SINO WELL (PRIVATE) LIMITED
(PRIVATE) LIMITED
**SINO WELL (PRIVATE) LIMITED**
Registered Office: F-25 · Block 5 · Rojhan Street · Kehkashan · Clifton
Karachi -75600 · Pakistan

Tel: +92-21-35876994-97
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THE REGISTRAR,
NATIONAL ELECTRICAL POWER REGULATORY AUTHORITY
NEPRA Tower, Attaturk Avenue (East)
G-5/1,
Islamabad

DATE: - 15TH NOVEMBER 2018
REF: - SWL/NEPRA/003/19

**SUBJECT:** **APPLICATION FOR COST PLUS TARIFF BEFORE NEPRA**

Dear Sir,

I, TABISH TAPAL, Chief Executive Officer of the Company, being the duly Authorized Representative of SINO WELL (PRIVATE) LIMITED (**the Company**) by virtue of the resolution of the Board of Directors dated 08th NOVEMBER 2018, hereby submit the application for Cost Plus Tariff Determination, in terms of the Policy for Development of Renewable Energy for Power Generation 2006 and under the Regulation for Generation, Transmission and Distribution of Electric Power Act (XL of) 1997 (**the NEPRA Act**), submitted before the National Electric Power Regulatory Authority (**the Authority**) being responsible, inter alia, for determining tariffs and other terms and conditions for the supply of electricity through generation, transmission and distribution. The Authority 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**) and request for approval of the Authority.

I certify that the documents-in-support attached with this application are prepared and submitted in conformity with the prevailing provisions of the NEPRA Act and the NEPRA Rules, and I undertake to abide by the terms and provisions of the above-said regulations. I further undertake and confirm that the information provided in the attached documents-in-support is true and correct to the best of my knowledge and belief.

A Pay Order number CO000013282, issued by ICBC Bank, Karachi Branch, in the sum of PKR 652,544/- being the non-refundable application processing fee calculated in accordance with National Electric Power Regulatory Authority (Fees Pertaining to Tariff Standards and Procedure) Regulations, 2002, is also enclosed herewith.

I hereby further request the Authority to accede to my request for approval of our application for Cost Plus Tariff Determination.

Respectfully submitted for and on behalf of:
**SINO WELL (PRIVATE) LIMITED**

..........................................................

**MR. TABISH TAPAL**
(AUTHORIZED REPRESENTATIVE)

**BEFORE**
**THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY**

**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 THEREUNDER

ON BEHALF OF

# SINO WELL (PRIVATE) LIMITED

FOR NEPRA'S APPROVAL OF REFERENCE GENERATION TARIFF
FOR SINO WELL (PRIVATE) LIMITED

FOR A WIND POWER PROJECT OF 50 MW
AT: JHIMPIR, PROVINCE OF SINDH, PAKISTAN

**DATED:** November 15, 2018

SINO WELL (PRIVATE) LIMITED
F-25, BLOCK-5, ROJHAN STREET, KEHKASHAN, CLIFTON, KARACHI, PAKISTAN
TEL: +922135876994, +92 21 35876997
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## 1 DETAILS OF THE PETITIONER

### NAME AND ADDRESS

**Sino Well (Private) Limited**
F-25, Block-5, Rojhan Street, Kehkashan, Clifton, Karachi, Pakistan
Tel: +922135876994, +92 21 35876997
Fax: +92 21 35876991, +92 21 35876993

### AUTHORISED REPRESENTATIVE

**Mr. Tabish Tapal**
Authorized Representative,
Sino Well (Private) Limited

# 2 REGULATORY FRAMEWORK LEADING TO TARIFF PETITION

## 2.1 NATIONAL ELECTRIC POWER REGULATORY AUTHORITY - COMPETENT AUTHORITY FOR TARIFF DETERMINATION

### 2.1.1 NEPRA Act, NEPRA Rules:

In terms of the Policy for Development of Renewable Energy for Power Generation 2006 (the **Policy**), the Energy Department, Government of Sindh (the **EDGoS**) has confirmed its intent for Sino Well (Private) Limited (**Project Company**) to establish an approximately 50 MW wind power generation project (the **Project**) in the Jhimpir region in the province of Sindh pursuant to a letter of intent dated March 1, 2016 (the **LOI**). Initially LOI was issued by the EDGoS to the sponsors of Western Energy (Pvt.) Ltd. Subsequent to incorporation of the Project Company, the EDGoS has recognized that the Project Company will undertake the Project pursuant to the LOI, as evidenced by EDGoS letter No. DAE/Wind/99/2015 dated 9th August 2016. The LOI was subsequently extended to 22nd February, 2019 by EDGoS vide its letter dated 3rd November, 2017.

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 PROCESS LEADING TO TARIFF PETITION

### 2.2.1 Submission of the Feasibility Study

In compliance with the requirements laid out in the Policy and the LOI, the Project Company completed the detailed feasibility in respect of the Project (the **Project Feasibility Study**) and submitted the same to the Panel of Experts through EDGoS, (the **Experts**) for their review and approval.

Following completion of the detailed review of the Project Feasibility Study by the Panel of Expert Committee (POEC), the POEC granted their approval in respect of the Project Feasibility Study.

### 2.2.2 Request for Determination of Tariff:

Since the Project Company:

(a) has been granted the LOI by the EDGoS vide letter no. DAE/Wind/99/2015 on 1st March 201~~6 (at~~tached as **Annexure-A**),

(b) has been allocated land for the Project by the Government of Sindh (**GOS**) and will shortly be executing a lease agreement with the GOS in respect of such land (the land allocation documents issued to the Project Company by the GOS are attached as **Annexure -B**),

(c) has received approval in respect of the Grid Interconnection Study for the Project from the National Transmission and Despatch Company (**NTDC**) vide letter no. GMPP/CEMP/TRP-380/3127-31 dated 1st June 2017(attached as **Annexure-C**),

(d) has received Power Evacuation Certificate for the Project from the NTDC vide letter no. GMPP/CEMP/TRP-380/3220 dated 7th June 2017 (attached as **Annexure-D**),

(e) has received approval in respect of the Project Feasibility Study by the Experts (attached as **Annexure -E**),

(f) has obtained the applicable environmental approvals in respect of the Project from the Sindh Environment Protection Agency vide letter no. EPA/2016/12/16/IEE/103 dated 3rd January 2016 (attached as **Annexure -F**),

(g) has executed binding contracts in respect of engineering procurement and construction (**EPC**) works for the Project with renowned contractors M/s Orient Energy Systems, FZCO, UAE for Offshore Supply Contract and with Orient Energy Systems (Pvt) Limited for Onshore Construction Contract (attached as **Annexure -G**),

(h) has signed term sheet with United Bank Limited, Pakistan (**UBL**) for debt financing of the Project (attached as **Annexure -H**), and

(i) has applied for Generation License vide letter no. SWL/NEPRA/002/19 dated November 14, 2018 with NEPRA (attached as **Annexure – I**)

accordingly, it is submitted that the requirements of the regulatory process for applying to NEPRA for a cost-plus tariff determination for the Project have been completed.

### 2.2.3 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, in accordance with the Policy; **<u>AND</u>** in view of compliance by the Project Company of the foregoing (including the LOI), **Sino-Well (Private) Limited <u>submits herewith</u>** 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 Indexations and Adjustments;
- (iii) Adjustments at commercial operations date; and
- (iv) other matters set out in this Tariff Petition,

Given the advanced stage of the Project, NEPRA is kindly requested to process the Tariff Petition at the earliest, thereby enabling the Project Company to achieve financial close as per the requirements of the LOI and start generation of electricity.

# 3 EXECUTIVE SUMMARY

## 3.1 PROJECT BRIEF

The Applicant, Sino Well (Private) Limited, is a private limited company incorporated under the laws of Pakistan and has been specifically established to undertake power generation business and activities in Pakistan.

After receiving the LOI in respect of the Project, the Project Company was allocated 335 acres of land by the Land Utilization Department, GOS. The soil investigation, topography survey and technical feasibility were carried out on the Site. A wind mast was also installed and site-specific wind data is being collected since February 2017.

NEPRA initiated suo moto proceedings for determination of a new upfront tariff for wind power projects and advertisements in this regard were published in local newspapers on 14th June 2016, which advertisements proposed a levelized tariff of US Cents 8.19/ KWh and invited comments from stakeholders. A number of interventions and comments were filed in respect of the advertised tariff, and a public hearing was held by NEPRA on 19th July 2016.

