DIN GROUP

Dated: 12 December 2017

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

Subject: <u>Tariff Petition of Din Energy Limited 50 MW Wind Power Project</u>

Kindly accept the Company's Tariff Petition, along with the fee as determined by the National Electric Power Regulatory Authority ("NEPRA" or the Authority-) for kind consideration and favorable approval by the Authority in accordance, inter alia, with section-31 of the Regulation of Generation. Transmission and Distribution of Electric Power Act, 1997 read with Rule 3 of the NEPRA tariff Standards and Procedure Rules, 1998 and other applicable provisions of NEPRA law.

The Tariff Petition (including its Annexures) is submitted in triplicate together with:

a. The Bank Draft No. 01520148 dated 12th December 2017, amounting to PKR 612,128 (Pakistan Rupees Six Hundred Twelve Thousand, One Hundred and Twenty Eight) as requisite for fee for Tariff Petition as communicated by NEPRA.
b. Board Resolution of Din Energy Limited
c. Affidavits of Mr. Fawad Jawed – CEO Din Energy Limited

Yours sincerely,

DIN ENERGY LIMITED KARACHI

Fawad Jawed
Chief Executive
Din Energy Limited

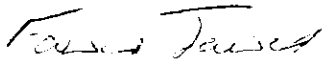
BEFORE
THE NATIONAL ELECTRIC
POWER REGULATORY AUTHORITY

COST-PLUS TARIFF PETITION

IN RESPECT OF
50 MW WIND POWER PROJECT LOCATEO AT DEH KOHISTAN, 7/3 & 7/4, TAPPO JANGSHAHI,
TALUKA/DISTRICT THATTA,

Oated: 12 December 2017

Filed for and behalf of:
DIN ENERGY LIMITED



Through:
RIAA BARKER GILLETTE
68, NAZIMUDDIN ROAD, F-8/4, ISLAMABAD
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TARIFF PETITION

DIN ENERGY LIMITED.

50 MW WIND POWER PROJECT

Before
The National Electric Power Regulatory Authority (NEPRA)

December 12, 2017

DIN ENERGY LIMITED KARACHI

1. Petitioner's Information

1.1 PETITIONER

Name: Din Energy Limited ("DEL", the "Project Company" or the "Petitioner").

Address: Din House, 35-A/1, Lalazar Area, Opp: Beach Luxury Hotel, Karachi.

Company Registration #: 0089063

1.2 PROJECT SPONSORS

Sponsor: Din Group of Companies (the "Sponsors").

1.3 REPRESENTATIVE OF THE PETITIONER

Chief Executive: Mr. Fawad Jawed

1.4 PROJECT ADVISORS

Financial Advisors: Bridge Factor (Pvt) Ltd.

Technical Advisors: Renewable Resources (Pvt) Ltd.

Legal Council: RIAA Barker Gillette

2. Grounds for Petition

2.1 PETITION

This Petition is made to the National Electric Power Regulatory Authority ("NEPRA") under the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of) 1997 (the "NEPRA Act") and the Tariff Standards and Procedure Rules, 1998 (the "NEPRA Rules") made under the NEPRA Act; and other applicable laws.

Under the NEPRA Act, the Authority is responsible for determining tariffs, rates and other terms and conditions for the supply of electric power services by the generation, transmission and distribution companies and recommending them to the Federal Government for notification. NEPRA is also responsible for determining the process and procedures for reviewing and approving tariffs and tariff adjustments.

2.2 ABOUT THE PETITIONER

Din Energy Limited ("DEL") ("Project Company") (a company incorporated under the laws of Pakistan), with its office located at Din House, 35-A/1, Lalazar Area, Opp: Beach Luxury Hotel, Karachi was incorporated on 2nd July 2014 to develop, own and operate an approximately 50 MW wind power project in district Thatta pursuant to a Letter of Intent (LOI) dated 24th July 2015 (Annexure 1) issued by the Energy Department Government of Sindh (EDGOS) vide its letter No. DAE/Wind/90/2015.The Project is to be developed under the guidelines of "Policy for Development of Renewable Energy Projects 2006" (the "RE Policy") issued by the Government of Pakistan.

2.3 PROCESS LEADING TO TARIFF PETITION

The following milestones have been achieved leading up to the submission of tariff petition.

- 325 acres of land in Deh Kohistan, Tapo Jungshahi Taluka, District Thatta, for the Project has already been allotted by Government of Sindh (GOS) for a period of 30 years through Land Allotment letter Reference No: 01-68-2015/SO-VI/09 dated 14th January 2016 (Annexure 2).
- Pursuant to the relevant provisions of the Policy for Development of Renewable Energy for Power Generation 2006 (the "RE Policy 2006") and the LOI, DEL completed the detailed technical feasibility study for the Project. The same was submitted to Panel of Experts, EDGOS on 03rd March 2016.
- The technical consultants completed the initial environmental examination for the Project and was submitted to the Sindh Environmental Protection Agency on 17th March 2016 and the same was approved on 29th March 2016 (Annexure 3).
- Grid Interconnection Study was approved by NTDC on 03rd June 2016 via letter No. GMPP/CEMP/TRP-380/2384-88 (Annexure 4).
- Power Evacuation Certificate (PEC) was issued to DEL on 06th June 2016 (Annexure 5).

- Request for issuance of Purchaser's consent to purchase power has been made to CPPA (G) CPPA (G) on 03rd June 2016 (Annexure 6).
- Generation License (GL) application was submitted to NEPRA on 24th May 2016. NEPRA granted generation license to the Project on 1st February 2017. (Annexure 7).
- EPC and O&M Contracts for the Project has been executed on 07th December 2017(Annexure 8).
- Approval of Feasibility Study from EDGOS Panel of Experts have been granted on 05th September 2017 (Annexure 9).
- Project debt funding (75% of the project cost) has been arranged from local and foreign banks (Annexure 10). Sponsors will inject the remaining 25% of the project cost as equity investment.

All requisite information required by NEPRA for processing the Petition has been annexed herewith; DEL will be pleased to submit any further information as and when required by NEPRA in connection with the determination.

Accordingly, it is submitted that the requirements of the regulatory process for applying to NEPRA for the tariff determination of DEL's 50 MW power generation facility to be located at District Thatta, Sindh have been completed.

2.4 REQUEST FOR TARIFF DETERMINATION - SUBMISSION

In accordance with the requirements of the NEPRA Act, NEPRA Rules and the Policy for Development of Renewable Energy Project 2006 (RE Policy), Petitioner hereby submits this Petition for determination/approval of the Reference Tariff (Negotiated Tariff under Cost-Plus regime) along with adjustments, pass-through items, indexation mechanisms and other terms and conditions for supply of electric power service to CPPA (G) (the "Power Purchaser") from the Project.

Pursuant to the relevant provisions of the NEPRA Act, NEPRA Rules, the RE Policy 2006, DEL submits herewith before NEPRA, this Petition for approval of

- the Reference Tariff (Negotiated Tariff under Cost-Plus regime);
- the Indexations, Adjustments and Escalations;
- adjustments at Commercial Operations Date (COD) and
- other matters set out in this Tariff Petition, in each case, for the Project Company's power generation Project to be located at Jhimpir District Thatta, Sindh.

NEPRA (the Authority) is requested to process the Petition at the earliest, thereby enabling the Project Company to proceed further with the development and construction process.

3. Executive Summary

3.1 BACKGROUND

Din Energy Limited is a SPV sponsored by the Din Group (the Sponsors) for the development of a 50 MW wind power project. The Sponsors have been developing this Project since July 2015 under a LOI from the Energy Department Government of Sindh ("EDGOS"). The Company has approximately 325 acres of land under a lease agreement signed with GoS. The salient features of the Project are summarized below.

- Type of Project — Build Own and Operate (BOO)
- Gross Capacity : — 50 MW
- Capacity Factor: — 38%
- Annual Energy Generation: — 166.440 GWh
- Construction Period — 18 months
- Tariff: — USD Cents 7.2134/kWh*
- Power Purchaser: — CPPA-G
- Wind Turbine Generators: — Siemens-Gamesa G114-2.0
- Land Area: — 325 acres
- Exchange rate assumption: — PKR 105/USD

the requested levelized tariff is lower than the Benchmark Tariff on Local and Foreign financing mix of 50% each.

