

Ref.: APL/CERC/15072024

Date: 15.07.2024

To
The Secretary,
Central Electricity Regulatory Commission,
World Trade Centre, 6th, 7th and 8th floor, Tower -B,
Nauroji Nagar, New Delhi - 110029

Sub.: Submission of comments on Draft CERC Indian Electricity Grid Code (First Amendment) Regulations, 2024, sought vide Notification No. L-1/265/2022/CERC dated 12.06.2024.

Dear Sir,

With reference to the comments invited by the Hon'ble Central Electricity Regulatory Commission on the Draft Indian Electricity Grid Code (First Amendment) Regulations, 2024, we hereby submit our comments on the same with a request to kindly take the same on record.

Thanking You,
Yours Sincerely,

For **Adani Power Limited**



M. R. Krishna Rao
President

APL Comments on Draft CERC Indian Electricity Grid Code (First Amendment) Regulations, 2024

Sr. No.	Regulation	IEGC Regulations, 2023	IEGC Draft First Amendment Regulations, 2024	Comments
1.	19. Drawal of start-up power and injection of infirm power	<p>(1) A unit of a generating station including unit of a captive generating plant that has been granted connectivity to the inter-State Transmission System in accordance with GNA Regulations shall be allowed to inter-change power with the grid during the commissioning period, including testing and full load testing before the COD, after obtaining prior permission of the concerned Regional Load Despatch Centre:</p> <p>Provided that the concerned Regional Load Despatch Centre while granting such permission shall keep grid security in view.</p> <p>(2) The period for which such inter-change shall be allowed shall be as follows:- (a) Drawal of start-up power shall not exceed 15 months prior to the expected date of first synchronization and one year after the date of first synchronization; and</p>	<p>(1) A unit of a generating station including unit of a captive generating plant that has been granted connectivity to the inter-State Transmission System in accordance with GNA Regulations shall be allowed to inter-change power with the grid during the commissioning period, including testing and full load testing before the COD, after obtaining prior permission of the concerned Regional Load Despatch Centre:</p> <p>Provided that the concerned Regional Load Despatch Centre while granting such permission shall keep grid security in view.</p> <p>(2) The period for which such inter-change shall be allowed shall be as follows:- (a) Drawal of start-up power shall not exceed 15 months prior to the expected date of first synchronization and one year after the date of first synchronization; and (b) Injection of infirm power shall not exceed one year from the date of first synchronization for</p>	<p>Existing provision of injection of infirm power till 1 year from the date of first synchronization to be continued for all generators, rather than limiting it to 45 days from First Time Charging for RE Generators.</p> <p>Rationale:</p> <ul style="list-style-type: none"> There should not be any capping on the injection of infirm power in case of REGS/ESS as at times even after having FTC approval in place, there are situations where delay happens in 1st time charging because of various reasons (such as checks and fault etc.) beyond the control of the developer. Further, charging of individual elements of REGS/ESS (i.e. 220 KV line, 220 KV Bay, 33/220 KV transformers, 33 KV feeders, WTG and 33 KV unit Transformers etc.) takes place in phases wherein in case of Wind Project one 33 KV feeder involves 12-13

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		(b) Injection of infirm power shall not exceed one year from the date of first synchronization.	generating stations other than REGS and ESS. (c) Injection of infirm power shall not exceed 45 days from the date of FTC approval for REGS and ESS.	WTGs normally. In such cases, it usually takes 4-5 attempts in completion of charging of mere 100 MW capacity as such feeders are charged one by one progressively. And for large scale projects it will obviously take some more time.
2.		(3) Notwithstanding the provisions of clause (2) of this Regulation, the Commission may allow extension of the period for inter-change of power beyond the stipulated period on an application made by the generating station at least two months in advance of the completion of the stipulated period:	(3) Notwithstanding the provisions of clause (2) of this Regulation, the Commission may allow extension of the period for inter-change of power beyond the stipulated period on an application made by the generating station at least two months in advance of the completion of the stipulated period: Provided that for REGS and ESS, extension of period for injection of infirm power beyond the stipulated period may be allowed (a) for a period up to six months by respective RLDC on an application(s) made by such generating station or ESS to respective RLDC along with detailed reasons, at least 10 days in advance of the completion of the stipulated period, (b) for a period beyond six months by the Commission on an application(s)	<ul style="list-style-type: none"> • Most of the REGS plant are charged and commissioned in parts/phases (in small packages of 50 MW or lower capacity) which in turn takes time in completion of trial run w.r.t. complete project capacity. • Even after charging of such part capacity, various checks of parameters are required to be done internally prior to going into trial operation which takes more time in corroborating the desired results which is quite essential to avoid any issue during actual trial run. • Accordingly, limiting of injection of infirm power up to 45 days is quite stringent

