

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 383/MP/2014

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri A.K. Singhal, Member

Shri A.S. Bakshi, Member

Date of Order: 15th of February, 2017

In the matter of

Application under clause 4 Part-7 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 for extension of time for implementation of Restricted Governor Mode Operation (RGMO) as required under clause 5.2 (f) of the Regulation, in respect of certain Thermal and Hydel Generating Stations operated by the Madhya Pradesh Power Generating Co. Limited.

And

In the matter of

M.P. Power Generating Co. Ltd.
Block No. 9. Shakti Bhawan
Rampur, Jabalpur (M.P.) – 482008

Vs

.....Petitioner

Western Regional Load Despatch Centre
F – 3, M.I.D.C. Area, Marol, Andheri (East),
Mumbai – 400093

.....Respondent

Following were present:

Shri Ravin Dubey, Advocate, MPPGCL

Shri Rajeev Srivastava, MPPGCL

Shri A.K. Nema, MPPGCL

Shri G. Dixit, MPPGCL

Shri S.R Narsimhan, WRLDC

Ms Pragya Singh, WRLDC

ORDER

The petitioner, M.P. Power Generating Co. Ltd., has filed the present petition seeking extension of time for implementation of Restricted Governor Mode Operation (RGMO) as required under Regulation 5.2 (f) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred "Grid Code") in respect of certain Thermal and Hydel Generating Stations operated by the Madhya Pradesh Power Generating Co. Limited.

2. Regulation 5.2.(f) of the Grid Code provides that all thermal generating units of 200 MW and above and all hydro units of 10 MW and above which are synchronized with the grid, irrespective of their ownership, shall be required to have their governors in operation at all time in accordance with the provisions in sub-clauses (i) to (iii). The provision in the Grid Code in regard to governor action is extracted as under:-

“Governor Action (i) Following Thermal and hydro (except those with up to three hours pondage) generating units shall be operated under restricted governor mode of operation with effect from the date given below:

- (a) Thermal generating units of 200 MW and above,
 - (1) Software based Electro Hydraulic Governor (EHG) system: 1.8.2010
 - (2) Hardware based EHG system: 1.8.2010
- (b) Hydro units of 10 MW and above: 1.8.2010

(ii) The restricted governor mode of operation shall essentially have the following features:

(a) There should not be any reduction in generation in case of improvement in grid frequency below 50.2 Hz. (for example if grid frequency changes from 49.3 to 49.4 Hz. then there shall not be any reduction in generation). Whereas for any fall in grid frequency, generation from the unit should increase by 5% limited to 105 % of the MCR of the unit subject to machine capability.

(b) Ripple filter of +/- 0.03 Hz. shall be provided so that small changes in frequency are ignored for load correction, in order to prevent governor hunting.

(c) If any of these generating units is required to be operated without its governor in operation as specified above, the RLDC shall be immediately advised about the reason and duration of such operation. All governors shall have a droop setting of between 3% and 6%.

(d) After stabilisation of frequency around 50 Hz, the CERC may review the above provision regarding the restricted governor mode of operation and free governor mode of operation may be introduced.

(iii) All other generating units including the pondage up to 3 hours Gas turbine/Combined Cycle Power Plants, wind and solar generators and Nuclear Power Stations shall be exempted from Sections 5.2 (f), 5.2 (g), 5.2 (h) and ,5.2(i) till the Commission reviews the situation: Provided that if a generating unit cannot be operated under restricted governor mode operation, then it shall be operated in free governor mode operation with manual intervention to operate in the manner required under restricted governor mode operation."

3. The Commission, vide its order dated 20.8.2009 in Petition No. 12/2004, directed the generating companies to implement RGMO in various types of thermal and hydro units as per the following schedule.

"41. Based on the above and having specific regard to the prevailing condition of shortage, we direct the implementation of only restricted governor operation in various types of thermal and hydro units as per the following schedule: (a) KWU & LMZ turbines for thermal sets of 200 MW and above: (i) Software based EHG system: 1.3.2010 (ii) Hardware based EHG system where boiler controls are in "auto": 1.6.2010 (b) Hydro units of 10 MW and above 1.3.2010 42. All the generating companies are directed to place before the Commission, within a month, their action plan in line with the above schedule and furnish monthly progress reports to the Commission in this regard."