3.2 PROJECT COST SUMMARY

After carrying out a competitive bidding process for EPC and obtaining financing terms the total project cost works out to be USD 87.25 million. The breakup is as follows:

- EPC Cost: — 78.00
- Project Development Cost — 3.20
- Insurance During Construction — 0.45
- Financial Fees and Charges — 2.10
- Interest During Construction — 3.50

3.3 PROJECT FINANCING

The project is financed through 75% Debt and 25% Equity. The total Debt amounts to USD 65.44 million, whereas the total Equity is USD 21.82 million. The Debt is financed through a mix of Local and Foreign Lenders with 50:50 ratio. Bank Alfalah is acting as the lead financier in local financing and for foreign financing the lead financier is IFC. The financing terms are as under.

PROJECT FINANCING		
DESCRIPTION	PERCENTAGE	USD MILLION
Local Financing lead by Bank Alfalah - Commercial Facility	50%	32.72
Foreign Financing from IFC - Commercial Facility	50%	32.72
Total Debt	100%	65.44

FINANCING TERMS		
DESCRIPTION	LOCAL FINANCING	FOREIGN FINANCING
Loan Term	14.5 years	14.5 years
Debt Repayment	13 years	13 years
Mark-Up Rate	3M-KIBOR + 250bps	3M-LIBOR + 450bps

3.4 OPERATIONAL PHASE COSTS

The Project will have annual Operations and Maintenance cost of USD 1.95 million and annual Insurance costs of USD 0.39 million.

3.5 SUMMARY OF EPC SELECTION

Project Company carried out a competitive bidding process for selection of EPC contractor for the Project. For this purpose an RFP was issued to the following EPC Contractors/WTG manufacturers:

- Vestas Denmark
- CSIC China
- HydroChina Corporation China
- Nordex Germany
- Descon Pakistan
- Orient Pakistan with Gamesa Spain
- Shangdong Swiss Electric Company China
- TBEA Xinjiang Sun Oasis Co. Ltd. China
- Sany Group Company Ltd. China

Based on technical and financial evaluatioo, **HydroChina Corporation** with **Siemens-Gamesa (G114-2.0)** was declared as the first preferred bidder. Accordingly an EPC contract has been executed with the preferred bidder on 07th December 2017.

3.6 PROJECT TASKS COMPLETED

The Project has completed all development tasks and is ready for construction. The tasks completed are:

- Letter of Intent
- Land allotted and lease signed
- Wind Mast Installed
- Topographical and Transport Study completed
- Geo-technical Study
- Wind Resource Assessment Study
- Feasibility Study completed
- Grid Interconnection Study
- Initial Environment Assessment
- EPC and O&M Agreements Signed
- Term sheet from Project Lenders

The Project has been in development since the issuance of LOI in 24th July 2015 by EDGOS and all tasks and milestones had been completed to opt for Wind Upfront Tariff in June 2016. This Project was one of the ten Projects with approved Interconnection Studies which were selected by Ministry of Water and Power, AEDB and EDGOS to be allowed the last Wind Upfront Tariff, however, at the last moment NEPRA returned the tariff petition on the basis of non-availability of Purchaser's Consent.

Since the expiry of the last upfront tariff, NEPRA did not issue another upfront tariff and instead issued a Wind Benchmark Tariff Decision on 27th January 2017 for bidding. Since that date, despite assurances from GoP relevant departments that the RFP shall be issued soon, no such RFP had been issued yet. Since NEPRA has clearly stated in its decisions that any party can apply for a cost plus tariff under the Tariff Standard and Procedure Rules, 1998, the Company cannot afford to wait any longer and has decided to submit this petition before the Authority to determine Reference Tariff for the Project under Cost-plus Tariff Regime.

4. The Project

4.1 PAKISTAN'S CURRENT ELECTRIC POWER SHORTAGE

Pakistan currently has around 25.5 GW of installed capacity for electricity generation. Conventional thermal plants (oil, natural gas, coal) account for 65.5% of Pakistan's capacity, with hydroelectricity making up 28%, Renewable Energy (Wind, Solar & Bagasse) 3.4% and Nuclear 3.1%.

Pakistan is moving ahead towards solving its energy crises. A major contributor to this solution is the injection of electricity through base load power plants i.e. LNG and Coal based generation. However, Pakistan still needs to generate electricity to meet future ever increasing demand due to expected increase in GDP growth rate and suppressed demand factor. Base load plants are generating electricity through imported fuels which increases the burden on the foreign exchange reserves. Therefore, it is imperative for Pakistan to look for indigenous/cheap energy resources for sustainable growth through self-reliance.

Moreover, the renewable energy mix should be increased to optimize the basket price. Renewable energy is the cheapest form of energy with no environmental impacts. Pakistan has abundant renewable resources, which should be utilized to provide affordable electric energy to its people.

4.2 WIND POWER PROJECTS – A NATURAL CHOICE

To ensure a sustainable energy future for Pakistan, it is necessary that the renewable energy sector be accorded a high priority. It is considered that wind power generation could become a significant contributor to Pakistan's electricity supply in the near future. The development of wind generation projects supports the environmental objectives of the Government of Pakistan by:

- reducing dependence on fossil fuels for thermal power generation;
- increasing diversity in Pakistan's electricity generation mix;
- reducing greenhouse gas emissions through avoidance of thermal power generation; and
- helping in reduction of the exorbitant trade deficit.

Pakistan has a huge wind potential which can be effectively and efficiently utilized for the economical generation of Power. The coastal belt of Pakistan is blessed with a wind corridor that is 60 km wide (Gharo - Kati Bandar) and 180 km long (up to Hyderabad). This corridor has potential of 50,000 MW of electricity generation through wind energy that is ready to be exploited. Currently fifteen (15) wind energy projects having a combined capacity of 788.5 MW are operational and 9 wind power projects having a combined capacity of 445.8 MW are at different stages of construction.

The Petitioner is hopeful that the country will overcome the power shortfalls faced in recent years and achieve security of base load soon. It is pertinent to note that wind power generation becomes even more useful in cases where secure base load is available. The cheaper electricity offered by wind projects can be utilized as much as possible when available and demand in low wind period can be supplemented through base load plants.

Tariffs for all base load plants are split between the Capacity Purchase Price (CPP-fixed costs) and Energy Purchase Price (EPP-fuel costs). Most of the base load plants have an EPP component (excluding capacity charge) higher than the total wind tariff. The Power Purchaser (and as a result the consumers) can realize significant savings by replacing expensive base load plants with wind power generation in high wind periods. It is also important to highlight the fact that high wind periods in Pakistan coincide with the highest demand periods (summer months). The Petitioner firmly believes that advantages of having wind power in the mix (including cost saving in generation of electricity) cannot be undermined.

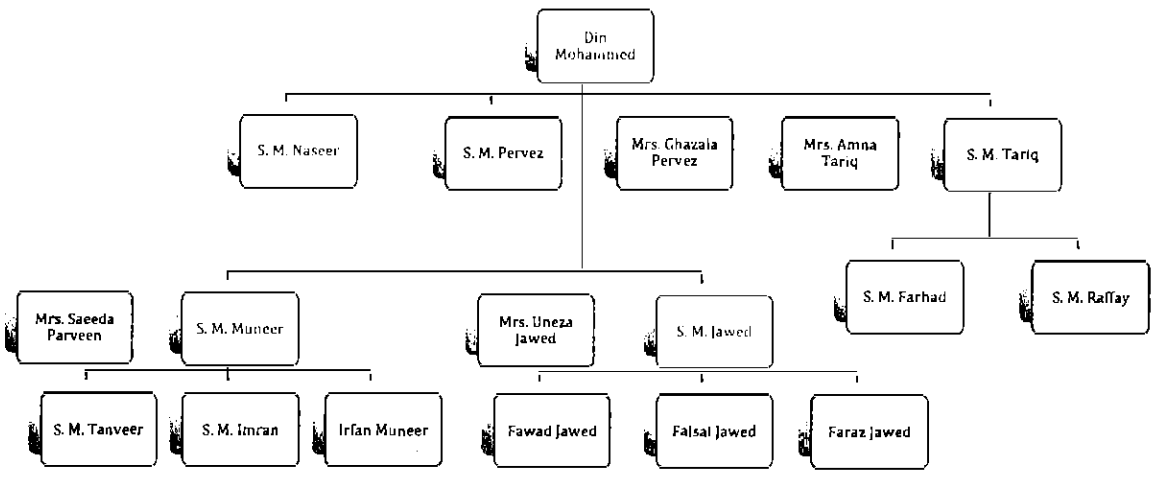
4.3 ABOUT THE SPONSORS

DEL is sponsored by the Din Group of Companies, which is being represented by fourteen (14) individual (close relatives) sponsors (the "Sponsors") of the Group who hold an aggregate shareholding of 100% in the Project Company. Some of these Sponsors may invest through a holding company; final shareholding structure will be decided in concurrence with the Lenders.

