BEFORE
The NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
("NEPRA" or the "Authority")

FEASIBIITY-STAGE TARIFF APPLICATION

BY: OLYMPUS ENERGY (PRIVATE) LIMITED

IN RE:
20 MW LUCKY HYDROPOWER PROJECT
ON THE RIGHT BANK OF MARALA BARRAGE
DISTRICT GUJRAT, PUNJAB

Dated: December 29, 2014

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1) PETITIONER DETAILS

a) **Petitioner Name, Authorized Representative and Address**
M/s Olympus Energy (Private) limited
Authorized Representative: Mr. Laeeq Ahmad, CEO
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Lahore
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2) BACKGROUND

a) The 20 MW Lucky Hydropower Project ("the Project") is being planned and developed as a low head run-of-river scheme by M/s Olympus Energy (Pvt.) Limited ("Company"), incorporated and designated as the special purpose vehicle ("SPV") to implement and carry out the Project. The Project is expected to generate 87.4 GWh of electrical output annually.

b) The Project is to be located in District Gujrat on the right bank of Marala Barrage and will be planned and designed by utilizing the head and downstream discharge available from the Barrage. The project site is about 48 kilometers upstream of Khanki headwork, 45 kilometers from Gujrat City, 25 kilometers from Sialkot City and about 145 kilometers from Lahore in the Punjab Province of Pakistan.

c) The Project is being developed in the private sector under the Punjab Power Generation Policy 2006 and on a Build-Own-Operate-Transfer (BOOT) basis with a concession period of 30 years following the commercial operations of the Project.

d) The Letter of Interest (**"LOI"**) for the development of the Project was issued to the Company on December 3, 2007 vide letter No.MD-PPDB/H-5/489 by the Office of the Managing Director, Punjab Power Development Board, Government of Punjab (**"PPDB".**) Please refer to Attachment 1

e) As per the terms of the LOI and the 2006 Power Policy, the sponsors appointed Barqaab Consulting Services (Pvt.) Limited as consultants (**Consultants**) to conduct a feasibility study **(Feasibility Study)** for the Project. During the feasibility stage, the Sponsor and the consultants regularly briefed the Panel of Experts (POE), appointed by the PPDB, on the progress, investigations and analysis of the feasibility level studies. The feasibility study ("Feasibility Study") was approved by PPDB vide their letter no. PPDB/928/2009 dated 29-Aug-2009 **(Approval 1)**. Please refer to Attachment 2.

f) Under the provisions of the subject Approval, the Sponsors were directed to approach the Authority for determination of the feasibility level tariff (**"Feasibility Level Tariff"**) under the provisions of Power Policy 2006 and Mechanism for Determination of Tariffs for Hydropower Projects by the Authority.

g) The Company filed a Feasibility Level Tariff Petition on May 24, 2010, on which the Authority raised its comments/observations vide letter No. NEPRA/TRF-164/0EPL-2010/4506-07 dated June 14, 2010 highlighting discrepancies/flaws specially relating to difference in costs estimates approved in Feasibility Report and those presented in the Feasibility Level Tariff Petition dated May 24, 2010. Please refer to Attachment 3.

h) Since the Company was unable to rectify such discrepancies through a PPDB approval within the stipulated timelines of the Tariff Rules the Authority on January 3rd, 2011, dismissed the Petition for lack of reliable information. The Company subsequently amended the Feasibility Study to address the Authority's concerns.

i) Since a revision of the Feasibility Study duly approved by PPDB was required for the above purpose, the Company approached PPDB accordingly. PPDB after detailed deliberation, analysis and making amendments based on revisions, issued an approval of the Revised Feasibility Report vide letter no. PPDB/1334/2011 dated July 18, 2011 and required the Project Sponsors to approach NEPRA for determination of tariff. Please refer to Attachment 4.

j) The Project Sponsors again approached NEPRA through Feasibility Level Tariff Petition dated October 17, 2011 which was returned, in original, vide NEPRA letter no. TRF-200/10556 dated November 11, 2011 on the basis of not filing fee as per requirement of NEPRA Tariff (Standard and Procedure) Rules, 1998 and errors in Board Resolution of Project Company. Copy of relevant NEPRA letter is attached as Attachment 5. The Sponsors filed a fresh Tariff Petition on July 5, 2012.

