



**Registrar**

# **National Electric Power Regulatory Authority**

## **Islamic Republic of Pakistan**

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No. NEPRA/R/TRF-52/GPPL-2006/7172-74  
October 21, 2006

**Subject: Decision in respect of Motion for Leave for Review filed under Rule 16(6) of Tariff Rules on September 4, 2006 by Green Power (Pvt.) Ltd. (GPPL) (Case No. NEPRA/TRF-52/GPPL-2006)**

Dear Sir,

In continuation of this office letter No. NEPRA/TRF-52/GPPL-2006/6476-78 dated 23-08-2006 whereby determination of the Authority on Green Power (Pvt.) Ltd. was sent. Please find enclosed herewith the decision of the Authority (12 pages) along with Annexes-I & II in the matter of Motion filed by Green Power (Pvt.) Ltd. against Case No. NEPRA/TRF-52/GPPL-2006 on September 4, 2006.

2. Subsequent to the culmination of proceedings in the subject Motion for Leave for Review and the issuance/announcement of decision of the Authority (12 pages) along with Annexes-I & II is being intimated to the Federal Government for the purpose of notification of the approved tariff, in the official Gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) read with Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.

3. Please be informed that the Reference Tariff earlier intimated vide para 104 of the Authority's determination dated August 23, 2006, stands revised to the extent as detailed in para-14 (06 pages) of the decision of the Authority on the subject motion along with Annexes-I & II (02 pages) needs to be notified in the official Gazette.

**DA/As above.**

Secretary  
Cabinet Division,  
Government of Pakistan  
Cabinet Secretariat  
Islamabad



*(Signature)*  
21.10.06.  
(Mahjoob Ahmad Mirza)

CC:

1. Secretary, Ministry of Water & Power, Islamabad.
2. Secretary, Ministry of Finance, Islamabad.

**ORDER OF THE AUTHORITY  
IN CASE NO. NEPRA/TRF-52/GPPL-2006  
TO BE NOTIFIED IN THE OFFICIAL GAZETTE**

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Green Power (Pvt) Ltd. (GPPL) is allowed to charge the following specified/approved tariff for delivery of electricity to CPPA of NTDC for procurement on behalf of Ex-WAPDA Distribution Companies:

| Tariff Components       | Reference Tariff       |              |               |
|-------------------------|------------------------|--------------|---------------|
|                         | Year<br>1-2            | Year<br>3-10 | Year<br>11-20 |
|                         | Rs./kWh                |              |               |
| <b>Fixed Charges</b>    |                        |              |               |
| Fixed O&M Foreign       | 0.2196                 | 0.4224       | 0.4224        |
| Fixed O&M Local         | 0.2283                 | 0.2283       | 0.2283        |
| Insurance               | 0.3332                 | 0.3332       | 0.3332        |
| Debt Service            | 4.4772                 | 4.4772       | -             |
| Return on Equity        | 1.2017                 | 1.2017       | 1.2017        |
| <b>Variable O&amp;M</b> | 0.0354                 | 0.0708       | 0.0708        |
| <b>Levelized Tariff</b> | <b>9.2156 US Cents</b> |              |               |

- i) The reference tariff has been calculated on the basis of 30% Capacity Factor.
- ii) The above charges will be limited to the extent of annual generation of 127.1 GWh. Any annual generation in excess of 127.1 GWh would be charged on 10% of the above sale rate.
- iii) The above tariff is applicable for a period of 20 years commencing from the date of the Commercial Operation.

Component wise tariff is indicated at Annex-I.

The following indexations shall be applicable to reference tariff;

I. One Time Adjustment

(i) Cost of Debt

- a. The Principal repayment and the cost of debt shall be adjusted at Financial Closing as per actual borrowing composition i.e Foreign and Local.
- b. Interest During Constructions (IDC) shall be adjusted at COD according to actual disbursement based on actual Interest.



- c. After COD, Interest part of the tariff component shall be adjusted for variation in LIBOR on quarterly basis. The adjustment for LIBOR variation will be based upon six month LIBOR issued by British Bankers Association (BBA).

ii) Adjustment for variation during construction

Debt Service and Return on Equity shall be adjusted on account of actual variation in interest on the basis of actual drawdown for the period during construction at the COD. GPPL shall submit the relevant documents to NEPRA within 7 days of COD for adjustment of relevant tariff components.

iii) Adjustment in project cost due to variation in Dollar/Rupee parity

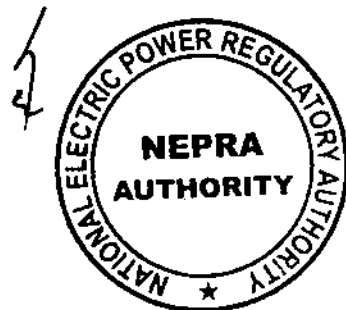
Any variation in project cost during construction period on account of variation in dollar/Rupee parity shall be allowed through adjustment in the project cost. For the purpose of this adjustment, petitioner shall provide evidence of actual payment along with the exchange rate prevalent on the date of particular transaction. GPPL's final reference tariff table shall be revised on COD to incorporate all the permissible adjustment during construction period.

II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If GPPL is obligated to pay any tax, the exact amount paid by the company may be reimbursed by CPPA to GPPL on production of original receipts. This payment may be considered as pass-through payment (as Rs./kWh) spread over a 12 months period in addition fixed charges proposed in the Reference Tariff. Furthermore, in such a scenario, GPPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to GPPL on account of taxation.

Withholding tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs. Withholding tax shall be paid @ 15% of the reference equity. CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% equity according to the following formula:

$$\text{Withholding Tax Payable} = [ \{ 15\% * (E(\text{Ref}) - E(\text{Red})) \} \times 7.5\% ]$$



Where:

E(Ref) = Reference Equity (US\$ 15. 934 million x 60)

E(Red) = Equity Redeemed

In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the Company is able to recover the same as a pass through from the Power Purchaser in future on the basis of the total dividend pay out.

