CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 85/MP/2013

Coram:

Shri V.S. Verma, Member Shri M. Deena Dayalan, Member Shri A.S. Bakshi, Member (EO)

Date of Hearing: 23.5.2013
Date of Order : 20.6.2013

In the matter of

Sasan UMPP-Declaration of COD and scheduling

And

in the matter of

Western Regional Load Despatch Centre, Mumbai

Petitioner

Vs

- 1. Sasan Power Limited, Mumbai
- 2. Lahmeyer International (India) Pvt. Ltd.

Respondents

- 1. MP Power Management Company Limited, Jabalpur
- 2. Pashchimanchal Vidyut Vitran Nigam Limited, Meerut
- 3. Purvanchal Vidyut Vitran Nigam Limited, Varanasi
- 4. Madhyanchal Vidyut Vitran Nigam Limited, Lucknow
- 5. Dakshinchal Vidyut Vitran Nigam Limited, Agra
- 6. Punjab State Power Corporation Limited, Patiala
- 7. Tata Power Distribution Limited, New Delhi
- 8.BSES Rajdhani Power Limited, New Delhi
- 9.BSES Yamuna Power Limited, New Delhi
- 10. Harynan Power Generation Corporation Limited, Panchkula
- 11. Ajmer Vidyut Vitran Nigam Limited, Ajmer
- 12. Jaipur Vidyut Vitran Nigam Ltd, Jaipur
- 13. Jodhpur Vidyut Vitran Nigam Ltd, Jodhpur
- 14. Uttarakhand Power Corporation Ltd, Dehradun
- 15. Central Electricity Authority, New Delhi

Proforma Respondents

Following were present:

Shri Sitesh Mukherjee, Advocate for the petitioner

Shri Sakya Choudhuri, Advocate for the petitioner

Shri Amit Kapur, Advocate, SPL

Shri S K Sonee, POSOCO

Shri P Pentayya, WRLDC

Ms. S. Usha, WRLDC

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Shri V.K. Agarwal, POSOCO Ms. Jyoti Prasad, POSOCO Shri S.S. Barpanda, POSOCO Shri Vinod. WRLDC

<u>ORDER</u>

The petitioner, Western Regional Load Despatch Centre (hereafter "WRLDC") in the present petition has made the following prayers, namely:

- "(a) 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.
- (b) 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.
- (c) 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.
- (d) The Commission may give any further directions as deemed fit in the circumstances of the case."
- 2. The submissions of the petitioner are as under:
 - (a) Sasan UMPP having ultimate installed capacity of 6x660 MW falls within the control area jurisdiction of Western Regional Load Dispatch Centre (WRLDC), in terms of Regulation 6.4.2. (b) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (Grid Code). Sasan Power Limited (SPL) started its testing and commissioning activities of first unit (GT#3) w.e.f. 17.3.2012 and started drawing power from the Western Region grid in accordance with clause 6.2 of the Procedure approved by the Commission vide its order dated 31.12.2009 under Central Electricity Regulatory Commission (Grant of Connectivity, Long term access,

Medium term open access in inter-State transmission and related matters) Regulations, 2009 (hereinafter "Connectivity Regulations"). Unit#3 of the SPL was synchronized with the grid for the first time on 9.3.2013 at 2010 hrs. and tripped at 2024 hrs the same night. SPL injected around 15 MW of infirm power into the grid. The generating station started its commissioning activities of unit 3 from 9.3.2013.

- (b) SPL vide its letter dated 25.3.2013 at 1230 hrs. informed WRLDC regarding testing and synchronization of its first unit (unit-3) to the grid and for further declaring commercial operation. M/s Sasan submitted a testing program to WRLDC for increasing the load from zero to 660 MW within a span of 9 hrs (2100 hrs of 25.3.13 to 0600 hrs of 26.3.2013). Accordingly, synchronization code (3/2108) was given by WRLDC at 1756hrs/25.3.2013 and subsequently another code (3/2120) was given at 2029 hrs/25.3.2013 for increasing load up to 160 MW. The unit could not achieve the generation level as per the plan given by SPL and unit tripped at 21:30 hrs/25.3.2013 and could generate only maximum 66 MW of power.
- (c) On 27.3.2013 at 0013 hrs SPL further submitted a testing program to WRLDC for the purpose of synchronization of unit-3 into the grid and declaration of commercial operation. SPL submitted a program of increasing load from zero to 660 MW within a span of 8 hrs. (0500 hrs of 27.3.2013 to 1300 hrs of 27.3.2013) which could not be achieved. Subsequently, SPL, on 27.3.2013 at 0501hrs submitted an injection programme for increasing generation from zero to full load within 8hrs (0700 hrs to 1500 hrs of 27.3.2013). Accordingly, based on the SPL request, synchronization code

(3/2236) was given by WRLDC on 27.3.2013 at 1148 hrs. However, the unit could not achieve the generation level as per plan given by SPL. On the same day at 1531 hrs, SPL submitted another programme for achieving full load within 5 hrs (1515hrs to 2000hrs).

