



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/R/LAG-347/ / 8853-69

October 08, 2019

Mr. Tanveer Ahmed,
Technical Director,
Liberty Wind Power 1 (Private) Limited,
A/51-A, S.I.T.E, Karachi-75700
Contact No. 021-32578100-16

**Subject: Modification in Generation Licence No. WPGL/39/2017
Licence Application No. LAG-347
Liberty Wind Power 1 (Private) Limited (LWPPL)**

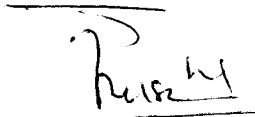
Reference: LWPPL's LPM submitted vide letter dated March 11, 2019

It is intimated that the Authority has approved Modification in Generation Licence No. WPGL/39/2017 dated February 01, 2017 in respect of Liberty Wind Power 1 (Private) Limited (LWPPL) (formerly Zulaikha Energy (Private) Limited), pursuant to Regulation 10(11) of the NEPRA Licensing (Application and Modification Procedure) Regulations 1999.

2. Enclosed please find herewith determination of the Authority in the matter of Licensee Proposed Modification in the Generation Licence of LWPPL along with Modification-I in the Generation Licence No. WPGL/39/2017 as approved by the Authority.

Encl: As above




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(Syed Safeer Hussain)

Copy to:

1. Secretary, Power Division, Ministry of Energy, A-Block, Pak Secretariat, Islamabad.
2. Managing Director, NTDC, 414-WAPDA House, Lahore.
3. Chief Executive Officer, CPPA-G, ENERCON Building, Sector G-5/2, Islamabad.
4. Chief Executive Officer, Alternative Energy Development Board (AEDB), 2nd Floor, OPF Building, G-5/2, Islamabad
5. Chief Executive Officer, Hyderabad Electric Supply Company Limited (HESCO), WAPDA Offices Complex, Hussainabad, Hyderabad
6. Director General, Environment Protection Department, Government of Sindh, Complex Plot No. ST-2/1, Korangi Industrial Area, Karachi.

**National Electric Power Regulatory Authority
(NEPRA)
Islamabad – Pakistan**

GENERATION LICENCE

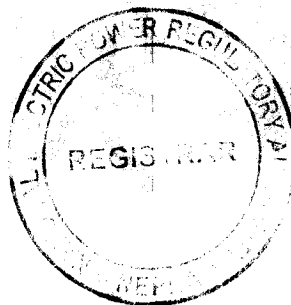
No. WPGL/39/2017

In exercise of the Powers conferred under Section-26 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, the Authority hereby modifies the Generation Licence (No. WPGL/39/2017 dated February 01, 2017 granted to Liberty Wind Power 1 (Private) Limited (Formerly Zulaikha Energy (Private) Limited), to the extent of changes mentioned hereunder:

- (a). Name of the Licensee appearing in the Generation Licence has been changed from **Zulaikha Energy (Private) Limited** to **Liberty Wind Power 1 (Private) Limited**;
- (b). Changes made in the Articles, Schedule-I and Schedule-II of the Generation Licence are attached as Annexure-A.

This **Modification-I** is given under my hand on this 08th day of October September Two Thousand & Nineteen

Registrar





National Electric Power Regulatory Authority
(NEPRA)

Determination of the Authority
in the Matter of Licensee Proposed Modification in the
Generation Licence of Liberty Wind Power 1 (Private) Limited
(Formerly Zulaikha Energy (Private) Limited)

October 08,
September --, 2019
Case No. LAG-347

(A). Background

(i). In terms of Section-14B (previously Section-15) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act"), the Authority had granted a generation licence (No. WPGL/39/2017 dated February 01, 2017) to Zulaikha Energy (Private) Limited (ZEPL).

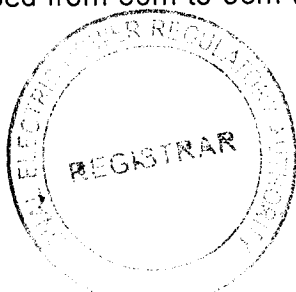
(ii). Under the above mentioned generation licence, the 50.00 MW generation facility/Wind Power Plant (WPP) proposed to be located at Jhimpir wind corridor, district Thatta, in the province of Sindh, is based on twenty five (25) Wind Turbine Generators (WTGs) of Gamesa (G114-2.0 MW), with a hub height of 80m.

