



नई दिल्ली
NEW DELHI

याचिका संख्या./ Petition No. 106/MP/2023

कोरम/ Coram:

श्री जिष्णु बरुआ, अध्यक्ष/Shri Jishnu Barua, Chairperson
श्री आई. एस. झा, सदस्य/ Shri I. S. Jha, Member
श्री अरुण गोयल, सदस्य/ Shri Arun Goyal, Member
श्री पी. के. सिंह, सदस्य / Shri P. K. Singh, Member

आदेश दिनांक/ Date of Order: 17th of January , 2024

IN THE MATTER OF:

Revision of the scheduled generation of Nathpa Jhakri Hydro Power Station (6 x 250 MW) and Rampur Hydro Power Station (6 X 68.67 MW) of SJVN Limited with actual generation during force majeure conditions and for consequential directions.

AND IN THE MATTER OF:

SJVN Limited

Shakti Sadan, Corporate Office Complex
Shanan, Shimla - 171006

...Petitioner

Versus

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16. Northern Regional Power Committee
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17. Northern Regional Load Dispatch Centre
(Power System Operation Corporation Limited)
18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg,
Katwaria Sarai, New Delhi-110 016.

...Respondents

Parties Present: Ms. Anushree Bardhan, Advocate, SJVNL
Ms. Surbhi Kapoor, Advocate, SJVNL
Ms. Tanya Sareen, Advocate, SJVNL

Shri Aman Katoch, SJVNL
Shri Rajeev Agarwaal, SJVNL
Shri Mohit K. Mudgal, Advocate, BRPL
Shri Sachin Dubey, Advocate, BRPL
Shri Mohit Jain, Advocate, BRPL
Shri Sunil Kanaujrea, NRLDC
Shri Devi Prasad, NRLDC

आदेश/ ORDER

The Petitioner, Satluj Jal Vidyut Nigam Limited (SJVN) is a generating company and is a Joint Venture of the Government of India and the Government of Himachal Pradesh, with the Government of India holding the majority and controlling shares in SJVN. The Petitioner has established 1500 MW (6X250 MW), a run of river project on Satluj river with a pondage scheme to hold water sufficient for at least three hours peaking, the Nathpa Jhakri Hydro Power Station (NJHPS) in Shimla and Kinnaur Districts, which was commissioned in the year 2004-05. The generation from the project is supplied to the beneficiaries- Respondents 1 to 15. The Petitioner has also established 412 MW (6X68.67MW) Rampur Hydro Power Station (RHPS) downstream of NJHPS to harness and have optimum use of water getting released from the NJHPS again for generation and supply of electricity to the Respondents 1 to 12. RHPS was commissioned in the year 2014-15. Whenever one unit of NJHPS is not available for any reason, correspondingly, one unit of RHPS is also not able to generate power, in spite of the availability of all its units. This is due to less availability of water released from the upstream project i.e. NJHPS. The Petitioner has filed the petition under section 79 of the Electricity Act, 2003 read with Part 7 (Miscellaneous) of the Indian Electricity Grid Code (IEGC), 2010 and Regulation 111 of the CERC (Conduct of Business) Regulations, 1999.

2. Respondents No. 1 to 15 are the beneficiaries of the states of Punjab, Haryana, Rajasthan, Himachal Pradesh, Jammu & Kashmir, Uttar Pradesh, Uttarakhand, Madhya Pradesh, New Delhi and Chandigarh (UT). The generation from the project is supplied to the beneficiaries.
3. Respondent No. 16 is the Northern Regional Power Committee (NRPC), established by Government of India, comprising of the states of Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Uttaranchal and Uttar Pradesh and the Union Territory of Chandigarh. NRPC is responsible for carrying out, *inter-alia*, the following functions:

undertake the planning of outage of the transmission system on a monthly basis; undertake operational planning studies including protection studies for stable operation of the grid; evolve consensus on all issues relating to economy and efficiency in the operation of the power system in the region.