Apart from discussions on the tariff assumptions and mechanism, it was evident from the proceedings at the public hearing that all the stakeholders, lending institutions and GOS, except for the Central Power Purchasing Agency (Guarantee) Limited (**CPPA-G**), were of the opinion that competitive bidding regime for wind power projects should be introduced after the existing unsolicited projects have been awarded upfront tariff.

In view of the foregoing and ever since the issue of the LOI to the Project, we have continued with our development activities on our unsolicited site in anticipation that the Project will be awarded an upfront tariff by NEPRA and have already completed the following milestones in respect of the Project:

a. After an extensive EPC selection process, most appropriate EPC contractors and technically superior wind turbine technology for our Project was selected which is most suited to our unsolicited site. The Offshore Supply Contract was signed between Orient Energy Systems, FZCO, UAE and the Project Company on March 20, 2017 and the Onshore Consturction Contract was signed between Orient Energy Systems (Pvt) Limited and the Project Company on March 24, 2017.

b. Feasibility study in respect of our Project Site was completed and submitted to the EDGoS vide letter no. SWL/DAE/002/17 dated 12th January 2017.

c. Grid Interconnection Study for our Project was conducted and completed by the Power Planners International (Pvt) Limited and its approval was conveyed vide NTDC letter no. GMPP/CEMP/TRP-380/3127-31 dated 1st June 2017

d. The Power Evacuation Certificate has also been issued by NTDC vide its letter no. GMPP/CEMP/TRP-380/3220 dated 7th June 2017.

e. The Generation License application has been submitted to NEPRA vide letter no. SWL/NEPRA/002/19 dated November 14, 2018.

f. Project Debt Funding (which is 75% of the total project cost) will be financed through a mix of local and foreign lenders with 50:50 ratio. United Bank Limited is acting as an arrangers for the local and foreign currency loans. The Sponsors of the project will provide remaining 25% of the project cost in the form of equity investment.

g. IEE study in respect of our Project was completed and approved by the Sindh Environment Protection Agency vide letter no. EPA/2016/12/16/IEE/103 dated 3rd January 2016.

h. Wind mast was installed at our Project Site in February 2017 and site specific wind data has been collected ever since.

NEPRA issued a benchmark tariff for reverse bidding on 27th January 2017 prior to the announcement of the upfront tariff for the unsolicited projects waiting for a new upfront tariff. Ever since the announcement of the benchmark tariff for reverse bidding, we have been waiting for the announcement of the RFP document by the competent authority However, as per the Policy for Development of Renewable Energy for Power Generation, 2006 (the **Policy**), it is our understanding that reverse bidding can only be conducted on "solicited sites" – whereas our Project is being developed on an "unsolicited site". In view of the uncertainty in the timeline for announcement of the RFP for reverse bidding for wind power projects, the inapplicability of reverse bidding for our Project as per Policy we are filing this Tariff Petition in accordance with the NEPRA Act, NEPRA Rules and the Policy for your kind consideration and approval.

## 3.2 EPC APPROACH & O&M ARRANGEMENT:

For the purposes of designing, engineering, procuring, constructing, installing, testing, completing, commissioning, operation and maintenance of the Project, the Project Company has invited EPC Bids from major local and international EPC companies. All leading brands including Haizhuang, Nordex, General Electric, Siemens, Gamesa and Vestas, were considered and detailed assessment was carried out of power curve, size, spacing & annual energy output, etc.

Based on these analysis and assessment the EPC arrangements were made by signing of two contracts with Orient Energy Systems (OES), one of the Pakistan's leading energy solution providers. OES is part of ASJN Holdings and partner of SIEMENS GAMESA in Pakistan for the Wind business. OES was selected as the EPC Contractor for the Project based on their offer of best commercial terms, technical soundness and relevant experience packaged.

The Project Company has executed its Offshore Supply Contract with Orient Energy Systems FZCO-UAE on March 20, 2017 and its Onshore Construction Contract dated March 24, 2017 with Orient Energy Systems (Pvt.) Limited. While a ten (10) year O&M Contract is in negotiation.

### 3.2.1 ORIENT ENERGY SYSTEMS INTRODUCTION

Orient Energy Systems (OES) is one of the leading multinational engineering companies in Pakistan that is distributing internationally recognized power generation and industrial solutions and services. Main business of OES is in power sector as solution provider based on Gas, HFO and renewable energy. Established in year 1996, OES has operations in five countries: Pakistan, UAE, Oman, Bahrain and Qatar.

OES also provides power system solutions from GE jenbacher which is the world's best and the largest gas generator manufacturer with the lowest gas consumption and operating cost. OES has sold 875+ GE jenbacher gas gensets generating more than 1245MW of power in the Pakistan territory.

OES is currently involved as sub-contractor in construction of SIEMENS GAMESA first 50 MW Wind Power project at Gharo (Zephyr Power) with expected completion in end of October.

For the Project, OES has entered into JV with SIEMENS GAMESA for supply of WTGs.

### 3.2.2 SIEMENS GAMESA INTRODUCTION

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

In April 2017 Siemens merged its wind power business with Gamesa. Siemens Wind Power and Gamesa now form a world-leading wind power provider in the name of "Siemens Gamesa Renewable Energy", with an unrivalled global presence with over 75 GW installed globally in more than 90 countries. The two companies complement one another almost perfectly and boast a unique product portfolio.

The Project comprises of 25 Gamesa G114-2.0 MW CIIA Wind Turbines at 80m hub height. The output of the farm will be 50 MW with capacity factor of 37%. The Project construction timeline will be 15 months after issuance of Notice to Proceed (**NTP**).

## 3.3 PROJECT FUNDING:

The capital structure of the Project is envisaged at 75:25 (Debt:Equity). The debt component is financed through a mix of local and foreign lenders with 50:50 ratio. United Bank Limited is acting as an arrangers for the local and foreign currency loans. The signed term sheet with the United Bank Limited to arrange local and foreign currency loan for the Project is attached as *Annexure - H.*

Our sponsors are committed to fund the Project by investing 25% of the project cost.

## 3.4 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 colspan="4">Sino Well (Private) Limited</td></tr>
<tr><td>SPONSORS</td><td colspan="4">Tapal Group</td></tr>
<tr><td>PROJECT CAPACITY</td><td colspan="4">50 MW</td></tr>
<tr><td>PROJECT LOCATION</td><td colspan="4">Jhimpir, Province of Sindh, Pakistan</td></tr>
<tr><td>LAND AREA</td><td colspan="4">335 Acres</td></tr>
<tr><td>CONCESSION PERIOD</td><td colspan="4">25 years from commercial operations date</td></tr>
<tr><td>PURCHASER</td><td colspan="4">Central Power Purchasing Agency (Guarantee) Limited</td></tr>
<tr><td>ENERGY PRODUCTION</td><td colspan="4">162,060 MWh</td></tr>
<tr><td>CONSTRUCTION PERIOD</td><td colspan="4">15 Months</td></tr>
<tr><td rowspan="2">EPC CONTRACTORS</td><td colspan="2">Offshore Supply Contract</td><td colspan="2">Orient Energy Systems FZCO-UAE</td></tr>
<tr><td colspan="2">Onshore Consturction Contract</td><td colspan="2">Orient Energy Systems (Pvt.) Limited</td></tr>
<tr><td rowspan="7">PROJECT CAPITAL COST</td><td colspan="4">Amount (US$ '000)</td></tr>
<tr><td colspan="2">EPC Price</td><td colspan="2">75,000</td></tr>
<tr><td colspan="2">Non-EPC Cost & Project Development Cost</td><td colspan="2">3,309</td></tr>
<tr><td colspan="2">Insurance During Construction</td><td colspan="2">469</td></tr>
<tr><td colspan="2">Financial Fees and Charges</td><td colspan="2">3,247</td></tr>
<tr><td colspan="2">Interest During Construction</td><td colspan="2">3,371</td></tr>
<tr><td colspan="2">Total Project Cost</td><td colspan="2">85,396</td></tr>
<tr><td>FUNDING PLAN</td><td colspan="4">Debt 75% : Equity 25%</td></tr>
<tr><td>EQUITY</td><td colspan="4">US$ 21,346 million</td></tr>
<tr><td rowspan="2">LONG TERM DEBT</td><td colspan="4">PKR equivalent of US$ 32,025 million (50% local financing)</td></tr>
<tr><td colspan="4">US$ 32,025 million (50% foreign financing)</td></tr>
<tr><td rowspan="5">TERMS OF LONG-TERM DEBT</td><td></td><td>Local Financing</td><td colspan="2">Foreign Financing</td></tr>
<tr><td>Terms</td><td>Up to 14.5 years</td><td colspan="2">Up to 14.5 years</td></tr>
<tr><td>Grace Period</td><td>Upto 18 months</td><td colspan="2">Upto 18 months</td></tr>
<tr><td>Repayment Period</td><td>13 years</td><td colspan="2">13 years</td></tr>
<tr><td>Debt Repayment</td><td>52 equal quarterly instalments</td><td colspan="2">52 equal quarterly instalments</td></tr>
</table>