(B). Communication of Modification

(i). ZEPL in accordance with Regulation-10(2) of the NEPRA Licensing (Application & Modification Procedure) Regulations, 1999 (the Licensing Regulations), communicated a Licensee Proposed Modification (LPM) in its existing generation licence on March 11, 2019.

(ii). In the "text of the proposed modification", ZEPL proposed to change the name of the Licensee from ZEPL to Liberty Wind Power 1 (Private) Limited (LWPPL-1), to increase the hub height of the WTG stated in its generation licence from 80m to 93m and to extend the lifespan of the project from 20 years to 25 years.

(iii). Regarding the "statement of the reasons in support of the modification", it was submitted that the name of the project company has been changed/updated from ZEPL to LWWPL-1. Further, the hub height of the proposed WTGs has been revised from 80m to 93m to ensure more efficient and effective WTG with respect to



site selection. Further, the 93m hub height is a standard product range backed by type certificate and the same is in-line with the tariff determined by the Authority.

(iv). About the "statement of the impact on the tariff, quality of service and the performance by the licensee of its obligations under the licence", ZEPL submitted that the proposed modification in the generation licence will have no adverse impact on the tariff, quality of service and its performance under the licence.

(C). Processing of LPM

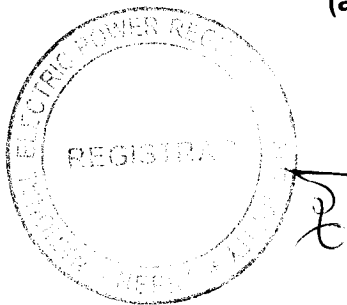
(i). After completion of all the required information as stipulated under the Regulation-10(2) and 10(3) of the Licensing Regulations by the Licensee, the Registrar published the communicated LPM on March 23 & 24, 2019, in one (01) Urdu (Daily Jang) and one (01) English (Business Recorder) newspaper, informing the general public about the communicated LPM and inviting their comments within a period of fourteen (14) days from the date of the said publication.

(ii). Apart from the above, separate letters were also sent to other stakeholders including Government Ministries and their attached departments, various representative organization, individual experts and others, on March 25, 2019. Through the said letters, the stakeholders were informed about the communicated LPM and publication of its notice in the press. Further, the said entities were invited to submit their views and comments in the matter, for assistance of the Authority.

(D). Comments of Stakeholders

(i). In reply to the above, the Authority received comments from four (04) stakeholders including Karachi Shipyard and Engineering Works Limited (KSEW), Energy Department Govt. of Sindh (EDGoS), Central Power Purchasing Agency (Guarantee) Limited (CPPA-G) and Ministry of Science and Technology (MoST). The comments offered by the said stakeholders are summarized in the following paragraphs:-

- (a). KSEW submitted that the modification will definitely result in decreasing the shortfall of electricity in the country and KSEW has no objection to the modification. KSEW further submitted that it is fully capable of manufacturing the towers/modification of towers for wind turbines at quite competitive rates, in its fabrication facilities at the vicinity of Karachi. In view of the said, KSEW requested that ZEPL may be advised to consider its facilities for modification, erection and

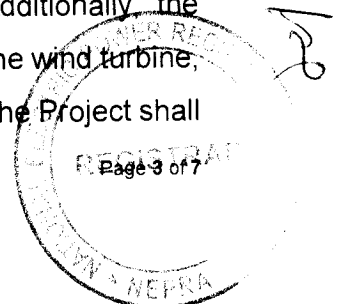


installation of its WPP;

- (b). EDGoS submitted that the LPM is supported as per government policy, guidelines and NEPRA Licensing Rules. It should be ensured that there shall be no adverse impact on the quality of service and the guidelines of the environment protection agencies should strictly be followed;
- (c). CPPA-G commented that it has been mentioned as a power purchaser in the generation licence of ZEPL. In this regard, please be advised that the CPPA-G has not issued any consent for the purchase of power to the ZEPL. Further, the Authority should review the proposal in the context of demand vs supply situation coupled with the quantum of RE to be induced in grid according to the recommendations of Grid Code Review Panel duly approved by NEPRA from time to time; and
- (d). MoST submitted that it has no objection to the proposed change in name of the Licensee. Further, the change in hub height from 80m to 93m will help in increasing the capacity factor of the WPP with increased output, due to increase in wind speed with increasing height.