4.3.1 Din Group of Companies:

Din Group of Industries was formed in 1954 by Shaikh Mohammad Din. It represents one of Pakistan's premier business groups having diversified investments, which include textiles, leather products, financial institutions, real estate, investment in blue-chip stocks/bonds, and poultry farming. Furthermore, the Group, in their individual capacities, has investments in various power, fertilizer, and E&P companies. In addition, the Sponsors have representation on the Board of Directors of MCB Bank Ltd., Adamjee Insurance Company and Fauji Fertilizer Company. The Group directly employs over 5,000 people across Pakistan.

The second and the third generation are currently managing the Group. Please see illustration below *(highlighted names are shareholders of Din Energy Limited)*:



Din Leather (Pvt.) Ltd. is one of the largest tanneries of the Country, exporting finished leather across the globe, specializing in high-end leather. The production plant is based in Karachi. Din Leather has been

awarded numerous Best Export Performance awards by the Federation of Pakistan Chambers of Commerce & Industry (FPCCI) and has also been awarded Gold Medal Award by the International Export Association U.K. in recognition of their export achievements.

Din Textile Mills Ltd., consist of 4 units of spinning and one dyeing plant, producing value added cotton yarn such as mélange yarn, core spun stretch yarn and compact yarn. Total 100,000 spindles are in operation and most of the products are exported across the globe.

Din Farm Products is atomized poultry project with production of 300,000 eggs per day. This project was initiated in the year 2011 for the diversification of the group.

Din Group is also actively involved in philanthropy as part of its corporate social responsibility (CSR) program. The group's CSR activities include, naming a few, running many dispensaries, maternity homes, educational Institutes and hospitals across Pakistan.

GROUP COMPANIES' CONSOLIDATED FINANCIALS - '000				
KEY FINANCIALS	2013	2014	2015	2016
Annual Turnover	10,960,787	13,526,091	10,931,733	9,434,733
Total Assets	10,218,667	10,699,441	8,846,355	8,983,197
Net Assets	5,866,512	6,158,295	5,156,918	4,782,865

4.4 ABOUT THE PROJECT

The 50 MW (gross) Wind Project is located in district Thatta, Sindh. The development of the Project is being undertaken on a Build-Own and Operate (BOO) basis by DEL.

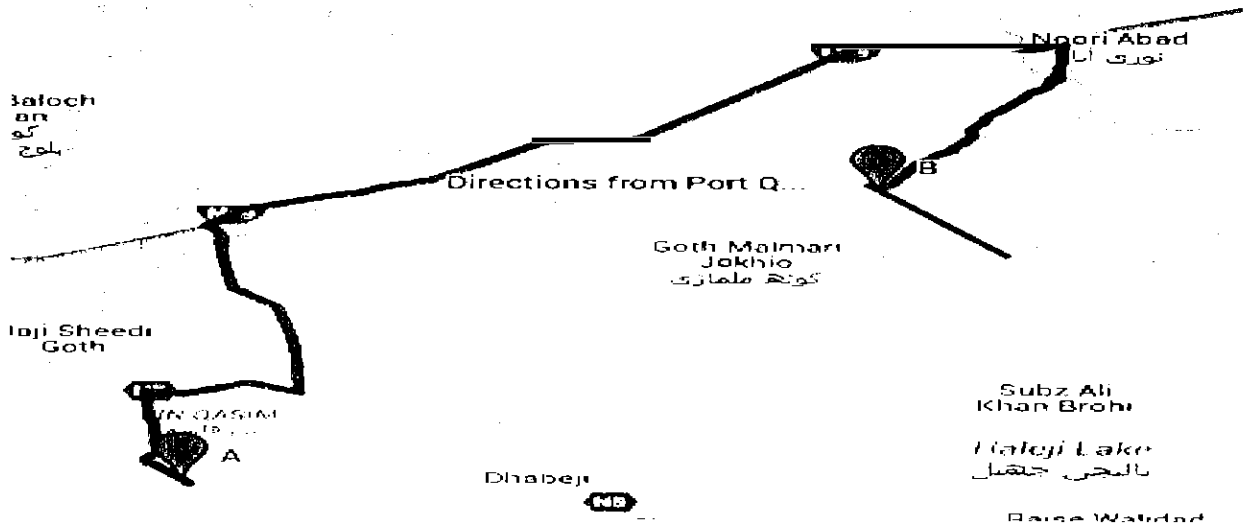
An efficient and dynamic professional team has been appointed to assist in the implementation of the Project. Bridge Factor have been appointed as Transaction Advisor, whereas a Renewable Resources (RE2) has been selected as Technical Advisor for advice on all technical matter. RIAA Barker Gillette has been appointed as Legal Advisor for smooth and efficient execution of the Project. As soon as a tariff is obtained, an in house technical team will be created to develop the Project.

4.5 PROJECT LOCATION

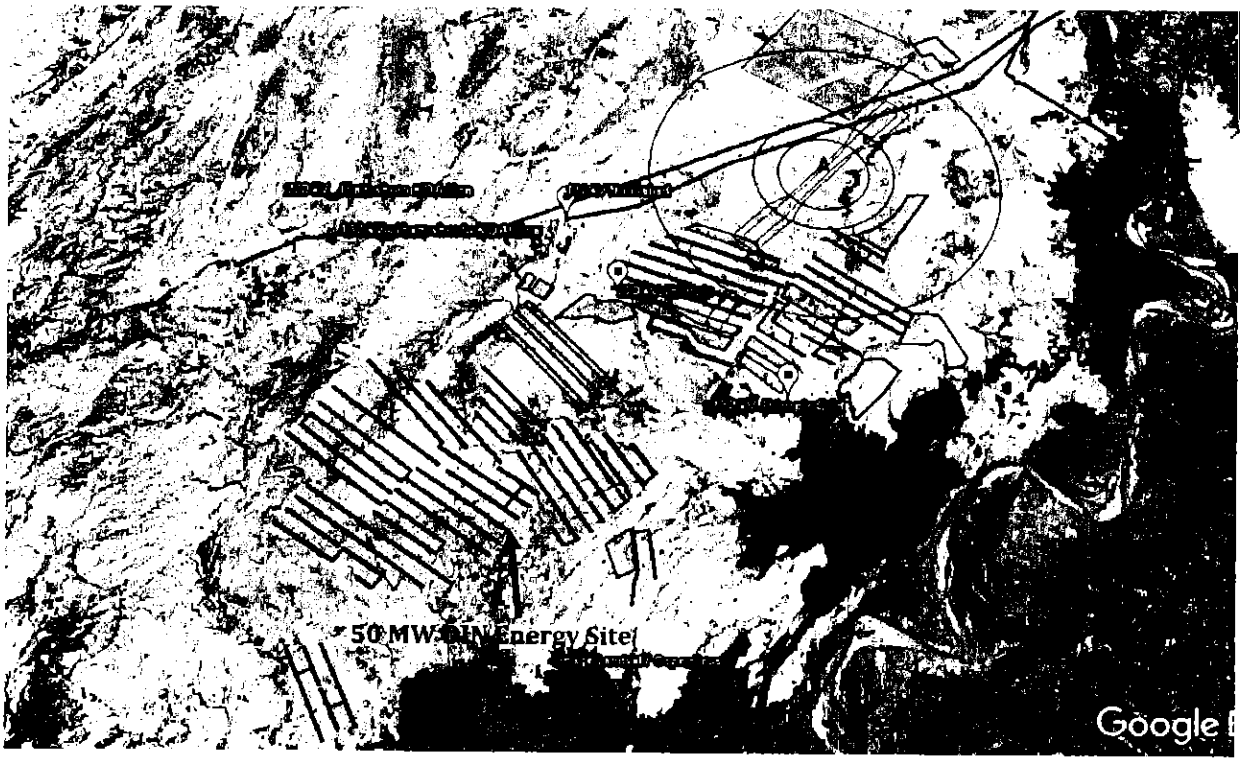
The site for the implementation of the Project has been selected considering

- location in the wind corridor,
- wind conditions at the site,
- topographic conditions,
- site accessibility, and
- location of the grid with reference to the site for interconnection.