4. Respondent No. 17 is the Northern Regional Load Dispatch Centre (NRLDC) and is responsible for optimum scheduling and dispatch of electricity within the region and is empowered to give direction and exercise such supervision and control as may be required for ensuring stability of grid operations and for achieving the maximum economy and efficiency in the operation of the power system in the region under its control u/s 28 and 29 of the Electricity Act, 2003, amended from time to time.
5. The Petitioner has made the following prayer:
 - a) *Admit the petition and direct proceedings to be initiated for considering the aspects which have arisen in the present petition;*
 - b) *Hold that the Petitioner's generating stations namely NJHPS and RHPS are **entitled to revision of the generating station's schedule based on actual generation during force majeure conditions of High silt**, cloud burst on 09.08.2022, 10.08.2022 and 15.08.2022 during the affected time blocks as explained above;*
 - c) *Direct that **no penalty on account DSM charges** is liable to be paid for the above affected time blocks on 09.08.2022, 10.08.2022 and 15.08.2022 and an adjustment/refund of Rs 468.411 Lakhs with regard to the DSM Charges to be undertaken by NRLDC;*
 - d) *hold that the Petitioner's generating stations namely NJHPS and RHPS are entitled to **revision of the generating station's schedule based on actual generation during force majeure condition of High silt, cloud burst, flash flood, etc, or in case of spillage of water as the same is beyond the control of the Petitioner** or for reasons not attributable to the Petitioner in terms of Regulation 2 (1) (ff) and the necessary implications vis a vis the DSM charges will follow;*
 - e) *pass consequential orders in regard to adjustment of DSM Charges of Rs 468.411 lakhs related to the affected time blocks on 09.08.2022, 10.08.2022 and 15.08.2022;*
 - f) *Direct NRLDC to consider the request of the Petitioner's generating stations namely NJHPS and RHPS for **revision of the generating station's schedule in real time** during large inflow variation in river during high inflow season to avoid spillage of water*

from reservoir. NRLDC should consider the request of generating stations for giving schedule on case to case basis.

g) pass such further order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case

Submission of the Petitioner

6. The Petitioner has submitted as under:

a) On 09.08.2022, 10.08.2022 and 15.08.2022 NJHPS and RHPS plants were shut down due to high silt caused as a result of cloud burst near the Reservoir. During these events, sometimes there was lesser silt at the KWHPS intake silt site, and higher silt was observed downstream of the KWHPS silt site, i.e. the NJHPS Wangtoo site, which is near the NJHPS DAM reservoir. This resulted in the shutdown of NJHPS and RHPS unit (s) within a few time blocks. Details of the events unfolding on these days are as under:

(i) **Events on the date 09.08.2022:**

- i. Till 14:00 hrs: All 6 units of NJHP and RHJP were operating at full load capacity, including overload.
- ii. Post 14:00 hrs: Unit(s) were gradually shut down due to persistent high silt on valid apprehension of damage to the generating units.
- iii. Around 20:45 hrs: In anticipation of the reduction of the quantum of silt, NJHPS requested NRLDC to provide a schedule from 23:00 hrs onwards
- iv. By 23:00: During the analysis of the last reading of silt, it was gathered that the quantum of silt at the Wangtoo site of NJHPS was beyond the permissible limit, therefore Unit(s) of NJHPS and RHPS could not be synchronised with Grid to match the schedule.

(ii) **Events on the date 10.08.2022:**

- i. Between 00:30 hrs and 1:15 Hrs: after reduction of the quantum of silt at the Wangtoo site, one by one the three units of NJHPS and RHPS were again synchronised with Grid.
- ii. Subsequently, there was again an increasing trend of silt beyond the permissible limit, and therefore, again both the plants were shut down.
- iii. 15:30 Hrs onward: NJHPS and RHPS were again synchronised with Grid one by one after the reduction of silt.

(iii) **Events on the date 15.08.2022:**

- i. Around 05:00 hrs: NRLDC was informed regarding cloud burst and very high silt at the Wangtoo site and requested to provide the code for the shutdown of NJHPS.
 - ii. Between 5:10 hrs and 5:49 hrs, all six units of NJHPS and RHPS were successfully shut down one by one.
 - iii. Between 8:15 hrs. and 09.00 hrs: After the reduction of silt, units of NJHPS and RHPS were again synchronised with the grid one by one.
 - iv. around 19:01 hrs.: NRLDC was intimated regarding very high silt at the Wangtoo site.
 - v. Between 19:00 hrs and 19:33 hrs, six units of NJHPS and RHPS were successfully shut down one by one.
- b) Post 22:00 hrs: The units were again synchronised with the grid after a reduction in silt content.
- c) The difference in actual generation in comparison with scheduled generation led to a levy of DSM penalty as per the DSM Regulations. The details of the affected time blocks and the penalty levied have been indicated below:

