 03:45 hrs. of 5.11.2014 i.e. 179 blocks (about 45 hrs). The unit has been run on full load and above only for 46 time blocks (discontinuous pattern) out of 179 time blocks. Also, trial run data for the period 11.11.2014 to 15.11.2014 is not relevant to be considered for declaration of the COD of the unit as Respondent No. 1 has stated that this trial run was for establishing boiler structure behavior..."
- 46. Aggrieved by the Commission's order dated 20.09.2017 in Petition No. 130/MP/2015, NTPC filed appeal before the Appellate Tribunal. The Appellate Tribunal vide its judgment dated 25.1.2019 IA NO. 840 of 2017 in Appeal No. 330 of 2017 upheld the Commission's order. Relevant portion of the said judgment dated 25.1.2019 is extracted as under:
  - "9.13 We have gone through the contentions of the learned counsel for the Appellant as well as the learned counsel for the Respondents and also took note of the decisions of various courts on the subject as placed reliance by the learned counsels. After critical evaluation of the submissions of both the parties, what emerges is that the reference generating unit could not run at its full load/MCR for continuous 72 hours as required under the Tariff Regulations, 2014. Besides, it is also noted that despite several trial runs, the unit could not attain the requisite parameters of the regulations and developed several defects which were to be rectified by the Appellant after the trial run. It is noticed from the findings of the Central Commission that in spite of machine not passing through the trial test, the Appellant irrationally declared the COD from 15.11.2014 and billed the beneficiaries at provisional tariff considering the machine to have attained the COD.
  - 9.14 Accordingly, the Central Commission after careful evaluation of all the material placed before it found that there does not appear sufficient ground which necessitates the exercise of its power under Section 54 of the Tariff Regulation, 2014 to relax the prerequisite conditions of Trial Run before declaration of COD. Having regard to submissions and pleadings of both the parties and taking note of the findings of the Central Commission, we are of the considered opinion that the instant case of the Appellant does not qualify for exercising the regulatory powers of the Commission to relax the conditions which are required to be fulfilled before decelerating COD of a generating unit. Hence, we do not consider necessary to interfere in the decision of the Central Commission in this regard."

- 47. It is clear from the above that the commissioning of Barh generating station of NTPC, which relates to Section 62 PPA, was rejected as it had failed to run for continuous period of 72 hours on both the occasions i.e. trial run conducted from 4.8.2014 to 8.8.2014 and again from 12.11.2014 to 14.11.2014. The Unit had run at full load only for approximately 11% and 25% of the time block respectively. Further, the Unit had tripped during the trial run conducted between 4.8.2014 to 8.8.2014. On the other hand, in CGPL's case, which relates to Section 63 PPA, CGPL's Units ran for 72 hours without any tripping and ran for a substantially long period of time at or above 95% of its Contract Capacity. CGPL had to back down the generation on account of WRLDC's instructions. Further, after witnessing and monitoring the commissioning test, the Independent Engineer has certified the commissioning of Units 20 to 50 which has been accepted by the Procurers.
- 48. In light of the above, we are of the view that the facts of CGPL case are not similar to that of NTPC's Barh case. None of the distribution licensees are challenging the commissioning of Units 20 to 50 of CGPL. In fact, they have ratified the performance tests of Units 20 to 50 of CGPL's Mundra UMPP.

## Issue No. 3: Whether in light of the facts and circumstances of the present case, Unit 20 to 50 of CGPL's Mundra UMPP have been duly commissioned?

49. The chronology from the start of trial operation of Unit Nos. 20 to 50 till the declaration of COD of the Units are as under:

Unit No.	Trial Period	IE issued FTC on	COD	Confirmatio n Provided by	Letter dated	Letter Reference no.
20	1145 hrs.	28.7.2012	30.7.2012	PSPCL	3.8.2012	02561/62

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Unit No.	Trial Period	IE issued FTC on	COD	Confirmatio n Provided by	Letter dated	Letter Reference no.
	of 25.7.2012 to 1205 hrs. of			GUVNL	7.8.2012	GUVNL:GM (COMM):1867
30	1400 hrs	27.10.201	27.10.201	PSPCL	28.2.2013	0343/ISB-581
	of 23.10.201 2 to 0200 hrs. of 27.10.201 2	2	2	MSEDCL	27.2.2013	CE/PP/CGPL/00605 0
				GUVNL	26.11.2012	GUVNL:GM(COMM ):2616
				RDPPC	15.2.2013	CE/RDPP C/F.CGPL /D. 631
40	1830 hrs	20.1.2013	21.1.2013	PSPCL	28.2.2013	0343/ISB-581
	of 16.1.2013 to 2045 hrs of 19.1.2013			MSEDCL	27.2.2013	CE/PP/CGPL/00604 5
50	1215 hrs. of	21.3.2013	22.3.2013	RDPPC	21.3.2013	Dir/Power Trading/F. /D.184
	17.3.2013 to 0045	7.3.2013 o 0045		GUVNL	21.3.2013	GUVNL:GM(COMM ):504
	hrs. of 21.3.2013			PSPCL	22.3.2013	0533/ISB-581