- (d) On 27.3.2013 at 1606 hrs, WRLDC clearly indicated that the infirm power can be allowed as per real time conditions of the grid. On the same day, it was further informed that due to Holi festival, infirm power over 100 MW cannot be permitted because of low demand till morning hours of 28.3.2013.
- (e) On 27.3.2013, WRLDC gave its consent to generate 100 MW and further increase in generation was to be allowed as per real time condition. It was further informed that SPL may take code from WRLDC whenever he proposes to increase generation. However, WRLDC has not received any request from SPL till evening of 29.3.2013 for increasing the generation in spite of clear message from WRLDC that low demand condition is expected up to 28.3.2013 morning only.
- (f) Based on the request of SPL, WRLDC granted code No. 3/2452 on 29.3.2013 at 2220 hrs to increase the ex-bus generation to 200 MW. SPL vide its e-mail dated 30.3.2013 at 0100 hrs, informed that it has raised the load on unit 3 accordingly. However, the data available with WRLDC shows that SPL could generate only 153 MW at 0100hrs and maximum of 165 MW on 30.3.2013.
- (g) WRLDC vide its mail dated 30.3.2013 at 0718 hrs requested SPL to submit its plan of raising load to complete the testing timely and successfully.

However, SPL did not submit any plan to raise generation to full load. From the actual data it is verified that Sasan could generate only 165 MW maximum on 30.3.2013.

- (h) On 30.3.2013 at 1132hrs, SPL submitted a DC of 620.4 MW round the clock for 31.3.2013 (DC revised at 1915hrs on 30.3.2013 varying from 210 to 620.4 MW). It was also informed by the SPL that the 72 hour performance test of Sasan Unit-3 would be completed by 30.3.2013 evening. However, in the message intimating completion of performance test, SPL did not request for increasing generation.
- (i) On 30.3.2013 at 2223 hrs SPL vide its e-mail informed regarding completion of 72 Hrs performance test of Sasan Unit-3. SPL also sent a report of acceptance of COD by Independent Engineer as per provisions of the PPA. SPL further informed that its unit-3 is available for commercial operations from 31.3.2013 and sent its declared capability (revision-I)
- 3. The petitioner has submitted that from the above facts, the following can be inferred:
 - (a) WRLDC could not allow infirm injection of more than 100 MW on 27.3.2013 as there was less demand. The same has been done as per real time condition considering grid security as per proviso of Regulation 8 (7) of the Connectivity Regulations.
 - (b) SPL was fully aware that 27.3.2013 being a holiday (Holi festival), there was a considerable demand reduction in Western Region.

- (c) The program submitted by SPL for achieving full load within 5 hours was unrealistic, seeing the past performance of their unit from 25.3.2013. Even after almost a month, SPL has been unable to achieve generation more than 220 MW (31.3.2013) and could generate 285 MW maximum on 19.4.2013, after commencement of re-testing on 17.4.2013.
- (d) As explained earlier, WRLDC clearly indicated that low demand condition is likely to prevail till morning of 28.3.2013 and after that the generating station can seek permission from Control Room to increase the load. However, though testing for COD had commenced on 27.3.2013, no request was sent by SPL to WRLDC for further raising load during 28.3.2013. Request for increasing generation was sent only at 21:36 hrs of 29.3.2013.
- (e) On 29.3.2013, though SPL was allowed to raise generation to 200 MW. However, it could not increase generation even to that level as explained earlier.
- (f) On 30.3.2013, on the direction of WRLDC, SPL had not submitted its plan to raise load at 07:18 hrs.
- (g) As SPL was given ample opportunity to raise generation, due to the issues attributable to its own plant, SPL could not increase generation beyond 165 MW during testing period.
- 4. The petitioner has submitted that the certificate dated 30.3.2013 issued by the Independent Engineer is not based on facts. Contradictory statements have been made in the certificate. It has been acknowledged that at 07:13hr on 30.3.2013,

WRLDC asked the seller to submit its revised power injection schedule for raising the load. However, it has also been stated that load of around 150 MW was maintained for remaining 22 hours as per WRLDC instructions and grid conditions. Thus, it is evident that when WRLDC was ready to permit higher generation on 30.3.2013 morning, the generator chose not to increase generation during testing period. The generator responded to WRLDC message after 7 hours and even at that time the target period of 72 hours was not completed. However, still SPL did not raise the generation level during the target period. This fact has simply been overlooked by the Independent Engineer and the certificate has been issued citing the reason for restricting the load to a level of about 100 MW for 50 hours and about 150 MW for 22 hours attributable to WRLDC instructions and grid conditions. This clearly establishes that due diligence has not been exercised by the Independent Engineer.