### III. Indexations:

The following indexation shall be applicable to the reference tariff;

#### i) Indexation applicable to O&M

The local part of Fixed O&M cost will be adjusted on account of Inflation (WPI) and Fixed O&M foreign will be adjusted on account of variation in dollar/Rupee exchange rate and US CPI. Quarterly Adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1<sup>st</sup> July, 1<sup>st</sup> October, 1<sup>st</sup> January & 1<sup>st</sup> April respectively on the basis of latest available information with respect to WPI (notified by the Federal Bureau of Statistics), US CPI and revised TT & OD Selling rate of US Dollar as notified by the National Bank of Pakistan. The mode of indexation will be as under:

#### (a) Fixed O&M

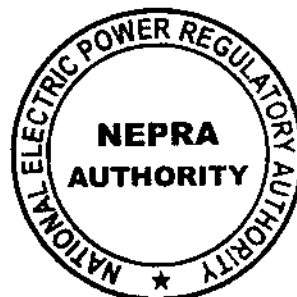
- 1)  $F O\&M_{(LRev)} = 0.2283 * WPI_{(REV)} / 118.89$
- 2)  $F O\&M_{(FRev)} = 0.2196(\text{for first 2 years}) * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$
- 3)  $F O\&M_{(FRev)} = 0.4224(\text{remaining 18 years}) * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$

Where:

$F O\&M_{(LRev)}$  = the revised applicable Fixed O&M Local Component of the Fixed Charges indexed with WPI

$F O\&M_{(FRev)}$  = the revised applicable Fixed O&M Foreign Component of the Fixed Charges indexed with US CPI and Currency fluctuation

$WPI_{(REV)}$  = the Revised wholesale Price Index (manufactures)



$WPI_{(REF)}$  = 118.89 wholesale price index (manufactures) of June 2006 notified by the Federal Bureau of Statistics

$US\ CPI_{(REF)}$  = 199.8 US CPI for the month of March 2006

$ER_{(REV)}$  = the Revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

(b) Variable O&M

The formula for indexation of Variable O & M component will be as under:

- 1)  $V\ O\&M_{(REV)} = 0.0354(\text{for first 2 years}) * US\ CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$
- 2)  $V\ O\&M_{(REV)} = 0.0708(\text{remaining 18 years}) * US\ CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$

Where:

$V\ O\&M_{(REV)}$  = The revised applicable Variable O&M indexed with US CPI and currency fluctuation.

$US\ CPI_{(REF)}$  = 199.8 US CPI for the month of March 2006

$ER_{(REV)}$  = The Revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

c) Adjustment for LIBOR variation

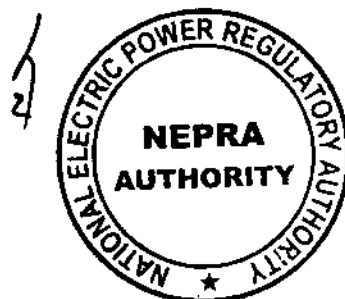
The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variations in interest rate as a result of quarterly variation in six month LIBOR according to the following formula:

$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 5.4\%) / 4$$

Where:

$\Delta I$  = the variation in interest charges applicable corresponding to variation in six month LIBOR.  $\Delta I$  can be positive or negative depending upon whether  $LIBOR_{(REV)} >$  or  $< 5.4\%$ . The interest payment obligation will be enhanced or reduced to the extent of  $\Delta I$  for each quarter under adjustment applicable on quarterly

$P_{(REV)}$  = is the outstanding principal (as indicated in the attached debt service schedule to this order at Annex-II) on a quarterly basis



on the relevant quarterly calculations date. Period 1 shall commence on the date on which the 1<sup>st</sup> installment is due after availing the grace period.

- iii). Adjustment on account of inflation, local inflation, US CPI, foreign exchange variation and LIBOR variation will be approved and announced by the Authority within seven working days after receipt of GPPL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

**Terms and Conditions of Tariff:**

**Design & Manufacturing Standards:**

Wind Turbine Generation system shall be designed, manufactured and tested in accordance with the latest IEC standards or other equivalent standards. All plant and equipment shall be new, un-used and of the latest model.

**Power Curve of Wind Farm:**

The power curve of the Wind Farm shall be verified as part of the Commissioning tests according to the latest IEC standards and shall be used to measure the performance of the wind turbines.

**Wind Speed:**

GPPL shall be responsible for the correct assessment and recording of the wind speed in the proposed wind farm and the Power Purchaser shall verify and approve the same.

**Wind Power Plant's Performance Data:**

GPPL shall install monitoring masts with properly calibrated automatic computerized wind speed recording meters at the same height as that of the Wind Turbine Generators and a compatible Communication/SCADA system both at the Wind Farm and Power Purchaser's control room for transmission of wind speed and power output data to the Power Purchaser's control room for record of data.

**Delivery Point:**

As per Article 11 of the Generation Licence, GPPL shall deliver power at 132 kV at the door step of its wind farm. Up-gradation of generation voltage up to 132 kV will be the responsibility of the GPPL.



**Emissions Trading/ Carbon Credits:**

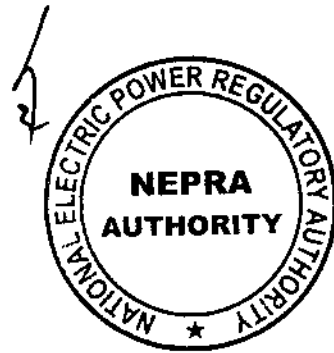
GPPL would process and obtain emissions /carbon credits expeditiously and credit the proceeds to the Power Purchaser as per the final policy issued by the Federal Government and agreed terms between the generator and purchaser.

**Power Purchase Agreement:**

Power Purchase Agreement between the power purchaser and GPPL shall be in accordance with the Guidelines approved by the Federal Government and international, prudent, utility best practices.

