

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 122/MP/2021

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member**

Date of Order: 24th November, 2023

In the matter of

Petition under Section 79(1)(f) read along with Section 79 (1)(b) and 79(1)(c) of the Electricity Act, 2003 seeking adjudication of disputes between Tata Power Delhi Distribution Limited and Pragati Power Corporation Limited, (Pragati, Unit-III, 1371 MW Power Plant-Bawana) regarding forceful power scheduling and consequent violation of Merit Order Dispatch principle.

And

In the matter of

Tata Power Delhi Distribution Limited,
Grid Sub Station Building
NDPL House, Hudson Lines,
Kingsway Camp, New Delhi-11001

.....**Petitioner**

Versus

1. Pragati Power Corporation Limited,
Pragati-III, 1371 MW Power Plant-Bawana
Himadri, Rajghat Powerhouse Complex
New Delhi.
2. State Load Desptach 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,
Reg. Office: The Mall,
Patiala, Punjab-147001

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

.....**Respondents**

Parties Present:

Shri Sajjan Poovayya, Sr. Advocate, TPDDL
Shri Anand Shrivastava, Advocate, TPDDL
Ms. Vanshika Tainwala, Advocate, TPDDL
Ms. Ishita Jain, Advocate, TPDDL
Ms. Alvia Ahmed, Advocate, TPDDL
Ms. Raksha Agrawal, Advocate, TPDDL
Ms. Shefali Sobti, TPDDL
Shri Yogesh Prakash, TPDDL
Shri Amal Nath, Advocate, PPCL
Ms. Swapna Seshadri, Advocate, PPCL
Shri A.K. Jha, PPCL
Shri Surendra Kumar, PPCL
Shri Abhishek Rohilla, PPCL
Shri Amit Nagpal, PPCL
Shri Pradeep Mishra, Advocate, SLDC
Shri Suraj Singh, Advocate, SLDC
Shri Gaurav Gupta, SLDC
Shri Sameer Sharma, Advocate, BRPL & BYPL
Shri Hasan Murtaza, Advocate, BRPL & BYPL

ORDER

This Petition has been filed by the Petitioner, TPDDL under Section 79(1)(f) read along with Section 79 (1)(b) and 79(1)(c) of the Electricity Act, 2003 seeking adjudication of disputes with Pragati Power Corporation Limited, (Pragati, Unit-III, 1371 MW Power Plant-Bawana) regarding forceful power scheduling and consequent violation of Merit Order Dispatch principle. Accordingly, the Petitioner has made the following prayers:

- (i) *Ld. Commission may direct Respondent No. 1 to run its one unit as per the directions of Hon'ble Supreme Court vide order dated 05.02.2018 and 16.7.2018 wherein GAIL was directed to provide APM gas to the tune of 1.564 MMSCD to Bawana Power Plant for running its one unit and not the whole module.*



- (ii) *Ld. Commission to take cognizance of the issue in hand and direct Respondent No.2/SLDC to not get additional power scheduled over and above one unit as directed by Hon'ble Supreme Court unless the same is requested by a specific beneficiary; and*
- (iii) *Pass any other order which this Hon'ble Commission may deem fit and proper in the interest of justice and equity.*

Background

1. The brief background of the case is as follows:

a) The Respondent No.1-Bawana Power Plant is a combined cycle Gas Turbine Power Project having an installed capacity of 1370 MW (Pragati III). Bawana Power Plant apart from supplying power to the distribution licensee of Delhi has also entered into power purchase agreements with distribution licensee of State of Punjab and Haryana. The allocation of power for Distribution Licensees of Delhi, Punjab and Haryana is set out below:

Distribution Licensee	Allocation (in MW)
TPDDL	298
BRPL	482
BYPL	82
NDMC	210
MES	25.00
Punjab	137.00
Haryana	137.00
Total	1370 MW

b) Under the direction of SLDC (Respondent No.2), Bawana Power Plant is generating power continuously corresponding to one full module by using expensive Re-gasified-liquified Natural Gas (RLNG), and not restricting itself to one unit as mandated by the Hon'ble Supreme Court.

c) The Hon'ble Supreme Court in order dated 05.02.2018 and 16.07.2018 in W.P.(C) No.13029/1985 (M.C. Mehta vs Union of India) for controlling pollution in the territory of NCT of Delhi and for reducing the dependency on coal-based plant, has directed for consistent supply of gas to the Bawana Power Plant. Thus, the Hon'ble Supreme Court has directed GAIL to provide consistent supply of 1.564 MMSCD of APM gas without cut to Bawana Power Plant. However, the Hon'ble Supreme Court nowhere directed Bawana Power Plant to produce electricity using expensive RLNG or directed to generate electricity over and above one unit. Therefore, the Hon'ble Supreme Court by no stretch of imagination had directed the generating companies, SLDC and the distribution companies to violate the 'Merit Order Despatch' (MOD) principle.

Submissions of the Petitioner

2. In the above background, the Petitioner has submitted as follows:



a) Due to increasing pollution in the NCT of Delhi, Hon'ble Supreme Court vide order dated 5.2.2018 in W.P. (C) No. 13029/1985 (M.C. Mehta vs Union of India), while coal based Badarpur Thermal Power Station was still operational, directed as follows:

“(4) Natural gas to be made available to power plant in NCR

For the time being, we are confining the orders today to the Bawana Plant-I in Delhi. The other issues will be considered on the next date of hearing i.e. 16.02.2018.

It is stated by the learned ASG that MoEF will have detailed discussions with the Ministry of Petroleum and Natural Gas, Petroleum and Natural Gas Regulatory Board, Gas Authority of India Ltd., Pragati Power Corporation Limited and EPCA sometime next week and arrive at a final decision.

As far as Bawana Plant Unit-I is concerned, it is stated by the learned ASG that it will start working at its full capacity by 01.03.2018 and necessary steps have already been taken in this regard.

We make the statement of the Learned ASG a direction of this court.”

b) On the directions of the Hon'ble Supreme Court, Ministry of Petroleum and Natural Gas (MoPNG) directed GAIL to provide full requirement of 1.564 MMSCMD gas to Bawana Gas plant and the same to be exempted from the pro-rata cut. Thereafter, the Hon'ble Supreme Court on 16.7.2018 observed that MoPNG in its meeting has decided to provide Bawana Power Plant 1.564 MMSCMD of APM gas without cut. The relevant part of the order is excerpted herein below:

“...ISSUE NO.2: Natural Gas to be made available to power plants in NCR

This issue concerns the availability of gas supply to Unit-I of Bawana Power Plant. The decisions taken are that the Ministry of Petroleum and Natural Gas has given assurance that the Bawana Power Plant will get 1.564 mmscd of APM gas without cut and GAIL has taken a cut of 50% on its marketing margin.

Insofar as the condition that GAIL would take a 50% reduction in pipeline transmission costs has not been accepted. This is because the regulator has raised concerned about this condition. The Ministry of Petroleum and Natural Gas has filed an affidavit in this regard.

The EPCA has reviewed the situation and in so far as issue No.1 and 2 are concerned, viz., the availability of APM gas and 50% cut by GAIL, there is no objection to it by EPCA. Insofar as the regulatory issues are concerned, EPCA does not press it any further.

This issue, therefore now stands resolved and closed.”

c) For continuous scheduling of generation, the cost of generation has to be attuned as per the MOD principle. By MOD principle, the Ministry of Power aims to maximize utilization of cheaper power, thus cheaper stations are dispatched up to its maximum capability over scheduling costlier stations. It is pertinent to note that the Hon'ble Supreme Court's directions vide orders dated 5.2.2018 and 16.7.2018 are being misinterpreted and read out of context. Vide the said orders, the Hon'ble Supreme Court to reduce pollution in the NCT of Delhi had directed GAIL



to provide consistent supply of 1.564 MMSCD of APM Gas to Bawana Power Plant to run its one unit.

d) Further, Bawana Power Plant had to produce only around 320 MW of power to stay on bar as per Gas allocation orders of the Hon'ble Supreme Court. Bawana Power Plant can generate around 320 MW power by utilizing around 1.564 MMSCMD as per the Hon'ble Supreme Court's direction. However, SLDC has been misinterpreting the Hon'ble Supreme Court's order and has been directing Bawana Power plant to generate in the range of 480 MW to 500 MW, on the pretext that some minuscule quantum out of 1.564 MMSCMD of APM gas remains unutilized.

e) On utilizing expensive RLNG Gas, Bawana Power Plant incurs incremental cost as below:

Running Capacity (in MW)	Average Cost in Rs/ Unit	Incremental Cost in Rs/ unit
320	1.77	-
490	3.16	5.78
670	5.78	12.91
990	6.09	6.75

f) Therefore, it is pertinent to note that by forced scheduling of power over and above 320 MW using expensive RLNG, Bawana Power Plant incurs an incremental cost of Rs. 5.78/unit. Bawana Power Plant currently runs at around 500 MW on Round the Clock basis in all seasons, including off peak hours and therefore the annual impact of excess generation over and above 320 MW has been explained below:

Average Annual Bawana Generation (A)	500 MW
Excess generation by Bawana over 320 MW (B)	180 MW
Excess energy generated by Bawana corresponding to B above (MUs) (C)	1576 MUs
Incremental cost of Bawana excess generation (Rs/Unit) (D)	Rs 5.78/ unit
Average cost of Power from Short term (IEX for the year 2020)	2.61
Overall impact of excess power (Rs. Crores) (F)= C*(D-E)	Rs 500 crores

g) As per the aforesaid table, such excess generation puts an annual financial burden of Rs. 500 crores on the consumers of Bawana Gas plant. Further, the same is in complete disregard of MOD. It is clear, operating at low cost no cut gas allocated to Bawana, its rank in Merit Order stack is 5, whereas, while running on RLNG it goes down to 23. Therefore, the scheduling power beyond 320 MW using RLNG is not economically viable and any forceful scheduling of the same, leads to merit order violation by way of reduction in schedule of other low-cost plants which are 18 in number (Merit order rank 5 vs Rank 23). It is pertinent to note that the MoPNG Government of India vide its letter dated 02.07.2018 has mentioned that in case of any additional gas demand over and above 1.564 MMSCMD for Bawana Power Plant, the same may be met through market based RLNG. The same also implies that when there is no demand from any DISCOMs, scheduling beyond 1.564 MMSCMD should not be done.



k) The issue was taken up in the Delhi Power Procurement Group Meeting (“DPPG Meeting”) on 23.10.2020, between the Delhi DISCOMs, officials of Delhi SLDC and IPGCL/PPCL, the issue of forced scheduling over and above 320 MW was discussed in detail. All the DISCOMs agreed with the proposal of restricting the generation of Bawana to 320 MW corresponding to low cost no cut gas allocation to it in line with the orders of Hon’ble Supreme Court. However, representative of Bawana Power Plant in highhanded manner stated that they are bound to generate as per the instructions of Delhi SLDC, subject to full utilization of gas allocated to Bawana as per Hon’ble Supreme Court order. SLDC also reiterated the same view.

l) Aggrieved by the highhandedness of the Respondent No.2/SLDC and Respondent No.1 Bawana Power Plant, the Petitioner wrote several representations to Delhi Electricity Regulatory Commission (DERC) on 24.11.2020, 06.01.2021 and 04.02.2021 and brought all the violations by these Respondents on record. The Petitioner informed DERC that due to use of expensive RLNG gas, the Petitioner along with other DISCOMs are forced to buy electricity at a higher tariff, despite low demand and in addition, the Hon’ble Supreme Court’s order was to provide 1.564 MMSCD to Bawana Power Plant, which could easily translate to 320 MW of electricity. However, under the guise of Hon’ble Supreme Court’s order, Bawana Power Plant is producing 500-600 MW of electricity, which is not only in violation of the MOD principle, but also wastage of natural resources as the DISCOMS are left with more electricity than that is demanded for consumption by the consumers of Delhi. Further, in the event, generation is not restricted to one unit at Bawana Power Plant, the whole purpose of monitoring and combating the air pollution through Apex Court intervention will be rendered infructuous. Further any generation beyond 320 MW is also abuse of natural resources.

m) Aggrieved by the blatant violations of MOD and misinterpretation of the Hon’ble Supreme Court’s order by the Respondent No.1 and Respondent No.2, the Petitioner herein is constrained to move the Hon’ble Commission for the following reasons:

i) Forceful scheduling of electricity over and above 320 MW is economically unfeasible and in clear violation of MOD.

ii) Hon’ble Supreme court vide orders dated 05.02.2021 and 16.07.2021 directed GAIL to provide APM gas to the tune of 1.564 MMSCD to Bawana Power Plant for running its one unit. The Hon’ble Apex Court nowhere pointed out that over and above 1.564 MMSCD provided by GAIL, Respondent No.2 shall procure RLNG gas for Bawana and produce more than 320 MW of electricity to run its whole module at Bawana. Therefore, the forceful scheduling of gas under the guise of compliance of Hon’ble Supreme Court is erroneous, arbitrary and is liable to be stayed.