- 5. As per injection details of SPL, at any given point of time its unit # 3 could not achieve a load beyond 220 MW (31.3.2013) and could generate 285 MW maximum on 19.4.2013, after commencement of retesting on 17.4.2013.
- 6. On 31.3.2013 at 0034 hrs, WRLDC intimated to SPL that as per independent engineer's certificate and the confirmation from lead procurer (MPPML), the tested capacity is only 101.38 MW, therefore the DC given by SPL for 220 MW to 620 MW is not in line with the certificate given by the Independent Engineer. Accordingly SPL was requested to take consent from all the procurers for scheduling to the stated derated capacity of 101.38 MW. WRLDC had further informed that the scheduling of 101.38 MW could not be implemented by WRLDC as SPL has not submitted any consent and request made by the SPL and lead procurer to schedule back the

excess generation was not in accordance with existing regulation. Therefore, SPL's unit continued to inject infirm power of around 165 MW.

- 7. The petitioner has submitted that in order to avoid a stalemate, WRLDC requested the seller and procurer to submit mutually agreed schedule considering de-rated capacity of 101.38 MW. Consent of all concerned was obtained, and 101.38 MW was scheduled by WRLDC. Thereafter, WRLDC, vide its letter dated 5.4.2013 informed the Member (Thermal), CEA and Secretary, CERC to examine the issue of COD for part capacity and its scheduling.
- 8. According to the petitioner, despite number of opportunity to increase generation and achieve full load, during testing period, SPL unit could not achieve above 165 MW on 30.3.2013. However, SPL informed that the unit could not achieve the required parameters as planned and thus the synchronization could not take place at the scheduled time.
- 9. On 31.3.2013, SPL submitted DC for 1.4.13 at 1651 hrs up to 620.4 MW which was revised to zero at 2254 hrs. SPL vide e-mail dated 31.3.2013 clarified that SPL could not increase its load on Unit-3 due to tripping of the boiler. According to the petitioner, Independent Engineer has not given the certificate as per Ministry of Power OM dated 3.9.2009. SPL has also not satisfied condition specified in Central Electricity Authority (Technical Standards for Connectivity to the Grid), Regulations, 2007 which provides that "the coal and lignite based thermal generating units shall be capable of generating up to 105% of Maximum Continuous Rating (subject to maximum load capability under valve wide open condition) for short duration to provide frequency response". None of the CERC regulations makes any provisions for part capacity in case of thermal power stations. In the absence of

clarity, WRLDC requested to seller and procurers to submit mutually acceptable schedule and accordingly, scheduling for part capacity was done WRLDC.

- 10. With regard to operation of unit after 1.4.2013, the petitioner has submitted as under:
 - (a) On 1.4.2013 at 1015 hrs, SPL submitted Declared Capability of zero MW up to 5.4.2013. WLRDC vide its letters dated 4.4.2013 and 9.4.2013 informed CERC, CEA and procurers about the status of synchronization of SPL.
 - (b) On 6.4.2013 at 0944 hrs, SPL informed that the boiler of unit-3 was lighted up at 0725 hrs and would tentatively synchronize the unit at 1800 hrs with the grid. However, the unit was out till 14.4.2013 and SPL revised the schedule to zero.
 - (c) WRLDC vide its e- mail dated 9.4.2013 (2339hrs) informed SPL to submit mutually agreed schedule from the procures for scheduling of 101.38 MW power and it was also informed that once the power is scheduled, infirm power i.e. power more than 101.38 MW cannot generated for performance testing, as long as the schedule is in force.
 - (d) On 14.4.2013, the unit was synchronized at 1058 hrs. However, it was tripped due to boiler MFT protection and further again synchronized at 1438 hrs but due to FW pump tripping, it was tripped at 2108hrs. Finally, on 15.4.2013, the unit of SPL was synchronized at 0124hrs of 15.4.13 and started generating 101.38 MW which is scheduled based on the consent received from the procurers. WRLDC directed SPL not to increase generation

beyond 101.38 MW. WLRDC vide its letter dated 15.4.2013 further clarified to all procurers that any unscheduled generation could not be scheduled back to the procurers as the same is not permissible under the CERC's relevant regulations. WRLDC also informed SPL and all the procurers that testing and scheduling of a unit cannot be done together.

