



Manish K. Singh
Secretary

No. InWEA/61/2018-19

August 28, 2018

To,

The Secretary
Central Electricity Regulatory Commission,
3 rd & 4 th Floor, Chanderlok Building,
36, Janpath, New Delhi- 110001

Subject: Comments/Suggestions/Objections on Draft Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) (Seventh Amendment) Regulations, 2018

Respected Sir,

This is with reference to the publication of the Draft "Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) (Seventh Amendment) Regulations, 2018", published on website of the Hon'ble Commission, on which comments/suggestions/objections have been invited by the Hon'ble Commission.

In this regard, We, Indian Wind Energy Association (InWEA), would like to take an opportunity to introduce ourselves, as an association, registered at New Delhi to represent the interest of various stakeholders in wind energy sector. InWEA, with more than 300 members, representing different parts of wind industry has been dedicated to promotion and development of wind power in India.

We would like to submit our comments/suggestions/objections on the said draft amendment for the consideration of Hon'ble Commission. Our comments/suggestions/objections are summarised in Annexure I enclosed herewith.

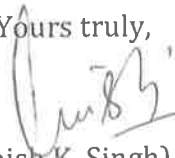
Indian Wind Energy Association

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I, Manish K Singh, Secretary of InWEA is duly authorized to file these comments/suggestions on its behalf.

InWEA requests Hon'ble Commission to accept enclosed comments/suggestions. InWEA further requests the Hon'ble Commission to grant an opportunity in person before Hon'ble Commission during the Public Hearing (if scheduled) on the above matter.

Thanking you,

Yours truly,

(Manish K. Singh) 28/08/18

Enclosure: - Annexure -1: Comments on Draft "Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) (Seventh Amendment) Regulations, 2018"

Annexure 1

InWEA's comments/suggestions on Draft Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) (Seventh Amendment) Regulations, 2018

Clause No.	Proposed amendments	InWEA's Suggestions (Proposed additions are indicated in Double underline)	Remarks
CHAPTER-1			
2.(1)(b)(i)(cc)	Renewable Energy generating station <u>individually having less than 50 MW installed capacity, but collectively having an aggregate installed capacity of 50 MW and above, and acting on behalf of all these generating stations, and seeking connection from CTU at a single connection point at the pooling sub-station under CTU, termed as the lead generator, or:</u>	<u>Renewable Energy generating station being developed by a generating company or Renewable power park developer individually having less than 50 MW installed capacity, but collectively having an aggregate installed capacity of 50 MW and above, and acting on behalf of all these generating stations, and seeking connection from CTU at a single connection point at the pooling sub-station under CTU, termed as the lead generator, or:</u>	The Renewable power park developer may also be in such a situation like a generating company
2.(1)(b)(i)(e)	Any renewable energy generating station of 5 MW capacity and above but less than 50 MW capacity developed by a generating company in its existing generating station of the description referred to in sub-clauses (b)(i)(a) to (cc) of this clause and seeking connectivity to	Any renewable energy generating station of 5 MW capacity and above but less than 50 MW capacity developed by a generating company/ <u>Renewable power park Developer</u> in its existing generating station of the description referred to in sub-clauses (b)(i)(a) to (cc) and <u>(f)</u> of this clause and seeking connectivity to the existing connection point with inter-State Transmission System	Renewable park developer should have the same rights as a generating company as WPPD has the right to get connectivity and commission the generating station. Probably this was an inadvertent omission.

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<p>the existing connection point with inter-State Transmission System through the electrical system of the generating station <u>subject to availability of Connectivity capacity in existing station as assessed by CTU.]³</u></p>	<p>through the electrical system of the generating station <u>subject to availability of Connectivity capacity in existing station as assessed by CTU.]³</u></p>	
<p>CHAPTER-3</p>		
<p>8(1) [The application for connectivity shall contain details such as, proposed geographical location of the applicant, quantum of power to be interchanged that is the quantum of power to be injected in the case of a generating station including a captive generating plant and quantum of power to be drawn in the case of a bulk consumer, with the inter-State transmission system and such other details as may be laid down by the Central Transmission Utility in the detailed procedure: Provided that where after filing of an application, there has been any material change in the location of the applicant or change in the quantum of</p>	<p>(1) [The application for connectivity shall contain details such as, proposed geographical location of the applicant, quantum of power to be interchanged that is the quantum of power to be injected in the case of a generating station including a captive generating plant and quantum of power to be drawn in the case of a bulk consumer, with the inter-State transmission system and such other details as may be laid down by the Central Transmission Utility in the detailed procedure: Provided that where after filing of an application, there has been any material change in the location of the applicant or change in the quantum of power to be interchanged with the inter-state transmission system, by more than 100 MW in the case of applicant defined under sub-clauses (b)(i)(a) of</p>	<p>Renewable Park developer is also an eligible applicant and should have the same level playing field as the other stake holders in revising the MW connectivity applied for.</p>