iii) Cost of running Bawana Power Plant by utilizing RLN Gas is around Rs. 5.78 per unit, which is extremely high and brings Bawana Power Station to 23rd rank (highest) in Merit



Order stack of Delhi DISCOMs. Therefore, to choose Bawana Power Plant by overlooking twenty-two (22) other generating plants, which are placed above Bawana Power Plant in the Merit Order Stack is in clear violation of MOD.

iv) Cost of excess generation over and above 320 MW of electricity by using expensive RLNG gas is putting an additional burden of Rs. 500 crores on DISCOMs in Delhi & outside Delhi. The said cost is ultimately borne by the consumers. Therefore, scheduling of power beyond 320 MW by using RLNG is costing Rs 500 crores on the beneficiaries of Bawana, especially when there is no demand for the same.

v) SLDC/Respondent No.1 has acted ultra vires while scheduling of generation beyond 320 MW under the pretext of compliance of Hon'ble Supreme Court's order. Further any generation beyond 1 GT and ½ STG (around 320 MW) should only be with the requirement of specific DISCOMs who need to pay for the incremental cost and not otherwise. Higher cost of generation will ultimately have to be borne by the DISCOMs, who will further transfer the financial burden on the consumers of Delhi.

vi) Order of the Hon'ble Supreme Court was to provide Bawana Power Plant continuous APM gas supply of 1.564 MMSCMD, so that there is less dependency on coal-based plants. Further, in the event generation is not restricted to one unit at Bawana and more electricity is generated than the required demand, which will subsequently lead to wastage of resources, then the whole purpose of monitoring and combating the air pollution through Apex Court intervention will be rendered infructuous.

vii) MoPNG, Government of India vide its letter dated 02.07.2018 has mentioned that in case of any additional gas demand over and above 1.564 MMSCMD for Bawana Power Plant, the same may be met through market based RLNG. The same also implies when there is no demand from any DISCOMs, scheduling beyond 1.564 MMSCMD should not be done.

Hearing dated 17.9.2021

4. The matter was heard 'on admission' through virtual conferencing. On a specific query by the Commission as to the understanding between the parties with regard to the usage of the term 'Unit-1' in the Hon'ble Supreme Court's order and the quantum of power scheduled by SLDC to the Petitioner, the learned counsel for the Petitioner, referred to the SLDC portal and submitted that Unit-1 (in combined cycle) would generate around 324 MW. He further submitted that SLDC was earlier scheduling 500 MW and above to the Petitioner, but from 20.5.2021, around 300 MW from Unit-1 is being scheduled by SLDC. The learned counsel for the Respondent No.1, PPCL pointed out that the Respondent has been declaring availability on the basis of APM gas and RLNG, as per the Tariff Regulations notified by the Commission. He also submitted that the understanding between the parties, the Minutes of the meeting and the affidavits filed in the proceedings before the Hon'ble Supreme Court, refer to the usage of the term 'Block/Module-1'(which comprises of 2 GT and 1 ST units), instead of Unit-1. However, the Commission directed the learned



counsel to place on record, the copies of the said documents. Accordingly, the Commission 'admitted' the Petition and ordered notice to the parties. The Respondent No.1 PPCL was directed to furnish copy of the documents (affidavits etc.) filed by the parties before the Hon'ble Supreme Court, relating to orders dated 5.2.2018 and 26.7.2018 in Writ Petition (Civil) No. 13029/1985. The Respondent SLDC was directed to submit the additional information, viz., (a) the quantum of power scheduled from Bawana Plant during the period of dispute, keeping in view the orders dated 5.2.2018 and 16.7.2018 of the Hon'ble Supreme Court and (b) Letter addressed to the Respondent No.1 PPCL, directing generation of power in the range of 480 MW to 500 MW after serving copy to the Petitioner/ Respondents:

Reply of Respondent Pragati Power Corporation Limited.

5. The Respondent Pragati Power Corporation Limited (PPCL) vide its reply affidavit dated 6.10.2021 has submitted the following.

a) Tata Power Delhi Distribution Limited has filed the above mentioned Petition alleging (wrongly) that the Respondent - PPCL has been running its Power Generating Station, contrary to the directions contained in orders dated 5.2.2018 and 16.7.2018 passed by the Hon'ble Supreme Court. The Petitioner has further sought for directions against Respondent SLDC for not scheduling power above 'one unit' from the Bawana Generating Station.

c) It is the case of the Petitioner that the directions contained in the aforementioned orders of the Hon'ble Supreme Court, namely the running of the Generating Station 'Unit-1' at full capacity and the availability of 1.564 MMSCMD of APM natural gas in no-cut category to PPCL, pertains only to 'one Gas Turbine' and not one Module/Block (comprising of 2 Gas Turbines and 1 Steam Turbine – 685.60 MW), as has been implemented by the Respondents. PPCL having a composite scheme for generation and sale in more than one State and therefore, falls under the jurisdiction of this Commission in terms of Section 79(1)(b) of the Electricity Act, 2003. The tariff, terms and conditions of the Bawana Generating Station are determined in terms of the applicable Tariff Regulations, as notified by this Commission from time to time. Accordingly, PPCL has been duly declaring availability as per the Tariff Regulations notified by this Hon'ble Commission.

d) The scheduling of power from Bawana Generating Station, however, is determined by the Delhi State Load Dispatch Centre ('SLDC') in terms of exception carved out in Regulation 6.4 (2)(c)(iii) of the Indian Electricity Grid Code, 2010, which inter-alia reads as under:

(iii) If a generating station is connected both to ISTS and the State network, scheduling and other functions performed by the system operator of a control area will be done by SLDC, only if state has more than 50% Share of power. The role of concerned RLDC, in such a case, shall be limited to consideration of the schedule for inter state exchange of power on account of this ISGS while



determining the net drawal schedules of the respective states. If the State has a Share of 50% or less, the scheduling and other functions shall be performed by RLDC.

Since the State of Delhi has more than 50% share from the Bawana Generating Station, the scheduling and dispatch is governed by the Delhi SLDC.

e) In terms of Section 33 of the Electricity Act, 2003, it is incumbent upon PPCL to comply with the directions of the SLDC, failing which it shall be required to pay penalty. Therefore, as a generating company, PPCL is bound to comply with the directions of the SLDC and has been duly injecting power, as scheduled by the SLDC.

f) In any event, the contention of the Petitioner to the effect that only one Gas Turbine (along with ½ Steam Turbine) has to run as per the directions of the Hon'ble Supreme Court, is wrong and devoid of merits. The Petitioner is taking a hyper-technical view of the term 'Unit 1' used in the orders of the Hon'ble Supreme Court and is seeking to use the nomenclature to its advantage, contrary to the submissions made before the Hon'ble Supreme Court, the understanding between the parties and the purpose and objective sought to be achieved by the said proceedings i.e. reduction in Air Pollution in the NCT of Delhi. The above is also borne out from the use of the term 'full capacity' in the order dated 05.02.2018.

f) Even the Environment Pollution (Prevention and Control) Authority for NCR ('EPCA'), a statutory body constituted under the Environment Protection Act, 1986 pursuant to the direction of the Hon'ble Supreme Court in MC Mehta case (supra), has commended the running of one full module (686.5 MW) of the Bawana Generating Station and has further, recommended that the scheme should progressively cover the entire capacity of the Bawana Generating Station (1371 MW). The relevant extracts from the Report No. 80 submitted by the EPCA before the Hon'ble Supreme Court in the said Writ Petition inter- alia reads as under:

	<i>Date of direction of Hon'ble SC/issue</i>	<i>Status of action taken as per the IA of 1.2.2018</i>	<i>Comments of EPCA, if any and directions sought from the Hon'ble Court</i>
4.	<i>Natural gas to be made available to power plants in NCR</i>	<i>Progress has been made in these deliberations. It is proposed that reduction in gas cost and continuous availability will allow one module (685.6 MW) of Bawana to run at full capacity – up from 250 MW currently. This will substitute 350 MW of power from Dadri-1 during winter months (R-8).</i>	<p><i>This is excellent progress and all agencies must be commended for making this possible. This suggested scheme also points to how the use of cleaner gas can be scaled up in the NCR/country. The conditions for ensuring this are as follows (R-8):</i></p> <p>a. <i>MOPNG and PNGRB have to ensure that there supply of 1.564 MMSCDM domestic non-APM gas on continuous basis;</i></p> <p>b. <i>GAIL cuts gas transportation and marketing margins by half;</i></p> <p>c. <i>PPCL (Pragati Power) shares the efficiency improvements to bring down generation costs.</i></p> <p><u><i>Based on this, the Hon'ble Court may direct that the Bawana Plant Unit 1 must begin working at full capacity by March 1, 2018.</i></u></p> <p><i>This scheme should be further explored to see how it could be implemented progressively to cover the full capacity of Bawana Plant.</i></p>



g) From the above, it is clear that since inception, the intent of the parties/EPCA were to run the entire Module 1 (686.5 MW) of the Bawana Generating Station. Accordingly, the reference to 'Unit 1' in the orders of the Hon'ble Supreme Court, has to be read as 'Module 1' for all intents and purposes. The said dispensation is also clear from the provisioning for a 50% reduction in the marketing margin, as offered by GAIL (India) Limited on the supply of RLNG. If the intent was to restrict the scheduling to 'Unit 1' of the Bawana Generating Station, then there would have been no requirement for GAIL to provide a discount on the RLNG since 1.564 MMSCMD of APM Gas would have sufficed for the purposes of running one Gas Turbine of 216 MW.

l) PPCL refer to the following documents filed before the Hon'ble Supreme Court, which conclusively establish that the directions relate to a full Module of the Bawana Generating Station.

i) Letter dated 03.04.2018 from MoPNG to Ministry of Environment, Forests and Climate Change;

ii) Letter dated 02.07.2018 from MoPNG directing GAIL to supply 1.564 MMSCMD APM gas to Bawana Generating Station under no cut category. In the same letter, the MoPNG had also directed that "*in case of any additional gas demand over and above 1.564 MMSCMD for Bawana power plant Unit-1, the same may be met through the market based RLNG/natural gas*".

It is clear that in the above letter, Unit-1 was used in the context of Module 1, else there would not have been any requirement for any additional gas over and above the 1.564 MMSCMD since the same would have been sufficient to cater to the requirement of one Gas Turbine (219 MW);

iii) Letter dated 9.07.2018 from GAIL to MoPNG intimating them of reduction in marketing margin by 50% for supply of RLNG to PPCL in order to run "*Unit -1 at full capacity*".

iv) Review Meeting dated 02.01.2018 under the Chairmanship of Secretary, MoEF&CC which was attended by the representative of the Petitioner whereunder, it had been specifically recorded as under –

"Accordingly, in order to optimize the generation cost of Bawana Power Plant, Delhi Government owned Genco, Pragati Power Corporation Limited and GAIL have worked out an understanding wherein GAIL has offered to cut gas transportation cost and marketing margin by half and PPCL will share the efficiency improvement gains achieved due to increased utilization of the plant for bringing down the generation cost. These measures will improve Bawana power cost effectiveness and plant will qualify in merit order dispatch. This arrangement will allow one module (686.5 MW) of Bawana Gas Plant to run continuously. At present Bawana generates about 250 MW of power. With the above arrangement, generation from Bawana would be stepped up to 600 MW with one complete module of plant in operation. In order to reduce pollution, this increased generation of 350 MW from gas based generating station can substitute generation from Coal Based Thermal Generating Station of dadri-1 during winter months. This will provide a major relief during the period when pollution is at its worst"

v) Letter dated 04.01.2018 from GAIL to the Government of NCT of Delhi.

J) From the above documents, it is clear that the directions passed by the Hon'ble Supreme Court pertain to the functioning of Module-1 of the Bawana Generating Plant at full capacity, and not any 'Unit 1' or part thereof. To take such an interpretation would defeat the very purpose of scheduling



the power from the Bawana Gas Generating Station i.e. the reduction in air pollution, in particular, during the winter months.

k) Quite apart from the above, there is no Unit-1 at the Bawana Generating Station. There is a Gas Turbine-1 and Steam Turbine-1, but there is no Unit-1. The EPC contracts were also awarded Block/Module wise and not 'Unit' wise. Therefore, the distinction sought to be carved out by the Petitioner, namely the existence of a Unit-1 as opposed to a Module-1, does not exist at the Bawana Generating Station.

l) The Petitioner has placed reliance on the MOD to contend that off-taking power from PPCL after the exhaustion of 1.564 MMSCMD APM gas, is not economically viable. In this regard, PPCL reiterates that the primary intent of the proceedings before the Hon'ble Supreme Court was to reduce air pollution in the NCT of Delhi and not the economic viability. Yet, it was owing to the directions of the Hon'ble Supreme Court that a consistent no-cut supply of 1.564 MMSCMD was provided to Bawana Generating Station which would help in reducing the overall cost of procuring power from the entire Module of the Bawana Generating Station.

m) It was in the above context that the Hon'ble Supreme Court had directed that Bawana 'Unit-1' be run at full capacity. In the same order, the Hon'ble Supreme Court had also acknowledged and recognized the discount in the marketing margin offered by GAIL on the sale of RLNG. If the intent of the Hon'ble Supreme Court was to restrict the scheduling from Bawana Generating Station to only one unit (219 MW), then there would have been no requirement for RLNG, since 1.564 MMSCMD of APM natural gas would have been sufficient to run one Gas Turbine. The reliance on the Minutes of the Delhi Power Procurement Group Meeting dated 23.10.2020 is misconceived since the same re-iterate the stand of PPCL and the SLDC, namely that the entire module of PPCL has to run as per the directions of the Hon'ble Supreme Court. Further, the said minutes have not been signed by PPCL, SLDC or even the Chairperson of Delhi Power Procurement Group.