4. In the above backdrop, the petitioner has filed the present petition seeking extension of time for implementing RGMO in the following hydro and thermal generating stations:

S.No.	Name of the station	Extension sought up to	Reason
Hydro stations			
	Pench (2x80 MW)	July,2015	Digital governor installed by OEM, BHEL in Unit-2. However, RGMO facility not commissioned due to software and hard ware

			problems.
	Tons (3x105 MW)	September,2015	New digital governor ordered on BHEL. Part supply received at site. Continuously pursuing BHEL for completion of work.
	Bargi (2x45MW)	September,2017	RGMO being implemented manually. Offer called from BHEL for replacement of old governors. The case is under process for technical scrutiny, administrative approval and arrangement of funds.
	Madhikheda (3x20 MW)	December,2016	Offer called from BHEL for re-commissioning of governors with RGMO facility, response to which is still awaited.
	Ban Sagar-IV (2x10 MW)	December,2016	Same as above
	Gandhinagar (5x23 MW)	July,2016 for first three units, December,2017 for last two units	Order on OEM Voith Hydro Pvt. Ltd. being placed for first three units. OEM M/s Hitachi not responding, Open tender issued time would be required for scrutiny, procurement and commissioning.
	Ban Sagar-III (3x20 MW). Ban Sagar-II (2x15MW), Rajghat (3x15 MW) Birsingpur (1x20 MW)	Exemption be granted from implementation of RGMO	Old governors are of Analog type. BHEL has submitted that without replacing the old governors with EHG governors, units cannot be operated on RGMO. The replacement will, entail 'large capital expenditure. This HPS is canal based and its units are run only when water share of power generation at Tons is to be released from Bansagar dam. Looking at limited quantum of power generation to be achieved at this HPS, it would be quite uneconomical and unviable to invest such large capital cost in these 12 to 23 years old units. Therefore, exemption is required for implementation of

			RGMO in these units.
Thermal Plants			
	STPS Sarni old units (Unit-6: 200 MW, unit 7 to 9 (210 MW each)	Exemption be granted from implementation of RGMO	M/s BHEL (OEM), was approached for their offer for supply of RGMO Governors. However, they have informed vide Letter No. 1241 dated 19.9.2011 that since these units are having LMZ turbines with mechanical Governors therefore <u>FGMO/RGMO in these units is not possible. Therefore, exemption from implementation is prayed. *</u>
	STPS Sarni new units (2x 250 MW)	Commissioned and working	Commissioned and working.*
	ATPS, Chachai unit no.5 (210 MW)	December,2015	RGMO was commissioned as per the requirements of Regulation 5.2(f) of IEGC Regulations 2010. However, modification of logic was necessitated in the software to meet requirements stipulated in 2nd Amendment dated 6.1.2014 to the said Regulations (effective from 17.2.2014). Tender was floated on 20.8.2014. However, M/s BHEL has not participated in the tender despite two extensions and subsequent follow up. The Coordinated Master Control (CMC) is also to be commissioned by M/s BHEL and so far engineers have not arrived at site for the purpose despite rigorous pursuance/reminders. Therefore, exemption is required till December 2015.
	SGTPS, Birsingpur (4x210 MW)	3 years time for smooth implementation of RGMO.	RGMO is commissioned. The units are put to RGMO mode but sometimes the Petitioner is constrained to take out from the RGMO mode. As the PH-I & PH-II units are very old &

			<p>commissioned in the year 1993 & 1999 respectively Owing to mismatching in between the auto/mechanical elements of the combustion control auto loops, the wide fluctuation in the steam pressure/temperature is being observed. Hence to avoid unit tripping/thermal stress to boiler & turbine the units were frequently taken out from RGMO mode. Efforts are on to streamline auto control loops & mechanical elements so as to minimize wide fluctuations in boiler/turbine parameters. The RLA study with a view to ascertain possible R&M to improve the performance of the units has been carried out in Unit No.1 from July 2014 to Sep 2014 and the same is to be carried out in Unit No.2 in July to Sep 2015. Based on the recommendation of this study suitable action shall be taken up to upgrade the existing mechanical, electrical and instrumentation systems. Therefore three years time is required for smooth implementation of RGMO. *</p>
	SGTPS, Birsingpur (1x500MW)	Commissioned	<p>Commissioned and out in service. Due to problem in EHG during Nov 2014, Unit has been running in hydraulic governor mode. EHG to be attended by M/s BHEL during AOH, which is in progress. RGMO shall be put back in service.*</p>
	SSTPP, Khandwa	Commissioned and working	<p>Commissioned and working.*</p>