(ii). The Authority examined the above comments of stakeholders and considered it appropriate to seek perspective of ZEPL on the observations of KSEW and CPPA-G. Regarding comments of the KSEW, ZEPL submitted that the request made by KSEW to consider local indigenous resources for the Project has been noted and we would certainly make our best efforts to utilize locally available engineering capabilities and skills at the appropriate time.

(iii). On the observations of CPPA-G, ZEPL submitted that the proposed modification is primarily in relation to change the name of the licensee, which has already been approved by the Securities and Exchange Commission of Pakistan ("SECP"). It is highlighted that under Section 13(3) of the Companies Act, 2017 the change of name, once approved by the SECP, is effective by operation of law and does not change or affect the Company's rights or obligations. Additionally, the Company has proposed a modification in relation to the hub height of the wind turbine, which has been revised from 80 m to 93 m along with clarification that the Project shall



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be in operation for 25 years, factors already accounted for in the tariff awarded to the Company by NEPRA on November 19, 2018. Regarding comments on reviewing of the demand vs. supply situation coupled with the quantum of renewable energy induction to the grid, ZEPL submitted that these matters are not relevant to the proposed modifications as the Company has already obtained a generation licence and has been awarded tariff and diligently proceeding with the Project on the basis of decisions of the Authority. In view of the said, ZEPL requested the Authority to proceed with the modification as none of the proposed modifications requested impact the generation licence or the tariff awarded to it for its Project. Any concerns of CPPA-G should be addressed separately and in accordance with the correct legal process, allowing the Company to respond within reasonable time. NEPRA will, no doubt appreciate such concerns would apply at the sector-level and cannot be considered in isolation with the Company and certainly not as part of a routine licence modification requesting for a name-change and amending the hub height of the WTGs.

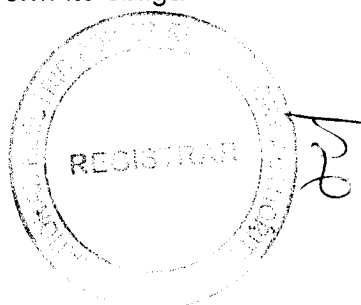
(iv). The Authority examined the submissions/response of ZEPL and found the same plausible. Foregoing in view, the Authority considered it appropriate to proceed further with the communicated LPM as stipulated in the Licensing Regulations and the NEPRA Licensing (Generation) Rules, 2000 ("the Generation Rules").

(E). Evaluation/Findings

(i). The Authority examined the entire case in details including the already granted generation licence, the communicated LPM, cost-plus tariff granted to ZEPL, the provisions of the Policy for Development of Renewable Energy for Power Generation 2006 ("the RE Policy"), comments of the stakeholder and relevant rules & regulations.

(ii). In this regard, the Authority observed that in terms of Regulation-10(5) of the Licensing Regulations, it is entitled to modify a licence subject to and in accordance with such further changes as the Authority may deem fit if, in the opinion of the Authority such modification (a). does not adversely affect the performance by the licensee of its obligations; (b). does not cause the Authority to act or acquiesce in any act or omission of the licensee in a manner contrary to the provisions of the NEPRA Act or the rules or regulations made pursuant to it; (c). is or is likely to be beneficial to the consumers; (d). is reasonably necessary for the licensee to effectively and efficiently perform its obligations under the licence; and (e). is reasonably necessary

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to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.

(iii). The main features of the application under consideration are that the Authority originally granted a generation licence (No. WPGL/39/2017 dated February 01, 2017) to ZEPL with an installed capacity of 50.0 MW based on 25 WTGs of Gamesa G114-2.0 MW. In the generation licence the hub height of the tower for installation of the WTGs was mentioned as 80m.

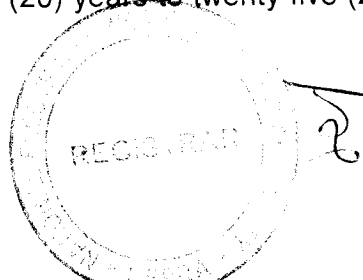
(iv). Now, through the communicated LPM, the Licensee intends to incorporate the change of its name from ZEPL to LWPPL-1 in the generation licence. Further, the Licensee also intends to change the hub height of the tower from 80m to 93m and lifespan of the generation facility from 20 years to 25 years from the anticipated COD of the project.