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<p>power to be interchanged with the inter-state transmission system, by more than 100 MW in the case of applicant defined under sub-clauses (b)(i)(a) of Clause (1) of Regulation 2 Regulation 2 (1) (b) (a) and 100MW or 40% of the installed capacity, whichever is less, in the case of applicant defined under sub-clauses (b)(i)(aa), (b)(i)(b), and (b)(i)(h) of Clause (1) of Regulation 2 Regulation 2 (1) (b) (a) and 100MW or 40% of the aggregate installed capacity, whichever is less, in the case of applicant defined under sub-clauses (b)(i)(c) and (b)(i)(cc) of Clause (1) of Regulation 2 Regulation 2 (1) (b) (a) such an applicant shall make a fresh application, which shall be considered in accordance with these regulations.</p> <p>Provided that an applicant connected with the grid or granted connectivity for a specific project can, with prior approval of CTU, utilize the same Connectivity for additional generation capacity (for same or hybrid of renewable sources), subject</p>	<p>Clause (1) of Regulation 2 Regulation 2 (1) (b) (a) and 100MW or 40% of the installed capacity, whichever is less, in the case of applicant defined under sub-clauses (b)(i)(aa), (b)(i)(b), b(1)(f) and (b)(i)(h) of Clause (1) of Regulation 2 Regulation 2 (1) (b) (a) and 100MW or 40% of the aggregate installed capacity, whichever is less, in the case of applicant defined under sub-clauses (b)(i)(c) and (b)(i)(cc) of Clause (1) of Regulation 2 Regulation 2 (1) (b) (a) such an applicant shall make a fresh application, which shall be considered in accordance with these regulations.</p> <p>Provided that an applicant connected with the grid or granted connectivity for a specific project can, with prior approval of CTU, utilize the same Connectivity for additional generation capacity (for same or hybrid of renewable sources), subject to the condition that net injection at any point of time does not exceed the quantum of total Connectivity granted for the existing project. For such additional generation capacity, existing generating station shall undertake all operational and commercial responsibilities for the additional capacity in following the provisions of the Indian Electricity Grid Code and all other regulations of the Commission, such as grid security, scheduling and dispatch, collection and payment/adjustment of Transmission charges, UI</p>	
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<p>to the condition that net injection at any point of time does not exceed the quantum of total Connectivity granted for the existing project. For such additional generation capacity, existing generating station shall undertake all operational and commercial responsibilities for the additional capacity in following the provisions of the Indian Electricity Grid Code and all other regulations of the Commission, such as grid security, scheduling and dispatch, collection and payment/adjustment of Transmission charges, UI charges, congestion and other charges etc., and submit an undertaking in this regard to the CTU, with copy to the respective RLDC in whose control area it is located;</p>	<p>charges, congestion and other charges etc., and submit an undertaking in this regard to the CTU, with copy to the respective RLDC in whose control area it is located;</p>	
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<p>Provided further that the application by the applicant defined under Regulation 2 (1) (b) (i) (c) and Regulation 2(1)(b)(i)(cc), shall be considered by CTU only if all the generators, whose aggregate capacity is connected at the single connection point, formalize a written agreement among themselves that the lead generator shall act on behalf of all the generators to undertake all operational and commercial responsibilities for all the collective generators connected at that point in following the provisions of the Indian Electricity Grid Code and all other Regulations of the Commission, such as grid security, scheduling and dispatch, collection and payment/ adjustment of transmission charges, UI charges, congestion and other charges, etc., and submit a copy of the agreement to the CTU, with the application of connectivity, along with a copy to the respective RLDC in whose control areas it is located</p>	<p>Provided further that the application by the applicant defined under Regulation 2 (1) (b) (i) (c) and Regulation 2(1)(b)(i)(cc) and 2(1)(b)(i)(ff) shall be considered by CTU only if all the generators, whose aggregate capacity is connected at the single connection point, formalize a written agreement among themselves that the lead generator shall act on behalf of all the generators to undertake all operational and commercial responsibilities for all the collective generators connected at that point in following the provisions of the Indian Electricity Grid Code and all other Regulations of the Commission, such as grid security, scheduling and dispatch, collection and payment/ adjustment of transmission charges, UI charges, congestion and other charges, etc., and submit a copy of the agreement to the CTU, with the application of connectivity, along with a copy to the respective RLDC in whose control areas it is located</p>	<p>The Renewable power park developer is on par with a generating company and hence need be included for consideration of Lead Generator</p>
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<p>Provided further that the application by the applicant defined under Regulation 2(1) (b)(i) (e) shall be considered by CTU only if the existing generating station agrees to act as the "Principal Generator" on behalf of the renewable energy generating station(s) seeking connectivity through the electrical system of the generating station and formalizes a written agreement/arrangement among them to undertake all operational and commercial responsibilities for the renewable energy generating station(s) in following the provisions of the Indian Electricity Grid Code and all other regulations of the Commission, such as grid security, scheduling and dispatch, collection and payment/adjustment of Transmission charges, UI charges, congestion and other charges etc., and submit a copy of the Agreement to the CTU, along with the application for connectivity, with copy to</p>	<p>Provided further that the application by the applicant defined under Regulation 2(1) (b)(i) (e) and 2(1)(b)(i)(f) shall be considered by CTU only if the existing generating station agrees to act as the "Principal Generator" on behalf of the renewable energy generating station(s) seeking connectivity through the electrical system of the generating station and formalizes a written agreement/arrangement among them to undertake all operational and commercial responsibilities for the renewable energy generating station(s) in following the provisions of the Indian Electricity Grid Code and all other regulations of the Commission, such as grid security, scheduling and dispatch, collection and payment/adjustment of Transmission charges, UI charges, congestion and other charges etc., and submit a copy of the agreement to the CTU, along with the application for connectivity, with copy to the respective RLDC in whose control area it is located.]6</p>	<p>The Renewable Power Park Developer need also be made eligible to become "principal Generator" for the same reasoning as for "Lead Generator"</p>
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	<p>the respective RLDC in whose control area it is located.]6</p>		
<p>8(1) continued</p>	<p>Provided also that the application by the applicant defined under Regulation 2(1) (b) (i) (f) shall be considered by CTU only if the Solar Renewable Power Park Developer is authorised by the Central Government or the State Government to undertake infrastructural activities including arrangement for connectivity on behalf of the solar Renewable power generators. Provided further that the CTU shall suitably incorporate the requirement of formal agreement amongst such generators in the detailed procedure and</p>	<p>Provided also that the application by the applicant defined under Regulation 2(1) (b) (i) (f) shall be considered by CTU only if the Solar Renewable Power Park Developer as defined under 2(1)(b)(i) (f) is authorised by the Central Government or the State Government to undertake infrastructural activities including arrangement for connectivity on behalf of the solar Renewable power generators. Provided further that the CTU shall suitably incorporate the requirement of formal agreement amongst such generators in the detailed procedure and Connection Agreement signed with such lead generator, which role may or may not be undertaken by the Renewable power park developer.]</p>	<p>To give more clarity the relevant reference to regulation is inserted after the word "Renewable power park developer" The lead generator role could be assigned to the Renewable power park developer</p>