The tariff and terms and conditions along with reference tariff table and debt service schedule as attached thereto are recommended for notification by the Federal Government in the official gazette in accordance with the Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

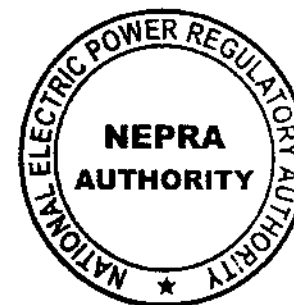
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**GREEN POWER (PVT) LTD  
REFERENCE TARIFF**

| Year             | Variable<br>O&M Cost | Fixed O&M<br>Cost Foreign | Fixed O&M<br>Cost Local | Insurance | Return on<br>Equity | Withholding<br>Tax @7.5% | Loan<br>Repayment | Interest<br>Charges | Tariff *  |         |
|------------------|----------------------|---------------------------|-------------------------|-----------|---------------------|--------------------------|-------------------|---------------------|-----------|---------|
|                  | Rs. / kWh            | Rs. / kWh                 | Rs. / kWh               | Rs. / kWh | Rs. / kWh           | Rs. / kWh                | Rs. / kWh         | Rs. / kWh           | Rs. / kWh | ¢ / kWh |
| 1                | 0.0354               | 0.2196                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.0120            | 2.4652              | 6.5856    | 10.9760 |
| 2                | 0.0354               | 0.2196                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.1864            | 2.2908              | 6.5856    | 10.9760 |
| 3                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.3759            | 2.1012              | 6.8237    | 11.3729 |
| 4                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.5819            | 1.8953              | 6.8237    | 11.3729 |
| 5                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.8057            | 1.6715              | 6.8237    | 11.3729 |
| 6                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.0489            | 1.4283              | 6.8237    | 11.3729 |
| 7                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.3132            | 1.1640              | 6.8237    | 11.3729 |
| 8                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.6004            | 0.8768              | 6.8237    | 11.3729 |
| 9                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.9125            | 0.5647              | 6.8237    | 11.3729 |
| 10               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 4.2516            | 0.2255              | 6.8237    | 11.3729 |
| 11               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 12               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 13               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 14               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 15               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 16               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 17               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 18               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 19               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 20               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| Levelized Tariff | 0.0636               | 0.3810                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.0351            | 1.1962              | 5.5294    | 9.2156  |

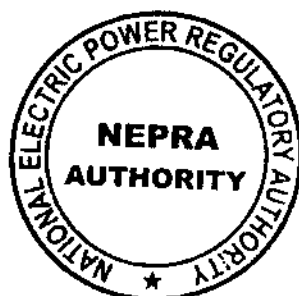
\* The above rate is limited to an annual energy production up to 127.1 GWh. Any generated energy beyond 127.1 GWh in a year will be charged at 10% of the Reference Tariff for that year.





**GREEN POWER (Pvt) LTD (GPPL)**  
**Debt Servicing Schedule**

| Period | Foreign Debt            |                         |                       |                       |                            | Annual<br>Principal<br>Repayment<br>Rs./kWh | Annual<br>Interest<br>Rs./kWh | Annual<br>Debt<br>Servicing<br>Rs./kWh |
|--------|-------------------------|-------------------------|-----------------------|-----------------------|----------------------------|---|-------------------------------|--|
|        | Principal<br>Million \$ | Repayment<br>Million \$ | Mark-Up<br>Million \$ | Balance<br>Million \$ | Debt Service<br>Million \$ |   |                               |  |
|        | 63.73                   | 1.03                    | 1.34                  | 62.70                 | 2.37                       |   |                               |  |
|        | 62.70                   | 1.05                    | 1.32                  | 61.65                 | 2.37                       |   |                               |  |
|        | 61.65                   | 1.08                    | 1.29                  | 60.57                 | 2.37                       |   |                               |  |
|        | 60.57                   | 1.10                    | 1.27                  | 59.47                 | 2.37                       |   |                               |  |
| 1      | 63.73                   | 4.26                    | 5.22                  | 59.47                 | 9.48                       | 2.01  | 2.47                          | 4.48                                   |
|        | 59.47                   | 1.12                    | 1.25                  | 58.35                 | 2.37                       |   |                               |  |
|        | 58.35                   | 1.15                    | 1.23                  | 57.21                 | 2.37                       |   |                               |  |
|        | 57.21                   | 1.17                    | 1.20                  | 56.04                 | 2.37                       |   |                               |  |
|        | 56.04                   | 1.19                    | 1.18                  | 54.84                 | 2.37                       |   |                               |  |
| 2      | 59.47                   | 4.63                    | 4.85                  | 54.84                 | 9.48                       | 2.19  | 2.29                          | 4.48                                   |
|        | 54.84                   | 1.22                    | 1.15                  | 53.62                 | 2.37                       |   |                               |  |
|        | 53.62                   | 1.24                    | 1.13                  | 52.38                 | 2.37                       |   |                               |  |
|        | 52.38                   | 1.27                    | 1.10                  | 51.11                 | 2.37                       |   |                               |  |
|        | 51.11                   | 1.30                    | 1.07                  | 49.81                 | 2.37                       |   |                               |  |
| 3      | 54.84                   | 5.03                    | 4.45                  | 49.81                 | 9.48                       | 2.38  | 2.10                          | 4.48                                   |
|        | 49.81                   | 1.32                    | 1.05                  | 48.48                 | 2.37                       |   |                               |  |
|        | 48.48                   | 1.35                    | 1.02                  | 47.13                 | 2.37                       |   |                               |  |
|        | 47.13                   | 1.38                    | 0.99                  | 45.75                 | 2.37                       |   |                               |  |
|        | 45.75                   | 1.41                    | 0.96                  | 44.34                 | 2.37                       |   |                               |  |
| 4      | 49.81                   | 5.47                    | 4.01                  | 44.34                 | 9.48                       | 2.58  | 1.90                          | 4.48                                   |
|        | 44.34                   | 1.44                    | 0.93                  | 42.90                 | 2.37                       |   |                               |  |
|        | 42.90                   | 1.47                    | 0.90                  | 41.43                 | 2.37                       |   |                               |  |
|        | 41.43                   | 1.50                    | 0.87                  | 39.93                 | 2.37                       |   |                               |  |
|        | 39.93                   | 1.53                    | 0.84                  | 38.40                 | 2.37                       |   |                               |  |
| 5      | 44.34                   | 5.94                    | 3.54                  | 38.40                 | 9.48                       | 2.81  | 1.67                          | 4.48                                   |
|        | 38.40                   | 1.56                    | 0.81                  | 36.83                 | 2.37                       |   |                               |  |
|        | 36.83                   | 1.60                    | 0.77                  | 35.23                 | 2.37                       |   |                               |  |
|        | 35.23                   | 1.63                    | 0.74                  | 33.60                 | 2.37                       |   |                               |  |
|        | 33.60                   | 1.67                    | 0.71                  | 31.94                 | 2.37                       |   |                               |  |
| 6      | 38.40                   | 6.46                    | 3.03                  | 31.94                 | 9.48                       | 3.05  | 1.43                          | 4.48                                   |
|        | 31.94                   | 1.70                    | 0.67                  | 30.24                 | 2.37                       |   |                               |  |
|        | 30.24                   | 1.74                    | 0.63                  | 28.50                 | 2.37                       |   |                               |  |
|        | 28.50                   | 1.77                    | 0.60                  | 26.73                 | 2.37                       |   |                               |  |
|        | 26.73                   | 1.81                    | 0.56                  | 24.92                 | 2.37                       |   |                               |  |
| 7      | 31.94                   | 7.02                    | 2.47                  | 24.92                 | 9.48                       | 3.31  | 1.16                          | 4.48                                   |
|        | 24.92                   | 1.85                    | 0.52                  | 23.07                 | 2.37                       |   |                               |  |
|        | 23.07                   | 1.89                    | 0.48                  | 21.19                 | 2.37                       |   |                               |  |
|        | 21.19                   | 1.93                    | 0.44                  | 19.26                 | 2.37                       |   |                               |  |
|        | 19.26                   | 1.97                    | 0.40                  | 17.29                 | 2.37                       |   |                               |  |
| 8      | 24.92                   | 7.63                    | 1.86                  | 17.29                 | 9.48                       | 3.60  | 0.88                          | 4.48                                   |
|        | 17.29                   | 2.01                    | 0.36                  | 15.29                 | 2.37                       |   |                               |  |
|        | 15.29                   | 2.05                    | 0.32                  | 13.24                 | 2.37                       |   |                               |  |
|        | 13.24                   | 2.09                    | 0.28                  | 11.14                 | 2.37                       |   |                               |  |
|        | 11.14                   | 2.14                    | 0.23                  | 9.01                  | 2.37                       |   |                               |  |
| 9      | 17.29                   | 8.29                    | 1.20                  | 9.01                  | 9.48                       | 3.91  | 0.56                          | 4.48                                   |
|        | 9.01                    | 2.18                    | 0.19                  | 6.82                  | 2.37                       |   |                               |  |
|        | 6.82                    | 2.23                    | 0.14                  | 4.60                  | 2.37                       |   |                               |  |
|        | 4.60                    | 2.27                    | 0.10                  | 2.32                  | 2.37                       |   |                               |  |
|        | 2.32                    | 2.32                    | 0.05                  | (0.00)                | 2.37                       |   |                               |  |
| 10     | 9.01                    | 9.01                    | 0.48                  | (0.00)                | 9.48                       | 4.25  | 0.23                          | 4.48                                   |



