

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 199/MP/2019

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri P.K. Singh, Member**

Date of Order: 29th November, 2023

In the matter of:

Petition under Section 79 (1) (f) and Section 79 (1) (c) of the Electricity Act, 2003 seeking adjudication of disputes between Tata Power Delhi Distribution Limited and Pragati Power Corporation Limited regarding declaration of Availability by Pragati Power Corporation Limited and claiming fixed charges thereto.

And

In the matter of

Tata Power Delhi Distribution Limited,
NDPL House, Hudson Lines,
Kingsway Camp, New Delhi-11001

...Petitioner

Vs

1. Pragati Power Corporation Limited,
Himadri, Rajghat Powerhouse Complex,
New Delhi-110002
2. State Load Despatch Center,
SLDC Building, Minto Road,
New Delhi-110019
3. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019
4. BSES Yamuna Power Limited,
Shakti Kiran Building, Karkardooma,
New Delhi-110032
5. New Delhi Municipal Corporation Limited,
Power Division, Palika Kendra,
Sansad Marg, New Delhi-110010
6. Military Engineering Services,
Palam Delhi Cantonment,
New Delhi-110010



7. Punjab State Power Corporation Limited,
The Mall, Patiala-147001

8. Haryana Power Purchase Centre,
Regd. Office: Shakti Bhawan, Sector-6
Panchkula -341009

9. Northern Regional Load Despatch Centre,
18-A Shaheed Jeet Singh Sansawal Marg,
Katwaria Sarai, New Delhi – 110016

...Respondents

Parties Present:

Ms. Molshree Bhatnagar, Advocate, TPDDL
Ms. Parichita Chowdhury, Advocate, TPDDL
Ms. Shefali Sobti, TPDDL
Ms. Swapna Sheshadri, Advocate, PPCL
Shri Amal Nair, Advocate, PPCL
Ms. Sugandh Khanna, Advocate, PPCL
Ms. Ritika Khanna, Advocate, PPCL
Shri Surendra Kumar, PPCL
Shri Abhishek Rohilla, PPCL
Shri Pradeep Misra, Advocate, SLDC
Shri Daleep Dhyani, Advocate, SLDC
Shri Suraj Singh, Advocate, SLDC
Shri Ashish Sethi, SLDC
Shri Gaurav Gupta, SLDC
Shri Rahul Kinra, Advocate, BYPL & BRPL
Shri Aditya Ajay, Advocate, BYPL & BRPL
Shri Prashant Garg, NRLDC
Ms. Anisha Chopra, NRLDC
Shri Gajendra Singh, NRLDC
Shri S. K. Sinha, NRLDC

ORDER

The Petitioner, Tata Power Delhi Distribution Limited (in short 'TPDDL') has filed this petition under Section 79 (1) (f) and Section 79 (1) (c) of the Electricity Act, 2003 (in short 'Act'), with the following prayers:

“(a) Hold Respondent No. 1 liable for mis-declaration of declared capacity in view of the testing reports and various instances highlighted by the TPDDL.

(b) Direct SLDC to revise the REA to the extent of Respondent No. 1 percentage availability claimed prior to testing and found during testing. That is availability claims from October'2017 be revised as found during the testing period (October'2017 was the period of raising the issue for the first time by Tata Power DDL).

(c) Revise the winter availability for the period October'2017 onwards to a realistic level considering 35% availability for February'2019.



(d) Direct SLDC to conduct testing of Pragati-III once a month for 4 days and based on test results, issue direction to revise the REA in the event of misdeclaration.

(e) Impose penalty upon Pragati-III for mis declaration of declared capacity as per the provisions of the Act read with the relevant Regulations of IEGC.

(f) Direct Pragati-III to refund the fixed charges along with interest charges in line with the above, to the beneficiary distribution licensee(s) in ratio of their allocation of power from Pragati-III.

(g) Pass any other order which this Hon'ble Commission may deem fit and proper in the interest of justice and equity."

Submissions of the Petitioner TPDDL

2. The Petitioner TPDDL, in support of the above prayers, has mainly submitted the following:

- (a) TPDDL has entered into a long term PPA with Pragati Power Corporation (inn respect of Pragati-III Power Plant) for 298.20 MW. The combined capacity of Pragati-III is 1371.20 MW. The details of the capacity of the units of Pragati-III is as under:

	Unit	Capacity
Block - I	GT -I	216 MW
	GT -II	216 MW
	STG -1	253.60 MW
	Total	685.60 MW
Block - II	GT -III	216 MW
	GT -IV	216 MW
	STG -II	253.6 MW
	Total	685.60 MW
	Grand Total	1371.20 W

- (b) The Pragati-III Power Plant is a combined gas based plant and total requirement of gas is 5.3 MMSCM/Day. Out of the total gas requirement, the power plant has an allocated cheaper APM gas to the tune of 1.56 MMSCM/day pursuant to the Government of India, Ministry of Petroleum and Natural Gas (in short 'MoPNG') direction dated 2.7.2018.
- (c) Pragati-III power plant has been allocated 1.56 MMSCMD of gas under no cut category vide the said MoPNG direction. The Power plant can run up to approximately 400 to 450 MW which is the Technical Minimum of one block comprising 2 GTs and 1 STG. For the remaining capacity, Pragati-III is bound to purchase gas at a higher rate thereby increasing the cost of the power being supplied.
- (d) Considering high fuel price, Pragati-III is generally not scheduled beyond 400 to 450 MW by its beneficiaries due to commercial reasons. However, despite the non-scheduling of the power beyond 400-450 MW capacity, Pragati-III is causing unwarranted burden on the consumers of NCT of Delhi by claiming fixed costs on account of DC for the remaining quantum beyond 400 to 450 MW. The PLF of Pagati-III for the past one year ranges between 9 to 43% on monthly basis.



- (e) The distribution licensee(s) of NCT of Delhi are not scheduling power from Pragati-III beyond 400 to 450 MW, due to commercial reasons as the variable cost of generation increases with use of Gas, other than APM, by Pragati-III to generate power beyond 400 to 450 MW. The power from cheaper gas is only available to generate power upto 400 to 450 MW and beyond that, Pragati-III buys gas from other sources thereby making the cost of power expensive, resulting in difficulty to schedule the power on account of merit order scheduling.
- (f) The variable cost of Pragati-III keeps on increasing with increased generation on account of usage of alternative Spot/ RLNG gas beyond 400 to 450 MW. Any generation by Pragati-III over 400-450 MW is financially not feasible and hence effectively approx. 940 MW of the plant's capacity remains redundant. However, the fixed cost of the power plant is being paid by the TPDDL and other beneficiaries without any prospect of receiving power from the plant for the said capacity.

MIS-DECLARATION OF DECLARED CAPACITY DESPITE ALLOCATION OF GAS/ FUEL UNDER NO CUT-OFF CATEGORY

- (g) MoPNG vide letter dated 2.7.2018 had directed that 1.564 MMSCMD domestic gas under no cut category shall be ensured for Pragati-III. Accordingly, SLDC vide its e-mail dated 13.11.2018 directed all distribution licensees to be synchronized with Pragati-III for one full module irrespective of the requisition of distribution licensee. SLDC's e-mail also states that Pragati-III will generate minimum power corresponding to 400 MW to 450 MW under combined cycle mode in line with gas under no cut category and accordingly the distribution licensee(s) shall undertake the planning and scheduling of power.
- (h) However, on numerous occasions when Pragati-III has claimed a DC of 600-1200MW (i.e. beyond 400 to 450 MW), it has failed to supply power even up to 400 MW. This not only prejudices the TPDDL but also causes un-due burden on the consumers.
- (i) TPDDL is setting out the various instances whereby Pragati-III has failed to supply power despite claiming a higher DC as under:

Date	Time Blocks	Pragati-III DC (Range) in MW in Combined Cycle		Average Injection Schedule in MW in Combined Cycle
		Min	Max	Average
11.10.2017	00:00-24:00	440	440	70
6.11.2018	00:00-24:00	250	880	228
7.11.2018	00:00-00:15	1050	1100	210
8.11.2018	00:00-24:00	1050	1100	210
10.11.2018	00:00-24:00	1050	1100	217
11.11.2018	00:00-24:00	1050	1100	227
12.11.2018	00:00-10:00	1000	1075	219
17.11.2018	21:00-24:00	845	845	242
18.11.2018	00:00-24:00	845	1100	255
19.11.2018	00:00-24:00	855	1140	234
20.11.2018	00:00-00:45	1070	1070	324
7.12.2018	21:00-24:00	940	940	234
8.12.2018	00:00-07:00	840	900	231
15.12.2018	20:45-24:00	940	1275	245



Date	Time Blocks	Pragati-III DC (Range) in MW in Combined Cycle		Average Injection Schedule in MW in Combined Cycle
		Min	Max	Average
16.12.2018	00:00-06:00	1200	1260	235
19.12.2018	00:00-12:00	880	1300	290
20.12.2018	00:00-15:00	850	1280	292
21.12.2018	00:00-04:00	960	1280	360
22.12.2018	00:30-13:45	980	1300	295
23.12.2018	00:00-13:00	620	1300	274
3.1.2019	20:45-24:00	960	960	279
4.1.2019	01:00-10:30	960	1340	259
8.2.2019	00:00-24:00	800	800	-6
12.2.2019	14:15-24:00	750	1000	200
10.2.2019	00:00-24:00	800	1000	-6
15.2.2019	17:00-21:30	320	750	247
25.2.2019	14:30-20:30	400	400	197
28.2.2019	15:45-24:00	450	640	181
1.3.2019	00:00-24:00	400	900	220
2.3.2019	00:00-24:00	660	800	200
3.3.2019	00:00-24:00	660	800	200
4.3.2019	00:00-24:00	260	800	125
5.3.2019	00:00-24:00	580	900	200
6.3.2019	00:00-24:00	660	900	203
7.3.2019	00:00-24:00	660	900	206
8.3.2019	00:00-24:00	660	900	208
9.3.2019	00:00-24:00	660	900	205

- (j) The above table clearly sets out that while Pragati-III is claiming a higher DC and enjoying the benefits of fixed charges, it is technically not able to generate power in proportion to the DC, despite having gas allocated under no-cut category. In view of the above mis-declaration, SLDC was requested to devise a suitable methodology to ensure that Pragati-III is capable of generating power corresponding to its DC. However, no action was taken on Pragati-III by SLDC in line with the provisions of IEGC/ Delhi Grid Code.
- (k) It is glaring that Pragati-III was declaring DC based on availability of units under reserve shut down and the same was reduced once the units were asked to schedule power. The failure of Pragati-III to supply power corresponding to its DC has made the TPDDL face challenging situation of supplying power during times of crisis. SLDC was requested to take action as per clause 32.2 of Delhi Grid Code, however no action was taken. Clause 32.2 provides as under:
- “32.2 The SLDC shall periodically review the actual deviation from the dispatch and net drawl schedules being issued, to check whether any of the constituents are indulging in unfair gaming or collusion. In case any such practice is detected, the matter shall be investigated and reported to the Commission.”
- (l) TPDDL wrote letter dated 21.1.2019 to SLDC, apprising of the failure of Pragati-III to schedule power corresponding to initial DC. SLDC was again requested to investigate the issue of misdeclaration of DC in view of Clause 32.2 of Delhi Grid Code and take appropriate action, but no action was taken by SLDC. TPDDL has cited various instances, wherein Pragati-



III could not match its DC to the requirement set out by TPDDL. It also cited that despite the fact that instances of misdeclaration were reported to the SLDC, no action was taken by SLDC.

- (m) In view of the repeated reminders and correspondences of TPDDL, addressed to SLDC citing the difficulty faced due to mis-declaration of DC by Pragati-III, SLDC vide its letter dated 5.2.2019 directed Pragati-III to submit a detailed report on tripping with reasons and details of the steps initiated to ensure reliability of power from Pragati-III. However, Pragati-III did not respond and SLDC vide its letter dated 12.3.2019 again issued a reminder with reference to letter dated 5.2.2019. Pragati-III did not respond to SLDCs letter dated 12.3.2019.
- (n) Considering the repeated instances highlighted by TPDDL, a meeting was organized by SLDC to ascertain the reasons of frequent tripping by Pragati-III on 13.3.2019. In the said meeting the issue related to frequent tripping of Pragati-III during winter months was reviewed. In response to the same, Pragati-III informed that these tripping were mainly due to severe pollution level in the Bawana area. The relevant extracts of the said meeting is reproduced below :

“1.DGM(SO) informed that there are issues related to frequent tripping of Bawana during winter months and asked the representative of CCGT Bawana to explain the reasons for the same. CCGT Bawana informed that there were tripping’s in the last month which were Forced Shut-down mainly due to severe pollution level in the Bawana area. The filters of generating units got choked due to a combination of fog and dust during winter months due to severe pollution. To avoid any unwarranted situation, the machines were off loaded to maintain the DP level. Further, it was explained that the distance between CCGT Bawana and Waste to Energy Plant at Bawana is around 500 meters whereas the drift created by the GT have a range of over 2Kms which resulted in suction of high pollution contents by the filters leading to chocking of filters. The pollution level in Bawana Industrial Area is 30-40% more than the other areas of NCT of Delhi and due to extended winter that aggravated the situation further.”

