# Green Power (Private) Limited

#28, Street 18, F-6/2
Islamabad
Tel: +92 51 227 0506
Fax: +92 51 227 0508


A/NEPRA/3615

July 03, 2015

**Syed Safeer Hussain Shah**
Registrar NEPRA
NEPRA Tower
Attaturk Avenue East
G-5/1, Islamabad

For information & n/a pl
— D/Reg-I/SAR
— SA-I
— SA (Tech)
— LA (EIP)
08.07.15
Chairman
VC/M(CA)
M(T)
M(M&E)
M(Lic)

Subject: **Appeal against Upfront Tariff for Wind Power Generation**

Dear Sir,

I refer to the Determination of National Electric Power Authority (**"NEPRA"**) in the matter of Upfront Tariff for Wind Power Generation dated June 24, 2015 and wish to appeal as follows:

## PREAMBLE

NEPRA's effort in pursuing a deliberate and structured wind tariff determination process is commendable. However, based upon the latest tariff determination, the widely held perception that Wind power is being relegated to the bottom of the list amongst available power generation investment options (solar, coal, hydro, etc) have gained credence.

**Risk & Reward Matrix**

In determination of the new wind tariff the "Risk & Reward Matrix" has been substantially tilted against the investor. It should be viewed in the backdrop of approximately 22% decrease in tariff (US¢13.5 to US¢10.44) as against the investors assuming wind risk, NTDC Interconnection Responsibility/Risk; and Land Acquisition Responsibility/Risk.

**Materially Stringent Parameters**

As compared to the earlier upfront tariff, in both technical and financial terms, the new set of parameters have been made materially more stringent and reflect certain dichotomies. Whereas, the project cost has been reduced by approximately 15.7% (US$127.5 to US$107.5), the net annual plant capacity factor has increased by 9.37% (from 32% to 35%). Clearly, better efficiency wind turbine would require a higher capital outlay and not the other way around.

**Country Risk & Sovereign Ratings**

Seemingly, a basic principle that all aspects of the power generation project development such as financing and EPC Cost reflect the country risk, has been ignored. All parties involved in project development, notably the Lenders and EPC Contractors price country risk in their offerings. It is a fair deduction that the reduction in project cost by approximately US$20 million is disproportionate to the recent marginal improvement in Pakistan's sovereign ratings from C+ to B-

Registrar

Dated 08-07-15

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**Wind Power Vs. Other Power Generation Technologies**

A perception is fast gaining strength that Solar is being preferred over wind. In the determination of tariff for Solar PV Power Plants dated January 22, 2015, almost 70% of applicants and intervener's requests were accepted by NEPRA. In case of latest determination of tariff for wind power, this percentage is almost other way around. In the above refer red tariff determination of Solar PV Power Plants, NEPRA correctly opined that, "*....the most important factor which has not been highlighted is the country's energy security. The solar being indigenous resource has to be encouraged even if initially little extra cost is to be paid. This would also provide wider sources of generation along with transfer of technology in the country mitigating power shortage to some extent*". It wouldn't be out of context to submit that wind also offers an indigenous resource and at 35% plant capacity factor is far more cost effective than solar at approximately 17%.

## TECHNICAL

**Capacity Factors**

As discussed above, an inverse relationship between lower Project Cost and higher capacity factor is neither feasible nor possible. It is also pertinent to mention that in its wind power tariff determination, NEPRA has repeatedly inferred that the final approved project cost is in line with the recommendation by Alternative Energy Development Board ("**AEDB**"). Most respectfully, the AEDB's recommended project cost is based upon a capacity factor of 31% to 33%.

*Appeal:* In consideration of the turbines efficiency and price matrix, a plant capacity factor of 33% may be approved. It will also assist in avoiding a "monopoly situation" involving few selective turbine manufacturers.