**Decision of the Authority Meeting RM 06-331 held on October 20, 2006 w.r.t Motion For Leave For Review filed by GPPL under Rule 16(6) of NEPRA Tariff Standards and Procedure Rules 1998**

Green Power (Pvt.) Ltd. (GPPL) filed motion for leave for review on September 4, 2006 under Rule 16(6) of Tariff Standards & Procedure Rules 1998 requesting for a revision of the determination of the Authority dated August 22, 2006 on the grounds stated therein (review motion). The Authority in a meeting RM 06-317 dated October 5, 2006 accepted to consider the motion for leave for review and decided to hold a hearing in the matter on October 10, 2006 to provide opportunity to the petitioner and parties to present their respective cases. The following points were raised in the review motion for reconsideration of the Authority;

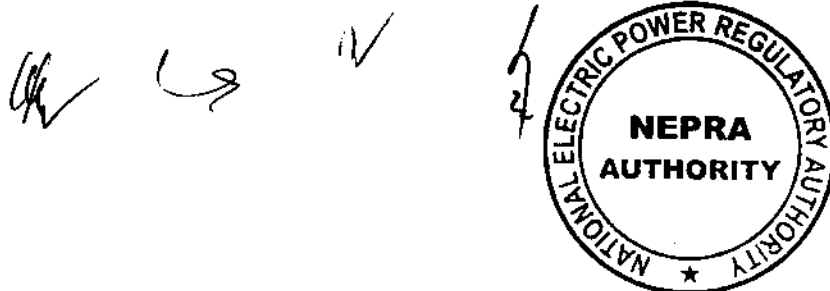
- a. Capital Costs;
- b. Cost of Debt;
- c. Variable O&M Costs;
- d. Fixed O&M;
- e. Indexation/Escalation;
- f. Reliability of Wind Data;
- g. Carbon Credits.

**a. Capital Cost**

2. According to GPPL the project cost of approximately US\$ 75 million approved by NEPRA is not acceptable due to following reasons;

- i) Project land is in the extreme remote location therefore GPPL will have to build 17 kms of road with estimated cost of US\$ 4 million (as per quotation received from local road builders). The roadwork will have to be elevated by 1.5 meter because the land is inter-tidal and marshy;
- ii) Rock and concrete piling to a depth of 25m as part of the foundation for each turbine would cost additional US\$ 1.5 million.
- iii) Freight and insurance of wind turbines will be approximately US\$ 4 million as specialized vessels are needed to handle the Cargo.

3. GPPL has stated that the project cost of a 50 MW wind farm that reached financial close in May 2006 was US\$ 95 million. GPPL further stated that it has received current quotations, which are in the range of around US\$ 85-90 million, which indicate the global pricing trend for



wind turbines. According to GPPL the project cost of US\$ 86.65 million that has been finalized with the world's leading and reputable supplier is significantly lower than other quotations received and is also lower than other project costs around the world and any downward revision in project cost would make the project unviable.

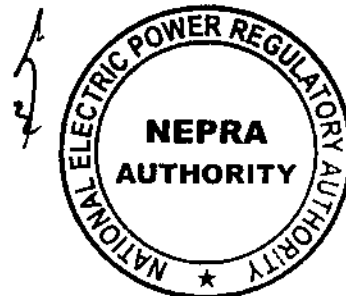
4. GPPL has further stated that while comparing turbine cost the level of efficiency and output of the turbine at given wind speed should be kept in mind. According to GPPL many turbines suppliers manufacture turbines in the non-MW class at lower prices. Because of the lower efficiency and output the tariff for such turbines would be effectively higher as compared to the tariff of MW class high efficiency turbines. Having considered the information provided by petitioner, the Authority is of the opinion that GPPL made reference to those projects which are of exceptionally high cost. For the purpose of setting a benchmark, all outliers in the data such as projects with exceptionally high or exceptionally low cost are required to be excluded. The Authority therefore takes into consideration the majority of the projects which fell in the range which in the Authority's opinion is reasonable for projects comparable with the proposed project of GPPL.