- (o) Pragati-III Plant was worst affected during the morning hours, which are peak demand period during winters. A few relevant instances are being presented below to demonstrate the inability of Pragati-III to operate during morning hours:

Sr. No.	Date Time	Remarks
1.	4.3.2019 07:13	Due to bad weather GT#3 de-synchronized. Accordingly, DC was revised to 390MW (130 OCNG+ 260 CCRLNG) for 4.3.19
2.	2.3.2019 05:39	GT#1 was desynchronized Due to bad weather condition
3.	1.3.2019 06:09	Due to bad weather GT#2 de-synchronized. Accordingly, DC was revised to 390MW (130 OCNG+ 260 CCRLNG) for 1.3.19 from 06.45 Hrs. Hrs. to 09:00 Hrs.
4.	28.2.2019 06:07	Due to bad weather GT#1 de-synchronized. Accordingly, DC was revised to 260 MW (OCRLNG) for 28.2.2019
5.	26.2.2019 23:12	Due to bad weather GT#2 de-synchronized. Accordingly, DC was revised to 390 MW (130 mw ccng+ 260 mw OCRLNG) for 26.2.2019



- (p) The above claims have been acknowledged by Pragati-III vide SLDC minutes of meeting dated 15.3.2019. However, it may be noted that the availability claims on a month-wise basis during the winter months of November, 2018 to January, 2019 have been to the tune of 90% and for the month of February, 2019 it has been only up to 35%.
- (q) While the availability of Pragati-III was in the range of 80%, 90% and 91% in November 2018, December, 2018 and January, 2019 respectively, the availability in February, 2019 was mere 35%. This requires clarification, especially considering that the pollution level during the months of November, 2018 and December, 2018 was higher than February, 2019. Relevant excerpt of TATA Power - DDL response in the meeting is reproduced below for ready reference:

“3. TPDDL raised the issue of availability of Bawana in the previous four months which was 80%. 90%, 91% and 35% respectively during the month of November 2018, December 2018, January 2019 and February 2019. It was questioned that since the pollution level is same from November to February, so how come there is a drastic decrease in availability for the month of February 2019. CCGT Bawana explained that due to prolonged winter, the situation got worst in the month of February 2019 and due to alarming DP level, they had reduced the DC during night till 11.00hrs in the morning. Due to this, there was a sharp decrease in DC for the month of February 2019. It is also clarified that during the month of March 2019 with the cleaning of weather, Bawana is regularly declaring its availability around 900 MW.”

Revision of DC during the period of testing from 18.3.2019 to 20.3.2019

- (r) To ascertain the actual capacity of Pragati-III for generating power, SLDC in the meeting dated 13.3.2019 directed Pragati-III to run as per its full declared capacity on 18th, 19th and 20th March 2019, in order to test the technical capability. Accordingly, Pragati-III declared DC in the range of 840 MW to 1120 MW on 18.3.2019, whereas the same was reduced in the range of 490 MW to 960 MW due to various faults as given below:

Date	Test result
18.3.2019	GT2 of Pragati-III tripped at 15:22 Hrs. and got synchronized at 16:54 Hrs. i.e. after a gap of 1 Hrs. 32 minutes. This resulted in reduction of DC from 1120 MW to 840 MW
19.3.2019	At 5:28 Hrs. GT-I tripped and accordingly DC was reduced from 960 MW to 690 MW. Again later at 13:07 Hrs. on the same day STG2 tripped and hence the DC got reduced to 280 MW.
20.3.2019	STG 2 could not be revived despite its DC was being claimed prior to it being put under tests and additionally GT 1 of Pragati-III again tripped at 22:24 Hrs. After the end of tests on 20 th March'2019, the DC claimed by Pragati-III was only 490 MW to 900 MW

- (s) The testing of Pragati-III clearly indicates that Pragati-III is not capable of generating power corresponding to the DC declared and the consumers have been paying fixed cost without actually receiving commensurate power from the plant.
- (t) Considering the claims of Pragati-III as per said minutes of meeting dated 15.3.2019, the pollution level was higher during the winter months of November, December and January 2019. Further, the PAFM for



November 2018 to January 2019 should also be similar to that of February 2019 i.e. 35% and in no way ought to be as high as 90%. This is because when the plant was given 5 clear days (from date of meeting i.e. 13.3.2019 to start date of testing i.e. 18.3.2019) of demonstrating the DC, the plant could not run as per its claimed DC for even 72 hours and accordingly has no case to run for the entire months of November, 2018 to January, 2019 when it claimed DC equivalent to 90%.

- (u) The weighted average DC one day prior to testing and on the days of testing is summarized below :

Date	Weighted Average Declared Capacity in MW
17.3.2019	1033
18.3.2019	1016
19.3.2019	740
20.3.2019	690

- (v) From the above, it can be demonstrated that an average DC of 815 MW was found on the days of testing of 18th to 20th March, 2019 as against claimed DC of 1033 MW a day prior to testing. This shows that the plant could achieve only 79% of its availability claims even after being informed 5 clear days prior to testing. It can be construed from the testing that the availability claims of the plants for the past period are incorrect and need to be reduced as per above test results by 21%.
- (w) Section 31 of the 2003 Act, mandates for constitution of SLDC for the purpose of exercising the powers and discharging the functions as set out under Section 32 of the Act. SLDC inter-alia is responsible for optimum scheduling and despatching of electricity in accordance with the contracts/PPA(s) executed between the licensees and generating companies. Further, Section 33 of the Act, elucidates the supervisory power and control of SLDC which are to be exercised to ensure grid stability, economy and efficiency.
- (x) While SLDC is responsible for monitoring and scheduling of power within a State, it has also been entrusted with the powers of giving directions to a licensee, generating station etc. for ensuring efficient operation of the grid and in case a licensee or generating company fails to comply with the directions of the SLDC, the defaulting party will be liable to pay a penalty not exceeding rupees five lakhs. Pragati-III, being a generating company has failed to comply with the directions of SLDC to run the plant upto its full DC. The testing report makes it evident that Pragati-III has been in continuous default to run the plant to its full DC as per the directions of the SLDC. The inability of Pragati-III to comply with the directions of SLDC invites action for gross non-compliance of SLDC direction.

Hearing dated 17.9.2019

3. The Petition was heard on 'admission' and the Commission, after hearing the submission of the representative of the Petitioner, 'admitted' the Petition and directed to parties to complete their pleadings in the matter.



Reply of the Respondent, NRLDC

4. The Respondent NRLDC vide reply dated 9.10.2019 has mainly submitted the following:

- (a) Pragati-III is scheduled by SLDC Delhi and there is no dispute on the control area jurisdiction. NRLDC is neither taking DC nor giving any injection schedule to it and the role of NRLDC is limited to the consideration of the schedule for inter-state exchange of power on account of Pragati-III while determining the net drawl schedules of Delhi, Punjab and Haryana. Therefore, NRLDC does not have the schedule data related to the share of Pragati – III being scheduled to Delhi control area as it is an intra-state exchange of power.
- (b) Pragati-III being a State-entity generator, its metering and energy accounting is also carried out by SLDC Delhi. A conjoint reading of IEGC regulations 6.4.1 and 6.4.4 makes it abundantly clear that the responsibility of monitoring the DC of Pragati-III and taking appropriate action in case Pragati-III fails to demonstrate its DC is that of SLDC Delhi rather than NRLDC.
- (c) NRLDC does not coordinate the scheduling of the Pragati-III in line with the IEGC regulations and therefore does not have the requisite data to comment on the issues raised by TPDDL regarding mis-declaration of DC, delay in the synchronization of units etc.

Reply by the Respondent PPCL

5. The Respondent PPCL, vide its reply dated 4.12.2019 has mainly submitted the following:

- (a) Article 5.5 of the PPA governs the rights and obligations of Pragati-III as a generating company and the TPDDL as a distribution licensee procuring power. Separate Gas Supply Agreements (in short 'GSA') referred to in Article 5.5 of the PPA was entered into between Pragati-III (of the one part) and GAIL (India) Limited, Indian Oil Corporation and Bharat Petroleum Limited (of the other part) on 9.10.2007. The GSA dated 9.10.2007 deals with the source of gas as under:

“2.2 Source

The Seller shall supply Gas to the Buyer, which it is obligated to supply under this Agreement based on its purchase arrangement with PLL under the GSPA. However, the Seller may supply such Gas from any other source (including from the re-gasification of LNG from another source) in the event that re-gasified LNG is not available to the Seller in appropriate quantities under the GSPA or for any other reason.

The Specifications for Gas hereunder shall be modified by mutual agreement of the Parties to reflect the specification of such other source of LNG or Gas, as the case may be.”

- (b) In terms of the GSA entered into by Pragati-III, 6 MMSCMD Gas was available on long-term basis from the gas suppliers for generation and



supply of electricity from its Gas Power Station. Pragati-III was to generate and supply electricity to the TPDDL and other Procurers from its plant by use of Re-gasified Liquefied Natural Gas (in short 'RLNG'). Further, RLNG to be supplied under the GSA was not confined to sources initially identified at the time of the execution of the GSA but could be from any other source.

- (c) The parties had agreed on RLNG as the fuel to be used for generation and sale of electricity by Pragati-III to TPDDL. TPDDL is obligated to accept the performance of obligations by PPCL regarding declaring availability of generation in the following manner:
- (i) by use of RLNG procured under the GSA at the effective price computed ; or
 - (ii) through alternate manner at an effective price not more than the price computed as per the said Agreement.
- (d) Accordingly, the quantum of gas that has been available to Pragati-III during the period 2011-12 to 2019-20 are as under:

Sl. No	Referred documents for allocation diversion, accumulation and swapping of gas	Amount of gas allocated (MMSCMD)	Duration	Total available quantity (MMSCMD)
1.	GSA dt. 9.10.2007 for supply of R-LNG	6.00 MMSCMD later reduced to 3.00 MMSCMD	9.10.2007 to 14.9.2010	6.0 MMSCMD 3.0 MMSCMD
2.	MoPNG Order dt.18.9.2009 for allocation of KG D-6 basin gas	0.93 MMSCMD	18.9.2009 till 3.4.2012 vide order dt. 3.4.2012 the quantity reduced to 0.836 MMSCMD.	0.93 MMSCMD
3.	Master sales spot agreement of PPCL with GAIL, on purchase of spot R-LNG signed on 28.9.2010 for contract quantity, supply period, start date, daily contract price is to be signed separately in each GSPN as per clause 2 of the said document.	The quantity and duration as and when required basis.	28.9.2010 till date	Any amount of spot R-LNG to be decided in each GSPN to be signed on fortnightly basis
4.	MoPNG order dt. 30.9.2011	1.564 MMSCMD non APM Gas allowed by Govt.	16.10.2011 till date	1.564 MMSCMD
5.	MoPNG Order dt. 3.4.2012 for allocation of KG D-6 basin gas from earlier allocation of 0.93 to 0.836 MMSCMD	0.836 MMSCMD, the quantity later reduced to zero w.e.f March, 2013 due to guidelines of MoPNG.	9.7.2012	0.836 MMSCMD
6.	MoPNG order dated June, 2014 for diversion of 0.9 MMSCMD gas of Ratnagiri Power Plant	0.9 MMSCMD non-APM Gas later reduced to zero and returned to the original power plant due to non-consumption/ requirement at the	June, 2014 till July, 2015	0.9 MMSCMD



		station		
7.	MoPNG order dated May, 2013 for swapping and clubbing of APM, R-LNG, Non- APM gas	3.64 MMSCMD (considering maximum diversion of all gases from GTPS & PPS-I to PPS-III)	May, 2013 till date (from various dates starting from May, 2013)	3.64 MMSCMD
8.	Scheme for PSDF fund utilization for reducing cost of purchase of gas for gas based power plants	Not availed due to refusal by TPDDL and other beneficiaries of the station	September, 2015 for certain period	As per scheme target
9.	Market Determined Price R-LNG (MDP)	As per requirement	1.1.2016 to 31.12.2016	As per requirement
10.	LT R-LNG for PPS-III Bawana only	As per requirement	Up to 2028	As per requirement
11.	Mid-Term R-LNG	1.50 MMSCMD as per Hon'ble Supreme Court' Direction	From March'2018	1.50 MMSCMD
12.	Availability of total gases as on date	1.56 MMSCMD (Non-APM) + 0.836 MMSCMD (KG D-6 Basin) + 3.64 MMSCMD (Maximum permissible clubbing and diversion from GTPS & PPS-I) + 1.5 MMSCMD Mid Term RLNG+ MDP R-LNG (offered but refused by Delhi Pvt. Discoms)+ LT-RLNG+unlimited spot R-LNG		