- (e) WRLDC vide its letter dated 15.4.2013 informed the CEA and CERC about various issues pertaining to Commercial Operation Declaration (COD) and Scheduling of 1st unit (unit No.3) of SPL.
- (f) On 17.4.2013, the unit was taken out at 0952 hrs and scheduling was discontinued for the purpose of re-testing of the unit. Subsequently, SPL submitted a fresh plan for full load testing from 1400hrs of 17.4.2013 to 0100hrs of 18.4.2013. WRLDC granted approval for the testing and intimated that infirm power would not be scheduled to procurers which were agreed by SPL. WRLDC vide its e-mail and letter dated 18/19-4.2013 and 20.4.2013 requested SPL to furnish reasons for not generating above 125 MW on 18.4.2013 and 19.4.2013 and 260 MW on 20.4.2013. In response, SPL vide its e-mail dated 20.4.2013 submitted that the present Ex Bus injection from Unit 3 of Sasan UMPP at 01:30 Hrs. is 268.95 MW and reasons for delay in increase of ex-bus injection are due to Auto Loops Tuning, Milling System Problem and Coal Handling Plant Maintenance. SPL further submitted that due to above reasons, he shall be maintaining 200 MW (Ex-bus) till 20.4.2013 at 09:00 Hrs.
- (g) In view of the above, the unit of SPL is not able to achieve full load and stable operation and possibly affected by multiple problems. The claims made

by SPL on 27.3.2013 and 30.3.2013 for full load testing appears to be impracticable and misrepresentation of the facts possibly in order to declare it commercial even without going through the required tests and capacity demonstration.

- (h) Despite ample chances being given to the SPL to increase generation for testing, SPL failed to carry out requisite testing and give unrealistic plans time and again, but could never follow the plan. It is evident that it is a clear case of gaming in terms of Regulation 6.4.1 of the Grid Code.
- 11. Initially, the petition was heard on 9.5.2013. During the course of the hearing, learned counsel for the SPL submitted that the petitioner has made certain false and baseless allegation against the SPL. Learned counsel placed its reliance on this Commission's order dated 9.2.2012 in Petition Nos. 289 and 290 of 2010 and submitted that WRLDC had admitted in the said petition that it had no role to play in the commissioning activities except to facilitate injection of infirm power into the grid. Learned counsel for the petitioner submitted that since WRLDC is seeking general guidance, it should revise the petition and the prayer accordingly. Learned counsel sought permission to file a reply on the maintainability of the petition, which was allowed by this Commission.
- 12. The respondent, SPL in its submission dated 20.5.2013 has submitted as under:
 - (a) The Petition does not disclose any cause of action. The Petition is based on mere conjectures and unsubstantiated allegations having no legal or

factual basis. No evidence has been adduced by WRLDC to establish the allegations set out in the Petition.

- (b) WRLDC has no locus standi to file the present Petition. As per the Electricity Act, 2003 and Grid Code, the role of RLDC is limited to scheduling of power and grid management and does not include determination of COD.
- (c) WRLDC has accepted the commissioning and COD of the first unit of Sasan UMPP. The role of WRLDC is limited to the functions set out in Section 28 of the Act read with the IEGC. The procurers have accepted the COD and given their consent in writing for scheduling of power. Based on the confirmations of the procurers, WRLDC has scheduled power up to 101.38 MW and is not treating power produced as infirm power. This in itself is evidence of the fact that WRLDC has accepted that COD has occurred. It is settled law that where a statute creates different authorities to exercise their respective functions thereunder, each of such authorities must exercise the functions within the four corners of the statute. In the present case, WRLDC has been tasked with the function of scheduling and it has no role to play in the determination of COD of Sasan UMPP and/or any of its unit.
- (d) The following correspondence filed by WRLDC is pertinent to the fact that WRLDC and the Procurers have accepted the COD and the certificate of the Independent Engineer:
 - (i) WRLDC vide its letter dated 5.4.2013 to SPL has accepted the fact that the first unit of Sasan UMPP is certified for COD of 101.38 MW.
 - (ii) WRLDC in its letter dated 9.4.2013 has stated that infirm power above 101.38 MW cannot be scheduled since COD has occurred.

- (iii) WRLDC in its letter dated 15.4.2013 to CEA has noted that the lead procurer has given acceptance for COD for de-rated capacity of 101.38 MW.
- 13. During the course of hearing on 23.5.2013, learned counsel for the petitioner submitted as under:
 - (a) The commercial operation date or COD is a matter of commercial arrangement between the parties to the Power Purchase Agreement (PPA) and WRLDC has in the past submitted that it is not concerned with the same. However, in the present case COD has been purportedly achieved without full load testing based on the certificate of the Independent Engineer (IE) whose technical genuineness and authenticity is seriously contested. The COD has been achieved at about 15% of the Installed Capacity of the plant, which raises serious issues of safety and security of the grid. The WRLDC as the designated body for securing efficient and safe operation of the Western regional system has the power to examine the terms of the PPA on which the COD is sought to be achieved.
 - (b) Given that the IE's certificate imputes WRLDC (or the grid restriction) for SPL inability to do full load testing for commissioning, and thereafter SPL has declared full load capacity. There was hence a dispute amongst the parties which needs to be adjudicated by CERC.
 - (c) Referring to the CERC (Terms and Conditions of Tariff) Regulations, 2009 and CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007, learned counsel submitted that COD, at the tested

capacity of 101.38 MW (which is merely 15% of installed capacity of 660MW), could not have been declared in the face of these Regulations mandating demonstration of maximum continuous rating (up to 105%) or installed capacity through successful trial run.