* Submitted vide affidavit dated 16.3.2015

5. The petitioner has submitted that it has taken diligent steps to implement of the Commission`s direction. However, owing genuine difficulties, only partial implementation could be achieved and wherever technically feasible, the implementation is underway.

6. Matter was admitted on 24.3.2016 and notice was issued to Western Regional Load Despatch Centre (WRLDC) to file its reply. Reply to the petition has been filed by Western Regional Load Despatch Centre (WRLDC).

7. Western Regional Load Despatch Centre in its reply dated 22.4.2015 has submitted as under:

(a) The frequency profile of the grid has improved considerably over the years, particularly in the year 2014 with the synchronization of Southern grid with rest of the country, implementation of the amendments in the Grid Code w.e.f. 17.2.2014 and introduction of the Deviation Settlement Mechanism Regulations from this date. The earlier variation of 4-5 Hz on daily basis between 1998- 2002 has now come down to the order of 0.50 - 0.70 Hz. Further improvement in the frequency profile calls for strict implementation of primary governor response from the generating units connected with the integrated synchronous system.

(b) The operation of the large synchronous system without adequate primary response (FGMO / RGMO) makes the system vulnerable in case of large contingencies in the system, particularly if there is part separation of any part of

the grid. CEA Enquiry Committee set up to investigate the Grid Disturbance of 30 and 31 July 2012 had observed in an emergency system operating condition, such as on 30/31.7.2012, even some of the corrective measures might have saved the system from the collapse.

(c) During the Grid Disturbance of 30/31.7.2012, Western Regional Grid got separated from the area. Consequent to the separation, the frequency in WR grid rose sharply due to inadequate primary response from generators. WR grid narrowly escaped cascade tripping of generating units on over speeding.

(d) Report of CEA Enquiry Committee for Grid Disturbance of 30/31.7.2012 emphasizes the importance of primary response in survival of electrical islands formed as a last resort to save the system from total collapse.

(e) According to the petitioner, the total installed capacity of MPPGCL is 935 MW in hydro (10 MW and above) and 4080 MW in thermal (200 MW and above). It is noted that out of the 935 MW installed capacity in hydro, Nil capacity is presently capable of offering primary response. Out of 4080 MW installed capacity in thermal only 2200 MW capacity is capable of giving primary response. From the Daily Power Supply Position compiled by WRLDC, it is inferred that one 600 MW unit of Shri Singhaji TPS is generally under reserve shutdown due to high energy rate generation cost. Therefore, the probability of installed capacity of MPPGCL capable of giving primary response remaining bar on any given day would be around 1600 MW only [viz. 2 x 250 MW unit #10 & 11 of Satpura, 500 MW unit # 5 of SGTPS Birsighpur, 600 MW unit of Sri

Singhaji)]. This is highly inadequate considering large Control Area such as Madhya Pradesh which is meeting a peak demand of around 10000 MW (~ 20 % of WR grid).

(f) The Commission vide order 3.5.2013 in Petition Nos. 47-52/2012 mandated computation of Frequency Response Characteristics of all control areas. The Commission had notified the procedure for Assessment of Frequency Response Characteristics (FRC) of Control Areas. Accordingly, the FRC of the control area of Madhya Pradesh for six number of grid events is displayed as Exhibit-1 of the reply. Out of the six cases, the response of Madhya Pradesh Control Area is negative, i.e instead of helping the grid under contingency, the Control Area was deteriorating the grid conditions. Even in the remaining three cases where the response was positive, the average FRC of Madhya Pradesh Control Area was only 342 MW / Hz in comparison to the expected ideal response of around 1350 MW/Hz. A large proportion of the observed Frequency Response would be from the natural load damping characteristics of rotating load within M.P. system.