Date	Block No.	Time	NJHPS Generation (MW)		DSM Penalty (in Rs.)	RHPS generation (MW)		DSM Penalty (in Rs.)
			Scheduled Generation	Actual generation		Scheduled Generation	Actual generation	
09.08.22	93	23:00-23:15	272	0	263118	75	0	45686
	94	23:15-23:30	544	0	753351	149	0	172109
	95	23:30-23:45	1088	0	1505909	299	0	399855
	96	23:45-24:00	1615	0	2281170	444	0	613293
	1	00:00-00:15	1615	0	2447842	445	0	673804
	2	00:15-00:30	1615	152	2217222	445	0	675192
10.08.22	3	00:30-00:45	1615	646	1301720	445	136	409645
	4	00:45-01:00	1615	816	1044148	445	229	268949

	5	01:00-01:15	0	309	-36365	0	108	-36365
Total					11778115	Total		3222168
15.08.22	21	05:00-05:15	1615	1546	104586	438	424	21256
	22	05:15-05:30	1615	1077	815438	438	302	206388
	23	05:30-05:45	1615	548	1617422	438	156	427154
	24	05:45:06:00	1615	61	2354238	438	20	634038
	25	06:00-06:15	1615	0	2447976	438	0	663196
	26	06:15-06:30	1615	0	2281170	438	0	605920
	27-32	06:30-08:00	0	0	0	0	0	0
	33	08:00-08:15	250	0	135726	70	0	24038
	34	08:15-08:30	550	180	0	151	19	0
	35	08:30-08:45	1080	722	0	296	178	0
36	08:45-09:00	1615	1369	0	438	370	0	
Total					9756556	Total		2581990
15.08.22	77	19:00-19:15	1634	1277	374108	449.5	368	67977
	78	19:15-19:30	1634	497	1554844	449.5	158	382088
	79	19:30-19:45	1634	47	2237642	449.5	12	603779
	80	19:45-20:00	1634	0	2309376	449.5	0	621828
	81	20:00-20:15	1634	0	2309292	449.5	0	621828
	82	20:15-20:30	1634	0	2309292	449.5	0	621368
	86	21:15-21:30	500	0	692573	138	0	156369
	87	21:30-21:45	1000	0	1384214	275	0	363023
	88	21:45:22:00	1615	0	2281212	442	0	611453
Total					15452553	Total		4049713
Grand Total								46841095

- d) NJHPS and RHPS vide emails dated 10.08.2022 & 15.08.2022 requested NRLDC to revise the actual generation of affected time blocks with the scheduled generation, as the situation was beyond the control of the generating stations and the generating stations NJHPS and RHPS could not predict the quantum of silt before the 7th and 8th block as per the requirements of Clause (18) of Regulation 6.5 of *Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Sixth Amendment) Regulations, 2019* (IEGC Amendment Regulations, 2019).
- e) The above events fall under the purview of force majeure as the *Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010* (IEGC Regulations, 2010). The Regulation 2 (1) (ff) of IEGC Regulations, 2010 has been extracted below:

“Force Majeure” means any event which is beyond the control of the persons involved which they could not foresee or with a reasonable amount of diligence could not have foreseen or which could not be prevented and which substantially affects the performance by person such being the following including but not limited to:

- a) Acts of God, natural phenomena, floods, droughts, earthquakes and epidemics;***
- b) Enemy acts of any Government domestic or foreign, war declared or undeclared, hostilities, priorities, quarantines, embargoes;***
- c) Riot or Civil Commotion;***
- d) Grid’s failure not attributable to the person.***

- f) The treatment of force Majeure condition as well as other clauses stipulating treatment during circumstances not attributable to the Transmission system in accordance with *Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019* (Tariff Regulations, 2019) reads as under:

Regulations 3 (Definitions and Interpretations):

(25) ‘Force Majeure’ for the purpose of these regulations means the event or circumstance or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

- a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or***

(b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or

(c) Industry wide strikes and labour disturbances having a nationwide impact in India;

Appendix-III (Procedure for Calculation of Transmission System Availability Factor for a Month):

6. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.

i. Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, onus of satisfying the Member Secretary, RPC that element outage was due to aforesaid events and not due to design failure shall rest with the transmission licensee

g) Regulation 6.5 of the *IEGC Regulations, 2010* also provides for Scheduling and Despatch procedures for long-term access, Medium – term and short-term open access as under:

“Regulation 6.5(Scheduling and Despatch procedure for long-term access, Medium – term and short-term open access):