- (f) The quantum of gas required for generating the Targeted Availability of electricity at 85% from the Power Plant, taking into account the designed heat rate of 1757.28 (to meet out the normative availability) is 4.975 MMSCMD @ GCV 9880 kCal/ SCM. Further, it is the total heat value contained in the gas and required heat rate, GCV of the gas which determines the amount of gas (volume). The GCV of the gas varies from sample to sample of the gas at different times of the gas received from different sources.
- (g) Regulation 23 of the 2014 Tariff Regulations provides for landed fuel cost for tariff determination. The fuel cost is dependent on GCV and therefore the requirement of gas on 9,644 kcal/SCM GCV is as under:

S No.	Description	Unit	Gas requirement
1	Designed Heat rate on GCV @ 100% Load		1757.28
2	Heat rate on GCV as per Regulation	Kcal/Kwh	1845.144
2	Installed Capacity	MW	1371.2
3	Gross Generation @ 85%	MU	10209.9552
4	Net Generation @ 85%	MU	9954.70632
5	Total Heat value required	Kcal	18838837577549
6	Average GCV	Kcal/SCM	9644
7	Total Requirement of Gas (Annual)	SCM	1953425713
8	Requirement of Gas per day	MMSCMD	5.3519

regarding the availability of gas/fuel with Pragati-III for declaring availability has already been examined by the Commission in its Order dated 2.11.2017 in Petition No. 89/MP/2016 filed by BRPL & BYPL,



wherein, TPDDL was also a party. In the said Order dated 2.11.2017, the Commission had held that Pragati-III was declaring availability in accordance with the applicable Rules & Regulations and as per the fuel available.

- (i) Thus, the increased scheduling of power clubbed with the reduction in cheaper gas allocation resulted in the increased consumption of R-LNG to the tune of 56-344% as compared to R-LNG consumption in the month of April, 2019. Though, Pragati-III, has no allocation of APM and PMT gas for the station, however due to increase scheduling at the station and less scheduling at GTPS and PPS-1, the following amount of various gases was diverted as per the existing agreements with the TPDDL and other beneficiaries. The details of the various APM & PMT consumed apart from the available Non-APM gas, which resulted in increase in energy charge rate (ECR) due to reasons explained as above is as under:

A) Gas diverted to PPS-III from GTPS & PPS-I in MMSCM for FY 2018-19		
Month	Gas Type	Quantity (MMSCM) Diverted and used
June 2018	RLNG	6.216796
September 2018	APM	0.360000
	PMT	0.026428
	NAPM	0.210279
October 2018	RLNG	3.790000
November 2018	RLNG	1.080520
December 2018	APM	0.480000
	NAPM	2.42
January 2019	RLNG	1.714606
February 2019	RLNG	0.185476
	APM	1.110000
March 2019	RLNG	1.360504
	APM	11.320000
	NAPM	0.990000
	PMT	0.238705
Total		31.503314
B) Gas diverted to PPS-III from GTPS & PPS-I in MMSCM for FY 2019-20		
Month	Gas	Quantity (MMSCM)
April 2019	RLNG	2.866667
May 2019	RLNG	2.721716
	NAPM	0.100000
	APM	0.230000
June 2019	RLNG	3.119903
July 2019	RLNG	6.68929
Total		15.727576

- (j) The details of the actual generation with respect to scheduled generation for each of the instances referred to by TPDDL is as under:



Date	Time block	PPPS-III DC in (range) mw in cc		Average injection schedule in mw (combine cycle Average)	Total schedule generation (mu) to be generated by PPS-iii as per SLDC for the given time period	Actual generation (on sent out basis by PPS-iii Bawana) for the given time period	Ui energy	% of actual generation w.r.t to schedule given by SLDC on the requisition of discoms
		Min	Max					
6.11.2018	00:00 - 24:00	250	880	228	5.481923	5.418886	-0.063037	98.85%
7.11.2018	00:00-00:15	1050	1100	210	0.060000	0.053963	-0.006037	89.94%
8.11.2018	00:00 - 24:00	1050	1100	210	5.040511	4.980492	-0.060019	98.81%
10.11.2018	00:00 - 24:00	1050	1100	217	5.208407	5.127969	-0.080438	98.46%
11.11.2018	00:00 - 24:00	1050	1100	227	5.439278	5.331573	-0.107704	98.02%
12.11.2018	00:00-10:00	1000	1075	219	2.376104	2.346776	-0.029328	98.77%
17.11.2018	21:00-24:00	845	845	242	2.445312	2.476165	0.030853	101.26%
18.11.2018	00:00 - 24:00	845	1100	255	6.114546	6.078213	-0.036332	99.41%
19.11.2018	00:00 - 24:00	855	1140	234	8.130582	8.030740	-0.099842	98.77%
20.11.2018	00:00-00:45	1070	1070	324	0.250315	0.259854	0.009539	103.81%
7.12.2018	21:00-24:00	940	940	234	0.701648	0.718563	0.016915	102.41%
8.12.2018	00:00 - 07:00	840	900	231	1.659124	1.676627	0.017503	101.05%
15.12.2018	20:45-24:00	940	1275	245	0.797652	0.791092	-0.006560	99.18%
16.12.2018	00:00 - 06:00	1200	1260	235	1.411296	1.408598	-0.002698	99.81%
19.12.2018	00:00 - 12:00	880	1300	290	3.515976	3.568453	0.052477	101.49%
20.12.2018	00:00-00:15	850	1280	292	0.078804	0.087964	0.009160	111.62%
21.12.2018	00:00-04:00	960	1280	360	1.383828	1.406964	0.023136	101.67%
22.12.2018	00:30-13:45	980	1300	295	4.002008	4.063098	0.061090	101.53%
23.12.2018	00:00 - 13:00	620	1300	274	3.686128	3.694755	0.008627	100.23%
3.1.2019	20:45-24:00	960	960	279	0.956608	0.883527	-0.073081	92.36%
4.1.2019	01:00-10:30	960	1340	259	2.614792	2.832507	0.217715	108.33%
8.2.2019	00:00 - 24:00	800	800	-6	-0.133500	-0.163932		No Schedule given
10.2.2019	00:00 - 24:00	800	1000	-6	-0.114500	-0.141448		No Schedule given
12.2.2019	14:15-24:00	750	1000	200	1.950000	1.935238	-0.014762	99.24%



15.2.2019	17:00-21:30	320	750	247	1.111568	1.118621	0.007053	100.63%
25.2.2019	14:30-20:30	400	400	197	1.182504	1.138639	-0.043865	96.29%
28.2.2019	15:45-24:00	450	640	181	1.556900	1.483745	-0.073155	95.30%
1.3.2019	00:00 - 24:00	400	900	220	3.588203	3.501334	-0.086869	97.58%
2.3.2019	00:00 - 24:00	660	800	200	3.308054	3.372032	0.063978	101.93%
3.3.2019	00:00 - 24:00	660	800	200	4.793900	4.732038	-0.061862	98.71%
4.3.2019	00:00 - 24:00	260	800	125	3.146056	3.091241	-0.054815	98.26%
5.3.2019	00:00 - 24:00	580	900	200	4.810900	4.691457	-0.119443	97.52%
6.3.2019	00:00 - 24:00	660	900	203	4.883450	4.764532	-0.118918	97.56%
7.3.2019	00:00 - 24:00	660	900	206	4.944100	4.825775	-0.118325	97.61%
8.3.2019	00:00 - 24:00	660	900	208	5.000400	4.889599	-0.110801	97.78%
9.3.2019	00:00 - 24:00	660	900	205	4.928040	4.902419	-0.025621	99.48%

- (k) It is evident from the above table, that Pragati-III has been able to substantially generate power to the extent scheduled by the Procurers. To the extent of the shortfall/excess, it has paid the UI charges and cannot be penalized any further. The amount of UI/DSM paid during the period of 2018-19 is Rs. 767.62 lakh. Pragati-III has rightly claimed fixed charges to the extent that the power was declared available during the above period.
- (l) The revision in DC from 440 to 70 MW on the said date i.e. 11.10.2017 was on account of a technical snag in the Gas Turbine GT-3 Gas Heating System, which was ON BAR in Open cycle and for reasons beyond the control of the PPCL. Accordingly, PPCL immediately revised its DC for the subsequent 15 mins time block. The IEGC, 2010 recognizes revision of declared capacity, as under:
- 18. Revision of declared capability by the ISGS(s) having two part tariff with capacity charge and energy charge(except hydro stations) and requisition by beneficiary(ies) for the remaining period of the day shall also be permitted with advance notice. Revised schedules/declared capability in such cases shall become effective from the 6th time block, counting the time block in which the request for revision has been received in the RLDC to be the first one. Provided that RLDC may allow revision, of the DC at 6 hourly intervals effective form 0000,0600,1200 and 1800 hours in case of Run of the River (ROR) and pondage based hydro generating stations, if there is large variation of expected energy (MWh) for the day compared to previous declaration.*
- (m) The gas heating system is essentially required when the load of the machine is above 35 MW. GT-3 was running at around 220 MW load with the gas heating in service, when it suddenly failed at 07.30 hrs. Meanwhile, to meet the schedule, GT-4 was also taken on bar and was synchronized at 0904 hrs. Since some time was required to rectify the snag in the Gas Heating System, there was no other option available to Pragati-III but to reduce the DC to 70 MW in Open Cycle Mode i.e. GT-3 and GT-4 running at 35 MW each without a fuel heating system in service. As regards the first three days of November, 2017, the DC of the



machines was revised to an average of 106 MW on CCNG against the capacity of 250 MW on account of the heavy smog and fog prevalent in the area where the generation project is located. These kind of conditions are not within the control of Pragati-III.

- (n) In order to ensure the safety of the machine, Pragati-III has to run the generating station on a reduced load. A perusal of the SLDC records would indicate that the DC was reduced only during the early hours of the day when smog and fog concentration was the highest. A loading pattern of Gas turbines along with differential pressure increase across Inlet Filters, as an indication of the above phenomena is available in a Sequence of Events (SOC) of the data lodger of machines and the extract of same is placed on record.
- (o) At several instances, the full capacity of the machine in combined cycle operation mode is not utilized. Rather, Pragati-III was directed to run an additional unit on open cycle mode at Minimum Technical Limit (MTL) of Gas turbine / Steam turbine below which Turbine cannot be run steadily, becomes unstable and trips. The operation on MTL for long duration is not economical and energy efficient thereby wasting the recoverable waste heat energy from open cycle flue exhaust, which apart from being national waste, is a source of Environmental Pollution in the surroundings.
- (p) The instances of revision in DC was on account of factors beyond the control of Pragati-III and not on account of any intentional mis-declaration. In this regard, sub-clause No. 18, 19 and 20 under Regulation 6.4 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred to as 'the Indian Electricity Grid Code') which reads as under:
- "18. It shall be incumbent upon the ISGS to declare the plant capabilities faithfully, i.e., according to their best assessment. In case, it is suspected that they have deliberately over/under declared the plant capability contemplating to deviate from the schedules given on the basis of their capability declarations (and thus make money either as undue capacity charge or as the charge for deviations from schedule), the RLDC may ask the ISGS to explain the situation with necessary backup data.*
- 19. The ISGS shall be required to demonstrate the declared capability of its generating station as and when asked by the Regional Load Despatch Centre of the region in which the ISGS is situated. In the event of the ISGS failing to demonstrate the declared capability, the capacity charges due to the generator shall be reduced as a measure of penalty.*
- 20. The quantum of penalty for the first misdeclaration for any duration/block in a day shall be the charges corresponding to two days fixed charges. For the second misdeclaration the penalty shall be equivalent to fixed charges for four days and for subsequent misdeclarations, the penalty shall be multiplied in the geometrical progression over a period of a month."*

Further, Sub- Clause 17 of Regulations 6.4 of the IEGC, 2010 carves out an exception in respect of tripping of a Unit, as under:

"17. While making or revising its declaration of capability, except in case of Run Off the River (with up to three hour pondage) hydro stations, the ISGS shall ensure that the declared capability during peak hours is not less than that during other hours. However,



exception to this rule shall be allowed in case of tripping/re-synchronisation of units as a result of forced outage of units.”