| | | | |
|---|---|---|---|
| | **Interest Rate** | 3 months KIBOR (6%) + spread of 250 basis points | 3 months LIBOR (0.60%) + spread of 450 basis points. |
| **PROJECT OPERATION COST** | | | ***Amount (US$ '000)*** |
| | *Years* | | *1 to 25 years* |
| | O&M -Foreign | | 1,268 |
| | -Local | | 682 |
| | Insurance Cost | | 375 |
| | **Total Operating Cost** | | **2,325** |
| **LEVELIZED TARIFF** | • US Cents/kWh : | | 7.2747 |
| | • PK Rupees/kWh: | | 7.6384 |
| **CONCESSION DOCUMENTS** | • Energy Purchase Agreement (**EPA**)<br>• Implementation Agreement<br>• Government of Pakistan Guarantee covering payment obligations of the power purchasers<br>• Site Lease Deed<br>• Lender's Direct Agreements | | |
| **APPLICABLE POLICY** | Policy for Development of Renewable Energy for Power Generation, 2006 | | |
| **LEGAL ADVISORS** | HaidermotaBNR & Co. | | |
| **TECHNICAL CONSULTANTS** | a. Pakistan Alternative Engineering Services (Private) Limited<br>b. Power Planners International | | |
| **MILESTONES ACHIEVED BY THE PROJECT** | • LOI issued by the EDGoS | | 1st March 2016 |
| | • Land allocated by GOS<br>*Documentation for execution of lease agreement is in process* | | 22nd August 2016 |
| | • Approval of the Grid Interconnection Study | | 1st June 2017 |
| | • Debt Term Sheet singed with UBL for 75% of the Project Cost | | 07th November 2018 |
| | • Generation License applied with NEPRA | | 14th November 2018 |

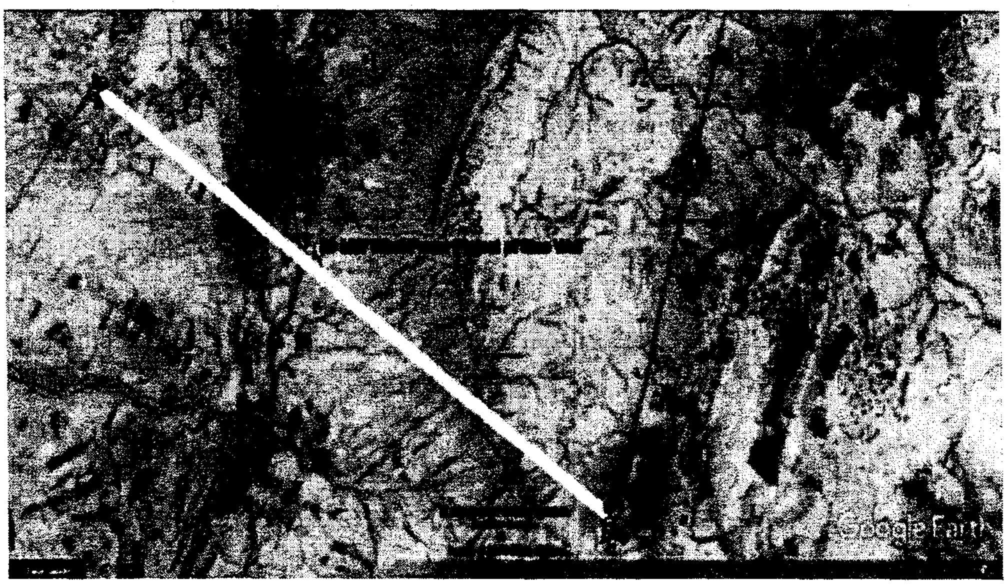
## 3.5 KEY FEATURES OF THE PROJECT

### 3.5.1 The Project Site

The project is located in Jhimpir, District Thatta, province of Sindh and is in close vicinity of the super highway. The geographical coordinates of our Project Site are as follows:

| S. No. | Total Area | Latitude | Longitude |
|---|---|---|---|
| B 1 | 335 Acres | 25°10'08.14" N | 68°02'01.95" E |
| B 2 | | 25°10'04.21" N | 68°01'58.86" E |
| B 3 | | 25°07'16.19" N | 68°06'30.89" E |
| B 4 | | 25°07'20.82" N | 68°06'32.69" E |

As the land allocated by the GOS is in close vicinity of the PAF Bolari Base, the PAF Bolari Base has set a height restriction on structures therefore large size turbines and towers higher than 80 to 85 meters from ground level are not possible on our land site. These impediments have resulted in our output being compromised to some extent as higher towers cannot be considered by us which could result in a higher yield. The satellite image of the Project's site is given below:



### 3.5.2 Selection of Technology / WTGs

The wind mast was erected in January 2017 at our Project site. The data set used to undertake a wind regime assessment is from February 2017 to Febuary 2018 collected from mast installed at our site.

Based on the analysis and assessment of this wind data used to undertake into the wind analysis and assessment report, on various WTGs having footprints in Pakistan and considering the height limitation due to PAF Bholari Air Base, Gamesa G114 - 2.0 WTG is found most appropriate for the site.

The Facility configuration consists of 25 numbers of G114-2.0 WTGs; 75 (seventy five) blades (56m length); electrical equipment, together with ancillary equipment and other goods and machinery.

All functions of the selected G114-2.0 WTG are monitored and controlled by a SCADA based control system. In addition the wind turbines are equipped with a remote monitoring system.

The design used by the G114-2.0 WTG is aimed at achieving high safety and environment mechanisms. Moreover, as per the Project Company's analyses, the equipment is suited to the conditions at the Project's Site.

The 2 MW series is Gamesa's most widely deployed wind turbine with total global presence of over 75 GW installed globally in more than 90 countries and is known for its:

- conformance and compliance to the International Electrotechnical Commission (the **IEC**) standards;
- high availability in a variety of wind classes;
- continual investment for achievement of highest capacity factor in its class; and
- sharing of components that ensures consistent workhorse reliability, ease of maintenance planning and high commonality in spare parts.

**Main Specifications**

| | |
|---|---|
| **MANUFACTURER** | SIEMENS GAMESA |
| **WIND TURBINE GENERATOR** | GAMESA G114-2.0 MW |
| **HUB HEIGHT** | 80 M |
| **NUMBER OF TURBINES** | 25 (Twenty Five) |
| **TOTAL INSTALLED CAPACITY** | 50 MW |
| **NUMBER OF BLADES** | 3 |
| **ROTOR DIAMETER** | 114 M |
| **CUT-IN WIND SPEED** | 3 m/s |
| **CUT-OUT WIND SPEED** | 25 m/s |
| **EXTREME WIND SPEED (3 SEC AVERAGE)** | 59.5 m/s |

# 4 PROJECT COST, OPERATING COST AND TARIFF

## 4.1 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 power projects is USD 85,396 (United States Dollars Eighty Five Million Three Hundred and Ninety Six Thousand only) (the "**Project Cost**"). The reference exchange rates used to convert the relevant costs into United States Dollars are USD 1 = PKR 105.

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

| INVESTMENT / COST | US$ '000 |
|---|---|
| EPC COST | 75.000 |
| NON-EPC & PROJECT DEVELOPMENT COST | 3,309 |
| PRE-COD INSURANCE COST | 469 |
| FINANCIAL FEES AND CHARGES | 3,247 |
| INTEREST DURING CONSTRUCTION | 3,371 |
| TOTAL PROJECT COST | 85,396 |

## 4.2 DETAILS OF PROJECT COST

### 4.2.1 EPC Cost:

EPC contract for the Project has been signed with Orient Energy Systems (OES). The scope of work to be carried out by the EPC contractor has been split into two parts, namely, onshore works and offshore works; where offshore works primarily relate to procurement and supply of electrical and mechanical equipment outside Pakistan and onshore works comprise of civil works, erection, commissioning, testing, etc.

