F/A

FOUNDATION WIND ENERGY-II (PRIVATE) LIMITED

[Formerly Known as Green Power (Private) Limited]

Current address: Fauji Foundation Head Office, P&D Division, 68 Tipu Road Chaklala, Rawalpindi
Ph: 051-5951971 Fax: 051-5951732

Reference: PD-4918/GPPL

08 September, 2011

The Registrar,
National Electrical Power Regulatory Authority (NEPRA)
2nd Floor, OPF Building,
G-5/2, Shahrahe-e-Jamhuriat
Islamabad, Pakistan.

Ph: 051-9207200
Fax: 051-9210215

For information & n/a pl.
— AD (MR) + PA
9/9
Copy to
SA (Tariff)
Dir (Tariff)

Subject: **TARIFF PETITION FOR 50 MW WIND POWER PROJECT AT GHARO, DISTRICT THATTA, SINDH OF FOUNDATION WIND ENERGY II (PRIVATE) LIMITED**

Reference: letter No. NEPRA/TRF-100/7873 dated 07 September, 2011;

1. In the under reference letter, certain shortcomings have been identified by the National Electric Power Regulatory Authority ("NEPRA). Para wise response of Foundation Wind Energy-II (Private) Limited regarding said shortcomings is as under:-

   i) Though the cover letter of petition is signed by the Petitioner, however as required, each page of the tariff petition now have been duly initialed and last page of petition has also been signed by the Petitioner.

   ii) Final approval of Feasibility Study is in process with AEDB, however provisional Approval of Feasibility Study is already attached as Annex-2, whereupon AEDB has allowed Foundation Wind Energy-II (Private) Limited to submit tariff petition with NEPRA.

   iii) NEPRA has granted permission to NTDC to procure power from 50 MW wind power plant of Foundation Wind Energy-II (Private) Limited, copy of NEPRA Decision is already attached as Annex-6.

2. In view of the above, the subject tariff petition, in original after doing the needful is submitted for your re-consideration, please.

Best regards

Director
Foundation Wind Energy-II Limited

Brig Dr. Gulfam Alam (Retd)
Project Director

Registrar
Dy. No. 4928
Dated 09-09-11

FOUNDATION WIND ENERGY-II (PRIVATE) LIMITED

[Formerly Known as Green Power (Private) Limited]

Current address: Fauji Foundation Head Office, P&D Division, 68 Tipu Road Chaklala, Rawalpindi
Ph: 051-5951821-40 Ext: 1402 **Fax: 051-5951732**

Reference: PD-4918/GPPL August 30, 2011

The Registrar,
National Electrical Power Regulatory Authority (NEPRA)
2nd Floor, OPF Building,
G-5/2, Shahrahe-e-Jamhuriat
Islamabad, Pakistan.

Ph: 051-9207200
Fax: 051-9210215

Subject: **TARIFF PETITION FOR 50 MW WIND POWER PROJECT AT GHARO, DISTRICT THATTA, SINDH OF FOUNDATION WIND ENERGY II (PRIVATE) LIMITED**

Dear Sir,

1. Fauji Foundation ("FF") acquired majority shareholding of a 50 MW wind power project, formerly known as "Green Power Private Limited" from the Tapal family in June 2011. The site is located at Gharo, Thatta, Sindh, Pakistan ("Project"). After acquisition, the name of the company from Green Power Private Limited was changed as Foundation Wind Energy-II (Private) Limited ("FWEL-II"). Now the FWEL-II is owned and managed by FF. FWEL-II was granted a letter of Intent ("LOI") by the Alternative Energy Development Board ("AEDB"), Ministry of Water & Power, Government of Pakistan on September 22, 2004 (copy of LOI is attached as Annex-I).

2. The Feasibility Study had been approved by AEDB vide its letter No. B/3/1/2006 dated April 07, 2006 (copy of approval letter is attached as Annex-II). In this regard, the Monthly Bench Mark Energy Table, Energy Yield and Power Curve data, based on Nordex N100 WTGs along with other technical requisites had been submitted to AEDB for the approval of revised Feasibility Study. In view of the said submittals, AEDB has accorded partial approval to process the filing of generation licenses and tariff determination with respect to FWEL-II project (copy of AEDB letter is attached as Annex-III).

3. FWEL-II has already submitted application for Modification in Generation License on July 21, 2011. It is requested that the Generation License application may kindly be considered concurrently with this Tariff Petition.

Registrar
Dy. No. 5757
30-8-11

For n/a pl.
— AD(MR)+FA
AD(Z)
5/9

4. FWEL-II is pleased to submit its petition for approval of (i) the reference Generation Tariff (ii) the Energy Production estimates (iii) the Benchmark Energy Table and Monthly Curves (iv) the Correction Factor (v) the indexation and adjustment (vi) adjustments at commercial operation date and (vi) other matters set out in this Tariff Petition pursuant to the "Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of) 1997 and Tariff Standards and Procedure Rules 1998 made there under.

5. The tariff petition (including its annexure) is submitted in triplicate together with;

(a) the requisite fee - Bank draft No. 0214806 dated 26th August 2011 amounting to PKR 440,864.00 is enclosed as requisite fee for the Tariff Petition as communicated by NEPRA.

(b) Board Resolution of Foundation Wind Energy-II (Private) Limited

(c) Affidavit of Brig Dr. Gulfam Alam (Retired) authorized representative of Foundation Wind Energy-II (Private) Limited.

We look forward for a positive and prompt response from your side.

Yours Sincerely,

Brig Dr. Gulfam Alam (Retd)
Project Director

Attachments;

I.

II.

III.

E'3

FOUNDATION WIND ENERGY-II (PRIVATE) LIMITED

[Formerly Known as Green Power (Private) Limited]

Current address: Fauji Foundation Head Office, P&D Division, 68 Tipu Road Chaklala, Rawalpindi
Ph: 051-5951821-40 Ext: 1437 Fax: 051-5951732

Reference: PD-4918/GPPL 30 August, 2011

Extracts from the Minutes of Board of Directors Meeting of Foundation Wind Energy-II (Private) Limited ("Company") held on 09 August 2011 at Fauji Foundation Head office, 68-Tipu Road, Chaklala, Rawalpindi

RESOLUTION

RESOLVED that the Company be and is hereby authorized to file a tariff petition (including any review petitions and any motion for review) to National Electric Power Regulatory Authority for determination of the reference generation tariff in respect of the 50 MW wind power plant of the Company ("Project") and in relation thereto, enter into and execute all required documents, make all filing and pay all applicable fees, of any nature what so ever".

FURTHER RESOLVED THAT in respect of filing a tariff petition including any review petitions and any motion for review for submission to National Electric Power Regulatory Authority, Brig Dr. Gulfam Alam (Retired) be and is hereby authorized and empowered for and on behalf of the Company to:

(i) review, execute, submit and deliver the tariff petition (including any review petitions and any motions for leave for review) and any related documentation required by NATIONAL POWER REGULATORY AUTHORITY for the determination of the reference generation tariff, including any contracts, documents, power of attorney, affidavits, statements letters, forms, applications, deeds, guarantees, undertakings, approvals, memoranda, amendments, letters, communications, notices, certificates, requests, statements and any other instruments of any nature what so ever;

(ii) represent the Company in all negotiations, representations, presentations, hearings, conferences and meetings of any nature what so ever with any entity (including in no manner limited to NATIONAL POWER REGULATORY AUTHORITY and private parties, companies, partnerships, individuals governmental and/or semi governmental authorities and /or any other entity of any nature whatsoever);

(iii) Sign and execute the necessary documentation, pay the necessary fees, appear before the NATIONAL POWER REGULATORY AUTHORITY as needed and do all acts necessary for completion and processing of the tariff petition (including any review points and any motion for leave for review) and procuring NATIONAL POWER REGULATORY AUTHORITY tariff determination;

(iv) Appoint or nominate any one or more officers of the Company or any other person or persons, singly or jointly, in their discretion to make communicate with, make presentation to and attend the NATIONAL POWER REGULATORY AUTHORITY hearings;

(v) Do all such acts, matters and things as may be necessary for carrying out the purposes aforesaid and giving full effect to the above resolutions/resolution.

AND FURTHER RESOLVED THAT certified true copy of this resolution and certified copies of any other Company's document(s) under the signature and stamp of the Company Secretary, may require to be submitted to National Electric Power Regulatory Authority be approved.

CERTIFIED TRUE EXTRACT

Company Secretary
Foundation Wind Energy-II (Private) Limited

Muhammad [illegible]
Company Secretary
Foundation Wind Energy-II (Private) Limited

BEFORE
THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

TARIFF PETITION

PURSUANT TO NEPRA (TARIFF STANDARDS AND PROCEDURE) RULES, 1998
READ WITH THE PROVISIONS OF
THE REGULATION FOR GENERATION, TRANSMISSION AND DISTRIBUTION OF ELECTRIC POWER ACT (XL OF) 1997 & THE RULES AND REGULATIONS MADE THERE UNDER
&
THE FEDERAL GOVERNMENT'S
'POLICY OF RENEWABLE ENERGY FOR POWER GENERATION 2006'
AND THE
"GUIDELINES FOR DETERMINATION OF TARIFF FOR WIND POWER GENERATION 2006"

ON BEHALF OF

FOUNDATION WIND ENERGY - II (PRIVATE) LIMITED
(FORMERLY GREEN POWER (PRIVATE) LIMITED)

FOR NEPRA'S APPROVAL OF REFERENCE GENERATION TARIFF FOR **FOUNDATION WIND ENERGY - II (PRIVATE) LIMITED** (FORMERLY GREEN POWER (PRIVATE) LIMITED)

FOR A POWER PROJECT OF 50 MW

AT

GHARO, SINDH

DATED: Aug 30th 2011

FOUNDATION WIND ENERGY – II (PRIVATE) LIMITED
ADDRESS: 68 TIPU ROAD, CHAKLALA, RAWALPINDI, PAKISTAN
PHONE #: +92-51-595-1821
FAX #: +92-51-595-1712

COPY OF FOUNDATION WIND ENERGY - II (PRIVATE) LIMITED BOARD RESOLUTION

COPY OF AFFIDAVITS

F/C

100 RS.

PAKISTAN

ONE HUNDRED RUPEES

BEFORE THE
NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

AFFIDAVIT

AFFIDAVIT of BRIG Dr. Gulfam Alam (RETIRED) Authorized Representative of M/s Foundation Wind Energy-II (Private) Limited, 68 -Tipu Road, Chaklala, Rawalpindi, Pakistan

I, the above named Deponent, do hereby solemnly affirm and declare that:-

1. I am the authorized representative of M/s Foundation Wind Energy-II (Private) Limited, 68 -Tipu Road, Chaklala, Rawalpindi, Pakistan.

2. The contents of the accompanying Tariff Petition for determination of Tariff of 50 MW Wind Power plant at Gharo, Sindh, Pakistan Dated 30th August 2011, including all supporting documents are true and correct to the best of my knowledge and belief, and nothing material or relevant thereto has been concealed or withheld there form.

3. I also affirm that all further documentation and information to be provided by me in connection with the aforesaid Tariff Petition shall be true and correct to the best of my knowledge and belief.

Director
Foundation Wind Energy-II Limited
.................Deponent

VERIFICATION

It is hereby verified on solemn affirmation at Rawalpindi, Pakistan on this 30th August 2011, that the contents of the above Affidavit are true and correct to the best of my knowledge and belief, and that nothing material or relevant thereto has been concealed or withheld thereform.

ATTESTED
SYED MAZHAR HUSSAIN
ADVOCATE HIGH COURT
OATH COMMISSIONER
District Courts

.................Deponent

COPY OF BANK DRAFT

Dubai Islamic Bank
Pakistan Ltd

AL ISLAMI

بنك دبي الإسلامي
الباكستان المحدود

SATELLITE TOWN RAWALPINDI

Date: 26-AUG-2011 0214806
PON 214806

Pay to the order of NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA) PKR 440,864.00

Pakistani Rupees Four Hundred Forty Thousand Eight Hundred Sixty Four Only*****

For Dubai Islamic Bank

Dubai Islamic Bank
011

Attorney — Muhammad Sohail Qadir PA# B-29

Attorney — Shakeel Yusuf P.A# A-032

⑈0214806⑈013001⑆00006 [illegible] 020⑈

Customer Copy

Dubai Islamic Bank

0214806

Customer FOUNDATION WIND ENERGY

(007640901)

Date: 26-AUG-2011
Exch Rate 1

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

Beneficiary

PON 214806

Pakistani Rupees Four Hundred Forty Thousand Eight Hundred Sixty Four Only*****

Dubai Islamic Bank
011

Instrument Amount	Counter Value	Charges	Total
440,864.00	440,864.00	0.00	440,864.00

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1. DETAILS OF THE PETITIONER

NAME AND ADDRESS

M/s Foundation Wind Energy – II (Private) Limited (Formerly Green Power (Private) Limited)
ADDRESS: 68 TIPU ROAD, CHAKLALA, RAWALPINDI, PAKISTAN
PHONE #: 0092-51-5951821
FAX #: 0092-51-5951712

REPRESENTATIVES OF M/S FOUNDATION WIND ENERGY II (PRIVATE) LIMITED (FORMERLY GREEN POWER (PRIVATE) LIMITED)

- **Brig. Gulfam Alam (Retired)**
  Authorized Representative, Foundation Wind Energy – II (Private) Limited

2. REGULATORY FRAMEWORK LEADING TO TARIFF PETITION

2.1 NATIONAL ELECTRIC POWER REGULATORY AUTHORITY – THE COMPETENT AUTHORITY FOR DETERMINATION OF TARIFF

2.2.1 NEPRA Act & NEPRA Rules

Under the Regulation for Generation, Transmission and Distribution of Electric Power Act (XL of) 1997 (the **NEPRA Act**), the National Electric Power Regulatory Authority (**NEPRA**) is responsible, inter alia, for determining tariffs and other terms and conditions for the supply of electricity through generation, transmission and distribution. NEPRA is also responsible for determining the process and procedures for reviewing tariffs and recommending tariff adjustments. Further, pursuant to the enabling provisions of the NEPRA Act, the procedure for tariff determination has been prescribed in the NEPRA (Tariff Standards and Procedure) Rules, 1998 (the **NEPRA Rules**).

2.2.2 'Policy for Development of Renewable Energy for Power Generation 2006' & 'Guidelines for Determination of Tariff for Wind Power Generation 2006'

In order to avoid multiplicity of entities and stages of negotiations for tariff negotiations, paragraph A.7.2 (*Negotiated Tariff for Unsolicited Proposals and Up-front Tariff*) of annexure A (*Guidelines for Determination of Tariff for Grid-Connected IPPs*) of Policy for Development of Renewable Energy for Power Generation 2006 (the **RE Policy 2006**), issued by the Government of Pakistan in 2006, states:

> *'Multiplicity of entities and states of negotiations will be avoided in the determination of power purchase tariffs for RE IPPs. If an IPP wishes to submit an unsolicited proposal and wants to settle tariff through negotiations, NEPRA will determine the tariff in consultation with the IPP, the power purchaser(s), and other stakeholders'.*

Further, pursuant to section 4.2.1 of the Guidelines for Determination of Tariff for Wind Power Generation 2006 (the **Wind Tariff Guidelines 2006**), issued by the Government of Pakistan under Section 7(6) of the NEPRA Act, if a wind power IPP wants to settle tariff through negotiations, NEPRA shall determine the tariff in consultation with such wind power IPP, the power purchasers and other stakeholders.

2.2 PROCESS LEADING TO TARIFF PETITION

2.2.1 Submission of the Feasibility Study and approval of the same

In compliance with the requirements laid out in the RE Policy 2006 and the LOI, Foundation Wind Energy – II (Private) Limited (Formerly Green Power (Private) Limited) completed the detailed feasibility study for the project and submitted the same to AEDB for their review (the **Project Feasibility Study**).

Following completion of its detailed review, AEDB, vide its letter dated April 7, 2006 (Ref: B/3/1/2006) (the **Feasibility Study Approval Letter**), granted approval of the Project Feasibility Study submitted by Foundation Wind Energy – II (Private) Limited

(Formerly Green Power (Private) Limited). A copy of the Feasibility Study Approval Letter is attached hereto as **Annexure A**.

Due to change in technology of the WTGs, the Project Company applied for a revision in the Feasibility Study Approval Letter through its letter dated August 26, 2011. AEDB granted a provisional approval of the Feasibility Study through its letter date August 29, 2011 (Ref # B/3/1/GPPL/07, attached hereto as **Annexure B**) and allowed FWE II to proceed with filing of its tariff petition with NEPRA.

2.2.2 Acquisition of Green Power (Private) Limited by Fauji Foundation

In April 2010 after obtaining requisite approvals from Competition Commission of Pakistan and AEDB, majority interest in Foundation Wind Energy – II (Private) Limited (Formerly Green Power (Private) Limited) was acquired by Fauji Foundation from Tapal Group.

Thereafter, Green Power (Private) Limited's name was changed to Foundation Wind Energy – II (Private) Limited (hereinafter referred as **FWE II** or **Project Company**), after obtaining approval from SECP. Copies of the respective approval letters is attached hereto at **Annexure C**.

2.2.3 Request for Determination of Tariff

As (a) the Project Feasibility Study has been approved by AEDB, (b) the EPC and O&M Contracts for development, operation and maintenance of the Project have been executed with the EPC and O&M Contractors respectively, it is submitted that the requirements of the regulatory process for applying to NEPRA for the tariff determination of wind power project of Foundation Wind Energy – II (Private) Limited's have been completed.

2.3 SUBMISSION

Pursuant to the relevant provisions of the NEPRA Rules, read with the provisions of the NEPRA Act and the Rules and Regulations made there under; **AND** in accordance with the RE Policy 2006 and the Wind Tariff Guidelines 2006; **AND** in view of compliance by Foundation Wind Energy - II (Private) Limited and Fauji Group (Main Sponsors of the FWE II) of the RE Policy 2006 in respect of meeting the requirements of the same so as to be eligible for application for a tariff: **FOUNDATION WIND ENERGY-II (PRIVATE) LIMITED SUBMITS HERE WITH** before NEPRA, the competent regulatory authority lawfully authorized to determine tariff for wind power generation companies, for its approval, a tariff petition (the **Tariff Petition**) for approval of (i) the reference generation tariff (the **Reference Generation Tariff**); (ii) the energy production estimates; (iii) the Benchmark Energy Table and Monthly Complex Power Curves; (iv) the Indexations and Adjustments; (v) Adjustments at commercial operations date; and (vi other matters set out in this Tariff Petition, in each case, for Foundation Wind Energy - II (Private) Limited's 50 MW power generation facility to be located at Gharo, Sindh.

Given the advance stage of the project, NEPRA is kindly requested to process the Tariff Petition at the earliest, thereby enabling Foundation Wind Energy - II (Private) Limited to proceed further with the development process.

3. EXECUTIVE SUMMARY

3.1 PROJECT SUMMARY

Since the issuance of the LOI in September 2004, the Project Company conducted various studies to assess the feasibility of the wind power project. The studies included (to name a few) the wind resource assessment, geo technical survey, topographic study, tidal study and grid interconnection study. Based on the studies conducted, the Project Technical Engineer i.e M/s Garrad Hassan completed the feasibility study for FWE II in April 2006; this was submitted by the Project Company to Alternative Energy Development Board (AEDB) for its review and was subsequently approved by them in 2006.

In 2010, Fauji Foundation acquired the Project and since then has committed funds and resources to move the Project forward towards Financial Close. In doing so, a competent in-house team was developed that consisted of legal, financial and international wind energy Technical Consultants. In order to select an EPC and O&M Contractor for the Project, Project Company carried out an international bidding process and floated the RFP to 5 internationally renowned WTG suppliers for awarding the turnkey EPC Contract for development of the Project. After an extensive technical, financial and commercial evaluation process, Project Company selected a consortium of M/s Nordex & M/s Descon as their preferred EPC Contractor.

Nordex is one of the pioneers in the wind power generation business and has a reputation as being one of the best in the world having a total installed capacity of 6.5 GW. Similarly, Descon is one of the largest engineering and construction concerns in Pakistan and has been involved in the execution of various mega infrastructure projects. Consequentially, turnkey EPC Contracts under an off-shore and on-shore arrangement were signed between the Project Company, Nordex, and Descon on August 23rd, 2011. The off-shore contract known as the "**Agreement for Procurement & Supply of Equipment**" and the on-shore contract known as the "**Agreement for Engineering, Construction, Operation & Maintenance**".

The capital structure of the Project is envisaged at 75:25 (Debt: Equity). The Project Company intends to obtain 100% of the debt through Islamic mode of financing. Asian Development Bank (ADB) and Islamic Development Bank (IDB) have provided their indicative commitment to contribute 66.67% of the required debt while the remaining 33.33 % of the long-term debt has been indicatively committed to be financed through local banks. The signed term sheets for the financing of the Project are attached to the petition as **Annexure D**.

Fauji Group comprising of Fauji Foundation and Fauji Fertilizer Bin Qasim Limited will own 55% of the Project; Islamic Infrastructure Fund (IIF) managed by Cap Asia of Singapore will own 25% while the remaining 20% will be owned by Tapal Group.

3.2 SALIENT FEATURES OF THE PROJECT

Subject to the assumptions contained in this Tariff Petition, please find below a summary of the Project for NEPRA's perusal:

<table>
<tr><td>Project Company</td><td>Foundation Wind Energy - II (Private) Limited
(Formerly Green Power (Pvt.) Ltd.)</td></tr>
<tr><td>Sponsors</td><td>• Fauji Foundation
• Fauji Fertilizer Bin Qasim Limited
• Islamic Infrastructure Fund
• Tapal Group</td></tr>
<tr><td>Project Capacity</td><td>50 MW</td></tr>
<tr><td>Project Location</td><td>Gharo, District Thatta, Province of Sindh, Pakistan</td></tr>
<tr><td>Land Area</td><td>1,656 Acres</td></tr>
<tr><td>Concession Period</td><td>20 years from commercial operations date</td></tr>
<tr><td>Power Purchaser</td><td>National Transmission and Despatch Company Limited</td></tr>
<tr><td>Wind Turbines</td><td>Nordex N100, 2.5 MW x 20 WTGs</td></tr>
<tr><td>Energy Production</td><td>129.6 GWh per annum.</td></tr>
<tr><td>EPC Contractor</td><td>Consortium of Nordex and Descon, with Nordex in the Lead</td></tr>
<tr><td>Project Capital Cost</td><td>(US$ in '000)
<table>
<tr><th></th><th>Amount</th></tr>
<tr><td>EPC Price</td><td>110,286</td></tr>
<tr><td>LC Confirmation</td><td>736</td></tr>
<tr><td>Non-EPC Cost</td><td>1,150</td></tr>
<tr><td>Project Development Cost</td><td>2,975</td></tr>
<tr><td>Land Costs</td><td>126</td></tr>
<tr><td>Duties & Taxes (SIDS only)</td><td>716</td></tr>
<tr><td>Insurance during Construction</td><td>1,499</td></tr>
<tr><td>Financial Charges</td><td>3,537</td></tr>
<tr><td>Working Capital</td><td>1,042</td></tr>
<tr><td>Interest During Construction</td><td>5,624</td></tr>
<tr><td>Total Project Cost (CAPEX)</td><td>127,693</td></tr>
</table></td></tr>
<tr><td>Funding Plan</td><td>Debt 75% : Equity 25%</td></tr>
<tr><td>Equity</td><td>US$ 31.923 million</td></tr>
<tr><td>Long Term Debt</td><td>US$ 95.770 million</td></tr>
<tr><td>Lenders</td><td>Foreign Financier.
• Asian Development Bank (ADB)
• Islamic Development Bank (IDB)
Local Financiers
• National Bank of Pakistan Bank Limited (NBP)
• Meezan Bank Limited (MBL) and
• Allied Bank Limited (ABL)</td></tr>
</table>

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Terms of Long Term Debt

Currency	Mix of US Dollars (66.67%) and Pakistan Rupees (33.33%)
Term	Up to 12 years (door to door)
Grace Period	Up to 24 months
Repayment Period	10 years
Debt Repayment	In equal semi-annual installments
Interest Rate	• *For Local Currency Debt* Base Rate: 6 months KIBOR Spread: 295 basis points; and • *For Foreign Currency Debt* Base Rate: 6 months LIBOR Spread: 460 basis points

O&M Contractor

Consortium of Nordex and Descon, with Nordex in the Lead

Project Operation Cost

(US$ in '000)

Years	*1 – 2*	*3 – 5*	*6 – 10*	*11 – 20*
O&M Cost	1,815	3,128	3,395	3,280
Insurance Cost	1,103	1,103	1,103	1,103
Total Operating Cost	*2,918*	*4,231*	*4,498*	*4,383*

Levelized Tariff

US¢ 16.1240 per kWh

Concession Documents

- Energy Purchase Agreement
- Implementation Agreement
- Government of Pakistan Guarantee
- Site Sub Lease Deed

Applicable GOP Policy

Policy for Development of Renewable Energy for Power Generation 2006

Technical Advisor

Sgurr Energy UK

Financial Advisor

Bridge Factor

Legal Counsel

Orr, Dignam & Co.

Current Status of the Project

Major Tasks Completed

✓ Executed EPC & O&M agreements	✓ Executed term sheet with Project lenders	✓ Environmental impact assessment
✓ Feasibility Study	✓ Wind Resource Assessment Study	✓ Topographical Study
✓ Transportation Study	✓ Geo-technical Study	✓ Electrical grid study
✓ Design of wind farm	✓ Tidal Study	✓ Land Acquired

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3.3 KEY FEATURES OF THE PROJECT

Amongst various other factors, the following are proposed as key strengths of the Project:

3.3.1 **Project Company initiated an international competitive bidding process to select the EPC Contractor** for carrying out construction on a turn key basis of the Wind Farm Project. A Request for Proposal (RFP) stating all the technical and commercial requirements for a state of the art wind farm in Pakistan was floated to **five world renowned WTG Manufacturers** to bid for the development of the project on a turnkey basis. After detailed evaluation of the Technical Bids submitted by the bidders, only those bids were selected for financial and commercial evaluation that passed the technical requirements of the RFP. After an extensive procurement process Nordex / Descon consortium emerged as the most responsive contractor with the most bankable commercial and technical package.

3.3.2 **Executed EPC and O&M agreements with firm prices and fixed commercial operations date**: After detailed negotiations with the selected Bidder (Consortium of Nordex and Descon) definitive and legally binding EPC and O&M agreements were signed between the parties on August 23rd, 2011. Furthermore, in view of Fauji Foundation's (main sponsor of the Project Company) strong commitment towards the Project and in order to lock the EPC price and the commercial operations date for the Project, the Project Company has made a legally binding commitment for payment of **US$ 3.9 million** to the EPC Contractor prior to achievement of financial close.

3.3.3 **State-of-the-art Wind Turbine – N 100:** The Wind Turbine chosen for this project is N100/2500 which is the latest version of the proven wind turbine design, having been in production since 2000 as a basic N90 turbine and as N80 for high-wind regions. N100 adds to the range, a turbine suitable for inland sites with mean annual wind speeds of less than 7.5 m/s. All the turbines in this class are based on the same proven machine platform and are thus a logical development of the successful Nordex model. Over 1,500 Nordex 2.5 MW platform turbines are currently operating successfully all around the world, with a further approx. 350 currently under construction (as of July 2011). Currently, the **N100 is only manufactured in Germany and USA**. WTGs for this project are to be manufactured in Nordex's European manufacturing facility established in Rostock, Germany.