*12. Run-of-river power station with pondage and storage type power stations are designed to operate during peak hours to meet system peak demand. Maximum capacity of the station declared for the day shall be equal to the installed capacity including overload capability, if any, minus auxiliary consumption, corrected for the reservoir level. **The Regional Load Despatch Centers shall ensure that generation schedules of such type of stations are prepared and the stations despatched for optimum utilization of available hydro energy except in the event of specific system requirements/constraints.***

16. In the event of bottleneck in evacuation of power due to any constraint, outage, failure or limitation in the transmission system, associated switchyard and substations owned by the Central Transmission Utility or any other transmission licensee involved in inter-state transmission (as certified by the RLDC) necessitating reduction in generation, the RLDC shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. Also, during the first, second and third time blocks of such an event, the scheduled generation of the ISGS shall be deemed to have been revised to be equal to actual generation, and the scheduled drawals of the beneficiaries shall be deemed to have been revised accordingly.

17. In case of any grid disturbance, scheduled generation of all the ISGS and scheduled drawal of all the beneficiaries shall be deemed to have been revised to be equal to their actual generation/drawal for all

the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the RLDC.”

- h) The Commission, in terms of Part 7 (Miscellaneous) of the *IEGC Regulations, 2010*, may be pleased to consider that on 09.08.2022, 10.08.2022 and 15.08.2022, NJHPS and RHPS were affected by force majeure events as per Regulation 2 (1) (ff) of IEGC and therefore were unable to match the actual generation with the scheduled generation as per Regulation 6.5 (18).
- i) Even when the situation of high silt reverses, and the silt level is on decreasing trend, the generating units cannot commence generation within a reasonable time in terms of Regulation 6.5 (18), as revision in a generation is allowed only after the 7th or 8th time block. In such a situation, even though water may be available for generation, the same has to be spilt out due to the above Regulation 6.5 (18). Further, this will be in consonance with Regulation 6.5(12), which states that *Run-of-river power station with pondage and storage type power stations are designed to operate during peak hours to meet system peak demand*. Thus, the non-utilisation of available water resources due to aforesaid Regulation 6.5 (18) may lead to a national loss in terms of water spillage.
- j) Even as per the *Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2022* (DSM Regulations, 2022), there is no option available to the generating stations such as NJHPS and RHPS to avoid spillage of water in exceptional circumstances.
- k) At the 198th OCC Meeting of NRPC held on 17.08.2022, it was observed that the issue of DSM charges under exceptional circumstances of increased silt, cloud burst, etc., is a genuine concern. However, as the matter is related to the regulations of the Central Commission, the necessary petition may be filed by the hydro generators before the Commission.
- l) NRLDC may consider the request of the generating stations for giving schedule on case to case basis in place of applying the range mentioned in the Regulations particularly where the shutdown was for reasons not attributable to SJVN.
- m) As per the directions/decisions of NRPC, the present petition has been filed. The Petitioner has prayed to the Commission to invoke its powers to remove difficulties and powers to relax as per Part 7 (Miscellaneous) of the *IEGC Regulations, 2010* and to take into consideration that under exceptional circumstances like increased silt, cloud burst or other force majeure reasons no DSM charges should be made

applicable on the generating stations of the petitioner if there is a mismatch between the actual generating and scheduled generation on account of reasons beyond its control.

- n) The Commission has already dealt with the issue of silt in the river vide Order dated 04.02.2020 in Petition No. 184/MP/2019 (filed by Jaiprakash Power Ventures Limited i.e. KWHEP), under which the Commission has held that the excessive silt/silt flushing could not have been anticipated and is a result of unforeseeable circumstances like flooding, landslides, or flash floods.
- o) The Petitioner has adopted the latest technology available for silt measurements and is taking prompt actions to minimize the shutdown time, however, there are situations such as flooding/flash floods/landslides such as those which transpired on 09.08.2022, 10.08.2022 and 15.08.2022 and which could not have been anticipated by the petitioner and the same is beyond the control of the generator and fall within the purview of Force Majeure events.
- p) The operation of the generating station had to be shut down due to the high silt situation. However, there were also such time blocks when the silt level was on a decreasing trend but the generating units could not commence generation as revision in generation is allowed only after the 7th or 8th time block. This resulted in spillage of water due to constraints in generation under Regulations. Thus, NRLDC has not exercised the relevant provisions mentioned in the Electricity Act, 2003 for achieving maximum economy and efficiency in the operation of the power system and in decreasing the national loss of generation due to water spillage.
- q) The Commission has given relief in the case of Forced Outage condition with effect from 06.02.2023 through the suo-moto order petition no. 01/SM/2023 dated 06.02.2023 regarding deviation of charges wherein the Commission has Ordered:
- “applying penalty @ the reference charge rate of generating stations for a maximum duration of eight-time blocks or until the revision of its schedule, whichever is earlier and the same would also be applicable for Force majeure condition”.*
- r) The events of force majeure as provided under the present petition may be revised in line with Regulation 8(5) of the *DSM Regulations, 2022*, notified in suo-moto order Petition no. 01/SM/2023 dated 06.02.2023 or replace the scheduled generation from the actual generation for the affected days in respective time blocks.