k) NEPRA raised its comments on the July 5, 2012 Petition vide letter No. NEPRA/TRF-214/0EPL-2012/10929-10931 dated December 14, 2012 and dismissed the same highlighting errors and inconsistencies between the Petition and the Feasibility as well as non-provision hydrological data from 2007 onwards as part of the Feasibility/Petition. Please refer to Attachment 6.

l) Subsequently, the Company again approached PPDB for a revision of the Feasibility Study incorporating the updated hydrological data related to the site as well as updated project costs. The revision of project costs was essential since considerable time had elapsed between the revised Feasibility Study date and the 1st approval in 2009. The final Feasibility Study ("Final Feasibility Study") was approved by PPDB vide its letter No. May 06, 2014 ("Final Approval"). Please refer to Attachment 7.

m) Since the Authority was in the process of determining an upfront tariff for small hydropower projects, the Company informed PPDB, that the Company was withholding its revised Feasibility Level Tariff Petition till the determination of the upfront tariff by the Authority. However, PPDB has recently directed the Company to file the subject petition irrespective of the upfront tariff. Please refer to Attachment 8.

n) Pursuant to the above, this application is a request on behalf of the Company to the Authority for approval of a Feasibility Level Tariff for the 20 MW Lucky Hydropower Project based on preliminary feasibility level EPC costs under Rule 3 of the National Electric Power Regulatory Authority Tariff (Standard and Procedure) Rules, 1998 and provisions of Mechanism for Determination of Tariffs for Hydropower Projects.

3) PROJECT SUMMARY

a) **Project Setting and Summary Description:** The Marala Barrage was part of the Indus Basin Project, planned and construction completed in 1968 under Indus Water Treaty. The Barrage length is 1363m with 66 No. bays including 13nos. under sluices on the left side and 7 nos. on the right side. The design discharge capacity of the Barrage is 31,149 cumecs (1,100,000 cusecs). WAPDA, under the charter of its duties, conducted survey in the early 80's for hydropower power potential available at barrages and canal falls of the country's irrigation network wherein Marala site was indicated. The Barrage lies in an area 25 kilometers northeast of Sialkot. The higher

power demand against the shortages of power supply in the country necessitated to identify all the available low head potential sites on the irrigation system of the country. Accordingly, a draft inventory report, on the basis of data/information collected from Provincial Irrigation Departments was prepared in June 1992 covering 21barrages/head works and 586 sites on canals having cumulative potential of about 649 MW including the subject Project.

b) Salient Features of the Project are as follows:

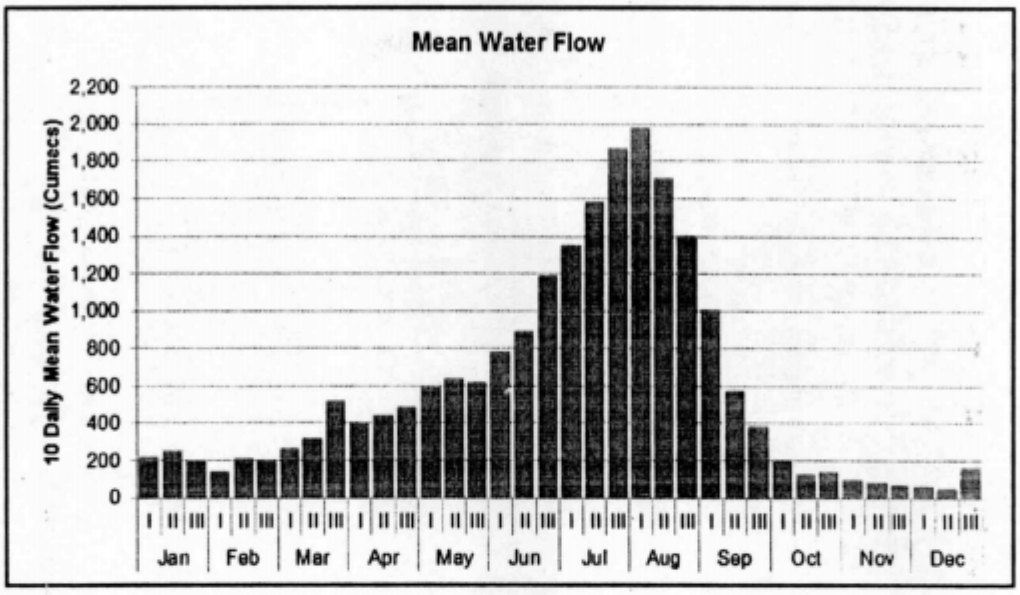
Province	Punjab
Nearest Town	Marala Barrage Latitude: 32°40'51"N Longitude: 74°28'21" E
River	Chenab River
Project Location	Marala Barrage
	Project Characteristics
Gross Head	5.3m
Rated Discharge	580 Cumecs
Installed capacity	20MW (3.34 x 6MW Kaplan Horizontal)
Net Head at rated discharge	4.7m
	Hydrology
Average annual rainfall	1,045mm
Period of recorded river flow	1980 to 2007 – 27 years
Local river flow gauging station	Office of Executive Engineer (Marala Barrage Division) I&P Department, GoPb
Plant factor	50.00%
	Hydro Mechanical Equipment
Type	Kaplan Horizontal Pit Type Turbine
no. of units	6
Rated discharge per unit	96.67Cumecs
Capacity per unit	3.34 MW
Unit speed	90.9 rpm
System frequency	50 Hz
	Power House Dimension
Length	72.41m
Width	47.34m
Height	29.69m
	Trash Racks
Width	9.06m
Height	16.66m
Inclination	76 degrees
	Head Race Canal
Length of Headrace channel	705m
Design Discharge	580m³/sec
Bed Width (B)	88.39m

Depth of Water (D)	4.88m
Flow area	478.38m²
Wetted Perimeter	110.19m
Hydraulic Radius	4.34m
Side Slopes of Headrace Channels (HV)	2:1m
Water surface slop of Headrace Channel	0.000200m
Bed level of Headrace at start of intake Bay	242.30 masl
FSL of Headrace at P.H	247.18 masl
	Tail Race Canal
Length of Tailrace Channel	366m
Design Discharge	580 m³/sec
Bed Width	89m
Depth of Water (D)	4.61m
Flow Area	454m
Velocity	1.32m/s
Slide Slope of Tailrace	2:1m
Channel (H:V)	0.0000237m
Water Surface Slope of Tailrace at start of intake Bay	239.47 masl
FSL of Tailrace at Exit	Asl

4) HYDROLOGY & GENERATION

a) The estimated mean monthly flows (1980-2013) at the Project Site are represented graphically in the chart below:

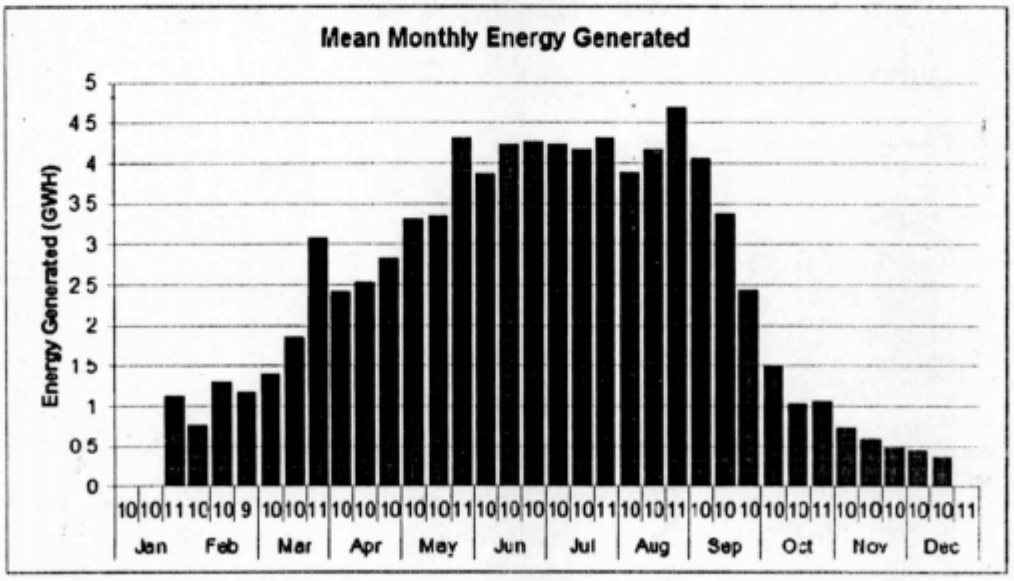
Figure 1: Mean Water Flow



b) The power and energy output has been optimized considering the project benefits and cost. The installed capacity would be 20 MW and based on the average hydrology for the period 1980-2013 would generate an average of approximately 87.4 GWh of annual energy at a plant factor of ~50.0%.

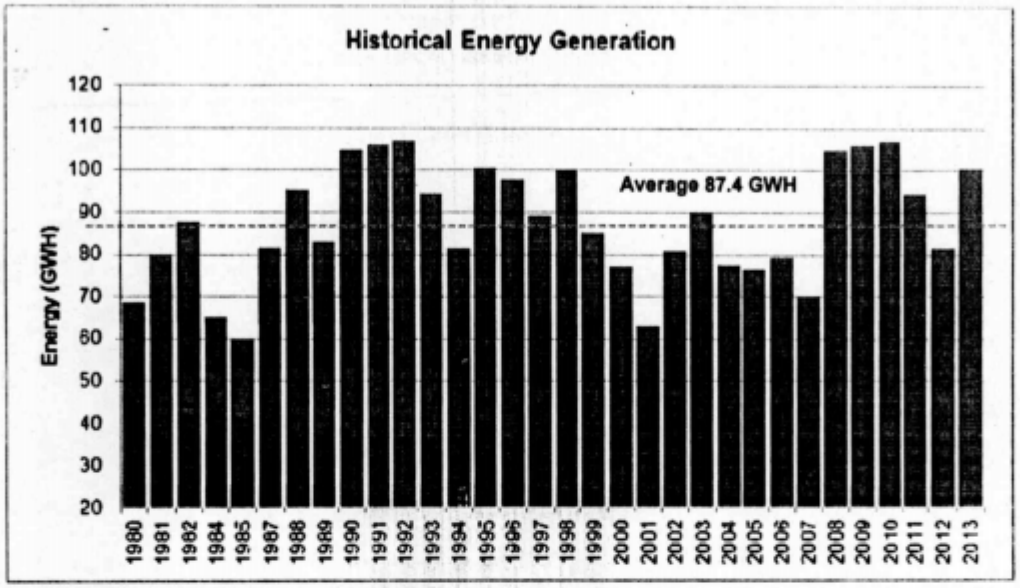
c) The estimated mean monthly power generation is graphically presented below:

Figure 2: Mean Monthly Energy



d) The annual energy potential for the period 1980-2013 and the average generation of 87.4 GWh is presented in the chart below:

Figure 3: Historical Energy Generation



5) ENVIRONMENT

a) On the basis of field findings during Initial Environmental Examination (IEE) study, the proposed Project will not have any significant adverse impacts on the local population or any segment of the environment, provided the mentioned recommendations and mitigation measures suggested in study are fully implemented during the construction stage and by the plant management in letter and spirit.

6) IMPLEMENTATION SCHEDULE

a) The proposed project implementation schedule spans over a period of 30 months.

7) PROPOSED TARIFF & ASSUMPTIONS

a) Key Project Tariff Parameters

Capacity	20 MW
Net Annual Generation (average hydrology)	87.40 GWh
Plant Factor	49.9%
Feasibility Level EPC Cost	USD 48.10 million
Total Project Cost	USD 62.69 million

b) Proposed Tariff

i) The proposed tariff (**"Proposed Tariff"**) being submitted is a levelized tariff US Cents 11.69/kWh (or Rs. 11.75/kWh) for a 30-year term. The Proposed Tariff is

comparable with the Authority's proposed upfront tariffs for small low-head hydropower project. The tariff structure consists of a Capacity Purchase Price and an Energy Purchase Price as per respective components stated below. A detailed 30-year tariff table is provided in Annex 1.