Total EPC cost for the Project US$ 75 Million (United States Dollars Seventy Five Million only). Onshore Construction Contract has been signed with Orient Energy Systems (Pvt) Limited valuing US$ 11 Million (United States Dollars Eleven Million only), whereas Offshore Supply Contract has been signed with Orient Energy Systems FZCO, UAE valuing US$ 64 Million (United States Dollars Sixty Four Million only).

| COST HEAD | US$ '000 |
|---|---|
| OFFSHORE SUPPLY CONTRACT | 64,000 |
| ONSHORE CONSTRUCTION CONTRACT | 11,000 |
| **TOTAL EPC COST** | **75,000** |

The EPC Cost includes the cost of 25 wind turbine generators (model: Gamesa G114 - 2.0 MW, generator step up transformers, MV Substation, HV Substation, protection system, SCADA system, communication system, metering system and anemometry system, 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 EPC Cost also includes costs for: staff accommodation (construction of the camp buildings), supply of drinking water and electricity (to camp buildings), catering services for the staff, certain project vehicles, standby generator (including fuel), site security during construction period and construction of internal access roads.

### 4.2.2 Taxes & Custom Duty

The extract of the relevant laws reproduced below are basis for our assumption on costs associated to taxes and custom duties considered in this Tariff Petition.

**Custom Duty:**

The amount of customs duty to be paid by renewable energy projects is to be calculated based on Section 18 (1A) of the Customs Act 1969 read with Serial 11 to the Part I of Fifth Schedule of the Customs Act 1969 (the Schedule), which allows Customs Duty at a rate of Zero% for the following items:

*"Machinery, equipment and spares meant 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."*

Accordingly, the Project Company has assumed **Zero%** customs duty on imported plant, equipment, machinery etc. in accordance with the above.

However, in case of applicability of any custom duty, the Project Company prays NEPRA to allow adjustment of capital cost of the Project and tariff at COD, for actual customs duty paid.

**Additional Custom Duty:**

Additional Custom Duty is assumed at **Zero%**, as the same is correlated with the items exempted in the fifth schedule of the Custom Act. In case the Project has to pay customs duty then the Special Excise Duty at 1% is levied. Accordingly, the Project Company requests NEPRA to kindly allow adjustment in capital cost of the Project and the tariff at COD, for actual special excise duty paid.

**Sales Tax on imports:**

No Sales Tax is assumed on import and local supply of the imported plant, equipment, and machinery etc., as per Table 3 of Sixth Schedule (the Schedule) to the Sales Tax Act, 1990 read with Section 13 (1) of the Sales Tax Act, 1990 wherein exemption from applicability of sales tax is provided. Serial # 7 of the Schedule cites following items which are exempt from sales tax;

*"1. Machinery, equipment and spares meant 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."*

However, in case of change in laws by virtue of which if federal sales tax applicable on procurement of plant, machinery and equipment becomes applicable the same is requested to be adjusted in Project Cost and Tariff allowed at COD / Tariff true-up stage.

**Advance Income Tax on import:**

Advance Income Tax at **Zero** Percent (0%) has been assumed at the time of import of machinery, equipment, goods, spares and materials for the Project in line with exemption provided under Section 153 of the Income tax Ordinance 2001, read with clause 77 to the Part IV of 2nd Schedule to the Income Tax Ordinance, as reproduced hereunder

*"(77) Provisions of sections 148 and 153 shall not be applicable on import and subsequent supply of items with dedicated use of renewable sources of energy like solar and wind etc., even if locally manufactured, which include induction lamps, SMD, LEDs with or without ballast with fittings and fixtures, wind turbines including alternator and mast, solar torches, lanterns and related instruments, PV modules (with or without) the related components including invertors, charge controllers and batteries."*

However, in case of change in laws before import of related plant, equipment and machinery by virtue of which such advance income tax rate is increased from currently applicable zero percent then the same is requested to be adjusted in Project Cost and Tariff allowed at COD / Tariff true-up stage.

**Sindh Infrastructure Development Cess (SIDC):**

The SIDC is a charge on imported goods which are subject to the Custom Duty, as the plant, equipment, machinery etc. imported for the wind energy project is exempt from Custom Duty, therefore **Zero%** SIDC is applicable on such plant machinery.

However, in case of change laws or interpretation of this law by virtue of which such SIDC is imposed from currently applicable zero percent then the same is requested to be adjusted in Project Cost and Tariff allowed at COD / Tariff true-up stage.

**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, commitment fee, L/C commission and charges, loan administration charges, and insurance premium the same should be allowed as pass-through under the tariff.

***The taxes and duties are requested to be adjusted at actual at the COD stage tariff adjustment / Tariff true-up.***

### 4.2.3 Non-EPC and Project Development 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 EPC Agreement while Project Development Costs include the costs incurred for the purpose of project development work fees and expenses incurred or to be incurred for such purpose. These costs include, *inter alia*, costs of feasibility studies, grid interconnection studies, Environmental studies, land cost, topographical survey of land, geotechnical investigation of land, fees of consultants; costs related to the bank guarantee to be furnished to EDGoS, costs related to the Purchaser letter of credit to be furnished to the Power Purchaser pursuant to the provisions of the EPA, NEPRA and other governmental agencies, costs incurred during the Project Company's formation and capital enhancement; and costs relating to various permits for the Project, post financial close technical supervision and site security etc.

A breakdown of some of such costs is provided below:

| | **COST** | **US$ '000** |
|---|---|---|
| A | Consultancy Costs & Technical Studies – Pre-Financial Close | 715 |
| B | Owner's Engineer Supervision – Post Financial Close | 500 |
| C | Independent Engineer - Pursuant to the EPA | 48 |
| D | Permits, Permissions and Related Costs | 105 |
| E | Site works, transport and Infrastructure cost | 862 |
| F | Administration and Other Development Expenses | 795 |
| G | Travelling Costs | 97 |
| H | Security Expense | 188 |
| | **TOTAL NON-EPC & PROJECT DEVELOPMENT COST** | **3,309** |

A. <u>Consultancy Costs & Technical Studies- Pre Financial Close:</u>

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. 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. Based on the requirements of technical consultants, the Project Company has already completed electrical, geotechnical, topographical, soil and other related studies for the purpose of completing Project's feasibility study.

B. <u>Owner's Engineer & Supervision Costs – Post Financial Close:</u>

The Project Company will engage an experienced engineering supervision team to ensure the contractor's compliance with the relevant contracts, as well as reporting on progress and budget. The construction supervision team will comprise site engineers supported by technical experts. The Owner's Engineer will also conduct review of proposed designs, construction monitoring and witnessing of key tests to ensure project's success.

C. Independent Engineer:

The Project Company is required to engage an Independent Engineer pursuant to the EPA. Under the terms of the EPA the Independent Engineer will be a firm of engineering consultants that would be appointed and hired by the Project Company, with the approval of the CPPA-G, to monitor the construction of the Project (including its commissioning) and to deliver the related certificates and carry out all of the responsibilities specified in the EPA, including certifying the results of the commissioning tests, readiness of interconnection facilities and synchronization.

D. Permits, Permissions and Related Costs:

During development and construction of the Project, the Project Company will incur costs related to various fees and charges payable in respect of permits and permissions required from various authorities and regulatory bodies including but not limited to cost of bank guarantees to be provided by the Project Company in respect of the LOI and the Letter of Support (**LOS**), the letter of credit to be issued in favor of the power purchaser, the fee in respect of the LOS, EDGoS facilitation and legal fee, NTDC vetting charges for Grid Interconnection Study, NEPRA fee and charges, registration and other charges to SECP, etc. to be incurred during development and construction of the Project.

E. Site works, transportation and Infrastructure:

This head includes upfront payment of the site lease for 10 years payable in advance as per GOS rules, transportation of staff during construction and costs related to site leveling & preparation, site access, infrastructure, electricity connection costs, etc.

F. Administration and Other Development Expenses:

The Project Company's head office is based in Karachi. In addition, there will be a site office located at the site of the Project with limited accommodation to coordinate the construction and monitoring activities at site. This portion of the Non-EPC Cost includes costs associated with accounting and admin staff, rent, utilities, equipment inspection, communication charges, printing and stationery, supplies, communication charges, vehicle fuel and maintenance and other allied expenses during the construction period.

G. Travelling Cost:

This head covers costs related to travelling, accommodation, daily allowances and other allied expenses of the foreign and local staff, incurred for development, arrangement of financing & EPC and for progress / monitoring meetings during development and construction period of the Project.