- (d) Article 6.3 of the PPA deals with commercial operation, and Article 6.3.1 of the PPA provides that 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 (i) Commissioning Tests have been carried out in accordance with Schedule 5 and are acceptable to them, and (ii) the results of the Performance Test show that the Unit's Tested Capacity is not less than 95% of its Contracted Capacity on the Effective Date.
- (e) The purported COD, at the tested capacity of 101.38 MW, is blatantly against the clauses in the PPA on COD which mandate that the unit operates continuously for 72 consecutive hours at or above 95% of its Contracted Capacity (1.1(d) of Schedule 5 and Article 6.3.1(b)).Retaking of Performance Test under Article 6.3.3 of PPA is only for demonstration of increased Tested Capacity over and above 95% of Contracted Capacity; and the clauses pertaining to de-rating in Article 6.3.4 are applicable only when the unit's Tested Capacity does not achieve the Contracted Capacity starting from 95% already achieved at COD. Learned counsel pointed out that the purported COD at 15% of 660 MW, besides being against the afore-mentioned Regulations and PPA clauses, is not desirable for secure grid operations and leads to several operational difficulties.

- (f) The dispute had arisen *qua* the parties in relation to the commissioning of the 3rd unit of SPL's generating station.
- (g) In relation to the stand taken by WRLDC in Petition No. 289 of 2010 before CERC, although that case was on a completely different factual basis and legal proposition, WRLDC retains its stance that COD is a matter of commercial arrangement between the parties to the PPA and the onus to declare COD is on the generator. However, in the present case the (i) purported COD at 15% of the Installed Capacity of the plant raises serious issues of safety and security of the grid, (ii) technical genuineness of the IE's certificate is contested, (iii) IE's certificate imputes WRLDC (or grid restriction) for SPL's inability to do full load testing which is contrary to facts and documents placed on record, gives rise to a dispute amongst the parties which needs to be adjudicated by the this Commission.
- (h) With regard to amendment of the petition to include the aforementioned issues, learned counsel submitted that the amendment of the petition may not be necessary and that the issues raised by WRLDC arise out of the facts stated in the petition filed by the petitioner.
- 14. Learned counsel for SPL submitted that the relief sought in the present petition pertains to seeking regulations and /or guidelines with respect to scheduling and commissioning of power projects. The Commission in a number of cases has held that the appropriate procedure for clarifications/ amendment of Regulations is to submit a representation/proposal to the Commission and not by way of a petition.

- 15. We have heard the learned counsels and representatives of the parties. We have very carefully considered the submissions made by the parties and have gone through the records. According to the petitioner, based on its request, seller and procurers had submitted their consent to schedule considering de-rated capacity of 101. 38 MW and accordingly same was scheduled. However, the unit was never tested for super critical conditions for which it was designed and beneficiaries of the generating station did not object to the same. It is clear from the above the petitioner itself accepted the COD of the unit for a capacity of 101.38 MW and scheduled the power accordingly.
- 16. Considering the urgency of the matter, we intend to dispose of the petition at the admission stage itself.
- 17. WRLDC is basically aggrieved by the certificate of the Independent Engineer dated 30.3.2013 that unit could not be tested for its full load capacity on account of the WRLDC instructions and grid conditions. WRLDC has further alleged intentional mis-declaration on the part of SPL. WRLDC has requested for framing specific guidelines with regards to declaration of COD of the generators not governed by the Tariff Regulations of the Commission.
- 18. First we have to consider the role of RLDC with regard to scheduling and despatch of a generating station. Sub-section (1) to (3) of section 28 of the Act deal with the functions of the Regional Load Despatch Centre which is extracted as under:
 - "Section 28. (Functions of Regional Load Despatch Centre): ---
 - (1) The Regional Load Despatch Centre shall be the apex body to ensure integrated operation of the power system in the concerned region.
 - (2) The Regional Load Despatch Centre shall comply with such principles, guidelines and methodologies in respect of the wheeling and optimum scheduling and despatch of electricity as the Central Commission may specify in the Grid Code.