Hearing dated 27.9.2022

6. The Commission, after hearing the parties on 27.9.2022, directed the Respondent, PPCL and the Respondent, SLDC to furnish the following additional information:

Respondent PPCL

- i) The technical minimum of one set / module (2 GT + 1 ST) for installed capacity of 685.6 MW along with supporting documents and quantity of APM gas required per day for operation at this technical minimum;*
- ii) The power and energy generated by a one module through usage of only 1.564 MMSCMD of APM gas / day;*
- iii) The quantity of APM gas required per day for operation of one module at full load;*
- iv) The ramp up rate and ramp down rate of each GT, ST and Module; and*
- v) The quantity of APM gas consumed per day for production of power around 225 MW on few days, in the past.*

Respondent SLDC

- i) Relevant regulations and rules under which, it has scheduled higher to the beneficiaries than their respective requisition, on occasions, as applicable.*

7. The Commission after permitting the parties to file their written submissions, including the response to the above information, reserved its orders in the petition.



Rejoinder of the Petitioner to the reply of the Respondent PPCL

8. The Petitioner in its rejoinder has submitted the following:

a) The Respondent PPCL has ventured into fact finding through various letters issued by Ministry of Power, Ministry of Environment, Forest and Climate Change (MoEF&CC) and Gas Authority of India Limited (GAIL), whether “one module” or “one unit” was to be operated, rather than considering whether there was corresponding demand/requirement by the beneficiaries for running one full “module” by the Distribution Licensees/ Distribution Companies. The Hon’ble Supreme Court vide its order dated 05.02.2018 and 16.07.2018, only intended to reduce the air pollution by discontinuing operation of thermal power plants in Delhi and in the process ensuring fuel for Bawana under no cut category. However, the Hon’ble Supreme Court did not certainly intend or direct the Respondent No.1-Ministry of Power/ MoEF&CC to produce more power and forcefully schedule to the Distribution Licensees in Delhi, beyond their requirement and commercially exploit the natural resources. If the interpretation drawn by the Respondent PPCL is accepted then the very ethos and intention of the environmental protection & conservation will be defeated, i.e. if more energy is produced than that is required by the DISCOMs. Therefore, such a pedantic approach without seeing the real intention of the Supreme Court orders is absurd and meaningless.

b) The Respondent-PPCL without any basis has wrongly inferred the Hon’ble Supreme Court’s order and assumed that the allocation of APM gas is for ‘one module’ of Bawana Power Plant (One module constitutes of 2 gas turbines and 1 steam turbine, i.e. 685.60 MW). MoPNG has assured steady supply of 1.564 MMSCMD APM gas which can only generate upto 320MW. Thus, if the interpretation as rendered by the Respondent is considered to be correct, to produce 685.60 MW of electricity, the Respondent will have to procure more than 1.564 MMSCMD of APM gas already assured by MoPNG. It does not make any economic sense without any corresponding demand for the Respondent to produce more energy using RLNG which would be in violation of MOD or which renders the beneficiaries as power surplus beyond the requirement.

c) Respondent PPCL has taken a hyper-technical approach, wherein it has implemented the orders of the Hon’ble Supreme Court sans computing corresponding demand by the Distribution Licensees. It would be absurd to lend an interpretation to the Supreme Court’s order without calculating the actual demand for the same. Further, definition of generating unit from Indian Electricity Grid Code, 2010 is extracted herein below:

‘Generating Unit’ means an electrical Generating Unit coupled to a turbine within a Power Station together with all Plant and Apparatus at that Power Station which relates exclusively to the operation of that turbo-generator;



d) It is clear from the above definition of the generating unit that a generator is coupled to a single turbine. Whereas, a module of PPCL-Bawana comprises of two Gas Turbine and one Steam Turbine Generator and accordingly, the same cannot be called unit in any case. It may again be noted that the Respondent has misinterpreted the order of Hon'ble Supreme Court dated 16.07.2018. In any case, if the Respondent wanted to run plant up-to one module, i.e. 685.6 MW, it should have asked for APM gas to the tune of twice the quantum which it obtained now, rather than relying on expensive RLNG.

e) EPCA report cannot be read in isolation to the electricity demand by the Distribution Licensee and consequent requirement of gas by the generating station to produce that amount of electricity. It would be absurd to interpret that the Hon'ble Supreme Court has directed Bawana Power Plant to produce much more electricity than the actual demand/requirement of the beneficiaries. Further, it cannot be overlooked, which was also observed by EPCA as well, that RLNG is costly for getting power scheduled. Therefore, when the demand is conveniently met through domestic gas, there was no reason to rely on RLNG. Further, by running the Respondent's plant @ 685.6 MW, it will not serve any purpose since generation cost from Bawana beyond 320 MW is around Rs. 20 /- per unit.

f) The contents of preliminary submissions are to be read part and parcel with the reply of the instant paragraph. Respondent in its reply has mentioned letters dated 3.04.2018, 2.07.2018, 9.07.2018 and 2.01.2018 regarding the running of one full module of Bawana, above communication were made before the Supreme Court's Order dated 16.07.2018 and the Supreme Court's order specifically mentions that the gas is allocated for running Unit-1 of plant. From the communication also, it can be noted that in case of any additional demand over and above 1.564 MMSCMD for Bawana power plant Unit-1, the same may be met through the market based RLNG / Natural Gas. Therefore, only for additional demand and not otherwise, expensive RLNG may be used. This clearly indicates that allocation of RLNG gas under no-cut category was up-to 320 MW and not beyond.

g) A table of MUs requisitioned Vs Scheduled beyond July'2018 (date of Supreme Court order) is as mentioned below:

Period	Requisitioned MUs		Scheduled MUs	
	APM(Mus)	RLNG(Mus)	APM(Mus)	RLNG(Mus)
Aug'18 to Dec'18	216	130	244	150
Jan'19 to Dec'19	556	220	523	223
Jan'20 to Dec'20	530	46	578	139
Jan'21 to May'21	246	0	232	82



h) It may be seen that the Petitioner has been given schedule more than the requisitioned during above periods and RLNG schedule is also more than the requisitioned thus, thrusting the Petitioner with unduly high cost power on RLNG, in total contravention of the provisions of Grid Code.

i) Following provisions of Indian Electricity Grid Code, 2010 code posits that a beneficiary cannot be scheduled power more than requisitioned except under special circumstances like overloading contingencies and grid security etc. which was not the case here.

j) Therefore, it is amply clear that the Respondent and SLDC has acted in contradiction of the provisions of IEGC and the Respondent has been generating more electricity than that was required by the DISCOMs/ beneficiaries. Further, members of PPCL and SLDC were present in the DPPG meeting, but deliberately did not sign the minutes of the meeting. Further, the operating one module would mean incurring incremental cost which would ultimately be shifted on the consumer.

Reply of the Respondent SLDC

9. The Respondent SLDC vide reply affidavit has submitted the following:

a) Bawana Power Plant has two modules each having the capacity of 685.6 MW. One module consists of 2 GTs and 1 STG. The plant is based on gas fuel and the excess steam turbine to have maximum benefit of the resources. As per the viability of the plant, it is necessary that it should run at least to generate 500 MW.

b) In Writ Petition No. 13029 of 1985 which relates to control of pollution in NCT of Delhi and was heard by Hon'ble Supreme Court due to the serious pollution in NCT of Delhi and to evolve methodology to control said pollution. In the light of the same GAIL India Ltd. has sent a letter dated 4.01.2018 to the Secretary, Power, Government of NCT of Delhi, stating therein that 1.564 MMSCMD of NAPM domestic gas was allocated to PPCL Bawana, however in view of reduced availability from ONGC, supplies were being prorated by GAIL in proportion to initial allocation. It was informed that for running of one Module (600 MW) of PPCL Bawana for three years from 1.04.2018 to 31.03.2021 consistent availability of 1.564 MMSCMD of domestic gas allocated to PPCL, Bawana w.e.f. 01.04.2018.

c) Special Secretary, Power, Government of NCT of Delhi vide letter dated 8.01.2018 informed the Joint Secretary, Ministry of Environment, Forest and Climate Change, the stand of Government of Delhi wherein it has been categorically mentioned that one module of PPCL, Bawana has to run to control the pollution. True copy of the letter dated 08.01.2018 sent by



Special Secretary, Power, Government of NCT of Delhi to Joint Secretary, Ministry of Environment, Forest and Climate Change is enclosed and marked as Annexure-2 to the reply.

d) In view of these facts, Hon'ble Supreme Court passed the order dated 5.02.2018. However, the Hon'ble Supreme Court in its order has mentioned Unit-1 which means Module-1 having capacity of 685.5 MW. The Petitioner is misinterpreting the order of Hon'ble Supreme Court to mean one Unit i.e. 1 GT. Since the Hon'ble Supreme Court has directed that one unit i.e. Module-1 of PPCL, Bawana must run, the Respondent has issued instructions to PPCL, to operate one module. However, the operation of one module was further as per the need of the system/scheduling/demand by the DISCOMs. The Petitioner vide letter dated 30.01.2019 sent a letter to Secretary, Power, Government of NCT of Delhi with copy to replying Respondent wherein, it has admitted that as per the directions of Hon'ble Supreme Court one Module of PPCL, Bawana has to run which is as follows:

“Considering the above we mention that TATA Power-DDL has an allocation of 63 MW and 298 MW from Pragati Power Plant and Bawana CCGT Power Plant respectively.

We would like to apprise you that the Pragati Power Plant has a classified as Must Run plant by Delhi SLDC while Bawana CCGT is to be run at about 400 MW to 450 MW as per Hon'ble Supreme Court order dated 05th Feb' 2018, accordingly the Declared Capacity ('DC') of these plants is considered by TATA Power-DDL & other Delhi Discoms while finalizing the consumer load requirements/demand to be catered to.”

e) Besides this, the Petitioner has also sought the intervention of Secretary, Power, and Government of NCT of Delhi for running of PPCL, Bawana beyond the running capacity of 450 MW on APM Gas.

f) The schedule approved for generation to be approved by the Respondent depends on the demand in each fifteen-minute time blocks, and hence the record would be voluminous. However, in order to give an overall picture record of one day in the last week of July, 2018 i.e. 20.07.2018 is being enclosed herewith and marked as Annexure-4 to this reply.

Rejoinder of the Petitioner to the reply of Respondent SLDC

10. The Petitioner vide its rejoinder to the reply of the Respondent SLDC has mainly reiterated its submissions made earlier in its rejoinder. However, it has also added the following:

a) Bawana Power Plant was not scheduled as per the demand of the DISCOMs, instead the same was scheduled considering the financial viability of the Plant as evident from the reply of Respondent No. 2, SLDC. SLDC has no right to schedule the said Power Plant keeping in mind the viability of the plant and burdening the Delhi DISCOMs in form of high cost RLNG generation. Further, it's not the responsibility of the SLDC to check the viability of the generating plant for the purpose of scheduling the power. Hon'ble Supreme Court while passing the orders



has not relied upon/ referred the letter dated 4.01.2018 sent by GAIL to Secretary, Power, Government of NCT of Delhi and the letter dated 8.01.2018 issued by Special Secretary, Power, Government of NCT of Delhi to Joint Secretary, MoEF&CC. The language of the orders is plain and simple which clearly records that, *“This issue concerns the availability of gas supply to Unit-I of Bawana Power Plant. The decisions taken are that the Ministry of Petroleum and Natural Gas as given assurance that the Bawana Power Plant will get 1.564 mmscd of APM gas without cut and GAIL has taken a cut of 50% on its marketing margin.”* Thus, the letters so mentioned/ relied upon by the Respondent SLDC are irrelevant to the issue at hand.

b) It is clarified that Natural Gas is fired in Gas turbine (“GT”) and quantum of 1.564 MMSCMD committed by GAIL was sufficient for running ‘one unit’ of GT at its full capacity and hence, one unit would mean 1 GT. The actual power generation capacity would include corresponding half capacity of Steam Turbine (“ST”).

