

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 61/MP/2014**

**Coram**

**Shri Gireesh B.Pradhan, Chairperson**

**Shri M.Deena Dayalan, Member**

**Shri A.K.Singhal, Member**

**Smt Neerja Mathur, Member (EO)**

**Date of Hearing: 15.4.2014**

**Date of Order: 23.5.2014**

**In the matter of**

Petition under Regulation 8(7) of the Central Electricity Regulatory Commission (Grant of Connectivity, Long Term Access and Medium Term Open Access in inter-State Transmission and related matters) Regulations, 2009, as amended from time to time, for grant of permission to allow injection of infirm power for testing including full load testing up to commercial declaration of Units 51, 52 and 53 of DGEN Mega Power Project.

**And in the matter of**

Torrent Energy Ltd,  
Torrent House, Off Ashram Road,  
Near Income Tax Circle,  
Ahmedabad-380009

..... **Petitioner**

**Vs**

1. Western Regional Load Despatch Centre  
F-3, MIDC Area,  
Marol, Andheri (East)  
Mumbai-400093

2. Western Regional Power Committee  
F-3, MIDC Area,  
Marol, Opp, SEEPZ, Central Road  
Andheri (East), Mumbai-400093

3. Torrent Power Limited,  
Electricity House, Lal Darwaja,  
Ahmedabad-380001

4. Torrent Power Limited,  
Torrent House, Station Road,  
Surat-3895003

.....**Respondents**



**Parties present:**

1. Shri A.K.Ghosh, TEL
2. Shri Vinod Khanna, TEL

**ORDER**

This petition has been filed by the petitioner, Torrent Energy Ltd (TEL), seeking permission of the Commission for injection of infirm power in the grid during testing including full load testing beyond the period of 6 months from the date of first synchronization up to declaration of commercial operation of the Units 51, 52 and 53 of DGEN Mega Power Project (1196.85 MW) (3 x 398.95 MW) (hereinafter referred to as 'the project') in terms of Clause 7 of Regulation 8 of the Central Electricity Regulatory Commission (Grant of Connectivity, Long Term Access and Medium Term Open Access in inter-State Transmission and related matters) Regulations, 2009, ('Connectivity Regulations') as amended from time to time.

2. The petitioner is a Special Purpose Vehicle (SPV) company promoted by Torrent Power Limited (hereinafter called "TPL") to generate and supply electricity including distribution of power at Dahej Special Economic Zone, as co-developer of the Dahej Special Economic Zone (SEZ). The petitioner is executing the 1196.85 MW (3x398.95 MW) (3 synonymous Power blocks named as Unit 51, 52 and 53) gas based project at Dahej Special Economic Zone (DSEZ) area, in the State of Gujarat. The units of the Power block namely 51, 52 and 53 are under testing including full load testing before its date of commercial operation (COD) and consequently injection of infirm power in the grid. Accordingly, the petitioner has sought extension of the period of testing including the full load testing and consequent injection of infirm power by the units beyond six months in terms of Regulation 8 of the Connectivity Regulations.

3. Power Grid Corporation of India Limited, the Central Transmission utility has granted long term open access for the quantum of 1200 MW on 5.8.2011 for the project, for which the beneficiaries/target region have been identified as (a) 400 MW to TPL-Ahmedabad and others (b) 400 MW for Western Region (c) 400 MW for Northern Region.

## Submissions of the Petitioner

4. The petitioner has submitted that necessary grant of connectivity to the grid for injection of infirm power has been duly approved by the Respondent No1.WRLDC. It has also submitted that the Units 51, 52 & 53 of the project are injecting infirm power into the grid and the said units are under testing including full load testing on and from the date of first synchronization, which are as under:

<b>Units</b>	<b>Date of first synchronization</b>
<b>51</b>	20.11.2013
<b>52</b>	29.11.2013
<b>53</b>	13.12.2013

5. The petitioner has submitted that the ongoing commissioning and testing activities including the full load testing of the said three units are running behind the schedule, and the reasons for the delay in commissioning and testing including full load testing are as under:

(a) Injection of power is not possible round the clock due to high grid frequency.

(b) During the months of January, February and March, 2014 there were frequent occurrences of transmission congestion, which resulted into Total Transfer Capability (TTC) violations between WR-NR regions.

(c) During the period 25<sup>th</sup> February 2014 to 4<sup>th</sup> March 2014, there were severe low demands due to unseasonal rain in Gujarat, Maharashtra, MP and Chhattisgarh and also in Northern Region. Due to this factor, WRLDC (Respondent No.1) was forced to restrict the testing and commissioning activities of DGEN Mega Power Project at the desired injection level.