The Site is located in District Thatta, Sindh, which is one of the most promising areas where wind power projects can be viably installed. The Project's wind farm site is located 120 km from Port Qasim Karachi as detailed below.



The overview of the Project site is shown in Figure below:



The Project site is exposed to strong winds; wind data analysis of the area suggests that 80% wind blows from the south west direction. The site is easily accessible through metaled roads. The terrain at the site and surrounding area has elevations varying between 127m to 177m.

4.6 WIND FARMS LAYOUT AT PROJECT SITE

Site coordinates for each of 25 WTGs (micro-siting) to be installed are as follows:

MICRO-SITING		
	EASTING	NORTHING
Din_G01	372013	2761200
Din_G02	372282	2761028
Din_G03	372551	2760857
Din_G04	373089	2760514
Din_G05	373358	2760342
Din_G06	373627	2760171
Din_G07	374165	2759828
Din_G08	374434	2759656
Din_G09	374703	2759485
Din_G10	374972	2759313
Din_G11	375241	2759142
Din_G12	375510	2758970
Din_G13	375779	2758799
Din_G14	376048	2758627
Din_G15	376317	2758456
Din_G16	376585	2758284
Din_G17	376854	2758113
Din_G18	377123	2757941
Din_G19	377661	2757598
Din_G20	377930	2757426
Din_G21	378199	2757255
Din_G22	378468	2757083
Din_G23	378737	2756912
Din_G24	379006	2756740
Din_G25	379269	2756572

4.7 GRID CONNECTIVITY

The Project would be connected by a double circuit of 132kV looping in-out with a sub cluster also connecting nearby WPPs to Jhimpir New (Jhimpir – II) 132 kV collector substation.

4.8 ANNUAL ENERGY PRODUCTION

Annual Energy Production of 166.44 GWh has been estimated for the Project. The table below shows key details relating to power generation from the project.

ENERGY PRODUCTION	
Total Installed Gross ISO Capacity of the Generation Facility – MW	50 MW
Annual Energy Generation	166.44 GWh
Net Capacity Factor	38%

5. EPC – Process & Selection

5.1 WTG TECHNOLOGY & EPC SELECTION

After award of LOI, the Project Company carried out a competitive bidding process in order to select EPC and WTG manufacturers for the Project by circulating RFPs to the EPC contractors and WTG manufacturers working in Pakistan for awarding the turnkey EPC contracts for the development of the Project. For this purpose an RFP was issued to following on 01st April 2016.

- Vestas Denmark
- CSIC China
- HydroChina Corporation
- Nordex Germany
- Descon Pakistan
- Orient Pakistan
- Shangdong Swiss Electric Company China
- TBEA Xinjiang Sun Oasis Co. Ltd. China
- Sany Group Company Ltd. China

Bid clarification meetings were held with the bidders. Last date for submission of bids was 02nd May 2016.

Two (02) envelope bidding procedure was adopted, whereby technical and financial bids were submitted in two separate envelopes.

Based on combined technical and financial evaluation, Orient Engineering Pakistan and HydroChina Corporation were declared as the preferred bidders for the EPC, both with Siemens-Gamesa WTGs.

The Company had carried out the EPC process to be able to opt for the upfront tariff in June 2016. Prior to June the EPC contracting process had been completed, however, as the upfront tariff was not been available by NEPRA, the Company recently carried out a competition amongst the two preferred bidders i.e. Orient Engineering Pakistan and HydroChina Corporation. Based on negotiations the Company signed EPC contract with "**HydroChina Corporation**" and "**Siemens-Gamesa G114-2.0**" as the technology for its Project with a fixed price and fixed Commercial Operations Date.

5.2 SIEMENS-GAMESA – THE WTG MANUFACTURER

With 20 years' experience, Gamesa is a global leader in the design, manufacture, installation and maintenance of wind turbines, with over 28,800 MW installed in 43 countries across five continents. Operation & Maintenance (O&M) is one of the key activities upon which Gamesa bases its development, having 70% of its fleet under an Operation & Maintenance contract thanks to an expansion of this activity in over 30 countries.

In April 2017 Siemens merged its wind power business with Gamesa. Siemens Wind Power and Gamesa now form a world-leading wind power provider in the name of "Siemens Gamesa Renewable Energy", with an

unrivalled global presence with over 75 GW installed globally in more than 90 countries. The two companies complement one another almost perfectly and boast a unique product portfolio.

The Project comprises of 25 Siemens-Gamesa G114-2.0 MW CIIA Wind Turbines at 93m hub height. The output of the farm will be 50 MW with capacity factor of 38%. The Project construction timeline will be 18 months after issuance of Notice to Proceed (NTP).

The specifications of Siemens-Gamesa's G 114-2.0 turbine are as follows:

WTG SPECIFICATIONS

	DESCRIPTION	SPECS.
1	Wind Turbine Type, Make & Model	G114-2.0
2	Installed Capacity of Wind Farm (MW)	50 MW
3	Number of Wind Turbine Units/Size of each Unit (KW)	25 x 2.0 MW
4	Number of blades	3
5	Rotor diameter	114m
6	Hub Height	93m
7	Generator Voltage	690 V
8	Cut-in wind speed	3 m/s
9	Cut-out wind speed	25 m/s
10	Extreme wind speed	56 m/s

5.3 THE EPC CONTRACTOR - HYDROCHINA CORPORATION

HydroChina Corporation, is part of Power China group one of the largest groups in China with total revenue of approx. US$ 50 billion and total assets of over US$ 77 billion. Power China perform more than 1900 Projects in 116 countries.

The company provides technical services in the field of hydropower, water resources development and wind power development in China, including planning of river basins, reconnaissance, design, consultancy, construction supervision, appraisal, evaluation, safety appraisal, check and acceptance, construction, project management and EPC contracting for hydropower and new energy development, and development, investment, operation and management of hydropower and new energy projects as well. The company was founded in 2002 and is headquartered in Beijing, China.

In Pakistan HydroChina Corporation has already conducted EPC works since 2011 and has completed EPC contracts for 280 MWs and is executing EPC contracts for another 300 MWs.

6. Project Cost

The Project Cost is based on the firm EPC Contract comprising of the Offshore Contract and the Onshore Contract. The reference exchange rate used to convert the PKR denominated costs into United States Dollars is US $ 1 = PKR 105.

A summary of the Project Cost is given below:

PROJECT COST		
	DESCRIPTION	USD MILLION
1	EPC Cost	78.00
2	Project Development Cost	3.20
4	Insurance during Construction	0.45
5	Financial Fee and Charges	2.10
6	Interest during Construction	3.50
	Total Project Cost	87.25

6.1 EPC COST

The scope of work to be carried out by the EPC contractor has been split into two parts, namely, onshore works and offshore works; where offshore works primarily relate to procurement and supply of electrical and mechanical equipment outside Pakistan and onshore works comprise of civil works, erection, commissioning, testing, etc.

Total EPC cost for the project is US $ 78 million. As identified above, DEL adopted an effective and efficient bidding process for procuring the services of EPC Contractor at the most competitive prices. DEL believes that the price as contracted with the EPC Contractor is reasonable under the prevailing market conditions.