Reply of Respondents

Re. Reply by NRLDC

7. Briefly, NRLDC has submitted as under:

- a) In Petition No.94/MP/2013, the Commission had already passed the order on 11.12.2013, deciding that any unplanned outage on account of unforeseen circumstances falls within the scope of the forced outage.
- b) The revisions in the scheduled generation of the Petitioner's plants due to forced outage are being done as per 6.5.18 & 6.5.18a *IEGC Regulations, 2010*. As per these Regulations, the revision of scheduled generation with actual generation can be only done in case of any constraint, outage, failure or limitation in the transmission system, associated switchyard and substations or in case of any grid disturbances as certified by RLDC. However, the issues highlighted by the petitioner do not fall under any one of the above-cited conditions.
- c) As per Regulations 6.5.25 of IEGC, Regulations 2010, any post facto revision in the scheduled generation of NJHPS and RHPS will also change the scheduled drawals of its beneficiary, which will have an impact on the unscheduled interchange (deviation) of the beneficiary and may affect their deviation settlement mechanism accounts also. The Regulations 6.5.25 of IEGC, Regulations 2010 have been extracted below:

“For any revision of scheduled generation, including post facto deemed revision; there shall be a corresponding revision of scheduled drawals of the beneficiaries.”

- d) The revision of the generating station's schedule in real time, i.e. prior to the 7th or 8th time block, will also lead to a change in the schedule of the beneficiaries. Further, the gate closure for Real Time Market (RTM) is the 7th or 8th time block prior to scheduling the time block. Hence, in case of any revision after gate closure, the beneficiary will be left without any avenue to manage the load, which may lead to over/under drawal from the grid.
- e) The Commission notified suo-moto order dated 06th February'23 in Petition No. 01/SM/2023 in the matter of directions in the interest of grid security, under which the Commission has already provided for deviation charges in case of forced outages of the seller. The relevant provision pertaining to the forced outage from the said order is quoted below:

“Clause (5) of Regulation 8 of the DSM Regulations, 2022:

“5. Notwithstanding anything contained in Clause (1) of Regulation 8 of the DSM Regulations 2022, in case of forced outage of a seller, the charges for deviation shall be @ the reference charge rate, for a maximum duration of eight-time blocks or until the revision of its schedule, whichever is earlier.”

Re. Reply by UPPCL

8. Briefly, UPPCL has submitted as under:

- a) High silt laden with quartz particles is not a geological surprise or force majeure condition and has been known to the Petitioner since the design stage of the power stations and the generating stations have been designed accordingly and design energy estimated. Thus, the high silt conditions and resultant shutdowns cannot be claimed to be in the nature of force majeure.
- b) Regulation 44 of the *Tariff Regulations, 2019* provides that in case of a shortfall in generation for reasons beyond the control of the Petitioner, the generating station shall be entitled to recovery of the consequential shortfall in energy charges, and the Petitioner has been claiming recovery energy charges on account of shortfall in energy generation under the said Regulation.
- c) As per the Petitioner, the test results, as to the extent of silt present in the water of the river, are known to the Petitioner only after 45-60 minutes of the time the sample is taken. The decision regarding operations (shutdown/running) of plant is based on the level of silt content in water. The revised schedule is effective post 7th time block only leading to loss of opportunity. Any decrease in the turn-around time of test results would lead to decrease in the overall time taken for the implementation of the revised schedule. Thus, under the present case, the Petitioner should make efforts to reduce time in sampling and testing of water instead of requesting a revision of the schedule.
- d) High silt laden with quartz is neither a force majeure nor an act the God as per Regulation 2 (i) (ff), Regulation 6.5, Regulation 6.5 (12), Regulation 6.5 (18) and Part – 7 (Misc.) of the IEGC Regulations, 2010, or Regulation-3 (Definition of Force Majeure) of Tariff Regulations, 2019.

