CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 74/MP/2018

Coram:

Shri P.K. Pujari, Chairperson Shri A. K. Singhal, Member Shri A. S. Bakshi, Member Dr. M. K. Iyer, Member

Date of order: 11th of July, 2018

In the matter of

Petition for consideration of declared capacity of Nathpa Jhakri Hydro Power Station (6 x 250 MW) and Rampur Hydro Power Station (6 x 68.67 MW) corresponding to Installed capacity including overload capacity in accordance with Regulation 6.5 (12) of CERC (Indian Electricity Grid Code) Regulations, 2010.

And In the matter of

SJVN Limited Shakti Sadan, Corporate Office Complex Shanan, Shimla 171006

...Petitioner

Vs.

- Northern Regional Load Dispatch Centre (Power System Operation Corporation Limited)
 18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016.
- Northern Regional Power Committee 18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016.
- 3. Punjab State Power Corporation Ltd. The Mall, Patiala 147001
- 4. Haryana Power Purchase Centre, Shakti Bhawan, Section VI,



Panchkula – 134019,

- Tata Power Delhi Distribution Ltd.
 33 kV Sub-station, Hudson Lines, Kingsway Camp, Delhi-110009
- BSES Rajdhani Power Ltd,
 2nd Floor, B Block, Nehru Place,
 New Delhi 110019
- BSES Yamuna Power Ltd. Shakti Kiran Building, Karkardooma, Delhi – 110092
- Ajmer Vidyut Vitran Nigam Ltd.
 Old Power House, Hathi Bhasta, Jaipur Road, Ajmer
- Jaipur Vidyut Vitran Nigam Ltd.
 Vidyut Bhawan, Janpath,
 Jaipur-302005
- 10. Jodhpur Vidyut Vitran Nigam Ltd.New Power house, Industrial Area,Jodhpur 342003
- 11. Himachal Pradesh State Electricity Board Ltd, Vidyut Bhawan, Shimla 171004
- 12. Power Development Department (J&K), Government of J&K, Mini Secretariat, Jammu
- 13. Power Department , Union Territory of Chandigarh, Additional Office Building, Sector 9D, Chandigarh
- 14. Uttar Pradesh Power Corporation Ltd.Shakti Bhawan, 14, Ashoka Road,Lucknow 226001

- 15. Uttaranchal Power Corporation Ltd.
 Urja Bhawan, Kanwali Road,
 Dehradun 248001
- 16. Government of Himachal Pradesh, H.P. Secretariat, Shimla – 171002.

...Respondents

Parties Present:

Shri M.G.Ramachandran, Advocate, SJVNL Ms. Anushree Bardhan, Advocate, SJVNL Shri R.B.Sharma, Advocate, BRPL Shri Rajeev Agarwal, SJVNL Shri Vivek Pandey, Advocate, TPDDL Shri Romesh kapoor, SJVNL Shri Suresh Thakur, SJVNL Shri D.K.Jain, NRLDC Shri Ashok Rajan, NRLDC Shri Rajiv Porwal, NRLDC

<u>ORDER</u>

The Petitioner, SJVN Limited has filed the present petition under Section 79 (1) (c) of the Electricity Act, 2003 with the following prayers:

- "(a) Declare that the stand taken by the Northern Regional Load Despatch Centre in regard to the over-load capacity, namely that the generating company such as SJVN shall not be entitled to give such over-load DC and restrict the DC to the ex-bus installed capacity when there is no spillage condition is wrong and is contrary to the Indian Electricity Grid Code;
- (b) Direct NRLDC to act consistent with the provisions of the Indian Electricity Grid Code permitting the over-load DC to be given with all necessary consequences of such DC including in respect of the recovery of fixed changes by the generating company in accordance with the Tariff Regulations;
- (c) Direct NRLDC and NRPC to revise the declared capacity/PAF and consequential changes in the Regional Energy Accounts pertaining to the period May, 2017 onwards when the regulations of the Commission requiring the declaration of availability with overloading has been mandated to factor the declared capacity inclusive of over loaded capacity made by the Petitioner in accordance with the said Regulations."