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	<p>Connection Agreement signed with such lead generator.]</p>		
8(2)(2B)	<p><u>Grant of Stage-I and Stage-II Connectivity shall be as per the Detailed Procedure issued from time to time.</u></p> <p><u>Provided that the Detailed Procedure for grant of Connectivity to Projects based on Renewable Sources to inter-State transmission system issued vide order dated 15.5.2018 in File No. L-1/(31)/2009-CERC shall be deemed to have been issued under these Regulations.</u></p> <p><u>12.2.2(vi) of the Procedure</u></p> <p><u>The developer of renewable generation project shall comply with requirements specified at Clause 16.4 of CEA Manual on Transmission Planning Criteria 2013, with regard to requirement of reactive compensation at the pooling station.</u></p>	<p>Para 12.2.2(vi) of the Detailed Procedure may be modified as follows:</p> <p>The developer of renewable generation project shall comply with requirements specified at Clause 16.4 of CEA Manual on Transmission Planning Criteria 2013, with regard to requirement of reactive compensation at the pooling station. However, the control point of the reactive power exchanges/power factor for the wind generating stations (WGS) are to be reckoned at the pooling station of the WGS itself and not at the grid interconnection point. The reactive power exchanges will be governed by IEGC clause 5.2(u)(i) and (ii)</p>	<p>1. Point of control of reactive power exchanges</p> <p>The extant order gives an impression that the control of reactive power is to be done at the interconnection point viz. at the PGCL end.</p> <p>The PPC, which controls all the WGS (about 150 numbers) in a WGS of 300 MW through fibre optic network for active and reactive power controls, is to be located at the pooling SS of WGS and it would be not appropriate to install it at PGCL end. Its maintenance and trouble shooting and above all control panel of the WGS located in the premises of a different organization is not feasible and also technically inappropriate. Therefore the control point is to be reckoned as the pooling SS of the WGS for active and reactive power or power factor control. Further, the reactive power exchange should be carried out as per the system voltage profile and not just at a fixed value of power factor. This was already covered under a regulation in IEGC. The reactive power from the WGS can be asked to be varied as per the system</p>