3.3.4 **Project Site – Gharo:** This will be the first wind farm to be constructed at Gharo. The Sponsors have conducted various studies including geo-tech and tidal studies and road surveys to assess the viability of establishing a wind farm in Gharo. The land allocated to FWE II is located in swampy intertidal mudflats where a semi-diurnal tidal cycle is observed. The tidal height varies during Spring & Neap Cycles of the lunar calendar month.

The requirement to have higher finished elevations of roads, crane pads, pile caps and buildings as well as the requirement of pile foundations for WTG and larger shallow foundations for buildings at Gharo wind farms clearly indicate the it will involve more construction efforts both in terms of material and working. This is all derived by the fact that the subsoil's at Gharo are fairly weak as compared to Jhampir. Additionally, Gharo sites are located in inter-tidal zone with shallow groundwater table whereas the Jhampir site is located over a generally barren land having no groundwater down to at least 30m depth.

The EPC contractor has based the EPC price after taking into consideration the differences in geo-tech between the Jhampir and Gharo sites and to cover all risks, which could be foreseen during construction and commissioning of this project. Further the EPC price includes the cost of construction of a 'fit for purpose' road from the Indus Costal Highway to site, which the EPC contractor will use to construct and commission the wind farm.

3.3.5 **Commercially finalized foreign and local Islamic financing structure:** The Project Company has finalized the commercial term sheet for arrangement of financing for the Project with Asian Development Bank, Islamic Development Bank and a consortium of local banks.

The transaction will be the 'first of its kind' for wind power sector in Pakistan, as this will be the first wind power project to be financed entirely under Islamic mode of financing.

ADB and IDB will provide 66.67% of the long-term debt requirement of the Project (the funding will be provided in US Dollars), while a consortium of local banks (National Bank of Pakistan along with Allied Bank and Meezan Bank Limited) will provide 33.33% in Pakistan Rupee (PKR).

3.3.6 **Promotion of Local Manufacturing Industry**: In an attempt to play its role in achieving the national objective, as set out in the RE Policy 2006, of creating employment opportunities, developing local industry and enhancing technical skills in the renewable energy sector of the country, the Project Company has ensured that the EPC Contractor promotes the local manufacturing industry through transfer of technology. For achieving transfer of technology, the EPC Contractor has been required to manufacture 80 m tubular steel towers of the wind turbine generators at Descon's workshops in Pakistan under the supervision of Nordex.

3.3.7 **Strong Project Team:** The Project Company has engaged leading consultants as project advisors who have played a key role in the development of wind energy sector in Pakistan.

SgurrEnergy	– Technical Advisors
Mr. Mayura Botejue	– Technical Advisors
Orr, Dignam & Co	– Legal Counsel
Bridge Factor	– Financial Advisors

The project advisors are presently also advising various stakeholders in other Wind IPPs and are playing a pivotal role in the consummation of most of the upcoming projects in the industry.

4. THE PROJECT & KEY CONSIDERATIONS

4.1 RATIONALE FOR WIND POWER

4.1.1 Pakistan's Current Electric Power Shortage

Pakistan currently has 21.593 GW of installed capacity for electricity generation. Conventional thermal plants (oil, natural gas, coal) account for 67.5% of Pakistan's capacity, with hydroelectricity making up 30.36% and nuclear 2.14%.

Pakistani government estimates that by 2014, Pakistan will have to increase its generating capacity by more than 50% to meet the increasing demand. Pakistan's huge energy crisis is jeopardizing its economic progress and social development. The major reasons for the energy crises are the lack of investment in Power Sector, non development of renewable energy sector i.e. Hydel, Wind & Solar etc and the depleting Oil & Gas reserves. It is imperative for Pakistan to look for indigenous/cheap energy resources for sustainable growth through self-reliance.

One of the utilizable resources in the short term is wind power generation. Although it is a new technology in Pakistan, it has a proven track record globally and is recognized as a commercially viable technology. With over 150,000 MW installed capacity around the globe and over 36,000 MW of installed capacity in India and China alone, the case for development of wind energy in Pakistan is very strong.

4.1.2 Wind Power Projects – A Natural Choice

To ensure a sustainable energy future for Pakistan, it is necessary that the 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:

(a) reducing dependence on fossil fuels for thermal power generation;

(b) increasing diversity in Pakistan's electricity generation mix;

(c) reducing green house gas emissions through the avoidance of thermal power generation; and

(d) helping in reduction of the exorbitant trade deficit.

4.1.3 The Wind Power Generation Potential & Government of Pakistan's Support

The wind power generation program in Pakistan was initiated around five years ago by installation of wind measuring stations in the coastal areas of Sindh, Pakistan. The energy potential of 346,000 MW in the country is estimated by National Renewable Energy Laboratory, USA and only the Gharo – KetiBander – Hyderabad wind corridor (the Wind Corridor) has a potential of 50,000 MW of wind power generation. If harnessed adequately, wind energy alone would eradicate energy shortages in the country. The Government of Pakistan is currently looking to build wind farms in the

Wind Corridor, some of which are regions where electricity supply through the national grid has been a challenge.

The Government of Pakistan has clearly articulated its support for the development of renewable energies. Due to the fact that wind energy is one of the most economical and efficient of renewable energy production techniques, the focus is on supporting the development of wind farms through independent power producers (**the Wind IPPs**).

4.2 WORLD CLASS EPC CONTRACTOR; FIRM EPC COST AND FIXED COMMERCIAL OPERATIONS DATE

4.2.1 EPC Contractor Selection - The International Competitive Bidding Process

In compliance with its high standards of procurement procedure and with the objective of setting up the Project, the Project Company issued requests for proposals (the **RFPs**) in August 2010 to various leading EPC contractors worldwide and thus generated interest of some of the globally reputable names of the wind sector in Pakistan. The detailed and long due diligence process of EPC contractor selection involved evaluation of proposals on turn-key basis.

The process adopted by the Project Company to finalise an EPC contractor for the Project was comprehensive and was based on transparency. Various EPC proposals were received and discussions were held with both local and international EPC contractors to devise the most cost effective and less risky EPC arrangement for the Project.

A number of contractors submitted their comprehensive proposals in response to the RFPs and showed a keen interest in being engaged for the Project. Following detailed review of the proposals, the Project Company and its advisors analyzed the risks associated with the execution of the Project on the basis of the bids received. Lengthy discussions were held with consultants, advisors and prospective lenders of the Project for evaluation of the proposals and for structuring of an EPC arrangement that would not only benefit the Project in its timely completion in accordance and compliance with the highest applicable standards but would also enhance bankability of the Project.

It is submitted before NEPRA that the process of attracting internationally acclaimed EPC contactors to invest time and resources and provide a complete turn-key EPC solution to a project in Pakistan was one of the most testing times in the Project's development. Due to the volatile economic, security and political situation in Pakistan and in view of the country risk of investing into Pakistan, the reluctance of some of the most notable global names in the wind sector to commit to Pakistan became one of the biggest challenges for the Project Company in development of its Project. However, the sponsors reputation as one of the most respected entities of the country and its commitment towards development of this Project served as the key link in attracting leading EPC contractors to Pakistan.

4.2.2 The Selected EPC Contractor - Nordex and Descon

As a result of months of intense negotiations, proposal evaluations and thorough due diligence, with an objective of bringing a world class and bankable turn-key EPC solution to Pakistan's wind sector, a consortium of Nordex and Descon, under a joint and several arrangement, was finally selected as the EPC contractor for the Project at the conclusion of the international competitive bidding process. Nordex agreed to take the lead role in the turn-key EPC solution offered to the Project and thus for the second time committed itself to undertake a turn-key project under full responsibility for the complete scope of work in Pakistan.

4.2.3 The Turn-key EPC Agreement

The development of a bankable EPC contractual arrangement following selection of Nordex as a lead EPC contractor for the Project has been a huge achievement for Pakistan's wind sector. Following intense negotiations between the parties, a definitive and legally binding turn-key EPC agreement (comprising of a (1) Agreement for Procurement and Supply of Equipment (**Offshore Agreement**); and (2) Agreement for Engineering, Construction, Operation & Maintenance (**Onshore Agreement**)) (the **EPC Agreement**) was executed on August 23, 2011.

The EPC Agreement is based on Nordex being the lead contractor whereby it shall be primarily responsible for the overall management, coordination and implementation of the Project. Being the lead EPC contractor for the Project, Nordex will have access to its international technical resources and parts distribution networks and has agreed to commit the same to the Project as part of its obligations set out in the EPC Agreement. As the lead turn-key EPC contractor of the Project, Nordex will provide its performance guarantees backed by bank bonds for a period of two years following commercial operations date – thus minimizing the technical completion risk of the Project for a period even beyond commercial operations date.

In order to (inter alia):

(a) provide the Project the local expertise for performance of the works; and

(b) ensure seamless performance of EPC activities with an aim to mitigate the risks associated with delays resulting from security situations in the country,

Nordex has teamed with one of the most reputable heavy engineering and construction contractors in Pakistan, i.e. Descon Engineering Limited, as part of the turn-key EPC arrangement. Descon has taken a lead role in the development of the wind energy sector in Pakistan and for this reason has already acquired and imported a 700 ton crane – a requirement for the erection of wind turbine generators – making it the only sufficiently equipped balance-of-plant contractor for Wind IPPs in Pakistan.

It is highlighted, as one of the key strengths of the Project, that Nordex's and Descon's appointment as the EPC contractors is based on a firm EPC price and confirmed commercial operations date, failing which the EPC Contractor will be liable to compensate (through liquidated damages) the Project Company for all its losses incurred due to the delay.

In view of the Project Company's strong commitment to the Project and in order to lock the EPC price and the projected commercial operations date for the Project, the Project Company has already made a legally binding commitment to Nordex and Descon for payment of an amount equal to US$ 3.9 million, as pre- mobilization advance prior to Financial Close of the Project. The Project Company's aggressive approach in executing the EPC Agreement and locking Nordex's price by payment of the pre-mobilization advance even prior to its Financial Close is strong evidence of the Project Company's commitment towards setting up and operating & maintaining the Project.

The Project Company, therefore, humbly submits to NEPRA that its Tariff Petition is submitted on the basis of firm EPC cost (the ***Firm EPC Cost****) and fixed commercial operations date (the* ***COD****).*

4.2.4 AEDB's Approval of Nordex and Descon as the EPC contractor

In order to expedite and formalize its contractual arrangements with Nordex and Descon, Project Company approached AEDB for its approval of Nordex and Descon as the EPC contractors for the Project. Such approval is a requirement stipulated in the Implementation Agreement to be executed between the Government of Pakistan and the Project Company. While the Implementation Agreement will be executed following NEPRA's approval of the Project Company's Reference Generation Tariff and issuance of the LOS, AEDB has already provided its approval of Nordex and Descon as the EPC contractor for the Project.

4.2.5 Nordex – An Introduction

Nordex is a world class leading supplier of equipment and materials relating to wind turbines generators (the **WTGs**) for the wind power generation markets. Nordex has more than 26 years of experience in harnessing wind energy and have set high standards since 1985. There are currently more than 4,606 Nordex wind turbines installed around the globe with a total rated output of 6,943 megawatts. Nordex has a record of innovative wind energy systems with all geographic regions including coastal, non coastal, strong wind and weak wind sites. Nordex delivers all sorts of power plant solutions ranging from 1 MW to 300 MW and has extensive experience in power plant solutions based on wind energy.

Nordex has offices and subsidiaries in 18 countries and employs more than 2,400 people worldwide. The group holding company is based in Germany, running three operative units in Europe, North America and China. The company has already established production facilities in the key markets of Europe and China. Further, its expansion in the United States market has been exemplary with production of the first set of turbines having commenced in 2011 from its new factory is Jonesboro, Arkansas (USA). Nordex is also the first company to secure the order for supply of Wind Turbines in Pakistan which are expected to be delivered within a couple of months.

4.2.6 Nordex Quality

Nordex has DIN ISO 9001 certification covering the planning, supply, construction and start-up of all electrical and automated systems as well as infrastructural activities related to wind energy systems and wind farms. Nordex's quality management is based on three procedures; first and foremost, quality checks of all components and parts sourced from external suppliers; secondly, safeguarding quality throughout the entire turbine production process including after-sales service; and thirdly, creating feedback on measures for enhancing quality during production as well as in components as part of an ongoing improvement process.

4.2.7 Nordex Services

Nordex monitors the availability of each of its individual installed wind turbine globally during its respective contract periods. The service staff at the 'regional support centers' ensure swift on-site service with minimum response times to ensure smooth turbine operation.

Nordex's central spare parts depot is located at its European production site in Rostock (Germany). The depot supplies all service bases around the world with the necessary parts. Materials for all system generations and types are stocked there. The central depot operates on a 365-day basis.

4.2.8 Descon – An Introduction

Over the last three decades Descon has evolved into a multi-faceted engineering and manufacturing concern and has further spawned a group of ventures with a diverse activities portfolio: project management, EPC, engineering, manufacturing, construction, maintenance, software development, mining, chemicals and trading. While the group companies operate independently under a corporate structure, Descon Engineering Limited remains the flagship company and provides the associated identity to its affiliates.

Project management expertise vested through sophisticated IT based systems is one of the key reasons behind Descon achieving successful culmination of its projects. The company's operations span: Pakistan, UAE, Saudi Arabia, Qatar, Oman, Egypt and Afghanistan. Their joint venture partners and technology alliances include JGC Corporation - Japan, Enerflex Presson – Canada, and Eckrohr Kessel – Germany. The roster of clients and end-users is replete with auspicious names such as Sabic, Aramco, Adnoc, Borouge, Gasco, Qatar Petroleum, WAPDA, National Highway Authority (NHA) and Oil and Gas Development Company Limited (OGDCL).

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4.2.9 Descon's EPC Capabilities

Descon's capability to provide turnkey/ EPC services has evolved over the years by combining knowledge and experience in specialized fields. Descon's structure lends itself to offering highly competitive EPC solutions for projects of all sizes in the energy and infrastructure sectors.

(a) Engineering: Basic and detailed engineering is performed by -Descon Integrated Projects (Private) Limited, a state-of- art design facility equipped with world-class engineering applications, including PDS. An extensive communication network is in place for data transmittal, document control, and project management to ensure smooth interaction between all stakeholders.

(b) Procurement: An experienced group of specialists provides procurement and expediting services for plant equipment and bulk materials. Descon's multiple operating bases in the Gulf region allow it to facilitate fast-track procurement through an established network of suppliers.

(c) Construction: Complete general contracting services integrating civil, mechanical, electrical and instrumentation disciplines are Descon's core strength. Over the years, Descon has invested heavily in acquiring a large asset base of construction equipment.

(d) Manufacturing: A wide range of process equipment is manufactured at ISO and ASME certified facilities in Pakistan, Saudi Arabia and the UAE. These facilities offer inherent strategic value due to their cost effective production and proximity to projects in the Middle East and Pakistan.

(e) Commissioning: Expertise in developing procedures and systems for providing plant commissioning services and operator training is readily available for the critical phase of an EPC project.

4.3 WORLD CLASS O&M CONTRACTOR

Considering that Nordex is the manufacturer of the WTGs and that the balance of plant is being supplied by Descon, the operation and maintenance (the **O&M**) of the Facility has also been contracted to a consortium of Nordex and Descon (the **O&M Contractor**). Following extensive negotiations, together with the EPC Agreement, the parties executed the O&M agreement (the **O&M Agreement**) on August 23, 2011.

The overall term of the O&M Agreement for the Project is ten years. The O&M Contractor has, as part of its obligations under the O&M Agreement, guaranteed the performance of the Facility for the contracted period, thus minimizing the technical operational risk of the Project. The O&M Agreement covers minimum performance standards of the Facility and provides a complete turn-key O&M solution for the Project.

4.4 TECHNOLOGY & EQUIPMENT

4.4.1 Technology Selection Criteria

The technology selected for the Project has been selected after detailed analyses of various power generation technologies available internationally for the purposes of power generation through wind. A range of technologies were reviewed by the Project Company for wind power generation, which included, inter alia, below one MW to multi Megawatt WTGs, synchronous or asynchronous generators and geared or gearless WTGs. Various factors were considered in selection of equipment and technology which included:

(a) equipment to be of latest technology, megawatt class and high efficiency;
(b) compliance of the proposed WTG with local wind conditions in Pakistan;
(c) reluctance of various WTG suppliers to participate in projects in Pakistan;
(d) references and experiences of the wind turbine manufacturers under similar environmental conditions (e.g. temperature, wind farm size, area);
(e) sufficient track record of the turbine type;
(f) cost of equipment to be competitive;
(g) commitment to the market: willingness to commit to Pakistan market;
(h) energy output with warranted power curve and performance warranty;
(i) grid compatibility; and
(j) suitability of operation and maintenance concept for the size and location of projects with suitable availability of spare parts, consumables and main components.

4.4.2 The Selected Technology

After a consummate search, an elaborate tendering process and a thorough due diligence exercise, the following WTGs have been selected for the Project:

MANUFACTURER	Nordex
WIND TURBINE GENERATOR	Nacelle N100 2.5 MW HCV
HUB HEIGHT	80 m
NUMBER OF TURBINES	20 (Twenty)
TOTAL INSTALLED CAPACITY	50 MW

The Nordex N100/2500 is the latest version of the proven wind turbine design, which has been in production since 2000 as a basic N90 turbine and as N80 (2.3 MW/ 2.5 MW) as the high-wind turbine. N100 adds to the range a turbine suitable for inland sites with mean annual wind speeds of less than 7.5 m/s. All the turbines in this class are based on the same proven machine platform and are thus a logical development of the successful Nordex model. Over 1,500 N80/N90 turbines are currently operating successfully all around the world, with a further approx. 350 currently under construction (as of July 2011). Currently, the **N100 is only manufactured in Germany and USA**. For the FWE-II project, the WTGs are to be manufactured in Nordex's European manufacturing facility established in Rostock, Germany.

Key enhancements from Nordex S77 to N100 include:

- *Higher yield:* The N100/2500 achieves high yields thanks to its large rotor diameter of 100 meters and a swept area of 7,823 square meters together with a cut-in wind speed of 3 m/s and rated power at 12.5 m/s.

- *It offers low maintenance due to* (1) optimized design, minimizing service cost, (2) with easy access thanks to the integrated crane installed in the interior for lifting materials weighing up to 1 ton into the nacelle and inside the cabin, and (3) thanks to the control from the bottom of the tower and from the nacelle and the wide range of remote query possibilities for the control system and converter.

- *It is reliable* (1) as it is a further development of the 2.3/2.5 MW turbine class, which has proven itself hundreds of times all around the world since 2000, (2) as all components are supplied by renowned certified manufacturers, thus guaranteeing their quality, (3) as the rotor blades undergo stress testing beyond the design limits and are subject to regular extensive material testing, (4) as the high aluminium content in the tip acts as an extraordinarily effective lightning receptor, and (5) as grid compliance is based on the proven electrical and mechanical model implemented in the N90/2500.

It is highlighted that the Sponsors have demanded of the EPC Contractors to ensure the highest levels of workmanship and compliance with the most stringent of standards employed internationally for development of wind power projects in development of the Project so as to ensure that the Project is not subject to any operational issues during the life of the Project. The requirement of the Sponsors was further necessitated by the fact that the Project site is located very close to the shore aggravating the wear and tear of the equipment beyond normal levels due to higher moisture content and corrosion.

The EPC Contractors, in order to comply with the Sponsors requirements selected various manufacturers based out of Europe for procurement of all equipment (WTGs, electrical and other BOP equipment) to be imported for the Project. The EPC Contractors option to procure equipment from Europe as opposed to its supply from their manufacturing facilities / vendors in China was motivated simply to ensure that the equipment meets the highest benchmarks set by the international wind industry.

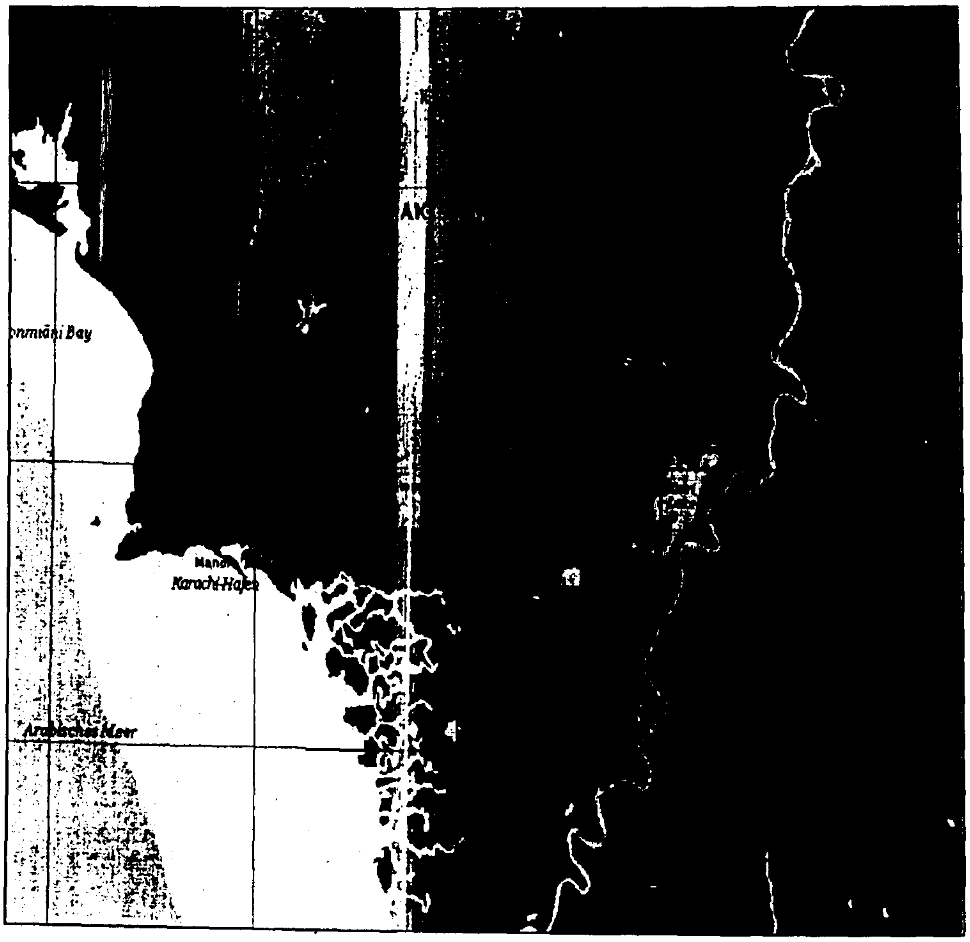
As detailed earlier, the WTGs (N100's) are currently only being manufactured in USA and Germany; Nordex intends to supply the twenty (20) WTGs required for the FEW II from their facility in Rostock Germany. Additionally, the electrical and BOP components (to be provided by ABB Limited) forming part of the Project will also be secured from the European manufacturing facilities of the EPC Contractor's vendors.

It is germane to identify that the Sponsors requirement to ensure that only state-of-the-art equipment, capable of withstanding the harsh climatic conditions prevailing at the site, is used in the Project compelled the EPC Contractor to move towards procurement of all imported equipment from vendors (electrical and BOP) having manufacturing facilities in Europe as opposed to their routine procedure of procuring equipment (electrical and BOP) from China.

4.5 THE SITE

The Project will be located at Gharo, District Thatta, Province of Sindh (the **Site**) in the Wind Corridor. The Wind Corridor is identified by the AEDB as a resource of high wind regimes with a potential of wind power generation of more than of 50,000 MW. This area has been extensively surveyed and is identified as having strong potential for sites of several wind farms.

The Site for the Project is located in the south-eastern part of Pakistan approximately 40 km south-east of Karachi in an alluvium area between the land and the sea.



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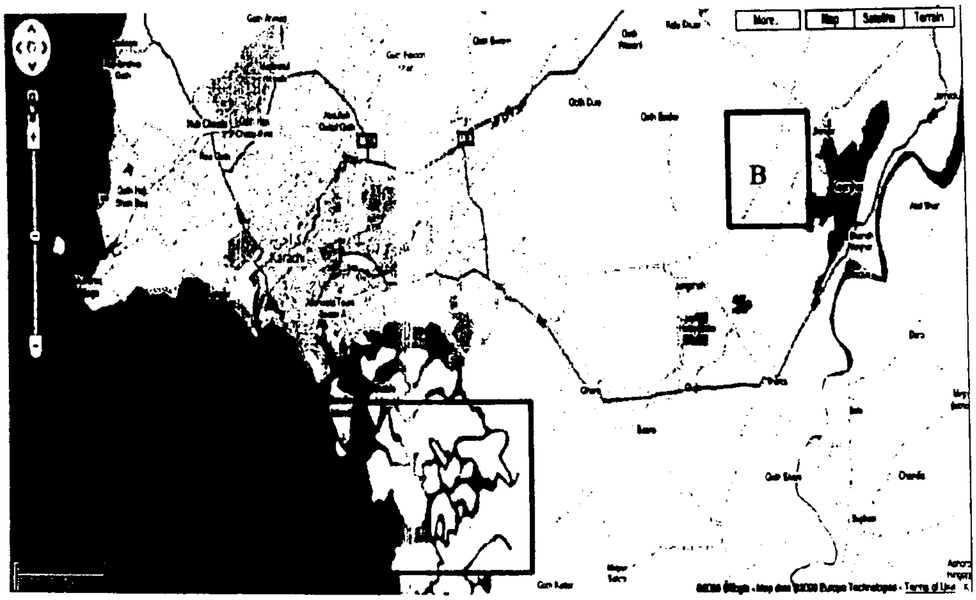
4.5.1 Key differences between Jhimpir and Gharo project sites



A – Proposed site for wind power projects in Gharo
B – Proposed site for wind power projects in Jhimpir

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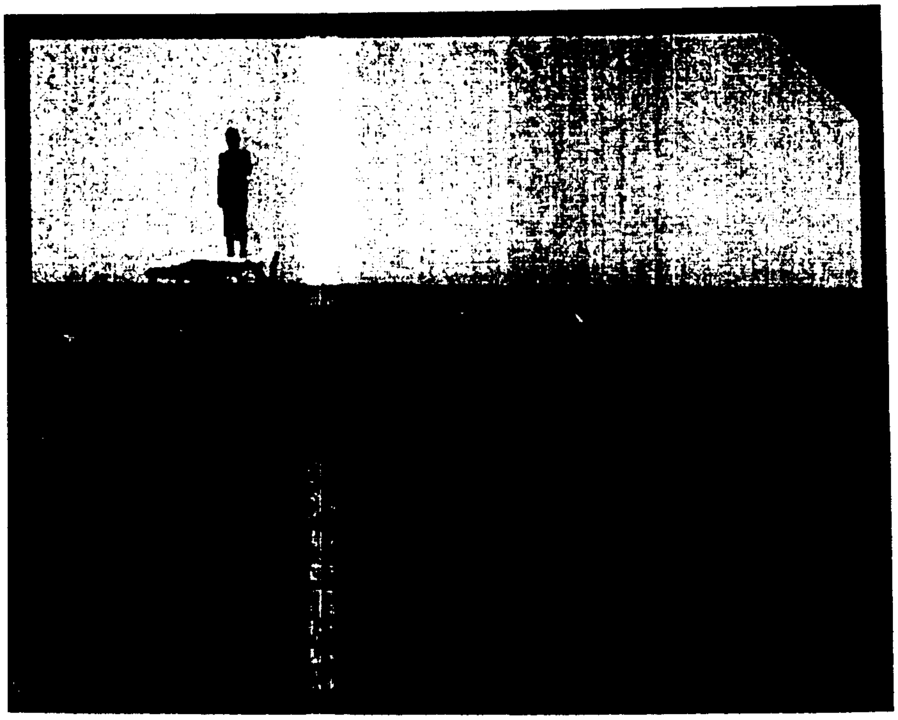
The two locations where land has been allocated by ADEB for development of wind power projects are Jhimpir and Gharo (shown in the picture above). As can be seen from the picture, Jhimipir is in-land on firmer grounds while Gharo is on the shore on inter-tidal land. The comparison of the two locations, demonstrating the challenges / difficulties faced by the project developers and the their contractors developing / constructing projects in Gharo are highlight in the analysis below.