## FINANCE

**Loan Spread**

Although, traditional project financing entities (ECAs, multi/bi-laterals, etc.) price their funding at a certain discount to the sovereign borrowing benchmarks, the differentials, on a relative basis will always reflect country risk. It is an unrealistic expectation to cap the 10 years project financing spread at LIBOR plus 4.5% when similar tenor Pakistan paper is trading at 6.8%. A basic comparison of countries with long term sovereign bonds of comparable ratings is attached. Effectively, NEPRA's determination requires of lenders to assume project risk (as against country risk) at a discount of 2.3%

*Appeal:* A LIBOR plus 5.5% cap is a realistic assumption and more in line with the market.

**Sino Shore**

An exclusion of Sino Shore premium will effectively shut the door for project financing from China which on account of its Foreign Exchange Reserves is fast emerging as the single most important source of capital. The appetite for 'Pakistan Risk' amongst the Western financial institutions is limited. This decision alone substantially reduces the potential capital sources as available to projects located in Pakistan. It is important to note that almost all of the wind projects under development in

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Pakistan has signed up for wind turbines manufactured in China, irrespective of the OEM's country of origin. In absence of Sino Shore premium, it will be extremely difficult to tap the Chinese ECA funding for such turbines.

*Appeal:* The Sino Shore premium be made part of tariff for wind power projects as is the case for coal based power generation.

**Debt Service Reserve Accounts (DSRA)**

DSRA is the fundamental building block of all non-recourse project financing structures. Since the lenders entire security revolves around project assets and its cash flows only, the DSRA requirement is inevitable. During the construction period, the investor will be required to post a LC equal of up to six months equivalent of principal and markup payment. As the project generates cash flow from operation, the LC will be gradually replaced by cash. In other words, during the construction period, the investor will be required to offer cash as security against LC and post CoD block the same amount as cash in DSRA. Effectively, the investor would have to inject an additional equity amount of approximately US$6 – 8 million. The estimated negative IRR impact of such un-accounted for equity is approximately 2%.

*Appeal:* The DSRA provision should be allowed while taking into Account the additional cash requirement and its corresponding impact on the project IRR.

**Running Finance**

Similar to the DSRA, no running finance facility is provided for in the borrowing structure. The PPA stipulates a 60 days payment cycle. As such, the operational expenses will have to be met through sources other than Revenues with an additional direct impact on IRR. The situation could be even worse if the current payment trend continues.

*Appeal:* The borrowing cost for a running finance facility equal to 90 days Receivables be allowed in the tariff.

**LIBOR Base Rate**

The benchmark rate for loans has been assumed to be three months LIBOR (and KIBOR). In cognizance of the quantum of loans and cash inflow requirements, the loans are mostly structured around a six month payment plan. Correspondingly, the lenders use a six monthly LIBOR benchmark. (For reference, during this week, the 3 months LIBOR is 0.28% as against six months LIBOR of 0.44%).

*Appeal:* The benchmark borrowing rate should be six months LIBOR instead of three months to avoid an inherent mismatch.

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## PROJECT DEVELOPMENT TIMELINES

**Upfront Tariff Opting Period**

The six months tariff opting window effectively precludes all projects at the LOI stage from availing this tariff. These projects have yet to fulfill all post LOI formalities including feasibility study. Furthermore, NTDC's grid study is yet to be completed and is expected to take another few months. A key eligibility criteria, namely Grid Interconnection confirmation cannot materialize unless NTDC has completed its homework.

*Appeal:* The tariff opting period may be extended to twelve months to allow all projects in the pipeline to benefit from this tariff determination. Otherwise, only few projects at an advance development stage will be the beneficiaries.

## PROJECT COST & TARIFF

The project cost is a function of prevailing EPC cost (including high end turbines with better efficiencies), realistic cost of borrowing and other financing requirements (DSRA, working capital, insurance premium, etc.) – all discussed above. Unless the assumptions behind these key inputs are based upon market realities, either the project will not be commercially feasible or it will be of low quality. The final Project cost should not be a "reverse engineering" exercise to achieve a certain target tariff.