(c) The Respondent SLDC has wrongly contended that “one unit” means and includes “one module” without considering that there was no corresponding demand/requirement by beneficiaries for running one full “module” by the Respondent PPCL. It is pertinent to note that the Hon’ble Supreme Court had directed no cut supply of 1.564 MMSCMD to the Respondent PPCL, which quantity of the gas is sufficient to run only one unit of GT. It needs to be appreciated that one Module consists of Two GT and One ST whereas, APM Natural gas available was only sufficient to run one GT on its full capacity. Thus, the possible mode of operation was running of one GT on full Capacity and running of ST on half of its capacity. There was no need of running the second GT as no additional APM gas was available, unless there is more demand by DISCOMs necessitating the use of RLNG and requiring running of second GT. The generation schedules given were more than the drawl schedules of the DISCOMs.

d) It is vehemently denied that the operation of one module was as per the need of the system/ scheduling/ demand by the DISCOMs. Had it actually been the case and the power generated at the Bawana Power Plant was scheduled as per the demand of DISCOMs and not over and above the demand of the DISCOMs, no cause would have arisen to prefer the present petition before this Commission.

e) In the SC orders, it has been observed that there should be a cut in the use of thermal power plants so that there is a reduction of air pollution and during the process, Bawana should come under the no cut category. However, if the SC orders had implied of running one module on a continuous basis regardless of the scheduling requirements by the beneficiary, it would have led to the production of power in excess of what is required by the DISCOMs which would



ultimately lead to the exploitation of natural resources. Thus, any quantum scheduled beyond requisition of beneficiaries is impermissible and not refundable by Petitioner.

f) A table of MUs requisitioned v. scheduled beyond July'2018 (date of Supreme Court order) is as mentioned below:

Period	Requisitioned MUs		Scheduled MUs	
	APM(Mus)	RLNG(Mus)	APM(Mus)	RLNG(Mus)
Aug'18 to Dec'18	216	130	244	150
Jan'19 to Dec'19	556	220	523	223
Jan'20 to Dec'20	530	46	578	139
Jan'21 to May'21	246	0	232	82

g) From the table above, it is evident that the Petitioner has been given a schedule (including the RLNG schedule) more than the requisitioned schedule during the above periods. Thus, imposing unduly high-cost power on the Petitioner is in total contravention of the provisions of the Code.

h) It is submitted that the essence of the SC orders must be taken into consideration along with the intentions behind the said orders that specifically state about protecting air and renewable resources.

i) The letter dated 30.1.2019 of the Petitioner was pertaining to the reliability, availability and allocation of more APM gas to the Respondent PPCL. The Respondent SLDC is misleading this Commission by relying on the said letter to justify its action of forcefully scheduling power to the Petitioner. The Petitioner is liable to avail power from Bawana Power Plant only as per its requirement. SLDC cannot schedule power to the DISCOMs as per its own discretion without their consent. It is the right of the DISCOMs to avoid scheduling power from high generation cost generating stations but to schedule power from alternate commercially viable and economic sources.

j) The Respondent SLDC has placed data of one single day to corroborate its submissions whereas, the entire issue spans from August, 2018 and continues till date. Therefore, this is a mere attempt to obfuscate this Commission and data of just one single day of scheduling ought not to be relied upon to adjudicate the issue at hand.

11. In compliance to the directions vide ROP dated 27.9.2022 (vide para 6 above) the Respondent PPCL, on 20.10.2022, has submitted the following:



I. The Technical Minimum of one Set / Module (2 GT + 1 ST) for installed capacity of 685.6 MW along with supporting documents and quantity of APM gas required per day for operation at this Technical Minimum.

a) Installed capacity of one module (comprising of 2 GT + 1 ST) is 685.6 MW at site conditions. The Gas Turbines installed at Generating Station are advanced class GE make Frame 9FA with DLN Burners for low NOx emissions. It is relevant to note that the output of the Gas Turbines depends on the ambient weather conditions i.e., Temperature and Humidity. Therefore, there is a slight variation in the rated output in different seasons. During the winter season, the output is more than rated capacity. However, to in peak summer months the output is slightly lower than rated capacity. The Gas turbines cannot be operated at less than a certain percentage of rated load. For instance, the Gas Turbine stable operation is achievable only in premix mode. Apart from the issue of stable operation, operation of Gas Turbine of the Generating Station below premix mode is also not desirable as it results in higher NOx emissions. Therefore, as per OEM recommendations, operation of Gas Turbines is kept in the range of 75% to 80% of rated load. Below such loading percentage and parking, the units too close to the premix transfer point can lead to combustion mode changes caused by load swings owing to the response of the turbine governor to sudden grid frequency changes. It is submitted that frequent combustion mode changes on the units are not desirable. Hence a load of around 75%- 80% is ideal minimum load for to operate the Gas Turbines in a reliable & environment friendly manner on combined cycle mode.

b) As per OEM recommendations, the Technical Minimum Ex-Bus output with normative APC is 500 MW ex-bus (75% of 685.6 MW x 0.9725). Further, the quantity of gas required per day for operation at Ex-Bus output is calculated to be approximately 2.3 MMSCMD per day approx. (at 9500 Gross Calorific Value of the gas). However, consumption of gas varies based on the GCV

II. The power and energy generated by one module through usage of only 1.564 MMSCM of APM Gas / Day

a) The Generating Station has an allocation of 1.564 MMSCMD of NAPM (Non-Administered Price Mechanism) gas. One module of the generating station consists of 2 GT and 1 ST. Therefore, in order to run one (1) Gas Turbine in Open Cycle at rated load at full/base load, approximately 1.4 MMSCMD gas is required. Thus, when Gas Turbine is run in combined cycle i.e., along with Steam Turbine, only approximately 1.4 MMSCMD gas for combined cycle operation is required. Thus, for gas supplied having GCV 9500kCal/SCM and higher some amount of Non-APM/cheaper Domestic gas is left over on a daily basis.

b) Therefore, in case unutilized non-APM gas is also utilized to generate power from another gas turbine of the module, then in that case additional costlier gas is required to be blended with the



remaining gas to run another Gas turbine at minimum technical level. It is not feasible to run one module only in 1.564 MMSCMD Gas for 24 hours duration with technical minimum load. However, in case drawal of the gas is allowed by GAIL at higher flow rate in shorter duration with minimum technical limit of one module then, 500 MW Ex-Bus can be generated for around 16 Hours and generation in energy terms shall be 7.83 MUs (ex-bus) in a day. However, operation of only 16 Hours on daily basis at around 500 MW of minimum sent out of one module is not feasible in real sense as every re-start of complete module in hot condition requires at least 2 hours of trouble-free duration. Contention of the Petitioner pointing out that only one Gas Turbine (along with ½ Steam Turbine) has to run as per the directions of the Hon'ble Supreme Court, is wrong. The Petitioner is taking a hyper-technical view of the term 'Unit 1' as has been referred to by the Hon'ble Supreme Court in the orders dated 05/02/2018 and 16/07/2018 and is therefore seeking the use of nomenclature to its advantage, contrary to the submissions made before the Hon'ble Supreme Court, the understanding between the parties and the purpose and objective sought to be achieved by the said proceedings i.e. reduction in Air Pollution in the NCT of Delhi. The said contentions are contrary to the facts of the case and submissions made before the Hon'ble Supreme Court.

c) In fact, it is relevant to point out that the Hon'ble Supreme Court in its order dated 16/07/2018 has given directions to evolve a methodology to control air pollution and to run one complete module of the Generating Station with a load of 600 MW. Accordingly, the Hon'ble Supreme Court had directed that there shall be no cut in the domestic gas allocation of 1.564 MMSCMD to run 600 MW of the generating station and that the additional requirement of the gas was to be met with RLNG supplies with 50% reduction in marketing margin and transportation charges. The 50% reduction in prices with respect to RLNG gas was specifically provide for by the Hon'ble Supreme Court.

d) One Unit has to be construed as One Module (2GT + 1 ST) which is also evident from the various inter-departmental communications as well as the communications initiated by the Government of NCT of Delhi. The said direction is evident from the letter dated 04/01/2018 sent by GAIL to Secretary (Power), GNCTD, wherein, the operation of 1 Module (600 MW) of generation station has been mentioned as against one Unit of GT, which has only 216 MW capacity. Further, in a letter dated 08/01/2018, from the Special Secretary (Power) to Joint Secretary MoEFCC, regarding submissions to be made on affidavit to the Hon'ble Supreme Court, 600 MW clearly relates to "one complete module". Additionally, in the letter dated 18/04/2018 from the Secretary (Power) to the Joint Secretary MoEFCC, it is clearly mentioned as under:

"Please refer to discussions in the matter of running of Module – 1 of Pragati Power Station – III, Bawana in compliance with the Hon'ble Supreme Court' order dt 05.02.2018....."



Apart from above in letter dated 27.04.2018 by Chief secretary, Delhi to Secretary, MoPNG, it is also clearly mentioned as under:

“Hon’ble Supreme Court of India, Vide its order dated 05.02.2018 in MC Mehta vs Government of India case (WP 13029/1985, has directed to run one Module of Pragati Power Station-III (PPS-III), Bawana as its capacity wef 01.03.2018”

e) Therefore, the order of Hon’ble Supreme Court requires the generating station to run 600 MW with available 1.564 MMSCMD no-cut category Non-APM domestic gas, along with additional top-up RLNG available to it, for which the RLNG Gas was made available at discounted prices. Thus, clearly 600 MW of the capacity does not equal to 216 MW capacity of a Unit (Gas Turbine) of generating station. Even if 1GT is run in combined cycle, it will deliver only 342.8 MW as against 600 MW and will consume lesser than the 1.564 MMSCMD no-cut category Non-APM domestic gas which is not the case as directed by the Hon’ble Supreme Court A calculation sheet of requirement of the gas for generation of 600 MW as submitted by GAIL vide letter dated 04/01/2018 also formed part of the affidavit dated 13/07/2018 as placed by MoPNG before the Hon’ble Supreme Court. The Hon’ble Supreme Court had heard the matter based on the affidavit as placed by the MoPNG and accordingly issued the order. Thus, Hon’ble Supreme Court allowed 600 MW power to be generated from generating station with no cut Non-APM domestic gas and additional top-up by RLNG.

III. The quantity of APM gas required per day for operation of one module at full load

a) The quantity of APM gas required per day for operation of one module at full load is 2.72 MMSCMD approximately at GCV of 9500 and at 85% normative PLF. However, the gas quantity may vary on variation of actual Gross Calorific Value of the gas supplied.

IV. The ramp up rate and ramp down rate of each GT, ST and Module

The Ramp up rate of GTs is as under:

S. No.	Stage	Time	Comments
1	Gas Turbine start up till synchronization 35MW	25 mins	Predefined Ramp rates within the Turbine control system
2	Loading from 35 MW to 70 MW	60 mins	Fuel gas temperature can only be raised gradually consequent to establishment of a minimum gas flow, after GT synchronization, that makes control of Gas temperature possible.
3	70 MW to base load	75 mins (2 MW/min)	Fuel gas temperature needs to be raised gradually while changing to premix mode and avert unloading of the machine due to lower temperature mid way.
	Total (from RSD to rated load)	160 mins	



In the case of HRSG and STG, the individual modules start up and full load times in various conditions are as per following details:

Unit	Ramp up (MW/min)	Ramp down (MW/min)	Steam Turbine start up time
STG-1 & 2	2.5 – 3 MW/min	2.5 – 3 MW/min	Cold Start – 480 min Warm Start – 240 min Hot Start – 120 min

Above start up and loading time have been arrived at by taking the following assumptions of conditions of operation:

- i) Both GTs are in service and load raised on both GTs in parallel.
- ii) Start time is from turning gear up to synchronization of STG.