(g) The petitioner is a veteran utility in the power sector having decades of experience of operating generating units. Therefore, the petitioner is expected to be aware of the importance of maintaining the governing system of its generating units in a healthy condition at all times. However, the remarks by the OEM which have been attached with the petition as Annexure P/7 reflects

poorly on the sincerity of efforts and commitment made by the petitioner towards ensuring primary response from its generating units.

(h) The petitioner vide its letters dated 29.4.2013, 26.10.2013 and 31.01.2014 informed the OEM about the offer made by OEM on 22.9.2011 for replacement of governors which were available with the petitioner. This could be considered by the Commission as a serious lack of commitment on the part of the petitioner in ensuring compliance to the provisions of Grid Code and action under Section 142 of the Electricity Act, 2003 should be initiated against the petitioner for violation of Regulation 5.2 (f), (g), (h) (i) of the Grid Code.

12. The petitioner, in its rejoinder dated 20.5.2015, has submitted as under:

(a) The updated status of implementation of RGMO is as under:

Status of implementation of RGMO

	Installed Capacity Require to be under RGMO (MW)	Under RGMO/ FGMO* MW (%)	
		Currently	By end of July 2015
Hydel	915	90*	565 **
Thermal	4080	3,040	3,040
Total	4995	3,130 (62.6%)	3,605 (72%)

* Running as per Proviso to Regulation 5.2 (f) (iii) of IEGC Regulation 2010 (1st Amendment) (FGMO with Manual Intervention) ** Including FGMO with Manual Intervention.

(b) The contention of WRLDC that one 600 MW unit of Sri Singhaji TPS (SSTPS) was generally under reserve shut down due to high energy rate

generation cost, is incorrect. In fact, the unit is instructed to be put on load by SLDC as per Merit Order Dispatch (MOD) issued by it every month. Power Purchase Cost per Unit for Merit Order Dispatch (MOD) issued by SLDC for January 2015 to March 2015 and Outage Details of 2 x 600 MW SSTPS unit are annexed as Annexure P/10 of the rejoinder.

(c) Besides the fact that one unit of 600 MW of SSTPS being on Reserve Shut Down on certain period of time, does not appear to be relevant so far as the issue of compliance of Grid Code is concerned. The petitioner has complied with the provisions of the Grid Code in implementation of RGMO in both units of Shri Singaji TPS.

(d) The petitioner is not only the generator in MP control area and is not solely responsible for meeting the entire Peak Demand of the Madhya Pradesh Control Area comprising of 10,000 MW. Considering nearly 5,000 MW of installed capacity and 85% Availability Factor, the petitioner is expected to meet maximum 4250 MW share in Peak Demand of 10,000 MW. Rest of the demand (5,750 MW) is supposed to be met by contribution from other generators of Central Sector/ JVPPs/ IPPs, etc. from which power is procured for supply in M.P. State by the Holding Company of Discoms (i.e. MP Power Management Co. Ltd.).

(e) The observations of WRLDC regarding poor/negative response of MP control area, have been carefully noted for further analysis and to ensure better primary response in future. Improvement in contribution of the petitioner's generating units is expected to improve as many thermal/ hydel units are gradually getting

equipped with RGMO facility and diligent efforts are within the provisions of the Grid Code.

(f) The petitioner is a State Government Company which is required to adhere to guidelines and procedures for making economic, fair and transparent purchases and procurements. The management of the company is required to take due care to ensure that the purchase/ procurements are made at a most competitive rates. When quotes of OEM prima facie appear to be very high on single quotation basis then the management has to either negotiate with OEM for quoting a lower price or to go for open tendering. The letter of the OEM, M/s BHEL dated 12.2.2014 cited by WRLDC, apparently speaks the tale of a similar predicament faced by the petitioner in case of some HPS, wherein the rates quoted by the OEM were considered very much on the higher side and having been unsuccessful in negotiating lower rates, it was considered appropriate to go for open tendering to make procurement at reasonable rates. Such situations result in avoidable delays.