Re. Reply by MPPMCL

9. Briefly, MPPMCL has submitted as under:

- a) The silt condition is well known to the generator at the point of the design of the hydro plant of the respective river, and the same was considered during the design of the project. Accordingly, the design energy for the plant was decided by the appropriate authority.
- b) High silt condition may be more accurately estimated by frequent sampling at a number of stream locations that could help the plant in better optimizing its generation as well as outing.

- c) The condition of high silt arises year after year; therefore, the same could not be considered a force majeure condition as an act of God, and thus, the operational treatment from the end of the generator could be the best solution.
- d) For the issue of forced outage condition of the generators, the Commission has already made provision in clause (18) of Regulation 6.5 of *IEGC Amendment Regulation, 2019* and has given the right to revision of the scheduled energy by intimating RLDC at 7th / 8th time block. However, the Petitioner had not revised its schedule at an appropriate time, as the decision was not taken in a time bound manner.
- e) Post facto revisions in the scheduled generation of NJHPS and RHPS will also change the schedule drawl of beneficiaries, which will have an impact on their unscheduled interchange (deviation) and cause an undue burden on beneficiaries.

Re. Reply by RUVNL

10. Briefly, RUVNL has submitted as under:

- a) If a condition arises year after year, the same cannot be termed a force majeure condition as an act of God.
- b) The Central Electricity Authority (CEA) has also taken the precautionary measure for this situation by issuing standard operating measures for the measurement of high silt in hydro power plants.

Analysis and Decision

11. We have heard the learned counsels for the Petitioner and the Respondent and have carefully perused the records.

12. On the basis of the submission of the parties, the following issues arise for adjudication:

Issue I: *Whether the Petitioner's generating stations (NJHPS and RHPS) are entitled to revision of the generating station's schedule based on actual generation during force majeure conditions of High silt, cloud burst on 09.08.2022, 10.08.2022 and 15.08.2022 during the affected time blocks?*

Issue II: *Whether no penalty on account of DSM charges is liable to be paid by the Petitioner for the affected time blocks on 09.08.2022, 10.08.2022 and 15.08.2022 and*

an adjustment/ refund of Rs 468.411 Lakhs with regard to the DSM Charges to be undertaken by NRLDC?

Issue III: *Whether NRLDC be directed to consider the request of the Petitioner for revision of the generating station's schedule in real time during large inflow variation in the river during high inflow season to avoid spillage of water from the reservoir and NRLDC should be directed to consider the request of generating stations for giving schedule on case to case basis?*

Re. Issue no. I

Whether the Petitioner's generating stations (NJHPS and RHPS) are entitled to revision of the generating station's schedule based on actual generation during force majeure conditions of High silt, cloud burst on 09.08.2022, 10.08.2022 and 15.08.2022 during the affected time blocks?

13. The Petitioner has submitted that the Commission should take into consideration under exceptional circumstances, viz. increased silt, cloud burst or other force majeure reasons, and no DSM charges should be made applicable on the generating stations if there is a mismatch between the actual generating and scheduled generation on account of reasons beyond its control. Further, the Commission should invoke its powers to remove difficulties and powers to relax as per Part 7 (Miscellaneous) of the *IEGC Regulations, 2010*, for providing the relief thereof. *Per-contra*, the Respondents have submitted that the condition of high silt arises year after year; therefore, the same could not be considered as force majeure. *Post facto* revisions in the scheduled generation of NJHPS and RHPS will also change the schedule drawl of beneficiaries, which will have an impact on their unscheduled interchange (deviation) and cause an undue burden on beneficiaries.