All Figures in PKR/kWh	Year 1-12	Year 13-30
Water Use Charge	0.1500	0.1500
Variable O&M	0.0885	0.0885
Energy Purchase Price	**0.2385**	**0.2385**
Fixed O&M	1.1506	1.1506
Insurance	0.5534	0.5534
Return on Equity	2.4524	2.4524
Construction Return on Equity	0.4653	0.4653
Withholding Tax	0.2188	0.2188
Debt Servicing	9.2295	
Capacity Purchase Price	**14.0700**	**4.8405**
Total Tariff	**14.3085**	**5.0791**
Levelized (Year 1-30) (PKR/kWh)		**11.7500**
Levelized (Year 1-30) (US cents/kWh) (@ PKR 100.56/USD		**11.6846**

Please note due to change in the PKR/USD Rate from 107.00 PKR/USD at the time of Feasibility Approval to 100.56 PKR/USD at the time of filing of this Petition, certain components have changed depending upon their USD or PKR denomination.

ii) The Company shall be paid a fixed amount each month in terms of the Capacity Purchase Price which shall be based on the tested capacity of the plant and the average/estimated hydrology stated in the Feasibility Study and a variable amount in form of the Energy Purchase Price which shall be paid based on the actual energy delivered to the grid.

c) Project Cost Assumptions

i) The total estimated cost for the Project (**"Project Cost"**) based on Engineering; Procurement & Construction (**"EPC"**) contract price of USD 48.10 million in the Feasibility is USD 62.69 million including interest during construction in the amount of USD 6.76 million.

ii) The break-up of the Project Cost proposed is provided below, which shall be firmed up at the time of filing of the EPC Level Tariff with the Authority:

Item	USD million
Preliminary Works	2.20
Civil Works	21.70
Electrical & Mechanical Works	21.78
Engineering & Supervision	1.80
Transmission Line	0.62
Total EPC Cost	**48.10**
Land (PKR 46.0 million)	0.46
Environmental & Other Cost (PKR 11.0 million)	0.11
Custom Duty & Taxes @ 6.8% of E&M Works	1.48
Insurance During Construction	0.65
O&M Mobilization Cost	0.25
Development Costs	0.88
Independent Engineer	0.10
Permission & Approval Fee	0.15
Lender's Financing Fee & Charges	1.75
Pre-Financial Close & Construction Period Company Costs	2.00
Project Cost before IDC	**55.93**
Interest During Construction (IDC)	6.76
Total Project Cost	**62.69**

d) Capital Structure

i) The Project is expected to be financed on the basis of an 80:20 Debt to Equity Ratio. However, lender may require additional equity contribution from the Sponsors to raise the equity level to up to 30% of the Project Cost based on their risk assessment of the Project. Currently, the capital structure assumes 100% local debt; however, the split of loans between local and foreign shall be finalized prior to Financial Close.

e) EPC Cost Break-up

i) The EPC Cost break up has been discussed in detail in the Feasibility Study. This includes estimates of quantities as well as assumed unit rates for civil works. For clarity, these numbers including those indicated for electrical & mechanical works are very preliminary and shall be finalized based on finalization of the EPC contract for the Project. Once finalized at the EPC Stage the EPC cost will only be adjusted during construction as per the standard escalation allowed by NEPRA in the prices of 4 items of the civil works, i.e., cement, steel, labor and fuel. In addition, changes in tunneling cost, if attributable to change in rock-type only, would also be allowed subject to verification by an independent engineer.

f) Non-EPC Costs

i) *Customs Duty:* Customs duty, import tax and Sindh Infrastructure Cess are applicable @ aggregate rate of 6.8% on import of plant and equipment. A provision of USD 1.48 million has been made in the Project Cost based on the current estimated import cost of electrical and mechanical works. These amounts has been calculated as per the existing tax rates and is adjustable for the tax rate changes as well as changes in prices of equipment at time of finalization of the EPC.

ii) *Insurance during Construction:* Insurance During Construction has been estimated @ 1.35% of the EPC price and is within the limit agreed in precedent tariffs.