- (q) The averments of the TPDDL were discussed and deliberated and finally denied by a majority decision of OCC/GCC. Pragati-III has been declaring its generation capacity on a day-ahead basis as per the provisions of IEGC and does not revise the DC on real-time basis unless warranted by any operational factor compelling it to do so in order to ensure safe and reliable operation of the machine.
- (r) Article 5.5.3 of the PPA recognizes that ‘in the event that Gas is not supplied to the Seller on account of *force majeure* conditions under the GSA, non-supply of power from the station to the procurer as a consequence shall also be treated as *force majeure* for the purpose of this agreement and the Seller shall be held indemnified from the events, circumstances and consequences thereby arising from non-supply of power to the Procurer’. Thus, the non-supply was on account of a *force majeure* event in terms of the PPA (consequent to the GSA *force majeure*). Pragati-III has also duly kept SLDC informed, as can be verified from the web-scheduling portal, as under:
- i) PPCL had informed SLDC (21-05-18 13:51) regarding the problem of gas supply-pressure at GAIL end, well before PPCL was actually scheduled (21-05-18 18:49) by SLDC at the behest of TPDDL;
- ii) PPCL synchronized its unit (21-05-18 23:50) in accordance with the schedule allotted (from 00 hrs dated 22/05/18) and started generating as per the schedule.
- iii) PPCL intimated SLDC (22-05-18 8:30) about the possibility of shutting down the machine and intimated as under:
- “As per GAIL Bawana telephonic message, they could not able to maintain adequate gas preesure from back end. If required we will either reduce the load on open cycle or shut the machine. This is for your kind information”*
- (s) Thus, the intimation was relayed much prior to the tripping of the machine due to DAVR trouble, and could not be re-started due to insufficiency of fuel-supply pressure to accommodate the running of the additional unit. It was in the above circumstances Pragati-III curtailed its DC, on account of the unavailability of Gas due to the failing pipeline hydraulics of the fuel-supplier - GAIL. The situation faced by Pragati-III was akin to a grid-disturbance in the GAIL-pipeline-grid which supplies fuel-gas to many generators, and continued gas-drawl by the generators in disregard to the decreasing fuel-gas supply pressure would have had a cascading effect analogous to a continuous power-drawl with decreasing electrical-frequency.
- (t) Pragati-III has been generating in accordance with the schedule given by SLDC, as can be inferred from the following data for the May (around the date of 22.5.2018) and June (when Delhi was recording highest-ever power-demand) :

$\sum_{t=0}^{\infty} \frac{1}{r^t}$	Date	Peak SG (MW)	Peak Exp (MW)
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	17.5.2018	722	725
	18.5.2018	595	594
	19.5.2018	534	537
	20.5.2018	450	457
	21.5.2018	570	564
	22.5.2018	680	627
	23.5.2018	570	577
	24.5.2018	680	690
	25.5.2018	500	502
June, 18	18.6.2018	431	455
	19.6.2018	449	473
	20.6.2018	750	778
	21.6.2018	799	830
	22.6.2018	833	859
	23.6.2018	640	630
	24.6.2018	569	595
	25.6.2018	673	700

The above data reflects the technical capability of Pragati-III to meet the peak-demand in accordance with its declared capacity, and confirms that it has not been unethical in declaring its technical capability.

- (t) The operation of any power-plant relies on establishing a sustainable dynamic equilibrium between the energy-transfer in various fluid machines, and the slightest of unforeseen deviations can result into a delay in the achievement of this dynamic equilibrium. It is in case of such contingencies that PPCL is subject to payment of UI Charges/Deviation Settlement Charges. There can be no further penalization to Pragati-III for reasons which are beyond its control.
- (u) A chronology of the events at Pragati-III with details of effective time date and duration along with reasons are as under:

Unit	Start Time	Start Date*	End Time	End date*	Hours.	Outage Type	Log book / Remarks Reason
GT#3+1/2 STG#2	07:30	18.1.2019	14:23	18.1.2019	6.88	Forced	Machine tripped/unloaded on High DP
GT#4 + 1/2 STG#2	08:30	18.1.2019	12:15	18.1.2019	3.75	Forced	Machine taken-out from DC.
GT#1 + 1/2 STG#1	04:21	21.1.2019	16:16	21.1.2019	11.93	Forced	Machine tripped/unloaded on High DP
GT#4 +1/2 STG#2	13:30	21.1.2019	14:10	21.1.2019	0.67	Forced	Unit tripped on AVR fault.

The review of the reasons of tripping as given above indicates that the trippings have taken place in early morning hours because of the increase in differential pressure across inlet air filter due to choking on account of accumulated dirt, dust and instant smog. Apart from above, there was a tripping in day time for around at 13:30 hours and remained up to 40 minutes due to problem in automatic voltage regulator of generator.



- (v) TPDDL is making unsubstantiated averment that Pragati-III arbitrarily increased its DC on 6.2.2019. If TPDDL suspected that Pragati-III was not in a position to generate upto the DC, then it could have requisitioned excess power and/or ought to have instructed Pragati-III to demonstrate its DC, as provided under the IEGC Regulations. On the days leading to 6.2.2019, Pragati-III had reduced its DC to as little as 'zero' on account of high air-inlet DP with the onslaught of chilly weather to undertake possible remedial actions and only increased the DC on 6.2.2019, after ascertaining the capability of the machine(s) by actual operation / synchronization of the machine. Pragati-III actually incurred the loss of fuel but went ahead with the actual assessment before declaring capacity. Once the assessment of the machine behavior under prevalent conditions was established, the capacity of similar machines was declared available, with a fair margin. Therefore, it cannot be construed as a mis-declaration.
- (w) On 12.2.2019, in line with the generation requisitioned for at 08:00 hrs, Pragati-III had synchronized its GT at 06:35 hrs and the associated steam turbine at 06:43 hrs. The Units were ramped up precisely under a cold start to reach the threshold of 130 MW by 07:45hrs. Thereupon, a changeover of Combustion-mode from piloted-premix to Premix is effected. Unfortunately, the gas turbine tripped on "Loss of flame" during this combustion mode transfer when the successful crossover of the same would have reached the desired level of generation called for at 08:00 hrs. The General Electric (GE) Frame 9FA machine Units are all equipped with DLN 2+ combustors which are tuned precisely so as to consume as little fuel as possible in order to maintain the high efficiency, and there is no means to actually assess beforehand that a smooth transition of combustion-mode would not occur leading to a lean-blow-out.
- (x) The averment that Pragati-III could not generate as per the requisition is totally uncalled-for. Further, Pragati-III was actually called upon to demonstrate its capability by SLDC, without the slightest notice on 23.10.2018, where in it successfully demonstrated its capability to meet the schedule. It is re-iterated that the IEGC, 2010 contemplates revision of the DC on account of tripping of the Unit.
- (y) It is a matter of record that in response to the SLDC letters dated 5.2.2019 and 12.3.2019, a meeting was held on 13.3.2019 wherein, the allegations raised by TPDDL were deliberated and a decision was taken. The submission of TPDDL during the said meeting are as under:

"3. TPDDL raised the issue of availability of Bawana in the previous four months which was 80%, 90%, 91% and 35% respectively during the month of November 2018, December 2018, January 2019 and February 2019. It was questioned that since the pollution level is same from November to February, so how come there is a drastic decrease in availability for the month of February 2019.

CCGT Bawana explained that due to prolonged winter, the situation got worst in the month of February 2019 and due to alarming DP level, they had reduced the DC during night till 11.00hrs in the morning. Due to this, there was a sharp decrease in DC for the month of February 2019. It is also clarified that during the month of March 2019 with the cleaning of weather, Bawana is regularly declaring its availability around 900MW.



4. TPDDL submitted that keeping in view the expected high demand in ensuing summer, the reliability of Bawana is of utmost important for providing 24X7 uninterrupted supply to the consumers of Delhi. As part of testing full schedule shall be provided to CCGT Bawana against the declared capacity for 3 days to ensure the reliable operation of CCGT Bawana. BRPL and BYPL agreed to the proposal of TPDDL. Accordingly, it is decided that on 18, 19 and 20th March 2019 full schedule shall be provided to the CCGT Bawana as per their declared capacity.

CCGT Bawana informed that adequate time as per the OEM shall be provided to CCGT Bawana to start the steam turbine from the cold start which is around 8 hours. It was decided that the schedule shall be provided from 17.03.2019 to CCGT Bawana as per their schedule for attaining the full schedule at 04.00hrs. on 18.03.2019.....”

In response to the above, the Respondent - PPCL submitted as under:

“6. CCGT Bawana raised the issue that some times in spite of availability of power in existing running full module, directions were given by SLDC to bring other half module. SLDC informed that the directions were issued as per the specific request received from DISCOM to make available the half module specifically to meet their requirements. SLDC further informed that the schedule for additional half module is given on spot gas in spite of availability of RLNG gas in the existing running module since the billing is done on the composite rate as provided in real time.”

Further, after detailed deliberation in the meeting, following was decided:

“7. Keeping in view the reliability of supply and gas allocation issue in Delhi, it was proposed that instead of running one full module on MTL of CCGT Bawana, both the module shall be run at MTL on half module mode. It will increase the reliability and operational flexibility. Discoms agreed for the same and it was also informed by them that any cost implication due to above operation shall be borne by them in line with CERC Regulations. CCGT Bawana agreed for the same. Meeting ended with the vote of thanks to the chair...”

- (z) Thus, the allegation of the TPDDL, after being a party and part of decision making in the meeting dated 13.3.2019 chaired by SLDC on the above tripping, ought not be considered.
- (aa) The difference in DC for the months of November/December/January and February, is on account of the filters of the two GTs being changed in the month of November, 2018 thereby, reducing the differential pressure across inlet air filters resulting in increase loading of machines. It lasted for two/ three months until the filters got choked as it takes time for dust and polluting particles to settle on the filters. The above aspects were discussed in the State Level Grid Coordination Meeting on 13.3.2019 wherein the above allegation of TPDDL was discussed at length and in view of the prevailing constraints; it was decided to run both Modules on part load operation. TPDDL and other beneficiaries of the plant agreed to proposal. However, TPDDL is again raising the same issues in the present Petition which have already been discussed, deliberated and agreed upon in the meeting dated 13.3.2019.
- (bb) A list of real time online communication between SLDC and Pragati-III as available on the SLDC portal for the period from 18th-20th March 2019 is placed on record. A review of the communication indicates that there are



selective instances of unit tripping during the period due to inlet air filter problem, which are beyond the control of Pragati-III. The GT-2 tripped at 15:22 hrs due to an internal fault and it was only after getting confirmation message for synchronization at 16:30 hrs from the SLDC that GT-2 was started and synchronized at 16:54 hrs. The gap of 1 hour 32 minutes was on account of the process inherent in the operation of the GT - Declaration of DC, bringing back a Unit after tripping as per the existing provisions of IEGC and state grid code as the grid code allows four-time block of revival of unit and applicability of schedule after declaration. Accordingly, though Pragati-III at 16:38 hrs requested to come on bar, it was allowed to come on bar only at 17:30 hrs even though it had already come on bar at 16:54 hrs. Thus it already came on bar well within four time block of declaration of DC on tripping.