H. Security Expense

This Cost covers security arrangements for its personnel and the EPC contractors' staff together with the wind farm equipment.

Any other cost that relates to development and construction of the Project, if incurred, will be provided at tariff true-up stage.

### 4.2.4 Pre-COD Insurance Cost:

Pre-COD Insurance Cost covers the insurance cost of the Project Company's assets during construction and the same are incurred prior to the commercial operations date (**COD**) of the Project. These cost estimates have been developed based on the Project Company's determination to obtain Pre-COD insurance at relatively lower rates (per annum 0.5% of EPC cost excluding taxes and duties) at the strength of the Sponsor's contacts with the European and Chinese insurers based on their other business relations.

However, in the event the Project Company cannot arrange the insurance at 0.5% p.a. due to any reasons beyond its control, NEPRA is requested to allow the actual Pre-COD Insurance Cost at actual up to 1.35% of the EPC cost in line with earlier tariff determinations by NEPRA for other IPPs.

The Project Company, 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 do not include the administrative surcharge, the Federal Insurance Fee and the Federal Excise Duty, and the Company prays that the same kindly be allowed by NEPRA as part of the One-Time Adjustments allowed at the time of COD.

*The Project Company requests NEPRA to allow pre-COD insurance cost at 0.625% of EPC cost including taxes and duties. However, in case of any deviation, NEPRA is kindly requested to allow the actual Pre-COD Insurance Cost capped at 1.35% of the EPC cost in line with earlier tariff determinations by NEPRA for other IPPs.*

### 4.2.5 Financial Fees and Charges for arranging 50% local and 50% foreign financing

Financial Fees and Charges include the costs related to the arrangement of 50% local currency and 50% foreign debt financing for the Project. Such costs include, *inter alia*, the lenders' up-front fee and commitment fee; mandate and processing fee, and stamp duty applicable on the financing documents; agency fee; security trustee fee; lenders' Project monitoring fee and the fees for the lenders' legal and other advisors to engage in order to carry out the due diligence, drafting of financing documents and monitoring of the project during the construction period and charges for letter of credit to be opened for EPC Offshore Supply Contract.

These financial charges are in line with the prevailing market conditions and practices applicable for project financing transactions and as allowed by NEPRA in its other tariff determinations. The term sheet for arrangement of debt financing agreed with the lender is attached with this Tariff Petition as **Annexure - H.**

*The Project Company requests NEPRA that as the Project Company has not considered any duties and taxes on account of Financial Fees and Charges, any duties and taxes if applicable on account of these costs may kindly be allowed as adjustment for actual cost at the time of COD.*

### 4.2.6 Interest During Construction

The Interest During Construction (the **IDC**) has been calculated on the basis of 15 months construction period and the term sheet executed between the Project Company and the lender, which stipulates a base rate equal to 3 months KIBOR plus a margin of 250 basis points for local financing and 3 months LIBOR plus a margin of 450 basis points for foreign financing.

The Project Company will endeavor to keep the IDC to its bear minimum therefore actual IDC, shall be subject to change depending on the fluctuations in base rate (i.e. 3-month KIBOR and 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 | LOCAL FINANCING | FOREIGN FINANCING |
|---|---|---|
| BASE RATE | 6.00% | 0.60% |
| SPREAD | 2.50% | 4.50% |
| **TOTAL INTEREST RATE** | **8.50%** | **5.10%** |

*IDC, at this stage, is an estimated figure, which is adjustable at COD, based on actual KIBOR and LIBOR, timing and amount of loans drawdown during the Project construction period after financial close, therefore, it is prayed that NEPRA kindly allow adjustment for the same at the time of tariff true-up at COD.*

## 4.3 PROJECT COST & TARIFF COMPARISON WITH NEPRA'S UPFRONT TARIFFS

The Petitioner respectfully submits hereunder a comparison of proposed levelized tariff and Project costs with NEPRA's previous upfront tariffs:

| Project Cost & Tariff Comparison | Cost Plus Tariff of SINO WELL | As Per 24th June 2015 Upfront Tariff | As Per 24th April 2013 Upfront Tariff |
|---|---|---|---|
| | USD '000 | USD '000 | USD '000 |
| EPC Cost | 75,000 | 95,895 | 115,301 |
| Non-EPC & PDC | 3,309 | 6,167 | - |
| Pre-COD Insurance Cost | 469 | 1,438 | 1,636 |
| **Base Project Cost** | 78,778 | 103,500 | 116,937 |
| Financial Fees and Charges | 3,247 | - | - |
| Interest During Construction | 3,371 | 4,000 | 6000 |
| **Total Project Cost** | 85,396 | 107,500 | 122,937 |
| **Levelized Tariff - US¢/kWh** | 7.2747 | 10.4481 | 13.5244 |

The above comparison indicates that the Project cost and the Project Company's proposed levelized tariff is substantially lower than the previously announced Upfront Tariffs and the project costs allowed in such upfront tariffs.

## 4.4 PROJECT FUNDING STRUCTURE (DEBT & EQUITY)

### 4.4.1 The Funding Plan

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:

| | | USD IN '000 |
|---|---|---|
| DEBT –(50% FOREIGN AND 50% LOCAL) | 75% | 64,050 |
| EQUITY | 25% | 21,346 |
| **TOTAL PROJECT COST** | **100%** | **85,396** |

### 4.4.2 Brief on Debt and Equity Financing

The envisaged debt-equity structure of the Project is 75:25 implying a total debt requirement of USD 64,050 Million (based on a project cost of USD 85.396 Million).

The 50% debt financing will be funded through local financing and 50% will be funded through foreign financing. .

Based on the current Project cost estimates, the equity required to be injected by the Sponsor amounts to USD 21.346 Million.

### 4.4.3 Return On Equity

The Tariff Standards prescribed under Rule 17.3(ii) of the Tariff Rules require that the return on investment should be "*commensurate with other investments of comparable risk*". In this regard the Project Company requested:

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

The Return on Equity ("ROE") and Return on Equity during Construction ("ROEDC") have been estimated separately and the same are provided under Section 4.6.

### 4.4.4 Debt Servicing

The capital structure of the Project is envisaged at 75:25 (Debt:Equity).

#### 4.4.4.1 Terms of Debt Financing:

Key terms and conditions of financing are provided in table below:

| Cost Head | Local | Foreign |
|---|---|---|
| Base Rate | 3 Month KIBOR 6.00% | 3 Month LIBOR 0.60% |
| Spread | 2.50% | 4.50% |
| Repayment Period | 13 years | 13 years |
| Grace Period | 1.5 years | 1.5 years |
| Re-Payment - 52 instalments | Quarterly | Quarterly |

## 4.5 OPERATING COSTS

### 4.5.1 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 detailed as follows:

| | USD IN '000 |
|---|---|
| O&M FOREIGN | 1,268 |
| O&M LOCAL | 682 |
| INSURANCE COST | 375 |
| TOTAL | **2,325** |

### 4.5.2 O&M Cost

This costs cater for the cost of services rendered by the O&M Operator. Under the arrangement the O&M Contractor shall be responsible for provision or procurement and performance of all the works, services, supplies and other activities including management services necessary to operate and maintain the Project to ensure energy production is maximized and that the Project is operated and maintained in accordance with the applicable performance standards, agreed environmental-social & monitoring plans and prudent operating practices. The O&M cost of USD 1.95 million per annum is assumed by the Project Company to be incurred.

The O&M cost will be incurred in local as well as foreign currency - percentage of local: foreign components is specified below:

| | % OF TOTAL O&M |
|---|---|
| O&M FOREIGN | 65% |
| O&M LOCAL | 35% |
| TOTAL | 100% |

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

### 4.5.3 Insurance During Operation Period

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 part 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 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 0.5% of the EPC Cost based on the strength of the sponsors relations with the insurers from European and Chinese market, however any increase therefrom up to 1.35% of the EPC Cost may kindly be allowed upon submission of evidences. The insurance cost shall be charged by the Project Company at actual (subject to proposed cap) 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 Tariff 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.*

## 4.6 REFERENCE GENERATION TARIFF & DEBT SCHEDULE

### 4.6.1 Tariff Control Period

As the Project is 75% debt funded with loan tenure of 13 years for repayment, this means that there will be higher debt service cost requirements in the first 13 years of the Project. In the last 12 years of the Project, are debt free therefore the tariff will decrease significantly.

The proposed tariff is for the life of the Project i.e. term of the EPA, signed with the Power Purchaser, which is 25 years from COD.