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			<p>made by such generating station or ESS along with detailed reasons, at least 30 days in advance of the completion of the stipulated period.</p>	<p>and not practical to undergo and complete the successful trial run for entire capacity of a project. Hence, it is requested to continue with the existing regulation which allows 1 year.</p> <ul style="list-style-type: none"> Without prejudice to the above, as far as commercial sale of infirm power is concerned, it is submitted same is in line with the DSM Regulation 2022 which rather encourages sale of such infirm power and has indicated that it does not lead to any imbalance in the system incase of infirm power being scheduled to a buyer. Relevant abstract of the SOR dt 01.06.2022 issued in respect of DSM Regulation 2022 is reproduced below for ready reference: "9.1. <i>...injection of infirm power without corresponding buyer will lead to imbalance in the system. The basic message is that the generators should</i>

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				<p><i>make necessary arrangements for scheduled transaction of their infirm power. The Commission is of the view that sufficient avenues are available for the generators to sell their infirm power in the market. Hence, the generators should explore those options rather than using grid as a market for injection and obtaining compensation.”</i></p> <ul style="list-style-type: none"> • Keeping the above in view, it is requested to consider the following to be specified in IEGC amendment. <i>“(c) Injection of infirm power, except in cases of commercial sale of such power, shall not exceed 45 days from the date of FTC approval for REGS and ESS.”</i> • Restriction on injection of power from any REGS is not only against the mandate of promotion of Renewable Energy as mandated under Sec 61 (h) & 86(1) (e) of EA 20023 but also an opportunity loss for

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				utilization of RE sources which can't be stored but eventually would be spared/wasted in such cases without any use of such energy.
3.	45. General Provisions (12) Minimum turndown level for regional entity thermal generating stations:	<p>The minimum turndown level for operation in respect of a unit of a regional entity thermal generating station shall be 55% of the MCR of the said unit or such other minimum power level as specified in the CEA (Flexible Operation of coal based Thermal Generating Units) Regulations, 2023, as amended from time to time, whichever is lower:</p> <p>Provided that the Commission may fix through an order a different minimum turndown level of operation in respect of specific unit(s) of a regional entity thermal generating station:</p> <p>Provided further that such generating station on its own option may declare a minimum turndown level below the</p>	<p>The minimum turndown level for operation in respect of a unit of a regional entity thermal generating station shall be 55% of the MCR of the said unit or such other minimum power level as specified in the CEA (Flexible Operation of coal based Thermal Generating Units) Regulations, 2023, as amended from time to time, whichever is lower:</p> <p>Provided that the Commission may fix through an order a different minimum turndown level of operation in respect of specific unit(s) of a regional entity thermal generating station:</p> <p>Provided further that such generating station on its own option may declare a minimum turndown level below the minimum turndown level specified in this clause:</p>	<ul style="list-style-type: none"> It is humbly submitted that the proviso for compensation due to part load operations shall be extended to all ISGS which are under the jurisdiction of CERC, irrespective of whether such ISGS has PPAs u/s 62 or 63 and irrespective of the control area jurisdiction of RLDC or SLDC. In fact, the IEGC 4th amendment reads as follows: 6.3B - Technical Minimum Schedule for operation of Central Generating Stations and Inter-State Generating Stations. 3. Where the CGS or ISGS, whose tariff is either determined or adopted by the Commission, is directed by the concerned RLDC to operate below normative

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		<p>minimum turndown level specified in this clause:</p> <p>Provided also that the regional entity thermal generating stations whose tariffs are determined under Section 62 or Section 63 of the Act, shall be compensated for part load operation, that is, for generation below the normative level of operation, in terms of the provisions of the contract entered into by such generating stations with the beneficiaries or buyers, or in the absence of such provision in the contract, as per the mechanism to be specified by the Commission through separate regulations or through Order:</p> <p>Provided also that till the mechanism of part load compensation is notified by the Commission, the mechanism in this regard already in force under the Central Electricity Regulatory Commission (Indian Electricity Grid Code)</p>	<p>Provided further that the regional entity thermal generating stations whose tariffs are adopted under Section 63 of the Act shall be compensated for part load operation, that is, for generation below the normative level of operation, in terms of the provisions of the contract entered into by such generating stations with the beneficiaries or buyers, or in the absence of such provision in the contract, as per the mechanism already in force under the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.</p> <p>Provided further that the thermal generating stations whose tariffs are determined under Section 62 of the Act by the Commission, shall be compensated for part load operation as per the provisions of applicable Tariff Regulations.</p>	<p><i>plant availability factor but at or above technical minimum, the CGS or ISGS may be compensated depending on the average unit loading duly taking into account the forced outages, planned outages, PLF, generation at generator terminal, energy sent out ex-bus, number of start-stop, secondary fuel oil consumption and auxiliary energy consumption, in due consideration of actual and normative operating parameters of station heat rate, auxiliary energy consumption and secondary fuel oil consumption etc. on monthly basis duly supported by relevant data verified by RLDC or SLDC, as the case may be.</i></p> <p>Rationale:</p> <ul style="list-style-type: none"> It is logical that all the ISGS whose operating parameters are determined either through Tariff