(g) The petitioner has submitted the status of the generating stations as under:

S. No.	Name of the station	Extension sought up to	Reasons
Thermal station			
1.	SGTPS, Birsingpur (4x210 MW)	N.A.	RGMO has also been successfully put into service besides 500 MW Unit already running with RGMO.
Hydel Stations			

1.	Bansagar I - Tons HPS (3 x 105 MW)	July 2015	Petitioner has already placed order on 14.08.2012 on M/s BHEL, Bhopal for replacement of existing analogue type governor with digital governor having RGMO features. M/s BHEL has supplied most of the material & same shall be installed & commissioned during currently ongoing annual overhaul of the units. Thus, RGMO in these Units is expected to be commissioned by end of July 2015.
2.	Pench HPS	July 2015	In 2 x 80 MW Pench HPS, RGMO is already installed. However commissioning of RGMO feature in the new digital governor is still to be done for which some hardware is required. M/s BHEL has assured to commission it by end of July 2015.
3.	RABS HPS, Bargi	Governors working on auto mode	In 2x45 MW RABS HPS, Bargi at present governor is working on auto mode & RGMO is being implemented with manual intervention. Also the offer for replacement of existing analogue type governor with digital governor was obtained from M/s BHEL. However, while processing the offer for competent approval, it has been subsequently decided to issue open tender for competitive offer.
4.	Gandhisagar HPS	Reasonable extension of time.	In 5 x 23 MW Gandhisagar HPS Hydel units (installed during 1960 to 1966), new digital governor are to be installed for implementing RGMO, which will entail large expenditure. However an estimate of Rs 2.73 Cr. has been sanctioned for Unit nos. 1, 2 & 3. Procurement of the same is to be done by issuing a tender on competitive bidding basis. Regarding Unit nos. 4 & 5 an amount of Rs. 2.57 Cr is provisioned. Thus, sincere and dedicated efforts are on to comply with the RGMO Regulation and reasonable extension of time for implementation is prayed for.
5.	Bansagar - II HPS, Silpara	Exemption from implementation of RGMO	In 2 x 15 MW Bansagar-II HPS for providing RGMO facility in these units, replacement of existing governor by digital type governor having RGMO facility is required which will entail large capital expenditure. Since, this is a canal based HPS and being of small capacity, its units run only when water share of power generation at Tons is

			released to the Bansagar Dam. The exemption from implementation of RGMO is therefore prayed.
6.	Bansagar- III HPS, Deolond	Exemption from implementation of RGMO	In 3 x 20 MW Bansagar III HPS, for providing RGMO facility in these units, replacement of these governor by digital type governor having RGMO facility is required which will entail large capital expenditure. Since this HPS is run only when water share of Bihar state is released from Bansagar Dam on their demand. Thus units are run only for a period of as minimum as three months. Looking to limited annual running hours/ power generation from this HPS exemption from implementation of RGMO is prayed.
7.	Bansagar - IV HPS, Jhinna	Exemption from implementation of RGMO	In 2 x 10 MW Bansagar-IV the units are having Digital type Electro Hydraulic Governor. As such as per BHEL, by suitable modification, the RGMO feature may be incorporated in the governor. The statement of WRLDC that no request for obtaining offer has been made by MPPGCL, is not correct. In fact M/s BHEL was requested to submit offer for commissioning of RGMO but M/s BHEL submitted offer for FGMO in the year 2010. Subsequently, in view of considerably lower capacity of the hydel units exemption has since been prayed.
8.	Rajghat HPS	Exemption from implementation of RGMO	In 3 x 15 MW Rajghat HPS, for providing RGMO facility in these units, replacement of these governor by digital type governor having RGMO facility is required which will entail large capital expenditure. Since this power house is run according to water releases permitted by Betwa River Board as per requirement of irrigation to be met from Matatila Dam situated downstream. As such design energy of this plant is only 88 MU. Looking to limited annual running hours/ power generation from this HPS, exemption from implementation of RGMO is prayed.
9.	Madikheda HPS	July 2016	In 3 x 20 MW Madikheda HPS, units are having Digital type electro hydraulic Governor. As per BHEL, by suitable modification, the RGMO feature may be