EPC COST		
	DESCRIPTION	USD MILLION
1	Offshore EPC Cost	66.90
2	Onshore EPC Cost	11.10
	Total EPC	78.00

6.2 PROJECT DEVELOPMENT COSTS

This head includes the cost for development of Project and Land, it includes all costs, fees and expenses incurred or to be incurred for such purpose. A total of US$ 3.20 million has been estimated under this head. These costs include costs of:

- Feasibility study costs including cost for Topographical survey of land, Geological and geotechnical study, Project layout study, and electrical study; and Transportation study etc.

- Costs related to the performance guarantee to be furnished to EDGOS / AEDB;
- Costs related to the Power Purchaser letter of credit to be furnished to the Power Purchaser pursuant to the provisions of the EPA;
- Various regulatory fees to be paid to NEPRA;
- Costs incurred during Project Company formation;
- Project Company staff salaries, allowances and other benefits;
- Project Company head office - development and running expenses during construction period;
- Travelling costs of Project Company staff for arrangement of financing agreements;
- Cost of security arrangement for the Project;
- Costs relating to various permits for the Project; and
- Project advisors, including cost of Local and Foreign Financial Advisors, Insurance Advisor, Audit and Tax Advisors, Security Advisors, Carbon Credit Advisors etc. and their travelling cost related to financial close.

6.3 DUTIES AND TAXES

Duties and Taxes of non-refundable nature shall be adjusted at Commercial Operations Date, based on the actual cost incurred for which the Project Company shall submit documentary evidence to the satisfaction of the Authority.

6.4 INSURANCE DURING CONSTRUCTION

Insurance during Construction cost covers the insurance cost of the Project's assets during the construction period. Authority is hereby requested to allow Insurance during Construction at US$ 0.45 million, as is allowed in case of other wind power projects.

The Project shall procure the following insurances during the construction phase of the Project as per practices by IPPs in Pakistan:

- Construction All Risk Insurances (CAR);
- CAR Delay in Start-up Insurance;
- Terrorism Insurance;
- Marine and Inland Transit Insurance;
- Marine - Delay-In Startup Insurances; and
- Comprehensive General Liability.

6.5 FINANCIAL FEES AND CHARGES

Financial Fee & Charges include costs related to Debt Financing of the project. Such costs include fees and charges related to lenders up-front fee, lenders advisors & agents charges, commitment fee, management fee, charges related to various letters of credit to be established in favor of various contracting parties, fees

payable and stamp duty applicable on the financing documents, agency fee, security trustee fee, L/C commitment fee/charges for EPC, commitment fee and other financing fees cost and charges.

The financial charges requested as part of the Project Cost i.e. USD 2.10 million, based on Term Sheets received from the financial institutions.

Since foreign financing with IFC is involved, there will not be requirement of opening LC in favor of EPC contractor. However, in case the Company is required to provide LC confirmation cost for base equity LC and other LC's related to securing the sponsors obligations under the financing agreements, than such costs shall be claimed at true-up on the basis of actual cost incurred.

6.6 INTEREST DURING CONSTRUCTION

The Interest during Construction ("IDC") has been calculated on the basis of 18 months construction period at USD 3.5 Million on the terms offered by financial institutions and banks to the Project at 3-month KIBOR plus a spread of 250bps for local financing and at 3-month LIBOR plus a spread of 450bps for foreign loan. DEL, because of its historic relationship with Bank Alfalah, has been able to obtain as a special case a spread of 250bps which is not usually available to others. Actual IDC, however, shall be subject to change depending on the fluctuations in base rate, funding requirement (draw-downs) of the Project during the construction period, changes in Project Cost including changes due to Taxes and Duties, and variations in PKR / USD exchange rate. Construction period assumed for IDC calculation is 18 months.

The spreads are considered to be reasonable given:

- Tenure of the Loan has increased from 12 years to 14.5 years. In the past for 12 year funding the spread was 4.50% – 5%.
- Pakistan's balance of payment situation has deteriorated significantly during the past year which may cause a lowering of our Credit Rating.

7. Financing Arrangement

7.1 PROJECT FINANCING

The Project Cost is envisaged to be funded on the basis of a Debt: Equity ratio of 75:25, however, this shall be firmed up once the financing documents for debt financing have been executed prior to financial close. For the purpose of this Petition, a debt: equity ratio of 75:25 has been assumed, thereby resulting in the following debt and equity injections for the Project:

FINANCING SUMMARY

	DESCRIPTION	USD MILLION
1	Debt	65.44
2	Equity	21.81
	Total Project Cost	87.25

Key terms and condition of financing are provided in the table below:

FINANCING TERMS

	DESCRIPTION	LOCAL FINANCING	FOREIGN FINANCING
1	Base Rate	6.0%	0.6%*
2	Spread	250bps	450bps
3	Total Rate	8.50%	5.10%
4	Repayment period	13 years	13 years
5	Repayment basis	Quarterly	Quarterly

**the base rate is assumed to be in line with the base rate used in NEPRA Benchmark Tariff for Wind Projects determination.*

Sponsors are planning to inject 25% equity into the Project. The financing structure of 75:25 debt: equity might change later on based on mutual arrangement between Banks and Sponsors.

7.1.1 Return on Equity (ROE), ROE during Construction

The Return on Equity ("ROE") and Return on Equity during Construction ("ROEDC") have been estimated separately and the same are provided under Section 9.

Project Company hereby requests:

- ROE of 15% (IRR based) return on invested equity net of withholding tax.
- ROEDC at a rate of 15% over the remaining life of the Project.

It is pertinent to highlight that the withholding tax component has not been identified as a separate line item in the tariff as the same is assumed to be paid on all equity components i.e. ROE and ROE-DC, at actual as a pass-through item under the tariff.

7.2 CARBON CREDITS

Wind Power is a clean form of energy and will reduce CO_2 emission. DEL intends to register for CDM emission reduction program. In case any income is generated from CDM, the same shall be shared in accordance GoPs prevailing policy.

8. Operations Cost

The operational cost of the Project comprises of the operations and maintenance cost, and the cost of the operational period insurances to be taken out by the Project Company.

8.1 O&M COSTS

This component caters for the cost of services rendered by the O&M operator that are dependent on the operation of the Project thereby determinable on a kWh basis. This component also includes costs expected to be incurred by the project locally; these include costs associated with local staff, administrative expenses, corporate fees, audit fees, advisory fees etc. This component also includes cost associated with replacement of parts necessitated due to regular operation / normal wear and tear. The O&M cost of USD 1.95 million per annum is assumed to by the Project Company to be incurred.

The O&M cost will be incurred in local as well as foreign currency – percentage of local: foreign components is specified below along with indexations applicable on the same:

O&M COSTS

	DESCRIPTION	PERCENTAGE	INDEXATION
1	Local	31%	Pakistan CPI (General)
2	Foreign	69%	US CPI (All Urban Consumers) PKR / USD Indexation

8.2 INSURANCE COST

The insurance cost consists of operations all risk insurance for the project, as well as business-interruption insurance; these are standard insurances required by all lenders' and also set out under the EPA.

Aforementioned insurances are required to be maintained throughout the life of the Project. Since the Pakistan Insurance/Reinsurance industry does not have sufficient capacity and expertise to manage such huge risks entirely, therefore this risk is required to be insured/reinsured internationally. The risks' to be covered through insurance will include machinery breakdown, natural calamities (like earthquake, floods, etc.), sabotage and consequential business interruption, etc. The annual Insurance Cost is USD 0.39 million per annum.

9. Reference Tariff

As the Project is 75% debt funded with loan tenure of 13 years for repayment, this means that there will be higher debt service cost requirements in the first 13 years of the Project. In the last 12 years of the Project, the tariff will be decreased due to no debt service related costs.

The proposed tariff is for the life of the Project i.e. term of the EPA, to be signed with the Purchaser, which is 25 years from COD. The tariff is divided into two (02) bands i.e. year 1 – 13 and year 14 – 25 to cover the variations due to the debt repayment period.