14. We observe that Regulation 2 (1) (ff) of *IEGC Regulations, 2010* stipulates as under:

“Force Majeure” means any event which is beyond the control of the persons involved which they could not foresee or with a reasonable amount of diligence could not have foreseen or which could not be prevented and which substantially affects the performance by person such being the following including but not limited to:

- a) Acts of God, natural phenomena, floods, droughts, earthquakes and epidemics;***
- b) Enemy acts of any Government domestic or foreign, war declared or undeclared, hostilities, priorities, quarantines, embargoes;***
- c) Riot or Civil Commotion;***
- d) Grid's failure not attributable to the person.***

15. Regulation 2 (1) (gg) of the IEGC Regulations, 2010 stipulates as under:

*“(gg) **Forced outage** - an outage of a Generating Unit or a transmission facility due to a fault or other reasons which has not been planned;”*

16. We also note that under its order dated 11.12.2013 in Petition No. 94/MP/2013, the Commission had already decided that any unplanned outage on account of unforeseen circumstances falls within the scope of a forced outage. The relevant section of the Order dated 11.12.2013 is extracted as under:

*“14. We have considered the matter in the light of rival contentions. “Forced Outage” is defined under the Grid Code as “an outage of a Generating Unit or a transmission facility due to a fault or other reasons which has not been planned”. The term “forced outage” has been used in contradistinction to the “planned outage” which is decided in advance for reasons of maintenance, etc., and is thus a foreseen situation/occurrence. Therefore, any unplanned outage on account of unforeseen circumstances falls within the scope of forced outage. **In our view, forced outage is a generic term and covers specific outages such as on account of sudden development of fault in plant and machinery, natural calamities, outbreak of diseases, enemy action, etc., which cannot be reasonably foreseen, estimated and planned. The outage because of presence of silt which is on account of unusual occurrence in river water used for electricity generation can be covered under ‘other reasons’ in the definition of “forced outage”. It is also pointed out that the Grid Code does not make any specific provision to deal with the outages arising out of force majeure events, though the term “force majeure” has been defined in the Grid Code. In our view, a harmonious reading of the definition of the terms “forced outage” and “force majeure” will lead to the conclusion that an outage of a generating unit or transmission facility arising out of “forced majeure” events will be covered under ‘other reasons which has not been planned’ of the definition of ‘forced outage’ as such events have not been planned and are in fact beyond the control of the generating company or transmission licensee.** Therefore, we are not in agreement with the contention of the petitioner that outages for reason of high silt levels in river water are outside the purview of Regulation 6.5.19 of the Grid Code.”*

17. From the above, we observe that any unplanned outage, including such an outage because of the presence of silt, which is on account of unusual occurrence in river water used for electricity generation, is to be covered under ‘other reasons’ in the definition of forced outage.

18. We also note that the revisions in the scheduled generation of generating plants due to forced outage have been dealt with under Regulation 6.5.18 & 6.5.18a of IEGC, 2010. The relevant provisions of Regulations 6.5.18 & 6.5.18a of IEGC Regulations, 2010 have been quoted below:

“6.5.

..

16. *In the event of bottleneck in evacuation of power due to any constraint, outage, failure or limitation in the transmission system, associated switchyard and substations owned by the Central Transmission Utility or any other transmission licensee involved in inter-state transmission (as certified by the RLDC) necessitating reduction in generation, the RLDC shall revise the schedules which shall become effective from the 4th time block, counting the time block in which the bottleneck in evacuation of power has taken place to be the first one. Also, during the first, second and third time blocks of such an event, the scheduled generation of the ISGS shall be deemed to have been revised to be equal to actual generation, and the scheduled drawals of the beneficiaries shall be deemed to have been revised accordingly.*

17. *In case of any grid disturbance, scheduled generation of all the ISGSs supplying power under long term / medium term shall be deemed to have been revised to be equal to their actual generation and the scheduled drawals of the beneficiaries/buyers shall be deemed to have been revised accordingly for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the RLDC.*

18. *Revision of declared capability by the ISGS(s) having two part tariff with capacity charge and energy charge and requisition by beneficiary (ies) for the remaining period of the day shall also be permitted with advance notice. Any revision in schedule made in odd time blocks shall become effective from 7th time block and any revision in schedule made in even time blocks shall become effective from 8th time block, counting the time block in which the request for revision has been received by the RLDCs to be the first one.*

18(a) *In case of forced outages of a unit, for those stations who have a two part tariff based on capacity charge and energy charge for long term and medium term contracts, the RLDC shall revise the schedule on the basis of revised declared capability. The revised declared capability and the revised schedules shall become effective from the time block and in the manner as specified in Regulation 6.5.18. ”*

19. From the above, we observe that as per Regulations 6.5.17 of the *IEGC Regulations, 2010*, the revision of the schedule with actual generation for all the time blocks of disturbance can be undertaken only in case of grid disturbance. Further, as per 6.5.18 (a) of the *IEGC Regulations, 2010*, the revision of scheduled generation of the generating station, having a two-part tariff, due to forced outage can be implemented only after the 7th or 8th time block, as the case may be. Thus, it is clear that the revision of the schedule of the generating plant, including the hydro plant, from scheduled generation to actual generation, due to a forced outage of the generating plant attributed to any reason (including that of high silt in the water) can be revised only after 7th or 8th time block, as the case may be.