(a) General Site Characteristics: The wind farms located at Jhampir are located at fairly higher grounds (NSL ranging from 50-100m above SOP datum) as compared to wind farms at Gharo (NSL ranging generally from 1.30m to 2.70m above SOP datum).

There is no occurrence of groundwater in Jhampir region down to the investigated depths of 30m. On the other hand, at Gharo, groundwater is encountered at depths as shallow as 0.50m. The conditions at the latter site are further aggravated by the fact that it is located in the inter-tidal deltaic zone of the river Indus. Accordingly, semidiurnal tide pattern is exhibited at this site. Parts of the land get submerged during the high tides twice every 24 hours.

The subsoil at Jhampir comprises in general fragmented limestone with occasional lenses of shale or clay. The top soil comprises silty sand with gravels. The substrata down to the investigated depth of 30m is very strong and competent to sustain the anticipated loads in its in-situ state without any need of soil improvement works. On the other hand, the subsoil at Gharo comprises silty/clayey/sandy soils. There is no occurrence of rock formation down to the investigated depth of approx. 30m. The sub soils are found in compactness ranging from very loose/soft to dense/hard. This substrata is not considered competent to sustain anticipated loads unless its strength characteristics are improved by special ground improvement techniques or the loads are transferred to deeper horizons by using deep/pile foundations.

(b) Site Accessibility: The access from the end of asphalted road up to the first wind farm site at Jhimpir comprises competent sandy subgrade. There is no occurrence of groundwater table within 30m depth from the NSL. Accordingly, no major effort is involved in the access road construction. Only leveling & grading of the existing ground contours would make the road suitable for vehicle/equipment transportation.



On the other hand, the access from end of coastal highway up to wind farms at Gharo passes through inter-tidal land. The subsoil in the upper horizons is very weak and cannot sustain the anticipated vehicle/equipment loads in its in-situ state. Moreover, parts of the land may also get submerged under the tidal water twice daily. Accordingly, the access road to the site will not only have to be composed of a high embankment but also due to continuous settlement of the weak sub soils, the embankment top levels will have to be maintained by replenishing the materials periodically.

The 3 Km 'fit for purpose' access road to be constructed from the Indus Coastal Highway to the Project Site is include in the EPC Cost agreed with the EPC Contractors.

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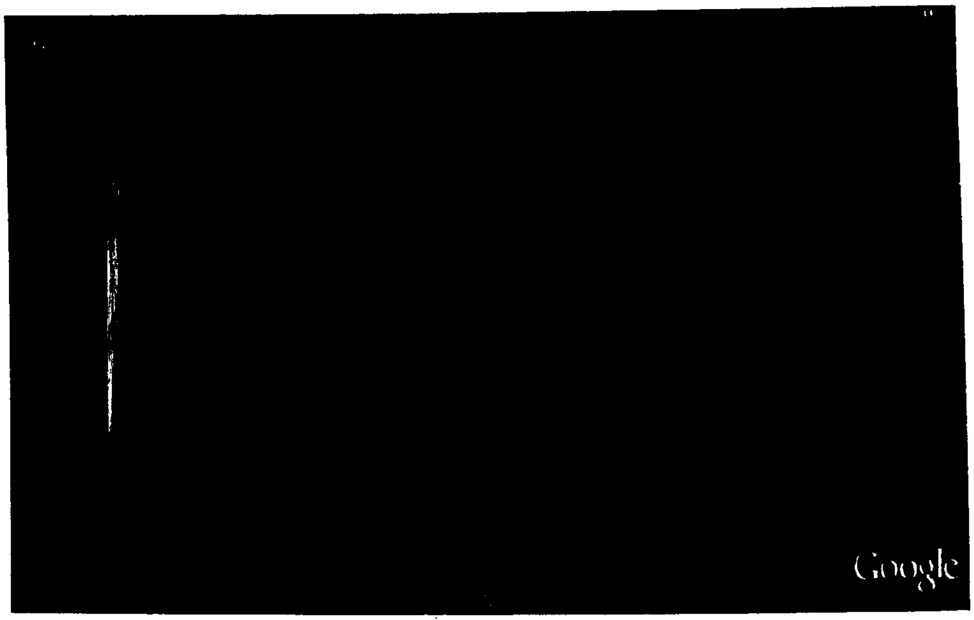

(c) Mobility across the Site: The strong subgrade and lack of groundwater at sites identified in the Jhampir region indicates that the internal roads can simply be prepared by leveling/grading. However, this would not be feasible for wind farms that are to be developed at Gharo. The weak top soil across the site and very shallow groundwater necessitates the requirement of properly compacted embankments for the road construction as explained in the preceding paragraph.

(d) Crane Pads & Stacking Areas: Owing to the presence of strong sub soils, the crane pads and equipment stacking areas would be prepared by simply leveling and grading the existing ground surface at Jhampir (no filling works would be required). However, for the wind farms to be developed at Gharo, the crane pads will be raised above the ground level by an average of 1.8m. The raising will be done by selected granular fill (Borrowed Soil) compacted as per standard construction practices.

(e) WTG Foundations: The WTG foundations for Jhampir wind farms shall be shallow raft foundations. However, for Gharo wind farms, shallow foundations are not feasible. Instead, pile foundations will be required. The tentative dia. and depth of the pile foundations is 900mm and 35m respectively.

Moreover, the finished levels of pile caps will also be considerably higher in case of Gharo wind farms, because these have to be safe against the tidal water. No such requirement is, however, envisaged in the Jhampir wind farm.

(f) BOP and Electrical Infrastructure: Due to the Project Site's peculiar characteristic of submergence during high tide and the elevated underground water level resulting in majority of the Site submerging underwater due to water rising through the ground during high tide, the EPC Contractors would have to create trenches for laying the electrical infrastructure required for the Project.

(g) Building Foundations and Finished Levels: At the Jhampir wind farm site, owing to the availability of fairly strong and competent subsurface at shallow depths, the buildings shall be supported on shallow foundations. However, for the Project Company's wind farms site, it might not be feasible to opt for the shallow foundations. Even if shallow foundations prove to be feasible for buildings, the size of these foundations would be much larger than that for Jhampir wind farms' buildings.

Moreover, the finished levels of ground floor slabs will also be considerably higher in case of Gharo wind farms, because these have to be safe against the tidal water resulting in development of "Islands of Infrastructure" (as termed by the technical consultants). No such requirement is, however, envisaged for wind farms to be located in the Jhampir region.

Hence it is concluded that the quantum of civil works and subsequently the expenditure for Gharo wind farms shall be considerably more than that of Jhampir wind farms.

4.6 POWER OFF-TAKE & THE GOVERNMENT OF PAKISTAN'S IMPLEMENTATION AGREEMENT

The electricity generated through the Project will be sold to National Transmission and Despatch Company Limited (through its Central Power Purchasing Agency) on behalf of ex-Wapda distribution companies (the **Power Purchaser**) pursuant to the energy purchase agreement (the **EPA**), which in turn will distribute and modulate the electricity generated by the Project Company.

In furtherance of the Government of Pakistan's model for setting up the IPPs in Pakistan, the Project Company will also enter into an Implementation Agreement (the **IA**) with the Government of Pakistan in respect of the Project.

It is highlighted for the benefit of NEPRA that the Project Company has been in discussions with:

(a) the Power Purchaser in respect of finalization of the EPA; and

(b) the AEDB in respect of finalization of the IA.

This evidences the Project Company's commitment and seriousness to enter the Pakistan wind market with esteemed standards and clear deliverability.

The EPA will be finalized and executed by and between the Project Company and the Power Purchaser and the IA will be finalized and executed by and between the Project Company and the Government of Pakistan, in each case, following NEPRA's approval of the Project Company's 20 years Reference Generation Tariff, the grant of a generation license to the Project Company and the issuance of the LOS.

4.7 ESTIMATED OUTPUT

In line with AEDB's guidelines, the Project's technical consultant M/s SgurrEnergy, UK (one of the world's leading consultant on wind energy technology) carried out detailed evaluations to estimate the energy production for the Project, based on:

(a) the selected Nordex WTG;

(b) the Site conditions; and

(c) micrositing.

The summary of the results is as follows:

GROSS CAPACITY	50 MW
PROBABILITY OF EXCEEDENCE	P75
NET CAPACITY FACTOR	30 %
ANNUAL ENERGY GENERATION (ON BENCHMARK WIND SPEEDS)	129,600 MWHr

4.8 PROJECT COST AND CAPITAL STRUCTURE

Based on the assumptions contained in this Tariff Petition and in light of the proposed discussion contained in Section 5 (Project Cost and Tariff), the

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proposed Project cost is USD 127,692,651 (United States Dollars One Hundred Twenty Seven Million Six Hundred Ninety Two Hundred Six Hundred and Fifty One Only) (the **Project Cost**).

The planned financing of the Project Cost is by:

(a) 25% equity (the **Equity**); and

(b) 75% debt (the **Debt**).

4.9 MAIN SPONSORS – FAUJI FOUNDATION

Fauji Foundation (*FF*) was established as a charitable trust in 1954, incorporated under The Charitable Endowments Act, 1890. At present the Net-worth of FF Group stands at Rs. 120 Billion with Assets of over Rs. 253 Billion.

Approximately 80% of the profits of the FF Group of companies and commercial ventures are utilized for social protection programs, for the welfare of ex-servicemen and their dependents. FF operates on a self sustaining basis and does not receive any funding from Government of Pakistan and related entities.

Considered the most sustainable social protection mechanism in the country, FF beneficiaries are approximately 10 million individuals growing by around 1% every year and since inception has spent over Rs. 24 billion in welfare activities.

The FF's education & training system has about 44,000 students enrolled in 98 model schools, two colleges for boys and girls, 9 technical training centers, 66 vocational training centers. In addition FF also provides financial support through stipends to approximately 70,000 students (about 5,000 for higher education). In essence FF provides for and supports over 110,000 students yearly. Since 2002, FF has established a full fledge university which includes a medical college, which runs independently on self sustain basis.

FF's Healthcare experience is over 40 years and today has grown into the largest Non Governmental Healthcare System in Pakistan, providing exemplary medical treatment ranging from primary to tertiary level. The Health care system constitutes 11 Hospitals, 1 Nursing Training school, 1 Artificial Limb center, 24 Medical Centers, 80 Static & Mobile Dispensaries and 2 Mobile Health Units. This makes it the most extensive health care chain in the private sector.

As FF acts for the welfare of its beneficiaries, this necessitates strong commercial operations to fund the welfare for an expanding beneficiary base. To generate this funding requirement a number of industrial & commercial ventures, (generally known as the *Fauji Group*) have been established and acquired, which are partially or fully owned. The sectors in which Fauji Group has investments include fertilizer, power, oil & gas exploration & distribution, oil terminal operations, financial services, cement, cereals, employment services, and security services.

Fauji Group constitute of:

[illegible]	[illegible]
Fauji Cere ls	Mari Gas Compan Ltd.
Foundation Gas	Fauji Cement Company Ltd.
Fauji Corn Complex	Pakistan Maroc Phosphere, S.A
Fauji Security Services	Fauji Fertilizer Company Ltd.
Overs as Employment Services	Fauji Fertilizer Bin Qasim Ltd.
E perimental & Seed Multiplication Farm	Foundation Securities (vt.) Ltd.
	Fauji Kabirwala Power Company Ltd.
	Fauji Oil Terminal & Dist ibution Company Ltd.
	Foundation Power Company (Daharaki) Limited.
	Fauji Akbar Portia Marine Terminals (Private) Ltd.

The nature of its operations makes Fauji Foundation a unique welfare-cum-industrial group.

4.10 REFERENCE GENERATION TARIFF

The Reference Generation Tariff, once approved by NEPRA, will be integrated into the EPA. The Project Company hereby respectfully requests NEPRA to kindly ensure consistency between the adjustment formulae and indexations to be applied to the Reference Generation Tariff normally conveyed to the petitioner in NEPRA's tariff determination order since these formulae and indexation will also form part of Schedule 1 to the EPA. Consistency must therefore be maintained, as requested, between NEPRA's tariff determination order and Schedule 1 to the EPA.

4.11 CARBON CREDITS

The Clean Development Mechanism (the **CDM**) is one of the flexible, project-based mechanisms for greenhouse gas emission reductions (the **GHG**) under the Kyoto Protocol. By using the CDM, two countries can jointly develop GHG emission reductions projects. While the project proponents in the host country sell the emission reductions from the project as Certified Emission Reductions (the **CERs**), project participants in the partner country act as the CER buyer. In this set-up, the host country of the project benefits from domestic investment and technology transfer. For the owners of the CDM project, selling CERs means additional revenues to the project. Each CER represents one ton of carbon dioxide equivalent abated by the project.

The CDM was initiated under the Kyoto Protocol of the United Nations Framework Convention on Climate Change (the **UNFCCC**) in order to explore cost- effective options to mitigate the impacts of climate change. It is one of the instruments that help the developing countries in achieving sustainable development, while at the same time contributes to the ultimate objective of the UNFCCC. CDM assists the developing countries to implement project activities that reduce GHG emissions in return for generating carbon credits/ CERs.

Pakistan deposited its instrument of accession to the Kyoto Protocol on January 11, 2005, and thus became eligible to benefit from CDM. For this purpose the Ministry of Environment has been declared as the Designated National Authority (the **DNA**). A 'CDM Cell' was established in Pakistan in August 2005 for providing technical and policy support to conduct awareness raising, enhancement of capacity for CDM project development, review of CDM projects for grant of approval by the DNA and to advise the Government of Pakistan in technical matters related to CDM in Pakistan. It was also established to implement the CDM strategy.

Pakistan national operational strategy for CDM was approved by the Prime Minister of Pakistan in February 2006. The strategy provides policy guidance for implementation of CDM in Pakistan in line with national sustainable development goals. It is an incentive based strategy that ensures efficiency and transparency. The strategy defines institutional arrangement for implementation of CDM in Pakistan, tax and credit sharing policy and the criteria grant of host country approval to CDM projects.

Section 8.3.3 of the RE Policy 2006 states:

> *...all qualifying Renewable Energy (the **RE**) projects shall be eligible for financing under the Clean Development Mechanism (CDM) and will be encouraged to register for Certified Emission Reduction (CER) credits with the CDM Executive Board, either collectively or individually.*
>
> *The Government shall also strive, in collaboration with international development agencies and to the extent possible, to facilitate project applications for such carbon credits in order to reduce the associated initial transaction costs for project sponsors. Importantly, as this policy creates significant incremental costs for the RE power purchaser (higher tariffs, resource availability risks, backup power provision, transmission and interconnection infrastructure, etc.), it is deemed appropriate that any carbon credits thus obtained by RE IPPs be utilized to partly offset this burden so as to improve the economic competitiveness of RE-based grid power for both the rate payers and the producers...*

While it appears possible that the Project may be able to realize monetary gains from such carbon credit schemes, the actual timing, amount, and other details of the outcome are quite uncertain at this point. It is thus proposed that the Reference Generation Tariff for the Project be approved irrespective of the outcome of the carbon credits.

However, if any CER related revenues are realized, it is submitted that they will be shared as per the policy of the Government of Pakistan. Regardless of the outcome, the Project Company has already initiated the CDM project for the Project at its own cost and negotiations with various internationally reputed CDM consultants have already been initiated to complete the CDM project.

5. PROJECT COST AND TARIFF

5.1 PROJECT COST SUMMARY

The total Project Cost, expressed in United States Dollars, has been calculated after thorough analysis, evaluation and understanding of the dynamics that affect the development and operation of a wind farm. The reference exchange rates used to convert the relevant costs into United States Dollars are USD 1 = PKR 86.2 and USD 1.38 = Euro 1.

For NEPRA's benefit and approval, a summary of the Project Cost is given below:

SR. NO.	INVESTMENT / COST	USD IN THOUSANDS
1	EPC COST	111,022
2	[illegible]	1,150
3	PROJECT DEVELOPMENT COST	2,975
4	[illegible]	126
5	[illegible]	716
6	[illegible] INSURANCE COST	1,499
7	[illegible]	3,538
8	PERMANENT WORKING CAPITAL	1,042
9	INTEREST DURING CONSTRUCTION	5,624
	TOTAL PROJECT COST	**127,693**

5.2 DETAILS OF PROJECT COST

5.2.1 EPC Cost

Breakup of cost associated with each Contract forming part of the turnkey EPC entered into by the Project Company is provided below:

(Figures in Thousands)

SR. NO.	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	35,454	35,368	84,295
[illegible]	[illegible]	-	25,992	25,992
[illegible]	[illegible]	-	736	736
[illegible]	[illegible]	**35,454**	**62,10**	**111,022**

Note:

(a) the turnkey price being charged by the EPC Contractor for the Project is based on firm legally binding EPC Agreements (comprising the Offshore Agreement and the Onshore Agreement) executed between the Project Company and the EPC Contractor; and

(b) the L/C confirmation charges to be incurred by the Project Company on the amounts payable to Nordex under the Offshore Agreement has been calculated on the bases of a confirmation charge of 2% flat.

The EPC Cost represents the cost of 20 (Twenty) N100 WTGs, 60 (sixty) N100 blades

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(100 m dia.), electrical equipment, together with ancillary equipment and other goods, systems and machinery and includes the cost of, inter alia, the erection, testing, completion and commissioning of the equipment and construction of the Facility that is capable of fulfilling the intended purpose.

The requirement to have the L/C confirmed through an international bank has specifically been requested by Nordex taking into account the recent credit ratings assigned to Pakistan by Standard & Poor's and Moody's.

It is highlighted, as a major strength of the Project's EPC cost structure that the EPC Cost is inclusive of all withholding taxes payable in respect of the payments to be made to the EPC Contractor pursuant to the EPC Agreement.

The Project Company is contractually committed to pay, as mobilization advance, 25% (aggregate) of the total amounts payable to the EPC Contractor pursuant to the EPC Agreement upon achievement of the following milestones (within the timelines set out below) up to financial close:

(a) issuance of 'Preliminary Notice to Commence';

(b) tariff determination by NEPRA; and

(c) achievement of financial close latest by March 2012.

The achievement of the above stated milestones is key to maintaining the EPC Cost and the same is subject to escalations in accordance with the executed EPC Agreement for failure to achieve such milestones.

It is germane to mention that the Sponsors requirement to ensure that only state-of-the-art equipment (as detailed in Section **Error! Reference source not found.***), capable of withstanding the harsh climatic conditions prevailing at the site (as detailed in Section* **Error! Reference source not found.***), is used in the Project compelled the EPC Contractor to move towards procurement of all imported equipment from vendors (electrical and BOP) having manufacturing facilities in Europe as opposed to their routine procedure of procuring equipment (electrical and BOP) from China.*

5.2.2 Non EPC Cost

The Non EPC Cost includes the cost of items that are not part of the EPC Contractor's scope of work pursuant to the executed EPC Agreement. Such costs mainly include, inter alia, the costs of:

SR. No.	COST [illegible]	USD IN THOUSANDS
1.	[illegible]	147.42
2.	PROJECT ADMINISTRATION OFFICE COSTS	133.35
3.	COST OF ACCOMMODATION	534.23
4.	COST OF SECURITY ARRANGEMENTS	155.00
5.	OPTIC FIBER FOR CONNECTION WITH WAPDA	180.00
	TOTAL NON-EPC COST	**1,150.00**

(a) Fixed Assets: This includes cost of various instruments, equipment and other assets (excluding such assets that are supplied under EPC Agreement) that include:

(i) Vehicles, equipment and furniture; and

(ii) Facility connectivity for remote monitoring.

(b) Project Administration Office Costs: The Project Company's head office is based out of Rawalpindi. This office is required to maintain coordination with the Project Company's lenders, shareholders and various governmental agencies. The Project Company will also maintain a Project coordination office with limited accommodation at Karachi to coordinate the construction and monitoring activities at Site. This portion of the Non EPC Cost includes costs associated with rent, utilities, equipment inspection, vehicles fuel and maintenance and other allied expenses during the construction period.

(c) Cost of Accommodation: The Project Company will maintain limited accommodation at Karachi to coordinate the construction and monitoring activities at the Project site. This portion of the Non EPC Cost includes costs associated with rent, utilities, equipment inspection, vehicles fuel & maintenance, and other allied expenses during the construction period.

Accommodation cost also includes the construction cost of a residential facility for providing housing to the O&M staff. A 'fit for purpose' residential facility has been planned at Project site to accommodate necessary staff. The facility is not intended to cater for the families of the operating staff.

(d) Cost of Security Arrangement: Pakistan is going through a tough time with respect to security situation in the country. This is one of the major impediments in attracting foreign investments. The Project Company is also concerned about the security of its personnel. Therefore, security arrangement costs become one of the most important components of the Project cost. This represents the costs associated with providing security at offices, accommodation and site and also includes the cost for providing security to the expatriates engaged by Nordex for the Project. It is highlighted that in view of the present security situation in Pakistan, the provision of security by the Project Company is considered critical. The Project Company has hired the services of a dedicated Security Manager to oversee and monitor the security related matters along with other security staff.

(e) Optic Fiber for Connection with WAPDA: In accordance with the requirements of the EPA, the Project Company is required to provide connectivity to the Power Purchaser through fiber optic. The total deployment cost (including equipment, materials, and laying of the fiber optic) has been included under this head.

5.2.3 Project Development Cost

It is important to highlight that the LOI for the Project was issued in 2004 and the project has been under development for over 6 years. The original sponsors were unable to complete the project which thereafter Fauji Foundation acquired and inherited the earlier project development expenses. Fauji Foundation has fast tracked the development of the project and has brought the Project to a stage that it is being presented before NEPRA along with signed and executed EPC Contracts and a firmed up financing plan within one year of its acquisition. Due to the nascent nature of the wind industry in Pakistan, considerably more time and money has been spent is developing these initial projects, which have paved the way for the future developed of Renewable Energy in Pakistan.

The Project Development Cost includes the costs incurred for the purpose of Project development and includes all costs, fees and expenses incurred or to be incurred for such purpose. These costs include, inter alia, costs of feasibility studies, topographical survey of land, preliminary geotechnical investigation of land, tidal survey, Grid Interconnection Studies; fees of consultants; costs related to the performance guarantee to be furnished to 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; and costs relating to various permits for the Project.

The Project Company has engaged highly reputed and leading consultants as Project advisors that have unmatched expertise in planning, engineering, financial, legal and technical matters. Considering that the Project will be the first Wind IPP to be set up in Gharo region of Pakistan, the Project Company has endeavored to put together the best team of consultants for the Project so as to ensure that wind power sector in the country is developed and the Project is bankable from all aspects.

A high level break-up of the various costs included under this head is given below:

[redacted]	[redacted]	USD IN THOUSANDS
[redacted]	[redacted]	1,002
[redacted]	[redacted]	234
[redacted]	[redacted]	907
[redacted]	[redacted]	212
[redacted]	[redacted]	620
[redacted]	[redacted]	**2,975**

5.2.4 Land Cost

Land cost has been incorporated in this petition as the Project Company has leased 1,656 acres of land of the Project from AEDB together with stamp duty, registration

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fees and costs of survey and demarcation of the land for the Project, which has been already paid to AEDB.

5.2.5 Taxes & Custom Duty

(a) Custom Duty

Rules regarding customs duty on renewable energy projects are driven based on the information provided under the RE Policy, Guidelines for Determination of Tariff for Wind Power Generation 2006 (the **Guidelines**) and the Government of Pakistan, Federal Board of Revenue Statutory Regulatory Order (**SRO**) No. 575(I)/2006 dated June 05, 2006.

Following table highlights and summarizes the fiscal incentives/exemption available to renewable energy based power Projects regarding customs duty:

Fiscal Incentives/Exemptions on RE Based Power Projects

Extract from Para 8.6.1	**Extract from Fiscal Regime**	**Extract from Para 11 (5% customs duty)**
No customs duty or sales tax for machinery equipment and spares (including construction machinery, equipment and specialized vehicles imported on temporary basis) meant for initial installation or for balancing, modernization, maintenance, replacement, or expansion after commissioning of Projects for power generation utilizing renewable energy resources (specifically, small hydro, wind, and solar), subject to fulfillment of conditions under the relevant SRO	Customs duty at the rate of 5% on the import of plant and equipment not manufactured locally	Machinery, equipment and spares meant for initial installation, balancing, modernization, replacement or expansion of Projects for power generation through oil, gas, coal, wind and wave energy including under construction Projects, which entered into an implementation agreement with the Government of Pakistan **Para 13 (0% customs duty)** Machinery, equipment and spares for initial installation, balancing, modernization, replacement or expansion of Projects for power generation through nuclear and renewable energy sources like solar, wind, micro-hydel bio energy, ocean, waste-to-energy and hydrogen cell etc.

It transpires from above that the three documents (the Policy, the Guidelines and the SRO) when read in conjunction gives rise to an ambiguous situation, as the Policy provides for NIL customs duty, the Guidelines provides for a 5% customs duty, and whereas the SRO has both the NIL and 5% customs duty rate.

The Petitioner has assumed 0% customs duty regarding imported plant, equipment, machinery etc. in accordance with Para 13 of the SRO read with the Policy.

However, as the Guidelines and Para 11 of the SRO provide a 5% customs duty rate, in view of this apparent ambiguity the Petitioner prays NEPRA to allow adjustment of capital cost of the Project and the tariff, in each case, for actual customs duty paid, at COD.

(b) Special Excise Duty

Special Excise Duty is assumed at 0%, as the same is correlated with the rate of customs duty (assumed 0%). In case the Project has to pay 5% customs duty (in the event the customs authorities bring the import under the ambit of Para 11 of the SRO) then the Special Excise Duty at 1% is leviable. Accordingly, the Petitioner prays NEPRA to allow adjustment of capital cost of the Project and the tariff, in each case, for actual customs duty paid, at COD.

(c) Sales Tax

No Sales Tax is assumed on import and local supply of the imported plant, equipment, and machinery etc., based upon the SRO and recent Notification SRO 575(I)/2005 issued by the Government of Pakistan, Federal Board of Revenue.

Furthermore, for the purpose of this tariff petition, the Petitioner has not taken into account the impact (if any) of the enactment of the Sindh Sales Tax on Services Act, 2011. As the law has only very recently been enacted, the true implications and procedures on applicability are not clear at this time. However, in case the Onshore Agreement forming part of the EPC Agreements (being services performed in the province of Sindh) is brought into the ambit of the Sindh Sales Tax on Services Act, 2011, it is prayed to NEPRA that the tax charged to the Project be allowed as a pass-through at the time of tariff true-up.