- 50. Reportedly, the performance tests for these Units were witnessed and monitored by IE and upon being satisfied of the tests, he has issued the Final Test Certificates. The IE, vide its affidavit dated 22.2.2016, has submitted that the Performance Tests in respect of all the 4 units i.e. Units 20, 30, 40 and 50 of Mundra UMPP have been carried out successfully as per provisions of Article 6.3.1 read with Schedule 5of the PPA.
- 51. The trial period for performance tests and declared CODs of the Units as per the Certificate of Independent Engineer are as under:

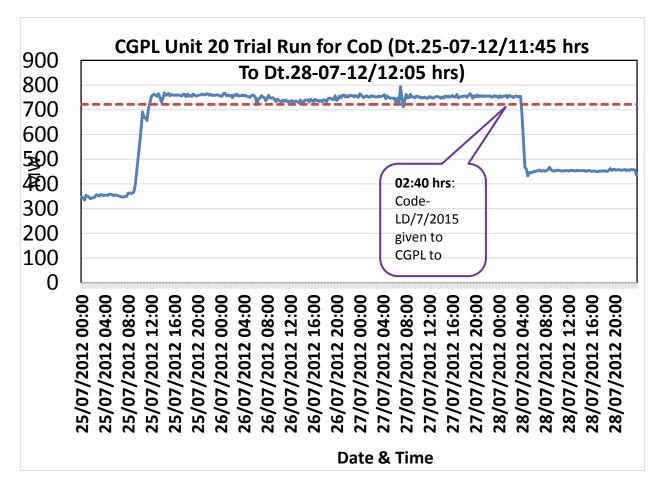
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Unit No.	Date Of Certificate	Trial	Trial Test Starts		Test Ends	Hours of Operation during test	COD declared
20	28.7.2012	12:05	25.7.2012	12:05	28.7.2012	72	30.7.2012
30	27.10.2012	16:00	23.10.2012	02:00	27.10.2012	82	27.10.2012
40	19.1.2013	20:00	16.1.2013	20:00	19.1.2013	72	21.1.2013
50	21.3.2013	12:15	17.3.2013	00:45	21.3.2013	84.5	22.3.2013
Station Performance Test	5.4.2013	06:00	30.3.2013	1500	31.3.2013	33	Clause 8.1.9 of the PPA fulfilled

52. The unit-wise (for unit Nos. 20, 30, 40 and 50) generation curves during the trial period have been analysed below to ascertain whether the units have generated 722 MW (95% of contracted capacity of the unit i.e. 760 MW) and for what duration of the trial period.

## <u>Unit-20</u>

53. The trial period for performance of Unit No. 20 was from 12:05 hrs of 25.7.2012 to 12:05 hrs of 28.7.2012 i.e. for 72 hours. Typical generation curve of the Unit 20 during the trial period is as below:



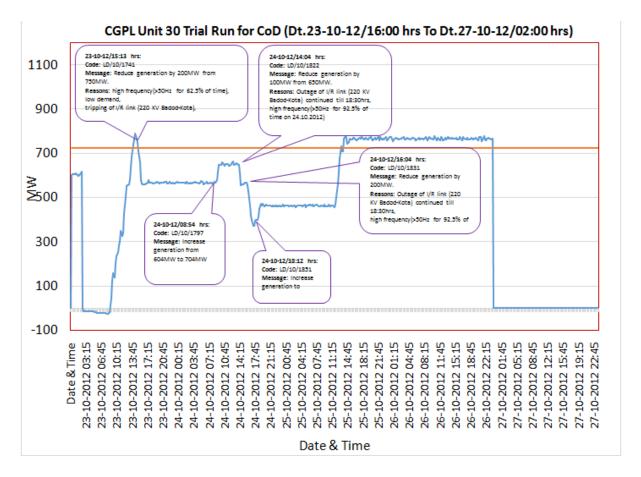
- 54. From the 15-minute time block data provided by WRLDC, it can be seen that the Unit ran successfully for the first 257 time blocks (approximately 64 hours) continuously with generation above 722 MW. However, there was a small dip during the 176<sup>th</sup> time block where the generation fell to 712 MW which is 93.68% of the contracted capacity. After 257<sup>th</sup> time block, WRLDC had imposed restrictions and accordingly the generation was maintained between 431 MW to 676 MW during that period.
- 55. The IE, M/s Black & Veatch Private Ltd (B&V), vide its affidavit dated 22.2.2016 has submitted that the Unit 20 has dispatched above 95% load for 64 hours of the test period and the average dispatch over 72 hours of test was above 95% of the contracted capacity. Due to the imposition of grid restrictions by WRLDC on account of tripping of