- (cc) On 19.3.2019, GT-1 tripped due to adverse weather condition resulting in an increase in the inlet air differential pressure across filter. This warranted revision of DC which was done as per existing grid code in communication with SLDC available. On 19.3.2019 at 13:07 hrs, STG#2- the master GT tripped on account of transformer-R Phase bushing damage. It was informed to SLDC vide message at 13.40 hrs that it will take 2-3 days for revival of STG-2. This phenomenon is also inherent in any transformer including the TPDDL's distribution business. Thus, revision in DC was due to technical snag in the generating unit which is beyond the control of Pragati-III.
- (dd) Tripping of GT-1 occurred on 20.3.2019 at 22:24 hrs due to an internal fault around 33 hrs after tripping of STG-2 - both are separate and unrelated tripping. Such trippings cannot be taken as indicators that the respondent Pragati-III is not capable of generating power corresponding to DC declared. It is re-iterated that the DC of February, 2019 cannot be linked with the availability of Pragati-III for the previous months of October – December 2018 and January 2019. A new inlet air filter had been installed in November, 2018 which substantially increased the availability. The details are submitted as under:
- i. The filter for the GT was replaced in the 2nd and 3rd week of November 2018 which resulted in a reduced differential pressure across the Gas turbine inlet air filter and hence it could undertake trouble free operation, even in morning hours of peak winter of December 2018 and January 2019;
 - ii. The DC during November, December 2018 and January 2019 were higher as filters were free from dirt and dust. During the month February- March 2019, the existing filter were choked and dust ridden. There were no spare filter available in stock to replace dirty filter and therefore, PPCL was compelled to revise / reduce DC in communication / consultation with SLDC.
- (ee) Thus, the increased Energy Charges are attributable to increased scheduling by TPDDL and other beneficiaries even in open cycle on spot RLNG. Accordingly, on the one hand, TPDDL and other beneficiaries are utilizing the power generated by the Station to meet the demand when



there is shortage of power from outside Delhi, on the other hand, after availing the power even under open cycle and costlier gas, are resorting to allegations of increased cost.

Rejoinder of Petitioner, TPDDL to reply of the Respondent PPCL

6. TPDDL vide its rejoinder dated 1.9.2020 has mainly submitted the following:

- (a) The following issues raised in the present proceedings are:
- i) *Whether there has been mis-declaration of Declared Capacity by Pragati-III?*
 - ii) *Whether Pragati-III was legally and contractually entitled to seek capacity charges from the TPDDL while having mis-declared the DC and/ or not having the actual capability to generate the claimed DC?*
 - iii) *Whether Pragati-III has failed to generate power to the extent mandated for utilisation of the cheaper APM Gas received from the Central Government Allocation?*
 - iv) *Whether the Regional Energy Accounts (in short 'REAs') require to be revised to incorporate the actual availability and not the DC claimed by ?*
 - v) *Whether there has been a breach of material obligations by Pragati-III under the PPA?*
- (b) Pragati-III failed to provide sufficient reasons for not generating power even corresponding to such allocation i.e. minimum capacity of around 430 MW. Undisputedly, the average injection of power by Pragati-III during the said period has been maximum to the extent of 300 MW.
- (c) Pragati-III scheduling and generation has been contrary to the express directions of SLDC, especially those made vide its email dated 13.11.2018. A perusal of the SLDC's e-mail dated 13.11.2018 shows that Pragati-III will generate minimum power corresponding to 400 MW to 450 MW under Combined Cycle mode in line with gas under no cut category and accordingly distribution licensee(s) shall undertake the planning and scheduling of power. Pragati-III has claimed a DC of 600-1200MW (i.e. beyond 400 to 450 MW), however, it has failed to supply power even upto 400MW. This not only prejudices the TPDDL but also causes un-due burden on the consumers.
- (d) The availability of plant was high during the period of April, 2018 to February, 2019 but PLF was low due to less demand in Grid, and the merit order scheduling by the Distribution licenses including TPDDL. Reference is drawn to SLDC's correspondence dated 8.01.2020, where it had stated as under:
- "Sir, As per direction of Hon'ble Supreme Court, gas has been allocated to CCGT Bawana for running minimum of one complete module. You are, therefore, hereby directed to provide the schedule for one module of CCGT Bawana w.e.f. 00:00 hrs. of 10.01.2020."*
- (e) Despite repeated requests and submissions made through the present proceedings, Pragati-III has failed to provide the day wise reasons for running the plant below 430 MW despite having a low cost gas allocation of around 1.56 MMSCMD from 13.11.2018 i.e. date when SLDC directed for synchronization of one full module for utilization of allocated gas for the



Power Station. This only goes to show that the Power Station has been running at a lower capacity than being declared by Pragati-III.

(f) A summary of tripping instances/outages observed during last few days in the month of December 19 and January 2020 are submitted as under :

- i) 16.12.2019: Pragati-III declared its full capacity of 1260 MW from 00:00 hours of 16.12.2019 in combined cycle and only half of the (320MW) module was running. As per SLDC message No. SLDC15122019/02 dated 15.12.2019, it was asked to bring on bar additional half module from 04:00 hours of 16.12.2019. As per CCGT notification on SLDC website at 03:28 Hours of 16.12.2019, Pragati-III synchronized GT #4 at 00:30 Hrs on dated 16.12.2019 and confirmed the MTL of 430 MW from 04:00 Hrs. But again it failed to bring GT#4 and on the same day a message was notified on SLDC website at 04:40 hours mentioning that "Due to some technical problem, GT #4 tripped at 04:38 Hrs." and CCGT, Pragati-III reduced its declared capacity to 920 MW. GT#4 was again synchronized at around 17:05 hours as per message displayed on SLDC website at 17:11 Hrs. of 16.12.2019 "GT#4 is synchronized at 17.05 Hrs for testing and checking". However, it failed again and DC was revised as per message displayed on SLDC website at around 21:41 hours of 16.12.2019 mentioning that "Due to slight problem in our HRSG we are not able to parallel our HRSG. So we are reducing our DC, RDC & MTL temporarily."
- ii) 21.12.2019- It may be noted that from 00:00 hours of 21.12.2019, Pragati-III declared its full capacity of 1260 MW in combined cycle and one full module was running. Pragati-III notified on SLDC website at 17:59 Hrs. that "GT#1 TRIPPED AT 17.51 Hrs. and it will take 2 hours to for revival" hence CCGT reduced its declared capacity to 1000 MW which resulted to loss to the TPDDL to the extent of its share of around 30 MW for that period.
- iii) 28.12.2019: Pragati-III was offering a declared capacity of 1340 MW on 27.12.2019. On the same day GT#1 & STG 1 tripped at 23.19 hours and hence DC reduced to 960 MW from 00:00 Hrs. of 28.12.2019. After 3 hours CCGT notified that GT #1 is available for operation hence lifted up the DC to 1040 MW But due to bus bar problem it again reduced the DC to 480 MW from 06:15 Hrs. to 16:30 Hrs.
- iv) 2.1.2020: From 00:00 hours of 02.01.2020, Pragati-III offered a DC in the range of 1220-1340 MW in combined cycle and only half of the module was running. Thereafter, Pragati-III notified on Delhi SLDC website at 14:59 hours that "GT#2 TRIPPED AT 14.48 Hr" and hence Pragati-III reduced its declared capacity to 1010 MW. The same GT#2 got synchronized at 16:48 hours as per the notification on SLDC website and again the DC was revised to 1340 MW.

(g) The monthly REAs for the period from October 2017 till date may be revised to incorporate the actual Availability based upon the technical capability of the plant considering the instances cited by the TPDDL and the fact that availability of the plant was only 35% in the month of February 2019 and allow adjustment of the already paid excess capacity charges by the TPDDL along with the interest.

Reply of the Respondent SLDC



7. The Respondent No. 2, SLDC vide its reply dated 27.6.2022 has mainly submitted as under:

- (a) SLDC schedules power as per requisition given by the Discoms and DC by the Generator. In *Civil Writ Petition No. 13029 of 1985; M.C. Mehta Vs. Union of India & Ors.* The Hon'ble Supreme Court vide order dated 5.2.2018 has directed that Bawana Plant Unit-I will start functioning in its full capacity. Accordingly SLDC informed all distribution licensees to avail power from Pragati-III as per their allocation for utilization of allocated gas.
- (b) On two separate occasions, the DC of Pragati-III was tested i.e. 30.10.2018 and 18.3.2019 to 20.3.2019 and on both the occasions, mismatch could not be proved. Any deviation from the schedule and actual generation is taken care as per DSM Regulations. The generator is penalized as per the DSM Regulations if they generate less than the schedule.
- (c) SLDC carried out real time verification of DC of Pragati-III on 23.10.2018 and as per record of SLOG it was able to demonstrate the generation schedule as per DC. Real time verification of DC of Pragati-III on 23.10.2018 was also discussed in 20th Grid Coordination Committee meeting held on 28.11.2018 and all stakeholders from Delhi attended the meeting.
- (d) A meeting was held on 13.3.2019 on the issue of real time availability of Pragati-III during summer 2019. This meeting was chaired by ED, SLDC. During the meeting, Pragati-III representative explained the reasons for frequent tripping of units during the winter season. It was decided in the said meeting that on 18, 19 and 20th March, 2019 full schedule shall be provided to the plant as per their DC as a part of test. In the SLDC meeting held on 13.3.2019, following deliberations took place:
 - (i) Pragati-III, in response to low availability informed that there were trippings in the last month which were Forced Shut-down mainly due to severe pollution level in the Bawana area. The filters of generating units got choked due to a combination of fog and dust during winter months due to severe pollution. To avoid any unwarranted situation, the machines were off loaded to maintain the UP level.
 - (ii) Pragati-III further explained that due to prolonged winter, the situation got worst in the month of February 2019 and due to alarming OP level, they had reduced the DC during night till 11.00 hrs in the morning. Due to this, there was a sharp decrease in DC for the month of February 2019. It is also clarified that during the month of March 2019 with the cleaning of weather, Bawana is regularly declaring its availability around 900MW.
 - (iii) TPDDL submitted that keeping in view the expected high demand in ensuing summer, the reliability of Bawana is of utmost important for providing 24X7 uninterrupted supply to the consumers. As part of testing full schedule shall be provided to Pragati-III against the declared capacity for 3 days to ensure the reliable operation. BRPL and BYPL agreed to the proposal of TPDDL. Accordingly, it was



decided that on 18, 19 and 20th March 2019, full schedule shall be provided to the Pragati-III as per their declared capacity.

- (iv) Pragati-III informed that adequate time as per the OEM shall be provided to start the steam turbine from the cold start which is around 8 hours. It was decided that the schedule shall be provided from 17.3.2019 as per their schedule for attaining the full schedule at 04:00hrs, on 18.3.2019.
 - (v) BRPL raised the issue Pragati-III does not maintain time schedule when bringing back the unit tripped earlier, due to which there is utter confusion and huge OD/UD violations. Pragati-III explained that machines are brought subject to machine limitations/ ramp up issues. SLDC advised (Pragati-III) to only give DC of tripped machine after taking in account the OEM parameters.
 - (vi) Pragati-III raised the issue that sometimes in spite of availability of power in existing running full module, directions were given by SLDC to bring other half module. SLDC informed that the directions were issued as per the specific request received from DISCOM to make available the hart module specifically to meet their requirements. SLDC further informed that the schedule for additional half module is given on spot gas in spite of availability of RLNG gas in the existing running module since the billing is done on the composite rate as provided in real time.
 - (vii) Keeping in view the reliability of supply and gas allocation issue in Delhi, it was proposed that instead of running one full module on MTL of Pragati-III both the module shall be run at MTL on half module mode. It will increase the reliability and operational flexibility. Discoms agreed for the same and it was also informed by them that any cost implication due to above operation shall be borne by them in line with CERC Regulations. Pragati-III also agreed for the same.
- (e) It is possible that due to pollution in winters tripping takes place. Real time verification of DC of generating station on 23.10.2018 and 18.3.2019 to 20.3.2019 was again discussed in 21st GCC meeting held on 22.4.2019. The generating station representative explained the reasons for frequent tripping of units during winter season.
- (f) Tripping for generating unit due to technical reason is beyond the control of generator and the same was explained in the meeting held on 13.3.2019 in SLDC.
- (g) In 21st meeting of GCC held on 22.04.2019, a report on real time verification of DC and availability issues in respect of Pragati-III was discussed and following were noted:
- (i) Real rime verification was carried out on 23.10.2018, after a number of incidents of Tripping.
 - (ii) Subsequently, during the winter months of December, January and February, also a large number of trippings of units were observed, alongwith frequent reduction in the DC. This happened mainly during early morning hours.



- (iii) Pragati-III informed that their machines are sensitive to weather conditions and during extreme foggy/polluted conditions, are unable to perform to capacity, for which they have taken up with their OEM for early resolution. As per request of Discoms, full availability testing was carried out from 18.3.2019 to 20.03.2019. During this period, even though plant could reach upto 1160 MW (its DC at that time) for few hours but soon after due to its various reasons, it revised the DC frequently giving an average DC of approx. 700MW.
- (iv) Discoms have represented on this issue and requested Pragati-III to reduce it's DC accordingly for the winter months.
- (v) The issue was discussed in detail wherein Pragati-III representative confirmed that suitable filter have been replaced on their machines and assured GCC that the frequent trippings during last winter season shall not be repeated in the next winter season. GCC noted the same.