(d) Income Tax

Advance Income Tax @ 0.00% (Zero Percent) has been assumed at the time of import of machinery, equipment, goods, spares and materials for the Project.

(e) Sindh Infrastructure Development Surcharge (SIDS)

0.850% of the imports for the Project have been assumed as Sindh Infrastructure Development Surcharge (the **SIDS**). The chargeability of SIDS is based on the weight of the imported equipment / items and the distance of the Site from the port. Since the imported equipment is expected to be of haulage load and has to travel considerable distance from the port, maximum rate of SIDS has been assumed in the Project Cost.

(f) Federal Excise Duty (FED)

FED on the payments to be made to (1) local financial institutions; and (2) insurer's has not been assumed. In case FED is levied on the financial advisors and lead arrangers' fee, debt arrangement fee and commitment fee, L/C commission and charges, loan administration charges, and insurance premium the same should be treated as pass-through under the tariff.

[redacted]

5.2.6 Pre-COD Insurance Cost

Pre-COD Insurance Cost covers the insurance cost of Project Company's assets during construction and the same are incurred prior to COD. These cost estimates have been developed based on an offer received from one of the leading insurance companies in Pakistan.

The Project Company, in view of the practices set by other IPPs in Pakistan and in accordance with the requirements set out by the Lenders funding the Project, intends to procure the following insurances during the construction phase of the Project:

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

The premiums payable under the above stated Pre-COD insurances, does not include the administrative surcharge, the Federal Insurance Fee and the Federal Excise Duty, in each case, relating to the Pre-COD insurances, and the Petitioner prays that the same be allowed by NEPRA as part of the One-Time Adjustments allowed at the time of COD.

5.2.7 Financial Charges

Financial Charges include the costs related to the Debt financing of the Project. Such costs include, inter alia, the lenders' up-front fee and commitment fee; charges related to various letters of credit to be established in favor of various contracting parties (other than L/C confirmation charges for payments to be made to Nordex as these are included as part of the EPC Cost); fees payable and stamp duty applicable on the financing documents; agency fee; security trustee fee; lenders' Project monitoring fee and the fees for the lenders' various advisors.

It is pertinent to highlight that in addition to the typical set of Lenders advisors required for a transaction of such nature since the transaction will be structured as a

Shariah compliant transaction, specialized services of a Shariah advisor will be required for structuring the deal in accordance with Islamic mode of financing.

These financial charges have been thoroughly negotiated with the lenders and are in line with the prevailing market conditions and practices applicable for project financing transactions. The term sheets for arrangement of Debt financing signed with the lenders (attached as **Annexure – D**) stipulate the costs given below (further details of these costs are provided in Section 6.6 (*Debt Financing*) below):

SR. No.	COSTS	USD IN THOUSANDS
1.	ARRANGEMENT FEE	2,085
2.	COMMITMENT FEE	155
3.	AGENCY MONITORING AND SECURITY TRUSTEE FEE	81
4.	L/C COMMISSION	248
5.	LENDER'S ADVISORS FEE	968
	TOTAL FINANCIAL CHARGES	3,537

The Financial Charges proposed by the Project Company for NEPRA's approval are in excess of 3% of the total Debt amount, normally allowed by NEPRA for locally financed project. It is submitted before NEPRA that the Financial Charges cap be enhanced for this project due to the following reasons:

(a) The Project Company understands that NEPRA introduced a Financial Charges cap of '3% of debt amount' for 200 MW thermal projects which had project cost of USD 200 million to USD 300 million. Apart from financial charges quoted as a percentage (%) of the debt/loan amount, all fixed financial charges (agency, trustee, monitoring, supervisory fee along with Lenders' advisors fee) were distributed over a debt of USD 150 million to USD 225 million, thus resulting in the financial charges being lower than the NEPRA introduced cap. In the case of wind power projects of 50 MW however, since the Debt component is much smaller (approximately USD 100 million), the cap applied for financial charges by NEPRA is easily breached and therefore unrealistic;

(b) As further submitted in Section 6.6 above, the Project Company has included a foreign currency loan (i.e. Foreign Financing) in its capital structure in order to reduce the levelized tariff in comparison to the option of borrowing in local currency only. While the selection of a mix of Foreign Financing and Local Financing by the Project Company has resulted in the reduction of its levelized Reference Generation Tariff due to a lower cost of Foreign Financing borrowing, it is highlighted that the arrangement and commitment fees of Foreign Financing is significantly higher than that of the Local Financing (as is customarily the case) and has resulted in higher Financial Charges. Thus, while considering the low carrying cost and reduced levelized tariff resulting from the Project Company's selection of a mix of Local Financing and Foreign Financing, it is submitted that financial charges should not be capped and should be allowed at actuals, as the Project Company understands that the intention of NEPRA has been to ensure the lowest consumer tariff rather than preserving the sanctity of a mere cap itself.

(c) Additionally, it is submitted that there is a precedent available in NEPRA's determination of financial charges cap for a hydel IPP (i.e. Laraib) where the financial charges were approved by NEPRA in excess of 3% of the debt amount.

[redacted]

5.2.8 Permanent Working Capital

Inflow of Funds During Operating Period:

Under the terms of the EPA to be executed between the Project Company and the Power Purchaser, the Project Company shall invoice the Power Purchaser for the settlement of the Monthly Energy Payment on or after the first day of the month following the month to which the Monthly Energy Payment relates. The Power Purchaser has to make the payment of the same by the thirtieth day following the day of submission of the invoice i.e. 31st day.

Outflow of Funds & Requirement for Working Capital:

(a) The Project Company is required to collect sales tax from the Power Purchaser on behalf of the Government of Pakistan and deposit the same by the 25th day of the month to which it relates. However, as explained above, the Power Purchaser is only obligated to make payment to the Project Company against the invoice raised within 30 days from the date of invoice – thus creating an inherent mismatch in the availability of cash flows to the Project Company for settlement of its liabilities.

(b) Furthermore, the Project Company would be making payments to the operations and maintenance contractor monthly 15 days in arrears whereas the same will be recovered from the Power Purchaser 30 days in arrears – thus creating a mismatch in cash flows and providing a further justification for working capital.

(c) The terms of debt financing stipulate repayment of debt on semi-annual basis commencing from COD. By the time the first repayment is to be made to the lenders, the Project Company would only have received 5 months of revenue in accordance with the 30-day payment terms under the EPA. Thus a permanent shortfall of 1/6th of the debt installment would be created which the Project Company intends to fund through upfront permanent working capital; this requirement is standard in all financing transactions of this type.

(d) Finally, given the current economic situation in the country and the problem of circular debt faced by the economy, it is highlighted before NEPRA that the Power Purchaser is presently delayed in making its payments to the IPPs (such delays amounting to months in aggregate in case of some IPPs), which has created substantial difficulties for such IPPs and has even caused some of them to default under their various contractual arrangements. Approval of a Working Capital in the Total Project Cost by NEPRA for the Project Company will not only help the Project Company in management of its cash flows but will also reduce its default risks emanating from the considerable lags in the receipt of payments from the Power Purchaser.

In consideration of NEPRA's views on commercial working capital lines, which have been disallowed to earlier projects, it is submitted that such permanent working capital be allowed to be injected upfront by the Project Company, in replacement of a revolving credit line from banks.

5.2.9 Interest During Construction

The Interest During Construction (the **IDC**) has been calculated on the basis of the term sheets executed between the Project Company and the lenders, which stipulate a base rate equal to 6-month KIBOR plus a margin of 295 basis points (PKR financing) and 6 months LIBOR plus a margin of 460 basis points (USD financing). Actual IDC, however, shall be subject to change depending on the fluctuations in base rate (i.e. 6-month KIBOR & 6-month LIBOR), 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.

BASIS FOR IDC CALCULATIONS	**6 – MONTH KIBOR**	**6 – MONTH LIBOR**
BASE RATE	13.38%	0.48%
SPREAD	2.95%	4.60%
TOTAL INTEREST RATE	**16.33%**	**5.08%**

[redacted]

6. PROJECT FUNDING STRUCTURE (DEBT & EQUITY)

6.1 THE FUNDING ARRANGEMENT

The Project Cost will be funded on the basis of a Debt: Equity ratio of 75:25, thereby resulting in the following capital structure for the Project:

		'MILLION USD
DEBT	FOREIGN (66.67%)	63,846
	LOCAL (33.33%)	31,923
EQUITY		31,923
TOTAL PROJECT COST		127,692

6.2 BRIEF ABOUT DEBT AND EQUITY FINANCING

The envisaged debt: equity structure of the Project is 75:25 implying a total debt requirement of USD 95.769 million (based on a project cost of USD 127.692 million). Asian Development Bank (ADB) and Islamic Development Bank (IDB) will contribute 66.67% of the required debt (that is USD 63.846 million), while a term sheet for arrangement of the remaining 33.33% of long-term debt has been signed with the leading local banks. The estimated amount to be raised from local lending institution is USD 31.923 Million (approx. PKR 2,751 million). It is pertinent to mention that the debt raised through ADB and IDB will be denominated in USD (repayment in USD, interest payments to be indexed to LIBOR) while debt to be provided by the local banks will be denominated in PKR (repayment in PKR, interest payments to be indexed to KIBOR). However, regardless of the source of financing (local or foreign), the Project will be financed 100% through Islamic modes of financing.

Based on the current Project cost estimates, the equity required to be injected by the Sponsors amounts to USD 31.923 million. The Principles Sponsors, Fauji Foundation and Fauji Fertilizer Bin Qasim will subscribe to fulfill up to 55% of the total equity requirement, Islamic Infrastructure Fund (IIF) will provide 35% and the Tapals will subscribe to fulfill the remaining 20% of the equity requirement.

6.3 EQUITY PARTICIPANTS / SPONSORS

6.3.1. Fauji Foundation

Fauji Foundation (FF) was established as a charitable trust in 1954, incorporated under The Charitable Endowments Act, 1890. Approximately 80% of the profits of the FF Group of companies and commercial ventures are utilized for social protection programs, for the welfare of ex-servicemen and their dependents.

As FF acts for the welfare of its beneficiaries, this necessitates strong commercial operations to fund the welfare for an expanding beneficiary base. To generate this funding requirement a number of industrial & commercial ventures, (generally known as the Fauji Group) have been established and acquired, which are partially or fully owned. The sectors in which Fauji Group has investments include fertilizer, power, oil & gas exploration & distribution, oil terminal operations, financial services, cement, cereals, employment services, and security services. All these translate into an asset base of over Rs. 254 billion and a net worth of over Rs. 120 billion (as per FY 2010 figures).

6.3.2. Fauji Fertilizer Bin Qasim Company Limited

Fauji Fertiliser bin Qasim Company Limited is a public listed company incorporated in 1993 and engaged in the manufacturing of DAP and Urea Granular with annual production capacity of 445,500 tons and 551,100 tons. The Fauji group (Fauji Foundation and Fauji Fertilizer Company) owns 68% in FFBL and general public and private institutions own remaining shares. FFBL's total assets as at Dec 31, 2010 were Rs 36 billion with a net worth (shareholder's equity) of Rs 12 Billion.

6.3.3. Islamic Infrastructure Fund (IIF)

IIF is funded by Asian Development Bank (ADB) and Islamic Development Bank (IDB) and managed by CapAsia, a private equity firm established through a joint venture between Malaysia's CIMB Group and South Africa's Standard Bank. Cap Asia manages three funds worth US$460 million by investing in the infrastructure sectors in Southeast Asia and Central Asia. The firm was founded in 2006 and has offices in Singapore, Kuala Lumpur, Jakarta, and Bangkok. IIF will invest in the Project through a Special Purpose Vehicle (SPV), specifically established for investing in the Project.

6.3.4. Tapal Group

With 141 years of history, Ameejee Valleejee & Sons (Private) Limited (AVS) is the flagship company of the Tapal Group. It deals with supply of light engineering products and grew steadily by adding product lines and extending coverage to areas other than Karachi. During the 70s, power plant equipment was supplied to many generation plants of KESC and WAPDA. Industries that came up during this period (rice processing, sugar, fertilizer and chemicals) were equipped with AVS supplied products. Major business interests of the Tapal family are (i) Tapal Enterprises (Pvt) Ltd an engineering company (ii) Industrial Engineering and Construction Ltd involved in industrial installation activities, and (iii) Tapal Energy (Pvt) a furnace oil Power Plant with a gross capacity of 126 MW.

6.4 RETURN ON EQUITY

Risk perceptions are high for investments in Pakistan energy sector not only because of the security situation of the country but also due to the issue of circular debt. Another risk perception is that there is no history of wind Projects in Pakistan.

In the past NEPRA has allowed thermal/conventional power producers and hydel power projects an IRR of 15% and 17% respectively; it is noteworthy that the data for hydrology in Pakistan is much more detailed and reliable (having been collected over several decades) than the data for wind.

The Tariff Standards prescribed under Rule 17 of the Tariff Rules require that the return on investment should be "commensurate with other investments of comparable risk". It is submitted that NEPRA has allowed 17% return to hydel projects where the hydrology risk and unforeseen soil conditions are both well mitigated under the Power Purchase Agreement and NEPRA's tariff guidelines which permit a "3 stage" tariff process permitting a reopening of the tariff parameters. As explained below, the GOP is only covering the wind speed while the investor is taking the risk of other wind characteristics. Accordingly, investment in the wind sector constitutes a higher risk investment in comparison to investments in hydel or thermal power projects, thereby, necessitating a higher risk premium.

The discussion below highlights the salient arguments in favor of allowing a higher ROE (IRR based) to the Petitioner.

6.4.1. Medium Term Policy for Development of Alternative and Renewable Energy

AEDB has already taken notice of the aforementioned situation and has proposed to the Government of Pakistan, under the draft of the Medium Term Policy for Development of Alternative and Renewable Energy, to increase the return to the sponsors to 18%.

Section 1.13.9.2 of the draft Medium Term Policy for Development of Alternative and Renewable Energy states:

Quote

"the economic, social and environmental benefits of ARE, it is the policy of the Government of Pakistan to provide a rate of return in excess above that of conventional power during the lifetime of this medium term policy subject to a quota which rate shall be used in tariff calculations. The ARE Rate of Return on Equity (ROE) for ARE Projects will be a minimum of 18% (the term ARE' means Alternative and Renewable Energy')."

Unquote

6.4.2. Wind Risk

The RE Policy 2006 provided by the Government of Pakistan does not offer complete immunity to the equity investor against wind risk. The coverage is limited to variations in wind speed only and it does not take into account other factors which can affect the energy output of a wind farm. These factors include, air density, wind frequency distribution, temperature, and humidity. This limitation in the wind risk coverage can have a detrimental impact on the IRR of the equity investor.

6.4.3. Security Issues

Over the last three years the security situation in Pakistan has been quite unpredictable. The security threats in the country have had an adverse impact both on the economy and on the cost of doing business in Pakistan. Most of the thermal IPPs being constructed under the Power Generation Policy 2002 have had to face the repercussions of the deteriorating security situation in one way or the other. The increased risk on the capital employed, coupled with the economic uncertainties (circular debt), justifies an increase in the required rate of return (on IRR basis).

6.4.4. Monthly Energy Production Vs. Annual Energy Production

The mechanism for tariff determination and revenue generation for Wind IPP's is based on the Wind Tariff Guidelines 2006 and the same is also reflected in article 9

(Compensation, Payment and Billing) of the EPA. This mechanism assumes monthly wind energy production of the wind farm equipment (monthly payments are made for energy produced each month up to the amount of the benchmark energy while bonus energy (over and above monthly benchmark energy) is only compensated to the extent of 10%).

On the other hand, no wind turbine supplier or EPC contractor is willing to offer guarantee of energy production figures on monthly basis as this is not inline with the global standards followed by the wind industry where the power curve of the WTGs is guaranteed on annual basis. This mismatch between the basis use for tariff determination / revenue generation and the guarantees offered by the WTG supplier / EPC Contractor can have significant effect on the returns of the Sponsors and tremendously affects the risk profile of the investment, therefore, ample compensation in shape of increased return should be allowed to the Project Company.

6.4.5. Higher ROE for Coal Based Projects

Project Company appreciates the fact that the government is encouraging development of indigenous resource based power projects. The most recent example of such encouragement is issuance of notification # PL-6 (71) / 2010 by the Ministry of Water and Power on March 8th 2011 through which a USD based return of **Twenty point Five (20.5) percent** (IRR basis) has been guaranteed to indigenous coal projects achieving financial close by June 2014.

> *The Project Company believes that, based on the facts detailed above, it is justified to request NEPRA to determine the ROE and ROE-DC component based on a return of 18 percent (IRR basis) for the project, however, given Project Company's request with regards to the energy production figure to be used for tariff determination i.e. P75 the Project Company is willing to forego the higher return and accept a lower ROE of 17% (on IRR basis, net of withholding tax).*

6.5 RETURN ON EQUITY DURING CONSTRUCTION (ROE DC)

As per the RE Policy 2006, wind IPPs are allowed to claim return during the term of the Implementation Agreement commencing from the start date of construction i.e. the date from which payments are made to the EPC Contractors. Therefore, the Return on Equity during Construction (ROE DC) will be accrued and shall be determined at actual at the time of COD based on the actual equity drawdown.

> *The return due towards the Project Company during construction (the ROE DC) has not been estimated separately in this Petition and shall form part of Reference Tariff true-up calculations at COD on the basis of actual equity drawdown.*

6.6 DEBT SERVICING

The capital structure of the Projects is envisaged at 75:25 (Debt: Equity). Asian Development Bank (ADB) and Islamic Development Bank (IDB) will contribute 66.67% of the required debt in USD. The remaining 33.33 % of the long-term debt shall be financed through local banks in PKR; the mode of financing will be Shariah compliant.

The tenor of the loan agreed with the banks is 10 year plus 2 year Grace Period. The foreign source financing will be based on 6-month LIBOR plus a margin of 4.6 percent adjustable on semi-annual basis. Whereas the local financing will be based on 6-month KIBOR, plus a margin of 2.95 percent, also adjustable on semi-annual basis.

6.6.1 Terms of Financing

The following terms for financing the debt portion of the Project Cost have been agreed and locked between the Project Company and the lenders through the execution of the financing term sheets:

Sr. No.	Cost Head		USD in '000
1	Total Project Value		127,693
2	Total Value of Debt @ 75% of total project Value		95,769
		6-month LIBOR	*6- month KIBOR*
3	Base Rate	0.48%	13.38%
4	Spread	4.60%	2.95%
5	Debt Markup	5.08%	16.33%
6	Loan Tenure (door-to-door)		12 years
7	Grace Period		24 months
8	Re-Payment Schedule		Semi-Annual

* - reasons for requesting 6-month KIBOR . LIBOR are provided below.

As per the Wind Tariff Guidelines 2006, if a wind power developer is able to obtain financing at a cost lower than KIBOR plus 300 basis points, the benefits from the reduction in debt servicing costs are to be shared on a 60:40 ratio between the Power Purchaser and the wind power developer. It is therefore submitted that NEPRA allows the Project Company to claim the benefits due to the Project Company in accordance with the aforementioned guidelines.

Break-up of the financial charges to be borne by the Project Company has already been detailed in Section 5.2.7 (*Financial Charges*). The same have been calculated based on the rates agreed under the executed financing term sheet – details of which are provided below:

FACILITY AVAILABILITY FEES			
	Foreign Financing	Local Financing	Details
ARRANGEMENT FEE	1.40%	1.40%	one-time fee
PROJECT EVALUATION FEE	0.10%	0.15% per annum	Payable on the undrawn balance of the debt
L/C COMMISSION	Nil	0.15% per annum	Payable quarterly in advance on outstanding L/C exposure
FACILITY ADMINISTRATION FEES (UP TO COD)			
AGENCY FEE	per annum		PKR 2.5 million
PROJECT MONITORING FEE	per annum		PKR 1.25 million
SECURITY TRUSTEE FEE	per annum		PKR 0.75 million
FACILITY ADMINISTRATION FEES (AFTER COD)			
AGENCY FEE	per annum		PKR 1.5 million
SECURITY TRUSTEE FEE	per annum		PKR 0.75 million

Furthermore, the Project Company, under the terms of the executed financing term sheet, is required to bear the expenses of the Lenders' advisors. These include costs associated with the Lenders':

(i) Shariah advisor;
(ii) legal advisers;
(iii) technical advisers;
(iv) insurance advisers;
(v) audit;
(vi) tax advisers; and
(vii) any other advisors deemed necessary by the Lenders.

6.6.2 Reasons for Requesting 6-Month KIBOR / LIBOR

The revenues of a Wind IPP are dependent on monthly energy produced. Such monthly energy produced is dependent on the monthly wind speed which in turn is subject to seasonal variations i.e. high revenues during high wind months and low revenue during low wind months. The debt servicing capability (including requirements for maintaining various debt reserve accounts) of the Project is severally hampered due to this seasonal variation in revenue generation capabilities of the Project. To harmonize the Project Company cash flows, the Project Company submits that NEPRA allows the Project to use 6-month KIBOR / LIBOR as this would provide an opportunity for the Project to rationalize the monthly cash flows of the Project and to build up sufficient reserves for meeting the debt servicing requirements of the Project.

7. OPERATION COST

7.1 UNDERSTANDING & BENCHMARKS

O&M expenses are one of the major unknowns for wind power developers in Pakistan. Till date no wind power project has achieved COD in Pakistan. It is important to note that O&M costs for wind power projects are not as low as perceived by many in Pakistan. Today's modern wind turbines are built from over 8,000 different components. Furthermore, unexpected components failure, especially electronic controls, generators, rotor blades etc. have, over the years, driven up operations and maintenance costs. This is even more critical in Pakistan where the high wind seasons is accompanied by high temperature months and the WTGs have to work at almost full capacity in this extreme weather.

To substantiate the above data; the latest research report on O&M costs "The Wind Energy Operations & Maintenance Report 2011" states that true O&M costs of the wind industry are clouded in the world due to the fact that the majority of currently installed wind power capacity is only now coming out of warranty. No manufacturer is willing to share its actual O&M costs in the warranty periods. To give an idea to the Authority as per the report 79 percent of the turbines in the world were under warranty up till June 2009. Therefore, it is difficult to get the real O&M costs for wind industry. The report also suggests that real-time O&M costs are far higher than originally projected in US - which is now one of the largest wind power markets. The report also indicates un-predicted component failure of WTGs as one of the key issues which escalates the O&M costs.

According to the research in the report, O&M costs are, on an annual basis, around 3 percent of the total project cost as opposed to the initial estimate of one percent.

In the last 5 years large wind turbines are being developed with lower cut-in wind speed in order to increase their power production and to drive down the cost of electricity. This trend in wind turbine size escalation has come with increased uncertainty regarding O&M activities. The fact that O&M costs for wind power projects tend to increase overtime has also been supported by finding recently released by the European Wind Energy Association in their report titled: *The Economics of Wind Energy*.

In view of the foregoing, the O&M costs suggested in the Petition are clearly well within international benchmarks. It is the humble request of the petitioner that the O&M costs presented below may kindly be allowed by NEPRA in order to ensure smooth, efficient, and effective operation of the Project.

7.2 BREAKUP OF OPERATING COST

The operations cost of the Project Company comprises of the operations and maintenance cost and the cost of the operational insurances to be taken out by the Project Company. Break-up of the same is provided hereunder:

	USD IN THOUSANDS (PER ANNUM)			
YEARS	1 – 2	3 – 5	6 – 10	11 – 20
O&M COST (OUT-SOURCED)	1,200	2,513	2,780	2,780
FIXED ASSETS [illegible]	50	50	50	50
PAYROLL & ALLIED EXPENSES	300	300	300	230
VEHICLES FUEL AND MAINTENANCE	30	30	30	30
LAND LEASE PAYABLE TO AEDB	-	-	30	30
OTHER ADMINISTRATIVE COSTS	160	160	160	160
LENDERS RELATED COSTS	75	75	-	-
INSURANCE COST	1,103	1,103	1,103	1,103
TOTAL OPERATING COST	*2,918*	*4,231*	*4,498*	*4,383*

7.2.1. O&M Cost (out-sourced)

The Project Company has entered into legally binding O&M Contracts with consortium of Nordex and Descon for a period of ten years after COD. The O&M arrangement has been structured through execution of three separate contracts covering:

(i) Years 1 – 2 (part of the EPC);

(ii) Years 3 – 5 (Initial O&M Contract); and

(iii) Years 6 – 10 (Extended O&M Contract).

The O&M costs to be paid to the O&M Contractor comprises of costs to be incurred in Euro and USD. Break-up of the same is provided hereunder (costs in Euro's have been converted at the exchange rate of UDS 1.38 per Euro):

YEARS	USD IN THOUSANDS (PER ANNUM)			REQUESTED INDEXATIONS
	EURO	USD	EQUIVALENT USD	
1 – 2	-	1,200	1,200	USD plus US CPI
3 – 5	855.5	1,332.8	2,513.3	(1) USD plus US CPI (2) Euro Area Harmonized Index of Consumer Prices
6 – 10	1,250.3	1,055	2,780.5	(1) USD plus US CPI (2) Euro Area Harmonized Index of Consumer Prices
11 – 20	1,250.3	1,055	2,780.5	(1) USD plus US CPI (2) Euro Area Harmonized Index of Consumer Prices

All of the O&M outsourced costs are to be incurred in foreign currency and should be assumed as Fixed O&M (Foreign) to be further sub-divided into Fixed O&M (Foreign – USD) and Fixed O&M (Foreign – Euro) for the purpose of indexations.

The major variation in the O&M Outsourced Costs during the initial two year period and thereafter is due to the O&M being carried out by the EPC Contractor as part of its warranty obligations. From the third year onwards the O&M of the Project will be carried out by the O&M Contractor and the marginal increment from year 6 onwards reflects the contractors expectation of additional wear and tear of the parts due to the operations of the turbines and BOP equipment under extreme climatic conditions.

External O&M services have be procured by the Project for 10 years in order to fulfill the lenders requirement to have experienced O&M Contractors performing O&M services during the debt repayment period.

The prices provided above are based on the price agreed with the EPC Contractor and the O&M Contractor for performance of O&M services for the initial 10-year period. The prices agreed include the costs associated with scheduled maintenance, routine maintenance, services required for unscheduled maintenance and any spare parts and consumables required for carrying out the scheduled and routine maintenance.

Upon completion of the 10 year O&M period during which the O&M Contractor will be responsible for carrying out the O&M activities, the Project Company will carryout a cost and benefit analysis of carrying out the O&M themselves or again outsourcing the work to the O&M contractor. The decision to either carry out the O&M function in-house or through an external source will depend on a number of factors including (i) level of development of the local wind industry, (ii) availability of critical spare parts in the secondary market, (iii) presence of skilled manpower in the local market, presence of large cranes able to lift heavy components at heights of over 80 meters and above, etc. The Project Company optimistically estimates the cost of carrying out or out-sourcing the entire O&M function of the project to cost the same as for the period from year 6 to year 10. This estimate is based on the fact that the entire equipment of the plant including the WTG's, electrical and civil works would require considerably higher costs to maintain than during the initial 10 years and any saving from carrying out the O&M in-house (as compared to using an outsourced service) would compensate for the additional costs envisaged during the later life of the plant.