5. The Authority has examined the breakup of the project cost provided by the GPPL and it is observed that contingencies provided are not justified therefore cannot be accepted. It is also observed that the cost estimates for substation have been increased by almost three times as compared to the original estimate. This cost has been adjusted and allowed to a reasonable extent according to prevailing costs. Having considered the relevant information available and evidence provided, the Authority agrees to accept a revised project cost of GPPL other than financing fees and IDC of US\$75.30 million. In case the sponsor is un-willing to set-up the project within the allowed project cost the project should be offered on the basis of competition to other sponsors willing to set-up the 50 MW wind farm at the allowed cost. The successful competitor would be required to pay the cost of feasibility study to the GPPL in addition to completing the requirements under the prevailing laws.

b. Cost of Debt

6. GPPL has submitted that Authority has allowed cost of debt on the basis of LIBOR+250 basis points which in its opinion is not according to the market. According to GPPL its project is being financed by International Finance Corporation (IFC) which has indicated a spread of 350 basis points for a Greenfield project in Pakistan. The Authority has considered the matter and is

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convinced that the spread allowed in the case of KIBOR is equally applicable in the case of LIBOR on the basis of current risks faced with respect to lending by foreign banks for comparable business in Pakistan. Therefore the Authority has decided to allow a cost of debt on the basis of LIBOR plus 300 basis points with adjustment of LIBOR rate. Accordingly GPPL's financing fee and IDC has been assessed as US\$ 4.367 million.

c. **Variable O&M Costs**

7. Since the submissions of GPPL are same as in the original petition and GPPL has provided no new evidence in support thereof therefore it does not merit reconsideration.

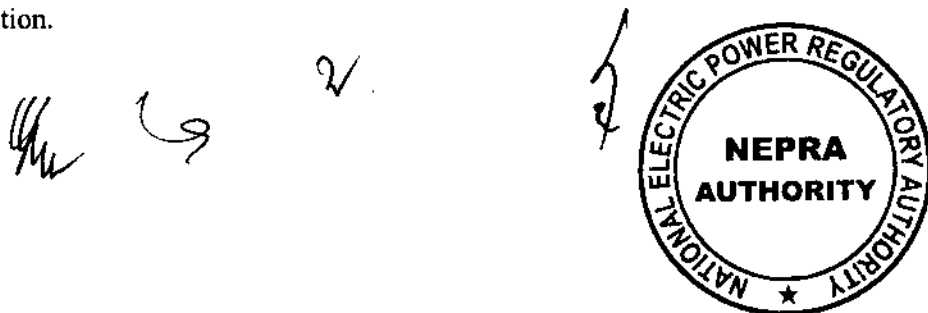
d. **Fixed O&M**

8. GPPL has contended that for management and supervisory role GPPL will have to increase essential personnel and engineers. Additionally GPPL will require hydraulic crawler cranes for replacement of major components of Wind Turbine. The mobilization cost for these cranes is a major portion of the repair cost that can reach US\$ 50,000 to US\$ 70,000 per visit. GPPL has submitted that it will have to hire 12 highly skilled engineers. Since the location is in remote area therefore transportation will have to be provided to the staff along with enhanced security. According to GPPL it has made provision for financial, human resources, commercial and technical departments to be manned by well qualified staff in addition to office rent, office maintenance, utilities, security, legal fees, transport, training, audit fees and office insurance etc.

9. The Authority considered most of the above mentioned factors while making its earlier decision however only some of the GPPL's submissions are valid due to which local part of fixed O&M needs to be revised. The Authority is also cognizant of the fact that the project is new and reference costs for Pakistan are not available therefore the fixed local O&M cost claimed by the petitioner is assessed according to the experience in comparable situation. The Authority has therefore decided to revise local part of fixed O&M from Rs. 0.1370 per kW per hour to Rs.0.2283 per kW per hour.

e. **Indexation/Escalation:**

10. As regard the GPPL stance for allowing local CPI indexation on ROE, the Authority is of the opinion that this issue has already been addressed in its earlier decision therefore requires no reconsideration.



**f. Reliability of Wind Data**

11. GPPL has provided no new ground forming the basis for revision/reconsideration of the Authority's earlier decision. The Authority has therefore decided to hold its earlier decision regarding capacity factor of 30%.

**g. Carbon Credits.**

12. GPPL has contested the inclusion of penalty clause for not initiating the process for realization of Carbon Emission Credits (CEC). GPPL has also referred the GOP policy issued by the Ministry of Environment regarding CEC according to which the sponsor of the project will retain the benefits of CEC. GPPL in the original petition proposed that the benefit of CEC will be passed on to the purchaser which in the instant case is CPPA.

13. While arguing for removal of penalty clause GPPL has stated that there is no guarantee that its project will qualify for Carbon Credits. GPPL also submitted that emissions quotas have not been identified by United Nations Framework for Climate Change (UNFCC) beyond 2012. Having considered the GPPL's concerns regarding penalty clause the Authority has decided to remove the penalty clause and agrees that the Carbon Credits will be allowed/shared with the purchaser on the basis of a final policy given by the Federal Government and such arrangement shall be incorporated into the proposed Power Purchase Agreement (PPA) between the supplier and purchaser.

14. Based upon the above the earlier order of the Authority is being revised as under:

**FINAL ORDER**

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Green Power (Pvt) Ltd. (GPPL) is allowed to charge the following specified/approved tariff for delivery of electricity to CPPA of NTDC for procurement on behalf of Ex-WAPDA Distribution Companies:

| Tariff Components       | Reference Tariff |              |               |
|-------------------------|------------------|--------------|---------------|
|                         | Year<br>1-2      | Year<br>3-10 | Year<br>11-20 |
|                         | Rs./kWh          |              |               |
| <b>Fixed Charges</b>    |                  |              |               |
| Fixed O&M Foreign       | 0.2196           | 0.4224       | 0.4224        |
| Fixed O&M Local         | 0.2283           | 0.2283       | 0.2283        |
| Insurance               | 0.3332           | 0.3332       | 0.3332        |
| Debt Service            | 4.4772           | 4.4772       | -             |
| Return on Equity        | 1.2017           | 1.2017       | 1.2017        |
| <b>Variable O&amp;M</b> | 0.0354           | 0.0708       | 0.0708        |
| <b>Levelized Tariff</b> | 9.2156 US Cents  |              |               |



- i) The reference tariff has been calculated on the basis of 30% Capacity Factor.
- ii) The above charges will be limited to the extent of annual generation of 127.1 GWh. Any annual generation in excess of 127.1 GWh would be charged on 10% of the above sale rate.
- iii) The above tariff is applicable for a period of 20 years commencing from the date of the Commercial Operation.