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distribution lines Limdi -1 and Limdi -2, the generation got hampered in the final 8 hours of the test. Independent Engineer, being satisfied with the performance of the Units did not pursue extension of test hours. Pursuant to the test, B&V vide letter dated 28.7.2012 issued the Final Test Certificate for Commercial Operation for Unit 20 to the Procurer States. We consider that a small dip of 10MW during the test period for one time-block is insignificant during the entire test period of the Unit 20. The Lead Procurer, namely GUVNL, vide its affidavit dated 29.1.2016 has submitted that the unit had reached 95% of the contracted capacity and further operated at 95% continuously other than when load restriction was imposed by WRLDC and no other reason other than back down due to the load restriction by WRLDC has been reported for not operating continuously for 72 hours.

#### Unit-30

56. The trial period for performance of Unit No. 30 was from 16:00 hrs of 23.10.2012 to 02:00 hrs of 27.10.2012 i.e. 82 hours. Typical generation curve during the trial period is as below:



- 57. From the 15-minute time block data provided by WRLDC, it can be seen that the Unit ran successfully for 145 time blocks (approximately 36 hours) with generation of above 722 MW on continuous basis. It is seen from the records submitted that CGPL had informed WRLDC in advance regarding the undertaking of trial operation of Unit No. 30 from 16:00 hrs of 23.10.2012 for 72 hrs. However, during the operation, WRLDC issued five instructions considering the security of the grid one before the start of the test and four during the test period, preventing generation above 722 MW.
- 58. Energy Watchdog, in its affidavit dated 23.5.2018 on the block-wise data submitted by WRLDC, has stated that the Unit No.30 had tripped at 23:45 of 26.10.2012, two hours before the scheduled time for completion of trial period. WRLDC, vide affidavit dated 1.6.2018, has clarified that it was an inadvertent error on part of

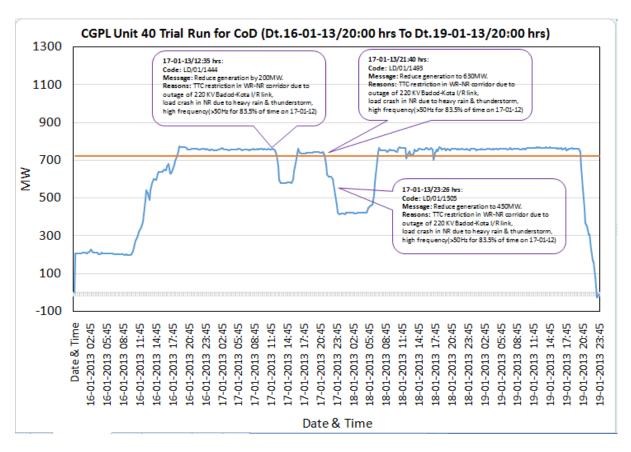
WRLDC, where the generation from 00:00 hrs of 27.10.2012 was shown as zero instead of actual data. The affidavit placed on record by WRLDC states that from 00:00 hrs of 27.10.2012 to 02:00 hrs of 27.10.2012, the Unit ran above 722 MW.

- 59. The IE, M/s Black & Veatch Private Ltd (B&V), vide its affidavit dated 22.2.2016, has submitted that due to the restrictions imposed by WRLDC, the Unit was unable to generate above 722 MW and therefore, B&V wrote an email to CGPL O&M Head that if Unit 30 was not operated at full load for a significant amount of time during the test, B&V would not be able to validate the test. B&V further informed that the COD test would need to be extended until sufficient number of hours was completed at full load. As a good engineering practice, the B&V wanted the Unit to run at or above 95% of the contracted capacity for at least 50% of the hours out of the 72 hours test.
- 60. The Unit ran on continuous basis for most part of the Test and generated power above 722 MW except during those time blocks when restrictions were imposed by WRLDC. Further, considering the large size of the units, it has been submitted by IE that the general practice followed in such cases is to run the Unit at or above 95% of the contracted capacity for at least 50% of the hours out of the 72 hours test so that all the supercritical parameters and the functional specifications as per Schedule 4 of the PPA are tested. The Lead Procurer, namely GUVNL, vide its affidavit dated 29.1.2016 has submitted that the unit had reached 95% of the contracted capacity and further operated at 95% continuously other than when load restriction was imposed by WRLDC and no other reason other than back down due to the load restriction by WRLDC has been

reported for not operating continuously for 72 hours. Nothing having been placed on record to the contrary, we find this position of the IE reasonable.