The cost has been determined keeping in view the requirement of the Project to undergo replacement of major components, as the plants and infrastructure gets older. This would be necessary keeping in view the location of the wind farm (in the vicinity of the Arabian Sea) resulting in higher than normal levels of wear and tear due to moisture, corrosion, inundation during high tides and elevated levels of underground water content which also rises during high tides submerging majority of the wind farm Site.

7.2.2. Fixed Assets

The Fixed Asset cost includes costs associated with vehicles required at Site; tools and inspection equipment for inspection of the energy equipment; and furniture and fixtures required for the offices to be maintained at Site, Karachi and Rawalpindi.

7.2.3. Payroll and Allied Expenses

This includes the costs related to salaries and benefits of all staff (administrative and operational) employed by the Project Company at the Site, Karachi and the Head Office.

7.2.4. Vehicle Fuel And Maintenance

This component includes costs associated with running and maintenance of vehicles at Karachi and Site office of the Project Company. The vehicles would include vehicles required by the security personnel for securing the site; vehicles required for supervision and coordination of O&M activities, and vehicles required for administration activities.

The vehicles purchased during the construction period shall be used for the first 10 years operation. Upon commencement of the 10th year, the old vehicles will be replaced and the Project Company will procure new vehicles thereby enabling it to maintain the same level of fuel and maintenance costs for the remainder of the operations period.

7.2.5. Land Lease Cost Payable AEDB

The lease rentals payable to AEDB for the first 10 years have, in accordance with the requirements laid forth by AEDB, paid in advance. These form part of the Total Project Cost mentioned in Section 5.2.4 above. In case the lease rentals that have been paid in advance (as explained in the preceding sentence) are excluded from the Total Project Cost by NEPRA while determining the tariff, it is prayed that the same be amortized during the first 10 years of operation in order to ensure that the cost is reimbursed to the Project Company.

Furthermore, at the commencement of the 11th year of operation, the Project will be required to pay (to AEDB) lease rentals for the remaining term of the Project (i.e. 10 years) in advance. The cost set out against this head is to cater for the cost of the lease rentals that will need to be paid to AEDB by the Project for the remaining term. It is pertinent to mention that even though the Project will be required to pay the cost for the entire 10 year period in advance, the Project Company has accepted that the same will be settled by the Power Purchaser on through monthly energy payments over the 10 year period.

7.2.6. Lender Related Costs

Under the financing arrangements the Project Company is required to pay the lenders various fees for monitoring and coordinating activities including Agency Fee, Monitoring Fee and Security Trustee Fee which are in line with common market practices. Further, due to the involvement of foreign lenders, an annual technical review of the Project's operations is mandatory, the cost of which has also been included under this head. All these costs are verifiable from the term sheet signed with the lenders.

7.2.7. Other Administrative Costs

This portion of the O&M Cost includes costs associated with rents, utilities, traveling, entertainment, audit, legal and financial consultants, technical consultation, generation license fees, and other allied expenses of running the offices during operations.

7.3 INSURANCE DURING O&M

The Insurance Cost consists of the insurances required under the Implementation

Agreement and the Energy Purchase Agreement coupled with those customarily required for project financing transactions, including all-risk insurance/reinsurance, business interruption insurance, and machinery break-down, natural calamities, sabotage and terrorism. As these risks are an impediment to the smooth and efficient running of the day-to-day affairs of the Project, it is critical that all risks associated with the Project are adequately addressed and all insurable events are catered for in a foolproof manner. Keeping in view the generally adopted global trends and the magnitude of the Project, a comprehensive operational insurance and reinsurance arrangement is also fundamental to ensure bankability of the Project.

During the operations phase, the Project Company intends to acquire insurance from one of the leading insurance companies in the country. As it is standard practice for local insurers to only retain 5% of the risk and acquire reinsurance for the remaining 95% through foreign re-insurer, it is prayed to NEPRA that the insurance costs for the operations phase be allowed in US Dollars (as has been done in case of all other power projects). The requirement to have the operational phase insurance cost denominated in US Dollars is further supported by the fact that the lenders financing the Project will inevitably require the Project to be insured on replacement cost basis; since a major chunk of the Total Project Cost is already denominated in US Dollars, the replacement cost basis insurance would also need to be taken out in US Dollars. It is pertinent to highlight, that any replacement costs incurred as a consequence of the occurrence of an insurable event will also be incurred in US Dollars.

The Project Company, in view of the practices set by the other IPP's in Pakistan and in accordance with the requirements set out by the Lenders, proposes to procure the following insurance during the operational phase of the Project:

- Property Damage and Comprehensive Machinery Insurance (including Business Interruption insurance);
- Third Party Liability;
- Terrorism insurance;
- Group Personal Accident Insurance; and
- Motor Comprehensive Insurance

The insurance cost has been estimated at 1% of the EPC Cost and any increases therefrom up to 1.35% of the EPC Cost shall be charged by the Project Company at actual and will be recoverable as the insurance cost component of the Reference Generation Tariff.

The insurance cost (for the operations phase) set out in the petition does not, however, covers the administrative surcharge, Federal Excise Duty and Federal Insurance Fee, that might be applicable on the insurance cost, the same should be treated as a pass-through item under the tariff determination.

8. REFERENCE GENERATION TARIFF & DEBT SCHEDULE

8.1 TARIFF CONTROL PERIOD

As the Project is 75 % debt funded with loan tenure of 10 years for repayment, this means that there will be higher debt service cost requirements in the first 10 years of the Project. In the last 10 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. length of the EPA, signed with the Power Purchaser, which is 20 years from COD. The tariff is divided into four (04) bands i.e. year 1 – 2, year 3 – 5, year 6 – 10 and year 11 – 20 to cover the variations due to debt repayment period, warranty period O&M, and post-warranty period O&M.

8.2 SUMMARY OF REFERENCE GENERATION TARIFF

A summarized Reference Generation Tariff table setting out the four bands is provided below (in Rs. / kWh):

		YEARS	1 – 2	3 – 5	6 – 10	11 – 20
FIXED O&M	LOCAL		0.4091	0.4091	0.4091	0.3326
	FOREIGN	USD	0.7981	0.8865	0.7017	0.7017
		EURO	-	0.7852	1.1476	1.1476
ROE (INCLUDING WHT ON ROE)			4.0788	4.0788	4.0788	4.0788
DEBT SERVICING			9.8472	9.8472	9.8472	-
INSURANCE			0.7335	0.7335	0.7335	0.7335
TOTAL			**15.8667**	**16.7403**	**16.9179**	**6.9942**

8.3 REFERENCE GENERATION TARIFF

[illegible]	Fixed O&M			Insurance	ROE	WHT on ROE	Debt (Local)		Debt (Foreign)		Total	
	Foreign (USD)	Foreign Euro	Local				Principal	Interest	Principal	Interest	Rs./kWh	US Cents/kWh
[illegible]	0.7981	-	0.4091	0.7335	3.7729	0.3059	0.9483	3.4301	3.3535	2.1152	15.8667	18.4068
[illegible]	0.7981	-	0.4091	0.7335	3.7729	0.3059	1.1095	3.2689	3.5260	1.9427	15.8667	18.4068
[illegible]	0.8865	0.7852	0.4091	0.7335	3.7729	0.3059	1.2981	3.0804	3.7074	1.7613	16.7403	19.4203
[illegible]	0.8865	0.7852	0.4091	0.7335	3.7729	0.3059	1.5187	2.8597	3.8982	1.5706	16.7403	19.4203
[illegible]	0.8865	0.7852	0.4091	0.7335	3.7729	0.3059	1.7769	2.6016	4.0987	1.3700	16.7403	19.4203
[illegible]	0.7017	1.1476	0.4091	0.7335	3.7729	0.3059	2.0789	2.2996	4.3096	1.1592	16.9179	19.6263
[illegible]	0.7017	1.1476	0.4091	0.7335	3.7729	0.3059	2.4322	1.9462	4.5313	0.9374	16.9179	19.6263
[illegible]	0.7017	1.1476	0.4091	0.7335	3.7729	0.3059	2.8456	1.5328	4.7644	0.7043	16.9179	19.6263
[illegible]	0.7017	1.1476	0.4091	0.7335	3.7729	0.3059	3.3293	1.0492	5.0095	0.4592	16.9179	19.6263
10	0.7017	1.1476	0.4091	0.7335	3.7729	0.3059	3.8952	0.4833	5.2672	0.2015	16.9179	19.6263
11	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
12	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
13	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
14	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
15	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
16	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
[illegible]	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
[illegible]	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
19	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
20	0.7017	1.1476	0.3326	0.7335	3.7729	0.3059	-	-	-	-	6.9942	8.1139
Levelized	**0.7660**	**0.8262**	**0.3878**	**0.7335**	**3.7729**	**0.3059**	**1.3576**	**1.8025**	**2.9472**	**0.9998**	**13.8993**	**16.1245**

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8.4 DEBT REPAYMENT SCHEDULE

8.4.1 FOREIGN DEBT REPAYMENT SCHEDULE

Repayment Period	Principal Repayment (PKR)	[redacted]	Interest on Outstanding Debt (PKR)	[redacted]	Total Installment (PKR)	[redacted]
1	214,582,198	[redacted]	139,790,252	[redacted]	354,372,450	[redacted]
2	220,032,586	[redacted]	134,339,864	[redacted]	354,372,450	[redacted]
3	225,621,413	[redacted]	128,751,037	[redacted]	354,372,450	[redacted]
4	231,352,197	[redacted]	123,020,253	[redacted]	354,372,450	[redacted]
5	237,228,543	[redacted]	117,143,907	[redacted]	354,372,450	[redacted]
6	243,254,148	[redacted]	111,118,302	[redacted]	354,372,450	[redacted]
7	249,432,803	[redacted]	104,939,647	[redacted]	354,372,450	[redacted]
8	255,768,397	[redacted]	98,604,054	[redacted]	354,372,450	[redacted]
9	262,264,914	[redacted]	92,107,536	[redacted]	354,372,450	[redacted]
10	268,926,443	[redacted]	85,446,007	[redacted]	354,372,450	[redacted]
11	275,757,174	[redacted]	78,615,276	[redacted]	354,372,450	[redacted]
12	282,761,407	[redacted]	71,611,044	[redacted]	354,372,450	[redacted]
13	289,943,546	[redacted]	64,428,904	[redacted]	354,372,450	[redacted]
14	297,308,112	[redacted]	57,064,338	[redacted]	354,372,450	[redacted]
15	304,859,738	[redacted]	49,512,712	[redacted]	354,372,450	[redacted]
16	312,603,176	[redacted]	41,769,274	[redacted]	354,372,450	[redacted]
17	320,543,297	[redacted]	33,829,154	[redacted]	354,372,450	[redacted]
18	328,685,096	[redacted]	25,687,354	[redacted]	354,372,450	[redacted]
19	337,033,698	[redacted]	17,338,753	[redacted]	354,372,450	[redacted]
20	345,594,354	[redacted]	8,778,097	[redacted]	354,372,450	[redacted]

8.4.2 LOCAL DEBT REPAYMENT SCHEDULE

Repayment Period	Principal Repayment (PKR)	[redacted]	Interest on Outstanding Debt (PKR)	[redacted]	Total Installment (PKR)	[redacted]
1	59,042,134	[redacted]	224,682,561	[redacted]	283,724,695	[redacted]
2	63,862,924	[redacted]	219,861,771	[redacted]	283,724,695	[redacted]
3	69,077,332	[redacted]	214,647,363	[redacted]	283,724,695	[redacted]
4	74,717,496	[redacted]	209,007,199	[redacted]	283,724,695	[redacted]
5	80,818,180	[redacted]	202,906,515	[redacted]	283,724,695	[redacted]
6	87,416,984	[redacted]	196,307,711	[redacted]	283,724,695	[redacted]
7	94,554,581	[redacted]	189,170,114	[redacted]	283,724,695	[redacted]
8	102,274,962	[redacted]	181,449,733	[redacted]	283,724,695	[redacted]
9	110,625,713	[redacted]	173,098,982	[redacted]	283,724,695	[redacted]
10	119,658,302	[redacted]	164,066,393	[redacted]	283,724,695	[redacted]
11	129,428,403	[redacted]	154,296,292	[redacted]	283,724,695	[redacted]
12	139,996,232	[redacted]	143,728,463	[redacted]	283,724,695	[redacted]
13	151,426,924	[redacted]	132,297,771	[redacted]	283,724,695	[redacted]
14	163,790,932	[redacted]	119,933,762	[redacted]	283,724,695	[redacted]
15	177,164,462	[redacted]	106,560,233	[redacted]	283,724,695	[redacted]
16	191,629,940	[redacted]	92,094,754	[redacted]	283,724,695	[redacted]
17	207,276,525	[redacted]	76,448,170	[redacted]	283,724,695	[redacted]
18	224,200,653	[redacted]	59,524,042	[redacted]	283,724,695	[redacted]
19	242,506,637	[redacted]	41,218,058	[redacted]	283,724,695	[redacted]
20	262,307,304	[redacted]	21,417,391	[redacted]	283,724,695	[redacted]

8.5 CORRECTION FACTOR

The method for tariff calculation employed by NEPRA is based on the assumption that the energy produced on a monthly basis is the average of the annual energy production figure (i.e. annual energy production / 12) and therefore, the Project is expected to receive harmonized cash flows throughout the year.

However, the energy produced by the Project for a given month is directly dependent on the wind speed for that month, which varies significantly from one month to the next and thus results in erratic Project cash flows.

The total Project Cost is to be funded on a 75:25 Debt: Equity basis and variation in monthly wind speed will result in an un-even behavior of the cash flows – thus hampering the debt servicing capability of the Project Company. Therefore, the Project Company requests NEPRA to allow a correction factor to be applied to the monthly energy production figure (to be used for calculation of the Monthly Energy Payment (as defined under the EPA) (the **Correction Factor**) that is similar to the treatment provided in Schedule 10 of the standard Power Purchase Agreements for thermal power producers.

The Correction Factor formula proposed to be applied for calculation of Monthly Energy (to be used for determining the Monthly Energy Payment) is set out below:

$$Correction\ Factor = \frac{\left(\frac{Sum\ of\ Monthly\ Benchmark\ Energy\ for\ a\ year}{12}\right)}{Monthly\ Benchmark\ Energy\ for\ the\ relevant\ month}$$

The Correction Factor being requested will not impact the total annual revenues of the Project Company and will only provide means of self-sustenance to the Project.

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9. INDEXATIONS, ESCALATIONS AND COST ADJUSTMENT

9.1 INDEXATIONS

NEPRA is requested to allow indexation for the various Reference Generation Tariff components in the following manner.

9.1.1 Fixed O&M (Local) Cost Component

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

$$FO\&M_{(LRev)} = \text{Relevant Reference Generation Tariff Component} * (WPI_{(Rev)} / WPI_{(Ref)})$$

Where:

$FO\&M_{(LRev)}$	=	the revised Fixed O&M (Local) Cost Component applicable for the relevant quarter
$WPI_{(Rev)}$	=	the revised WPI of manufacturing in Pakistan for the month prior to the month in which indexation is applicable, as notified by the Federal Bureau of Statistics.
$WPI_{(Ref)}$	=	the WPI of manufacturing in Pakistan for the month in which tariff is determined, as notified by the Federal Bureau of Statistics.

9.1.2 Fixed O&M (Foreign - USD) Cost Component

The Reference Foreign Fixed O&M (Foreign - USD) Cost Component shall be quarterly indexed to both:

(a) the USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan; and

(b) the US CPI (for all Urban consumers), issued by the US Bureau of Labor Statistics.

The applicable formula shall be as follows:

$$FO\&M_{(FUSD-Rev)} = \text{Relevant Reference Generation Tariff Component} * (US\ CPI_{(Rev)} / US\ CPI_{(Ref)}) * (FX\ USD_{(Rev)}/86.2)$$

Where:

$FO\&M_{(F-USD-Rev)}$	=	the revised Foreign O&M (Foreign – USD) 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, issued by US Bureau of Labor Statistics.
$US\ CPI_{(Ref)}$	=	the US CPI (for all Urban-consumers) for the month in which tariff is determined, as issued by 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.

9.1.3 Fixed O&M (Foreign – Euro) Cost Component

The Reference Fixed O&M (Foreign – Euro) Cost Component shall be quarterly indexed to both:

(c) the Euro/PKR exchange rate, based on the revised TT & OD selling rate of Euro notified by the National Bank of Pakistan; and

(d) the Euro Area Harmonized Index of Consumer Prices, issued by Eurostat.

The applicable formula shall be as follows:

$$\boxed{FO\&M_{(FEuro-Euro)} = \text{Relevant Reference Generation Tariff Component} *}$$
$$\boxed{(EHICPI_{(Rev)} / EHICPI_{(Ref)}) * (FX\ EURO_{(Rev)}/118.96)}$$

Where:

$FO\&M_{(FEuro-Euro)}$	=	the revised Fixed O&M (Foreign – Euro) Cost Component, applicable for the relevant quarter
$EHICPI_{(Rev)}$	=	the revised Euro Area Harmonized Index of Consumer Prices for the month prior to the month in which indexation is applicable, issued by Eurostat.
$EHICPI_{(Ref)}$	=	the Euro Area Harmonized Index of Consumer Prices for the month in which tariff is determined, as issued by Eurostat.
$FX\ Euro_{(Rev)}$	=	the revised TT & OD selling rate of PKR/Euro as on the date on which indexation is applicable, as notified by the National Bank of Pakistan.

9.1.4 Insurance Cost

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

Furthermore, the Reference Insurance Cost Component has been calculated on the basis of insurance premium of US$ 1.102 million (1% of the EPC Price) per annum, which is subject to a maximum cap of 1.35% of the EPC Price per annum on the production of actual insurance premium. This adjustment of Insurance Cost Component of the Reference Generation Tariff for increased insurance premium shall only be applicable if the actual insurance premium for any year is more than US$ 1.102 million (1% of the EPC Price) and shall be applied for by the Project Company along with the quarterly indexations and shall be applicable for the next year.

(a) Indexation Formula

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

$$\boxed{\textbf{Insurance}_{(Rev)} = \textbf{Relevant Reference Generation Tariff Component *}}$$
$$\boxed{(\textbf{FX USD}_{(Rev)} / 86.2)}$$

Where:

$Insurance_{(Rev)}$ = the revised Insurance Cost 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.

(b) Adjustment Formula

The adjustment of the Insurance Cost Component for increase in insurance premium shall be based on the following formula:

$$\boxed{\textbf{Insurance}_{(Adj)} = \textbf{Relevant Reference Generation Tariff Component *}}$$
$$\boxed{(\textbf{P}_{(Act)} / \textbf{P}_{(Ref)})}$$

Where:

$Insurance_{(Adj)}$ = the revised Insurance Cost Component applicable for the relevant year

$P_{(Act)}$ = Actual Insurance Premium or 1.35% of the

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EPC Price whichever is lower

$P_{(Ref)}$ = Reference Insurance Premium of US$ 1.102 million (1% of the EPC Price)

9.1.5 Return On Equity

In line with NEPRA's previous determinations for thermal IPPs and the Wind IPPs, the ROE Component of 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:

$$\boxed{ROE_{(Rev)} = \text{Relevant Reference Generation Tariff Component} * (\text{FX USD}_{(Rev)}/86.2)}$$

Where:

$ROE_{(Rev)}$ = the revised ROE 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.

9.1.6 Withholding Tax on Dividend

The Reference Withholding Tax Component shall be quarterly indexed to 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:

$$\boxed{WHT_{(Rev)} = \text{Relevant Reference Generation Tariff Component} * (\text{FX USD}_{(Rev)} / 86.2)}$$

Where:

$WHT_{(Rev)}$ = the revised Withholding Tax 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.

9.1.7 Principal Component (Foreign)

The Reference Principal Component (Foreign) shall be semi-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 applicable formula shall be as follows:

$$PRIN_{(FRev)} = \text{Relevant Reference Generation Tariff Component} * (FX\ USD_{(Rev)} / 86.2)$$

Where:

$PRIN_{(FRev)}$ = the revised Principal Component (Foreign) applicable for the relevant semi-annual period

$FX\ USD_{(Rev)}$ = 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.

9.1.8 Interest Charges (Local)

The Interest Charges (Local) part of the Reference Debt Service Component shall be semi-annually adjusted for variations in interest rate as a result of variation in 6 months KIBOR. The rationale for such semi-annual indexation is submitted in Section 6.6.2 **Reasons for Requesting 6-Month KIBOR / LIBOR** of the Tariff Petition.

The Interest Charges (Local) of the Debt Service Component shall be indexed based on the following formula:

$$I_{(Rev)} = \text{Relevant Generation Tariff Component} * (KIBOR_{(Rev)} + 2.95\%) / (KIBOR_{(Ref)} + 2.95\%)$$

Where:

$I_{(Rev)}$ = the revised Interest Charge component applicable for the relevant semi-annual period

$Kibor_{(Rev)}$ = the revised 6 month KIBOR rate at the end of each 6 months period.

$Kibor_{(Ref)}$ = 6 month KIBOR rate prevailing on the date of tariff determination (13.38%)

9.1.9 Interest Charges (Foreign)

The Interest Charges (Foreign) part of the Reference Debt Service Component shall be semi-annually adjusted for variations in interest rate as a result of variation in 6 months LIBOR & foreign exchange fluctuations in the PKR / USD exchange rate. The rationale for such semi-annual indexation is submitted in Section 6.6.2 **Reasons for Requesting 6-Month KIBOR / LIBOR** of the Tariff Petition.

The Interest Charges (Foreign) of the Debt Service Component shall be indexed based on the following formula:

$$I_{(Rev)} = \text{Relevant Generation Tariff Component} * (LIBOR_{(Rev)} + 4.6\%) / (LIBOR_{(Ref)} + 4.6\%) * (FX\ USD_{(Rev)} / 86.2)$$

Where:

$I_{(Rev)}$	=	the revised Interest Charge component applicable for the relevant semi-annual period
$Libor_{(Rev)}$	=	the revised 6 month LIBOR rate at the end of each 6 months period.
$Libor_{(Ref)}$	=	6 month LIBOR rate prevailing on the date of tariff determination (0.48%)
$FX\ USD_{(Rev)}$	=	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.

9.2 ADJUSTMENTS AT COD

NEPRA is requested to allow the adjustments to the Reference Generation Tariff at the time of true up at COD.

9.2.1 Adjustments To Project Cost

It is submitted that the Project Cost be adjusted at COD for the following based on the assumptions detailed in Section 5 (*Project Cost & Tariff*) and the adjustment to the Project Cost to be reflected in the relevant tariff components (Return on Equity and Debt Servicing):

(a) The Principal repayment and cost of debt be adjusted at COD as per the actual borrowing composition;

(b) Interest during Construction be adjusted as per actual based on actual disbursement of loans and prevailing KIBOR / LIBOR rates during the project construction period;

(c) The specific items of Project Cost to be incurred in foreign currency (US$ or Euro) be adjusted at COD based on the PKR / US$ or PKR / Euro exchange rate prevailing on the date the transaction was carried out;

(d) Customs duty and other taxes be adjusted as per actual;

(e) Impact of Sindh Sales Tax on Services Act 2011, Sindh Infrastructure Development Surcharge, and Federal Excise Duty be allowed as a pass-through;

(f) Return on Equity be adjusted at COD in accordance with the GOP Policy for Development of Renewable Energy for Power Generation 2006 in order to ensure an IRR based return of 17% on equity (while treating the project as a Build-Own-Operate type project).

9.2.2 Adjustment To Working Capital Facility for the Project

A Working Capital facility of PKR 89.80 million has been estimated for the Project, which does not include the impact of PKR / USD, PKR / Euro and variations in KIBOR / LIBOR. The actual amount of working capital required by the Project can only be assessed once COD has been achieved. For this reason, it is humbly prayed that NEPRA allow the Project Company to claim One-Time Adjustment to the extent of working capital required by the Project at the time of achievement of COD.

10. CONSIDERATIONS WITH RESPECT TO EPA

10.1 ENERGY PRODUCTION

Before progressing into the basis of the energy production estimate used by the project company for its tariff, it is suitable that a brief explanation into the method of calculating the energy production be provided so that a holistic view can be given to the Authority:

- *Probability of Exceedence*
  - P50 – 50% probability energy production will be below this level;
  - P75 – 25% probability energy production will be below this level (**Lowest Bankable Estimate**);
  - P90 – 10% probability energy production will be below this level (**Bankable Estimate**);

- *Energy Estimates based on annual average wind speed data*
  - The internationally accepted principle for determining the energy production estimate for a wind power project utilizes the annual average wind speed data comprising of a minimum data set of five (5) years (annual average wind speed is calculated based on 10-minute average wind speeds averaged over the entire year);
  - The multi-year data set enables software programs (such as WindPro) to identify a pattern / trend in wind characteristics (comprising of, to name a few, wind distribution, frequency, direction, etc.), correlate them with long term wind data available through sources such as National Center for Environmental Prediction (NCAR) and develop a best estimate forecast over the life of the wind power project;
  - In order to increase accuracy (rather reduce inaccuracies), its is standard practice to develop wind energy estimates on an annual basis as this allows a sufficiently large wind speed data set to be developed (comprising of both very high and very low wind speeds) thereby ensuring a level of normalization in the results as it (1) reduces the impact of outliers; and (2) provides a larger sample which ensures a higher frequency of regularly encountered wind speeds.

10.1.1 Issue affecting all Wind IPPs in Pakistan

It is pertinent to highlight that while the GOP has taken a huge step for inducing investment in the wind power sector by taking on wind **speed** risk on its own, **wind speed is only ONE of the factors affecting the energy production capabilities of a wind farm.** Other factors such as wind distribution, frequency coupled with wind direction can have a significant impact on the energy production of a wind farm. While a long term forecast is developed by all technical consultants for their projects, these forecasts are over shadowed by a number of uncertainties which include those related to wind distribution accuracy, terrain data resolution and accuracy, wind flow model accuracy, array loss modeling and power curve uncertainty, etc.

The wind regime being followed in Pakistan is based on average benchmark wind speeds determined on monthly basis by AEDB. While the wind speed risk below the benchmark wind speed has been taken by the Government of Pakistan, other characteristics such as wind distribution, frequency and direction have not been covered under the wind risk coverage being offered to wind IPPs. The principle of averages dictates that the same average value can be arrived at using totally dissimilar data sets, example provided below:

10-minute Data Set	Set 1	Set 2
First	4	0
Second	5	3
Third	4	5
Fourth	3	8
Four period Average	**4**	**4**

While the average wind speed over both data sets (Set 1 and Set 2) comes to 4 m/s, the energy production estimates for the two will be very different due to the nature of the power curve which is not linear.

10.1.2 Issues affecting Wind IPPs being developed in Gharo

Further, as opposed to wind farm sites located at Jhimpir where annual benchmark wind speeds (guaranteed by the GOP) of 7.3 m/s (per annum) are much lower than the actual wind speeds encountered at these sites (measured at approximately 7.8 m/s (per annum)), the P50 values determined by RISOE (AEDB's technical consultant) based on benchmark wind speed of 7.3 m/s for projects in Jhimpir coincide with the energy production estimates determined by the project's own technical consultant based on actual wind speeds at a probability of exceedence of P75.