A summarized Reference Generation Tariff table setting out the two bands is provided below:

REFERNCE TARIFF

	DESCRIPTION		YEAR 1-13	YEAR 14-25
			PKR/kWh	
1	O&M		1.2302	1.2302
2	Insurance		0.2460	0.2460
3	ROE		2.0641	2.0641
4	ROEDC		0.2635	0.2635
5	Debt Servicing	Local	2.6386	-
		Foreign	2.1816	-
	Total		**8.6240**	**3.8038**

9.1 REFERENCE GENERATION TARIFF

Year	O&M	Insurance	ROE	ROEDC	Local Financing		Foreign Loan		Tariff	
					Principal	Mark-up	Principal	Mark-up		
	Rs./kWh								Rs./kWh	US ¢/kWh
1	1.2302	0.2460	2.0641	0.2635	0.9127	1.7259	1.1507	1.0309	8.6240	8.2133
2	1.2302	0.2460	2.0641	0.2635	0.9920	1.6458	1.2105	0.9711	8.6240	8.2133
3	1.2302	0.2460	2.0641	0.2635	1.0799	1.5587	1.2734	0.9082	8.6240	8.2133
4	1.2302	0.2460	2.0641	0.2635	1.1746	1.4639	1.3396	0.8420	8.6240	8.2133
5	1.2302	0.2460	2.0641	0.2635	1.2777	1.3609	1.4092	0.7723	8.6240	8.2133
6	1.2302	0.2460	2.0641	0.2635	1.3898	1.2487	1.4825	0.6991	8.6240	8.2133
7	1.2302	0.2460	2.0641	0.2635	1.5118	1.1268	1.5596	0.6220	8.6240	8.2133
8	1.2302	0.2460	2.0641	0.2635	1.6444	0.9941	1.6406	0.5409	8.6240	8.2133
9	1.2302	0.2460	2.0641	0.2635	1.7887	0.8498	1.7259	0.4557	8.6240	8.2133
10	1.2302	0.2460	2.0641	0.2635	1.9457	0.6929	1.8157	0.3659	8.6240	8.2133
11	1.2302	0.2460	2.0641	0.2635	2.1164	0.5222	1.9100	0.2715	8.6240	8.2133
12	1.2302	0.2460	2.0641	0.2635	2.3021	0.3364	2.0093	0.1723	8.6240	8.2133
13	1.2302	0.2460	2.0641	0.2635	2.5041	0.1344	2.1138	0.0678	8.6240	8.2133
14	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
15	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
16	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
17	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
18	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
19	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
20	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
21	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
22	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
23	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
24	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
25	1.2302	0.2460	2.0641	0.2635					3.8038	3.6227
Levelized Tariff									7.5759	7.2151

**the requested levelized tariff is lower than the Benchmark Tariff on Local and Foreign financing mix of 50% each.*

9.2 REFERENCE DEBT SERVICING SCHEDULE – LOCAL FINANCING

Repayment Period	Principal Repayment - US$	Principal - Tariff Component (Rs/kWh)	Interest - US$	Interest - Tariff Component (Rs/kWh)	Installments US$	Installment - Tariff Component (Rs/kWh)
1	350,357	0.2210	695,273	0.4306	1,045,630	0.6596
2	357,802	0.2257	687,828	0.4339	1,045,630	0.6596
3	365,405	0.2305	680,225	0.4291	1,045,630	0.6596
4	373,170	0.2354	672,460	0.4242	1,045,630	0.6596
5	381,100	0.2404	664,530	0.4192	1,045,630	0.6596
6	389,198	0.2455	656,432	0.4141	1,045,630	0.6596
7	397,469	0.2507	648,162	0.4089	1,045,630	0.6596
8	405,915	0.2561	639,715	0.4036	1,045,630	0.6596
9	414,541	0.2615	631,090	0.3981	1,045,630	0.6596
10	423,350	0.2671	622,281	0.3926	1,045,630	0.6596
11	432,346	0.2727	613,284	0.3869	1,045,630	0.6596
12	441,533	0.2785	604,097	0.3811	1,045,630	0.6596
13	450,916	0.2845	594,715	0.3752	1,045,630	0.6596
14	460,498	0.2905	585,133	0.3691	1,045,630	0.6596
15	470,283	0.2967	575,347	0.3630	1,045,630	0.6596
16	480,277	0.3030	565,353	0.3567	1,045,630	0.6596
17	490,483	0.3094	555,148	0.3502	1,045,630	0.6596
18	500,905	0.3160	544,725	0.3436	1,045,630	0.6596
19	511,550	0.3227	534,081	0.3369	1,045,630	0.6596
20	522,420	0.3296	523,210	0.3301	1,045,630	0.6596
21	533,521	0.3366	512,109	0.3231	1,045,630	0.6596
22	544,859	0.3437	500,771	0.3159	1,045,630	0.6596
23	556,437	0.3510	489,193	0.3086	1,045,630	0.6596
24	568,261	0.3585	477,369	0.3012	1,045,630	0.6596
25	580,337	0.3661	465,293	0.2935	1,045,630	0.6596
26	592,669	0.3739	452,961	0.2858	1,045,630	0.6596
27	605,263	0.3818	440,367	0.2778	1,045,630	0.6596
28	618,125	0.3899	427,505	0.2697	1,045,630	0.6596
29	631,260	0.3982	414,370	0.2614	1,045,630	0.6596
30	644,675	0.4067	400,956	0.2529	1,045,630	0.6596
31	658,374	0.4153	387,256	0.2443	1,045,630	0.6596
32	672,364	0.4242	373,266	0.2355	1,045,630	0.6596
33	686,652	0.4332	358,978	0.2265	1,045,630	0.6596
34	701,243	0.4424	344,387	0.2173	1,045,630	0.6596
35	716,145	0.4510	329,485	0.2079	1,045,630	0.6596
36	731,363	0.4614	314,267	0.1983	1,045,630	0.6596
37	746,904	0.4712	298,726	0.1885	1,045,630	0.6596
38	762,776	0.4812	282,854	0.1784	1,045,630	0.6596
39	778,985	0.4914	266,645	0.1682	1,045,630	0.6596
40	795,539	0.5019	250,092	0.1578	1,045,630	0.6596
41	812,444	0.5125	233,186	0.1471	1,045,630	0.6596
42	829,708	0.5234	215,922	0.1362	1,045,630	0.6596
43	847,339	0.5346	198,291	0.1251	1,045,630	0.6596
44	865,345	0.5459	180,285	0.1137	1,045,630	0.6596
45	883,734	0.5575	161,896	0.1021	1,045,630	0.6596
46	902,513	0.5694	143,117	0.0903	1,045,630	0.6596
47	921,692	0.5815	123,938	0.0782	1,045,630	0.6596
48	941,278	0.5938	104,352	0.0658	1,045,630	0.6596
49	961,280	0.6064	84,350	0.0532	1,045,630	0.6596
50	981,707	0.6193	63,923	0.0403	1,045,630	0.6596
51	1,002,568	0.6325	43,062	0.0272	1,045,630	0.6596
52	1,023,873	0.6459	21,757	0.0137	1,045,630	0.6596