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			<p>requirements as per IEGC provisions. Therefore the control point need be at the pooling SS of the WGS and not at the interconnection point (at ISTS end) in respect of the reactive power exchanges. The above measure would be identical to the way the conventional generating units are asked to control at their station, even if their interconnection point is at the utility end (in respect of those generators who lay their dedicated transmission lines)</p> <p>The PPC will also be carrying out the change in the active power of WGS similar to the conventional generating stations.</p> <p>2. The present practice in states</p> <p>As on date the generating stations (including Wind) are not charged for reactive power exchanges connected to ISTS. The state sector is charging the reactive power draws at different rates for Wind generating stations. The biggest lacuna in this pricing is that there is no linkage with the voltage at the wind generating station (WGS). The reactive energy charges without reference to voltage was justified in the initial days of wind generating technology, where the wind generators were primarily induction motors</p>
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			<p>and connected to 33 kV or 11kV of distribution network. These were causing severe voltage dips during starting. To importune them to provide reactive support, the pricing was essential. The older wind generating units (WGU) had capacitors in each of the WGU, which used to switch in or out to vary the reactive energy drawl, but this was occurring in steps.</p> <p>With the advent in technology, the WGUs have capabilities to absorb or generate reactive power up to 40% of the rated MW capacity, even when generation from each WGU is 20%. Each WGU has a STATCOM and that makes the adjustment of PF or reactive power in a smooth manner. With all these advancements, the paradox is that the wind generators are pumping reactive power to the grid or maintaining unity power factor, without any reference to the system voltage at the bus of the pooling SS of WGS. This is done, because they are being charged for reactive energy drawl, although they are helping the grid. This causes increase of voltage in the system and thus upset the system voltage profile. If the reactive energy is not charged, as is being done in the states, the WGS can help the power system to run with a</p>
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8A.	<p><u>Transfer of Connectivity and LTA</u></p> <p>A person shall not transfer, assign or pledge its connectivity or LTA and the associated rights and obligations to any other person.</p> <p>Provided that the above provision shall not be applicable to applicants defined under Regulation 2(1)(b)(i)(g).</p> <p>Provided further that 100% subsidiary companies shall be allowed to utilize the connectivity granted to the parent company and vice versa.</p>	<p>A person shall not transfer, assign or pledge its connectivity or LTA and the associated rights and obligations to any other person.</p> <p>Provided that the above provision shall not be applicable to applicants defined under Regulation 2(1)(b)(i)(g), and 2(1)(b)(i)(f), provided the latter undertakes such activities under the supervision of the former.</p> <p>Provided further that 100% subsidiary companies shall be allowed to utilize the connectivity granted to the parent company and vice versa.</p>	<p>better voltage profile. The control of reactive power (power factor) at the pooling substation of WGS can be done with a special equipment called as PPC (Power plant controller) which can control active and reactive power by giving the signal to each of the WGU through a closed fibre optic network. The efficacy of such a system was recently demonstrated by SRPC in the power system in southern region. The copy of the report is attached as Appendix-1.</p> <p>Transfer of connectivity is possible even now in state sector from Renewable power park developer to several individual owners and the same needs to be extended to central sector with control as suggested</p>
CHAPTER-5			

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<p>12(1A)</p> <p><u>Notwithstanding anything contained in Clause 2A of Regulation 8, Stage-II Connectivity shall not be a pre-requisite for applying for LTA for applicants under Regulation 2(1)(b)(i)(e) and 2(1)(b)(i) (g).</u></p>	<p><u>Notwithstanding anything contained in Clause 2A of Regulation 8, Stage-II Connectivity shall not be a pre-requisite for applying for LTA for applicants under Regulation 2(1)(b)(i)(e) and 2(1)(b)(i) (f) and 2(1)(b)(i) (g).</u></p>	<p>The provisions extended to generating company need be extended to Renewable park developer with proper controls</p>
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