Component wise tariff is indicated at Annex-I.

The following indexations shall be applicable to reference tariff;

I. One Time Adjustment

(i) Cost of Debt

- a. The Principal repayment and the cost of debt shall be adjusted at Financial Closing as per actual borrowing composition i.e Foreign and Local.
- b. Interest During Constructions (IDC) shall be adjusted at COD according to actual disbursement based on actual Interest.
- c. After COD, Interest part of the tariff component shall be adjusted for variation in LIBOR on quarterly basis. The adjustment for LIBOR variation will be based upon six month LIBOR issued by British Bankers Association (BBA).

ii) Adjustment for variation during construction

Debt Service and Return on Equity shall be adjusted on account of actual variation in interest on the basis of actual drawdown for the period during construction at the COD. GPPL shall submit the relevant documents to NEPRA within 7 days of COD for adjustment of relevant tariff components.

iii) Adjustment in project cost due to variation in Dollar/Rupee parity

Any variation in project cost during construction period on account of variation in dollar/Rupee parity shall be allowed through adjustment in the project cost. For the purpose of this adjustment, petitioner shall provide evidence of actual payment along with the exchange rate prevalent on the date of particular transaction. GPPL's final reference tariff table shall be revised on COD to incorporate all the permissible adjustment during construction period.

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## II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If GPPL is obligated to pay any tax, the exact amount paid by the company may be reimbursed by CPPA to GPPL on production of original receipts. This payment may be considered as pass-through payment (as Rs./kWh) spread over a 12 months period in addition fixed charges proposed in the Reference Tariff. Furthermore, in such a scenario, GPPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to GPPL on account of taxation.

Withholding tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs. Withholding tax shall be paid @ 15% of the reference equity. CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% equity according to the following formula:

$$\text{Withholding Tax Payable} = [ \{ 15\% * (E(\text{Ref}) - E(\text{Red})) \} \times 7.5\% ]$$

Where:

E(Ref) = Reference Equity (US\$ 15. 934 million x 60)

E(Red) = Equity Redeemed

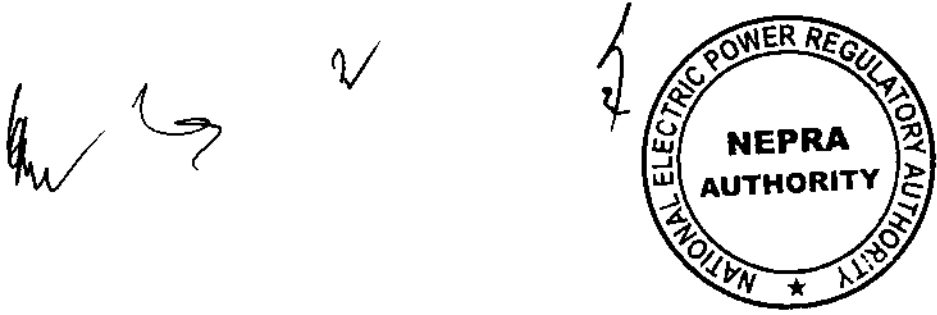
In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the Company is able to recover the same as a pass through from the Power Purchaser in future on the basis of the total dividend pay out.

## III. Indexations:

The following indexation shall be applicable to the reference tariff;

### i) Indexation applicable to O&M

The local part of Fixed O&M cost will be adjusted on account of Inflation (WPI) and Fixed O&M foreign will be adjusted on account of variation in dollar/Rupee exchange rate and US CPI. Quarterly Adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1<sup>st</sup> July, 1<sup>st</sup> October, 1<sup>st</sup> January & 1<sup>st</sup> April respectively on the basis of latest available information with respect to WPI (notified by the Federal



Bureau of Statistics), US CPI and revised TT & OD Selling rate of US Dollar as notified by the National Bank of Pakistan. The mode of indexation will be as under:

(a) Fixed O&M

- 1)  $F O\&M_{(LRev)} = 0.2283 * WPI_{(REV)} / 118.89$
- 2)  $F O\&M_{(FRev)} = 0.2196(\text{for first 2 years}) * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$
- 3)  $F O\&M_{(FRev)} = 0.4224(\text{remaining 18 years}) * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$

Where:

$F O\&M_{(LRev)}$  = the revised applicable Fixed O&M Local Component of the Fixed Charges indexed with WPI

$F O\&M_{(FRev)}$  = the revised applicable Fixed O&M Foreign Component of the Fixed Charges indexed with US CPI and Currency fluctuation

$WPI_{(REV)}$  = the Revised wholesale Price Index (manufactures)

$WPI_{(REF)}$  = 118.89 wholesale price index (manufactures) of June 2006 notified by the Federal Bureau of Statistics

$US CPI_{(REF)}$  = 199.8 US CPI for the month of March 2006

$ER_{(REV)}$  = the Revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

(b) Variable O&M

The formula for indexation of Variable O & M component will be as under:

- 1)  $V O\&M_{(REV)} = 0.0354(\text{for first 2 years}) * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$
- 2)  $V O\&M_{(REV)} = 0.0708(\text{remaining 18 years}) * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$

Where:

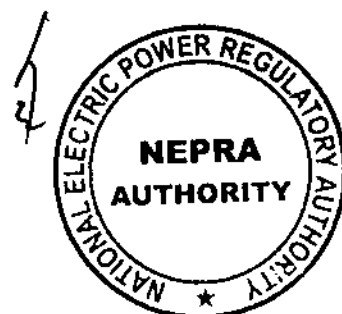
$V O\&M_{(REV)}$  = The revised applicable Variable O&M indexed with US CPI and currency fluctuation.

$US CPI_{(REF)}$  = 199.8 US CPI for the month of March 2006

$ER_{(REV)}$  = The Revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

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c) Adjustment for LIBOR variation

The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variations in interest rate as a result of quarterly variation in six month LIBOR according to the following formula:

$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 5.4\%) / 4$$

Where:

$\Delta I$  = the variation in interest charges applicable corresponding to variation in six month LIBOR.  $\Delta I$  can be positive or negative depending upon whether  $LIBOR_{(REV)} > \text{or} < 5.4\%$ . The interest payment obligation will be enhanced or reduced to the extent of  $\Delta I$  for each quarter under adjustment applicable on quarterly

$P_{(REV)}$  = is the outstanding principal (as indicated in the attached debt service schedule to this order at Annex-II) on a quarterly basis on the relevant quarterly calculations date. Period 1 shall commence on the date on which the 1<sup>st</sup> installment is due after availing the grace period.