- (3) The Regional Load Despatch Centre shall -
 - (a) be responsible for optimum scheduling and despatch of electricity within the region, in accordance with the contracts entered into with the licensees or the generating companies operating in the region;
 - (b) monitor grid operations;
 - (c) keep accounts of quantity of electricity transmitted through the regional arid:
 - (d) exercise supervision and control over the inter-State transmission system; and
 - (e) be responsible for carrying out real time operations for grid control and despatch of electricity within the region through secure and economic operation of the regional grid in accordance with the Grid Standards and the Grid Code."
- 19. Regional Load Despatch Centres has been vested with the function of the apex body to ensure integrated operation of the power system in the concerned region. Moreover, it is responsible to exercise supervision and control over the inter-State transmission system to monitor the grid operation. Regulation 8(7) of the Connectivity Regulations provide as under:
 - "(7) Notwithstanding anything contained in clause (6) of this regulation and any provision with regard to sale of infirm power in the PPA, a unit of a generating station, including a captive generating plant which has been granted connectivity to the grid shall be allowed to inject infirm power into the grid during testing including full load testing before its COD for a period not exceeding six months from the date of first synchronization after obtaining prior permission of the concerned Regional Load Despatch Centre:

Provided that the Commission may allow extension of the period for testing including full load testing, and consequent injection of infirm power by the unit, beyond six months, in exceptional circumstances on an application made by the generating company at least two months in advance of completion of six month period:

Provided further that the concerned Regional Load Despatch Centre while granting such permission shall keep the grid security in view:

Provided also that the onus of proving that the injection of infirm power from the unit(s) of the generating station is for the purpose of testing and commissioning shall lie with the generating company, and the respective RLDC shall seek such information on each occasion of injection of power before COD. For this, the generator shall provide RLDC sufficient details of the specific testing and commissioning activity, its duration and intended injection etc.:

Provided also that the infirm power so injected shall be treated as Unscheduled Interchange of the unit(s) of the generating station and the generator shall be paid for such injection of infirm power in accordance with the provisions of the Central

Electricity Regulatory Commission (Unscheduled Interchange Charges and related matters) Regulations, 2009, as amended from time to time."

The above provisions allow RLDC to monitor the injection of infirm power during the testing and commissioning of a generating station before the COD and in that connection, WRLDC has the power to call for the specific details of testing and commissioning activity, its duration and the intended injection of infirm power and allow permission for such injection keeping in view the grid security. All these activities form part of the statutory duty of RLDC to monitor grid operation.

20. In so far as the SPL is concerned, it is an Ultra Mega Power Project whose tariff has been discovered through the competitive bidding route and has been adopted by this Commission to be governed by the terms and conditions of the PPA between Sasan Power Limited and the procurers. It bears mention that the PPA forms part of the Standard Bidding Documents developed in line with the Competitive bidding guidelines prescribed by the Central Government under section 63 of the Act. Any amendment to the signed PPA can only be carried out with the approval of this Commission. WRLDC as the System Operator has the power to look into the provisions of the PPA and ask the parties for compliance in relation to the matters relating to grid operation and scheduling and dispatch of power. Further, as per OM dated 3.9.2009 issued by the Ministry of Power, a thermal unit is to be considered as commissioned when the construction and commissioning of all plants and equipments required for operation of the unit at rated capacity are complete and the unit achieves full rated load on the designated fuel. As the System Operator, RLDC should satisfy itself that the standard guidelines relating to commissioning of a thermal unit and the terms and conditions of the PPA are duly complied with.

21. Let us consider the provision of the PPA with regard to testing, declaration of COD, etc. of the generating station. The provisions of the PPA with regard to the COD are as under:

"Commercial Operation Date or COD means, in relation to a Unit, the date one day after the date when each of the procurer received a Final Test Certificate of the Independent Engineer as per the provisions of Article 6.3.1 and in relation to the Power Station shall mean the date by which such Final Test Certificates received by the procurers for all the Units."

- "6.3.1 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 tests show that the unit tested capacity is not less than 95% of its contracted capacity at existing on the effective date"
- 6.3.2 If a Unit fails a Commissioning Test, the Seller may retake the relevant test, within a reasonable period after the end of the previous test, with three (3) day's prior written notice to the Procurers and the Independent Engineer., Provided however, the Procurers shall have a right to require deferment of any such re-test for a period not exceeding fifteen (15) days, without incurring any liability for such deferment, if the Procurers are unable to provide evacuation of power to be generated, due to reason outside the reasonable control of the Procurers or due to inadequate demand in the Grid.
- 6.3.3 The Seller may retake the Performance Test by giving at least fifteen (15) days advance notice in writing to the Procurers, up to eight 8) times, during a period of one hundred and eighty (180) days ("Initial Performance Retest Period") from a Unit's COD in order to demonstrate an increased Tested Capacity over and above as provided in Article 6.3.1 (b)., Provided however, the Procurers shall have a right to require deferment of any such re-test for a period not exceeding fifteen (15) days, without incurring any liability for such deferment, if the Procurers are unable to provide evacuation of power to be generated, due to reasons outside the reasonable control of the Procurers or due to inadequate demand in the Grid.
- 6.3.4 If a Unit's Tested Capacity after the most recent Performance Test mentioned in Article 6.3.3 has been conducted, is less than its Contracted Capacity as existing on the Effective Date, the Unit shall be de-rated with the following consequences in each case with effect from the date of completion of such most recent test.
- (ii) If at the end of initial Performance Retest Period or the date of the eighth Performance Test mentioned in Article 6.3.,3, whichever is earlier, the Tested Capacity is less than the Contracted Capacity (as