- 2. The Petitioner, SJVNL is a company incorporated under the provisions of the Companies Act and is a joint venture of the Government of India and Government of Himachal Pradesh. The Petitioner is within the regulatory jurisdiction of this Commission under Section 79 (1) (a) of the Electricity Act, 2003 (hereinafter referred to as "the Act").
- 3. The Petitioner has established Nathpa Jhakri Hydro Power Station with a capacity of 1500 MW (hereinafter called "Nathpa Jhakri Project") comprising of 6 units of 250 MW each in the State of Himachal Pradesh. The Nathpa Jhakri Project is constructed on the river Sutlej and consists of a pondage/ reservoir to hold water and to be released for generation of power, keeping in view the optimum use of water for generation and supply to Respondents 3 to 16.
- 4. The Rampur Hydro Power Station (hereinafter referred to as "Rampur Project") also established by the Petitioner comprises of 6 units of 68.67 MW (412 MW) at the downstream of the Nathpa Jhakri Project to harness and have optimum use of water getting released from the Nathpa Jhakri project for generation and sale of electricity to the Respondents.
- 5. The Rampur Project is built to operate in tandem with the generation of upstream project (Nathpa Jhakri) and is dependent on the use of water in the operation of Nathpa Jhakri Project. Hence, the Rampur Project is a unique generating station which does not have its own pondage at all and is operating with water coming out from tail race tunnel of Nathpa Jhakri Project and thus acting as a tail race extension of Nathpa Jhakri Project. The water so flowing, after being used for generation in Nathpa Jhakri Project, is diverted into

Rampur Project through TRT pond. The discharge of water released from the Nathpa Jhakri Project is utilized by Rampur Project in steady state conditions avoiding any spillage of water at TRT of Nathpa Jhakri Project.

- 6. In the above background, the Petitioner has filed the present petition and has submitted as under:
 - "(a) Rampur Project is utilising the pondage of Upstream Nathpa Jhakri Project and providing peaking at least 3 hours in a day in the same block of upstream Nathpa Jhakri project, due to its unique feature, corresponding to installed capacity including overload capability.
 - (b) Regulations 3 and 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as 2014 Tariff Regulations) defines the Declared Capacity. Regulations 6.4 (17) and 6.5 (12) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred to as Grid Code) provides for revising of declared capacity and scheduling and despatch procedure of hydro generating station respectively.
 - (c) On 12.4.2017, the Commission notified the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fifth Amendment) Regulations, 2017 (hereinafter referred to as Fifth Amendment to the Grid Code) and amended Regulation 5.2 (h) of the Grid Code which provides that for the purpose of ensuring primary response, RLDCs/SLDCs shall not schedule the generating station or unit(s) thereof beyond Ex-bus generation corresponding to 100% of the Installed capacity of the generating station or unit(s) thereof. The generating station shall not resort to Valve Wide Open (VWO) operation of units whether running on full load or part load, and shall ensure that there is margin available for providing Governor action as primary response. In case of gas/liquid fuel based units, suitable adjustment in Installed Capacity should be made by RLDCs/SLDCs for scheduling in due consideration of prevailing ambient conditions of temperature and pressure vis-à-vis site ambient

conditions on which installed capacity of the generating station or unit(s) thereof have been specified.

- (d) Northern Region Load Despatch Centre (NRLDC) vide letter dated 29.4.2017 informed that the generator shall ensure that the declared capability (DC) on bar does not exceed the capacity on bar less normative auxiliary consumption. In case the generator gives the DC value higher than the above figure, the same shall be restricted to the capacity on bar less normative auxiliary consumption, an undertaking stating that the higher DC is given to spillage may be submitted to RLDC.
- (e) The Fifth Amendment to the Grid Code was deliberated in Operation Co-ordination Sub-Committee as well as Technical Co-ordination Sub Committee/ NRPC Meeting. However, NRLDC did not appreciate the matter. NRLDC reduced the DC of both generating stations inspite of declaring maximum capacity of the station including overload capability. This has made a negative impact in terms of recovery of capacity charges from the beneficiaries in-spite of availability of the machine and capability to demonstrate the capacity including overload capability, as and when required to the grid. The Petitioner has placed on record the details of declared capacity for the few days of December, 2017 as allowed by NRLDC in implemented schedule as well as in Regional Energy Account.
- (f) As per Regulation 6.5(12) of the Grid Code, generating station is required to give Declared Capacity for the day equal to the installed capacity including overload capability, if any, minus auxiliary consumption, corrected for the reservoir level. Nathpa Jhakri Project and Rampur Project, being Run-of-river power stations with pondage, are required to declare maximum capacity of station including overload capability which can be met out by the generating stations for at least 3 hours in a day. RLDC is required to give the schedule for the day based on Declared Capacity given by generating stations and keeping margin for the primary response for Grid Stability.
- (g) As per the Fifth Amendment to the Grid Code, there is no restriction imposed on generating stations to give DC corresponding to ex-bus installed capacity, and in fact doing so would be violation of Regulation 6.5(12) of the Grid Code. However, this