- iii). Adjustment on account of inflation, local inflation, US CPI, foreign exchange variation and LIBOR variation will be approved and announced by the Authority within seven working days after receipt of GPPL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

**Terms and Conditions of Tariff:**

**Design & Manufacturing Standards:**

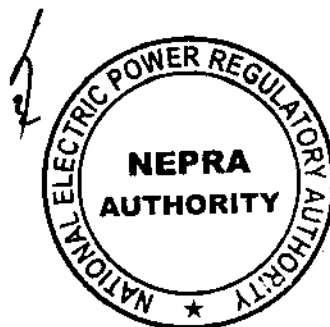
Wind Turbine Generation system shall be designed, manufactured and tested in accordance with the latest IEC standards or other equivalent standards. All plant and equipment shall be new, un-used and of the latest model.

**Power Curve of Wind Farm:**

The power curve of the Wind Farm shall be verified as part of the Commissioning tests according to the latest IEC standards and shall be used to measure the performance of the wind turbines.

✓



**Wind Speed:**

GPPL shall be responsible for the correct assessment and recording of the wind speed in the proposed wind farm and the Power Purchaser shall verify and approve the same.

**Wind Power Plant's Performance Data:**

GPPL shall install monitoring masts with properly calibrated automatic computerized wind speed recording meters at the same height as that of the Wind Turbine Generators and a compatible Communication/SCADA system both at the Wind Farm and Power Purchaser's control room for transmission of wind speed and power output data to the Power Purchaser's control room for record of data.

**Delivery Point:**

As per Article 11 of the Generation Licence, GPPL shall deliver power at 132 kV at the door step of its wind farm. Up-gradation of generation voltage up to 132 kV will be the responsibility of the GPPL.

**Emissions Trading/ Carbon Credits:**

GPPL would process and obtain emissions /carbon credits expeditiously and credit the proceeds to the Power Purchaser as per the final policy issued by the Federal Government and agreed terms between the generator and purchaser.

**Power Purchase Agreement:**

Power Purchase Agreement between the power purchaser and GPPL shall be in accordance with the Guidelines approved by the Federal Government and international, prudent, utility best practices.

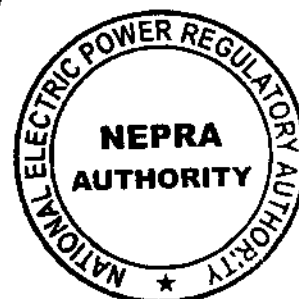
The above tariff and terms and conditions be incorporated as the specified tariff approved by the Authority pursuant to Rule 6 of the Licencing (Generation) Rules, in a Power Purchase Agreement between GPPL and CPPA replacing the earlier tariff Order of the Authority communicated vide No. NEPRA/TRF-52/GPPL-2006/6482 dated August 23, 2006.

The tariff and terms and conditions along with reference tariff table and debt service schedule as attached thereto are recommended for notification by the Federal Government in the official





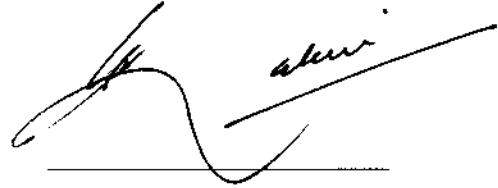


gazette in accordance with the Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

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**Authority**

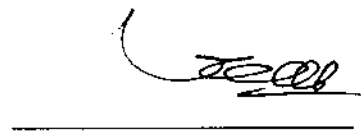
Abdul Rahim Khan  
Member



Zafar Ali Khan  
Member



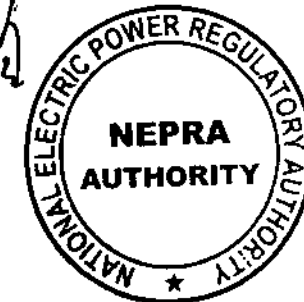
Lt. Gen (R) Saeed uz Zafar  
Chairman



**GREEN POWER (PVT) LTD  
REFERENCE TARIFF**

| Year             | Variable<br>O&M Cost | Fixed O&M<br>Cost Foreign | Fixed O&M<br>Cost Local | Insurance | Return on<br>Equity | Withholding<br>Tax @7.5% | Loan<br>Repayment | Interest<br>Charges | Tariff *  |         |
|------------------|----------------------|---------------------------|-------------------------|-----------|---------------------|--------------------------|-------------------|---------------------|-----------|---------|
|                  | Rs. / kWh            | Rs. / kWh                 | Rs. / kWh               | Rs. / kWh | Rs. / kWh           | Rs. / kWh                | Rs. / kWh         | Rs. / kWh           | Rs. / kWh | ¢ / kWh |
| 1                | 0.0354               | 0.2196                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.0120            | 2.4652              | 6.5856    | 10.9760 |
| 2                | 0.0354               | 0.2196                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.1864            | 2.2908              | 6.5856    | 10.9760 |
| 3                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.3759            | 2.1012              | 6.8237    | 11.3729 |
| 4                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.5819            | 1.8953              | 6.8237    | 11.3729 |
| 5                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.8057            | 1.6715              | 6.8237    | 11.3729 |
| 6                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.0489            | 1.4283              | 6.8237    | 11.3729 |
| 7                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.3132            | 1.1640              | 6.8237    | 11.3729 |
| 8                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.6004            | 0.8768              | 6.8237    | 11.3729 |
| 9                | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 3.9125            | 0.5647              | 6.8237    | 11.3729 |
| 10               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 4.2516            | 0.2255              | 6.8237    | 11.3729 |
| 11               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 12               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 13               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 14               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 15               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 16               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 17               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 18               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 19               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| 20               | 0.0708               | 0.4224                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | -                 | -                   | 2.3466    | 3.9110  |
| Levelized Tariff | 0.0636               | 0.3810                    | 0.2283                  | 0.3332    | 1.2017              | 0.0901                   | 2.0351            | 1.1962              | 5.5294    | 9.2156  |

\* The above rate is limited to an annual energy production up to 127.1 GWh. Any generated energy beyond 127.1 GWh in a year will be charged at 10% of the Reference Tariff for that year.