(v). Regarding change of name of the Licensee, the Authority has noted that the Licensee has already provided approval of SECP in the matter. Regarding change in hub height of the tower from 80 m to 93 m, it is relevant to mention that the same will result in increase the efficiency of the said wind turbine generators, as the capacity factor of wind turbine generators increases correspondingly with increase in hub height.

(vi). By enhancing the hub height of the tower from 80m to 93m, the net capacity factor of the wind farm will increase from 35% to 38% (i.e. the net annual generation will increase from 153.30 GWh to 166.44 GWh) without changing the WTG technology and installed capacity of the generation facility.

(vii). Regarding changes in hub height of towers, the Authority has observed that worldwide wind turbine tower heights have experienced a steady increase in the last 20 years. The average tower height in Belgium, France and the Netherlands has increased from approximately 60m to 100-120m. In 2013, 75% of the installed capacity in Belgium and 70% in France used a tower height equal or taller than 100m. The main reason behind this tendency is the potential increase of the expected production yield due to higher wind speeds at greater heights.

(viii). Regarding extension in term of licence operational span of the facility from twenty (20) years to twenty five (25) years, it is clarified that the cost plus tariff



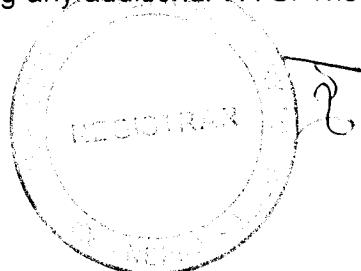
has been granted to the Licensee for a period of twenty five years (25) therefore the term of licence has been proposed to be extended. Further, the proposed extension in the term of licence is in line with other similar projects.

(ix). Regarding extension of term of licence, the Authority considers that under Rules-5(1) of the Generation Rules the term of generation licence is to commensurate with the maximum expected useful life of the units comprised in a generation facility, except where an applicant for a generation licence consents to a shorter term. As per international benchmark, the useful life of wind turbine generators is considered as 20 to 25 years. Further, the cost plus tariff dated November 19, 2018 granted to ZEPL also envisages a control period of 25 years. Therefore, the Authority is of the view that the proposed extension in the term of licence is in-line with the said standards for useful life of WTGs and control period of tariff.

(x). Regarding the impact of the communicated LPM on the tariff, the Authority considers that it has already granted cost-plus tariff to LWPPL-1 (Formerly ZEPL) through determination (No. NEPRA/TRF-427/LWPL-1-2017/18021-18023 November 19, 2018). The modifications proposed by LWPPL-1 have already been accounted for in the said tariff therefore, the Authority considers that there shall be no impact on tariff by these changes in the licence.

(xi). On the observations of CPPA-G as mentioned at Para D(i)(c) above, the Authority has observed that LWPPL-1 has a valid generation licence and tariff granted by the Authority. According to the decision of Cabinet Committee on Energy (CCoE) dated February 27, 2019, the project of LWPPL-1 falls in the Category-II of renewable energy projects and all Category-II projects are allowed to proceed ahead towards the achievement of their requisite milestones as per RE-Policy 2006.

(xii). Foregoing in view, the Authority is of the considered opinion that the proposed LPM will not have any adverse effect on the performance of LWPPL-1 of its obligations, instead its performance will be improved. Further, the LPM will not cause the Authority to act or acquiesce in any act or omission of the Licensee in a manner contrary to the provisions of the NEPRA Act or the rules or regulations made pursuant to the NEPRA Act. The LPM will be beneficial to the consumers in general as more amount of clean and cheap electricity will be available to the power purchaser and that too without installing any additional WTG. The Authority is of the view that the LPM is



reasonably necessary for the Licensee/LWPPL-1 to effectively and efficiently perform its obligations under the Licence. The LPM is necessary to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the Licensee.

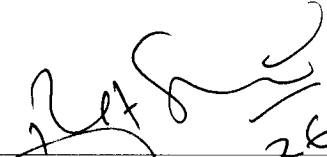
(F). Approval of LPM

(i). In view of the above, the Authority is satisfied that the Licensee has complied with all the requirements of the Licensing Regulations pertaining to the modification. Therefore, the Authority in terms of Regulation-10(11) of the Licensing Regulations approves the communicated LPM.