Regulation is implied on RLDCs/SLDCs to restrict generating station schedule on exbus generation corresponding to 100% of the installed capacity for keeping margin to support grid for primary response. In case NRLDC is giving schedule to the generating stations including overload capability, then in case of any exigencies in the grid, generating stations would not response under FGMO/RGMO.

- (h) As per the Grid Code, Nathpa Jhakri and Rampur projects are required to inform NRLDC Declared capacity of the plant based on type of power stations (Run of River with Pondage) as well as expected generation based on inflow on day ahead basis. Based on Declared capacity as well as expected generation of the plant, NRLDC is required to give the schedule to the station for 96 blocks in 15 min time interval for the day.
- (i) As per NRLDC`letter dated 29.4.2017, Nathpa Jhakri and Rampur Hydro projects were giving DC corresponding to installed capacity of project minus Auxiliary Energy Consumption i.e. 1482 MW & 408 MW respectively. However, restricting the DC to installed capacity of project minus Auxiliary Energy to the RLDCs would be in violation of the provisions of the Regulation 6.5(12) of the Grid Code for keeping spinning reserve to support grid for primary response, in case generating stations are available with all units including overload capability. However, NRLDC has enforced the both Nathpa Jhakri and Rampur Hydro projects to restrict their DC up to ex-bus installed capacity which is contrary to the Regulations.
- (j) NRLDC is allowing number of Hydro, Thermal and Gas generating stations for declaring maximum capacity more than ex-bus installed capacity. In addition, the RLDCs are also allowing the generating stations for declaring maximum capacity including overload capability. There is no justification for NRLDC to have a different approach in the other regions. The Petitioner has placed on record the copies of Regional Energy Account indicating declared capacity more than installed capacity in the other regions as Annexure–E to the petition.
- (k) After discussion with NRLDC as well examining the Regional Energy Account of other Regions, the Petitioner has been giving DC including overload capacity from

15.11.2017 onwards. However, NRLDC has denied to give overload DC and has restricted the DC to the ex-bus installed capacity stating that as there is no spillage condition. This has resulted in loss to the Petitioner in terms of capacity charges recovery from the beneficiaries.

- (I) In terms of Section 28 of the Electricity Act, 2003, NRLDC is required to discharge its functions subject to the Regulations of the Commission. Sub-section (2) of Section 28 of the Electricity Act provides that the Regional Load Despatch Centre shall comply with the Indian Energy Grid Code. Therefore, the contention of NRLDC directing the Petitioner to undertake the declaration of the availability in a manner is not correct and is inconsistent with the Grid Code.
- (m) NRLDC has also not appreciated the objective behind the Grid Code providing for the declaration of capacity to be in a particular manner which would include over-load capacity. The same is done in the larger public interest and is beneficial to the Procurers of electricity. NRLDC cannot interfere with the conscious decision taken by the Commission in the Grid Code providing for the over-loading of capacity in the larger public interest."
- 7. Notice was issued to the respondents to file their replies. Reply to the Petition has been filed by the NRLDC, BSES Rajadhani Power Limited and Tata Power Distribution Company Ltd.
- 8. NRLDC vide its affidavit dated 9.5.2018 has submitted as under:
 - "(a) As per Statement of Reasons of the Fifth Amendment to the Grid Code, DC given by the generators is not to be reduced by NRLDC for the purpose of PAF calculations and accordingly would be forwarded to NRPC for computation of PAF. As per Regulations 6.4.5 (iii), 6.4.6, 6.5.2 and 6.5.7(i) of the Grid Code, it is understood that each beneficiary/State control area entitlement would be computed in % of the DC by the generating station. Each beneficiary/State control area can schedule the power upto its entitlement and summation of these schedules will be the injection schedule of the

ISGS. Therefore, the new provision in the Grid Code regarding restricting the schedule by RLDC/SLDC are required to be modified slightly.