While the lenders technical advisor considers the benchmark wind speed as a safety net which ensures that debt servicing can be continued in the improbable scenario of wind speeds being below the benchmark level, it is critical to point out that the lenders do not base their decisions of proceeding with. financing projects based on P50 figures, the technical advisors appointed by the lenders always consider the actual wind speed to be more representative of the ability of these projects to service debt (with as described above the lower end being restricted to levels guaranteed by the government i.e. the benchmark wind speed).

Since the P75 energy yield figure (based on actual wind speed) was close to the P50 energy yield figure (based on benchmark wind speed) for Jhimpir sites, the P50 figure approved by RISOE could easily be accepted by projects being developed in the Jhimpir region. It has, however, been noted that the benchmark wind speeds at Gharo are almost identical or in some cases above the actual wind speeds encountered at Gharo. Therefore, in order to ensure bankability of the projects being set up in Gharo and in light of the convention followed by lenders of such projects, the **P75 energy figure based on the benchmark wind speed at Gharo should be allowed for determination of tariff** for projects being developed in this region. This P75 estimate does not consider wind speed as an uncertainty as explained above.

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The combined impact of the issues highlighted above results in the projects having to use lower energy yield figure for the purpose of tariff determination as (1) the uncertainties inherently associated with wind resource modeling on monthly basis i.e. in wind distribution accuracy, terrain data resolution and accuracy, wind flow model accuracy, array loss modeling and power curve uncertainty are higher due to a lower number of data points being considered in the data set (as opposed to wind resource modeling on annual basis); (2) benchmark wind speeds being around the actual wind speeds encountered in Gharo region; and (3) energy production over the benchmark will be available to the Power Purchaser at 10% of tariff.

10.2 BENCHMARK ENERGY AND COMPLEX MONTHLY POWER CURVE TABLES

The Benchmark Energy Table and Complex Monthly Power Curve table are used by the Power Purchaser as a means of estimating the performance of the Project. These provide a benchmark for the energy to be produced by the Project at a given wind speed. The payments to the Project Company for the energy produced as well as the coverage provided to the Project against wind speed variability risk shall be based on these tables and the same shall be attached as Schedule 1 Annex 2 of the EPA. The said tables also form the basis of payment to the Project Company against Non-Project Missed Volume (as defined under the EPA).

The Benchmark Energy Table and Complex Monthly Power Curve table are currently under development by the Project Company technical consultants and will be subsequently provided to NEPRA as soon as these are finalized. NEPRA is therefore requested to approve the Benchmark Energy Table and Complex Monthly Power Curve table in order for the same to be appended as Schedule 1 Annex 2 of the EPA.

10.3 MONTHLY ENERGY PAYMENTS (BENCHMARK & BONUS)

As per RE Policy 2006, wind risk is guaranteed by the Government of Pakistan and the tariff is based on the monthly benchmark energy table based on the monthly benchmark wind speeds. Therefore, monthly payments shall be made for the benchmark energy produced by the Project.

Further, the bonus payments are also applied on any energy produced over and above the benchmark energy. The standard EPA approved by the GOP provides for payment of bonus energy on monthly basis. There is no differentiation in the RE Policy between the timing for payments for monthly benchmark energy and bonus payments. NTDC has in recent negotiations shifted the bonus payments towards the end of the year on the argument that "NEPRA's determination was silent on this issue". It is most unfair for a Project to be penalized for the shortfall energy (energy production below the monthly benchmark energy) on a monthly basis, but not allowing the quid pro quo of the 10% bonus payment also on monthly basis. The Petitioner therefore prays that NEPRA state explicitly in the tariff determination that bonus energy payments should also be made on monthly basis; if this is not agreed, then any shortfall energy payments should also be deferred for payment at the end of a year, It is proposed to allow payment of bonus energy on a monthly basis in the same manner as the payment of benchmark energy is made by the Power Purchaser under the EPA. For each month, the benchmark energy and the bonus energy (if produced) shall be determined and paid by the purchaser.

10.4 POWER PURCHASE 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. This has, however, been removed from the latest draft of the EPA.

NEPRA ***is therefore 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.***

In case the Project is not allowed to claim compensation, there will be no motivation for the Project to supply energy into the grid – which could otherwise assist in reducing the demand-supply gap.

11. GENERAL ASSUMPTIONS

The following have been assumed while calculating the Reference Generation Tariff and changes in any of these assumptions will result in changes in the Reference Generation Tariff.

1. Debt: Equity ratio is assumed to be 75:20.

2. Foreign lenders shall contribute towards funding 66.67% of the Debt (LIBOR based financing) while the remaining 33.33 % will be funded through local financial institutions (KIBOR based financing).

3. Interest rate for LIBOR based debt has been determined based on 6 Month LIBOR (0.48%) plus 4.6% Spread and semi-annual indexation on the same will be allowed by NEPRA.

4. Indexation against PKR / USD variations will be permitted for debt servicing payments to be made for settlement of foreign source debt.

5. Interest rate for KIBOR based debt has been determined based on 6 Month KIBOR (13.38%) plus 2.95% Spread and semi-annual indexation on the same will be allowed by NEPRA.

6. A constant ROE of 17% (IRR based) is assumed (net of 7.5% withholding tax on dividends) over 20 years. The ROE DC shall be accrued at the time of COD according to the actual schedule of equity disbursement.

7. Exchange rate have been assumed to be: PKR 86.2 /USD and USD 1.38 / Euro.

8. Any taxes federal, provincial, local or district, stamp duties and levies etc which are not factored in the tariff calculation shall be treated as pass through items, in term of EPA.

9. No customs duties and income tax have been considered for imports. Any changes in the customs duties or any other duty or tax on import of equipment and material will be treated as "pass through" to the Power Purchaser. Similarly, customs duties on spare parts after COD will be "passed through" to the Power Purchaser.

10. The Project does not come under the ambit of Sindh Sales Tax on Services Act, 2011. In case it is deemed that the Project is subject to payment of any taxes under said act, the same are to be treated as a pass-through to the Power Purchaser.

11. Deduction of withholding tax is assumed only in the On-Shore Contract. No withholding tax has been considered in the Off- Shore Contract. Any additional tax, if levied, will be "pass through" to the Power Purchaser

12. 7.5% withholding tax on dividend is assumed. Any changes in the aforesaid withholding tax regime will be "pass through" to the Power Purchaser. General Sales Tax and all other taxes will also be treated as a "pass through"

13. The Zakat deduction on dividends (currently @ 2.5%), as required to be deducted under Zakat Ordinance, is to be considered as "pass through".

14. Sindh Infrastructure Development Surcharge @ 0.850% of the imports for the Project has been assumed.

15. Federal Excise Duty has not been assumed as part of the Project Cost; in case the same is required to be paid by the Project, the same should be treated as pass-through under the tariff.

16. The Return on Equity for the construction and commissioning period shall be adjusted on IRR basis at the time of COD according to the actual Equity disbursement during such period

17. The Power Purchaser / NTDC shall be exclusively responsible for the financing of construction, operation and maintenance of the interconnection and Transmission Lines as per the prevailing policy at the time of tariff determination

18. Main Energy meter and electronic recorder for continuous recording of readings will be provided by NTDC at its own cost.

19. Financing Terms are as yet based on the initial discussion with the financial institutions and hence are subject to final negotiations once tariff has been determined by NEPRA and the EPA / IA are signed. This will include mainly the debt-equity ratio, Grace Period and loan repayment term, benchmark index (LIBOR/KIBOR) and the spread margin of the financial institution.

20. Pre-COD insurance costs are considered based on the proposal received from top local insurance company. Premium rate for the insurance arrangements will be finalized at the time of financial closure.

21. 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 included in the Project Cost.

22. Project contingency and maintenance reserves are not included in Reference Generation Tariff calculations. If required by Lenders, these will be adjusted accordingly in the Reference Generation Tariff.

23. Any other assumptions that are not expressly stated herein but are based on the EPA draft negotiated by the Project Company with the Power Purchaser. Consequently any change in any such assumptions may lead to change in the Reference Generation Tariff,

24. 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 at actual by the Power Purchaser.

25. Any incentives given to any other Wind IPP shall also be given to the Project Company.

12. TARIFF SUMMARY

In summation, the Project Company herewith most respectfully submits before NEPRA for its approval the matters set out in this Tariff Petition and further prays for NEPRA to kindly approve the following:

12.1 The Project Costs and related arrangements stated in this Petition be allowed to the Petitioner.

12.2 Energy production estimate of 129.6 GWh per annum for calculation of the tariff and energy payments for the years 1 – 20 after COD.

12.3 The Power Purchaser be directed to make payment against Bonus Energy (energy above the Monthly Benchmark Energy) on monthly basis.

12.4 The Project be allowed to claim compensation for energy supplied prior to COD at the rate of tariff allowed by NEPRA for the first year minus the debt servicing components.

12.5 Funding of the Project on an 75:25 – Debt: Equity basis.

12.6 Debt to be split on 66.67%: 33.33% foreign (LIBOR): local (KIBOR) basis.

12.7 LIBOR based debt financing (66.67%) with a base rate equal to 6-Month LIBOR plus a spread of 4.50%, reasons for which have been explained under Section 6.6 (*Debt Servicing*) above.

12.8 KIBOR based debt financing (33.33%) with a base rate equal to 6-Month KIBOR plus a spread of 2.95%, reasons for which have been explained under Section 6.6 (*Debt Financing*) above.

12.9 Sharing of any CER related revenues subsequently realized, as per the Government of Pakistan policy.

12.10 A Return on Equity of 17% (net of 7.5% withholding tax) on IRR basis along with Return on Equity during Construction Period, reasons for which have been provided in detail in Section 6.4 (*Equity*) above.

12.11 Working Capital facility of PKR 89.80 million, to be adjusted at COD.

12.12 Indexations and adjustments for the individual tariff components, as detailed in Section 9 (*Indexations, Adjustments and Cost Escalations*) above.

12.13 Insertion of Benchmark Energy Table and Monthly Complex Power Curve as Schedule 1 Annex 2 of the EPA, the same are provided under Section 10.1 (*Benchmark Energy & Complex Monthly Power Curve Tables*) above.

12.14 The Reference Generation Tariff provided under Section 8.3 (*Reference Generation Tariff Table*) above along with individual tariff components and debt schedule provided under Section 8.4 (*Debt Schedule*) above.

12.15 Adjustments at COD, as provided under Section 9.2 (*Adjustments at COD*) above.

12.16 The General Assumptions, as provided in Section 11 (*General Assumptions*).

Furthermore, given the advance stage of the Project, NEPRA is kindly requested to process the Tariff Petition at the earliest thereby enabling the Project Company to proceed further with the development process.

Director
Foundation Wind Energy-II Limited

Annexure	Particulars
A	Feasibility Study Approval Letter
B	Revision in the Feasibility Study Approval Letter; along with:- a) Approval of Grid Interconnection studies from NTDC b) Approval of EIA/IEE Study from EPA, Sindh c) Approval of EPC Contractors for Wind Power Project
C	Approvals from AEDB for Requisite Acquisition
D	Term Sheets for the Financing (foreign) of the Project
E	Term Sheets for the Financing (local) of the Project
-	Consent from NTDC to Procure Power from Project Company

Government of Pakistan
Alternative Energy Development Board (AEDB)
344, B Prime Minister's Secretariat, Islamabad
Ph: 051-9223427 / Fax: 051-9205790

AEDB

B/3/1/2006 7 April 2006

The General Manager,
WPPO
WAPDA House
Lahore.

Subject: **FEASIBILITY STUDY FOR 50 MW WIND POWER GENERATION PROJECT BY M/S GREEN POWER**

Enclosed, please find the Feasibility Study for the 50 MW Wind Power Generation Project at Gharo-Keti Bandar corridor, submitted by Green Power (Pvt.) Ltd. This Feasibility Study is hereby approved by AEDB for further necessary action by NTDC.

2. Regards.

Government of Pakistan
Alternative Energy Dev. Board
Islamabad
Prime Minister's Secretariat

(Brig. Dr. Nasim A. Khan)
Secretary / Member Technical

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FROM :AEDB FAX NO. :0519205790 Apr. 08 2006 10:11AM P1

Government of Pakistan
Alternative Energy Development Board (AEDB)
3, Street No. 8, F-8/3, Islamabad.
Tel: 92 51 9262947-50, Fax: 92 51 9262977

B/3/1/GPPL/07

27th August 2011

Brig. (R) Rahat Khan
Project Director
Foundation Wind Energy – II Pvt. Ltd. (FWEPL)
Fauji Foundation Head Office, P&D Division
68 Tipu Road, Chaklala
Rawalpindi.

Subject: **PROVISIONAL APPROVAL OF FEASIBILITY STUDY**

This refers to your communication dated August 26, 2011 regarding the subject cited above.

2. AEDB acknowledges that the IPP has acquired the necessary approvals of the Grid Interconnection study and IEE study from the relevant agencies. The approval of Feasibility study is linked with the following milestones;

- Verification of Power Production Estimates from Risoe.
- Approval of Grid Interconnection studies from NTDC
- Approval of EIA/IEE Study from EPA, Sindh

4. AEDB has initiated the process of verification of production estimates through RISO. AEDB hereby provisionally accepts the feasibility study of the wind power project of M/s FWEPL. The final approval of the feasibility study shall be accorded based on the verification of power production estimates by RISO. M/s FWEPL may however proceed ahead with the application of tariff to NEPRA.

(Syed Aqeel Hussain Jafri)
Deputy Director (Policy)

NATIONAL TRANSMISSION & DESPATCH COMPANY LIMITED

PABX: 042-99202211/2106
Tel: 042-99204045
Fax: 042-99201179

Office of the
Chief Operating Officer (CPPA)
107 – WAPDA-House
Lahore

No. COO/CPPA/CE/MT-III/Planning/ 8307-18 Dated: 04 / 12 / 2010

1. Chief Executive
M/s Beacon Energy Limited,
10-11 Gurumangat Road,
Gulberg-III, Lahore.
Fax No. 042-5712027

2. Mr. Danish Iqbal,
(Attorney)
M/s Gul Ahmed Wind Power Limited
36-F, Block-6, P.E.C.H.S., Karachi-75400.
Fax # 021-4540274/4383433

3. Mr. Adnan Tapal, Director,
M/s Green Power (Pvt) Limited,
Ameejee Chambers, Campbell Street,
Karachi 74200
Fax No. 021-2623930

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

Subject: **Vetting of Final Reports of electrical Grid Interconnection Studies for Wind Power Projects (WPP)**

Enclosed please find herewith a copy of letter No. GMP/CEMP/TRP-380/7078 dated 30.11.2010 of the office of General Manager Planning (Power) NTDC regarding vetting of Final Reports of Electrical Grid Interconnection Studies of the following Wind Power Projects:

1. M/s Beacon Energy Limited (BEL) WPP
2. M/s Green Power (Pvt) Limited (GPPL) WPP
3. M/s Gul Ahmad WPP
4. M/s Sapphire WPP

In the above referred letter, Chief Engineer Planning (Power) has stated that all the comments and decisions taken in a meeting held on 19.10.2010 with Planning and Design Departments regarding the design of the bus bar scheme, covering load flow, short circuit, transient stability and power quality analysis of the aforementioned WPPs have been incorporated in the Interconnection Study Reports.

Further, he has mentioned that since the actual sites of the proposed 220/132 kV Grid station(s) at Gharo and Jhimpir are not yet finalized, the interconnection schemes are vetted assuming that final sites of the said grid station(s) will remain the same as proposed in the respective reports.

DA/As above

04/12/10
(Khadim Hussain Baloch)
Manager Tech-III (CPPA)

CC:
1. Chief Executive Officer AEDB, House No. 3, F-8/3, Islamabad.
2. General Manager Planning (Power) NTDC, 5th Floor, PIA Tower, Egerton Road, Lahore w.r.t his letter referred above.
3. Chief Engineer (Design) NTDC, 143-WAPDA House, Lahore.
4. Chief Engineer (System Protection) NTDC, 130-WAPDA House, Lahore.
5. Chief Engineer (Telecom) NTDC, 625-WAPDA House, Lahore.
6. M/s Power Planners International (PPI), 66-H/2, WAPDA Town, Lahore
7. PS to Chief Executive Officer NTDC, 414-WAPDA House, Lahore.
8. PA to Chief Operating Officer (CPPA), 107-WAPDA House, Lahore.

NATIONAL TRANSMISSION & DESPATCH COMPANY LIMITED

3343
2-12-10

Office of the
General Manager Planning (Power)
5th floor, PIA Building, Egerton Road, Lahore

Phone: 042- 99202646
Fax :042- 99202604

No. GMPP/CEMP/TRP-380/ 7078

30 NOV 2010

5279
01-12-10

Chief Operating Officer (CPPA)
WAPDA House, Lahore

Atten: Manager Tech-III (CPPA)

Subject: **Vetting of Final Reports of Electrical Grid Interconnection Studies for Wind Power Projects(WPP).**

Ref: Planning (Power) letter no. GMPP/CEMP/TRP-380/5590 dated 13-10-2010
PPI letter no. WD/GAWPL/202 dated 01-11-2010
PPI letter no. WD/GAWPL/204 dated 01-11-2010
PPI letter no. WD/GAWPL/206 dated 01-11-2010

With reference to above and based on subsequent discussions held in this office with the representatives of M/s PPI regarding our comments, the Final Reports of the Electrical Grid Interconnection Studies of the following ~~interconnection WPPs~~ have been reviewed:

1. M/s Beacon Energy Ltd. (BEL) WPP.
2. M/s Green Power Ltd. (GPP) WPP.
3. M/s Gul Ahmed WPP.
4. M/s Sapphire WPP.

The interconnection study reports, incorporating all the comments and decisions taken regarding the design of the bus bar scheme in a meeting held on 19-10-2010 with Planning and Design departments, covering load flow, short circuit, transient stability and power quality analysis of the above mentioned WPPs of 50 MW each located at Jhimpir and Khuttikan (Gharo) clusters, are vetted.

However, since the actual sites of the proposed 220/132 kV grid station(s) at Gharo and Jhimpir are not yet finalized, the interconnection schemes are vetted assuming that final sites of the said grid station(s) will remain the same as proposed in the respective reports.

(Nisar Ahmad Bazmi)
Chief Engineer Planning (Power)

Reference No: EPA/2008/6/6/IEE/143/

ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF SINDH

Plot # ST-2/1, Sector 23, KIA, Karachi-74900
Ph: 5065950, 5065598, 5065637
5065532, 5065946, 5065621
epasindh@cyber.net.pk
Facsimile: 5065940

Dated: 27-04-2009

DECISION ON INITIAL ENVIRONMENTAL EXAMINATION (IEE).

1.	**Name & Address of Proponent:**	**M/s Green Power (Pvt) Limited**
2.	**Description of Project:**	**49.5 MW Wind Power Project**
3.	**Location of Project:**	**Kheti Kun- District Thatta.**
4.	**Date of Filing of EIA:**	**06-06-2008**

5. After careful review and analysis of the Initial Environmental Examination (IEE) report, the Environmental Protection Agency (EPA), Sindh has decided to accord its Approval subject to the following conditions:

i. During the project execution, safe distances of the under mentioned environmental sensitivities will be maintained:
   - 500m from communities, industries and main transport network
   - 300m from community water well
   - 100m from archaeological / cultural site / monument
   - Distance will be measured from the tip blade of turbines or/and transmission power lines associated.

ii. Project activity will not be carried out within buffer zone of any project area designated under Sindh wildlife protection act.

iii. Effect on wildlife will be monitored during the migratory season of birds and reports of findings will be submitted to SEPA.

iv. Campsites will be located at least one kilometer away from any settlement to avoid disturbance to the local people.

v. No industrial or residential activity will be permitted on the land allocated for wind energy projects.

Always Remember--- Reuse, Reduce & Recycle

vi. The project area will be restored to its original nature to the possible extent. For the purpose, documentation (Photographs) will be kept in record.

vii. Employment will be provided to local people and assured for all unskilled jobs. Skilled jobs will be given to the locals after providing them proper field training, where a minimum training will be required.

viii. Benefits to local people will be offered under Corporate Social Responsibility (CSR) policy, community development schemes will be decided in consultation with local communities and may be facilitated by involving district/local Government office.

ix. Compensation will be provided to the inhabitants in case of loss of agriculture land, crop property, etc., in accordance with the rates, that are agreed upon. All conflicting issues regarding compensation etc. should be settled in advance prior to the start of activity.

x. The allocated land to setup wind energy project should be free from ownership rights of local people.

6. This approval shall be treated cancelled if any of the conditions, mentioned in para-5 above is violated. In follow up of the cancellation of this approval prosecution under the provision of Pakistan Environmental Protection Act, 1997 will be initiated against the proponent.

7. The proponent will be liable for compliance of Regulations 13, 14 and 18 of EIA/IEE Regulation, 2000.

8. The proponent will be liable for compliance of Regulations 17 of EIA/IEE Regulation, 2000, which permits the authority i.e. Environmental Protection Agency to enter, inspect and monitor the development of the project so that the conditions are effectively monitored.

9. This approval does not absolve the proponent of the duty to obtain any other approval or consent that may be required under any other law in force.

10. Implementation Report of all the mitigation measures and EMP laid down in the IEE Report be submitted to this office on quarterly basis for review. No violation of any Regulations, Rules, Instruction and Provisions of PEP Act, 1997, shall be made.

11. All the environmental conditions of this approval shall be incorporated in the terms and conditions of tender document and will be component of health safety and environment policy in the project for commitment and compliance.

12. The relevant organization/proponent will submit separate IEE/EIA to EPA, Sindh for construction of new grid station to cater electricity generation from proposed wind energy project.

(Shakil A. Hashmi) 28/4/09

Director General

Government of Pakistan
Alternative Energy Development Board (AEDB)
3, Street No. 8, F-8/3, Islamabad
Tel. 92 51 9262947-50. Fax. 92 51 9262977

AEDB

B/3/1/GPPL/07

18th August 2011

Brig. (R) Rahat Khan
Project Director
Foundation Wind Energy – II Pvt. Ltd.
Fauji Foundation Head Office, P&D Division
68 Tipu Road, Chaklala
Rawalpindi.

Subject: **APPROVAL OF EPC CONTRACTORS FOR WIND POWER PROJECT**

This refers to your letter No. PD-4919/Green dated 06th August 2011 on the subject cited above

2. AEDB has reviewed your request for approval of EPC contractors submitted vide the referred letter. AEDB hereby approves the following entities as EPC contractors for the 50 MW wind power project of M/s Foundation Wind Energy – II Pvt. Ltd.;

a) M/s Nordex Singapore Equipment Private Ltd

b) Descon Group.

3. Regards.

(Syed Aqeel Hussain Jafri)
Deputy Director (Policy)

Government of Pakistan
Alternative Energy Development Board (AEDB)
3, Street No. 8, F-8/3, Islamabad
. Ph: 051-9262947-50 / Fax: 051-9262977

AEDB

No. B/3/1/GPPL/07

15th July 2010

Mr. Mustafa Tapal
Director
Green Power Pvt. Ltd.
Ameejee Chambers, Campbell Street
Karachi.

Subject: **SALE OF MAJORITY SHARES IN GREEN POWER PVT. LTD. (GPPL) TO FAUJI FOUNDATION / FAUJI GROUP**

This refers to your letter No. Nil dated received on 19th April 2010 on the subject cited above.

2. AEDB has no objection to the change of control of Green Power Pvt. Ltd. (GPPL) as mentioned in the above referred letter. In pursuance of the directives of the Chairman AEDB, GPPL / Fauji Foundation is required to strictly follow the timelines for completion of the project (timelines attached as annexure). All other terms and conditions of the project as stipulated in the Letter of Intent (LOI), Agreement-to-Lease etc. and the milestones set therein shall remain the same.

3. Regards.

(Syed Aqeel Hussain Jafri)
Deputy Director (Policy)

C.C

1. PS to CEO, AEDB (For information).

SHEARMAN & STERLING LLP

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wmccormack@shearman.com
(65) 6230 3877

22 August 2011

Foundation Wind Energy II

NEPRA

Dear Sirs

50 MW wind power project to be developed by Foundation Wind Energy II (FWE II) (formerly Green Energy Private Limited) in Kutti Kun, District Thatta, Sindh province, Pakistan (the "**Project**") - Tariff Petition - Financing Term Sheet

We are instructed to act for the Asian Development Bank and Islamic Development Bank (together, the "**Lenders**") in relation to the financing of the Project.

We attach a term sheet reflecting the proposed terms of the financing for the Project. The Lenders confirm that they have obtained initial concept clearance to provide project financing to FWE II in relation to the Project on the basis of this term sheet. The term sheet is not legally binding and the provision of the financing remain subject to each of the Lenders obtaining board and management approval and completing their due diligence on the Project, including legal, technical, environmental and financial due diligence.

Yours sincerely

Shearman & Sterling LLP

Shearman & Sterling LLP

Att – financing term sheet

Draft: 22 August 2011

FOUNDATION POWER PROJECT: INDICATIVE TERM SHEET FOR PROPOSED FINANCING OF 50 MW WIND POWER PROJECT TO BE LOCATED IN KUTTI KUN, DISTRICT THATTA, SINDH PROVINCE, PAKISTAN

This Term Sheet is a summary of the principal terms that may apply to the proposed financing of the Project. All figures, terms and conditions are subject to change.

This Term Sheet does not constitute an offer or a commitment by the Lenders. Each Lender's decision to invest in the Project is contingent upon approval by its management, credit committee and/or Board of Directors and execution of final documentation in form and substance satisfactory to all Lenders.

1.	**Borrower**	Foundation Wind Energy II Limited (formerly Green Power Private Limited) ("**Borrower**").	
2.	**Sponsors**	Fauji Fertilizer Bin Qasim Limited ("**FFBQ**")	35%
		Fauji Foundation	20%
		Islamic Infrastructure Fund ("**IIF**")	25%
		Tapal Group	20%
		FFBQ and Fauji Foundation jointly and severally the "**Fauji Group**".	
3.	**EPC Contractor**	NORDEX Singapore Equipment (Pvt.) Limited (as the lead) and Descon Engineering Fze, UAE, Nordex Singapore Service Private Limited, Descon Engineering Limited and Descon Integrated Projects Private Limited (jointly and severally)	
4.	**O&M Operator**	NORDEX Singapore Services (Pvt) Limited (as the lead), Descon Engineering Limited and Descon Integrated Projects Private Limited (jointly and severally)	
5.	**Project**	The development, financing, design, engineering, procurement, manufacture, construction, permitting, completion, testing, commissioning, insurance, operation and maintenance of a 50 MW wind power project, to be located in Kutti Kun, District Thatta, Sindh Province, Pakistan (the "**Project**").	