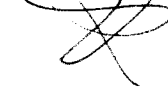
(ii). Accordingly, the already granted Generation Licence (No. WPGL/39/2017 dated February 01, 2017) is hereby modified. The changes made in the generation licence are attached as annexure to this determination. The approval of the LPM will be subject to the provisions contained in the NEPRA Act, relevant rules framed there under, terms & conditions of the generation licence and other applicable documents.

Authority

Rafique Ahmed Shaikh
(Member)

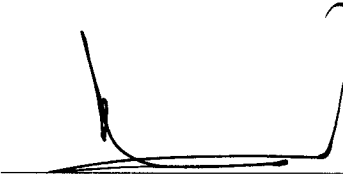

26/9/19

Rehmatullah Baloch
(Member)

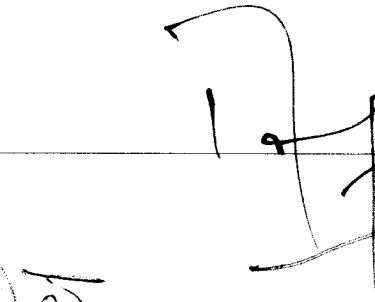

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Saif Ullah Chattha
(Member)

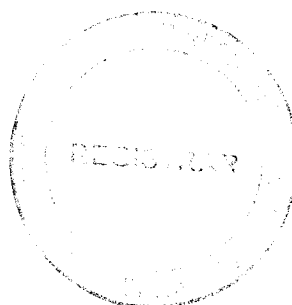
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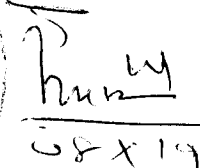


Engr. Bahadur Shah
(Member/Vice Chairman)



Tauseef H. Farooqi
(Chairman)




28/9/19

(i). Changes made in Articles of the Generation Licence:

Article-4.1 of the Generation Licence is rephrased as:
"This licence shall become effective from the date of its issuance and will have a term of twenty five (25) years from the COD of the generation facility/Wind Power Plant/Wind Farm of the Licensee, subject to provisions of Section-14B of the Act."

(ii). Changes made in Schedule-I of the Generation Licence

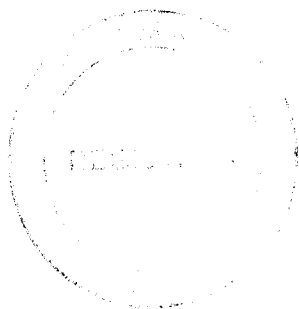
"At Para C(g)(ii) under Detail of the Generation Facility/Wind Power Plant/Wind Farm, the hub height of the tower has been changed from 80 m to 93 m."

(ii). Changes made in Schedule-II of the Generation Licence

The detail appearing at Schedule-II of the generation licence is replaced with the following:-

(1).	Total Installed Gross ISO Capacity of the Generation Facility /Wind Farm (in MW)	50.00
(2).	Total Annual Full Load Hours	3328.80
(3).	Average Wind Turbine Generator (WTG) Availability	98.0 %
(4).	Total Gross Generation of the Generation Facility/Wind Farm (in GWh)	185.518
(5).	Array & Miscellaneous Losses (in GWh)	10.729
(6).	Availability Losses (in GWh)	3.710
(7).	Balance of Plant Losses (in GWh)	4.638
(8).	Annual Energy Generation (25 years equivalent Net AEP) (in GWh)	166.44
(9).	Net Capacity Factor	38 %

h/s



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**National Electric Power Regulatory Authority
(NEPRA)
Islamabad – Pakistan**

GENERATION LICENCE

No. WPGL/39/2017

In exercise of the Powers conferred under Section-26 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, the Authority hereby modifies the Generation Licence (No. WPGL/39/2017 dated February 01, 2017 granted to Liberty Wind Power 1 (Private) Limited (Formerly Zulaikha Energy (Private) Limited), to the extent of changes mentioned hereunder:

- (a). Name of the Licensee appearing in the Generation Licence has been changed from **Zulaikha Energy (Private) Limited** to **Liberty Wind Power 1 (Private) Limited**;
- (b). Changes made in the **Articles, Schedule-I and Schedule-II** of the Generation Licence are attached as **Annexure-A**.

This **Modification-I** is given under my hand on this 08th day of October **September Two Thousand & Nineteen**

Registrar