existing on the date of this Agreement), the consequences mentioned in Article 8.2.2 shall apply for a period of one year. Provided that such consequences shall apply with respect to the Tested Capacity existing at the end of Initial Performance Retest Period or the date of the eighth Performance Test mentioned in Article 6.3.3, whichever is earlier.

- 8.2.2 (i) If a Unit's (or if all the Units have been Commissioned, of the Power Station's) then current Tested Capacity as established by the Repeat Performance Test and the Final Test Certificate issued by the Independent Engineer, is less than its Contracted Capacity as existing on the Effective Date, the Seller shall not be permitted to declare the Available Capacity of the Unit or if all the Units have been Commissioned, of the Power Station's at a level greater than its Tested Capacity, in which case:
- a) The Unit's (or if all the Units have been Commissioned, of the Power Station's) Contracted Capacity shall be reduced to its most recent Tested Capacity and Quoted Capacity Charges shall be paid with respect to such reduced Contracted Capacity.
- b) Further, the Quoted Non-Escalable Capacity Charge shall be reduced by the following:
 - Rs.0.,25/kwh x [1 {Tested Capacity of all Commissioned Units + Contracted Capacity as the Effective Date of all Units not Commissioned)/Contracted Capacity at the Effective Date of all Units}]
- c) The Availability Factor of the derated Unit (or if all the Units have been Commissioned, of the Power Station's) shall be calculated by reference to the reduced Contracted Capacity, in each case with effect from date on which all the Procurers jointly first notified the Seller of their intention to carry out a Repeat Performance Test of the Unit (or if all the Units have been Commission bed, of the Power Station's); and
- d) the Capital Cost and each element of the Capital Structure Schedule shall be reduced in proportion to the reduction in the Contracted Capacity of the Power Station as a result of that derating (taking into account the Contracted Capacity of ay Unit which has yet to be Commissioned);I
- (ii) The consequences mentioned in sub-Article (i) above shall apply from the completion date of each Repeat Performance Test. If at the end of second Repeat Performance Test conducted by the Seller or the last date of the end of the six month period referred to in Article 8.1.1, whichever is earlier, the Tested Capacity is less than the Contracted Capacity (as existing on the date of this Agreement), the consequences mentioned in Article 8.2.,2 shall apply for a period of at least one year after which the Seller shall have the right to undertake a Repeat Performance Test,. Provided that such consequences shall apply with respect to the Tested Capacity existing at the end of second Repeat Performance Test conducted by the Seller or the last date of the end of the six month period referred to in Article 8.1.1, whichever is earlier."

- 22. From the above provisions of PPA, it emerges that the commercial operation date shall be reckoned from one day after the date when all the procurers received the Final Test Certificate from the Independent Engineer for having carried out the commissioning test in accordance with Schedule-5 of the PPA and the results of Test Performance establishes that the Unit Tested Capacity is not less than the 95% of the Contracted Capacity existing on the effective date. The PPA further provides if a unit fails the commissioning test, the seller may retake the relevant test within a reasonable period with advance notice to the procurer and Independent Engineer. The procurers may also require deferment of any such retest for a period not exceeding 15 days if they are unable to provide evacuation of power to be generated due to reason outside the reasonable control of the procurers or due to inadequate demand in the Grid. The seller may retake the Performance Test upto eight times during a period of one hundred and eighty (180) days to demonstrate the increased tested capacity over 95%. If the Unit's tested capacity after the most recent performance test is less than the contracted capacity as existing on the effective date, the unit shall be de-rated.
- 23. There is clear-cut provision in the PPA that COD of the generating unit cannot be declared unless the results of the performance test show that the unit tested capacity is not less than 95% of its contracted capacity as existing on the effective date. Failure to achieve at least 95% of the contracted capacity shall be considered as failure in the commissioning test and the seller is required to retake the required test with notice to the procures and the Independent Engineer. It is noticed from the certificate of Independent Engineer dated 30.3.2013 (Annexure-11 to the petition) that the Independent Engineer has certified Unit-3 of the generating station to have

achieved commercial operation with tested capacity of 101.38 MW (ex-bus). Para 5 of the certificate is extracted as under:-

"5. The Commissioning Test has been carried out in accordance with Schedule 5 of PPA and the results of the Performance Test are acceptable to IE. The results of the Performance Test show that the Unit's Tested Capacity is not less than 101.38 MW (ex bus), the maximum permitted load by WRLDC for injection into the grid. During the above stated period of continuous 72 consecutive hours, the performance of the unit was found to conform to the Electrical Limits of the Functional Specifications in accordance with Schedule 4 of PPA."