- (b) As per the Central Electricity Regulatory Commission (Ancillary Services Operations) Regulations, 2015, "un-requisitioned surplus" "means the reserve capacity in a generating station that has not been requisitioned and is available for despatch, and is computed as the difference between the declared capacity of the generation station and its total schedule under long-term, medium-term and short-term transactions, as per the relevant regulations of the Commission. As per the above regulations, URS is available for schedule by beneficiaries as well as for scheduling under Reserve Regulation Ancillary Service.
- (c) The Fifth Amendment to the Grid Code further states that "Provided further that the VWO margin shall not be used by RLDC to schedule Ancillary Services". Therefore, the margin between DC declared by the generating station considering overload and (IC-Aux) cannot be scheduled. Therefore, slight modification in the provisions for 'URS' as well as 'RRAS' regulations may have been done.
- (d) The entire set of regulations, namely Grid Code, Terms and Condition of Tariff or Ancillary Services, were based on the premise that entire DC would be dispatched. Therefore, in the absence of Statement of Reasons of the Fifth Amendment to the Grid Code, the amended regulations were implemented by NRLDC in the best possible manner keeping overall scheme of the regulations. Therefore, the above definitions as well as Grid Code, Terms and condition of the tariff and Ancillary Services, etc. may be considered by the Commission for modification.
- (e) Regulations 6.4.19 and 6.5.7.10 of the Grid Code impose responsibility of checking about the faithful declaration of DC by the generating stations, on the RLDCs. The same is normally done by scheduling power to the full DC level. However, as per Fifth Amendment to the Grid Code, margin between overload DC and (IC-Aux) will not be schedulable by RLDCs, for the checking of the declaration of DC since the same would be more than allowable schedule. Thus, checking of DC would be further difficult. Therefore, the Commission may consider certain modifications in these regulations in

line with above difficulty. NRLDC has been certifying DC above (IC-Aux) whenever, high inflow (spillage conditions) at hydro stations have been reported by the generating stations.

(f) Most of the utilities have been following the scheduling procedure as per RLDCs letter dated 29.4.2017 and RLDCs were not required to interfere with their declaration. In fact, the Petitioner also followed the same for some time.

9. NRLDC has further submitted as under:

- (a) Nathpa Jhakri and Rampur Hydro projects have surpassed the targeted NAPAF of 90%.
- (b)NRLDC is applying the criteria, as given in its letter dated 29.4.2017, indiscriminately to all the generating stations. The higher PAF of certain generating stations is due to high inflow (spillage conditions), rounding off issues and/or consideration of low ambient temperature for gas stations.
- (c) All the RLDCs have taken similar approach.
- (d) As per NRLDC's revised letter dated 8.5.2018, the DC, as submitted by generators would be forwarded to NRPC for calculation of PAF. The implementation has been proposed from 1.6.2018 in view of changes required in scheduling software. However, mechanism for demonstration of declared capability by generating stations needs to be formulated.
- (e) NRLDC acted in best possible manner for implementation of the regulations considering all regulations in perspective and the information available at that time.
- (f) Since, Valve Wide Operation (VWO) is not being mandated by the Commission, primary response has to be made available all the time. The entire system would benefit in view of increased reliability by keeping margin for FGMO. However, contention of the Petitioner that trading licensees and distribution companies will benefit from the declaration above (IC-Aux) is factually incorrect as during lean season this power would not be scheduled to them.