6.	*Lender*	*Indicative Commitment*	*Margin/Mark-Up*
	The Asian Development Bank	Up to US$34.88 million	6-month US$ LIBOR plus spread of 4.6%
	Islamic Development Bank	Up to US$34.88 million	6-month US$ LIBOR plus spread of 4.6%
7.	**Purpose of Facilities**	To finance the cost of developing and constructing the Project (i) in accordance with a budget and financial model to be agreed and (ii) reflecting project costs that are recoverable through the tariff mechanism approved by NEPRA, including (subject to (i) and (ii)): professional expenses and consultant's fees, financing costs, insurance premia, taxes, the	

		cost of obtaining consents and permits, and all other agreed costs and expenses incurred in connection with the Project.
8.	**Profile of Repayments/Rental Payments**	Principal repayment shall be in 20 equal semi-annual repayments reflecting an annuity-style repayment profile to be agreed. The door-to-door tenor from signing of the Common Terms Agreement to final repayment of all facilities will not exceed 12 years, including the grace period to be a maximum of two years from signing date.
9.	**Fees**	Front-end fee: 1.4% of the amount of the Facilities, to be paid no later than the earlier of: (a) 30 days after signing of the Common Terms Agreement; and (b) before issuance of the disbursement request for the first disbursement. Commitment Fee: 0.10% per annum on the undisbursed amount of the Facilities, to be paid semi-annually in arrears and commencing to accrue upon a date to be agreed[1].
10.	**Interest/Mark-up Payment Date**	7 July and 7 January in each year (to be aligned with EPA rate-setting)
11.	**Default Rate**	2% per annum above the applicable Interest/Mark-up Rate.
12.	**Debt-to-Equity Ratio**	No higher than 75:25 subject to approval by NEPRA of the project costs to be financed.
13.	**Debt Service Reserve/Major Maintenance Reserve**	An onshore (PKR) and an offshore (US$) debt service reserve account (DSRA) shall be established by the Borrower with the Account Bank. The minimum required balance shall be sized to cover 6-9 months (period to be agreed between the parties, based on the final Financial model & other terms and conditions) of principal/Rental repayment and interest/mark up rate. Major maintenance reserve account (MMRA) to be established in accordance with EPA requirements and recommendations of the Lenders' technical adviser. Sponsors shall agree to fill up the DSRA no later than 30 days before the first Repayment Date and (if applicable) the MMRA no later than Commercial Operation Date. It will be a condition to release of Sponsor Support and the Distribution Test that the DSRA and the MMRA are at the required balance.
14.	**Sponsor Support**	Eligible Project Costs will be funded on 75:25 debt to equity basis. In addition to the initial equity required to fund the Project Costs, Sponsors will undertake to provide to the Borrower additional funds on terms to be agreed.

[1] The commitment fee may be adjusted upwards in which case the front end fee will be reduced so that the position of the Borrower is neutral.

15.	**Share Retention**	Share retention undertakings to be agreed. Any permitted transfer of shares shall be subject to the share pledge and the Lenders' share pledge shall at all times be in respect of 100% of the shares in the Borrower with certain carve out provisions relating to initial public offerings which will be finalized at the loan documentation stage.
16.	**Other Payments**	Borrower to pay or reimburse the Lenders in respect of: (a) increased costs resulting from a change of law or regulations; (b) unwinding/breakage costs, ie, any cost or loss in unwinding funding arrangements resulting from prepaying the Lenders or from failing to borrow or prepay in accordance with a request for disbursement or notice of prepayment; (c) withholding taxes, if any (tax gross-up); (d) all taxes (including stamp taxes) or other charges payable on any of the Financing Documents; (e) legal fees and expenses relating to: (i) the preparation, execution, implementation, administration and enforcement of the Transaction Documents; (ii) the protection of Lenders' interests under the Financing Documents; and (iii) the release of the Security after repayment of the Facilities; (f) amounts (to be agreed with the Borrower at the time) to compensate the Lenders for additional work required in connection with any restructuring; (g) any other expenses/fees for processing waivers and amendments and/or fees for technical, environmental, social and other consultants, the scope of work for whom shall (in the absence of an event of default or potential event of default or an event likely to result in a Material Adverse Effect) be agreed with the Borrower, such agreement not to be unreasonably withheld; and (h) a waiver processing fee on terms to be agreed.
17.	**Voluntary Prepayment**	The Facilities are prepayable in whole or in part on any interest/mark-up payment date, upon 30 days notice subject to terms and conditions to be agreed with the lenders.
18.	**Representations and Warranties**	Customary and appropriate for the Borrower and Sponsors, reflecting the Lenders' respective policies and requirements and subject to certain customary exceptions (relating to materiality and actual knowledge) and legal qualifications to be agreed in the documentation.
19.	**Governing Law**	English Law (e.g. Common Terms Agreement, Accounts Agreement, Sponsor Support Agreement and Intercreditor Agreement) and Pakistan Law (e.g. certain Security Documents) as appropriate. Islamic finance documents will reflect Principles of Islamic Shariah.
20.	**Submission to Jurisdiction**	Borrower and Sponsors to submit to non-exclusive jurisdiction of English courts and Pakistani Courts as appropriate according to the Lenders' respective policies and requirements. Lenders may elect to have disputes resolved by arbitration.

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Mr. Qaiser Javed,
CEO Beacon Energy Limited / Green Power Limited and Director Finance - Fauji Foundation
68, Tipu Road, Chaklala
Rawalpindi, Pakistan - 46000

May 16th, 2011

Subject: Proposal to act as Lead Arrangers and Advisors for local PKR financing to Foundation Wind Energy II (formerly known as Green Power Private Limited)

Dear Mr. Javed,

On behalf of **National Bank of Pakistan ("NBP")**, **Allied Bank Limited ("ABL") and Meezan Bank Limited ("MBL")** (hereinafter also referred to as the "**Lead Arrangers and Advisors or LAA**"), we are pleased to submit an indicative offer on best efforts basis for arranging i) Funded Project Finance facilities of upto **PKR 3,000 million** for a tenor of 12 years and **ii)** Non Funded facilities such as Letters of Credit and Stand by Letters of Credit (both **i. and ii.** hereinafter collectively referred to as **"the Facilities")** for **Foundation Wind Energy II**, formerly known as Green Power (Pvt.) Limited (herein after referred to as **"FWE II"** or the **"Project Company"**)

This letter and the attached term sheet are referred to as the "**Indicative Offer**" or "**Offer**".

This Indicative Offer should not be construed as a commitment by the LAA for arranging the Facilities or providing any funds to FWE II. Please note that this Indicative Offer is subject, among other things, to the (i) LAA's reasonable satisfaction with the results of its project financial, legal and technical due diligence; (ii) the LAA's internal approvals from management, Shariah Advisor and credit committees, and (iii)satisfactory legal counsel opinions. The terms and conditions of the Facilities, including the structure, security, amounts, profit rates, and fees, may be modified or supplemented by the LAA, at any time and from time to time during the course of due diligence or as a result of changed market conditions or otherwise.

IMPORTANT NOTE:

Post acceptance of the Offer, LAA will be appointed exclusively for arrangement of the Facilities. The LAA retains the right to share or award any roles in relation to arrangement of the Facilities with other banks and financial institutions after obtaining prior approval from FWE II.

CONFIDENTIALITY

By accepting the major terms & conditions as stated above, you agree that this letter is for your confidential use only and that neither their existence nor the terms hereof will be disclosed by you to any person other than for submission to AEDB and NEPRA, your officers, directors, employees, accountants, legal counsel and other advisors, and then only on a "need to know" basis in connection with the transactions contemplated hereby and on a confidential basis (except that, notwithstanding the foregoing, you may make such public disclosures as you are required by law).

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MATERIAL ADVERSE CHANGE:

As stated in the Indicative Offer, LAAs reserve the right to decline arranging the Facilities, or renegotiate the terms thereof, in case of any material adverse change.

Please note that this letter constitutes a proposal for discussion purposes only and it does not in any way constitute a commitment by the LAA to deliver such a commitment by themselves or third parties. This proposal is neither an offer to sell nor the solicitation of an offer to enter into the transaction. This Offer and its contents are proprietary information and products of the LAA and may not be reproduced or otherwise disseminated in whole or in part without our written consent unless disclosure is required under applicable law.

Kindly confirm your agreement and acceptance of the aforementioned and terms and conditions by signing and affixing your stamp on this letter, in the space provided below, as well as signing and stamping the indicative term sheet and returning it to the undersigned on or before May 31st, 2011 after which this Offer (if not so accepted prior thereto) will expire.

We trust our offer meets your requirements. Meanwhile, if you need any further clarification, please feel free to contact us. We look forward to working with you on this very important transaction.

Sincerely yours,

For and on behalf of the LAAs

For and on behalf of **National Bank of Pakistan**	For and on behalf of **Allied Bank Limited**	For and on behalf of **Meezan Bank Limited**

Agreed and Accepted for and on behalf of Foundation Wind Energy II by its Authorised Signatory:

Name:

Title:

Date:

Company Stamp: Foundation Wind Energy-II (Private) Limited

NBP AlliedBank Meezan Bank

SUMMARY OF INDICATIVE TERMS AND CONDITIONS

The terms and conditions set forth in this Indicative Offer ("Offer Document") are intended for discussion purposes only and are subject, among other things, to the final expression of the terms of the Facilities as set forth in definitive agreements and/or confirmations and internal credit approvals of the participating institutions. This proposal is neither an offer to sell nor the solicitation of an offer to enter into such transactions. Any financing commitment remains subject to sharing of details/projections, due diligence of the same and approval from respective credit authorities, absence of material adverse changes in the Obligor and/or the financial markets, and completion of satisfactory documentation and any other requirements appropriate to transactions of this nature as provided in the Indicative Offer, or requested through subsequent correspondence or as further detailed in the Transaction Documents.

Obligor	**Foundation Wind Energy II** formerly known as **Green Power (Pvt.) Limited** (herein after referred to as "FWE II" or the **"Project Company"**)
Lead Advisors and Arrangers ("LAAs")	• National Bank of Pakistan Ltd. (**"NBP"**) • Allied Bank Limited (**"ABL"**) and • Meezan Bank Limited (**"MBL"**) Collectively referred to as Lead Advisors and Arrangers (**"LAAs"**)
Financiers	A consortium of banks and financial institutions including but not limited to the Lead Advisors and Arrangers (LAAs).
The Transaction	To part finance the design, engineering, construction and commissioning of FWE II's 50 MW (approx.) wind power project (the "FWE II") situated at Kutti Kun, District Thatta, Sindh. • The total cost of the Project (inclusive of contingencies) is approximately USD 139.53 Million (the "Project Cost"). • The Project Cost will be financed via 75:25 debt: equity ratio. • The Sponsors have arranged offshore financing for the Project from Asian Development Bank ("ADB") and Islamic Development Bank ("IDB") Led Consortium (herein referred to as "Offshore Financiers") for the offshore financing portion (66.67%). The local financing component to be arranged by Local Banks Consortium would be up to PKR 3,000 Million. This includes base funding requirements of PKR 2,800 Million and PKR 200 Million for contingency funding.

	USD Million	PKR Million @ 86/ USD
Long term – 75%		
Foreign – Offshore Financiers (66.67%)	69.77	6,000.00
Local – Local Banks Consortium (33.33%)	34.88	3,000.00
Equity – 25%		
Capital – Sponsors	34.88	3,000.00
Total	**139.53**	**12,000.00**

• For the purpose of this indicative term sheet a PKR / USD conversion rate of PKR 86 / USD has been used to calculate base funding requirements. Any upward revision required in the local funding requirements as a result of variation in exchange rate upto or near financial close will be adjusted from within the contingency amounts.

• Alternate Energy Development Board ("AEDB") has allocated the land to the Project in Kutti Kun, District Thatta, Sindh.

ALLIED BANK LTD.

MEEZAN BANK LIMITED

National Bank of Pakistan H.O. Karachi

NBP | Allied Bank | Meezan Bank

SUMMARY OF INDICATIVE TERMS AND CONDITIONS

Sponsors/Shareholding Structure

SPONSORS	Shareholding Percentage
Fauji Foundation (FF)	20%
Fauji Fertilizer Bin Qasim Limited (FFBL)	35%
Tapal Group (TG)	20%
Islamic Infrastructure Fund (IIF)	25%
Total	**100%**

Facilities

Project Finance Facility:

Project Finance Facility (**"PF"**) of up to PKR 3,000 Million. This Facility is inclusive of PKR 200 million contingency funding for any variations in base PKR funding requirements upto financial close (due to exchange rate variations) and also for escalations of any project costs of a pass through nature under the NEPRA Tariff ("Positive Cost Overruns") to be financed by the Lead Advisors and Arrangers. For abundant clarity, it is stated that any Positive Cost Overruns upto PKR 266.67 million shall be funded directly by the LAA and the Sponsors as per the table below

Local – Local Banks Consortium (75%)	PKR 200.00 million
Sponsors – 25%	PKR 66.67 million
Total	**PKR 266.67million**

Positive Cost Overruns beyond PKR 266.67 million to be funded by the Sponsors through Offshore financiers Facility or through their own sources subject to reasonable caps to be agreed between Sponsors, Project Company and LAA as per the Project Funds Agreement.

The PF Facility will be structured under *Musharaka (Shirkatul-Milk) Basis.*

Letter of Credit Facility:

A facility for issuance of Letter of Credit (the **"LC Facility"**) required in relation to the foreign currency or local currency payments of FWE II's obligation under the Engineering, Procurement and Construction (**"EPC"**) Contract. The LC Facility shall be a sublimit of the PF Facility and the total exposure of the Financier under the PF Facility and the LC Facility shall not at any time exceed the maximum value of the PF Facility.

In case the Letter of Credits requested to be established are of larger amount than the PF Facilities, the excess is to be backed by firm sources of retirement either through Offshore Financiers loan agreements or through equivalent equity commitments. Such commitments to retire the LC facility from Offshore Financiers must be firm and in a form acceptable to the LC issuing bank and Financiers. Letter of Credit for an excess amount to be established upon receipt of the confirmation of Facility Effectiveness Letter from Offshore Financiers for the Offshore Finance facility. Financiers will have the right to directly serve a notice for payment to the funds provider in case the retirement of Letter of Credit is to be through sources other than the PF Facilities

The PF Facilities and LC Facilities are collectively referred to as **"Facilities"**.

Power Purchaser/NTDC SBLC

The LAA are aware of the need for the Project Company to establish an SBLC in favour of the Power Purchaser. However, the pricing, security structure and other terms shall be negotiated separately with the LAAs. This facility will be secured from the project security pool with no recourse to the Sponsors. In case the Project Company decides to procure this facility through their own sources the Financiers will

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SUMMARY OF INDICATIVE TERMS AND CONDITIONS

	create a carve out from the Security in order to allow the Project Company to secure the said SBLC. LAAs will have first right of refusal for a period of upto 30 days provided LAAs offer is on equally competitive terms and conditions.
Scheduled Commercial Operations Date (COD) of the Project	Eighteen (18) months from Facility Effective Date.
Tenor of PF Facility	Up to a maximum of 12 (twelve) years door-to-door commencing from the Facility Effective Date until the PF Facility have been completely retired.
Profit Rate & Computation	**<u>PF Facility</u>** Base Rate + 295 bps Base rate is defined as the average Six Months Karachi Inter Bank Offered Rate ("KIBOR") prevailing on the Base Rate setting date. The Base Rate will be set for the first time on the disbursement date and then on the immediately preceding day before the start of each calendar semi-annual period. The "KIBOR" rates used for reference will be taken from Reuters page "KIBR", as published at 11.30 a.m. Pakistan Standard Time by the Financial Markets Association (FMA). The daily average of the Six months 'Ask Rate' will be used. In the event that this rate is not published on Reuters on the rate fixing date or if less than 8 banks provide their rates for the KIBOR fixing, the FMA or other relevant market body will be contacted for the relevant fixing rate. In the event the Parties fails to agree on an instrument or an alternate basis for determining the Base Rate within 30 days of receipt of notice ("Notice") by the Obligor from the Financiers, the Obligor shall prepay the entire outstanding amount within 90 days of the receipt of Notice along with any accrued profit and other charges and expenses. Profit will be calculated on the basis of actual number of days elapsed in a year of 365 days on the outstanding balance of the facility. **<u>LC Facilities:</u>** Service Charges of LC Facilities will be 0.15% per quarter on the outstanding LC exposures, payable quarterly in advance.
Availability Period	**<u>PF Facility:</u>** Up to a maximum of Twenty One (21) months or the COD whichever is earlier starting from the Facility Effective Date. Any sums undrawn under the Facility on the expiry of the Availability Period will be cancelled; provided, however, if any retention is being held back from the EPC contractor, accrued payments (including but not limited to payments to be made pursuant to profit payable, other non-EPC payments, etc.) are due to be made by the Project Company such amount(s) shall be drawn down and maintained in Project Company's account (under lien and control of the Financiers through the Agent Bank) prior to the expiration of the Availability Period. For the sake of clarity under no circumstances will the Availability Period exceed the Required Commercial Operations Date as finalised in the Energy Purchase Agreement with NTDC ("RCOD") *It should be noted that only profit payments and no principal payments will be due on the PF Facilities during the aforementioned period.* **<u>LC Facility:</u>** Up to a maximum of Twenty One (21) months, commencing from Facility Effective

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	Date till the LC Facilities are fully retired
Repayment of PF Facility	In twenty equal (20) half yearly instalments. First instalment shall fall due on the half calendar year date i.e. 30th June or 31st December immediately following the expiry of the Availability Period. If the period preceding the first instalment is less than six months, then such instalment will be pro-rated accordingly. The repayment shall be based upon the annuity method.
Facility Effective Date (FED)	A date not later than six (6) weeks from the date of signing of the Facility documents by which the Conditions Precedent under the Facilities and Finance Documents are satisfied, deferred or waived by the Financiers.
Agent Bank of PF Facility	National Bank of Pakistan ("NBP")
Security Trustee	Allied Bank Limited ("ABL"
Project Monitoring Bank	National Bank of Pakistan ("NBP")
Transaction Originating Bank	National Bank of Pakistan ("NBP")
Shari'ah Structuring and Advisory Bank	Meezan Bank Limited ("MBL")
LC Issuing Bank	National Bank of Pakistan ("NBP")
Agency Fee	Prior to COD: PKR 2,500,000 p.a. to be paid at the Facility Effective Date and every anniversary thereafter up to COD; Post COD: PKR 1,500,000 p.a. to be paid at the time of achievement of COD and every anniversary thereafter. In case the Agent Bank is required to perform the duty of an Intercreditor Agent by the Offshore Financiers, the Agency Fee set out above will be sufficient for performance of such additional duties. For the avoidance of doubt, it is stated that no Intercreditor Agency Fee shall be payable to the Agent Bank for performance of its duties as an Intercreditor Agent (if required by the Offshore Financiers).
Security Trustee Fee	PKR 750,000 p.a. to be paid at the time of Facility Effective Date and every anniversary thereafter. The Security Trustee Fee is payable to the Security Trustee for performance of its duties for the benefit of the LAA's and the Offshore Financiers.
Advisory & Arrangement Fee	1.40% of the PF Facility, payable to the LAAs in the following manner: i. 15% upon acceptance of the Indicative Term Sheet ii. 85% upon execution of Facility documents and Security Documents
Project Monitoring Fee	PKR 1,250,000 p.a. shall be payable to the Project Monitoring Bank at the time of execution of the Finance Documents and at each anniversary thereof upto COD. The Project Monitoring Fee is payable to the Project Monitoring Bank for performance of its duties for the benefit of the LAA's, and if required, the Offshore Financiers.

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Project Evaluation Fee	Effective from the Facility Effective Date till COD, Project Evaluation Fee to be payable semi annually to the Agent Bank for distribution among Financiers. Project Evaluation Fee to be calculated @ 0.15% p.a. on the undisbursed portion of PF Facility
Right of first refusal on ancillary business	LAAs shall have the first right of refusal with respect to all ancillary business including but not limited to Export Credit Agency (ECA) transactions, interest rate swaps and any derivatives products etc. Project company is permitted to obtain rates on such business from any of the Financier however LAAs will have a first right of refusal on such business provided it is on equal or better terms than those offered by other Financiers. LAAs will have a maximum 30 days to exercise their right of first refusal.
Project Development Budget	A project development budget in both USD and PKR outlining all usage of funds to complete the Project, to be approved prior to financial close between the Financiers and the Project Company. Any amounts identified for contingencies will be made a part of this budget. This Budget shall be annexed as a schedule to the Finance Documents. The Project Company shall provide quarterly updates to the PKR-based Project Development Budget
Sponsors Support Obligations	The Obligor can utilize the PF Facility in its entirety (inclusive of contingency amount of PKR 200 million) on all such items that are classified as pass through under the NEPRA approved tariff and as finalised in the Project Development Budget. Any escalations in Project Cost ("Cost Overruns") that comprise of non-pass through items under the tariff ("Negative Cost Overruns"), the funding will be the exclusive liability of the Sponsors and no portion of the PF Facility can be utilised for funding such costs. For Positive Cost Overruns, the PF Facilities may be utilised for upto PKR 200 million. Post exhaustion of the PF Facility and if required, the Sponsors can raise funding for further Positive Cost Overruns outside this consortium to the extent of 100% of such costs secured through project assets on a pari passu basis either in the form of equity injection or debt (max of 75%) or a combination of both. Such funding can be utilized by the Project Company only post exhaustion of the PF Facility and not on terms superior in any way to those under the PF Facility. In order to contractually document these obligations, the Sponsors will execute and deliver a formal Project Funds Agreement ("PFA"), in a form acceptable to the Financiers. The PFA shall irrevocably and unconditionally bind the Sponsors to meeting upon first demand Base Equity (25% of the Total Project Cost as per the Project Development Budget) (ii) Post exhaustion of PF Facility, 100% of Positive Cost overruns (up to the agreed cap) of which 75% funds could be arranged from other financiers/banks obtained on similar terms and conditions as the PF Facility and secured through the Security on pari passu basis with the Financiers (iii) 100% of the Negative Cost Overruns up to the agreed cap. Prior to financial close and after consultation with the Financiers Engineer, the LAA will agree on a reasonable cap for the Positive and Negative Cost Overrun support required from Sponsors. The Sponsors may arrange to provide a standby letter of credit for Payment Service Reserve Account (the "PSRA SBLC"), for the PSRA required balance. The PSRA SBLC will be issued by bank(s) acceptable to the LAAs and shall not be secured through assets specified as Security, within this document. The Obligor will open a Payment Service Reserve Account ("**PSRA**") with the Agent Bank wherein an amount equal to one installment (principal + profit "the **Required Balance**") will be made available. The PSRA Account will either (i) be funded by the Obligor from its own sources at the end of the availability period, or (ii) a PSRA SBLC will be posted by the Obligor in lieu of funding of PSRA, or (iii) through Project cash flows. Until such time that the PSRA is funded to the Required Balance under (iii) above, the Sponsors will

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	contractually guarantee through an acceptable document ("**Guarantee**") up to the amount of the Required Balance. The Guarantee will reduce in proportion to the funding of the PSRA through Project cash flows. For the avoidance of doubt it is stated that the Guarantee shall not be replenished in value (a) after it has been reduced in accordance with provision of the immediately preceding sentence and (b) upon encashment. The Sponsor's obligations under the PFA shall be valid for a reasonable period after COD as specified in the PFA and shall be secured by a mix of irrevocable, unconditional first demand Bank Guarantees / SBLCs and Contractual commitment from the Sponsors, contemplated by the Financiers under the Financing Documents and issued by banks and financial Institutions acceptable to the Financiers. Any cash injection already made in the Project, as duly verified by Independent Auditors, shall also contribute towards meeting those obligations. Payment of excess debt subsequent to true up of Tariff will be the exclusive obligation of the Sponsors and will be covered in the PFA.
Project Documents (PD)	The exhaustive list of Project Documents will be finalized by Transaction Legal Counsel; however would likely to include without limitation the following: 1. Energy Purchase Agreement ("EPA") between the Power Purchaser and the Obligor relating to the sale of energy produced by the Obligor and purchased by the Power Purchaser; 2. EPC Contract ("EPC") between the Obligor and the EPC Contractor for the construction of the Complex and guarantees/ warranties procured thereunder; 3. O&M Agreement ("O&M") between the Operator and the Obligor relating to the operation of the Project and guarantees/ warranties procured thereunder; 4. Implementation Agreement; 5. Direct Agreements. 6. Any Technical Services, spares, long term maintenance agreement(s) etc. as required; 7. Site Sub-Lease Agreement between the Obligor and Lessor/ Owner of the site, if applicable; 8. If applicable, any other agreement, document, deed, notice or certificate if designated as such by the Consortium provided they have been executed by the Obligor. 9. Certified Emission Registration Agreement (CERA) between the Obligor, Power Purchaser and the Alternate Energy Development Board (if applicable). 10. The insurance policies required to be maintained by the Obligor from time to time; Any other documents that may be required during the due diligence process
Security	Final security structure will be finalized after due diligence and shall be shared by LAAs on pari passu basis with Offshore Financiers however, the Facilities are likely to be secured by: *Project Cash flows:* ▪ First-ranking exclusive assignment/mortgage over receivables from NTDC and/or any of their successors, assigns and transferees, due under the Energy Purchase Agreement ("EPA") ▪ First Ranking Exclusive assignment / mortgage under CERA (as permitted under the CERA) (if applicable)

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	■ Lien over and set-off rights in respect of all Project Accounts, as defined later in this document *Assignments of Rights and Benefits:* ■ Exclusive assignment mortgage over FWE II's rights and benefits under all Project Documents, including but not limited the GoP guarantee, the IA, EPA, O&M, EPC Contract and any performance guarantees warranties issued there under and any amendments thereto. Assignments/mortgage will be through Direct Agreements between Financiers and counterparties to the Project Documents ■ Assignment/mortgage over all rights and benefits of FWE II under any and all Project insurances and cut-through agreements (if available) / clauses for reinsurance *Claims on Project Assets:* ■ First ranking, hypothecation charge over all movable assets (current and future) of FWE II's, with a 25% margin. Charge amount will be calculated by dividing the PF Facilities Amount by 75%. ■ Exclusive equitable mortgage over the leasehold rights in immovable property on which the Project will be established, with a 25% margin. Charge amount will be calculated by dividing the PF Facilities Amount by 75%. *Others:* ■ The LC Facilities, shall additionally be secured by a lien on import documents ■ Lien on all Project Accounts of FWE II which are to be maintained as detailed in Project Accounts section of this Offer ■ Pledge of 51% Shares by Sponsors/ Directors of FWE II ■ PFA to be executed in favour of the Financiers prior to financial close. *LAAs may at any time before the signing of the legal documents, amend the security structure, with the mutual consent of Obligor. However, the Security will be restricted to assets from within the Project Company. Under no circumstances an inferior security will be acceptable to the LAAs under this facility viz a viz the Offshore Financiers for the Project.*
Insurance	The Project Company shall procure and maintain insurances customary for project of such nature as reasonably advised by the Financiers Insurance Advisor. Any Insurance Advisor appointed for the benefit of Financiers will be paid for by Obligor.
Project Construction Terms	Project to be constructed under lump-sum, date-certain, turn-key basis contract(s) with an experienced and known EPC company for such power projects. All contracts will be backed by performance and other guarantees and warranties appropriate for such contracts offered by the counterparties to such agreements, and assignable in favour of the Security Trustee/Agent Bank.
Project Management Terms	Operation & Maintenance ("O&M") arrangements for the Project are to be with a known and experienced O&M company under an arrangement backed by performance and other guarantees appropriate for such contracts and assignable in favour of the Security Trustee.
Financiers' Engineer	The LAA shall require the Project Company to appoint (as defined in the

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Implementation Agreement) to the Project, at the Project Company's own cost, a "Financiers Engineer", for the benefit of the Financiers with mutual consent of the Project Company. It should be noted that selection of the Financiers Engineer will be undertaken by the LAA and for which consultation with the Project Company may be required.