### 4.6.2 Summary of Reference Generation Tariff

A summarized Reference Generation Tariff table is provided below:

PKR /kWh

| YEARS | | 1 to 13 | 14 to 25 |
|---|---|---|---|
| O&M | LOCAL | 0.8212 | 0.8212 |
| | FOREIGN | 0.4422 | 0.4422 |
| INSURANCE | | 0.2430 | 0.2430 |
| ROE | | 2.1395 | 2.1395 |
| ROEDC | | 0.2006 | 0.2006 |
| DEBT SERVICING – LOCAL | | 2.6525 | - |
| DEBT SERVICING – FOREIGN | | 2.1930 | - |
| TOTAL | | 8.6920 | 3.8465 |

### 4.6.3 Reference Generation Tariff Table

**Reference Tariff Table**

| Year | O&M Foreign | O&M Local | Insurance | ROE | ROEDC | Loan Repayment | | | | Total Tariff | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Principal - FCY Loan | Interest - FCY Loan | Principal - LCY Loan | Interest - LCY Loan | | |
| | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | Rs./kWh | US¢./kWh |
| 1 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.1567 | 1.0363 | 0.9175 | 1.7350 | 8.6920 | 8.2781 |
| 2 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.2168 | 0.9762 | 0.9980 | 1.6544 | 8.6919 | 8.2780 |
| 3 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.2801 | 0.9129 | 1.0856 | 1.5669 | 8.6920 | 8.2781 |
| 4 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.3466 | 0.8464 | 1.1808 | 1.4716 | 8.6919 | 8.2780 |
| 5 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.4166 | 0.7764 | 1.2844 | 1.3680 | 8.6919 | 8.2780 |
| 6 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.4903 | 0.7027 | 1.3971 | 1.2553 | 8.6919 | 8.2780 |
| 7 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.5678 | 0.6253 | 1.5197 | 1.1327 | 8.6920 | 8.2781 |
| 8 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.6493 | 0.5438 | 1.6531 | 0.9994 | 8.6921 | 8.2782 |
| 9 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.7350 | 0.4580 | 1.7981 | 0.8543 | 8.6919 | 8.2780 |
| 10 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.8252 | 0.3679 | 1.9559 | 0.6965 | 8.6920 | 8.2781 |
| 11 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 1.9201 | 0.2730 | 2.1275 | 0.5249 | 8.6920 | 8.2781 |
| 12 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 2.0199 | 0.1732 | 2.3142 | 0.3382 | 8.6920 | 8.2781 |
| 13 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | 2.1249 | 0.0682 | 2.5173 | 0.1351 | 8.6920 | 8.2781 |
| 14 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 15 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 16 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 17 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 18 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 19 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 20 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 21 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 22 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 23 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 24 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |
| 25 | 0.8212 | 0.4422 | 0.2430 | 2.1395 | 0.2006 | - | - | - | - | 3.8465 | 3.6633 |

| | | |
|---|---|---|
| | Levelized tariff | |
| Exchange Rate 1 US$ = 105 PKR | Rs./kWh | 7.6384 |
| | US Cents/kWh | 7.2747 |

## 4.6.4 Debt Repayment Schedule – Foreign Financing

| Debt Servicing Schedule | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Installment No. | Period | Repayment of Foreign Loan (USD'000) | | | | | Annual Repayment (Rs'000) | Calculation of Tariff Component |
| | | Principal | Repay ment | Interest | Balance | Total Debt Service | Annual Total Debt Servicing | Total Debt Servicing Rs./kWh |
| 1 | | 32,025 | 438 | 408 | 31,587 | 846 | | |
| 2 | | 31,587 | 443 | 403 | 31,144 | 846 | | |
| 3 | | 31,144 | 449 | 397 | 30,695 | 846 | | |
| 4 | | 30,695 | 455 | 391 | 30,240 | 846 | | |
| | 1 | 32,025 | 1,785 | 1,599 | 30,240 | 3,385 | 355,404 | 2.1930 |
| 5 | | 30,240 | 461 | 386 | 29,779 | 846 | | |
| 6 | | 29,779 | 467 | 380 | 29,313 | 846 | | |
| 7 | | 29,313 | 472 | 374 | 28,840 | 846 | | |
| 8 | | 28,840 | 478 | 368 | 28,362 | 846 | | |
| | 2 | 30,240 | 1,878 | 1,507 | 28,362 | 3,385 | 355,404 | 2.1930 |
| 9 | | 26,362 | 485 | 362 | 27,877 | 846 | | |
| 10 | | 27,877 | 491 | 355 | 27,386 | 846 | | |
| 11 | | 27,386 | 497 | 349 | 26,889 | 846 | | |
| 12 | | 26,889 | 503 | 343 | 26,386 | 846 | | |
| | 3 | 28,362 | 1,976 | 1,409 | 26,386 | 3,385 | 355,404 | 2.1930 |
| 13 | | 26,386 | 510 | 336 | 25,876 | 846 | | |
| 14 | | 25,876 | 516 | 330 | 25,360 | 846 | | |
| 15 | | 25,360 | 523 | 323 | 24,837 | 846 | | |
| 16 | | 24,837 | 530 | 317 | 24,307 | 846 | | |
| | 4 | 26,386 | 2,078 | 1,306 | 24,307 | 3,385 | 355,404 | 2.1930 |
| 17 | | 24,307 | 536 | 310 | 23,771 | 846 | | |
| 18 | | 23,771 | 543 | 303 | 23,228 | 846 | | |
| 19 | | 23,228 | 550 | 296 | 22,678 | 846 | | |
| 20 | | 22,678 | 557 | 289 | 22,121 | 846 | | |
| | 5 | 24,307 | 2,186 | 1,198 | 22,121 | 3,385 | 355,404 | 2.1930 |
| 21 | | 22,121 | 564 | 282 | 21,557 | 846 | | |
| 22 | | 21,557 | 571 | 275 | 20,985 | 846 | | |
| 23 | | 20,985 | 579 | 268 | 20,407 | 846 | | |
| 24 | | 20,407 | 586 | 260 | 19,821 | 846 | | |
| | 6 | 22,121 | 2,300 | 1,085 | 19,821 | 3,385 | 355,404 | 2.1930 |
| 25 | | 19,821 | 593 | 253 | 19,227 | 846 | | |
| 26 | | 19,227 | 601 | 245 | 18,626 | 846 | | |
| 27 | | 18,626 | 609 | 237 | 18,017 | 846 | | |
| 28 | | 18,017 | 616 | 230 | 17,401 | 846 | | |
| | 7 | 19,821 | 2,420 | 965 | 17,401 | 3,385 | 355,404 | 2.1931 |
| 29 | | 17,401 | 624 | 222 | 16,777 | 846 | | |
| 30 | | 16,777 | 632 | 214 | 16,144 | 846 | | |
| 31 | | 16,144 | 640 | 206 | 15,504 | 846 | | |
| 32 | | 15,504 | 649 | 198 | 14,855 | 846 | | |
| | 8 | 17,401 | 2,546 | 839 | 14,855 | 3,385 | 355,404 | 2.1931 |
| 33 | | 14,855 | 657 | 189 | 14,199 | 846 | | |
| 34 | | 14,199 | 665 | 181 | 13,534 | 846 | | |
| 35 | | 13,534 | 674 | 173 | 12,860 | 846 | | |
| 36 | | 12,860 | 682 | 164 | 12,178 | 846 | | |
| | 9 | 14,855 | 2,678 | 707 | 12,178 | 3,385 | 355,404 | 2.1930 |
| 37 | | 12,178 | 691 | 155 | 11,487 | 846 | | |
| 38 | | 11,487 | 700 | 146 | 10,787 | 846 | | |
| 39 | | 10,787 | 709 | 138 | 10,078 | 846 | | |
| 40 | | 10,078 | 718 | 128 | 9,361 | 846 | | |
| | 10 | 12,178 | 2,817 | 568 | 9,361 | 3,385 | 355,404 | 2.1931 |
| 41 | | 9,361 | 727 | 119 | 8,634 | 846 | | |
| 42 | | 8,634 | 736 | 110 | 7,898 | 846 | | |
| 43 | | 7,898 | 746 | 101 | 7,152 | 846 | | |
| 44 | | 7,152 | 755 | 91 | 6,397 | 846 | | |
| | 11 | 9,361 | 2,963 | 421 | 6,397 | 3,385 | 355,404 | 2.1931 |
| 45 | | 6,397 | 765 | 82 | 5,632 | 846 | | |
| 46 | | 5,632 | 774 | 72 | 4,858 | 846 | | |
| 47 | | 4,858 | 784 | 62 | 4,074 | 846 | | |
| 48 | | 4,074 | 794 | 52 | 3,280 | 846 | | |
| | 12 | 6,397 | 3,118 | 267 | 3,280 | 3,385 | 355,404 | 2.1931 |
| 49 | | 3,280 | 804 | 42 | 2,475 | 846 | | |
| 50 | | 2,475 | 815 | 32 | 1,661 | 846 | | |
| 51 | | 1,661 | 825 | 21 | 836 | 846 | | |
| 52 | | 836 | 836 | 11 | 0 | 846 | | |
| | 13 | 3,280 | 3,280 | 105 | - | 3,385 | 355,404 | 2.1931 |