Further, in Para 7 of the report, the Independent Engineer has noted as under:

- "7. The unit could not be tested for the following parameters of Supercritical Technology at the steam turbine inlet as defined in PPA due to grid restriction.
- i) Main Steam Pressure: 247 kg/cm² (abs).
- ii) Main Steam Temperature: 535 deg C.
- iii) Reheat Temperature: 565 deg C."

In our view, the certificate of the Independent Engineer is not in conformity with Article 6.3.1 read with Schedule-5 of the PPA as only after the unit was tested for 95% of its contracted capacity, it could be certified for declaration of COD. Moreover, Para 1.1 (iv) of Schedule-5 clearly provides that as a part of the performance test the unit shall be tested for compliance with parameters of supercritical technology. The certification by the Independent Engineer for COD without testing the capacity on the parameters of supercritical technology is also not in accordance with the provisions of the PPA. We take serious view of the lapse on the part of the Independent Engineer in issuing a certificate for COD without adhering to the express provisions of the PPA.

24. 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 WRLDC has

intimated the commercial operation of the Unit from 0:00 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. Moreover, Ministry of Power in its OM No.3/2/2007/P&P dated 3.9.2009 has notified the revised definition of commissioning of generation power projects which is applicable to all generating stations. The relevant provisions of the OM with regard to thermal generation project are extracted as under:

"A thermal unit may be considered as commissioned when the construction and commissioning of all plants and equipments required for operation of the unit at rated capacity are complete and the unit achieves full rated load on the designated fuel."

Further, 2009 Tariff Regulations of this Commission defines the date of commercial operation of a thermal generating station as under:

"(12) 'date of commercial operation' or COD means

(a) in relation to a unit or block of the thermal generating station, the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installed capacity (IC) through a successful trail run after notice to the beneficiaries, from 0000 hour of which scheduling process as per the Indian Electricity Grid Code (IEGC) is fully implemented, and in relation to the generating station as a whole, the date of commercial operation of the last unit or block of the generating station."

It is evident from the above that as per the PPA, MoP OM of 3.9.2009 and the 2009 Tariff Regulations of the Commission, commercial operation of a unit of the generating station can be declared only after it is demonstrated that the tested capacity is not less than rated capacity, in this case, 95% of the contracted capacity. Since the tested capacity was only 101.38 MW as against the required tested capacity (95% of the contracted capacity) of the unit, we direct SPL to carry out the fresh 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. The guidelines of MoP issued vide OM dated 3.9.2009 and the stipulations in the 2009

Tariff Regulations of this Commission with regard to date of commercial operation also need to be complied with.

- 25. On perusal of Annexures-14, 15 and 17 of the petition it is revealed that WRLDC has accepted COD of the unit for 101.38 MW based on the Independent Engineer certificate. In its letter dated 5.4.2013 (Annexure 14) to Reliance Power Limited, WRLDC has accepted the certificate of the Independent Engineer that the first unit of Sasan UMPP was certified for COD with tested capacity of 101.38 MW and has sought consent from SASAN for scheduling in line with the letter from MPPGCL. In its letter dated 9.4.2013 to SPL and MPPMCL (Annexure 15), WRLDC has stated that infirm power above 101.38 MW cannot be scheduled and after declaration of COD, infirm power will not be allowed to be injected into the grid. In its letter dated 15.4.2013 to CEA (Annexure 17), WRLDC has noted that the lead procurer has given acceptance for COD for de-rated capacity of 101.38 MW. In our view, since WRLDC is required to schedule the power in accordance with the contract entered into with the licensees or the generating companies operating in the region in terms of Section 28 of the Act, it is expected of WRLDC that it should have satisfied itself about the COD of the generating station in accordance with the provisions of the PPA, MoP OM dated 3.9.2009 and 2009 Tariff Regulations of this Commission.
- 26. We further notice that the lead procurer has also expressed its agreement to schedule the station with DC of 101.38 MW knowing fully well that the unit has not been declared under commercial operation in accordance with the PPA. Understandably, the procurers were too eager to have power from the station being

the cheap power but schedules could not have been given without the unit being declared under commercial operation in accordance with the provisions of the PPA.

- 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 to 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.
- 29. The petition is disposed of in terms of the above.

sd/-(A.S. Bakshi) Member sd/-(M. Deena Dayalan) Member sd/-(V.S. Verma) Member