Hearing dated 28.6.2022

8. The Commission after hearing the learned counsel for the parties on 28.6.2022, directed the Respondent, PPCL to file the following information after serving copy to the Petitioner:

(a) Day-wise availability declared on day ahead basis, total power scheduled on day ahead basis, revision in availability along with reasons and actual power supplied during the period between March, 2018 to March, 2019 along with the supporting documents.

(b) All the instances wherein actual generation is more than 450 MW during the period between March, 2018 to March, 2019 along with supporting documents.

(c) Details of events wherein, the actual generation was lower than schedule given by SLDC along with the reasons for each of such incident during the period between March, 2018 to March, 2019 along with the supporting documents.

(d) Details of events wherein, the upward revision in declared availability after the scheduling is done on the day ahead basis by the SLDC, Delhi, along with the reasons for each of such upward revision.

(e) Information regarding replacement of air filters from April, 2019 to till date and tripping of units due to choking of air filters thereof.

9. The Commission also directed the Petitioner to submit all the instances after April, 2019, wherein the energy supplied is lower than schedule given by SLDC and the reasons for each such event. In response, the Respondent PPCL has filed the required additional information on 7.9.2022.

Rejoinder of TPDDL to the reply of the Respondent SLDC



10. TPDDL vide its rejoinder dated 1.9.2022 to the reply of the Respondent SLDC has mainly submitted as under:

- (a) The submission of SLDC that it carried out the real time verification of DC of Pragati-III and as per its records, Pragati-III was able to demonstrate the generation schedule as per DC is factually incorrect and contradictory to the admitted case of Pragati-III as well as its own. The minutes of GCC meeting dated 28.11.2018 did not have clear finding which would indicate that Pragati-III has demonstrated its availability as per DC. It is also not explicit in the said minutes of the meeting that if any report or its finding was submitted to the DERC. In the absence of such details / information, SLDC's contention that Pragati-III was able to demonstrate the generation schedule as per DC is unacceptable.
- (b) It is not correct to state that Pragati-III is a State generating station. The station is Inter-state generating station as it is supplying power to Delhi as well as the State of Haryana. Therefore, the scheduling and dispatch of this generating station should be governed by the provisions of the IEGC.
- (c) As per para. 5.8.7 of the Availability Based Tariff (ABT) Order dated 4.1.2000, an additional responsibility on RLDC (in this case on SLDC) is to keep a close watch on any frequent revision of availability, which can be an act of gaming (gaming is an intentional mis-declaration of a parameter related to commercial mechanism in vogue, in order to make an undue commercial gain). Notably, Regulation 6.4 of IEGC has mandated the Northern Region Load Despatch Centre (Respondent No. 9) which is the RLDC to monitor the DC of an inter-state generating station. The Load Despatch Centre of a control area is responsible for coordinating the scheduling of a generating station, within the control area, real-time monitoring of the station's operation, checking that there is no gaming in its availability declaration, or in any other way revision of availability declaration and injection schedule, switching instructions, metering and energy accounting, issuance of UI accounts within the control area, collections / disbursement of UI payments, outage planning, etc. SLDC is a statutory body and is under an obligation to perform its assigned duties in line with provisions of IEGC and Orders of this Commission in an impartial manner. However, it so appears that SLDC has failed to perform its duties in an impartial manner, and such conduct of SLDC is liable to be rejected.
- (d) It can be seen that for one of the cited reasons, Pragati-III has stated that due to heavy smog/pollution levels, the combined cycle gas power plant could not achieve the desired availability. While the plant availability was in the range of 80%, 90% and 91% in November 2018, December 2018 and January 2019 respectively, the availability in February 2019 was mere



35%. This requires clarification, especially considering that the pollution level during the month of November, 2018 and December, 2018 was considerably higher than February, 2019. SLDC has not verified the said information / data, which, it is required to do in order to ascertain the issue of misdeclaration. It is a settled law that where a person for reasons attributable to itself and within its control is unable to comply either with the legal or contractual obligations, such person has to be penalised legally and contractually.

- (e) A few relevant instances are being presented below to demonstrate the inability of Pragati-III to operate during morning hours:

Sr. No.	Date - Time	Remarks
1.	4.3.2019 07:13	Due to bad weather GT#3 de-synchronised. Accordingly, DC was revised to 390 MW (130 OCNG + 260 CCRLNG) for 4.3.2019
2.	2.3.2019 05:39	GT#1 was de-synchronised due to bad weather condition.
3.	1.3.2019 06:09	Due to bad weather GT#2 de-synchronised. Accordingly, DC was revised to 390 MW (130 OCNG + 260 CCRLNG) for 1.3.19 from 06.45 Hrs. to 09:00 Hrs.
4.	28.2.2019 06:07	Due to bad weather GT#1 de-synchronised. Accordingly, DC was revised to 260 MW (OCRLNG) for 28.2.2019.
5.	26.2.2019 23:12	Due to bad weather GT#2 de-synchronised. Accordingly, DC was revised to 390 MW (130 MW CCNG + 260 MW OCRLNG) for 26.2.2019.

- (f) SLDC has chosen not to evaluate these instances and has proceeded to state that Pragati-III has been able to demonstrate availability as per DC and has failed in due discharge of its assigned duties. Pragati-III has sought to place the blame for its own shortcomings on either bad weather or severe pollution. Even if the reasons on the pretext of which Pragati-III has sought to justify the frequent tripping are to be considered, SLDC ought to devise a mechanism / methodology for ensuring that DC is as per its actual availability. It cannot possibly be either SLDC or Pragati-III case that TPDDL be liable to pay the capacity charges, even if there is no availability.

Hearing dated 27.9.2022

10. The matter was heard on 27.9.2022 and parties were directed to file the following additional information:

Respondent PPCL:

(a) *The instances of choking of subject filter, in the past;*

(b) *The number of spare filters maintained at the site and preventive maintenance actions taken to address the issue during the period of dispute;*



(c) In case of no spare filter has been maintained, the reasons for the same; as air pollution being a pertinent problem during winter seasons in and around the power plant.

Respondent SLDC:

(a) Instances of directing the Respondent PPCL to demonstrate its full declared capacity and the report thereof during the period between October, 2017 to March, 2019

11. In response, the Respondent SLDC on 27.10.2022 has reiterated its submissions as made in its reply in para 7 above. However, the Respondent PPCL on 1.11.2022 has filed the additional information and has submitted the following: .

(a) The choking of filters of Gas Turbine is a gradual process. The life of GT inlet air filters depends mainly upon the ambient/ environmental conditions and on the running hours of Gas Turbines. The average life of filters is approximately one year from the date of installation. However, the life of the filters also depends upon ambient/ environmental conditions and on running hours of Gas Turbines. Generally temporary choking of filter due to smog is a regular phenomenon in the winter months of January when there is heavy smog. Filters which have been replaced during February – October have been so because of choking in winter if same are used for GT operation. Therefore, filters are replaced in winter season to harvest maximum benefit. The details of choking of subject filters in the past is placed on record.

(b) Pragati-III had replaced filters in the Gas Turbine No. 1 in the month of April 2018 and had there after replaced the filters in the Gas Turbine No. 2 in the month of June 2018. It had also placed purchase order for procurement of 04 sets of Gas Turbine Filters in the month of October 2018. The supplied filters against the said purchase order were received in the months of October 2018 and December 2018 and installed in Gas Turbines in the months of November 2018 and December 2018. Pragati-III has maintained sufficient stock of filters to cater to the problem of high differential pressure across the GT Filters and for smooth operation of Gas Turbines taking into consideration the increasing pollution during the winter season. However, rise in DP due to sudden smog / fog is a temporary phenomenon and cannot be controlled by any measure. Thus, Pragati-III has replaced the choked filters with a new set of Inlet Air Filters and has also taken up the external cleaning activity of GT Inlet Air Filters to address the issue of pollution during the winter season.

(c) Though Pragati-III had maintained the stock of spare filters, however the filters so installed were not able to sustain unexpected smog / fog. During the time of winter weather conditions, there is heavy fog / smog in Delhi and NCR. The Generating Station lies in the NCT of Delhi and therefore faced such extreme conditions. Hence, the severe pollution caused high differential pressure across the GT Inlet Air Filters which in turn lead to frequent tripping of Gas Turbines in the mentioned period.

(d) During the period from November 2018 to March 2019, the winter season was ensuing and the practice of paddy stubble burning (which is undertaken during the same months) in the neighboring states of Punjab and Haryana in the months of October, November, and December 2018 had significantly added to the pollution level in the NCT of Delhi. The pollution levels were at their peak and was categorized as severe.



(e) The smog had formed in and around Delhi and was not dispersing and persisted in the area for a long time due to low wind velocity in the winter months. The prolonged winter during that time period along with high concentration of pollutants/ hydro carbons especially due to the phenomenon of paddy stubble burning in neighboring states viz. Punjab and Haryana in October, November, and December 2018 and close vicinity of a waste to energy plant to the Generating Station resulted in the formation of an impermeable layer on the surface of GT Inlet Air Filters. This resulted in higher and rapid increase in differential pressure across GT Inlet Air Filters and thus tripping of Gas Turbines during foggy weather, especially during night/ early morning hours. However, on drifting away of smog due to wind and sunny hours the differential pressure across the filters tends to come down drastically. Therefore, due to no pollution resulting out of paddy stubble burning, smog and fog the same set of filters survived during the summer months wherein the Gas Turbines ran smoothly.

(f) All efforts were made to resolve the issue of high differential pressure across the GT Inlet Air Filters and matter had also been taken up with filter manufacturer and GE, the OEM of Gas Turbines who also echoed the position similar to PPCL. Moreover, external air cleaning of GT Inlet Air Filters was also carried out. However, the external air cleaning could not dislodge the heavy metal particles which had already entered the inner layer of very fine GT Inlet Air Filters due to ingress of moisture and pollutants. Pragati-III had taken up the work of replacement of GT inlet air filters in the months of April, June, November, and December 2018 so as to run the Gas Turbines smoothly. However, due to the prevailing extreme pollution and weather conditions, the Generating Station was unable to run smoothly and Gas Turbines were tripped on account high pressure differential across the GT inlet Air Filters.

(g) Pragati-III has made all efforts to ensure uninterrupted supply of electricity to the grid but was unable to do so during some instances of November 2018 to March 2019 due to reasons beyond its control, for which it has already been penalized by paying DSM charges. Accordingly, there is no loss to beneficiaries and the answering Respondent has also bear loss of availability during such periods of breakdowns. It is pertinent to mention here that such similar situation has never arisen after 2018 and the generating station has in fact been operating at full capacity during coal crisis and has also supported the Delhi grid during October 2021 and April 2022. This was one of the few isolated cases. PPCL had maintained sufficient stock of GT inlet filters and had also replaced the filters to resolve the problem of tripping of Gas Turbines on high differential pressure across Gas Turbine Filter

Hearing dated 29.11.2022

12. The matter was heard on 29.11.2022 and the Commission after directing the Respondent PPCL to file certain additional information, granted liberty to the parties to file their replies/rejoinders/written submissions and accordingly reserved its order in the petition.

Additional submissions of the Respondent PPCL



13. In compliance to the directions of the Commission (vide ROP dated 27.11.2022), the Respondent PPCL while reiterating its earlier submissions has additionally submitted the following on 13.1.2023.