## 4.6.5 Debt Repayment Schedule – Local Financing

| Debt Servicing Schedule | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Repayment of Local Loan (PKR'000) | | | | | Annual | Calculation |
| Installment No. | Period | Principal | Repayment | Interest | Balance | Total Debt Service | Annual Total Debt Servicing | Total Debt Servicing Rs./kWh |
| 1 | | 3,362,625 | 36,0[illegible]7 | 71,456 | 3,326,618 | 107,463 | | |
| 2 | | 3,326,618 | 36,773 | 70,691 | 3,289,845 | 107,463 | | |
| 3 | | 3,289,845 | 37,554 | 69,909 | 3,252,291 | 107,463 | | |
| 4 | | 3,252,291 | 38,352 | 69,111 | 3,213,939 | 107,463 | | |
| | 1 | 3,362,625 | 148,686 | 281,167 | 3,213,939 | 429,853 | 429,853 | 2.6525 |
| 5 | | 3,213,939 | 39,167 | 68,296 | 3,174,772 | 107,463 | | |
| 6 | | 3,174,772 | 39,999 | 67,464 | 3,134,773 | 107,463 | | |
| 7 | | 3,134,773 | 40,849 | 66,614 | 3,093,923 | 107,463 | | |
| 8 | | 3,093,923 | 41,717 | 65,746 | 3,052,206 | 107,463 | | |
| | 2 | 3,213,939 | 161,733 | 268,120 | 3,052,206 | 429,853 | 429,853 | 2.6524 |
| 9 | | 3,052,206 | 42,604 | 64,859 | 3,009,602 | 107,463 | | |
| 10 | | 3,009,602 | 43,509 | 63,954 | 2,966,093 | 107,463 | | |
| 11 | | 2,966,093 | 44,434 | 63,029 | 2,921,659 | 107,463 | | |
| 12 | | 2,921,659 | 45,378 | 62,085 | 2,876,281 | 107,463 | | |
| | 3 | 3,052,206 | 175,925 | 253,928 | 2,876,281 | 429,853 | 429,853 | 2.6525 |
| 13 | | 2,876,281 | 46,342 | 61,121 | 2,829,939 | 107,463 | | |
| 14 | | 2,829,939 | 47,327 | 60,136 | 2,782,612 | 107,463 | | |
| 15 | | 2,782,612 | 48,333 | 59,131 | 2,734,279 | 107,463 | | |
| 16 | | 2,734,279 | 49,360 | 58,103 | 2,684,919 | 107,463 | | |
| | 4 | 2,876,281 | 191,362 | 238,491 | 2,684,919 | 429,853 | 429,853 | 2.6524 |
| 17 | | 2,684,919 | 50,409 | 57,055 | 2,634,511 | 107,463 | | |
| 18 | | 2,634,511 | 51,480 | 55,983 | 2,583,031 | 107,463 | | |
| 19 | | 2,583,031 | 52,574 | 54,889 | 2,530,457 | 107,463 | | |
| 20 | | 2,530,457 | 53,691 | 53,772 | 2,476,766 | 107,463 | | |
| | 5 | 2,684,919 | 208,153 | 221,700 | 2,476,766 | 429,853 | 429,853 | 2.6524 |
| 21 | | 2,476,766 | 54,832 | 52,631 | 2,421,934 | 107,463 | | |
| 22 | | 2,421,934 | 55,997 | 51,466 | 2,365,937 | 107,463 | | |
| 23 | | 2,365,937 | 57,187 | 50,276 | 2,308,750 | 107,463 | | |
| 24 | | 2,308,750 | 58,402 | 49,061 | 2,250,348 | 107,463 | | |
| | 6 | 2,476,766 | 226,418 | 203,434 | 2,250,348 | 429,853 | 429,853 | 2.6524 |
| 25 | | 2,250,348 | 59,643 | 47,820 | 2,190,704 | 107,463 | | |
| 26 | | 2,190,704 | 60,911 | 46,552 | 2,129,794 | 107,463 | | |
| 27 | | 2,129,794 | 62,205 | 45,258 | 2,067,588 | 107,463 | | |
| 28 | | 2,067,588 | 63,527 | 43,936 | 2,004,061 | 107,463 | | |
| | 7 | 2,250,348 | 246,286 | 183,567 | 2,004,061 | 429,853 | 429,853 | 2.6524 |
| 29 | | 2,004,061 | 64,877 | 42,586 | 1,939,185 | 107,463 | | |
| 30 | | 1,939,185 | 66,256 | 41,208 | 1,872,929 | 107,463 | | |
| 31 | | 1,872,929 | 67,663 | 39,800 | 1,805,266 | 107,463 | | |
| 32 | | 1,805,266 | 69,101 | 38,362 | 1,736,164 | 107,463 | | |
| | 8 | 2,004,061 | 267,897 | 161,956 | 1,736,164 | 429,853 | 429,853 | 2.6525 |
| 33 | | 1,736,164 | 70,570 | 36,893 | 1,665,594 | 107,463 | | |
| 34 | | 1,665,594 | 72,069 | 35,394 | 1,593,525 | 107,463 | | |
| 35 | | 1,593,525 | 73,601 | 33,862 | 1,519,924 | 107,463 | | |
| 36 | | 1,519,924 | 75,165 | 32,298 | 1,444,760 | 107,463 | | |
| | 9 | 1,736,164 | 291,405 | 138,448 | 1,444,760 | 429,853 | 429,853 | 2.6524 |
| 37 | | 1,444,760 | 76,762 | 30,701 | 1,367,997 | 107,463 | | |
| 38 | | 1,367,997 | 78,393 | 29,070 | 1,289,604 | 107,463 | | |
| 39 | | 1,289,604 | 80,059 | 27,404 | 1,209,545 | 107,463 | | |
| 40 | | 1,209,545 | 81,760 | 25,703 | 1,127,785 | 107,463 | | |
| | 10 | 1,444,760 | 316,975 | 112,878 | 1,127,785 | 429,853 | 429,853 | 2.6524 |
| 41 | | 1,127,785 | 83,498 | 23,965 | 1,044,287 | 107,463 | | |
| 42 | | 1,044,287 | 85,272 | 22,191 | 959,015 | 107,463 | | |
| 43 | | 959,015 | 87,084 | 20,379 | 871,931 | 107,463 | | |
| 44 | | 871,931 | 88,935 | 18,529 | 782,996 | 107,463 | | |
| | 11 | 1,127,785 | 344,789 | 85,064 | 782,996 | 429,853 | 429,853 | 2.6524 |
| 45 | | 782,996 | 90,825 | 16,639 | 692,171 | 107,463 | | |
| 46 | | 692,171 | 92,755 | 14,709 | 599,417 | 107,463 | | |
| 47 | | 599,417 | 94,726 | 12,738 | 504,691 | 107,463 | | |
| 48 | | 504,691 | 96,739 | 10,725 | 407,953 | 107,463 | | |
| | 12 | 782,996 | 375,043 | 54,810 | 407,953 | 429,853 | 429,853 | 2.6524 |
| 49 | | 407,953 | 98,794 | 8,669 | 309,158 | 107,463 | | |
| 50 | | 309,158 | 100,894 | 6,570 | 208,265 | 107,463 | | |
| 51 | | 208,265 | 103,038 | 4,426 | 105,227 | 107,463 | | |
| 52 | | 105,227 | 105,227 | 2,236 | 0 | 107,463 | | |
| | 13 | 407,953 | 407,953 | 21,900 | - | 429,853 | 429,853 | 2.6524 |