V. The quantity of APM gas consumed per day for production of power around 225 MW on few days, in the past

a) The GCV of the supplied gas continuously varies significantly due to variation in composition of gas components, therefore the GCV as billed by GAIL is average of total heat energy supplied. The loading of 225 MW has also undergone significant variation based upon the energy content of the gas, therefore actual generation and gas consumption/energy consumption is as under:

Date	Generation (Mus)	Average Load (MW)	Gas Consumption, NAPM (SCM)	GCV (kCal /SCM)	Gas Consumption (MMBTU)
16.09.22	6.888	287	1303103	9440.311	48816.26065
17.09.22	7.116	297	1330513	9508.918	50205.31395
18.09.22	7.151	298	1351407	9411.815	50472.9872
19.09.22	7.564	315	1418699	9405.673	52951.66264
20.09.22	7.151	298	1394087	9378.716	51883.91332
21.09.22	7.266	303	1368137	9444.331	51274.36026
22.09.22	6.837	285	1281991	9571.792	48694.25117
23.09.22	6.819	284	1278021	9569.213	48530.37804
24.09.22	6.805	284	1294385	9425.160	48411.84851
25.09.22	6.809	284	1296921	9417.716	48468.3879
26.09.22	7.138	297	1311213	9672.317	50327.25354
27.09.22	7.046	294	1326058	9471.063	49838.01175
28.09.22	7.026	293	1321277	9464.464	49623.725
29.09.22	7.108	296	1338988	9455.251	50239.9513
30.09.22	7.280	303	1357139	9519.774	51268.47885

12. Accordingly, Respondent has submitted that the present petition lacks merits and deserves to be dismissed.



13. Also, the Respondent SLDC on 20.10.2022, in compliance to the directions vide RoP dated 27.9.2022 has submitted the following:

a) During hearing of the Civil Writ Petition 13029/1985 on 5.02.2018, Hon'ble Supreme Court in its record of proceedings recorded that learned ASG (Additional Solicitor General) has informed the Hon'ble Court that Bawana Power Plant Unit 1 will start working at its full capacity by 1.3.2018 and necessary steps have already been taken in this regard. Hon'ble Court has further recorded in RoP that we make the statement of learned ASG a direction of this Court. Further, during hearing of Civil Writ Petition 13029/1985 on 16.7.2018, Hon'ble Supreme Court in its record of proceedings recorded that the MoPNG has given assurance that the Bawana power plant will get 1.564 MMSCD of APM gas without cut. As per Bawana intimation vide message no CCGT13052021/07 dated 13.5.2021, in order to utilize 1.564 MMSCD of APM gas, one module of CCGT Bawana has to be kept in operation.

b) TPDDL vide letter dated 30.1.2019, addressed to Secretary, (Power) Department of Power. Govt. of NCT of Delhi has raised the issue of load shedding due to less generation from CCGT Bawana. In this letter, TPDDL has mentioned that Bawana plant is to be run at around 400 MW to 450 MW as per Hon'ble Supreme Court order dated 05.02.2018. Accordingly, the declared capacity of Bawana has been considered by TPDDL and other Delhi Discoms while finalizing the consumer load requirement / demand. In order to generate 400 MW to 450 MW from Bawana Plant, at least one module (2 GT and 1 STG) has to be in operation.

c) From the letter of TPDDL dated 30.1.2019, it is quite clear that Petitioner was aware that Bawana is to be run at around 400 MW to 450 MW in line with Hon'ble Supreme Court's orders dated 05.02.2018 and 16.07.2018. As per Delhi Grid Code, Para-23, Demand Forecast, Delhi SLDC is doing short term (one day to 52 weeks) demand estimation in line with the contracts entered into by Distribution Licensees with Generating companies and others. Relevant portion of Delhi Grid Code i.e. Para- 23, Demand Forecast of is reproduced hereunder:

"23 Demand forecast

23.1 The SLDC shall set out the responsibilities for short term (one day to 52 weeks) demand estimation of active power as well as reactive power. It shall also provide for procedures as well as timelines to be followed for exchange of information between concerned entities for arriving at these estimates /forecasts:

Provided that the SLDC shall refer to the demand forecast considered by the STU while developing the transmission system plan under Regulation 9 of these Regulations.

23.2 The demand estimation shall cover the time scales as applicable for operational purposes. The time scales should be decided after giving due considerations to the requirements under other existing Regulations for furnishing demand forecast related information."



d) Accordingly, SLDC prepares power supply position (including demand) of Delhi on seasonal basis, in line with LTA and MTOA executed by Distribution Licensees operating in Delhi. Distribution Licensees provide the details of short-term arrangement (Banking, Bilateral transactions) to SLDC. After incorporating the short-term arrangement provided by Delhi Discom, SLDC prepares Power supply position of Delhi as a whole and Discom wise. Power supply position is shared with all Distribution Licensees operating in Delhi including petitioner also.

e) In the circulated power supply position, it is clearly mentioned that SLDC has considered 525 MW (Delhi share) generation from Bawana during summer season and 400 MW during winter season. From this also, it is clear that Petitioner was already knowing that one module (2 GT & 1 STG) has to be in operation to achieve 400 MW -525 MW generation. Petitioner had not objected to SLDC on the generation proposed from Bawana. From time to time Bawana plant has communicated in scheduling portal messages to SLDC giving reference of Hon'ble Supreme Court order for providing schedule of one full module of Bawana. The message received in scheduling portal is also visible and known to all Distribution licensees including Petitioner.

f) A meeting was held in SLDC on 6.07.2020 to discuss the issues raised by TPDDL i.e. Petitioner related to scheduling and billing methodology of Bawana generating station. The meeting was attended by all stake holders of Delhi Power System. As per the MOM dated 11.08.2020, it was mutually agreed between Discom and PPCL that composite rate would be use for billing for up to MTL of one full module considering the direction of Hon'ble Supreme Court wherein Hon'ble Supreme Court has mandated to run one module of Bawana. It is very much evident that TPDDL i.e. Petitioner was already knowing that one module of CCGT Bawana has to be run as per direction of Hon'ble Supreme Court.

g) From the above it is clear that all the beneficiaries of Bawana CCGT including Petitioner were aware that one module (2 GT and 1 STG) has to be in operation to utilize the 1.564 MMSCD of APM gas without cut as per direction of Hon'ble Supreme Court. In view thereof, it is submitted that this Hon'ble Commission may take the submissions made and the data placed on record.

Additional Submissions of Petitioner

14. The Petitioner, on 4.11.2022 has submitted the following:



a) The events pertinent for adjudication of the present petition are listed below in a chronological order for the sake of convenience:

S. N	Date	Particulars
1.	13.08.2009	TPDDL entered into a Power Purchase Agreement (“PPA”) with PPCL for a capacity allocation to be decided by Ld. DERC from time to time. Bawana Power Plant apart from supplying power to the distribution licensees of Delhi has also entered into PPAs with distribution licensees in the States of Punjab and Haryana.
2.	13.12.2017	In order to combat the air pollution within Delhi-National Capital Region (“NCR”), the Hon’ble Supreme Court in W.P. (C) No. 13029/1985 sought suggestions/measures from Ministry of Environment, Forest and Climate Change (“MoEFCC”), including, for making natural gas available to power plants in Delhi.
3.	02.01.2018	Pursuant to the above order dated 13.12.2017, MoEFCC under the Chairmanship of its Secretary, held a Review Meeting on W.P. (C) No. 13029/1985 (“Review Meeting”), wherein it was decided as under: <i>“Accordingly, in order to optimize the generation cost of Bawana Power Plant, Delhi Government owned Genco, Pragati Power Corporation Limited and GAIL have worked out an understanding wherein GAIL has offered to cut gas transportation cost and marketing margin by half and PPCL will share the efficiency improvement gains achieved due to increased utilization of the plant for bringing down the generation cost. These measures will improve Bawana power cost effectiveness and plant will qualify in merit order dispatch. This arrangement will allow one module (686.5 MW) of Bawana Gas Plant to run continuously. At present Bawana generates about 250 MW of power. With the above arrangement, generation from Bawana would be stepped up to 600 MW with one complete module of plant in operation. In order to reduce pollution, this increased generation of 350 MW from gas based generating station can substitute generation from Coal Based Thermal Generating Station of dadri-1 during winter months. This will provide a major relief during the period when pollution is at its worst.”</i>
4.	04.01.2018	Subsequently, GAIL (India) Limited (“GAIL”) by its letter to Government of NCT of Delhi stated that for sustained and viable operation of one module (600MW) of Bawana Power Plant for a 3 year period from 01.04.2018 to 31.03.2021, the following has been considered: (a) Consistent availability of 1.564 MMSCMD of domestic gas allocated to Bawana Power Plant w.e.f. 01.04.2018. (b) 50% discount in transportation tariff (subject to requisite regulatory approval from Petroleum and Natural Gas Regulatory Board (“PNGRB”)) and 50% discount in marketing margin on additional Re-Gasified Liquefied Natural Gas (“RLNG”) supplies for a period of three years w.e.f. 01.04.2018 in order to improve viability of weighted average variable power generation cost and sustained operations of the Bawana Power Plant. In the said letter, GAIL further stated that the risk on account of change in currency exchange rates, change in domestic gas & RLNG prices and change in HH & crude prices are beyond its control, and, therefore, Government of NCT of Delhi might also like to consider reduction in fixed costs of Bawana Power Plant in order to further improve viability of RLNG supply proposal.
5.	08.01.2018	Department of Power, Government of NCT of Delhi, wrote a letter to MoEFCC providing its submissions regarding the filing of the affidavit in W.P. (C) No. 10329/1985 before the Hon’ble Supreme Court. In the said letter, Department of Power, Government of NCT of Delhi reiterated the observations made in the Review Meeting and stressed on the requirement of optimizing the generation cost of Bawana Power Plant to ensure qualification of the plant under the MOD principle.
6.	02.02.2018	Environment Pollution (Prevention and Control) Authority for NCR (“EPCA”) filed its report no. 80 (“EPCA Report”) wherein it recommended working of Bawana Power Plant Unit-I at full capacity by 01.03.2018 provided:



S. N	Date	Particulars
		<p>a. Ministry of Petroleum and Natural Gas ("MoPNG") and PNGRB have to ensure that there is supply of 1.564 MMSCMD domestic non-APM gas on continuous basis;</p> <p>b. GAIL cuts gas transportation and marketing margins by half; and</p> <p>c. PPCL shares the efficiency and improvements to bring down generation costs.</p>
7.	05.02.2018	<p>After considering the submissions made by the stakeholders as mentioned above, the Hon'ble Supreme Court in W.P. (C) No. 13029/1985 passed the following order:</p> <p><i>"(4) <u>Natural gas to be made available to power plant in NCRU</u></i> <i>For the time being, we are confining the orders today to the Bawana Plant Unit I in Delhi. The other issues will be considered on the next date of hearing i.e. 16.02.2018.</i></p> <p><i>It is stated by the learned ASG that MoEF will have detailed discussions with the Ministry of Petroleum and Natural Gas, Petroleum and Natural Gas Regulatory Board, Gas Authority of India Ltd., Pragati Power Corporation Limited and EPCA sometime next week and arrive at a final decision.</i></p> <p><i>As far as Bawana Plant Unit-I is concerned, it is stated by the learned ASG that it will start working at its full capacity by 01.03.2018 and necessary steps have already been taken in this regard.</i></p> <p><i>We make the statement of the Learned ASG a direction of this court."</i></p>
8.	02.07.2018	<p>Pursuant to Hon'ble Supreme Court's directions dated 05.02.2018, MoPNG directed GAIL to provide full requirement of 1.564 MMSCMD domestic gas to Bawana Power Plant Unit-I and the same was to be exempted from any pro-rata cut.</p>
9.	09.07.2018	<p>GAIL by its letter to MoPNG submitted that it has reduced its marketing margin by 50% for supply of RLNG to Bawana Power Plant in order to run Unit-I at full capacity.</p> <p>However, as far as pipeline transportation tariff was concerned, PNGRB vide its letter dated 06.07.2018 had conveyed that there is no Presidential Sanction for 50% reduction in pipeline transportation tariff.</p>
10.	13.07.2018	<p>MoPNG filed an affidavit in W.P. (C) No. 13029/1985 before the Hon'ble Supreme Court and submitted as under:</p> <p><i>"8. That with regard to the natural gas supply to Bawana Plant Unit-I, MOP&NG vide letters dated 26.02.2018 & 03.04.2018 communicated MoEF&CC about the natural gas supply position for Bawana Plant operations. Further, in compliance of the order dated 10.05.2018 of Hon'ble Supreme Court, MoP&NG reviewed the issue and took major decision of putting the Bawana Plant Unit-1 under no cut category to ensure the consistent supply of domestic gas and vide letter dated 02.07.2018 with a copy to MoEF&CC and Government of NCT Delhi, directed M/s GAIL (India) Limited (hereinafter referred as GAIL) to supply 1.564 MMSCMD of domestic gas, which is much cheaper than RLNG. In case of any additional gas demand over and above 1.564 MMSCMD for Bawana Plant Unit-I, the same may be met through the market based RLNG/natural gas."</i></p>
11.	16.07.2018	<p>Considering the affidavit of MoPNG, the Hon'ble Supreme Court passed an order in W.P. (C) No. 13029/1985 directing as under:</p> <p><i>"Issue No. 2: <u>Natural gas to be made available to power plants in NCR</u></i> <i>This issue concerns the availability of gas supply to Unit-I of Bawana Power Plant. The decisions taken are that the Ministry of Petroleum and Natural Gas has given assurance that the Bawana Power Plant will get 1.564 mmscd of APM gas without cut and GAIL has taken a cut of 50% on its marketing margin.</i></p> <p><i>Insofar as the condition that GAIL would take a 50% reduction in pipeline transmission costs has not been accepted. This is because the regulator has raised concerned about this condition. The Ministry of Petroleum and Natural Gas has filed an affidavit in this regard</i></p>