- (g) Though NRLDC appreciates the conscious decision taken by the Commission for allowing DC above (IC-Aux) for the purpose of PAF calculations and would implement the same prospectively. However, the entire computation of the tariff of the generating stations is based on (IC-Aux) in most of the cases and many of the services such as Black start services, Reactive Power services are through mandate of the Commission and there is no separate financial incentive for them. However, NRLDC appreciates the conscious decision of the Commission regarding declaration of DC above scheduling limit."
- 10. BSES Rajdhani Power Limited vide its reply dated 21.5.2018 has submitted that Regulation 6.5 (12) of the Grid Code provides the Petitioner for declaration of DC to their respective RLDCs. However, Regulation 5.2 (h) of the Grid Code is related to system security aspects and the consolidated provision as amended till date, including the Fifth Amendment to the Grid Code with effect from 1.5.2017. According to BRPL, Section 28 (3) (e) of the Electricity Act, 2003 provides that the security aspect of the real time grid operations are within the domain of respective RLDCs. The Commission has given a serious consideration to the security aspect in the operation of the grid as any lapse on this issue will put the entire regional grid in jeopardy. BRPL has submitted that in case the RLDCs are not following the provisions of the Grid Code, the matter can be brought to the notice of POSOCO for remedial measures. However, the security aspect cannot be allowed to be sacrificed.
- 11. Tata Power Delhi Distribution Limited (TPDDL) in its reply dated 4.7.2018 has submitted that the Fifth Amendment to Grid Code was notified by the Commission to ensure that RLDCs/SLDCs shall not schedule the generating units beyond ex-bus generation corresponding to 100% of the installed capacity and pursuant to the above amendment, NRLDC vide its letter dated 29.4.2017 intimated to all the regional entities for implementation of the Fifth Amendment to the Grid Code which inter-alia provides that the generators shall ensure that the DC on bar does not exceed the capacity on bar less normative auxiliary consumption. TPDDL has further submitted that mere plain reading of the provisions of the Grid Code and Electricity Act, 2003 makes it clear that the

responsibility of scheduling of generating stations to ensure the optimum utilization of available hydro energy has been vested with RLDC and therefore, decision of RLDC in this regard is binding on the generating stations of the control area of the concerned RLDC.

Analysis and Decision:

- 12. The Petitioner has submitted that as per Regulation 6.5(12) of the Grid Code, the generating station is required to give DC for the day equal to the installed capacity including overload capability, if any, minus auxiliary consumption, corrected for the reservoir level. However, the Fifth Amendment to the Grid Code imposed no restriction on the generating station to give DC corresponding to ex-bus installed capacity. However, NRLDC vide its letter dated 29.4.2017 restricted the DC of the generating stations upto ex-bus installed capacity on the ground that furnishing DC more than ex-bus capacity without spillage condition is violation of Regulation 5.2 (h) of the Grid Code. According to the Petitioner, the Projects have demonstrated their overload capability as and when scheduling was given by NRLDC during peak hours and the decision of NRLDC to restrict the DC has impacted in recovery of capacity charges from the beneficiaries. The Petitioner has prayed to direct NRLDC to revise the DC from May, 2017 i.e from the enforcement of the Fifth Amendment to the Grid Code.
- 13. NRLDC has submitted that since the Fifth Amendment to the Grid Code provides that VWO margin shall not be used by RLDC to schedule ancillary services, the margin between DC declared by the generating station considering overload and (IC-Aux) cannot be scheduled. Therefore, slight modification in the provision of URS as well as RRAS Regulations is required to be carried out. NRLDC has submitted that most of the utilities, including the Petitioner (for some time) have been following the scheduling procedure as per RLDC letter dated 29.4.2017 on their own and RLDCs were not required to interfere

with their declaration. NRLDC has submitted that since the methodology suggested as per SOR dated 13.4.2018 would entail revision in the scheduling software, the implementation is proposed to be effected from 1.6.2018.

- 14. We have examined the matter. As per Regulation 6.5 (12) the Grid Code, it is the prerogative of the generator to declare the capacity including overload margin. The generator based on machines and fuel/water availability is allowed to declare its DC including overload capacity. Regulation 6.5 (12) of the Grid Code provides as under:
 - "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 Centres shall insure 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".

As per the above provision, the generating station is required to give DC for the day equal to the installed capacity including overload capability, if any, minus auxiliary consumption, corrected for the reservoir level.

- 15. Subsequently, the Commission issued the Fifth Amendment to the Grid Code on 12.4.2017 which came into effect from 1.5.2017. Amended Regulation 5.2 (h) of the Grid Code provides as under:
 - "5.2 (h) All coal/lignite based thermal generating units of 200 MW and above, Open Cycle Gas Turbine/Combined Cycle generating stations having gas turbines of more than 50 MW each and all hydro units of 25 MW and above operating at or upto 100% of their Maximum Continuous Rating (MCR) shall have the capability of (and shall not in any way be prevented from) instantaneously picking upto 105%, 105% and 110% of their MCR respectively, when frequency falls suddenly. After an increase in generation as above, a generating unit may ramp back to the original level at a rate of about one percent (1%) per minute, in case continued operation at the increased level is not sustainable. Any generating unit not complying with the above

requirements shall be kept in operation (Synchronised with the Regional grid) only after obtaining the permission of RLDC.