9.3 REFERENCE DEBT SERVICING SCHEDULE – FOREIGN FINANCING

Repayment Period	Principal Repayment - US$	Principal Tariff Component (Rs/kWh)	Interest - US$	Interest Tariff Component (Rs/kWh)	Installments US$	Installment Tariff Component (Rs/kWh)
1	447,366	0.2822	417,164	0.2632	864,530	0.5454
2	453,070	0.2858	411,460	0.2596	864,530	0.5454
3	458,847	0.2895	405,684	0.2559	864,530	0.5454
4	464,697	0.2932	399,833	0.2522	864,530	0.5454
5	470,622	0.2969	393,908	0.2485	864,530	0.5454
6	476,622	0.3007	387,908	0.2447	864,530	0.5454
7	482,699	0.3045	381,831	0.2409	864,530	0.5454
8	488,854	0.3084	375,677	0.2370	864,530	0.5454
9	495,086	0.3123	369,444	0.2331	864,530	0.5454
10	501,399	0.3163	363,131	0.2291	864,530	0.5454
11	507,792	0.3203	356,738	0.2251	864,530	0.5454
12	514,266	0.3244	350,264	0.2210	864,530	0.5454
13	520,823	0.3286	343,707	0.2168	864,530	0.5454
14	527,463	0.3328	337,067	0.2126	864,530	0.5454
15	534,189	0.3370	330,342	0.2084	864,530	0.5454
16	540,999	0.3413	323,531	0.2041	864,530	0.5454
17	547,897	0.3456	316,633	0.1998	864,530	0.5454
18	554,883	0.3501	309,647	0.1953	864,530	0.5454
19	561,958	0.3545	302,573	0.1909	864,530	0.5454
20	569,123	0.3590	295,408	0.1864	864,530	0.5454
21	576,379	0.3636	288,151	0.1818	864,530	0.5454
22	583,728	0.3682	280,802	0.1771	864,530	0.5454
23	591,170	0.3729	273,360	0.1725	864,530	0.5454
24	598,708	0.3777	265,822	0.1677	864,530	0.5454
25	606,341	0.3825	258,189	0.1629	864,530	0.5454
26	614,072	0.3874	250,458	0.1580	864,530	0.5454
27	621,901	0.3923	242,629	0.1531	864,530	0.5454
28	629,831	0.3973	234,699	0.1481	864,530	0.5454
29	637,861	0.4024	226,669	0.1430	864,530	0.5454
30	645,994	0.4075	218,536	0.1379	864,530	0.5454
31	654,230	0.4127	210,300	0.1327	864,530	0.5454
32	662,572	0.4180	201,958	0.1274	864,530	0.5454
33	671,019	0.4233	193,511	0.1221	864,530	0.5454
34	679,575	0.4287	184,955	0.1167	864,530	0.5454
35	688,240	0.4342	176,291	0.1112	864,530	0.5454
36	697,015	0.4397	167,516	0.1057	864,530	0.5454
37	705,901	0.4453	158,629	0.1001	864,530	0.5454
38	714,902	0.4510	149,628	0.0944	864,530	0.5454
39	724,017	0.4568	140,513	0.0886	864,530	0.5454
40	733,248	0.4626	131,282	0.0828	864,530	0.5454
41	742,597	0.4685	121,933	0.0769	864,530	0.5454
42	752,065	0.4744	112,465	0.0709	864,530	0.5454
43	761,654	0.4805	102,876	0.0649	864,530	0.5454
44	771,365	0.4866	93,165	0.0588	864,530	0.5454
45	781,200	0.4928	83,330	0.0526	864,530	0.5454
46	791,160	0.4991	73,370	0.0463	864,530	0.5454
47	801,247	0.5055	63,283	0.0399	864,530	0.5454
48	811,463	0.5119	53,067	0.0335	864,530	0.5454
49	821,809	0.5184	42,721	0.0270	864,530	0.5454
50	832,288	0.5251	32,243	0.0203	864,530	0.5454
51	842,899	0.5317	21,631	0.0136	864,530	0.5454
52	853,646	0.5385	10,884	0.0069	864,530	0.5454

10. Indexations &Adjustments

10.1 INDEXATIONS

It is submitted that indexations be made on 1st January, 1st April, 1st July and 1st October respectively, on the basis of latest information available with respect to Consumer Price Index (CPI) (General), as notified by Pakistan Bureau of Statistics, US CPI (for all Urban-consumer) as notified by US Bureau nf Labor Statistics and exchange rate as notified by National Bank of Pakistan.

10.1.1 Foreign O&M Cost Component

The Reference Foreign O&M Cost Component of the O&M Cost shall be quarterly indexed to both:

- the USD/PKR exchange rate, based on the revised TT & OD selling rate of USD as notified by the National Bank of Pakistan; and
- US CPI (for all Urban-consumer), as issued by the US Bureau of Labor Statistics.

The applicable formula shall be as follows:

$O\&M_{(FREV)}$ =	RELEVANT REFERENCE GENERATION TARIFF COMPONENT * (US $CPI_{(REV)}$/ US $CPI_{(REF)}$) * ($FX\ USD_{(REV)}$ /$FX\ USD_{(REF)}$)

WHERE	
$O\&M_{(FRev)}$	the revised Foreign D&M Cost Component applicable for the relevant quarter
US $CPI_{(Rev)}$	the revised US CPI (for all Urban-consumers) for the month prior to the month in which indexation is applicable, as issued by the US Bureau of Labor Statistics
US $CPI_{(Ref)}$	the US CPI (for all Urban-consumers) for the relevant month, as issued by the US Bureau of Labor Statistics.
$FX\ USD_{(Rev)}$	the revised TT & OD selling rate of PKR/USD as on the date on which indexation is applicable, as notified by the National Bank of Pakistan.
$FX\ USD_{(Ref)}$	Reference TT & OD selling rate of PKR/USD, of PKR 105 for USD1

10.1.2 Local O&M Cost Component

The Reference Local O&M Cost Component of the O&M Cost shall be quarterly indexed to the CPI (General) in Pakistan, as notified by the Pakistan Bureau of Statistics based on the following formula:

$O\&M_{(LREV)}$	RELEVANT REFERENCE GENERATION TARIFF COMPONENT * ($CPI_{(REV)}$/ $CPI_{(RLF)}$)

WHERE	
$O\&M_{(LRev)}$	the revised local O&M cost component applicable for the relevant quarter
$CPI_{(Rev)}$	the revised CPI (General) in Pakistan for the month prior to the month in which indexation is applicable, as notified by the Federal Bureau of Statistics.
$CPI_{(Ref)}$	the CPI (General) in Pakistan for the relevant month as notified by the Federal Bureau of Statistics

10.1.3 Insurance Cost

The Reference Insurance Cost Component shall be annually indexed to USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan.

The indexation of the Insurance Cost Component shall be based on the following formula:

$INSURANCE_{(REV)}$	RELEVANT REFERENCE GENERATION TARIFF COMPONENT * ($FX\ USD_{(REV)}$ / $FX\ USD_{(REF)}$)

WHERE	
$Insurance_{(Rev)}$	the revised Insurance Cost Component applicable for the relevant year
$FX\ USD_{(Rev)}$	the revised TT & OD selling rate of PKR/USD as on the date on which indexation is applicable, as notified by the National Bank of Pakistan.
$FX\ USD_{(Ref)}$	Reference TT & OD selling rate of PKR/USD, of PKR 105 for USD1

10.1.4 Return on Equity and Return on Equity during Construction

In line with NEPRA's previous determinations, the ROE and ROEDC the Reference Generation Tariff shall be quarterly indexed to the USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan.

The applicable formula shall be as follows:

$ROE_{(REV)}$	RELEVANT REFERENCE GENERATION TARIFF COMPONENT* ($FX\ USD_{(REV)}$ /$FX\ USD_{(REF)}$)

$ROEDC_{(REV)}$	RELEVANT REFERENCE GENERATION TARIFF COMPONENT* ($FX\ USD_{(REV)}$ /$FX\ USD_{(REF)}$)

WHERE	
$ROE_{(Rev)}$	the revised ROE component applicable for the relevant quarter
$ROE\text{-}DC_{(Rev)}$	the revised ROE-DC component applicable for the relevant quarter
$FX\ USD_{(Rev)}$	the revised TT & OD selling rate of PKR/USD as on the date on which indexation is applicable, as notified by the National Bank of Pakistan.
$FX\ USD_{(Ref)}$	Reference TT & OD selling rate of PKR/USD, of PKR 105 for USD1

10.1.5 Debt Component

Local Financing: The principal and interest component of local financing will remain unchanged throughout the term except for the adjustment due to variation in 3 months KIBOR, while spread of 2.50% on KIBOR remaining the same, according to the following formula:

ΔI	$P_{(REV)} * (KIBOR_{(REV)} - 6.0\%)/4$

WHERE	
ΔI	the variation in interest charges applicable corresponding to variation in 3 month KIBOR. ΔI can be positive or negative depending upon whether $KIBOR_{(Rev)}$ > or < 6.0%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each period under adjustment applicable on bi-annual basis.
$P_{(Rev)}$	the outstanding principal on a quarterly basis at the relevant calculation dates.

