

Sapphire Wind Power Company Limited

19 November 2014

Registrar National Electric Power Regulatory Authority ("NEPRA") NEPRA Tower, Attaturk Avenue (East) Sector G-5/1, Islamabad

Dear Sir

Subject: Sapphire Wind Power Company Limited ("Company") – Application for Modification of the Generation License

The Company was granted Generation License No. WPGL/18/2012 on the 27 July, 2012 (the "Generation License") by NEPRA, under Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997, for its wind power generation facility at Jhimpir, Taluka& District Thatta, Sindh (the "Project").

As you are already aware, the Project is being designed with a capacity of 49.5 MW based on 33 Wind Turbine Generators ("WTG") of GE model 1.5 XLE and at this initial stage, the overall Project design can be developed with an inherent flexibility to seamlessly change the WTG models to 33 x GE 1.6 XLE turbines and increase the overall Project capacity to 52.8 MW.

The Company, pursuant to Regulation 10(2) of the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999, hereby seeks to apply for a modification of the Generation License granted to the Company to cater for the increase in the overall Project capacity to 52.8 MW.

In relation hereto, we certify that the documents-in-support attached with this modification application are prepared and submitted in conformity with the provisions of Regulation 10(2) of the National Electric Power Regulatory Authority Licensing (Application and Modification Procedure) Regulations, 1999, and we undertake to abide by the terms and provisions of the above-said regulations. We further undertake and confirm that the information provided in the attached documents-in-support is true and correct to the best of our knowledge and belief.

A BANK DRAFT in the sum of applicable fee, being the modification of application fee calculated in accordance with Schedule II to the National Electric Power Regulatory Authority Licensing (Application and Modification Procedure) Regulations, 1999, 15, 2150 attached herewith.

Sincerely,

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hee Nadeem Abdullah, Chief Executive Officer

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Sapphire Wind Power Company Limited

ANNEX "A"

EXTRACT OF RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF SAPPHIRE WIND POWER COMPANY LIMITED IN THE MEETING HELD AT THE BUSSINESS OFFICE (212 COTTON EXCHANGE BUILDING, I.I. CHUNDRIGAR ROAD, KARACHI, PAKISTAN) OF THE COMPANY ON 12 NOVEMBER 2014

RESOLVED, that the Company may file applications for modification in the Generation License no WPGL/18/2012 dated 27 July 2012 granted to the Company.

FURTHER RESOLVED, that NADEEM ABDULLAH, Chief Executive Officer, is authorized to sign the necessary documentation, pay the necessary filing fees, appear before the Authority as needed, and do all acts necessary or incidental for completion and/or processing of these applications.

Certified that the above resolution (i) was duly passed on 12 November 2014 at Karachi in a meeting of the Board of Directors of Sapphire Wind Power Company Limited at which a quorum of directors was present; and (ii) has not been rescinded and is in operation and that this is a true copy of the said resolution.

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Signature Nadeem Abdullah, Chief Executive Officer

ANNEX 1

Text of the Proposed Modification:

The Company has been informed by General Electric, the supplier of the Wind Turbine Generators, that due to software upgrades, the overall Project design can be updated and developed with an inherent flexibility to seamlessly change the Wind Turbine Generators model from $33 \times 1.5 \times 1.5 \times 1.6 \times 1.6$

In relation hereto, please find attached the modifications in Schedule 1 of the Generation License attached herewith as Annex 2 and modifications in Schedule 2 of the Generation License attached herewith as Annex 3.

ANNEX 2

MODIFICATIONS IN SCHEDULE 1 OF THE GENERATION LICENSE

Pursuant to the Capacity Enhancement the following needs to modified and incorporated:

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1. Detail of Generation Facility/Wind Farm

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		Stated in the Generation License	Proposed Modification
(A)	General Information		
(ii)	Registered/Business Office	149, Cotton Exchange Building, I.I. Chundrigar Road, Karachi	212, Cotton Exchange Building, I.I. Chundrigar Road, Karachi
(B)	Wind Farm Capacity & Configuration		
i)	Wind Turbine type, Make & Model	GE 1.5 xle	GE 1.6 XLE
ii)	Installed Capacity of Wind Farm (MW)	49.5 MW	52.8 MW
iii)	Number of Wind Turbine Units/Size of each Unit (KW)	33 x 1.5 MW	33 x 1.6 MW
(D)	Other Details		
i)	Project Commissioning Date (Anticipated)	December 31, 2013	30 November 2015

3. Power Curve GE – 1.6 XLE 1.6 MW (Tabular Form)

The Calculated Power Curve table provided in the Generation License is to be replaced with the following Calculated Power Curve table for GE 1.6 XLE 1.6 MW:

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Calculated Power Curve 1.6-82.5