## <u>Unit-40</u>

61. The trial period for performance of Unit No. 40 was conducted from 20:00 hrs of 16.1.2013 to 20:00 hrs of 19.1.2013 i.e. for 72 hours. Typical generation curve during the trial period is as below:



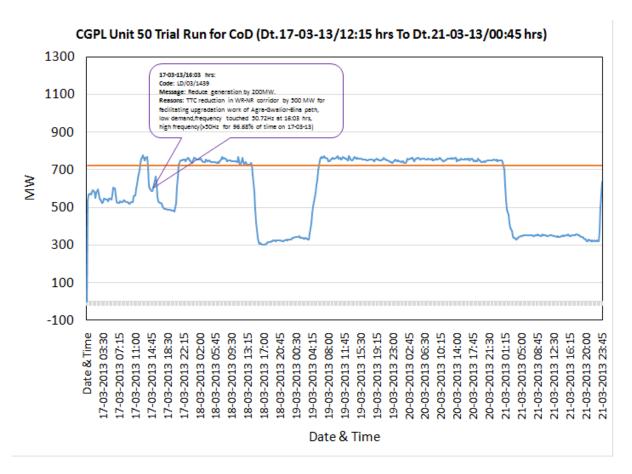
62. From the 15-minute time-block data provided by WRLDC, it can be seen that the Unit ran successfully for 232 time blocks (approximately 58 hours) with generation of 722 MW and above. Out of the remaining period, there were two small dips to the levels of 710.36 MW (12:30 hrs of 18.1.2013) and 701.41 MW (17:30 hrs of 18.1.2013). The respective generation was 93.4% and 92.29% of the contracted capacity. During the

operation, WRLDC had issued three instructions considering the security of the grid which required the generation to be reduced to level below 722 MW.

63. The IE, vide its affidavit dated 22.2.2016, has submitted that the Unit 40 quaranteed continuous operation for 72 consecutive hours. However, due to grid restrictions, the Unit load was maintained for 58 hours at or above 95% of its Contracted Capacity of 760 MW. Grid restrictions were applied due to high frequency of 50.7 Hz and the said Unit had to run below 95% contracted capacity for 13.5 hours and this was not on account of Unit performance. There were two other instances when the generation from the Unit was brought below 95% capacity for a total period of 35 minutes as a result of wet coal that had resulted into tripping of the coal mill. The Unit clocked 58 hours of operation at or above the 95% of Contracted Capacity and the coal mill trip resulted in total 35 minutes of generation below the benchmark level. Therefore, B&V did not pursue to extend the test beyond the stipulated 72 hours of the test. Pursuant to the test, B&V vide letter dated 20.1.2013 issued the FTC for Commercial Operation for Unit 40 to the Procurer States. The Lead Procurer, namely GUVNL, vide its affidavit dated 29.1.2016 has submitted that the unit had reached 95% of the contracted capacity and further operated at 95% continuously other than when load restriction was imposed by WRLDC and no other reason other than back down due to the load restriction by WRLDC has been reported for not operating continuously for 72 hours. We find this position of the IE reasonable.

### <u>Unit-50</u>

64. The trial period for performance of Unit No. 50 was from 12:15 hrs of 17.3.2013 to 00:45 hrs of 21.3.2013. The typical generation curve during the trial period is as below:



65. From the 15-minute time-block data provided by WRLDC, it can be seen that the Unit ran successfully for 172 time-blocks (approximately 43 hours) on continuous basis with generation of 722 MW and above out of total 288 time-blocks during the trial period. It is also observed that the Unit ran for a total of 247 time-blocks (approximately 61 hours) with generation of 722 MW and above during the trial period. During the operation, WRLDC had issued one instruction considering the security of the grid which led to reduction in generation for the period from 16:00 hrs of 17.3.2013 to 21:00 hrs of