Foreign Loan LIBOR: The principal and interest component of foreign loan will remain unchanged throughout the term except for the adjustment due to variation in 3 months LIBOR, while spread of 4.5% on LIBOR remaining the same, according to the following formula:

ΔI	$P_{(REV)} * (LIBOR_{(REV)} - 0.6\%)/4$

WHERE	
ΔI	the variation in interest charges applicable corresponding to variation in 3 month LIBOR. ΔI can be positive or negative depending upon whether $LIBOR_{(Rev)}$ > or < 0.6%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each period under adjustment applicable on bi-annual basis.
$P_{(Rev)}$	the outstanding principal on a quarterly basis at the relevant calculation dates.

10.2 ADJUSTMENTS

The Project Company requests NEPRA to allow adjustment to the total Project Cost for the following items forming part of Project Cost:

- The Principal Repayment and cost of debt be adjusted at COD as per the actual borrowing composition;
- Interest During Construction be adjusted as per actual based on actual disbursement of loans and prevailing KIBOR rates during the project construction period;
- The specific items of Project Cost to be incurred in foreign currency (US$) be adjusted at COD based on the PKR / US$ exchange rate prevailing on the date the transaction was carried out;
- Customs duty and other taxes (including SIDS) be adjusted/allowed as per actual;
- Any negative financial implications resulting from changes in tax rates, duties etc. and currently applicable sales tax structure may kindly be adjusted in the Project Cost.
- Pre-COD Insurance Cost be adjusted at actual subject to a cap of 1.0 % of the EPC cost in line with earlier tariff determinations by NEPRA for other IPPs.
- Return on Equity be adjusted at COD in order to ensure an IRR based return of 15% on equity (while treating the project as a Build-Own-Operate type project).
- ROEDC is to be allowed at the time of COD, as true-up adjustment, based on actual equity injections to the DEL by the Project Sponsors.

10.3 NON PROJECT MISSED VOLUME (NPMV)

The Petitioner expects that the Non-Project Missed Volume (NPMV) shall be paid by CPPA on the basis of actual generation missed by the Project Company due to the occurrence of a non-project event (NPE). Given the sophisticated SCADA systems and forecasting tools (as also specified under the Grid Code Addendum No. 1 (Revision 1) now available, missed generation can be accurately determined without human intervention; therefore, the same should be compensated at actual - we believe that the aforementioned mechanism is the only fair method which ensures neither party (Project Company or Power Purchaser) are unduly burdened / penalized due to occurrence of the NPE. If such a practical solution is not workable, then firstly, the requirement for having forecasting tools should be removed from the Grid Code Addendum No. 1 (Revision 1), secondly, the Petitioner requests to go with the precedent mechanism of NPMV compensations (as reflected in the previously available tariff determinations and previously executed EPAs).

It is worth highlighting that the Grid Code Addendum No. 1 (Revision 1) provides for levy of penalties on wind IPPs for not remaining within the forecast error thresholds, therefore, while the wind IPPs are now obligated to maintain compliance with such stringent standards for forecasting, the same method for determining projected energy yield should be used for compensating the wind IPPs during the occurrence of a NPE.

10.4 ENERGY SALE PRIOR TO COD

It is standard practice for wind power projects internationally to come online one WTG at a time, thereby, enabling the wind farm to commence dispatching energy to the grid as soon as a WTG is capable of power generation. Commissioning of a WTG cannot be completed without the substation being completed, tested and commissioned, therefore, all protection and safety equipment required to ensure smooth, safe operation of the wind farm (and the grid) would already be in place prior to commissioning of the WTGs. As soon as a WTG has been commissioned, it is ready to supply energy to the grid.

The standard EPA approved by the GOP permitted wind power developers to claim compensation from NTDC for supply of electricity prior to achievement of COD. The same has been allowed to wind power projects developed under the upfront tariff regimes.

As it has been allowed for past wind IPPs, NEPRA is humbly requested to allow the Project to claim compensation from the Power Purchaser for all electricity supplied into the grid system prior to achievement of COD at the tariff rate applicable for the first year of operation minus the debt servicing components of the tariff.

11. Pass Through Items & Tariff Assumptions

11.1 PASS THROUGH ITEMS

Authority is requested to allow following cost components as pass-through to DEL on the basis of actual costs incurred by Project Company or obligated to be paid in relation to the Project pursuant to Laws of Pakistan.

- No provision of income tax has been provided for in the tariff. If the Project Company is obligated to pay any type of tax, the same should be allowed to the Project Company as pass through.
- No withholding tax on dividend has been included in the tariff. Authority is requested to allow payment of withholding tax on dividend as pass through at the time of actual payment of dividend.
- The payments to Workers Welfare Fund and Workers Profit Participation Fund have not been accounted for in the Project budget and have been assumed to be reimbursed as pass through at actual by the power purchaser.
- Zakat deduction on dividends as required under Zakat Ordinance is considered as a pass through;
- No tax on income of DEL (including proceeds against sale of electricity to CPPA) has been assumed. Corporate tax, turn over tax, general sales tax / provincial sales tax and all other taxes, excise duty, levies, fees etc. by any federal / provincial entity including local bodies as and when imposed, shall be treated as a pass through item;
- No hedging cost is assumed for exchange rate fluctuations during construction and all cost overruns resulting from variations in the exchange rate during construction shall be allowed as pass through;
- Any costs incurred by Project Company, which are required to be incurred by Power Purchaser pursuant to provisions of EPA shall also be treated as pass through.
- Taxes and charges that constitute as part of the Project Cost for construction period and operation period shall be treated as pass through.

11.2 ASSUMPTIONS

The proposed Reference Tariff is based on the following assumptions. A change in any of these assumptions will necessitate a corresponding adjustment in the Reference Tariff:

- Debt for the Project will be sourced from local and foreign financial institutions. Exact composition of local debt and foreign debt will be finalized prior to financial close; adjustment against the same will be requested at the time of COD;
- An exchange rate of PKR 105 /USD has been assumed. Indexation against PKR / USD variations will be permitted for debt servicing payments and all other project costs denominated in foreign currency. Tariff components shall be respectively indexed for exchange rate variations as discussed in Section 10;
- The timing of drawdown of debt and equity may vary from those specified in this Petition; as such, the Project Cost will be adjusted on the basis of actual IDC at COD. Similarly, ROEDC component will also be updated in the Reference Tariff;

- Similarly, adjustments in Project Cost due to variation in PKR / USD variations and KIBOR fluctuations will also be catered for at the time of COD;
- Taxes and Custom duties shall be claimed on actual at the time of COD tariff adjustment;
- Withholding tax at 8% on supplies and Onshore Contract (the prevailed rate on[insert contract date], which is the base date stipulated in Bidding document pursuant to the Onshore Contract have been catered for under the Project Cost. No withholding tax is anticipated on the Offshore Contract. In case there is any change in taxes etc., or additional taxes, fees, excise duty, levies, etc. are imposed, the EPC cost and ultimately the Project cost and the Reference Tariff will need to be adjusted accordingly;
- The power purchaser will compensate for energy delivered to the power purchaser prior to COD. For this purpose Energy Purchase Price shall be paid for all energy delivered prior to COD. Payments will be invoiced to the power purchaser as per mechanism specified in the EPA;
- The power purchaser shall be solely responsible for the financing, engineering, procurement, construction, testing and commissioning of the interconnection and transmission facilities up till the Project gantry point. Said facilities will be made available to the Project at least on or before the deadline set out in the EPA. Furthermore, the power purchaser will be solely responsible for operation and maintenance of the said interconnection and transmission facilities;
- Project contingency and maintenance reserves are not included in Reference Tariff calculations. If required by lenders, these will be adjusted accordingly in the Reference Tariff;
- In case of any unintentional error or omissions, typographic errors, and any genuine assumption being overlooked, the same will be corrected/incorporated and advised to NEPRA as soon as the Project Company becomes aware of it;
- Any additional indexation or concession allowed by the GOP, NEPRA or any other Govt. entity to any IPP will be allowed to DEL without any discrimination.

DIN ENERGY LIMITED KARACHI

Din Energy Limited

Dated: 12th December 2017