8. Based on the tabulated data of the above events, the total of restricted events (hours) for infirm power injection during the period January, 2014 to March, 2014 is as under:

	<b>January, 2014</b>	<b>February, 2014</b>	<b>March, 2014</b>	<b>Total</b>
Start -up not allowed	2	27	8	37
Restricted to 100-130 MW	2	18	3	23
Restricted to 200-250 MW	1	6	1	8
Instructed for shutdown	-	5	2	7
<b>Total Restricted Event</b>	<b>5</b>	<b>56</b>	<b>14</b>	<b>75</b>
<b>Total Restricted Hours</b>	<b>29.5</b>	<b>299.1</b>	<b>153.2</b>	<b>481.8</b>

9. In terms of the above, the petitioner has submitted that the total number of days of restricted events during the crucial commissioning period comes to around 20 days (482 hours) and during this crucial commissioning

period, no commissioning activities were carried out. The petitioner has further submitted that the Respondent No. 1 has imposed maximum limit of infirm power generation from the project to 500 - 600 MW and this limitation has prevented simultaneous commissioning of more than one unit. This according to the petitioner has further affected the commissioning activities of the units. In addition to this, the petitioner has submitted that the project experienced some unexpected technical snags, as detailed under, while commissioning various main equipments of the project which had further delayed the progress of commissioning activities:

- (a) High combustion Chamber Acceleration in Gas Turbine observed during cold gas operation. EPC Contractor, Siemens, is modifying Burners in all the three Gas Turbines to resolve an issue of high Combustion Chamber acceleration. The complete job of Burner modification will take about 10 days per unit.
- (b) High Hydrogen leakage in Unit-52 Generator. Siemens has opened the Generator for rectification of cause of Hydrogen leakage. This job is currently under progress. The total duration of above rectification work will be around 3 to 4 weeks.
- (c) Some Condenser Tubes of Unit 53 were found buckled. EPC Contractor, Siemens, is currently identifying the cause and planning the rectification work. The total duration of shutdown to attend Condenser tubes would be around 3 to 4 weeks.

10. The petitioner has submitted that since WRLDC has allowed the petitioner to carry out testing (including full load testing) and commissioning activities with constraints/restrictions as above, there may be a possibility of a further delay in the date of commercial operation by approximately three months and the same would also be largely dependent upon the grid conditions. Accordingly, the petitioner has submitted that the facts stated above has resulted in the delay in achieving commercial operation of Units-51, 52 and 53 of the project and the same are beyond the control of the petitioner. Hence, the petitioner has prayed for allowing extension of the time period for testing including full load testing and for consequent injection of infirm power beyond six months, i.e up to 30<sup>th</sup> May 2014, 26<sup>th</sup> June, 2014 and 20<sup>th</sup> June, 2014 for Units-51, 52 and 53 respectively as summarised overleaf:

Unit Nos.	Date of First Synchronisation	Date of scheduled completion of testing period as per Regulations	Proposed Date of completion	Delays (No. of Days)
51	20-11-2013	19-05-2014	30-05-2014	11
52	29-11-2013	28-05-2014	26-06-2014	29
53	13-12-2013	11-06-2014	20-06-2014	9
<b>Total</b>				<b>49</b>

11. During the hearing on 15.4.2014, the petitioner has explained in detail the technical problems leading to the delay in achieving commercial operation. The petitioner also submitted that the said units were synchronized

during November/ December' 2013 and the declaration of commercial operation of all the units were expected by May/June, 2014. The petitioner further submitted that the rectification work would be finished by June' 2014 and thereafter one month would be required for other tests, prior to the declaration of COD of the units. However, the Commission directed the petitioner, to submit the details of activities which are yet to be completed before declaration of commercial operation and the expected number of days for completion of each of such pending activities.

12. In compliance with the above directions, the petitioner vide its affidavit dated 21.4.2014 has submitted the details of the activities which are pending for completion and the same is summarized as under:

Ongoing Activity	Activities pending to be completed (as on 10.4.2014)	Number of days expected for completion (on & from 10.4.2014)
1	Modification/rectification work various technical problems viz high combustion chamber acceleration in GTs, Hydrogen leakage , condenser tubes etc.	30
	Gas Turbine Tuning after completion of point (i) above	10
	Steam Turbine Commissioning and combined cycle tuning	10
	Shutdown	15
2	Unit Characteristic Test	15
	Shutdown for making unit ready for URT	5
3	Unit reliability test (URT) (including tuning, if any, GT/combined cycle)	15
	Shutdown for performance instrument installation	2
4	Performance Guarantee Test	3
	If Performance Guarantee Test is repeated	2
	<b>Total</b>	<b>107</b>

13. Based on the above, the petitioner has submitted that keeping in view the expected number of days for completion on and from 10.4.2014, the project is likely to achieve COD by 31.7.2014.

14. Taking into consideration the submissions of the parties and keeping in view the difficulties faced by the petitioner on account of grid restriction imposed by the system operator WRLDC and due to unforeseen events such as technical snags in Gas Turbines Combustion Chamber, Hydrogen leakage in Generator etc, we are inclined to grant extension of time for injection of infirm power into the grid for the purpose of commissioning tests including full load test up to the COD or 31.7.2014, whichever is earlier. The extension of

time granted as above shall not automatically entitle the petitioner for IEDC/IDC for the delay in declaration of COD from the scheduled COD and the same shall be considered on merits at the time of determination of tariff of the unit/generating station.

15. The petition is disposed of in terms of the above.

*Sd/-*  
**[Smt. Neerja Mathur]**  
**Member (EO)**

*Sd/-*  
**[A.K.Singhal]**  
**Member**

*Sd/-*  
**[M. Deena Dayalan]**  
**Member**

*Sd/-*  
**[Gireesh B.Pradhan]**  
**Chairperson**