20. We observe that in the instant case on 09.08.2022, post 14:00 hrs all the units of the NJHPS and RHPS were gradually shut down due to persistent high silt in the water. At 20:45 hrs in anticipation of the reduction of the quantum of silt, NJHPS requested NRLDC to provide a schedule from 23:00 Hrs onwards. However, at 23:00 hrs, the generation could not be synchronised with Grid to match the schedule due to silt content in the water beyond the

permissible limit. Further, on 10.08.2022, between 00:30 hrs and 01:15 hrs, the three units of NJHPS and RHPS were synchronised, but the units were again shut down due to increased silt content. The silt conditions improved only by 15:30 hrs on 10.08.2022, subsequent to which all the units were synchronized with the grid one by one. Due to a mismatch in the actual generation from the schedule provided by the generator between the time block of 23:00 – 23:15 to 01:00 – 01:15, the NRLDC has levied deviation charges of Rs. 1,17,78,115 on NJHPS and Rs 32,22,168 on RHPS respectively.

21. Further, on 15.08.2022, at 05:00 hrs, NRLDC was informed about the high silt content at the Wangtoo site and requested to provide the code for shut down of NJHPS. Thus, between 5:10 hrs and 5:49 hrs, all six units of NJHPS and RHPS were successfully shut down one by one due to high silt content in water. Subsequently, between 8:15 hrs. and 09.00 hrs the units were again synchronised with Grid one by one. However, at around 19:01 hrs., very high silt was analysed at the Wangtoo site, and NRLDC was intimated accordingly. Thus, between 19:00 hrs and 19:33 hrs all units of NJHPS and RHPS were again shut down one by one. The units were again synchronised with the grid after a reduction in silt content post 22:00 hrs. Due to a mismatch in the actual generation from the schedule provided by the generator between the time block of 05:00-05:15 and 08:45-09:00 on 15.08.2022, the NRLDC levied a deviation charge of Rs. 97,56,556/- on NJHPS and Rs 25,81,990/- on RHPS. Also, NRLDC levied a deviation charge of Rs.1,54,52,553 on NJHPS and Rs 40,49,713/- on RHPS due to a mismatch in the actual generation from the schedule provided by the generator between the time block of 19:00-19:15 to 21:45 -22:00 on 15.08.2022.
22. From the discussion above, we observe that there was a mismatch between the actual generation and the scheduled generation on account of a forced outage (high silt) and not because of a grid disturbance. As per the *IEGC Regulations, 2010* (prevailing at the time of incidence), the Petitioner can be allowed revision of scheduled generation only after the 7th or 8th time block, as the case may be. Accordingly, we hold that the Petitioner's generating stations (NJHPS and RHPS) are not entitled to revision of the generating station's schedule based on actual generation during a forced outage (conditions of high silt, cloud burst) on 09.08.2022, 10.08.2022 and 15.08.2022 during the affected time blocks.
23. The Issue is decided accordingly.

Re. Issue No. II and Issue No. III:

Whether no penalty on account of DSM charges is liable to be paid by the Petitioner for the affected time blocks on 09.08.2022, 10.08.2022 and 15.08.2022 and an adjustment/ refund of Rs 468.411 Lakhs with regard to the DSM Charges to be undertaken by NRLDC? AND

Whether NRLDC be directed to consider the request of Petitioner for revision of the generating station's schedule in real time during large inflow variations in the river during high inflow season to avoid spillage of water from the reservoir?

24. In view of the decision in Issue No. I, we hold that NRLDC has rightly levied the DSM charges as per the prevailing Regulations existing at the time of the occurrence of the event in the instant case. The prayer of the Petitioner to direct NRLDC to implement the deviation charges against the forced outage of generating stations provided under 1/SM/2023 in the instant case is also declined, as the DSM Charges can be levied based on the Regulations prevailing at the time of the occurrence of the event only.
25. Issue No. II and Issue No. III are decided accordingly.
26. Petition No. 106/MP/2023 is disposed of in terms of the above.

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