For the purpose of ensuring primary response, RLDCs/SLDCs shall not schedule the generating station or unit(s) thereof beyond Ex-bus generation corresponding to 100% of the Installed capacity of the generating station or unit(s) thereof. The generating station shall not resort to Valve Wide Open (VWO) operation of units whether running on full load or part load, and shall ensure that there is margin available for providing Governor action as primary response. In case of gas/liquid fuel based units, suitable adjustment in Installed Capacity should be made by RLDCs/SLDCs for scheduling in due consideration of prevailing ambient conditions of temperature and pressure vis-à-vis site ambient conditions on which installed capacity of the generating station or unit(s) thereof have been specified:

Provided that scheduling of hydro stations shall not be reduced during high inflow period in order to avoid spillage:

Provided further that the VWO margin shall not be used by RLDC to schedule Ancillary Services."

As per the above provisions, RLDCs/SLDCs are required to restrict the scheduling of units/stations to ex-bus capability corresponding to 100% MCR for ensuring proper primary response from the generating units.

16. Pursuant to Fifth Amendment to the Grid Code, NRLDC vide its letter dated 29.4.2017 informed all regional entities including the Petitioner that the generators shall ensure that the DC on bar does not exceed the capacity on bar less normative auxiliary consumption and in case the generator gives the DC value higher than the above, the same shall be restricted to the capacity on bar less normative auxiliary consumption. NRLDC further intimated that in case the hydro generating station has given DC above 100% on bar less normative auxiliary consumption, an undertaking is to be given to RLDC that the higher DC is given to avoid spillage.

- 17. It is pertinent to observe that the Fifth Amendment to the Grid Code does not allow RLDCs/SLDCs to reduce the DC declared by the generator or to direct generators to declare lower DC so as to keep margins for primary response.
- 18. The Amendment in the Regulation 5.2 (h) of the Grid Code was necessitated for ensuring that the margins for primary response in case the DC is above 100% of installed capacity corrected to auxiliary consumption. Further, to ensure proper incentive for the generator for keeping units in readiness for providing much needed grid support in case of frequency excursion, the generator has been allowed to declare above installed capacity by including overload margins provided water is available for such generation. This has also been made amply clear in the Statement of Reasons to the Fifth Amendment to the Grid Code which was issued on 13.4.2018. Relevant Portion of the SOR is extracted as under:
 - 13.2.8 We are of the view that declaration of capacity including overload margins is the prerogative of the generator. Generator based on its experience about the healthiness of the units is allowed to declare its declared capability based on machine and fuel/water availability. However, it was being observed that units which were scheduled beyond ex-bus capability corresponding to 100% of IC were not able to provide primary response as these units were operating on VWO mode leaving no margins for further valve opening by governor action during frequency decrease. As such, through the addition in Regulation 5.2 (h), of IEGC, RLDCs/SLDCs have been allowed not to schedule the units beyond ex-bus generation corresponding to 100% of installed capacity. However, for the purpose of calculation of PAF, DC declared by the generator is not to be reduced. This would ensure proper incentive for the generator for keeping units in readiness for providing much needed grid support in case of frequency excursion."
- 19. It is further noticed that NRLDC by quoting certain provisions of Regulations 6.4.5 (iii), 6.4.6, 6.5.2, 6.5.7 (i) of the Grid Code and definition of un-requisitioned surplus mentioned in Ancillary Services Regulations has projected difficulty for implementation of these regulations and has requested to modify the same for overall harmonious reading of

the Grid Code along with other Regulations. We grant liberty to NRLDC to approach the Commission with appropriate proposals for amendment of Grid Code and other regulations which, in the view of NRLDC, are considered necessary to enable it to discharge its statutory functions effectively.

- 20. We direct NRLDC to revise the DC and PAF of the concerned generating stations w.e.f. 1.5.2017 i.e from the date of implementation of Fifth Amendment to the Grid Code in the light of our decision in paras 16 and 17 above.
- 21. Petition No. 74/MP/2018 is disposed of in terms of the above.

Sd/- sd/- sd/- sd/- (Dr. M. K. Iyer) (A. S. Bakshi) (A.K. Singhal) (P.K. Pujari) Member Member Chairperson