



# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

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**Registrar**

No.NEPRA/R/TRF-97/MPL-2008/7455-57  
May 15, 2008

**Subject: Decision of the Authority in the Matter of Acceptance of Revised Upfront Tariff for Wind Energy Generation dated January 17, 2007 by Milergo Pakistan Ltd. (MPL) 250 MW Wind Power Project**  
Intimation of Decision of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)

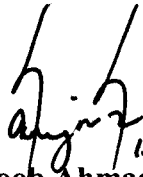
Dear Sir,

Please find enclosed the subject Decision of the Authority along with Annexure-I (08 pages) in Case No. NEPRA/TRF-97/MPL-2008.

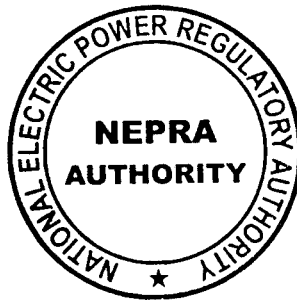
2. The Decision is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) and Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.

3. Please note that only Order of the Authority at para 4 of the Decision relating to the reference tariff, adjustments & indexation along with Annexure-I needs to be notified in the official gazette. The Order is reproduced for the purpose of clarity and is attached herewith.

Enclosure: As above

  
15.05.08  
( Mahjoob Ahmad Mirza )

The Secretary  
Cabinet Division  
Government of Pakistan  
Cabinet Secretariat  
Islamabad



CC:

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



**ORDER OF THE AUTHORITY**  
**IN CASE NO. NEPRA/TRF-97/MPL-2008**  
**TO BE NOTIFIED IN THE OFFICIAL GAZETTE**

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Milergo Pakistan Limited (MPL) is allowed to charge, the following specified tariff for delivery of electricity to CPPA of NTDC for procurement on behalf of Ex-WAPDA Distribution Companies:

Tariff Components	Reference Tariff	
	Year 1-10	Year 11-20
	Rs./kWh	
<b>Fixed Charges</b>		
Fixed O&M Foreign	0.4611	0.4611
Fixed O&M Local	0.2492	0.2492
Insurance	0.3303	0.3303
Debt Service	4.5473	-
Return on Equity	1.2037	1.2037
<b>Variable O&amp;M</b>	0.0760	0.0760
<b>Levelized Tariff</b>	<b>9.5000 US Cents/kWh</b>	

- i) The reference tariff has been calculated on the basis of 31.5% Capacity Factor.
- ii) The above charges have been assessed on the basis of annual generation of 133.4 GWh.
- iii) Based upon the output established after first year of operation, the reference benchmark output shall be revised and this shall be considered as benchmark for Wind Risk calculation in the future. There shall however be no adjustment in the reference tariff on account of revision in benchmark output.
- iv) Any annual generation in excess of benchmark generation would be charged on 10% of the above sale rate.
- v) The above tariff is applicable for a period of 20 years commencing from the date of the Commercial Operation.

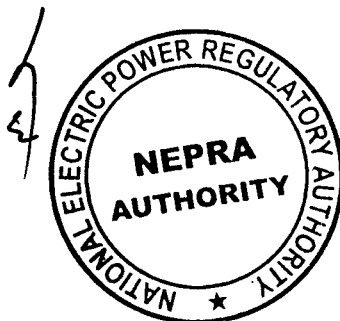
Component wise tariff is indicated at Annex-I.

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. MPL shall submit the relevant documents to NEPRA within 7 days of COD for adjustment of relevant tariff components.

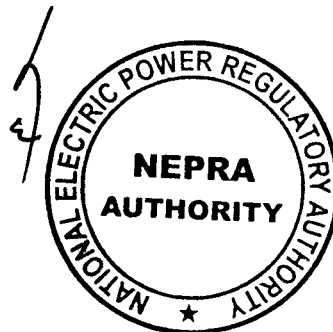
iii) **Adjustment in project cost due to variation in Dollar/Rupee parity**

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, MPL shall provide evidence of actual payment along with the exchange rate prevalent on the date of particular transaction. MPL'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 MPL is obligated to pay any tax on its ROE, the exact amount paid by the company may be reimbursed by CPPA to MPL on production of original receipts. This payment may be considered as pass-through (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, MPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to MPL on account of taxation.