17.3.2018 and due to this the Unit was not able to generate above 722 MW. However, it is also seen that before the receipt of WRLDC instruction, the Unit was operating below the benchmark level of 722 MW for a total of 8 time-blocks in the range of 585-707 MW. CGPL has clarified that this was due to the GT Oil leakage. Apart from this, the Unit had also small dip in one of the time-blocks viz. 11:30 hrs of 18.3.2013 where the generation was 720.74 MW (which is 94.83% of the contracted capacity). Further, it is noticed that on 18.3.2013, the Unit was under-loaded for a total of 17 hours (from 13:15 hrs of 18.3.2013 to 5:45 hrs of 19.3.2013) due to cleaning of BFP suction strainer. During this 17-hour period, the unit was operating in the range of 300.55 - 695.64 MW.

- 66. The IE, vide its affidavit dated 22.2.2016, has submitted that the Unit 50 demonstrated continuous operation for 84.5 hours. The said Unit ran at or above 95% of the Contracted Capacity for 60.5 hours and below 95% load for 24 hours i.e. 17 hours due to BFP strainer cleaning, 1.5 hours due to GT Oil leakage and 5.5 hours due to grid restriction. The details for which the plant was required to back down below 95% of Contracted Capacity are as follows:
  - a. Grid operator asked the Unit to back down to 200MW for a duration of 5.5 hours. (Instruction by WRLDC at 16:03 hrs on 17.3.2013)
  - b. BFP Strainer Choke(event occurred at 13:15 hrs on 18.3.2013 and lasted for 17 hours)- The said Unit load was brought down to clean the strainers and then ramped back to full load and the test period was extended to compensate for those hours.

- c. GT R phase PRV inspection (event occurred at 14:15 hrs on 17.3.2013 and lasted for 1.5 hours) Oil leak was inspected and there was no major threat to the safety of the plant or its generation ability.
- 67. According to the IE, the performance test was extended by 12.5 hours beyond the 72 hours to account for some of the above noted interruptions. Only the hours required for the BFP strainer cleaning and the hours for the GT phase inspection were considered for extending the test duration. Out of the 17 hours for the BFP strainer cleaning, 6 hours for the load ramp up and ramp down time was not considered in the extended hours. The machine ran above 95% of the Contracted Capacity for 60.5 hours of the 84.5 hours run. Pursuant to the test, B&V vide its letter dated 21.3.2013 issued the FTC for Commercial Operation of Unit No. 50 to the Procurer States.
- 68. It is observed that the Unit ran successfully at and above 95% of contracted capacity for 172 time-blocks on continuous basis and for 247 time blocks on non-continuous basis during the trial period. Apart from the single restriction imposed by WRLDC, the Unit did not achieve the level of 722 MW on two occasions- one due to GT Oil leakage at 14:15 hrs on 17.3.2013 for 1.5 hours and other due to choking of BFP strainer at 13:15 hrs on 18.3.2013 which lasted for 17 hours. We accept the technical view of the IE that non-achievement of the desired benchmark level due to GT Oil leakage and chocking of BFP strainer is not a fatal flaw in the plant design/operation. The Unit, after recovery, successfully ramped up to the desired level and there was no tripping or any interruption during the operation. Further, the IE in its submission has submitted that the hours lost due to BFP choking were compensated by extending the

trial run by 12.5 hours. In total, the Unit ran for 247 time-blocks at more than 95% of Contracted Capacity.

69. GUVNL, as a Procurer, vide letter dated 3.9.2014 sought explanation from the Independent Engineer on the declaration of commercial operation for Unit 50 which had not operated at 95% continuously due to reasons other than load restriction of WRLDC. GUVNL also sought for subsequent dates when the machine had operated continuously for 72 hours above 95%. The Independent Engineer, vide letter dated 23.9.2014, has clarified as under:

"This has reference to your letter Ref. No. GUVNL:GM (Com.)-1246 dated 3.9.2014, Black & Veatch would like to clarify that one of the goals of a performance test is to ensure if there are any fatal flaws in the plant design/ operation, they are addressed before the plant goes commercial. During the performance test, it is possible that some plant system may not function as it is intended to. As Independent Engineer, the Black & Veatch representative at site to witness performance test has to understand the severity of the problem and take a decision whether to stop the test and repeat it or to allow the test to continue by fixing the temporary problem.