## 4.7 INDEXATIONS, ESCALATIONS AND COST ADJUSTMENT

### 4.7.1 Indexations

It is submitted that indexations be made on 1st January, 1st April, 1st July and 1st October respectively, on the basis of latest information available with respect to Consumer Price Index (CPI) (General), as notified by Pakistan Bureau of Statistics, US CPI (for all Urban-consumers) as notified by US Bureau of Labor Statistics and exchange rate as notified by National Bank of Pakistan. NEPRA is requested to allow indexation for the various Reference Generation Tariff components in the following manner:

#### 4.7.1.1 Foreign O&M Cost Component

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

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

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

<u>INDEXATION FORMULA</u>

The Foreign O&M Cost Component shall be quarterly indexed based on the following formula:

$$FO\&M_{(FRev)} = FO\&M_{(Ref)} * US\ CPI_{(Rev)} / US\ CPI_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

Where:

| | | |
|---|---|---|
| $FO\&M_{(FRev)}$ | = | the revised Foreign O&M CostComponent applicable for the relevant quarter. |
| $US\ CPI_{(Rev)}$ | = | the revised US CPI (for all urban consumers) as issued by the US Bureau of Labor Statistics. |
| $US\ CPI_{(Ref)}$ | = | the US CPI (for all urban consumers), for the relevant month as issued by US Bureau of Labor Statistics. |
| $ER_{(Rev)}$ | = | the revised TT & OD selling rate of USD, as notified by the National Bank of Pakistan. |
| $ER_{(Ref)}$ | = | Reference TT & OD selling rate of PKR/USD 105. |

#### 4.7.1.2 Local O&M Cost Component

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

INDEXATION FORMULA

$$LO\&M_{(FRev)} = LO\&M_{(Ref)} * CPI_{(Rev)} / CPI_{(Ref)}$$

Where:

| | | |
|---|---|---|
| $LO\&M_{(FRev)}$ | = | the revised Local O&M Cost Component applicable for the relevant quarter. |
| $CPI_{(Rev)}$ | = | the revised CPI (General) in Pakistan for the month prior to the month in which indexation is applicable, as notified by the Federal Bureau of Statistics. |
| $CPI_{(Ref)}$ | = | the CPI (Genral) for the relevant month as notified by the Federal Bureau of Statistics. |

### 4.7.1.3 Insurance

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

INDEXATION FORMULA

Insurance component of reference tariff shall be indexed as per following formula:

$$Insurance_{(Rev)} = Insurnace_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

| | | |
|---|---|---|
| $Insurance_{(Rev)}$ | = | the revised Insurance Component applicable for the relevant quarter |
| $ER_{(Rev)}$ | = | 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. |
| $ER_{(Ref)}$ | = | Reference TT & OD selling rate of PKR/USD 105. |

### 4.7.1.4 Return of Equity and Return on Equity during Construction

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

INDEXATION FORMULA

The ROE Component shall be indexed using the following formula:

$$ROE_{(Rev)} = REO_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$
$$ROEDC_{(Rev)} = REO_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

Where:

| | | |
|---|---|---|
| $ROE_{(Rev)}$ | = | the revised ROE Component applicable for the relevant quarter |

$ROEDC_{(Rev)}$ = the revised ROEDC Component applicable for the relevant quarter.

$ER_{(Rev)}$ = 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.

$ER_{(Ref)}$ = Reference TT & OD selling rate of PKR/USD 105.

### 4.7.1.4 Debt Component

**Local Financing:** The principal and interest component of local financing will remain unchanged throughout the term except for the adjustment due to variation in 3 months KIBOR, while spread of 2.5% on KIBOR remaining the same, according to the following formula:

INDEXATION FORMULA

$$\Delta I = P_{(Rev)} * (KIBOR_{(Rev)} - [\ ]\%)/4$$

Where:

$\Delta I$ = The Variation in Interest Charges applicable corrsponding to variation in 3 month KIBOR. $\Delta I$ can be positive or negative depending upon whether $KIBOR_{(REV)}$ > OR < [ ]%. The Interest payment obligation will be enhanced or reduced to the extent of $\Delta I$ for each period under adjustment applilcable on quarterly basis.

$P_{(Rev)}$ = the outstanding principal on a quarterly basis at the relevant calculation dates.

**Foreign Financing:** The principal and interest component of foreign loan will be quarterly adjusted on the following:

a) The principal and interest component will be adjusted for Exchange rate variation as notified by the National Bank of Pakistan

b) Interest will be adjusted due to variation in 3 months LIBOR, while spread of 4.5% on LIBOR remaining the same, according to the following formula:

INDEXATION FORMULA

$$\Delta I = P_{(Rev)} * (LIBOR_{(Rev)} - [\ ]\%)/4$$

$$FDP_{Rev)} = FDP_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

$$FDI_{(Rev)} = FDI_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

Where:

$\Delta I$ = The Variation in Interest Charges applicable corrsponding to variation in 3 month LIBOR. $\Delta I$ can be positive or negative depending upon whether $LIBOR_{(REV)}$ > OR < [ ]%. The Interest payment obligation will be enhanced or reduced to the extent of $\Delta I$ for each period under adjustment applilcable on quarterly basis.

P(Rev) = the outstanding principal on a quarterly basis at the relevant calculation dates.

$FDP_{(Rev)}$ = the revised Foreign Debt Principal Component applicable for the relevant quarter.

$FDI_{(Rev)}$ = the revised Foreign Debt Interest Component applicable for the relevant quarter.

$ER_{(Rev)}$ = the revised TT & OD selling rate of PKR/USD, as notified by the National Bank of Pakistan.

$ER_{(Ref)}$ = The reference TT & OD selleing rate of PKR/USD 105.

### 4.7.2 One Time Adjustments

The following onetime adjustments are requested to the reference tariff:

i) Charges for the letter of credit to be opened in favor of the EPC contractor, may be adjusted at COD on actual basis.

ii) Duties and/or taxes, not being of refundable nature, imposed on the Project Company upto the commencement of its commercial operations for the import of its plant, machinery and equipment will be subject to adjustment at actual on COD.

iii) The interest during construction may be adjusted at COD on the basis of actual debt draw downs, actual PKR/US$ exchange rate variation for foreign loan denominated in US Dollar and interest calculated on the actual 3 months LIBOR per annum for foreing financing and 3 months KIBOR for local financing respectively.

iv) Equity during construction may be adjusted at COD on the basis of actual equity injections during the project construction period.

v) The return on equity (including return on equity during construction) will be adjusted at COD on the basis of PKR/USD exchange rate variation.

vi) All project costs i.e. costs incurred prior to commercial operations date are allowed in USD. At COD, all project costs paid in PKR shall be converted using the reference PKR/USDrate to ensure that the cost incurred do not exceed the cost allowed by NEPRA.

vii) Pre-COD Insurance Cost be adjusted at actual subject to a cap of 1.35% of the EPC cost in line with earlier tariff determinations by NEPRA for other IPPs.

viii)The reference tariff table may please be revised at COD while taking into account the above adjustments.

### 4.7.3 Pass-Through Items

a) No provision of income tax has been provided for in the tariff. If the Project Company is obligated to pay any type of tax, the same should be allowed to the Sino Well as pass through.

b) The payments to Workers Welfare Fund and Workers Profit Participation Fund have not been accounted for in the Project and have been assumed to be reimbursed as pass through at actual by the power purchaser.

c) Corporate tax, turn over tax, general sales tax / provincial sales tax and all other taxes, excise duty, levies, fees etc. by any federal / provincial entity including local bodies as and when imposed, shall be treated as a pass through item.

a) Any costs incurred by the Project Company , which are required to be incurred by Power Purchaser pursuant to provisions of EPA shall also be treated as pass through.

### 4.7.4 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:

i. The reference tariff has been calculated on the basis of net annual benchmark energy generation of 162.060 GWh at annual net plant capacity factor of 37% on installed capacity of 50 MW.

ii. The reference PKR/dollar rate has been assumed at 105.

iii. The three months LIBOR is assumed to be 0.60% p.a.

iv. The three months KIBOR is assumed to be 6% p.a.

v. The reference tariff is applicable for a period of twenty-five (25) years commencing from the commercial operations date.

vi. In case of any unintentional error or omissions, typographical errors any any genuine assumption being overlooked, the same will be corrected/incorporated and advised to NEPRA as soon as the Project Company will aware of it.

### 4.7.5 Submission

In summation, the Project Company herewith most respectfully submits before NEPRA, for its approval on the matters set out in this Tariff Petition and further prays to NEPRA to kindly approve the Reference Tariff Table together with its assumptions and conditions.

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.