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		Regulations, 2010 shall continue to be in operation.		Regulations or by way of orders issued in Change in Law cases are made eligible for compensation on account of part load operations. In other words, all ISGS which are under the jurisdiction of this commission irrespective of it being under the control area jurisdiction of SLDC or RLDC shall be covered under this regulation.
4.	49. Procedure for scheduling and dispatch for Inter-state transactions (7) Revision of Declared Capacity and schedule	(7) Revision of Declared Capacity and schedule, shall be allowed on account of forced outage of a unit of a generating station or ESS (as an injecting entity) only in case of bilateral transactions and not in case of collective transaction. Such generating station or ESS (as injecting entity) or the electricity trader or any other agency selling power from the unit of the generating station or ESS shall immediately intimate the outage of the unit along with	(7) Revision of Declared Capacity and schedule, shall be allowed on account of forced outage of a unit of a generating station or ESS (as an injecting entity) only in case of bilateral transactions and not in case of collective transaction. Such generating station or ESS (as injecting entity) or the electricity trader or any other agency selling power from the unit of the generating station or ESS shall immediately intimate the outage of the unit along with the requisition for revision of	It is humbly submitted that the RE Generating Stations or ESS (as an injecting entity), to be allowed a maximum of 12 revisions, of Declared Capacity and schedule in a day subject to a maximum of 240 revisions during a month, rather than the proposed limit of revisions in the draft, of maximum of 4 in a day, and maximum of 60 in a month. Rationale:

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		<p>the requisition for revision of Declared Capacity and schedule and the estimated time of restoration of the unit, to SLDC or RLDC, as the case may be. The schedule of beneficiaries, sellers and buyers of power from this generating unit shall be revised on pro-rata basis for all bilateral transactions. The revised Declared Capacity and schedules shall become effective from the time block and in the manner as specified in clause (4) of this Regulation:</p> <p>Provided that the generating station or ESS (as injecting entity) or trading licensee or any other agency selling power from a generating station or unit(s) thereof or ESS may revise its estimated restoration time once in a day and the revised schedule shall become effective from the 7th time block or 8th time block as per clause (4) of this Regulation, counting the time block in which the revision is informed by the generator or ESS to be the first one:</p>	<p>Declared Capacity and schedule and the estimated time of restoration of the unit, to SLDC or RLDC, as the case may be. The schedule of beneficiaries, sellers and buyers of power from this generating unit shall be revised on pro-rata basis for all bilateral transactions. The revised Declared Capacity and schedules shall become effective from the time block and in the manner as specified in clause (4) of this Regulation:</p> <p>Provided that the generating station or ESS (as injecting entity) or trading licensee or any other agency selling power from a generating station or unit(s) thereof or ESS may revise its estimated restoration time once in a day and the revised schedule shall become effective from the 7th time block or 8th time block as per clause (4) of this Regulation, counting the time block in which the revision is informed by the generator or ESS to be the first one:</p>	<ul style="list-style-type: none"> • RE generation is totally dependent on the weather conditions and same are very dynamic and intermittent in nature. Comparatively conventional power projects (other than RE) are more stable and its dependency upon fuel is also much predictive in order to account-for the forecast and the possible generation from these projects. • Further, in case of solar projects as being setup in blocks of smaller capacity, these block acts as an independent unit generating stations. Whereas in case of Wind, individual WTGs itself acts as an independent unit generating stations. Having more no of unit wise structure installed in large geographical area, RE projects are more vulnerable to the

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		<p>Provided further that the SLDC or the RLDC as the case may be, shall inform the revised schedule to the seller and the buyer. The original schedule shall become effective from the estimated time of restoration of the unit.</p>	<p>Provided further that the SLDC or the RLDC as the case may be, shall inform the revised schedule to the seller and the buyer. The original schedule shall become effective from the estimated time of restoration of the unit.</p> <p>(7-a) Revision of Declared Capacity and schedule of a generating station or ESS (as an injecting entity) shall be allowed only in case of bilateral transactions and not in case of collective transaction as per following details:</p> <p>(a)The generating station (other than lignite, gas based thermal generating station, and hydro generating station) or ESS (as an injecting entity), shall be allowed a maximum of 4 (four) revisions of Declared Capacity and schedule in a day subject to a maximum of 60 (sixty) revisions during a month, due to reasons such as a partial outage of the unit or variation of fuel quality or any other technical reason to be recorded in writing.</p>	<p>forced outages situations.</p>

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			(b) The generating station based on lignite, gas or hydro generating station shall be allowed 6(six) revisions of Declared Capacity and schedule in a day subject to a maximum of 120 (One hundred twenty) revisions during a month, due to reasons such as partial outage of the unit or water availability for hydro generating stations or fuel quality or variations in supply of gas for gas generating stations or any other technical reason to be recorded in writing.	