iii) *O&M Mobilization Cost:* The cost has been budgeted for O&M Operator activities during construction phase, which are necessary for a smooth handover of the plant and include mobilization costs, staff costs during such period, overview of plant testing & commissioning, development of manuals etc. Typically the mobilization period lasts between 4-6 months. The same will be firmed up based on the terms of the O&M contract to be finalized by the Company at the EPC Stage.

iv) *Development Costs:* These include costs related to the feasibility & other studies and advisory costs typically incurred in the development of projects including owners' engineer, financial advisor, legal advisor, tax & corporate advisor, insurance advisor and costs related environmental study. Development costs under these heads total USD 0.88 million.

v) Independent Engineer: This relates to costs to be incurred for an independent engineer to be appointed jointly by the Company and the power purchaser to verify the changes in the tunnel rock type (if any) encountered during construction and any related Project Cost adjustments. The cost for such an engineer has been estimated at USD 0.10 million; however since the amount of work required cannot be determined it is proposed that actual costs be payable based on rates to be agreed between the parties.

vi) *Permission & Approval Fee:* The cost relates to fees payable to PPDB, NEPRA, Securities & Exchange Commission of Pakistan and other regulatory/government bodies for permissions and consents.

vii) *Pre-Financial Close & Construction Period Company Costs:* These include corporate and administrative costs incurred or to be incurred by the Company for a period of approximately 5 years including a 30-month construction period and have been estimated at USD 2.00 million.

viii) *Lender's Financing Fee & Charges:* These charges include lenders' arrangement fees, legal fees, technical advisor fee, insurance advisor fee, monitoring fees, travel costs and other charges and have been estimated on the basis of previous NEPRA determinations whereby such fees have been capped at 3.5% of the total debt. However, given that project size is small and may involve foreign lenders it is proposed that such fees be payable based on actual stated in the lenders' term sheets.

ix) Interest during Construction (IDC): Interest during construction has been calculated based on pro-rata debt to equity disbursement in the ratio 80:20 and

an interest rate of 6-month KIBOR plus a spread of 3.00%. Base KIBOR of 9.08% as the Feasibility Study has been assumed. Based on the total interest rate of 12.08% an IDC of USD 6.76 million has been estimated and for simplicity has been calculated based on 30 equal disbursements over the construction period. IDC will be adjusted at Commercial Operations Date based on actual disbursements and interest rates prevalent during the construction period.

g) Proposed Tariff Components:

i) *Water Use Charge*: The amount is payable to the Government of Punjab based on actual energy dispatched to the grid and has been assumed at 0.15 PKR/kWh. However, since the rate is expected to change on the demand of Provincial Governments it is proposed that any revised rate will be payable if and when applicable. The Water Use Charge shall be indexed to changes in the local Consumer Price Index.

ii) *Variable O&M:* This has been assumed at US cents 0.89/kWh or PKR 0.0885 per kWh. The variable O&M cost and relevant indexation will be firmed up at the time of EPC Stage Tariff filing based on the O&M contract finalized by the Company.

iii) *Fixed O&M:* Fixed O&M costs of USD 1.0 million per annum have been assumed for operation of the plant. 50% of the component shall be indexed to changes in USD/CPI whereas the other 50% of the component shall be indexed to changes in Local CPI.

iv) *Insurance during Operation:* Insurance costs during operations have been assumed as 1.35% of the total EPC cost and it assumes covers for all risks, machinery breakdowns, business interruptions and third party liability.

v) *Return on Equity & ROEDC:* Return on Equity during and after construction has typically been allowed at 17% for hydropower projects

vi) *Withholding Tax:* Withholding tax on dividends has been assumed at the currently applicable rate of 7.5% of dividends paid by the Company. The payment will be treated as a pass through item and be payable on demand by the Company after payment of actual dividends subject to a cap of 7.5% of 17% of the reference equity of the Project.

vii) *Debt Servicing:* The tables in Annex provide a summary of the debt servicing component which mainly comprises repayment of the principle portion of the debt and payment of interest thereon. The following assumptions have been made in calculating this component:

- Amount of Debt: USD 50.12 million, 100% Local
- Tenor: 14.5 years including 2.5 years of construction period
- Interest Rates: KIBOR + 3.00% (Base KIBOR: 9.08%)
- Repayment: 24 installments starting from COD
- The Project drawdown schedule and related Interest during Construction (IDC) is based on preliminary assumptions. This will be adjusted at COD on account of actual variation in interest on the basis of actual drawdown for the period during construction.
- No taxes or duties have been assumed on the repayment of the loans or interest thereon.