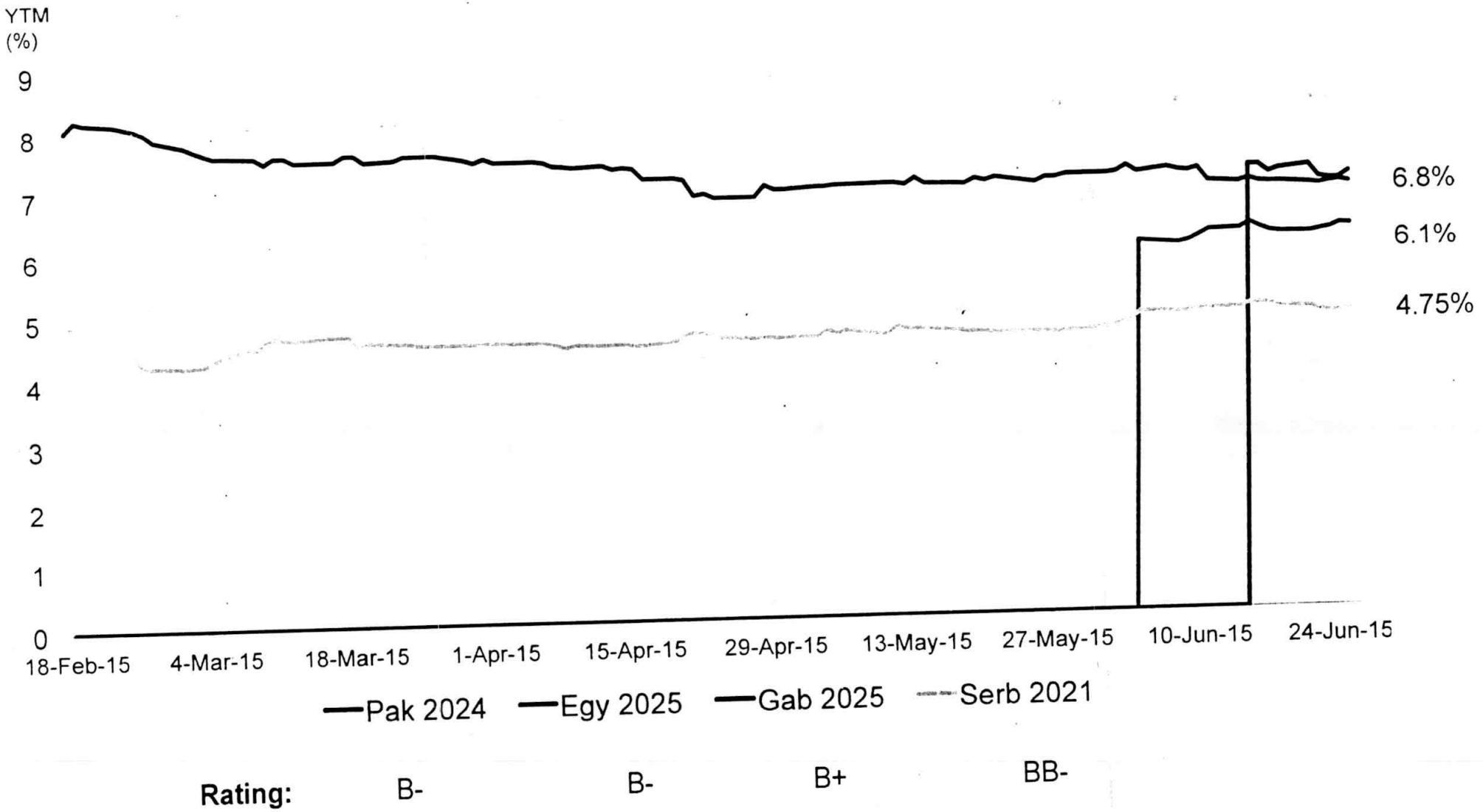
*Appeal:* NEPRA is requested to align all project development costs prevailing to market trends while endeavoring to achieve a fair balance between the investor and consumers.

Sincerely,

Pervaiz Khan
Chief Executive Officer

Cc: Brig. (R) Tariq Saddozai, Chairman, NEPRA
Maj. (R) Haroon Rashid Member, NEPRA
Syed Masood Ul Hassan Naqvi Member, NEPRA
Hamayat Ullah Khan Member, NEPRA
Khawaja Muhammad Naeem Member, NEPRA

# Sovereign Comparables

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| **Rating:** | B- | B- | B+ | BB- |