- (a) Schedule given by SLDC, Delhi based on the requisition of TPDDL and other DISCOMs was not commensurate with the Plant's full capacity, however, there have been several instances when Pragati-III had generated up to its full capacity. On 30.4.2022, it generated 1033 MW (Gross)/1002 MW (Ex-bus) against the 1000 MW schedule given by SLDC, Delhi. Further on 6.10.2021, it generated 1267 MW (Gross) against schedule of 1240 MW given by SLDC, Delhi. Similarly, on 7.10.2021 and 8.10.2021 Pragati-III generated in the range of 1242 MW (Gross) against given schedule of 1212 MW. Pragati-III has been generating as per schedule given by SLDC, Delhi which is in turn based on requisition given by TPDDL and other Discoms from time to time and the plant is capable of generating up to its full capacity. TPDDL is pinpointing to isolated incidents of forced outages which arose due to reasons beyond the control of Pragati-III. Further, there are sufficient provisions in the IEGC and the DSM Regulations 2014, a generating station is subject to penalties in the form of hefty deviation charges on account of deviation from schedule. Pragati-III has adhered to given schedule and has also generated more than scheduled power on grid demand on various occasions in October 2021 and April 2022.
- (b) PPCL has been generating power strictly as per the schedule given by SLDC Delhi which is in turn based on the requisitions raised by Petitioner and other DISCOMs from time to time. Complete data of the period between March, 2017 to March, 2018 has been placed on record. For ease of analysis an additional column evidencing the difference between actual generation and schedule generation has also been added in the data. There has not been even a single instance where the actual generation is significantly lower than the allowed limit as per DSM Regulations, 2014, against the schedule generation. There have been instances where Pragati-III has been given schedule of more than 500 MW and adhered to the said schedule. It is not the case that Pragati-III has declared its capacity erratically and knowingly to avail and claim availability and fixed cost. Pragati-III has declared lesser than the full capacity and even zero capacity at times only on account of different technical difficulties and/or planned shut downs. Contrary to the allegations levelled by the TPDDL, capability of Pragati-III cannot be adversely judged based on selective isolated incidents of forced outages which were caused due to reasons beyond its control.
- (c) On the insistence of Petitioner, SLDC Delhi has tested the Declared Capacity of the PPCL on two occasions i.e., on 23.10.2018 and 18.03.2019-20.03.2019. On the first instance, SLDC Delhi carried out real time verification of Declared Capacity on 23.10.2018 from 10:00 hrs. and the data related to such period of testing for each time block of 15 minutes is already placed by SLDC, Delhi in its reply dated 17.10.2022 in response to RoP dated 27.9.2022. The same is again submitted herein for ease of reference of this Commission.



- (d) From the generation data of each time block of 15 minutes certified by SLDC, Delhi it is evident that PPCL was given schedule from 430 MW to 860 MW against which PPS-III Bawana generated up to 877 MW and therefore there is no mismatch in the capability and declaration of PPCL's PPS-III Bawana station. SLDC, Delhi in its reply dated 24.06.2022 has also verified that no mismatch could be proved in the test and as per record of SLDC, Delhi, CCGT Bawana generating station was able to demonstrate the generation schedule as per Declared Capacity. Further the issue was discussed in the 20th Grid Coordination Committee (hereinafter being referred to as "GCC") meeting held on 28.11.2018 wherein all stakeholders including Petitioner were present. It is reiterated that any deviation from the schedule and actual generation is taken care of by the DSM Regulations, 2014, whereby the generator is penalized if it generates lesser than the schedule. Further, any revision in the schedule on account of any technical difficulty of generator is applicable only from the 7th time block as per the Indian Electricity Grid Code Regulations 2010, for such duration till when the schedule is not revised, the generator is already liable to pay hefty deviation charges under DSM Regulations 2014.
- (e) The second incident when SLDC, Delhi carried out real time verification of Declared Capacity was from 18.03.2019 to 20.03.2019. The generation data relating to the period of testing for each time block of 15 minutes is already placed by SLDC, Delhi in its reply dated 17.10.2022 in response to RoP dated 27.9.2022. The same is again submitted as Annexure E for ease of reference of this Hon'ble Commission. It is evident from the generation data of each time block of 15 minutes as certified by SLDC, Delhi that PPCL was given increasing schedule from 500 MW to 1120 MW on 18.03.2019 against which PPS-III Bawana generated up to 1123 MW. It is pertinent to mention here that on 18.03.2019, all six (6) units of PPS-III Bawana (4 GTs and 2 STGs) were running and therefore there is no mismatch in the capability and declaration of PPCL's station.
- (f) Further on 19.03.2019, till 5:30 AM, PPS-III generated up to 872 MW against the schedule given of 867 MW. However, due to adverse weather conditions, PPS-III had to stop GT #1 and revise its Declared Capacity, Running Declared Capacity (RDC) and Minimum Technical Limit (MTL). It is relevant to note here that GT #1 was started again at 11:15 AM, the very next day when the weather conditions improved. However, on the second day of testing at around 1:15 PM unfortunately STG-2 Transformer R-Phase Bushing got damaged and immediately, such damage was informed to SLDC, Delhi and thereafter, the Declared Capacity was revised. It is important to mention here that such an electrical fault is not common and the generator incurs heavy losses on account of such electrical faults. Such fault is not even predictable and therefore, PPCL took up the matter with the OEM i.e., BHEL very persuasively. Despite the fact that failure of STG Transformer was clearly beyond the control of PPCL, PPCL incurred heavy loss of availability and generation apart from penalty under DSM Regulations 2014. Such a fault in STG Transformer was a) beyond control of PPCL, b) not present before as STG #2 was running up to 215 MW the previous day and c) even not predictable and thus cannot be the basis for Petitioner to state or claim that PPCL had mis declared its Declared Capacity/Availability.



Further, throughout the second day PPS-III generated corresponding to its Declared Capacity/ and Schedule and there was no mismatch.

- (g) On the third day of testing i.e., on 20.03.2019, PPCL declared capacity up to 900 MW due to non-availability of STG #2 and was given maximum schedule of up to 856 MW and generated up to 858 MW with all other 5 units available. From the generation data of all 15 minutes time blocks, it is clear that more than 99% of the time PPCL generated corresponding to its schedule and there was no misdeclaration of Declared Capacity/Availability. SLDC, Delhi has also stated in its reply dated 24.06.2022 that no mismatch could be proved in the test and that as per record of SLDC, the generating station was able to demonstrate the generation schedule as per Declared Capacity. This issue was also deliberated in the 21st GCC meeting held on 22.04.2019 wherein it was alleged that though PPS-III Bawana did reach to 1160 MW corresponding to its DC but soon after it revised its DC due to various reasons. In response to such allegations, PPCL had given detailed reasons for revision in DC and/or deviation in generation schedule which was duly accepted by members /chairman of GCC meeting. Copy of minutes of the GCC meeting dated is attached herewith.
- (h) Any deviation from the schedule and actual generation is taken care of by the DSM Regulations, 2014, where the generator is in any manner penalized if it generates lesser than the schedule. Further, any revision in schedule on account of any technical difficulty of the generator is applicable only from the 7th time block as per the IEGC. For such duration, till when the schedule is not revised, the generator is already liable to pay hefty deviation charges under DSM Regulations 2014. Pragati-III had demonstrated its capacity in the first testing done on 23.10.2018 and in the second testing done on 18.3.2019 to 20.3.2019. During the period of testing, PPCL was compelled to revise its DC due to non-availability of STG #2 on account of transformer failure which it has already clarified that it had to incur heavy loss in terms of DSM charges as well as loss of availability. SLDC, Delhi which is a statutory body to ensure integrated operation of the power system in Delhi has already tested the real time verification of availability of Pragati-III two times and has not found any mismatch or misdeclaration.

Rejoinder by Petitioner TPDDL to additional submissions of the Respondent PPCL

14. TPDDL vide its rejoinder dated 2.3.2023 (to the additional submissions of PPCL)

has mainly submitted as under:

- (a) The information submitted by Pragati-III pertains to the period of October 2021 and April, 2022. Pragati-III has provided the information w.r.t. DC for the days when the scheduled generation meets DC. Pragati-III has not provided any reasoning / justification for the instances of mis-declaration in 2018 and 2019, when it could not generate power as per the DC. Notably, even in December 2022, Pragati-III failed to meet the schedule given by the TPDDL on 19.12.2022 and 20.12.2022, details of which are set out in the table below:



Date	Tripping Time	Reason	Comment
19.12.2022	03:54 Hrs.	Dense Fog	GT Tripped A/W STG
20.12.2022	03:36 Hrs.	Internal Fault	STG Tripped and GT was running in open cycle
	17:56 Hrs.	Internal Fault	GT Tripped A/W STG

- (b) TPDDL vide its letter dated 11.10.2017 issued to SLDC highlighted that Pragati-III notified DC of 440 MW which was revised to 70 MW and further, requested to devise a suitable methodology to ensure that the dispatch of the generating stations should match with the DC of the station. However, no action was taken by the SLDC. The TPDDL vide its letter dated 7.11.2017 brought to the notice of SLDC regarding the revision of DC from 420 MW to 280 MW. The TPDDL vide letter dated 24.5.2018 brought to the notice of SLDC the revision of DC from 820 MW to 680 MW post scheduling of power by the TPDDL.
- (c) The issue of mis-declaration of DC continued and again. TPDDL vide its letter dated 26.9.2018 highlighted the issue to SLDC wherein DC was revised from 1250 MW to 930 MW. Further, on 18.1.2019 and 21.1.2019, PPCL claimed availability but later it was revised downwards. Thereafter, the TPDDL on 21.1.2019 issued a letter to SLDC informing them of the mis-declaration of Declared Capacity and further, requested to investigate this issue of mis-declaration and take appropriate action as per Clause 32.2 of the Delhi Electricity Regulatory Commission (State Grid Code) Regulations, 2008. On 6.2.2019 and 12.2.2019, PPCL revised its DC and consequently, TPDDL vide its letter dated 15.2.2019 informed SLDC regarding the same.
- (d) SLDC vide its letter 5.2.2019 had directed PPCL to submit a detailed report on tripping with reasons, however, PPCL did not issue any response to the said letter. Thereafter, SLDC issued a reminder letter dated 12.3.2019 to PPCL under section 33(1) of the 2003 Act.
- (e) On 13.3.2019, a meeting was organized by SLDC to ascertain the reasons of frequent tripping by PPCL. In the meeting, Pragati-III submitted/informed that the tripping was mainly due to severe pollution level in the Pragati-III. The monthly availability claims from November 2018 to February 2019 of the winter months are set out below:

Month	Availability claimed by PPCL
November 2018	80%
December 2018	92%
January 2019	91%
February 2019	35%

- (f) On 13.3.2019, SLDC in the meeting directed PPCL to run on its full DC on 18th 19th & 20th March 2019. However, during the days of testing, PPCL could not sustain full DC and the same was revised in the range as under:

Date	Weighted Average Declared Capacity in MW
17.3.2019	1033
18.3.2019	1016
19.3.2019	740



- (g) From the perusal of the above, it is evident that an average DC of 815 MW was found on the days of testing, as against the claimed DC of 1033 MW a day prior to testing. Therefore, it clearly indicates that the PPCL could achieve only 79% of its availability. In the light of above facts, kind attention of the Commission is drawn to the excerpts of the Historic Availability Based Tariff (ABT) Order dated 4.01.2000 with regard to capacity declaration and gaming possibilities.

Analysis and Decision

15. Considering the submissions of the parties and the documents on record, the issues which emerge for consideration are as under:

(A) Whether Respondent PPCL has committed any mis-declaration in view of the testing reports and various instances as highlighted by TPDDL?

(B) In case issue (A) above, is answered in the affirmative, then the consideration of the prayers (b) to (f) of the Petitioner in para 1 above.

We examine the above issues in the subsequent paragraphs.

Issue (A) : Whether Respondent PPCL has committed any mis-declaration in view of the testing reports and various instances as highlighted by the TPDDL.

16. The Petitioner in support of its claim of mis-declaration by generator has submitted that as per SLDC's e-mail dated 13.11.2018, Pragati-III was required to generate minimum power corresponding to 400 MW to 450 MW under Combined Cycle mode in line with gas under no cut category and accordingly distribution licensee(s) shall undertake the planning and scheduling of power accordingly. It has stated that on numerous occasions when Respondent PPCL has claimed a DC 600-1200MW (i.e. beyond 400 to 450 MW), it has failed to supply power even up to 400MW. This not only prejudices the Petitioner but also causes un-due burden on the consumers of National Capital Territory of Delhi. The Petitioner has also set out the various instances whereby Respondent PPCL has failed to supply power despite claiming a higher DC. Pragati-III has claimed a higher DC and enjoying the benefits of fixed charges, it is technically not able to generate power in proportion to the DC



despite having gas allocated under no-cut category. It is evident that Pragati-III has failed to generate power for the capacity it has been committed gas supply on no-cut basis by the Government of India. The Petitioner has stated that it has on several occasions informed the SLDC on the issue of mis-declaration of DC by Pragati-III which has been persistent since 2017. The Petitioner further furnished that it can be demonstrated that an average DC of 815 MW was found on the days of testing of 18th to 20th March'2019 as against claimed DC of 1033 MW a day prior to testing. This shows that the plant could achieve only 79% of its availability claims even after being informed 5 clear days prior to testing. It can be construed from the testing that the availability claims of the plants for the past period are incorrect and need to be reduced as per above test results by 21%. The Petitioner being aggrieved by the continuous mis-declaration of declared capacity by the Respondent PPCL and the inaction of the SLDC, is constrained to invoke Section 79(1)(f) & 79(1)(c) read with other relevant sections of the Act and relevant regulations of the Indian Electricity Grid Code, 2010. Section 10 of the Act mandates a generating company to comply with the provisions of the Act, rules and the regulations made there under. In effect, a generating company is obligated to declare its actual declared capacity and a mis-declaration of the declared capacity is a violation of the provisions of the Act.