Unit 50 reached 95% of the contract capacity without any alarm or trips. All major equipments were running fine. After confirming this, site deputed engineer allowed start of the performance test. During Unit 50 performance test, there were 3 scenarios on which the plant was required to back down below 95% contracted capacity:

- A. Grid asked plant to back down to 200 MW-Duration 5.5 hours.
- B. BFP Strainer Choke- This was expected as the unit had run only few hours before it went in to the reliability run. The unit load was brought down to clean the strainers and then ramped back to full load and the test period was extended to compensate for those hours. This is not something that is uncommon for a new plant-Total duration 17 hours including both the BFP strainer.
- C. GT R phase PRV inspection-Oil leak was inspected and there was no major threat to the safety of the plant or its generation ability. The back down on load was for inspecting the leak. During 1.5 hours.

The test was extended by 12.5 hours beyond the 72 hours run to account for some

of the noted interruptions. The machine ran above 95% of the contracted capacity for 60.5 hours of the 84.5 hours. In addition to 60.5 hours, grid back down instructions was imposed for 5.5 hours and the unit was available to dispatch 95% above contracted capacity. All the major equipments were running fine during the test period.

Based on the above, Black & Veatch confirmed that Unit 50 was available to produce above 95% of the contracted capacity during the performance test and there were no fatal flaws in the plant design/ operation.

As requested by GUVNL, please find attached sample record of subsequent dates after COD when the machine has operated above 95% of contracted capacity of 760 Mw. Based on the data received from CGPL, Black & Veatch is of the opinion that the unit was available to service the customer demand in its contracted capacity. However, CGPL has maintained Station Generation, adhering to the 'Scheduled Generation' (SG) declared for CGPL by WRLDC and/ or variation in Grid Frequency (UI)."

- 70. Based on the clarification of the Independent Engineer, GUVNL as the Lead Procurer has accepted the test results of Unit 50. GUVNL has in its affidavit dated 29.1.2016 has stated as under:
  - "9. In this regard, the Respondent No. 11 vide letter dated 23.9.2014 clarified that the Unit 50 had read 95% without any alarm or trips and all major equipment was running fine. The Unit 50 had to back down due to BFR Strainer Choke which was expected as the unit had run only for few hours before it went into reliability run. Further GT R Phase PRV Inspection was due to oil leak and there was not major threat to the safety or generation ability. The duration of back down was 1.5 hours whereas the test had been extended by 12.5 hours beyond 72 hours. Further, the Respondent No. 11 enclosed the sample record of generation from 24.3.2013 to 31.3.2013 wherein declared capacity was 760 Mw and from total of 56.5 hours, the supply of power from Unit 50 was more than 95% (i.e. 722 MW). It was noted that the reason for load of less than 95% was due to power surrender from Procurers or Unscheduled Interchange due to frequency variation. The Respondent No. 11 also enclosed the load restriction details for the four units during their performance test."

#### **Station Performance Test**

- 71. Article 8.1.9 of the PPA dated 22.4.2007 provides for the Power Station Performance Test. The said Article is extracted as under:
  - "8.1.9 Within one (1) Month of the date by which all the Units have been commissioned, the Seller shall conduct a Performance Test of the Power Station (hereinafter referred to as "the Power Station Performance Test" whereafter the provisions of Article 8.2 shall apply. A Power Station Performance Test shall be carried out in accordance with Article 1.1 of Schedule 5, save that the test shall last twenty-four (24) hours instead of seventy two (72) hours."
- 72. In accordance with the above provisions, Power Station Performance Test was carried out from 06:00 hours of 30.3.2013 to 15:00 hours of 31.3.2013 which was witnessed by the Independent Engineer and a Final Test Certificate for the generating station was issued. The Independent Engineer has issued the Final Test Certificate dated 5.4.2013 as quoted below::

"The Power Station Performance Test conducted by Coastal Gujarat Power Limited (CGPL) Mundra required for the Power Station (5X830 MW Gross) of Coastal Gujarat Power Limited (CGPL) Mundra has been carried out from 06:00 Hrs of March 30,2013 to 15:00 Hrs of March 31, 2013 and has been witnessed by the Independent Engineer appointed jointly by Procurers and CGPL Mundra. The Detailed Commissioning Test Results have been submitted by CGPL Mundra via email dated April 01, 2013.