S. N	Date	Particulars
		<i>The EPCA has reviewed the situation and in so far as issue No.1 and 2 are concerned, viz., the availability of APM gas and 50% cut by GAIL, there is no objection to it by EPCA. Insofar as the regulatory issues are concerned, EPCA does not press it any further. This issue, therefore, now stands resolved and closed."</i>
12.	23.10.2020	Delhi Power Procurement Group had a meeting wherein the issue of Bawana Power Plant utilizing expensive RLNG in addition to economic gas was deliberated. In the meeting, PPCL indicated that if Bawana Power Plant generated power corresponding to 1 Gas Turbine ("GT") and ½ Steam Turbine Generator ("STG"), very minor portion of allocated gas remains unused which cannot be used later and is diverted by GAIL.
13.	24.11.2020	TPDDL wrote a letter to Ld. DERC submitting that Bawana Power Plant can generate around 320 MW power corresponding to 1.564 MMSCMD economic gas allocated to it as per Hon'ble Supreme Court Order dated 16.07.2018. However, as per SLDC's instructions the Bawana Power Plant continued to generate power in the range of 480 MW to 500 MW (on the pretext of a very minimal quantum of 1.564 MMSCMD of APM gas left unutilized) thereby using costly gas over and above the APM gas allocated as per order dated 16.07.2018 of the Hon'ble Supreme Court. TPDDL requested Ld. DERC to take cognizance of the issue and direct SLDC to ensure that generation from Bawana Power Plant is restricted to the economic gas allocated to it to avoid the undue financial burden on consumers of Delhi on account of excess generation by Bawana Power Plant.
14.	06.01.2021	TPDDL wrote another letter to Ld. DERC stating that Bawana Power Plant should be directed to restrict its generation to 320 MW corresponding to economic gas allocated to it in line with Hon'ble Supreme Court's order dated 16.07.2018. TPDDL also suggested that if Bawana Power Plant wants to operate full module upto 500 MW, it should approach Hon'ble Supreme Court for further gas allocation at same rates.

Hon'ble Supreme Court Orders pertain to only 'Unit-I' and not one module of the Bawana Power Plant

b) The Hon'ble Supreme Court's orders dated 05.02.2018 and 16.07.2018 categorically and specifically record "Unit-I" and not one module. It may be noted that the issue framed by the Hon'ble Supreme Court in its Order dated 16.07.2018 reads as "*This issue concerns the availability of gas supply to Unit-I of Bawana Power Plant*". There is no ambiguity in the SC orders, thus only a literal interpretation can be given to the SC Orders. Accordingly, any averment of the Respondents to suggest that the SC Orders require operation of one module instead of Unit-I is baseless. Relevant extract of the SC Orders is already reproduced at Serial No. 07 and 11 of the table at above Paragraph (a) of the present written submission.

c) Further, a bare perusal of the documents which were relied upon by the Hon'ble Supreme Court before passing the SC Orders clarifies that the direction was only for Unit-I of Bawana Power Plant:

i) Though EPCA discussed about reduction in gas cost and continuous availability of gas for running one module of Bawana Power Plant, however, ultimately in the EPCA Report, working of only Bawana Power Plant **Unit-I**, and not of the entire module, was recommended;

ii) MoPNG in its letter dated 02.07.2018 directed GAIL to provide 1.564 MMSCMD domestic gas to Bawana Power Plant Unit-I only;



- iii) GAIL in its letter dated 09.07.2018 informing MoPNG about its decision of reducing its marketing margin by 50% for supply of RLNG to Bawana Power Plant also mentioned Unit-I only.
- d) Even the quantity of economic gas i.e., 1.564 MMSCMD that was allotted to Bawana Power Plant was sufficient only to run Unit-I and not the entire module. The Hon'ble Supreme Court *vide* the SC Orders had directed GAIL to provide consistent supply of 1.564 MMSCMD of APM Gas to Bawana Power Plant to run its Unit-I. The intention of Hon'ble Supreme Court was neither to produce electricity using expensive RLNG gas nor to produce electricity over and above what is required by the Delhi DISCOMs. However, the Respondents are deliberately acting in violation of the SC Orders and attempting to provide a wrong and misconstrued interpretation to the SC Orders (which are otherwise clear and unambiguous) before this Hon'ble Commission.
- e) Running of one module of Bawana Power Plant on a continuous basis by the Bawana Power Plant regardless of the scheduling requirements by the beneficiaries, has led to the production of power in excess of what is required by the DISCOMs which is (a) unnecessarily financial burden on the consumers in Delhi to the tune of nearly Rs 500 Crores; and (b) wanton waste of scarce natural resources. The Hon'ble Supreme Court *vide* SC Orders only intended to reduce air pollution and did not intend nor direct Respondent No. 1 to produce more power and forcefully schedule it to distribution licensees, beyond their requirement or waste precious natural resources.
- f) SLDC is justifying its actions of directing PPCL to generate power in the range of 480 MW to 500 MW from Bawana Power Plant on the pretext that some minuscule quantum out of 1.564 MMSCMD of economic gas remains unutilized after generating power from Unit-I. In this regard, it is pertinent to note that to use the minuscule unutilized economic gas, SC Orders nowhere contemplates running of the additional unit of the Bawana Power Plant using the expensive RLNG gas and increasing the variable generation cost manifolds resulting in further increase in the power purchase cost for the end consumers.
- g) In terms of the definition of 'generating unit' under the IEGC 2010, it is clear that a generator is coupled to a single turbine. Whereas one module comprises of two GT and one STG and accordingly, PPCL's argument that Unit-I is same as one module is in the face of the extant regulatory framework.
- h) The conduct of the Respondents demonstrate that the Respondents are attempting to gain unjust enrichment/ undue benefit by forcefully scheduling the expensive RLNG based power to DISCOMs in violation of MOD principles and despite DISCOMs having no requirement for the same. It is pertinent to note that although the Respondents were well aware of the SC Orders and the basis of such Orders, Respondents kept on forcefully scheduling power to DISCOMs despite their vehement objections. The Respondents stopped forcefully scheduling additional power generated from Bawana Power Plant only after filing of the present petition. The conduct of the Respondents posits that they were well aware that the SC Orders do not in any manner mandate forceful scheduling of power from the Bawana Power Plant. Pertinently, *vide* the order dated 27.09.2022, this Hon'ble Commission categorically sought from SLDC, "*Relevant regulations and rules under which, it has scheduled higher[power]to the beneficiaries than their respective requisition, on occasions, as applicable.*" However, SLDC in its additional submissions failed to provide any such regulations or rules which entitle it to schedule higher power to the beneficiaries than their respective requisitions.



i) Contrary to the submissions of PPCL that there is no Unit-I at Bawana Power Plant but only GT-I and STG-I (Para 14 of Reply of PPCL), as per Unit-Wise generation data of Bawana Power Plant available at SLDC's website for 26.09.2022, the generation of power by PPCL is being done on unit wise basis and PPCL has been operating 1 GT and ½ STG. This posits the fact that Unit-I can be operated by utilising the economic gas without any technical limitations. For this reason alone, the submissions of PPCL should not be considered. The relevant extract from SLDC's website on a sample basis for 26.09.2022 is reproduced hereinbelow for the sake of convenience.

Scheduling more than requisitioned power is in violation of the Code

j) SLDC being a statutory body is duty bound to schedule power from the station as per the Code. The scheduling of power must not be more than the requirement of the DISCOMs, except for reasons of grid security. SLDC being the apex body for ensuring integrated operation of the power system must judiciously give directions to the DISCOMs for scheduling and dispatching optimum electricity within the State. As per the Clause 6.4 (16) of Code,

“In case of a gas turbine generating station or a combined cycle generating station, the generating station shall declare the capacity for units and modules on APM gas, RLNG and liquid fuel separately, and these shall be scheduled separately.”

Accordingly, PPCL is obligated to declare the capacity for the respective units of the Bawana Power Plant separately for each kind of fuel viz., economic gas and RLNG. Further, it is not open for SLDC to disregard any provision of the Code such as Clause 6.4 (16).

k) In addition to the violation of the SC Orders, the conduct of PPCL and SLDC is in blatant violation of extant provisions of the Code also. Before instructing PPCL to run its full module, SLDC did not consider whether there was a corresponding demand/ requirement by the beneficiaries or DISCOMs. SC Orders never directed running of one entire module on its full capacity irrespective of requisition by the DISCOMs. Thus, it is further submitted that the present conduct and stand of Respondents is counterproductive and against the principles, and objects sought to be achieved by the Electricity Act, 2003 which is protection of the interest of consumers and promotion of efficiency and economy. The Respondents cannot be allowed to breach the right and the obligation of the DISCOMs to procure the cheapest available power especially considering such right is in end consumer's interest and duly captured in the Act.

Scheduling of power from Bawana Power Plant is in violation of MOD principle

l) The scheduling of power has to be undertaken in compliance with MOD principle through which Ministry of Power aims to maximise utilization of cheaper power. The principle is also reiterated in the CERC (Security Constrained Economic Dispatch) orders, issued from time to time. Through the MOD principle, the DISCOMs are enabled to optimally utilize the available resources by purchasing power at lesser tariff and reducing the overall average cost of power for the end consumers. As per the applicable regulatory framework, for continuous scheduling of power from a generating station, the cost of generation has to be attuned as per the MOD principle. Accordingly, cheaper generating stations are given priority over the costlier stations and the power is scheduled up to the maximum generating capacity of the cheaper generating stations compared to the other costlier generating stations.

m) The cost of power from the Bawana Power Plant was around Rs 6.598 per unit on economic gas and Rs 25.962 per unit on RLNG (as per email dated 20.10.2022 received from PPCL with



respect to energy cost of Bawana Power Plant), which is extremely high and places Bawana Power Station in MOD stack at 20thP position on economic gas and at 20thP position on RLNG. Therefore, scheduling of power from Bawana Power Plant is in violation of MOD principle when cheaper power procurement alternatives are available. Considering Bawana Power Plant is at rank 20thP on MOD stack even on economic gas, the Petitioner is not obligated to schedule any power from the Bawana Power Plant.

n) The SC Orders nowhere mandate scheduling of power from the Bawana Power Plant irrespective of the MOD stack for scheduling. In fact, the documents which were relied upon by the Hon'ble Supreme Court for passing the SC Orders clearly establish that the directions were passed with the understanding that it will ensure optimisation of cost of generation for Bawana Power Plant for it to qualify under the MOD principle. In EPCA Report it was clearly mentioned that Hon'ble Supreme Court may direct running of Bawana Power Plant Unit-I at full capacity only if *inter-alia* MoPNG and PNGRB ensure continuous supply of 1.564 MMSCMD of natural gas and GAIL cuts transportation and marketing margin by half. Even the subsequent letter dated 04.01.2018, GAIL clearly mentions that it was offering discount in transportation tariff and marketing margin in order to improve viability of weighted average variable power generation cost and sustained operation of Bawana Power Plant. Thus, from EPCA Report and GAIL's letter dated 04.01.2018, it is clear that cost of generation of power from Bawana Power Plant had to be cheaper to ensure that it falls within the MOD stack for scheduling.

o) In the minutes of the Review Meeting the following was *inter alia* noted:

- a) For continuous scheduling of power generated from Bawana Power Plant, the cost of generation has to be optimised for qualifying in the MOD principle.
- b) At the relevant time, the highest rate power scheduled was from Dadri-I. So, for getting power scheduled, the gas based plants should at least match with the rate of power offered by Dadri-I.
- c) RLNG is too costly for getting power scheduled, therefore, for getting power scheduled, a minimum mix of domestic gas would be required for Bawana Power Plant.

In view of the above, to ensure that Bawana Power Plant qualifies in MOD, it was decided in the review meeting that GAIL would cut the transportation tariff and marketing margin by half.

p) Subsequently, the Department of Power, Government of NCT of Delhi in its letter dated 8.01.2018 to MoEFCC, reiterated the observations made in the Review Meeting and stressed on the requirement of optimizing the generation cost of Bawana Power Plant to ensure qualification of the plant under the MOD principle. The order dated 16.07.2018 was passed by the Hon'ble Supreme Court based on the submissions made by MoPNG in its affidavit dated 13.07.2018. The Hon'ble Supreme Court had directed no cut supply of 1.564 MMSCMD of APM Gas to the Respondent No. 1 to enable it to run "Unit I" in an economical manner so that it falls within the MOD stack. Thus, even the Hon'ble Supreme Court did not intend or directed forceful scheduling or scheduling over and above the demand.

q) Only the 'must run power plants' i.e., wind, solar, wind-solar and hydro power plants are exempted from the MOD principle as provided under Rule 3 of Electricity (Promotion of Generation of Electricity from Must-Run Power Plant) Rules, 2021. A thermal power plant like Bawana Power Plant does not fall within the exemption provided by Generation Rules, therefore is required to



abide by the MOD principle. It is further submitted that by forced scheduling of power by Respondents in complete disregard of the MOD principle, the end consumers are adversely suffering. The cost borne by DISCOMs translates to higher cost on consumers of Delhi and thus is a financial burden on the consumers of Delhi by way of Annual Power Purchase Costs and Quarterly Power Purchase Adjustment Charges.