17. In response, the Respondent PPCL has clarified and furnished that the details of the actual Generation with respect to the Scheduled Generation for each of the instances referred to by the Petitioner as under:

Date	Time block	PPPS-iii DC (range) in MW in cc	Average injection schedule in mw (combine cycle Average)	Total schedule generation (mu) to be generated by PPS-iii as per SLDC for the given time period	Actual generation (on sent out basis by PPS-iii Bawana) for the given time period	Ui energy	% of actual generation w.r.t to schedule given by SLDC on the requisition of discoms



		Min	Max					
6/11/18	00:00 - 24:00	250	880	228	5.481923	5.418886	-0.063037	98.85%
7/11/18	00:00-00:15	1050	1100	210	0.060000	0.053963	-0.006037	89.94%
8/11/18	00:00 - 24:00	1050	1100	210	5.040511	4.980492	-0.060019	98.81%
10/11/18	00:00 - 24:00	1050	1100	217	5.208407	5.127969	-0.080438	98.46%
11/11/18	00:00 - 24:00	1050	1100	227	5.439278	5.331573	-0.107704	98.02%
12/11/18	00:00-10:00	1000	1075	219	2.376104	2.346776	-0.029328	98.77%
17/11/18	21:00-24:00	845	845	242	2.445312	2.476165	0.030853	101.26%
18/11/18	00:00 - 24:00	845	1100	255	6.114546	6.078213	-0.036332	99.41%
19/11/18	00:00 - 24:00	855	1140	234	8.130582	8.030740	-0.099842	98.77%
20/11/18	00:00-00:45	1070	1070	324	0.250315	0.259854	0.009539	103.81%
7/12/18	21:00-24:00	940	940	234	0.701648	0.718563	0.016915	102.41%
8/12/18	00:00 - 07:00	840	900	231	1.659124	1.676627	0.017503	101.05%
15/12/18	20:45-24:00	940	1275	245	0.797652	0.791092	-0.006560	99.18%
16/12/18	00:00 - 06:00	1200	1260	235	1.411296	1.408598	-0.002698	99.81%
19/12/18	00:00 - 12:00	880	1300	290	3.515976	3.568453	0.052477	101.49%
20/12/18	00:00-00:15	850	1280	292	0.078804	0.087964	0.009160	111.62%
21/12/18	00:00-04:00	960	1280	360	1.383828	1.406964	0.023136	101.67%
22/12/18	00:30-13:45	980	1300	295	4.002008	4.063098	0.061090	101.53%
23/12/18	00:00 - 13:00	620	1300	274	3.686128	3.694755	0.008627	100.23%
3/01/19	20:45-24:00	960	960	279	0.956608	0.883527	-0.073081	92.36%
4/01/19	01:00-10:30	960	1340	259	2.614792	2.832507	0.217715	108.33%
8/02/19	00:00 - 24:00	800	800	-6	-0.133500	-0.163932		No Schedule given
10/02/19	00:00 - 24:00	800	1000	-6	-0.114500	-0.141448		No Schedule given
12/02/19	14:15-24:00	750	1000	200	1.950000	1.935238	-0.014762	99.24%



15/02/19	17:00-21:30	320	750	247	1.111568	1.118621	0.007053	100.63%
25/02/19	14:30-20:30	400	400	197	1.182504	1.138639	-0.043865	96.29%
28/02/19	15:45-24:00	450	640	181	1.556900	1.483745	-0.073155	95.30%
1/03/19	00:00 - 24:00	400	900	220	3.588203	3.501334	-0.086869	97.58%
2/03/19	00:00 - 24:00	660	800	200	3.308054	3.372032	0.063978	101.93%
3/03/19	00:00 - 24:00	660	800	200	4.793900	4.732038	-0.061862	98.71%
4/03/19	00:00 - 24:00	260	800	125	3.146056	3.091241	-0.054815	98.26%
5/03/19	00:00 - 24:00	580	900	200	4.810900	4.691457	-0.119443	97.52%
6/03/19	00:00 - 24:00	660	900	203	4.883450	4.764532	-0.118918	97.56%
7/03/19	00:00 - 24:00	660	900	206	4.944100	4.825775	-0.118325	97.61%
8/03/19	00:00 - 24:00	660	900	208	5.000400	4.889599	-0.110801	97.78%
9/03/19	00:00 - 24:00	660	900	205	4.928040	4.902419	-0.025621	99.48%

18. PPCL has stated that it has been able to substantially generate power to the extent scheduled by the Procurers. To the extent of the shortfall/excess, PPCL has paid the UI Charges. The revision in DC from 440 to 70 MW on the cited date i.e. 11.10.2017 was on account of a technical snag in the Gas Turbine GT-3 Gas Heating System, which was ON BAR in Open cycle and for reasons beyond the control of the PPCL. Accordingly, PPCL immediately revised its Declared Capacity for the subsequent 15 mins time block. The Indian Electricity Grid Code, 2010 recognizes revision of declared capacity. A chronology of the events at the PPCL Power Plant with details of effective time date and duration along with reasons as furnished by generator is under:



Unit	Start Time	Start Date*	End Time	End date*	Hours.	Outage Type	Log book / Remarks Reason
GT#3+1/2 STG#2	07:30	18/01/2019	14:23	18/01/2019	6.88	Forced	Machine tripped/unloaded on High DP
GT#4 + 1/2 STG#2	08:30	18/01/2019	12:15	18/01/2019	3.75	Forced	Machine taken-out from DC.
GT#1 + 1/2 STG#1	04:21	21/01/2019	16:16	21/01/2019	11.93	Forced	Machine tripped/unloaded on High DP
GT#4 +1/2 STG#2	13:30	21/01/2019	14:10	21/01/2019	0.67	Forced	Unit tripped on AVR fault.

19. The review of the reasons of tripping as given above indicate that the trippings have taken place in early morning hours because of the increase in differential pressure across inlet air filter due to choking on account of accumulated dirt, dust and instant smog. Apart from above, PPCL has stated that there was tripping in day time around at 13:30hours and remained up to 40 minutes due to problem in automatic voltage regulator of generator.

20. SLDC vide its reply 27.6.2022 has confirmed that on two separate occasions the declared capacity was tested i.e. 30.10.2018 and 18.03.2019 to 20.03.2019 and on both the occasion misdeclaration could not be proved. Any deviation from the schedule and actual generation is taken care as per DSM regulation. It has pointed out that a generator is penalized as per DSM Regulations if they generate less than the schedule. Further, real time verification of DC of CCGT Bawana generating station on 30.10.2018 and 18.03.2019 to 20.03.2019 was again discussed in 21st Grid Coordination Committee (GCC) meeting held on 22.04.2019. CCGT Bawana generating station representative explained the reason for frequent tripping of units during winter season. Tripping for generating unit due to technical reason is beyond the control of Generator and the same was explained in the meeting held on 13.03.2019 in SLDC.



21. Based on the submissions of both the Petitioner and the Respondents, it is evident that there have been certain instances where the generating station faced technical problems, leading to the inability to achieve the desired load immediately, as pointed out by the Petitioner. Respondent PPCL has provided clarification and furnished data (as mentioned in paragraph 87) regarding the percentage of actual generation in relation to the schedule given by SLDC on the requisition of Discoms, which indicates that the generation is nearly matching with the schedule given by SLDC.

22. It is essential to emphasize that the availability of the generating station is primarily declared based on the availability of fuel and the plant's machinery. In the present case, there have been no reported incidents of unavailability of fuel. As for the availability of the plant, mis-declaration is established when either the machine is under shutdown/repair or when certain vital machines/equipments are faulty, causing restriction on the generating station's generation capacity. In the present petition, neither of the two cases mentioned has been reported. However, the Petitioner has reported a few incidents where technical issues occurred, such as choking of filters due to heavy fog/pollution, being unloaded on High DP, and tripping on AVR, among others. These incidents were duly reported to SLDC, and after thorough evaluation of each occurrence, SLDC was responsible for taking appropriate action in accordance with Clause 32.2 of the Delhi Grid Code. For ease of reference, the relevant clause is provided below.

“32.2 The SLDC shall periodically review the actual deviation from the dispatch and net drawl schedules being issued, to check whether any of the constituents are indulging in unfair gaming or collusion. In case any such practice is detected, the matter shall be investigated and reported to the Commission.”

23. However, SLDC in its reply has stated that such incidents of technical problems in the plant were reported and after enquiry it was established that such incidences of technical problems do not amount to the mis-declaration and same were treated under



the provisions of DSM Regulations. Considering the repeated instances highlighted by the TPDDL, a meeting was organized by SLDC to ascertain the reasons of frequent tripping by Pragati-III on 13.3.2019. In the said meeting the issue related to frequent tripping of Pragati-III during winter months was reviewed. In response to the same, Pragati-III informed that these trippings were mainly due to severe pollution level in the Pragati-III. Relevant excerpt of the said meeting is reproduced below for ready reference:

*“1.DGM(SO) informed that there are issues related to frequent tripping of Bawana during winter months and asked the representative of CCGT Bawana to explain the reasons for the same. CCGT Bawana informed that there were tripping’s in the last month which were Forced Shut-down mainly due to severe pollution level in the Bawana area. The filters of generating units got choked due to a **combination of fog and dust during winter months due to severe pollution**. To avoid any unwarranted situation, the machines were off loaded to maintain the DP level.*

Further, it was explained that the distance between CCGT Bawana and Waste to Energy Plant at Bawana is around 500 meters whereas the drift created by the GT have a range of over 2Kms which resulted in suction of high pollution contents be the filters leading to chocking of filters. The pollution level in Bawana Industrial Area is 30-40% more than the other areas of NCT of Delhi and due to extended winter that aggravated the situation further.”

24. Further, after detailed deliberation in the meeting, following was decided:

“7. Keeping in view the reliability of supply and gas allocation issue in Delhi, it was proposed that instead of running one full module on MTL of CCGT Bawana, both the module shall be run at MTL on half module mode. It will increase the reliability and operational flexibility. Discoms agreed for the same and it was also informed by them that any cost implication due to above operation shall be borne by them in line with CERC Regulations. CCGT Bawana agreed for the same. Meeting ended with the vote of thanks to the chair...”

25. Thus, the Petitioner, being a party and part of decision making in the Meeting dated 13.03.2019 chaired by SLDC on the above tripping, cannot subsequently claim these events as the mis-declaration. .

26. After consideration of the aforementioned discussions, it can be concluded that the generator possessed the necessary fuel supply and technical capability on the day of the alleged misdeclaration. None of the machines were under planned or forced



shutdown at the time of declaration of availability, fulfilling the eligibility conditions for declaring availability as per the provisions of the IEGC Regulations, 2010.

27. SLDC, being the statutory body responsible for adjudicating misdeclarations and any consequent penalties, has verified and confirmed that the reported incidents mentioned by TPDDL do not amount to misdeclaration and any deviation between the scheduled and actual generation are to be addressed under the DSM Regulations. In light of the information submitted and based on confirmation from the Respondent SLDC, it is concluded that there have been no misdeclaration by the Respondent PPCL. The submissions of the Petitioner are therefore not entertained.

Issue (B): In case Issue (A) above, is answered in the affirmative, then the consideration of the prayers (b) to (f) of the Petitioner in para 1 above

28. We have in the above paragraphs decided that there have been no misdeclaration by the Respondent PPCL. In view of this, the Petitioner's prayers (b) to (f) in paragraph 1 above, have not been considered/ entertained. However, SLDC being a statutory authority can take a view, in future, for any mis-declaration/deviation from DC, as per the provisions of the IEGC and other prevailing provisions (as applicable) in this regard. SLDC is also directed to carry out in future, the testing of DC in consultation with the beneficiaries to verify events of mis-declaration, if any, as per provisions of IEGC/Delhi Grid code as applicable.

29. Petition No. 199/MP/2019 is disposed of in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