After verifying the tests results we hereby certify as follows in accordance to the Clause 8.1.9 of Power Purchase Agreement dated April 22, 2007:

(1) All Commissioning Tests have been carried out in accordance with Schedule 5 of PPA and are acceptable to us;

- (2) The results of the functional specification testing shows that Power Station has met functional specifications as stipulated in Schedule 4 of PPA;
- (3) The results of the Performance Test show that the Power Station's Tested Capacity is not less than ninety five (95) percent of its Contracted Capacity of 3800 MW as existing on the Effective Date."
- 73. As per the above report, the Power Station output test was successfully completed without any unit tripping or interruption for continuous operation of thirty-three hours out of which the station load was maintained above 95% of the contracted capacity for 24 hours and the lower load generation for nine hours was due to grid restrictions and not for any technical failure. This Power Station Performance Test was accepted by the Procurers. Since the Station Power Performance Test meet the requirement of Article 1.1 of Schedule 5, the condition of Article 8.1.9 has been fulfilled.
- 74. The basis of alleged wrongful declaration of COD of Units Nos. 20 to 50 of Mundra UMPP is that these units have not run at or above 95% of the Contracted Capacity for a continuous period of 72 hours. As has been brought out by the IE and accepted by the Procurers, the reason for interruption in generation below 95% of contracted capacity on a stretch for continuous 72 hours for Unit Nos. 20 and 30 was due to grid restrictions imposed by WRLDC and for Unit Nos. 40 and 50, it was due to minor operational issues, apart from grid restrictions. Also, there were instances of small dips in generation below 722 MW during couple of time-blocks. The Independent Engineer has submitted that it has adopted the general practice being followed in the industry i.e. run the Units at or above 95% of the contracted capacity for at least 50% of the hours out of the 72 hours (i.e. 36 hours). The Independent Engineer has also confirmed that Units No. 20 to 50 of Mundra UMPP had never tripped, which would

.....

have warranted the need for carrying out the commissioning tests again. The Independent Engineer, in the Final Test Certificate, has certified that all other tests, as specified in Schedule 5 read with Schedule 4 of the PPA (ramp rate, super critical performance test etc.), have been successfully achieved by the Units along with running above the benchmark level for a substantial period of time without any tripping during the test period. The Independent Engineer has, in its affidavit dated 22.2.2016, confirmed that there was no major fatal flaw with the Units, which is also evident from the operation of these Units upon commissioning. We further note that the generating station also met the requirement of Power Station Performance Test for a period of 24 hours above 95% of the contracted capacity as required under Article 8.1.9 of the PPA.

- 75. It is noted that the Procurer States were aware of the grid restrictions and have accepted the commissioning without any dispute. This is clear from GUVNL's affidavit dated 29.1.2016 as under:
  - "12. In view of the above, it is observed that the reason for non-achievement of continuous operation for 72 hours at 95% as per PPA is due to grid restriction by WRLDC and not for any technical failure in the units and that CGPL had undertaken the tests pursuant to the consent from WRLDC and had also requested WRLDC not to impose the load restriction since the machines were under performance test. However, the load restrictions were imposed during testing time.
  - 13. As per the provisions of the PPA, the Independent Engineer has to issue Final Test Certificate regarding satisfactory performance of a Unit and the Unit shall be commissioned on the day after the date when all the procurers receive the final Test Certificate of the Independent Engineer. Accordingly, M/s Black & Veatch had issued the Test certificates for all the Units of Mundra UMPP from time to time.
  - 14. In the circumstances mentioned above, the declaration of commercial operation was accepted by GUVNL....."

- 76. Accordingly, we are of the view that the Independent Engineer has exercised discretion prudently for certifying the commissioning of Units 20 to 50. The satisfactory operation of the Units during its operational stage is also a testimony to the due commissioning of the said Units. We also find no strength in the arguments of Energy Watchdog that the Independent Engineer has suppressed relevant information from the Final Test Certificates issued by it.
- 77. Energy Watchdog has alleged that CGPL has not complied with the instructions issued by WRLDC. On the other hand, according to CGPL, it has complied with all the instructions issued by WRLDC. CGPL has also stated that at times WRLDC had given instructions either on the basis of net generation or gross generation whereas injection data filed by WRLDC in its affidavit dated 11.5.2018, reflects net generation at interconnection point only. Even otherwise, no dispute/ proceedings have ever been raised by WRLDC. In fact, WRLDC has accepted that instructions have been duly followed by CGPL. The statements of Energy Watchdog do not seem to be correct in light of replies of WRLDC. As generation and injection of electricity in the grid is a real-time operation and instructions to increase or decrease the generation are given by WRLDC after assessing the grid frequency and considering the relevant data of all users of the grid, we do not find substance in the allegations of Energy Watchdog.
- 78. On the basis of the above submissions, we are of the view that Units No. 20 to 50 of Mundra UMPP of CGPL and the Power Station as a whole have been duly commissioned and find no error in the Final Test Certificates issued by the Independent Engineer in this regard.