Response of the Respondent PPCL to the additional submissions of TPDDL

15. Respondent PPCL in its additional submission dated 20.10.2012 has submitted as follows:

(a) As per the technical recommendation letter from OEM/OED i.e., BHEL (Gas Turbine Engineering Division), the minimum technical limits for stable operation of Bawana Power Plant is 75%-80%. In this regard, it is pertinent to note that as per Clause 6.3 B of the Code, the technical minimum schedule for operation of a generating station is 55% of MCR loading or installed capacity of the unit at the generating station. Relevant extract of Regulation 6.3B of the Code is as follows:

“6.3B – Technical Minimum Schedule for operation of Central Generating Stations and Inter-State Generating Stations

1. The technical minimum for operation in respect of a unit or units of a Central Generating Station of inter-State Generating Station shall be 55% of MCR loading or installed capacity of the unit of at generating station.”

(b) Accordingly, in case PPCL has installed gas turbines which are not in accordance with the extant regulatory framework it ought to have filed an appropriate petition for seeking deviations from the above Regulations. However, PPCL has not been permitted any such deviation. Hence, the technical minimum limit of 55% under the Code prevails. It is further submitted that considering gas availability of 1.564 MMCMD with Gross Calorific Value of 9500 kcal/kWh and Station Heat Rate of 1950 kcal/kWh, the possible generation of power is 320 - 330 MW.

Additional submissions of Respondent SLDC

16. The Respondent SLDC vide additional submissions dated 20.10.2022 has submitted the following:

(a) The composite rate was being used for billing up to MTL for one full module., It is pertinent to note that the PPA does not prescribe for composite rate nor was any addendum or subsequent agreement entered into between the Petitioner and Respondent PPCL for application of any composite rate. Thus, application of composite rate is completely arbitrary. As far as the minutes of the meeting dated 11.8.2020 relied upon by SLDC are concerned, at the outset it is submitted that these minutes are not signed and therefore have no evidentiary value. Without prejudice, it is further submitted that as per Regulation 43 of the 2019 Tariff Regulations, notified by this Commission, the energy charges are required to be calculated on the basis of scheduled energy. Further, for levying of composite energy charges, specific approval of this Commission is required which has not been taken in the present case. Therefore, Respondents are obligated to bill DISCOMs as per their own



schedule on different fuels and not on composite rate in case of Combined Cycle Gas Turbine plant.

Analysis and Decision

17. We have considered the issues raised by the parties. We have also considered the submissions of the parties made during the course of hearing and also the written submissions filed. Under these circumstances, the following issues arise for our considerations:

(A) Whether Hon'ble Supreme Court order dated 05.02.2018 and 16.7.2018 directs PPCL to run its one whole module or one unit / one module on part load as per the directions to GAIL to provide APM gas to the tune of 1.564 MMSCD to Bawana Power Plant.

(B) Whether SLDC could schedule power over and above one unit (up to the consumption of 1.564 MMSCD gas) even though the same was not requested by the beneficiaries

We examine the issue in subsequent paragraphs

Issue No.(A) Whether Hon'ble Supreme Court order dated 05.02.2018 and 16.7.2018 directs PPCL to run its one whole module or one unit / one module on part load as per the directions to GAIL to provide APM gas to the tune of 1.564 MMSCD to Bawana Power Plant.

18. Due to increasing pollution in the NCT of Delhi, the Hon'ble Supreme Court vide its order dated 5.2.2018 in W.P. (C) No. 13029/1985, directed as follows:

“(4) Natural gas to be made available to power plant in NCR

For the time being, we are confining the orders today to the Bawana Plant-I in Delhi. The other issues will be considered on the next date of hearing i.e. 16.02.2018.

It is stated by the learned ASG that MoEF will have detailed discussions with the Ministry of Petroleum and Natural Gas, Petroleum and Natural Gas Regulatory Board, Gas Authority of India Ltd., Pragati Power Corporation Limited and EPCA sometime next week and arrive at a final decision.

As far as Bawana Plant Unit-I is concerned, it is stated by the learned ASG that it will start working at its full capacity by 01.03.2018 and necessary steps have already been taken in this regard.

We make the statement of the Learned ASG a direction of this court.”

19. In terms of the directions of the Hon'ble Supreme Court above, the MoPNG directed GAIL to provide full requirement of 1.564 MMSCMD gas to the Bawana Power Plant of the Respondent PPCL and the same was to be exempted from pro-rata cut. Thereafter, the Hon'ble Supreme Court in its order dated 16.7.2018 observed that MoPNG in its meeting had decided to provide Bawana Power Plant 1.564 MMSCMD of APM gas without cut. The relevant portion of the order is extracted below:



“ISSUE NO.2: Natural Gas to be made available to power plants in NCR

This issue concerns the availability of gas supply to Unit-I of Bawana Power Plant. The decisions taken are that the Ministry of Petroleum and Natural Gas has given assurance that the Bawana Power Plant will get 1.564 MMSCMD of APM gas without cut and GAIL has taken a cut of 50% on its marketing margin.

Insofar as the condition that GAIL would take a 50% reduction in pipeline transmission costs has not been accepted. This is because the regulator has raised concerned about this condition. The Ministry of Petroleum and Natural Gas has filed an affidavit in this regard.

The EPCA has reviewed the situation and in so far as issue No.1 and 2 are concerned, viz., the availability of APM gas and 50% cut by GAIL, there is no objection to it by EPCA. Insofar as the regulatory issues are concerned, EPCA does not press it any further. This issue, therefore now stands resolved and closed.”

20. We observe from the facts and circumstances that the above orders of the Hon’ble Supreme Court were basically intended to minimize the usage of coal for power generation and to provide the adequate gas for generation of power from the generating station of the Respondent PPCL. With the combined efforts of MoPNG, Petroleum and Natural Gas Regulatory Board, Gas Authority of India Ltd., PPCL and EPCA, the no cut supply of gas to the tune of 1.564 MMSCMD was ensured to the Bawana Power Plant of the Respondent PPCL. Subsequent to these orders, the Bawana Power Plant started getting the gas quantity of 1.564 MMSCMD without cut and GAIL has taken a cut of 50% on its marketing margin (as per the said orders) for the gas over and above the assured gas quantity of 1.564 MMSCMD.

21. The main contention of the Petitioner’ is that while the Hon’ble Supreme Court in its orders had specified for the running of ‘one unit’ (Unit-I), SLDC has interpreted the same as One Module. The Petitioner further stated that Bawana Power Plant had to produce only around 320 MW of power to stay on bar as per gas allocation orders of the Hon’ble Supreme Court. It has submitted that though Bawana Power Plant can generate around 320 MW power by utilizing around 1.564 MMSCMD as per the Hon’ble Supreme Court’s direction, SLDC has been misinterpreting the Hon’ble Supreme Court’s order and has been directing Bawana Power plant to generate in the range of 480 MW to 500 MW, on the pretext that some minuscule quantum out of 1.564 MMSCMD of APM gas remains unutilized. Hence, in order to consider and understand the issue of one unit/one module, we have perused the various correspondences between the parties, to ascertain the intent of the parties in relation to the orders of Hon’ble Supreme Court.



(a) The combined capacity of Pragati-III Power Plant is 1371.20 MW. The details of the capacity of the units of Pragati-III are 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 MW

(b) As per SLDC website, the unit-wise capacity of Bawana Power Plant is indicated as given below.

Unit Name	Capacity	Generation (MW)
Unit-1	216	187.81
Unit-2	216	-3.37
Unit-3	216	-0.62
Unit-4	216	-1.19
STG-1	253.6	102.44
STG-2	253.6	0.00

c) From the two tables above, it is evident that one Block corresponds to 685.60 MW (comprising of 2 GT of 216 MW each and one of STG of 253.60 MW) whereas, one Unit corresponds to 216 MW. Now looking in the background of the Hon'ble Supreme Court orders for assuring minimum gas of quantum out of 1.564 MMSCMD and running one unit or one module the facts are as follows:

- i) Special Secretary, Power, Government of NCT of Delhi vide letter dated 08.01.2018 informed the Joint Secretary, Ministry of Environment, Forest and Climate Change, the stand of Government of Delhi wherein it has been categorically mentioned that one module of PPCL, Bawana has to run to control the pollution.
- iii) Environment Pollution (Prevention and Control) Authority for NCR, a statutory body constituted under the Environment Protection Act, 1986 pursuant to the direction of the Hon'ble Supreme Court in the MC Mehta case (supra), has commended the running of one full module (686.5 MW) of the Bawana generating station and has further, recommended that the scheme should progressively cover the entire capacity of the Bawana generating station (1371 MW). The relevant extracts from the Report No. 80 submitted by the EPCA before the Hon'ble Supreme Court in the said Writ Petition inter- alia reads as under:



	<i>Date of direction of Hon'ble SC/issue</i>	<i>Status of action taken as per the IA of 1.2.2018</i>	<i>Comments of EPCA, if any and directions sought from the Hon'ble Court</i>
4.	<i>Natural gas to be made available to power plants in NCR</i>	<i>Progress has been made in these deliberations. It is proposed that reduction in gas cost and continuous availability will allow one module (685.6 MW) of Bawana to run at full capacity – up from 250 MW currently. This will substitute 350 MW of power from Dadri-1 during winter months (R-8).</i>	<i>This is excellent progress and all agencies must be commended for making this possible. This suggested scheme also points to how the use of cleaner gas can be scaled up in the NCR/country. The conditions for ensuring this are as follows (R-8): d. MOPNG and PNGRB have to ensure that there supply of 1.564 MMSCDM domestic non-APM gas on continuous basis; e. GAIL cuts gas transportation and marketing margins by half; f. PPCL (Pragati Power) shares the efficiency improvements to bring down generation costs. <u>Based on this, the Hon'ble Court may direct that the Bawana Plant Unit 1 must begin working at full capacity by March 1, 2018.</u> This scheme should be further explored to see how it could be implemented progressively to cover the full capacity of Bawana Plant.</i>

d) From the table in above para, it is abundantly clear that before the orders of Hon'ble Supreme Court, PPCL generating station Bawana was running at around 250 MW and it was envisaged/ proposed that the reduction in gas cost and continuous availability, will allow one module (685.6 MW) of Bawana Plant to run at full capacity and not the (one unit; 216 MW) anything less than 250 MW of the capacity, which was in practice before the issuance of Hon'ble Supreme Court orders.

e) The 2014 Tariff Regulations, applicable for the period 2014-19 defines the terms, 'Block' and 'Generating Unit' as under.

*"3. Definitions and Interpretations: In these regulations, unless the context otherwise requires-
xxxx*

(7) 'Block' in relation to a combined cycle thermal generating station includes combustion turbine-generator, associated waste heat recovery boiler, connected steam turbine-generator and auxiliaries;

xxx.....

"(26) 'Generating Unit' in relation to a thermal generating station (other than combined cycle thermal generating station) means steam generator, turbine-generator and auxiliaries, or in relation to a combined cycle thermal generating station, means turbine generator and auxiliaries; and in relation to a hydro generating station means turbine generator and its auxiliaries;"

22. The table in para (b) above and the definitions under the 2014 Tariff Regulations, (applicable for the period 2014-19) above, implies that corresponding to a combined cycle gas based generating station, a unit means, turbine generator and auxiliaries only and a Block in relation to



a combined cycle thermal generating station includes combustion turbine-generator, associated waste heat recovery boiler, connected steam turbine-generator and auxiliaries. Therefore, the contention and of the Petitioner that one unit as referred to in the orders of Hon'ble Supreme Court pertains to one Unit, (one GT and half STG) is simply erroneous. When the power is generated by using GT and STG both, the same pertains to Block only. Therefore, the interpretation of Petitioner is not acceptable. It is noteworthy to mention, that in the Petitioner's letter dated 30.1.2019 addressed to the Secretary (Power), Department of Power, Govt. of NCT of Delhi, it has been admitted that as per the directions of the Hon'ble Supreme Court 'one Module' of Bawana Power Plant has to run. The relevant portion of the letter is quoted below.

"Subject: Load Shedding due to Bawana & Pragati Generating Stations and reliability issues thereof"

Dear Sir,

We write with reference to real time scheduling of power from two plants of PPCL (Pragati Power Corporation Limited) viz. Pragati Power Plant & Bawana Combined Cycle Power Plant and the meeting taken by the Hon'ble Power Minister on 25th January'2019 to review the coming summer scenario. During the meeting the Hon'ble Power Minister emphasized upon the point of ensuring nil load shedding in Delhi to the Gencos, Transco and Discoms amongst other issues discussed.