The scope of work of the Financiers Engineer will include, but not be limited to, certifying project design, conducting site visits, technical feasibility and input on Financial Model to meet the required operating conditions, confirming the reasonableness of the EPC contract price in comparison to norms for similar projects, advising/ commenting on O&M contractor and a full review of Project Documents.

The Project Company and EPC Contractor shall appoint a third party "Project Engineer" under the EPC Contract to approve payments to the EPC Contractor and monitor construction progress and provide periodic reporting. The Project Engineer and its scope of work will also be approved by the Financiers. The Project Engineer shall be independent from the sponsors and the EPC Contractor and shall be required to represent that they have no conflict of interest with the Financiers, in matters where Financiers shall be relying on their certifications. Where there is clear conflict of interest established by the Financiers, Financiers will have the right to engage the Financiers' Engineer for such matters. If there is disagreement over some aspect between the Project Engineer and the Project Company's management, Financiers will rely on the judgment of the Financiers' Engineer.

The LAAs shall consider a common Financiers Engineer for the purposes of this and the Offshore Financiers' facility if mutually acceptable to all parties.

Insurance Advisor

The LAAs shall require Project Company's to appoint through mutual consent, at Project Company's own cost, an Independent Insurance Advisor until the financial close, and thereafter as and when required, for the benefit of the Financiers.

The Insurance Advisor will advise the Financiers on issues including, but not limited to, the types and amounts of insurances required separately during the construction and operations phases. In addition, the Insurance Advisor will also advise the Financiers on the insurers/re-insurers for the transaction.

The LAAs shall consider a common Insurance Advisor for the purposes of this and the Offshore Financiers' funding facility if mutually acceptable to all parties.

Legal and Other Professional Advisors

The LAAs shall, with prior consultation with Project Company, engage for the benefit of Financiers such legal and other professional services (such as a Tax Advisor, Audit Firm etc.) as required. All reasonable legal (local and international) and other professional service expenses/ charges, to be mutually agreed, shall be borne by Project Company's and will be payable at actual whether or not the transaction proceeds to signature. Appointment of all such Advisors shall be subject to mutual consent between the LAAs and the Project Company.

The LAA shall negotiate the engagement terms with the service providers accordingly. International Legal Counsel may be appointed by the LAA if any of the Project Documents are governed by laws other than Pakistan Law or opinions are required on matters not relating to Pakistan law but are material for protecting Financiers' interests.

The LAAs shall consider a common Legal and Other Professional Advisors for the purposes of this and the Offshore Financiers' funding facility if mutually acceptable to all parties.

Early Purchase/Call Option

Early Purchase of PF Facility may be made five (5) years after Commercial Operations Date (i.e., 10th principal instalment through 20th principal instalment) by giving thirty (30) days prior written notice to the Agent Bank. Early Purchase will only be allowed

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	on a Profit Payment date and in integral multiples of PKR 100 million at a buyout price which will be 0.15% of the Early Purchase amount. Mandatory buyout clause will also be included in the Facility Documents in respect of certain insurance proceeds/compensation payments. Any Early Purchase amounts shall be applied in the inverse order in which they were due.
Conditions Precedent	Facilities to be advanced will be on the terms of and subject to the conditions of the Finance Documents and all other related financing documents, each in form and substance acceptable to the Financiers (the **"Finance Documents"**). Conditions Precedent to Facility Effectiveness to be mutually agreed upon in the Finance Documents and shall include, but not be limited to, the following: a. All authorizations required by Project Company's in connection with the execution, delivery, validity or enforceability of the Finance Documents, the granting of authority to an authorized officer or authorized officers to execute and deliver the Finance Documents or any other document or notice in connection therewith, and the performance of Project Company of all of its obligations under the Finance Documents have been completed; b. Execution and delivery of all documentation required for a facility of this nature in form and substance satisfactory to both the Financiers and Project Company. Execution and delivery of all Project Documents to the satisfaction of the Financiers, c. Project Company's Auditors shall have delivered a certificate evidencing the amount of the Project Costs incurred prior to the first drawdown date (broken down into EPC and Non EPC cost heads) together with independently certified evidence as to their funding by the Sponsors/ Shareholders. Such funding, upon verification, shall be treated as equity; Furthermore, the Project Company shall arrange for (a) Auditors certificate confirming that the entire Equity as per the envisaged capital structure is either paid in full (in the form of cash or spent as part of pre-operation costs) or (b) firm corporate commitments/ or SBLCs / or lien on Project Company's cash deposits that are in form and substance acceptable to Financiers, from the Sponsors of the Project Company that the funds would be made available on demand. d. All approvals, certifications and other consents required for execution of the Project as required at any given time, by any of the regulatory , government and any other applicable body, are in place and in form and substance acceptable to the Financiers e. Execution and delivery of a Project Funds Agreement ("PFA"), in form, substance and for amounts, acceptable to the Financiers till the period decided by the Financiers in the Financing Documents (as defined in the Energy Purchase Agreement) that irrevocably and unconditionally binds the Sponsors to meeting, upon first demand, any cash injections required to satisfy Project cost overruns subject to the agreed caps. f. Confirmation by the Agent Bank that it has agreed with, and received from, Project Company a financial model (the "Financial Model"), in form and substance acceptable to the Financiers through the Agent Bank, encapsulating all relevant financial information pertaining to the Project including inter alia the estimated Project cost (as certified by the Financier's Engineer), the agreed Project capital structure, the Project Development Budget and milestone payments under the EPC contract. A separate calculation for expected Liquidated Damages payable and receivable by the Project Company under the various project documents based on a variety of scenarios must be provided. The Financial Model shall be frozen on or prior to the Facility Effective Date and shall thereafter be utilized to monitor the construction and operation of the Project.

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g. Creation and perfection of Security to the satisfaction of the Financiers and Financiers' Legal Counsel,

h. All required insurances are in full force and effect as certified by the Financier's Insurance Advisor;

i. Compliance by Project Company of all applicable SBP regulations;

j. Pledge of Sponsors' shares in FWE II, in favour of Financiers;

k. Project Company will ensure that all consents, approvals, registrations and authorizations, both government and corporate, that are required to be in place, are in place, and in full force and effect prior to Drawdown;

l. Receipt of a legal opinion from the legal counsel of the Project Company, confirming inter alia the validity, enforceability and binding effect of the obligations of Project Company under the Finance Documents, in form and substance acceptable to the Financiers and the Financiers' legal counsel;

m. Evidence (satisfactory to the LLAs) that the Offshore Financiers Facility is effective and available for drawdown;

n. Receipt of a legal opinion from the legal counsel of Project Company, confirming inter alia the validity, enforceability and binding effect of the obligations of all parties to the Project Documents / guarantees /performance bonds etc. Project Company's legal counsel must be qualified to issue such opinions in the jurisdiction that governs the relevant Project Document;

o. Receipt of a legal opinion from the legal counsel of the Financiers (Local & International both), confirming inter alia the validity, enforceability and binding effect of the obligations of Project Company under the Finance Documents, in form and substance acceptable to the Financiers;

p. Project Company shall obtain, if required, a Facility rating assigned by local credit rating entity acceptable to Financiers provided however, all costs of procuring such rating and relating thereto will be borne by the Financiers;

q. Satisfactory opinion / reports by the following:

   i. Financier's Engineer
   ii. Financier's Insurance Advisor
   iii. Any other consultant as appointed by the Arrangers / Financiers related to the Project;

Other conditions precedent to be advised after due-diligence and included in the Finance Documents.

Project Accounts

The Project Company shall open and maintain with the Agent, project accounts which shall include, but not be limited to:

- A Disbursement account (the "Disbursement Account") into which all loan disbursement proceeds are to be paid;
- Revenue Account shall be opened to collect all revenues and receivables of the Project;
- Operating Account shall be maintained for funding Operating expenses for the Project;
- Insurance and compensation accounts (the "Insurance and Compensation Accounts") into which all insurance proceeds, compensation amounts and liquidated damages are to be paid;
- Obligor to open a Payment Service Reserve Account (**"PSRA"**) with the Agent Bank wherein an amount equal to one installment (principal + profit "the **Required Balance**") will be made available. The PSRA Account will either (i) be funded by the Obligor from its own sources at the end of the

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	availability period, or ii) a PSRA SBLC will be posted by the Obligor in lieu of funding of PSRA, or (iii) through Project cash flows. Until such time that the PSRA is funded to the Required Balance, the Sponsors will contractually guarantee through an acceptable document ("**Guarantee**") up to the amount of the Required Balance. The Guarantee will reduce in proportion to the funding of the PSRA through Project cash flows. For the avoidance of doubt it is stated that the Guarantee shall not be replenished in value (a) after it has been reduced in accordance with provision of the immediately preceding sentence and (b) upon encashment. The PSRA, if required, will be topped up from time to time to ensure that at all times it contains a balance equal to the upcoming period's amount of profit and principal payments. The Obligor reserve the right, at their sole discretion to opt for any of the options stated above for fulfilling the Required Balance with the exception of option iii) above which will require unanimous consent of all Financiers. • A Payment Account ("PA") shall be maintained which will be gradually built up with installments prior to each profit and principal payment date such that it is equal to the upcoming installment (principal and profit) amount, during each six monthly period. The PA will be reset to zero at each profit and principal payment date. • A Maintenance Reserve Account ("**MRA**") (if required) , in accordance with the requirements laid out under the Energy Purchase Agreement and as advised by the Financiers Engineer. The accounts named above shall be restricted for withdrawals. More accounts can be required to be established by the Financiers after due diligence in the Financing Documents.
Events of Default	The Finance Agreements shall include Event of Default provisions, which shall give the Financiers the right to call the facility in default and accelerate the facility repayment, if certain described events occur. These events shall include, without limitation, the Obligor failure to repay any portion of the principal amount of the facility or to make profit payments or to pay any of the fees associated with the facility on the agreed date, the Project Company's failure to be in compliance with any of the representations or warranties, the Project Company's failure to act in compliance with any of the covenants, the Project Company's defaults on its other financial commitments, and adverse changes in circumstances under or relating to the Project and Security Documents, or the conditions of the Project Company. Consequences for Events of Default and the enforcement rights of Financiers in relation to such events shall be specified in the agreements and depending on the nature of the event, may include stoppage of dividends.
Positive Covenants	The positive covenants shall include without limitation a. Compliance with all applicable laws, environmental and social requirements including but not limited to applicable standards and the terms of all relevant consents; b. Obtaining and maintaining all consents required in connection with the Facility Documents and the Project as and when required; c. Using or procuring the plant and equipment that are used for their intended purpose and in accordance with operating instructions; d. Maintaining all property, plant, machinery and equipment in good condition and repair and replace parts thereof, as required, e. Maintaining PSRA and MRA as per the requirements laid out under section

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	titled "Project Accounts". Creating, perfecting and maintaining the security intended to be created in favour of the Financiers' and defend the Financiers' interests in the security; f. Maintaining acceptable and adequate accounting, management and cost accounting systems and books and records of account in accordance with International Financial Reporting Standards as adopted in Pakistan;
Financial Covenants	Compliance by Obligor at each Drawdown and thereafter throughout the Tenor of the PF Facilities with covenants (positive and negative) as set out in the Finance Documents including, but not limited to: a. Maintenance of the following ratios: a. Debt Service Coverage Ratio b. Finance Life Coverage Ratio c. Current Ratio The thresholds for the above and method of calculation shall be mutually agreed based on the financial model and would be defined in the Finance Documents; b. Total Debt: Equity ratio of the Projects not to exceed 75:25 at any time during the tenor of the PF Facilities, c. Any loan to the Company from the sponsors will remain unsecured and subordinated to financing from banks; d. Dividends can only be paid if the ratios and all other covenants are complied with. Any other covenants as determined and required after due-diligence, by the Financiers will be later incorporated in the Finance Documents.
Negative Covenants	The negative covenants shall include without limitations: a. Without the prior consent of the Financiers, the Sponsors shall not create, incur, assume or suffer to exist any encumbrance whatsoever upon or with respect to the Security, which may rank superior to, or pari passu with the Security created or to be created in favour of the Financial Institutions under the Security Documents. However, the LAAs are cognizant of the fact that the Security shall be shared between the LAAs and Offshore Financiers on pari passu basis and have no objections to this arrangement; b. The Sponsors shall not alter the rights attached to any of the Sponsor Shares; c. The Project Company shall not without the consent of the Financiers sell, transfer or otherwise dispose of in one or more transactions, in the aggregate, its properties; d. There shall not be any merger, bifurcation, division, domestication, amalgamation, consolidation or any other form of reconstruction, reorganization or rearrangement affecting the corporate or legal character of the Project Company, other than in the normal course of business and which does not have or is not likely to have a material adverse effect on the ability of the Project Company to pay the secured obligations; e. The Project Company shall not transfer, relinquish or otherwise dispose of any of its rights, title, benefit or interest in, under or pursuant to the Project Documents, except for assignment to the Financiers, or arising from default under the Implementation Agreement or the Energy Purchase Agreement

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	Any other (positive or negative) covenants as determined and required after due-diligence, by the Financiers will be later incorporated in the Finance Documents.
Government Excise, Levies, Surcharges	Obligor shall pay all excise, levies, stamp duties, other duties or surcharges payable in connection with the PF Facility.
Out-of-pocket Expenses	Obligor agrees to reimburse at actual all reasonable out-of-pocket expenses incurred, including but not limited to business travel costs (business class for airfare), accommodation, utilities, printing, advertisements, etc and all other amounts incurred in connection with all matters related to the PF Facility. However, this expense is capped at PKR 1,000,000/-. Out-of-pocket expenses do not include fees payable for professional services of legal counsel, international travels etc. or any other fees, charges, taxes, levies, duties, surcharges or expenses explicitly highlighted herein. These reimbursements will be due and payable on a monthly basis or on demand during the course of the PF Facility
Sell Down	Financiers may, entirely at its own cost and expense, sell down / assign participation of all or any part of the PF Facility, and otherwise transfer any portion of its rights and obligations under the PF Facility, at any point in time during the Tenor. Obligor will execute all such documents as may be reasonably required and co-operate in all matters related to such sell down/assignment.
Material Adverse Change	If, on or prior to the signing of the Finance Documents, in Lead Advisors & Arrangers reasonable judgement there is any material adverse change in: • Any of the business, financial conditions, operations, performance, properties, concession, consents or prospects of the Obligor; • Any circumstances, change or condition (including the continuation of any existing condition) in the commercial bank, loan syndication, financial or capital markets generally (as indicated herein or otherwise)occurs and materially impairs the placement of the Facilities. LAAs shall have the right to renegotiate the terms of their arrangement hereof, or else, return the mandate.
Market Flex	Lead Advisors & Arrangers shall have the right at any time, prior to signing of Finance Documents, to change any or all of the terms, structure, security, currency, sponsor supports, tenor and pricing of the PF Facility if such changes are advisable in Lead Advisors & Arrangers' reasonable judgement to ensure a successful placement of the PF Facility (as determined by Lead Advisors & Arrangers). If Lead Advisors & Arrangers determine such changes are necessary, it will consult with the Obligor for a period of up to 5 business days about such changes. If the Obligor does not accept such changes after such period, Lead Advisors & Arrangers will be entitled to terminate its offer hereunder.
Clear Market Provision/Market Out	The Obligor agrees that, until the earlier to occur of (i) termination of the offer hereunder or (ii) signing of the Facility Documents, it will not syndicate, attempt to syndicate, announce or authorize the announcement of the syndication, or engage in discussions concerning the syndication of the facility in the commercial bank, investment bank, non-banking finance company or capital markets of Pakistan, of a facility having the same tenor as Facilities without the prior written consent of Lead Advisors & Arrangers. Such consent shall not be unreasonably withheld. The Obligor expressly agrees that no banks or financial institutions operating in Pakistan will be allowed to provide financing facilities to the Projects either individually or through a consortium, unless they are a part of the Local Banks Consortium.

MEEZAN BANK LIMITED   ALLIED BANK LTD   National Bank of Pakistan H.O. Karachi

SUMMARY OF INDICATIVE TERMS AND CONDITIONS

Indemnification	The Obligor hereby indemnifies and agrees to hold harmless Lead Advisors & Arrangers and each of its affiliates and each of their respective officers, directors, employees, agents, advisors and representatives (each an **"Indemnity Party"**) from and against any and all claims, damages, losses, liabilities, costs and expenses (hereinafter collectively referred as **"Claim"**), joint or several, that may be incurred by or awarded against any Indemnified Party, in each case arising out of or in connection with or relating to the Offer or the PF Facilities except to the extent such Claim has resulted from such Indemnified Party's gross negligence, error or willful misconduct.
Taxes and Payments	• The Obligor shall pay all excise, levies, stamp duties, other duties or surcharges required to be paid in connection with the PF Facility, or the Security Documents required in connection therewith. All fees due under this Indicative Offer shall be grossed up for Federal Excise Duty, at the rate prevalent at the time of such payment. • In the event the Obligor are required by any applicable law, to deduct any tax from such payment on behalf of any of the LAAs / Financiers, the Obligor shall provide to the Agent Bank original copies of the tax challans, duly made out in the name of each LAA / Financiers as applicable, in respect of the tax so deducted within a period of fourteen (14) days from the date on which such deduction is made by the Obligor. • Notwithstanding the above clause, if (a) the tax advisors to the LAAs/ Financiers provides written legal opinion at financial closing that the Obligor are not required to withhold, or deduct any taxes on accounts of payments to be made to the LAAs/ Financiers under this arrangement, or (b) the LAAs/ Financiers provide an exemption letter from the relevant taxation authority that no withholding is to be made on payments to the LAAs/ Financiers, the Obligor shall be required to make all payments under these Indicative Offer without any setoff or counterclaim and free and clear of, and without any deduction or withholding for or on account of, any taxes, duties, costs or expenses. • In the event, one or more of the LAAs/ Financiers are required to pay withholding tax in respect of the PF Facility, the Finance Documents and or any Security created by the Obligor to secure the PF Facility above the rate prevalent on the date of execution of the Indicative Offer, the Obligor shall reimburse the whole amount of the tax so paid by the LAAs/ Financiers, within a period of seven (7) business days of receiving a demand from the LAAs/ Financiers in this respect.
Payments	Subject to the applicable laws, Payments of all dues under the offer will not be subject to counterclaim or setoff for, or be otherwise affected by, any claim or dispute relating to any matter whatsoever and all such payment shall be made in immediately available free and clear funds without deduction for or on account of any present or future charges, deductions or withholdings.
Governing Law	The Facility documents will be governed by and construed in accordance with the Laws of the Islamic Republic of Pakistan.
Other Conditions	1. The Obligor shall comply with State Bank of Pakistan's Prudential Regulations throughout the tenor of the Facility and any waivers / approvals required from SBP from time to time are procured; 2. The Obligor shall restrain from actions that could prejudice the rights and security of the Financiers; 3. Sponsors rights to amend their shareholding in the Project Company to be finalised prior to financial close in consultation with Sponsors and LAA. 4. The Facilities are subject to the LAA's internal credit approval and satisfactory Financial and Legal documentation review; 5. Facilities to be arranged on a best efforts basis;

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ALLIED BANK LTD. CIBG COK
H.O. Karachi National Bank of Pakistan

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SUMMARY OF INDICATIVE TERMS AND CONDITIONS

	6. CIB clearance to be obtained such that the Sponsors/ Company are not defaulters of any Bank/ DFI; 7. Obligor to submit un-audited quarterly and half-year accounts within 90 days of quarter end and half-year end respectively, and annual audited accounts within 120 days of the financial year-ends to be audited from any of the top six audit firms;
Validity	The terms and conditions mentioned herein are valid up to May 31st, 2011.
Confidentiality	The contents of this term sheet are for your confidential use only and that neither their existence nor the terms hereof will be disclosed by you to any person.

END OF SUMMARY OF INDICATIVE TERMS AND CONDITIONS

National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

2nd Floor, OPF Building, G-5/2, Islamabad.
Ph: 9207200, 9205225 Fax : 9210215
E-mail: office@nepra.org.pk

No. NEPRA/R/PAR-04/NTDC-2005/3300 12.03.2006

Chief Executive Officer
Green Power (Pvt.) Limited
Ameejee Chambers
Campbell Street
Karachi 74200

Subject: **Request of National Transmission & Despatch Co. Ltd. (NTDC) for acquiring Power from M/s. Green Power (Pvt.) Ltd. (GPPL)**

The Authority in its Regulatory Meeting 06-034 held on February 03, 2006 considered the power acquisition request of National Transmission and Despatch Company Ltd. (NTDC).

2. The Authority has granted permission to NTDC to procure power from M/s. GPPL to the extent of 50 MW. A copy of the Authority decision is attached herewith.

DA/as above.

12.03.06.
(Mahjoob Ahmad Mirza)

Dated February 03, 2006

DECISION OF THE AUTHORITY REGULATORY MEETING 06-34 HELD ON FEBRUARY 03, 2006 REGARDING POWER ACQUISITION REQUESTS BY NTDC TO PROCURE POWER FROM M/s GREEN POWER LTD & M/s NEW PARK ENERGY LTD.

The Authority considered all relevant aspects of the case and decided that:

National Transmission & Dispatch Company (NTDC) be allowed to procure power from M/s Green Power Ltd, to the extent of 50 MW and M/s New Park Energy Ltd, to the extent of 49.5 MW. M/s Green Power Ltd, and M/s New Park Energy Ltd. may apply for tariff under relevant Rule 6 of NEPRA Generation Licensing Rules, 2000. NTDC, M/s Green Power Ltd, and M/s New Park Energy Ltd, may be informed accordingly.

(Abdul Rahim Khan)
Member

(Zafar Ali Khan)
Member

15/2/06

(Nasiruddin Ahmed)
Member

(Lt.Gen® Saeed uz Zafar)
Chairman

* Rule 6 of Nepra Generation License Rules 2000.

F/I

Government of Pakistan
Alternative Energy Development Board (AEDB)
3, Street No. 8, F-8/3, Islamabad.
Tel: 92 51 9262947-50, Fax: 92 51 9262977

AEDB

'/3/1/GPPL/07

29th August 2011

Brig. (R) Rahat Khan
Project Director
Foundation Wind Energy – II Pvt. Ltd. (FWEPL)
Fauji Foundation Head Office, P&D Division
68 Tipu Road, Chaklala
Rawalpindi.

Subject: **PROVISIONAL APPROVAL OF FEASIBILITY STUDY**

This refers to your communication dated August 26, 2011 regarding the subject cited above.

2. AEDB acknowledges that the IPP has acquired the necessary approvals of the Grid Interconnection study and IEE study from the relevant agencies. The approval of Feasibility study is linked with the following milestones;

- Verification of Power Production Estimates from Risoe.
- Approval of Grid Interconnection studies from NTDC
- Approval of EIA/IEE Study from EPA, Sindh

4. AEDB has initiated the process of verification of production estimates through RISO. AEDB hereby provisionally accepts the feasibility study of the wind power project of M/s FWEPL. The final approval of the feasibility study shall be accorded based on the verification of power production estimates by RISO. M/s FWEPL may however proceed ahead with the application of tariff to NEPRA.

(Syed Aqeel Hussain Jafri)
Deputy Director (Policy)

F/J

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad.
Ph: 9207200, 9205225 Fax : 9210215
E-mail: office@nepra.org.pk

No. NEPRA/R/PAR-04/NTDC-2005/3300

13.03.2006

Chief Executive Officer
Green Power (Pvt.) Limited
Ameejee Chambers
Campbell Street
Karachi 74200

Subject: **Request of National Transmission & Despatch Co. Ltd. (NTDC) for acquiring <u>Power from M/s. Green Power (Pvt.) Ltd. (GPPL)</u>**

The Authority in its Regulatory Meeting 06-034 held on February 03, 2006 considered the power acquisition request of National Transmission and Despatch Company Ltd. (NTDC).

2. The Authority has granted permission to NTDC to procure power from M/s. GPPL to the extent of 50 MW. A copy of the Authority decision is attached herewith.

DA/as above.

13.03.06.
(Mahjoob Ahmad Mirza)

Dated February 03, 2006

DECISION OF THE AUTHORITY REGULATORY MEETING 06-34 HELD ON FEBRUARY 03, 2006 REGARDING POWER ACQUISITION REQUESTS BY NTDC TO PROCURE POWER FROM M/s GREEN POWER LTD & M/s NEW PARK ENERGY LTD.

The Authority considered all relevant aspects of the case and decided that:

National Transmission & Dispatch Company (NTDC) be allowed to procure power from M/s Green Power Ltd, to the extent of 50 MW and M/s New Park Energy Ltd, to the extent of 49.5 MW. M/s Green Power Ltd, and M/s New Park Energy Ltd. may apply for tariff under relevant Rule 6 of NEPRA Generation Licensing Rules, 2000. NTDC, M/s Green Power Ltd, and M/s New Park Energy Ltd, may be informed accordingly.

(Abdul Rahim Khan) Member	(Zafar Ali Khan) Member 15/2/06
(Nasiruddin Ahmed) Member	(Lt.Gen® Saeed uz Zafar) Chairman

(*) Rule 6 of Nepra Generation License Rules 2000.

E/K

GOVERNMENT OF PAKISTAN

Policy for Development of Renewable Energy for Power Generation

(Small Hydro, Wind, and Solar Technologies)

8.2 General Incentives for RE Power Generators

The provisions stated below shall be made available to all qualifying renewable energy-based power projects falling under any of the categories defined in **Section 8.1** above.

8.2.1 Guaranteed Market: Mandatory Purchase of Electricity

It shall be mandatory for the power distribution utilities to buy all the electricity offered to them by RE projects established in accordance with the provisions given in **Section 8.2.2.**

8.2.2 Grid Connection, Off-take Voltage and Interface

Electricity shall be purchased from RE power producers at a voltage of 220 kV at the outgoing bus bar of the power station if the power station is located within 70 km of an existing 220 kV transmission line, or at 132 kV if it is within 50 km of an existing 132 kV transmission line, or at 11 kV if it is within 5 km of an existing 11 kV transmission line, or at 400 V if it is within 1 km of a 400 V distribution feeder. The minimum average power to be supplied in each case would be 1,250 kW/km, 250 kW/km, 100 kW/km, and 20 kW/km, respectively. The producer may also undertake to lay a new transmission line for connection with the main electricity grid. The power purchase tariff determination will be adjusted accordingly for each of these options.

8.2.3 Wheeling

RE power producers shall also be allowed to enter into direct (bilateral) sales contracts with end-use customers. Under this arrangement, they would be allowed to sell all or a part of the power generated by them to their direct customers, and the rest to the utility for general distribution. For direct sales, they shall be required to pay 'wheeling' charges for the use of the transmission and/or distribution grid network used to transport the power from the plant to the purchaser. In practical terms, the IPP shall inject electricity into the grid system at one point (subject to the provisions in **Section 8.2.2**) and would be entitled to receive the same amount at any other location (within the same distance from the grid as the distance of the plant from the system) upon payment of a corresponding wheeling charge, to be determined by NEPRA. This wheeling charge will reflect the cost of providing and maintaining the transmission interconnection, including the energy losses suffered *en route*, calculated on a utility-wide basis by NEPRA.

8.3 Specific Incentives for Grid-Connected RE IPPs

Specific incentives are provided under this policy to renewable energy-based independent power producers (IPPs) selling all generated