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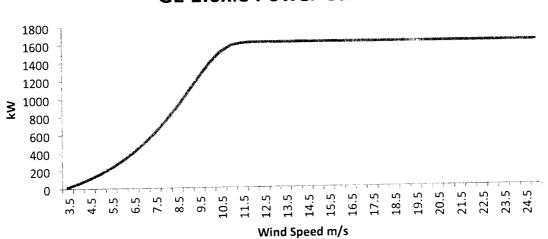
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Wind Speed at Hub Height (m/s)	Normal Turbulence Intensities 10% < TI < 15%	Low Turbulence Intensities TI < 10%	High Turbulence Intensities 15% < TI < 20%	Cp.e Normal Turbulence Intensities
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2. <u>Power Curve With Graphic GE – 1.6 XLE 1.6 MW</u>

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The diagram attached in the Generation License is to be replaced with the following Power Curve diagram of GE - 1.6 XLE 1.6 MW:



GE 1.6xle Power Curve

ANNEX 3

MODIFICATIONS IN SCHEDULE II OF THE GENERATION LICENSE

The table in Schedule II is to be updated as follows:

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	Details	Stated in the Generation License	Proposed Modification
1.	Total Installed Capacity of the plant (Gross ISO)	49.50 MW	52.80 MW
2.	De-rated Capacity at Mean Site Conditions (on account of Air density, humidity, temperature, Wake effect, wind direction, rain etc)	46.21 MW	49.5 MW
3.	Auxiliary Consumption	1.15 MW	1.09 MW
4.	Total Net Capacity of the Plant at Mean Site Conditions	45.06 MW	48.41 MW



ANNEX "C"

STATEMENT OF REASONS IN SUPPORT OF THE PROPOSED MODIFICATION

The Project is currently under the construction phase and is being designed with a capacity of 49.5 MW based on 33 WTGs of GE model 1.5 XLE. At this initial stage, we have been informed by GE, the supplier of the WTGs, that due to software upgrades, the overall Project design can be updated and developed with an inherent flexibility to seamlessly change the WTG model from 33 x 1.5 XLE to 33 x GE 1.6 XLE turbines and increase the overall Project capacity to 52.8 MW (the "Capacity Enhancement"). A copy of a letter from GE to this effect is appended herewith as Schedule 1.

The Company has engaged with all stakeholders in this Project including National Transmission and Despatch Company/Central Power Purchasing Agency ("**NTDC/CPPA**"), the Purchaser under the Energy Purchase Agreement of the Company. NTDC/CPPA has confirmed that the planned interconnection scheme and transmission network will be sufficient to evacuate the additional 3.3 MW. A copy of this letter is attached herewith as **Schedule 2**.

Please note that the Capacity Enhancement enables the Company to operate the Project at its maximum available capacity thereby making the plant more efficient. The Regulation of Generation Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act") provides that "in performing its functions under this Act, the Authority shall, as far as practicable, protect the interests of consumers and companies providing electric power services in accordance with guidelines, not inconsistent with the provisions of this Act, laid down by the Federal Government"¹ and in relation to tariffs, shall also "encourage efficiency in licensees operations and quality of service."²

The lenders, usually the most conservative stakeholders, have also appreciated this initiative and are willing to increase their debt up to US\$95,000,000 pursuant to Section 6 of the Finance Agreement between the Company and Overseas Private Investment Corporation, provided that all regulatory approvals are in place. Hence, the approval of this licensee proposed modification would permit the Company to seek the additional loan amount.

In view of the on-going energy crisis in the country, we also believe that proceeding with the Capacity Enhancement is mutually beneficial for all stakeholders, including the consumers who will benefit from the additional electricity generated. In light hereof, we would request to proceed in accepting our application for the modification of the Generation License.

¹ Section 7(6) of the NEPRA Act.

² Section 31(2)(c) of the NEPRA Act.



Sapphire Wind Power Company Limited

ANNEX "D"

STATEMENT OF THE IMPACT ON THE TARIFF, QUALITY OF SERVICE AND THE PERFORMANCE BY THE LICENSEE OF ITS OBLIGATIONS UNDER THE LICENSE

For the purpose of providing an upfront tariff for wind power plants, NEPRA passed the Determination of National Electric Power Regulatory Authority in the Matter of Upfront Tariff for Wind Power Generation, No. NEPRA/TRF-WPT/2013/3942-3944, dated April 24, 2013, as further amended pursuant to the Decision of the National Electric Power Regulatory Authority in the matter of Review of Determination of Upfront Tariff for Wind Power Generation No. NEPRA/TRF-WPT/2013/4445-4447 May 2, 2014 (the two determinations are collectively referred to as the "Wind FIT"). The Company opted for the Wind FIT on August 12, 2013 and the same was subsequently accepted by NEPRA pursuant to its Decision of National Electric Power Regulatory Authority in the matter of Application of Sapphire Wind Power Company Ltd. Opting for Upfront Tariff for Wind Power Projects No. NEPRA/TRF-247/SWPCL-20131 on November 21, 2013 (the "Tariff Determination").