Considering the above we mention that TATA Power-DDL has an allocation of 63 MW and 298 MW from Pragati Power Plant and Bawana CCGT Power Plant respectively. We would like to apprise you that the Pragati Power Plant has been classified as Must Run Plant by Delhi SLDC while Bawana CCGT is to be run at around 400 MW to 450 MW as per Hon'ble Supreme Court order dated 05th Feb'2018, accordingly the Declared Capacity ("DC") of these plants is considered by TATA Power-DDL & other Delhi Discoms while finalizing the consumer load requirements/ demand to be catered to.

Considering above, power supply from these plants as per their Declared Capacity becomes critical in fulfilling the demand in our license area. We have however noted on several occasions that PPCL has failed to supply power corresponding to DC of these plants at the time of actual requirement and contingency, which many a times results in load shedding affecting the reliability of power supply. Instances where PPCL has failed to supply power corresponding to its Declared Capacity resulting in load shedding is provided."

23. It is evident from the above quoted letter, that the Petitioner had recognized and emphasized that the Hon'ble Supreme Court in its order dated 5.2.2018 had directed to run the Bawana Power Plant up to 450 MW. This stand of the Petitioner is contrary to its own stand taken in the present Petition that the said dated 05.02.2018 had directed to run 'one unit' (which corresponds to 216 MW), as per SLDC nomenclature of the units on its website. Also, the Petitioner's submission that the SLDC's instructions to the Bawana Power Plant to generate power in the range of 480 MW to 500 MW (on the pretext of a very minimal quantum of 1.564 MMSCMD of APM gas



left unutilized) thereby, using costly gas over and above the APM gas allocated as per order dated 16.07.2018 of the Hon'ble Supreme Court is contrary to the above quoted letter dated 30.1.2019 of the Petitioner.

24. Further, the contention of the Petitioner that power supply would have been restricted to 320 MW is also not in tenable, for the reason that the Respondents PPCL and SLDC have clarified that the minimum assured gas of 1.564 MMSCMD was not fully utilised by running one GT and corresponding load on STG, rather to consume unutilized gas, second GT was required to be run. As pointed out by the Respondent PPCL, for stable running of the complete module, operation of Gas Turbine of the generating station below premix mode, is not desirable, as it results in higher NOx emissions. As per the OEM recommendations, the operation of Gas Turbines was kept in the range of 75% to 80% of rated load. However, below such loading percentage and parking, the units too close to the premix transfer point, which can lead to combustion mode changes caused by load swings, owing to the response of the turbine governor, to sudden grid frequency changes. Hence a load of around 75%- 80% is ideal minimum load to operate the Gas Turbines in a reliable and environment friendly manner on combined cycle mode. As per the OEM recommendations, the Technical Minimum Ex-Bus output with normative APC is 500 MW ex-bus (75% of 685.6 MW x 0.9725). Further, the quantity of gas required per day for operation at Ex-Bus output is calculated to be approximately 2.3 MMSCMD per day approx. (at 9500 Gross Calorific Value of the gas).

25. In the above circumstances, running the one module at about 500 MW in the range as recommended by the OEM and to ensure full utilization of the allocated gas, is more appropriate than the capacity of 320 MW, as suggested by the Petitioner, which would constitute only 46.67% of the total capacity of 'one module'. It is pertinent to mention that at this load, neither the module runs at the prescribed Technical minimum nor the NOx emissions from the plant are in the recommended zone.

26. From the sequence of events narrated above, it is observed that the Hon'ble Supreme Court orders dated 05.02.2018 and 16.07.2018 had directed the gas supplier GAIL to ensure adequate



gas supply to the Respondent PPCL (generator) and for the generator to supply power to the Petitioner and other consumers. The Commission is of the view that the Hon'ble Supreme Court in its orders did not restrict the running of the generating plant to one unit or up to 320 MW only linked to allocated APM gas. The stand taken by the Petitioner in the petition, is also contradictory, since the Petitioner on 30.1.2019 has in its letter addressed to the Respondent PPCL sought the supply power up to 450 MW. It is pertinent to note that the Petitioner, instead of approaching the Hon'ble Supreme Court seeking clarification of its orders, on this issue, has, after consuming power from the said Plant for a long time, approached this Commission, by filing the present petition on 30.04.2021. The submissions of the Petitioner on this count, are therefore rejected.

Issue No. A is answered accordingly,

Issue No. B: Whether SLDC could schedule power over and above one unit (up to the consumption of 1.564 MMSCD gas) even though the same was not requested by the beneficiaries

27. The Respondent SLDC in its submission dated 20.10.2022 has stated that a meeting was held in SLDC on 6.07.2020 to discuss the issues raised by the Petitioner TPDDL related to scheduling and billing methodology of Bawana generating station. It has also stated that the meeting was attended by all stake holders of the Delhi Power System and as per the MOM dated 11.8.2020, it was mutually agreed between the Discoms and PPCL that a composite rate would be use for billing for up to MTL of one full module, considering the directions/orders of the Hon'ble Supreme Court, which mandated to run one module of Bawana. It is very much evident that the Petitioner TPDDL had full knowledge that one module of Bawana Power Plant has to be run as per the directions of Hon'ble Supreme Court. The relevant portion of the MoM dated 11.8.2020 is quoted below.

“Conclusion:

It was mutually agreed between Discoms and PPCL that, composite rates would be used for billing for up to MTL of one full module considering the directions of Hon'ble Supreme Court wherein it is mandated to run one module of BAWANA. However, for power scheduled above MTL of one full module of Bawana billing would be carried out on fuel-wise basis and corresponding quantum scheduled by each beneficiary.”

28. As mentioned earlier, the Petitioner TPDDL vide letter dated 30.1.2019 to the Secretary,



(Power) Department of Power, Govt. of NCT of Delhi, has admitted that as per the directions of Hon'ble Supreme Court one module of the Bawana Power Plant has to be run and that the said Plant has been classified as a 'must run Plant' by the Delhi SLDC and is to be run at around 400 MW to 450 MW. Accordingly, the Declared Capacity ("DC") of these plants has been considered by the Petitioner and other Delhi Discoms, while finalizing the consumer load requirements/demand.

29. Further, the Respondent SLDC in its submission dated 20.10.2022 has stated that in the circulated power supply position, SLDC has considered 525 MW (Delhi share) generation from T Bawana Plant during the summer season and 400 MW during the winter season. It is evident from this, that the Petitioner was aware that one module (2 GT & 1 STG) has to be in operation to achieve 400 MW - 525 MW generation. Also, the Petitioner did not object to the Respondent SLDC scheduling power from Bawana Power Plant. It is noticed that from time to time, the Bawana Power Plant has been communicating through portal messages to SLDC, giving reference to the orders of the Hon'ble Supreme Court, for providing schedule of one full module of Bawana Plant. The message received in the scheduling portal are also visible and is known to all the Distribution licensees including the Petitioner.

30. The Respondent PPCL has submitted that the scheduling of power from the Bawana Power Plant is determined by the Delhi SLDC in terms of the exception carved out in Regulation 6.4 (2)(c)(iii) of the IEGC, 2010. Accordingly, it has stated that since Delhi has more than 50% share from the Bawana Power Plant, the scheduling and dispatch is governed by the Delhi SLDC. It has also referred to Section 33 of the Electricity Act, 2003 and submitted that it is incumbent upon the Respondent PPCL to comply with the directions of SLDC, failing which it shall be required to pay penalty. In terms of this, the Respondent PPCL, as a generating company, is bound to comply with the directions of SLDC and has been duly injecting power, as scheduled by SLDC.

31. The Commission vide RoP of hearing dated 27.9.2022 had sought certain additional information with regard to Technical Minimum, power and energy generated by one module



through usage of 1.564 MMSCD of APM gas / day, quantity of APM gas required per day for operation of one module at full load, ramp up rate and ramp down rate of each GT, ST and Module and quantity of APM gas consumed per day for production of power around 225 MW on few days, in the past. Accordingly, the Respondent PPCL has clarified as follows:

a) Apart from the issue of stable operation, operation of Gas Turbine of the Generating Station below premix mode is also not desirable as it results in higher NOx emissions. Therefore, as per OEM recommendations, operation of Gas Turbines is kept in the range of 75% to 80% of rated load. Below such loading percentage and parking, the units too close to the premix transfer point which can lead to combustion mode changes caused by load swings owing to the response of the turbine governor to sudden grid frequency changes. Hence a load of around 75%- 80% is ideal minimum load for to operate the Gas Turbines in a reliable & environment friendly manner on combined cycle mode.

b) As per OEM recommendations, the Technical Minimum Ex-Bus output with normative APC is 500 MW ex-bus (75% of 685.6 MW x 0.9725). Further, the quantity of gas required per day for operation at Ex-Bus output is calculated to be approximately 2.3 MMSCMD per day approx. (at 9500 Gross Calorific Value of the gas). However, consumption of gas varies based on the GCV.

32. The Respondent PPCL has also furnished the correspondences made by it with the OEM and the Petitioner. Accordingly, the OEM (BHEL) vide its letter dated 02.09.2010 has specified that *“frequent combustion mode changes on the unit are not desirable and hence a load of around 75 to 80% should be ideal minimum load to reliably operate the gas turbine on combined cycle mode”*. The Respondent PPCL has on 31.12.2013, in response to the Petitioner’s letter dated 29.11.2023 had clarified that 75-80% load is the stable load and technical minimum for the generating station. It is evident from the above correspondences, that around 10 years prior to the filing of the present petition, the issue of stable operating load was clarified by the OEM and same had been conveyed to the Petitioner.

33. From the above submissions, it is clear that the generating station is not stable at 320 MW, as it constitutes 46.67 % of one complete module and as on date the Technical Minimum load is defined as 55%. Further, the units are too close to the premix transfer point, which can lead to combustion mode changes caused by load swings, unstable operation of the generating station, very high NOx values below the pre-mix combustion zone, thereby causing higher pollution which is the prime concern for running the plant in the sensitive zone of Delhi NCR, in terms of the directions of the Hon’ble Supreme Court.



34. It is observed that with regard to the declaration of availability by Bawana Power Plant, the Commission vide its order dated 2.11.2017 in Petition No. 89/MP/2016 had held that the PPCL is eligible for full capacity charges, even if the generator declares its availability based on the cheaper fuel/ higher cost alternate fuel (RLNG). The relevant para is quoted below.

“45. It is evident from the above provision in IEGC, Tariff Regulations and as held by the Commission in order dated 6.2.2007 in Petition No. 148/2005 that the generator in case of any restriction/reduction in the supply of cheaper gas, can declare the availability on the basis of the higher cost alternate fuel (RLNG) and if the beneficiaries feel the cost of electricity generated from such costly fuel is not affordable then they are at liberty not to schedule such power and has to pay the capacity charges based on the availability declared and certified by SLDC/RLDC. Therefore, we hold that the responsibility of arranging fuel for declaring the capacity of the station rests with the generator and in case of shortage of cheaper fuel the generator can declare the capacity as per the normative target availability even if it can arrange costlier fuel. Though in the latter case, the beneficiary can decide not to schedule power, but responsibility to bear fixed cost remain.”

35. It is evident that the Respondent PPCL on declaration of equipment availability, is eligible for full capacity charges having arranged sufficient fuel including RLNG. Therefore, whenever the plant is scheduled and energy is produced by the generator, the generator only receives the cost of the fuel burnt apart from the capacity charges. The generator apart from achieving the stability of generating module and managing the NOx in permissible range, have no other incentives for running the Module at higher load, as it is already in the receipt of the capacity charges.

36. The matter of stable load, technical minimum and consequent emissions had also been taken-up earlier by other generators, in case of gas based generating stations. In view of the above, it is observed that running the generating station at 320 MW amounts to loading of 46.67% of one module, which is neither suitable for the stable operation of the generating station nor is it appropriate, in terms of reduction of the Pollution (NOx) which was the main concern in the orders of the Hon'ble Supreme Court. As discussed above, the Respondent SLDC has been scheduling the Module of the Power Plant, keeping in view the utilization of full allotted gas in terms of the orders of Hon'ble Supreme Court and in the interest of plant stability, as recommended by the OEM and for controlling NOx levels of the generating plant and accordingly the Respondent PPCL has been operating the plant. In view of the above, the Commission is of the view that there is no irregularity in the scheduling by the Respondent SLDC and the generating station of the



Respondent PPCL is being operated the in accordance with the schedules provided by SLDC.
Accordingly, the submissions of the Petitioner are rejected.

Issue No. B is answered accordingly

37. Accordingly, the prayers of the Petitioner, in this petition, have not been entertained and the
Petition No. 122/MP/2021 is disposed of in terms of the above discussions and findings.

**Sd/-
(Pravas Kumar Singh)
Member**

**Sd/-
(Arun Goyal)
Member**

**Sd/-
(I. S. Jha)
Member**