		<p>incorporated in the governor. As regards the statement of the respondent that the offer was submitted by BHEL on 22.09.11 and response of MPPGCL awaited, it is to clarify that same was not considered owing to abnormally high rates. Further efforts made to get the competitive offers had been to no avail. Subsequently the offer from BHEL was called vide letter dated 26.10.13 which was followed by reminder dated 31.1.14 and dated 21.6.14. None of request of MPPGCL has so far been responded. However constant persuasion is being made with BHEL to submit its offer. Notwithstanding the position as aforesaid, it is worth bringing forth that the running hours of Madikheda HPS depend on the release of water permitted by WRD considering requirement of irrigation to be met from Mohinisagar pick up weir situated downstream of MHPS & requirement of irrigation for the rainy season if monsoon is delayed. M/s BHEL has been requested to modify the governor so as to commission RGMO in the existing digital type governor. BHEL has to submit offer for supply of items and installation and commissioning of the same for implementation of RGMO in existing governor which is likely to be completed by July 2016.</p>
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(h) Since the petitioner is making all possible efforts for implementation of RGMO, the contention of the respondent do not have merit.

Analysis and decisions:

13. We have considered the submissions of the petitioner and the respondent and perused documents available on record. The issue for our consideration is that whether the non-compliance of the provisions of the Regulation 5.2 of Grid Code is *bona-fide* and the petitioner is seeking extension on sufficient grounds. The petitioner has placed

on record the updated status of the implementation of RGMO in thermal and hydro generating stations as under:

Status of implementation of RGMO

	Installed Capacity Require to be under RGMO (MW)	Under RGMO/ FGMO* MW (%)	
		Currently	By end of July 2015
Hydel	915	90*	565 **
Thermal	4080	3,040	3,040
Total	4995	3,130 (62.6%)	3,605 (72%)

Running as per Proviso to Regulation 5.2 (f) (iii) of IEGC Regulation 2010 (1st Amendment) (FGMO with Manual Intervention) ** Including FGMO with Manual Intervention.

14. The petitioner has negated the contention of the respondent that one 600 MW unit of Sri Singhaji TPS (SSTPS) is generally under reserve shut down due to high energy rate generation cost. The petitioner has contended that the unit was instructed to be put on load by SLDC as per Merit Order Dispatch (MOD) issued by it every month. However, Power Purchase Cost per Unit for Merit Order Dispatch (MOD) issued by SLDC for the months of January 2015 to March 2015 and Outage Details of 2 x 600 MW SSTPS unit are submitted by the petitioner.

15. WRLDC has submitted that the petitioner is invoking the negative facts before the Commission by asserting that the petitioner had not made any request to M/s BHEL for implementation of RGMO in its Bansagar- IV and Rajghat HPS units.

16. The petitioner vide letter dated 25.2.2015 was directed to submit the latest position in respect of the thermal units for which extension has been sought. The petitioner vide its affidavit dated 12.3.2015 has submitted the status of thermal and hydro unit.

17. With regard to thermal units, the petitioner has sought exemption for its LMZ machines at STPS Sarni [old units, namely unit 7 to 9 (3x210 MW)]. Initially, LMZ machines were left out of the prescribed RGMO. However, considering the facts that certain generators were facing difficulties in implementing RGMO and overall desired primary response was not coming, the Commission by way of an amendment notified the following proviso to Regulation 5.2 (f) of the Grid Code:

"Provided that if a generating unit cannot be operated under restricted governor mode operation, then it shall be operated in free governor mode operation with manual intervention to operate in the manner required under restricted governor mode operation."

18. Subsequent to the above amendment, NTPC and certain other utilities have filed petitions before the Commission for exemption of some of their LMZ units and other units not fitted with EHG from FGMO with manual intervention. In view of the difficulties expressed by the generators, The Commission vide office order dated 24.9.2014 constituted a Committee under the Chairmanship of Sh.A.Velayutham, Ex-Member, MERC to look into the problems of the generating units in implementing FGMO with manual intervention, to suggest measures for implementation of FGMO with suitable modification/amendments in certain Regulations/Grid Code and any other recommendation to facilitate FGMO/RGMO operation.

19. With regard to primary response from LMZ machines, the committee has recommended that these units shall provide mandated Grid Code response either through replacement/retrofitting of MHG governors with/to EHG governors or through FGMO with Manual Intervention. The generators have been given the option to decide

the course of action based on vintage of these units. Relevant portion of the report of the committee is extracted as under:

“Committee feels that there is no need for granting any exemption for the LMZ units from operation under RGMO/FGMO with manual intervention. The generator may decide on their own whether to go for retrofit for adopting RGMO features or continue with FGMO with manual intervention.”