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- 79. Energy Watchdog has submitted that the COD declared by CGPL for its Units should be rejected and till the time the tests in terms of the PPA provisions are conducted, any power injected by CGPL Units should be treated as an infirm injection. It has submitted that CGPL has got benefit by supplying infirm power to the Procurer States at PPA tariff. COD of Units 20 to 50 of Mundra UMPP has been accepted by the Procurer States and WRLDC. Consequently, power was scheduled by the Procurer States and in terms of the said schedule, the power was despatched/ supplied to the Procurer States. The lead procurer, GUVNL in its affidavit dated 29.1.2016 has stated that if the power injected by CGPL is to be treated as infirm power, then the same would have been injected into the grid and could not have been scheduled by the Procurer States. Consequently, the Procurer States would not have got the benefit of the said cheap power. GUVNL has also stated that there is no issue with the COD of Units 20 to 50 of Mundra UMPP and that acceptance of commissioning of the Units was in consumer interest. The fixed cost/ capacity charges have been paid only upon declaration of availability of 80% and therefore, there is no financial loss to the Procurer States. Since we find no reason to interfere with COD of the CGPL's Units as declared by CGPL, this issue is of no relevance.
- 80. Energy Watchdog and Shri Bansal have stated that there is a criminal nexus between CGPL, WRLDC and the Procurers. We note that, no document has been placed on record by Energy Watchdog and Shri Bansal to support their arguments in this regard. Even otherwise, the Commission does not have the jurisdiction to decide the issue of criminal conspiracy.

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#### Summary

- 81. The summary of our discussion and findings in this order are as under:
  - (a) The cases of Mundra UMPP stands on a different footing from the cases of Sasan UMPP and Barh station of NTPC and therefore decision in those cases are not applicable in case of Mundra UMPP of CGPL.
  - (b) The Units 20 to 50 of Mundra UMPP had run continuously at or above 95% of the Contracted Capacity for a substantially long period of time. The Units had conducted all the Performance Tests, including the supercritical performance tests and the same has been certified by the IE. No dispute has been raised on veracity of those tests. There were no major technical or mechanism issues reported with the machines that could have prevented the Units from operating at 95% or above of the Contracted Capacity. Except for 3 occasion for Unit 40 and 50, all backing down of Units 20 to 50 of CGPL's Units, during the test period, was on account of grid restrictions imposed by WRLDC. Based on the facts on record, the Independent Engineer has accepted the test results and issued the Final Test Certificate in respect of Units 20, 30, 40, and 50 of Mundra UMPP and the generating station as a whole in terms od Article 6.3.1 of the PPA dated 22.4.2007 and the Procurer States have accepted the test results. The units and the generating stations are generating and supplying power to the Procurer States for more than six years and no problem has been reported with regard to the operation of the units at their contracted capacity. Accordingly, we find no infirmity

in the decision of the CGPL to declare the commercial operation of the units and generating stations based on the Final Test Certificates of the Independent Engineers.

- (c) The fixed cost/ capacity charges have been paid by the procurers only upon declaration of availability of 80% and therefore, there is no financial loss to the Procurer States. Since we find no reason to interfere with COD of the CGPL's Units as declared by CGPL, the issue of infirm power is of no relevance.
- (d) The declaration of the COD of the Units of Mundra UMPP and the Power Station as a whole is in public interest as the machines have been operating successfully to generate power at or above the contracted capacity (subject to the grid restrictions or scheduling instructions of Procurers) and supplying power to the Procurer States. Further, the Procurer States have been reaping the benefits of cheaper power which is in the interest of consumers of these States. Therefore, public interest is served on account of the declaration of CoD of the Units and Power Station of Mundra UMPP as per the Final Test Certificates of the Independent Engineer.
- 82. The present petition was initiated to look into the allegations that the declaration of CoDs of Units 20 to 50 of Mundra UMPP was not in accordance with the provisions of the PPA dated 22.4.2007. The Commission has examined the allegations in the light of the submissions of CGPL, Procurer States, Independent Engineer, Energy Watchdog and Shri MC Bansal and all the documents including the test results. In the light of the

analysis and decisions in the this order with regard to the declaration and COD of Units and the Power Plant of Mundra UMPP, the Commission is of the view that the allegations are without any basis and are accordingly rejected. No further action is called for on the complaint of Shri MC Bansal or the submissions of Energy Watchdog.

83. Petition No. 18/SM/2015 along with IA No. 50/2017 and IA No. 44/2018 are disposed of in terms of the above.

sd/-(Dr. M.K. lyer) Member sd/-(P.K. Pujari) Chairperson