When the Company made the aforementioned application to NEPRA it was made on the basis of the 33 x 1.5 XLE WTGs. In light of the software upgrades now available, the Company can avail the Capacity Enhancement to increase its overall capacity to 52.8 MW. Therefore, the Company will be subsequently also seeking to amend its Tariff Determination to reflect the increased Project capacity. However, the Company would like to take this opportunity to clarify that it is neither seeking an amendment to the terms and conditions of its Tariff Determination nor the components of the Tariff Determination but merely requesting that the same set of conditions apply to the Borrower at the increased capacity of 52.8 MW.

The Company further certifies that quality of service and the performance of the Company of its obligations under the Generation License will not be affected.



GEIOC Power & Water

M. Naeem Shafique Cauntry Executive

Level-12, Arfa Saftware Technology Park 346-B, Ferazepur Road Lahare 54660, Pakistan

T +92 42 3598 9706 F +92 42 3597 2184/85

September 29, 2014 Mr. Khalid Aslam Director Projects Sapphire Wind Power Company Limited Karachi.

Subject: CAPACITY ENHANCEMENT

Dear Sir,

We refer to Sapphire Wind Power Company Limited's (the "**Company**") wind power generation facility being set up at Jhimpir, District Thatta, Sindh (the "**Project**").

We are pleased to confirm that while the Project is being designed with a capacity of 49.5 MW based on 33 WTGs of GE 1.5xle model, there is an option at this initial design stage of the Project to change the WTG configuration to GE 1.6xle model thus increasing the Project capacity to 52.8 MW. (Power Curve and other Technical Specifications of the WTG 1.6xle model are attached for your reference)

This capacity enhancement would be made possible through upgrade of the WTG controls <u>software</u> during construction of the Project without any change in the WTG hardware. The Company's EPC contractor will have to however make appropriate changes in the BOP energy evacuation system of the Project to cater for the extra 3.3MW.

Kindly confirm if you would want us to execute this design change at the soonest so that we may take necessary steps at out end.

Sincerely,

M. Naeem Shafique

NATIONAL TRANSMISSION & DESPATCH CO. LTD



General Manager (CPPA) NTDCL

No.GM/CPPA/CE-H/MT-IV/SWPCL/ 7087-89

Dated: // .11.2014

Mr. Khalid Aslam, Project Director, M/s Sapphire Wind Power Company Limited, 313-Cotton Exchange Building, I.I. Chundrigar Road, Karachi – 74000.

Subject: Capacity Enhancement of Wind Power Project by M/s Sapphire Wind Power Company Limited

- Ref: (i) Your letter dated 29.09.2014
 - (ii) This office letter No.GM/CPPA/CE-II/MT-IV/SWPCL/6375-77 dated 13.10.2014.

In response to above referred letter, a copy of General Manager (Planning Power) NTDCL letter No. GMPP/CEMP/TRP-380/Sapphire WPP/4647-48 dated 29.10.2014 is enclosed herewith which is self explanatory for further necessary action at your end, please.

DA/As above

(ENGR. ARSHAD BASHARAT) Manager (Tech-IV) CPPA/NTDCL

CC:

- i. Chief Engineer (Design) NTDCL, 143-WAPDA House, Lahore.
- ii. PA to GM (CPPA) NTDCL, 229-WAPDA House, Lahore.
 - Master File



NATIONAL TRANSMISSION & DESPATCH CO. LTD

General Manager Planning Power, NTDCL

No. GMPP/CEMP/TRP-380 /Sapphire WPP/4697-6 8

Dated: 29-10-2014

General Manager (CPPA) 229-WAPDA House, Lahore. Fax 042-99201179

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Sub: Capacity Enhancement of Wind Power Project by M/s Sapphire Wind Power Company Limited

Ref: GM CPPA letter No. GM/CPPA/CE-II/MT-IV/SWPCL/6375-77 dated 13-10-2014.

With reference to the above referred letter, it is stated that the already planned interconnection scheme and the surrounding transmission network would be sufficient to evacuate additional 3.3 MW as a result of increase in total capacity from 49.5 MW to 52.8 MW of the subject wind power project by M/s Sapphire Wind Power Company Limited. However, CPPA is requested to look into the matters of contractual as well as any other obligations pertaining to the proposed 3.3 MW increase in the capacity of the subject wind power project.

29/10/2014

(R.S. Rehan) General Manager Planning (Power)

7308

CC:

- Managing Director, NTDCL.
- Master File (MP).

44º Floor, PIA Tower, Egerton Road, Labore TEL:+92-42 99202613, Fax: +92 42 36307738|gmppä@ntde.com.pk