In view of the above, we are not inclined to grant exemption for the LMZ units from operation under RGMO/FGMO. The petitioner is directed to either go for replacement/retrofit or adopt FGMO with MI for providing mandated response as per the provisions of the Grid Code.

20. The petitioner has requested for time upto December, 2015 for implementation of RGMO at ATPS, Chachai Unit No.5 (210 MW). Since time sought by the petitioner has already expired, the petitioner is directed to submit the latest status of Unit No. 5 (210 MW) of ATPS, Chachai within 15 days from the issue of this order. However, in case RGMO is not yet implemented in units, the petitioner is directed to operate these units on FGMO with manual intervention as per the provisions of the Grid Code.

21. With regard to Hydro units, the petitioner has prayed for extension of time up to July,2015 for Bansagar I-Tons HPS (3x105 MW) and Pench HPS (2x80MW) for implementation of RGMO/FGMO with MI. Since the time sought by the petitioner has already expired, the petitioner is directed to submit the latest status of Bansagar I-Tons HPS (3x105 MW) and Pench HPS (2x80MW) within 15 days from the issue of this

order. In case RGMO is not yet implemented, the petitioner is directed to operate these units on FGMO with manual intervention as per the provisions of the Grid Code.

22. With regard to implementation of RGMO/FGMO at RABS HPS (2x45 MW), the petitioner has submitted as under:

"In 2x45 MW RABS HPS, Bargi at present governor is working on auto mode & RGMO is being implemented with manual intervention. Also the offer for replacement of existing analogue type governor with digital governor was obtained from M/s BHEL. However, while processing the offer for competent approval, it has been subsequently decided to issue open tender for competitive offer."

23. In view of the fact that RGMO stipulations as per Grid Code are being met with manual implementation, RABS HPS (2x45 MW) would be able to provide the desired primary response. Accordingly, POSOCO/RLDC/SLDC, through the FRC reports, would be monitoring the primary response of the instant station and in case it is found that the station response is not of the desired level, the matter shall be reported by POSOCO/RLDC/SLDC to the Commission for appropriate direction.

24. The petitioner has sought exemption for implementation of RGMO for its certain smaller capacity hydro units. In this regard, the Committee in its report has suggested as under:

"21.7 Regarding relaxation of RGMO/FGMO stipulations, it has been brought out by CERC that during the recent past, a number of old vintage small capacity hydro stations/units have sought exemption from the RGMO/FGMO stating that it is becoming increasingly difficult to arrange for the spare parts for the governing system and the governors are not operating. Committee is of the view that in consideration of small contribution these units make to the overall FRC and considering their maintenance and operational problems, the current limit of 10

MW for hydro stations for providing primary response through FGMO/RGMO may be increased to 25 MW.”

25. With regard to exemption to small hydro stations from the implementation of RGMO/FGMO, the Committee has recommended as under:

“The current lower limit of 10 MW for hydro stations for providing primary response through FGMO/RGMO may be increased to 25 MW.”

26. The Committee has suggested that in consideration of small contribution, these units make to the overall FRC and considering their maintenance and operational problems, the current limit of 10 MW for hydro stations for providing primary response through FGMO/RGMO should be increased to 25 MW.

27. We have considered the suggestion and recommendation of the Committee. We direct the staff of the Commission to initiate the proposal for amendment of the Grid Code for consideration of the Commission. Meanwhile, all hydro units of the petitioner having capacity of 25 MW and below are exempted from providing primary response through FGMO/RGMO. Accordingly, Gandhisagar HPS (5 x 23 MW), Bansagar - II HPS (2 x 15 MW), Bansagar- III (3 x 20 MW), Bansagar-IV (2 x 10 MW), Rajghat HPS (3 x 15 MW) and Madikheda HPS (3 x 20) are exempted from providing primary response in terms of the provisions of the Grid Code.

28. Petition No. 383/MP/2014 is disposed of with the above directions.

Sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B.Pradhan)
Chairperson