8) HYDROLOGICAL RISK

a) The tariff structure and methodology assume that hydrological risk shall be borne by the power purchaser and in case of non-availability of water flow, capacity payments will be made to the Company.

9) TARIFF INDEXATIONS:

a) The following indexations have been assumed as part of the Application:

Component of Tariff	Indexations
Water Use Charge	Pakistan CPI
Variable O&M[1]	Pakistan WPI for Local Component USD & US CPI for Foreign Component
Fixed O&M[1]	Pakistan CPI for Local Component US CPI for Foreign Component
Insurance	PKR/USD
Return on Equity	PKR/USD
ROEDC	PKR/USD
Debt Servicing (Interest)[2]	6-month KIBOR

10) PASS THROUGH ITEMS

a) Indexations allowed as the Mechanism for Determination of Tariff for Hydropower Projects of the Authority as may be applicable from time to time
b) The Power Purchaser will be responsible for procuring, financing, constructing, operating and maintenance of the interconnection on the Power Purchaser side, Metering System (as defined in the PPA) and the Power Purchaser transmission facilities at Project site.
c) Any tax on income of the Company from the sales of electricity to NTDC, general sales tax and all other corporate taxes will be treated as pass-through items.
d) No withholding tax on supply of plant and equipment is assumed.
e) The customs duties, taxes and cess are estimated numbers. As per NEPRA's previous tariff rulings, adjustment will be allowed in accordance with the actual expenses incurred in this behalf.
f) Interconnection with the Power Purchaser's transmission at 132 kV is assumed.
g) Any non-project specific benefit/concession/incentives given to any other IPP/projects will also be given to the Company i.e. treating all IPPs equally.
h) Any additional costs incurred to cater for any modifications or additions required by the Power Purchaser will form part of the Project cost at the EPC Stage.
i) Tariff at EPC Stage and on COD shall reflect the actual land acquisition and resettlement costs incurred by the Company for the purpose.
j) No hedging cost has been assumed for exchange rate fluctuations during construction.
k) No withholding tax on supply of plant and equipment.

l) No taxes or duties (including stamp duties) have been assumed on the execution of the financing documents, loan repayment, interest repayment, agency fee, commitment fee, upfront fee and fuel purchase or transportation.

m) No provision for the payment of Workers Welfare Fund and Workers Profit Participation has been made in the tariff. In case, the Company has to pay any such fund, that will be treated as pass through item in the Power Purchase Agreement.

n) Debt service reserves, maintenance reserves are not included in tariff calculations. If required by the lenders, these will be adjusted accordingly in the tariff.

11) APPROVAL SOUGHT:

a) In light of the foregoing submissions, the Authority is kindly requested to approve the Company's generation tariff together with the pertinent indexations in accordance with the Feasibility Level EPC Costs and the assumptions related thereto mentioned above for a 30-years PPA term post COD. The Company will be pleased to provide any further information, clarification or explanation that may be required by the Authority during its evaluation process.