**GREEN POWER (Pvt) LTD (GPPL)**  
**Debt Servicing Schedule**

| Period | Foreign Debt |            |            |            |              | Annual<br>Principal<br>Repayment<br>Rs./kWh | Annual<br>Interest<br>Rs./kWh | Annual<br>Debt<br>Servicing<br>Rs./kWh |
|--------|--------------|------------|------------|------------|--------------|---|-------------------------------|--|
|        | Principal    | Repayment  | Mark-Up    | Balance    | Debt Service |   |                               |  |
|        | Million \$   | Million \$ | Million \$ | Million \$ | Millin \$    |   |                               |  |
|        | 63.73        | 1.03       | 1.34       | 62.70      | 2.37         |   |                               |  |
|        | 62.70        | 1.05       | 1.32       | 61.65      | 2.37         |   |                               |  |
|        | 61.65        | 1.08       | 1.29       | 60.57      | 2.37         |   |                               |  |
|        | 60.57        | 1.10       | 1.27       | 59.47      | 2.37         |   |                               |  |
| 1      | 63.73        | 4.26       | 5.22       | 59.47      | 9.48         | 2.01  | 2.47                          | 4.48                                   |
|        | 59.47        | 1.12       | 1.25       | 58.35      | 2.37         |   |                               |  |
|        | 58.35        | 1.15       | 1.23       | 57.21      | 2.37         |   |                               |  |
|        | 57.21        | 1.17       | 1.20       | 56.04      | 2.37         |   |                               |  |
|        | 56.04        | 1.19       | 1.18       | 54.84      | 2.37         |   |                               |  |
| 2      | 59.47        | 4.63       | 4.85       | 54.84      | 9.48         | 2.19  | 2.29                          | 4.48                                   |
|        | 54.84        | 1.22       | 1.15       | 53.62      | 2.37         |   |                               |  |
|        | 53.62        | 1.24       | 1.13       | 52.38      | 2.37         |   |                               |  |
|        | 52.38        | 1.27       | 1.10       | 51.11      | 2.37         |   |                               |  |
|        | 51.11        | 1.30       | 1.07       | 49.81      | 2.37         |   |                               |  |
| 3      | 54.84        | 5.03       | 4.45       | 49.81      | 9.48         | 2.38  | 2.10                          | 4.48                                   |
|        | 49.81        | 1.32       | 1.05       | 48.48      | 2.37         |   |                               |  |
|        | 48.48        | 1.35       | 1.02       | 47.13      | 2.37         |   |                               |  |
|        | 47.13        | 1.38       | 0.99       | 45.75      | 2.37         |   |                               |  |
|        | 45.75        | 1.41       | 0.96       | 44.34      | 2.37         |   |                               |  |
| 4      | 49.81        | 5.47       | 4.01       | 44.34      | 9.48         | 2.58  | 1.90                          | 4.48                                   |
|        | 44.34        | 1.44       | 0.93       | 42.90      | 2.37         |   |                               |  |
|        | 42.90        | 1.47       | 0.90       | 41.43      | 2.37         |   |                               |  |
|        | 41.43        | 1.50       | 0.87       | 39.93      | 2.37         |   |                               |  |
|        | 39.93        | 1.53       | 0.84       | 38.40      | 2.37         |   |                               |  |
| 5      | 44.34        | 5.94       | 3.54       | 38.40      | 9.48         | 2.81  | 1.67                          | 4.48                                   |
|        | 38.40        | 1.56       | 0.81       | 36.83      | 2.37         |   |                               |  |
|        | 36.83        | 1.60       | 0.77       | 35.23      | 2.37         |   |                               |  |
|        | 35.23        | 1.63       | 0.74       | 33.60      | 2.37         |   |                               |  |
|        | 33.60        | 1.67       | 0.71       | 31.94      | 2.37         |   |                               |  |
| 6      | 38.40        | 6.46       | 3.03       | 31.94      | 9.48         | 3.05  | 1.43                          | 4.48                                   |
|        | 31.94        | 1.70       | 0.67       | 30.24      | 2.37         |   |                               |  |
|        | 30.24        | 1.74       | 0.63       | 28.50      | 2.37         |   |                               |  |
|        | 28.50        | 1.77       | 0.60       | 26.73      | 2.37         |   |                               |  |
|        | 26.73        | 1.81       | 0.56       | 24.92      | 2.37         |   |                               |  |
| 7      | 31.94        | 7.02       | 2.47       | 24.92      | 9.48         | 3.31  | 1.16                          | 4.48                                   |
|        | 24.92        | 1.85       | 0.52       | 23.07      | 2.37         |   |                               |  |
|        | 23.07        | 1.89       | 0.48       | 21.19      | 2.37         |   |                               |  |
|        | 21.19        | 1.93       | 0.44       | 19.26      | 2.37         |   |                               |  |
|        | 19.26        | 1.97       | 0.40       | 17.29      | 2.37         |   |                               |  |
| 8      | 24.92        | 7.63       | 1.86       | 17.29      | 9.48         | 3.60  | 0.88                          | 4.48                                   |
|        | 17.29        | 2.01       | 0.36       | 15.29      | 2.37         |   |                               |  |
|        | 15.29        | 2.05       | 0.32       | 13.24      | 2.37         |   |                               |  |
|        | 13.24        | 2.09       | 0.28       | 11.14      | 2.37         |   |                               |  |
|        | 11.14        | 2.14       | 0.23       | 9.01       | 2.37         |   |                               |  |
| 9      | 17.29        | 8.29       | 1.20       | 9.01       | 9.48         | 3.91  | 0.56                          | 4.48                                   |
|        | 9.01         | 2.18       | 0.19       | 6.82       | 2.37         |   |                               |  |
|        | 6.82         | 2.23       | 0.14       | 4.60       | 2.37         |   |                               |  |
|        | 4.60         | 2.27       | 0.10       | 2.32       | 2.37         |   |                               |  |
|        | 2.32         | 2.32       | 0.05       | (0.00)     | 2.37         |   |                               |  |
| 10     | 9.01         | 9.01       | 0.48       | (0.00)     | 9.48         | 4.25  | 0.23                          | 4.48                                   |