Olympus Energy (Private) Limited
Through
Laeeq Ahmed, Chief Executive

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Year	Water Use PKR/kWh	Variable O&M PKR/kWh	Energy Charge PKR/kWh	Fixed O&M PKR/kWh	Insurance PKR/kWh	Return on Equity PKR/kWh	ROEDC PKR/kWh	Withholding Tax PKR/kWh	Interest PKR/kWh	Repayment PKR/kWh	Total Capacity PKR/kWh	Total Tariff PKR/kWh
1	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	6.9023	2.3272	14.0700	14.3085
2	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	6.6127	2.6168	14.0700	14.3085
3	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	6.2871	2.9424	14.0700	14.3085
4	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	5.9209	3.3086	14.0700	14.3085
5	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	5.5091	3.7203	14.0700	14.3085
6	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	5.0461	4.1833	14.0700	14.3085
7	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	4.5255	4.7039	14.0700	14.3085
8	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	3.9401	5.2893	14.0700	14.3085
9	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	3.6207	5.6088	14.0700	14.3085
10	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	2.9227	6.3068	14.0700	14.3085
11	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	2.1378	7.0917	14.0700	14.3085
12	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	1.2552	7.9742	14.0700	14.3085
13	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
14	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
15	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
16	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
17	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
18	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
19	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
20	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
21	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
22	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
23	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
24	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
25	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
26	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
27	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
28	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
29	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
30	0.1500	0.0885	0.2385	1.1506	0.5534	2.4524	0.4653	0.2188	-	-	4.8405	5.0791
Levelized	**0.1500**	**0.0885**	**0.2385**	**1.1506**	**0.5534**	**2.4524**	**0.4653**	**0.2188**	**3.6861**	**2.9849**	**11.5115**	**11.7500**
US Cents/kWh	**0.1492**	**0.0880**	**0.2372**	**1.1442**	**0.5503**	**2.4387**	**0.4627**	**0.2176**	**3.6656**	**2.9683**	**11.4474**	**11.6846**

Annex 1: Proposed 30 Year Tariff

Year	Period	Opening PKR million	Interest PKR million	Principal PKR million	Total PKR million	Closing PKR million	Interest PKR/kWh	Repayment PKR/kWh	Total PKR/kWh
Year 1	1	5,043.26	304.61	98.72	403.33	4,944.54	3.4853	1.1295	9.2295
	2	4,944.54	298.65	104.68	403.33	4,839.86	3.4171	1.1977	
Year 2	1	4,839.86	292.33	111.00	403.33	4,728.86	3.3447	1.2700	9.2295
	2	4,728.86	285.62	117.70	403.33	4,611.16	3.2680	1.3467	
Year 3	1	4,611.16	278.51	124.81	403.33	4,486.34	3.1867	1.4281	9.2295
	2	4,486.34	270.98	132.35	403.33	4,353.99	3.1004	1.5143	
Year 4	1	4,353.99	262.98	140.35	403.33	4,213.64	3.0089	1.6058	9.2295
	2	4,213.64	254.50	148.82	403.33	4,064.82	2.9119	1.7028	
Year 5	1	4,064.82	245.52	157.81	403.33	3,907.01	2.8091	1.8056	9.2295
	2	3,907.01	235.98	167.35	403.33	3,739.66	2.7000	1.9147	
Year 6	1	3,739.66	225.88	177.45	403.33	3,562.21	2.5844	2.0304	9.2295
	2	3,562.21	215.16	188.17	403.33	3,374.04	2.4618	2.1530	
Year 7	1	3,374.04	203.79	199.54	403.33	3,174.50	2.3317	2.2830	9.2295
	2	3,174.50	191.74	211.59	403.33	2,962.91	2.1938	2.4209	
Year 8	1	2,962.91	178.96	224.37	403.33	2,738.55	2.0476	2.5671	9.2295
	2	2,738.55	165.41	237.92	403.33	2,500.63	1.8925	2.7222	
Year 9	1	2,500.63	151.04	252.29	403.33	2,248.33	1.7281	2.8866	9.2295
	2	2,248.33	135.80	267.53	403.33	1,980.81	1.5538	3.0610	
Year 10	1	1,980.81	119.64	283.69	403.33	1,697.12	1.3689	3.2459	9.2295
	2	1,697.12	102.51	300.82	403.33	1,396.30	1.1728	3.4419	
Year 11	1	1,396.30	84.34	318.99	403.33	1,077.30	0.9649	3.6498	9.2295
	2	1,077.30	65.07	338.26	403.33	739.04	0.7445	3.8702	
Year 12	1	739.04	44.64	358.69	403.33	380.35	0.5107	4.1040	9.2295
	2	380.35	22.97	380.35	403.33	0.00	0.2629	4.3519	

Annex 2: Debt Repayment Schedule