- ii) Withholding tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new MPLs. In a reference tariff table withholding tax number is indicated as reference and 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% reference equity i.e. hourly payment (Rs./kW/hour) spread over a 12 month according to the following formula:





$$\text{Withholding Tax Payable} = \{[15\% * (E_{(\text{Ref})} - E_{(\text{Red})}) + \text{ROEDC}_{(\text{Ref})}] * 7.5\%$$

Where:

$E_{(\text{Ref})}$  = Reference Equity determined at COD

$E_{(\text{Red})}$  = Equity Redeemed

$\text{ROEDC}_{(\text{Ref})}$  = Reference Return on Equity During Construction

- iii) 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 in hourly payments spread over 12 months period 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)  $F O\&M_{(\text{LRev})}$  =  $0.2492 * WPI_{(\text{REV})} / 118.76$
- 2)  $F O\&M_{(\text{FRev})}$  =  $0.4611 * US\text{CPI}_{(\text{REV})} / 201.5 * ER_{(\text{REV})} / 61$

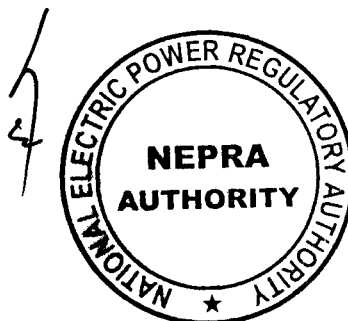
Where:

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

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

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

$WPI_{(\text{REF})}$  = 118.76 wholesale price index (manufactures) of November 2006 notified by the Federal Bureau of Statistics





US CPI<sub>(REF)</sub> = 201.5 US CPI for the month of November 2006  
ER<sub>(REV)</sub> = 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)  $V O\&M_{(REV)} = 0.0760 * US CPI_{(REV)} / 201.5 * ER_{(REV)} / 61$

Where:

V O&M<sub>(REV)</sub> = The revised applicable Variable O&M indexed with US CPI and currency fluctuation.

US CPI<sub>(REF)</sub> = 201.5 US CPI for the month of November 2006

ER<sub>(REV)</sub> = 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:

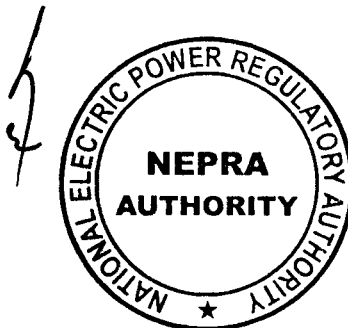
$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 5.34\%) / 4$$

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<sub>(REV)</sub> > or < 5.34%. 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 MPL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

**Terms and Conditions of Tariff:**

1. No adjustment on account of project cost variation shall be available.

**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 Risk:**

MPL 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 send the same for approval of the Authority.

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

MPL 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:**

MPL 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 MPL.





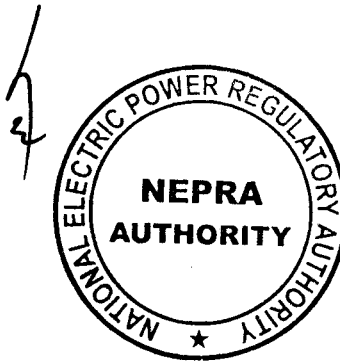
**Emissions Trading/ Carbon Credits:**

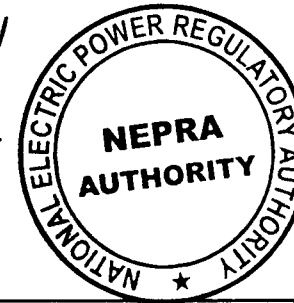
MPL would process and obtain emissions /carbon credits expeditiously and credit the proceeds to the Power Purchaser as per the policy issued by the Federal Government and agreed terms between the generator and purchaser.

**Power Purchase Agreement:**

Power Purchase Agreement between the power purchaser and MPL shall be in accordance with the Guidelines approved by the Federal Government, Grid Codes and applicable documents issued by NEPRA and as per the tariff terms approved by NEPRA.

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Annex-I

**MILERGO PAKISTAN LIMITED (MPL)  
REFERENCE TARIFF**

Year	Variable O&M Cost	Fixed O&M Cost Foreign	Fixed O&M Cost Local	Insurance	Return on Equity	Withholding Tax @7.5% *	Loan Repayment	Interest Charges	Tariff **	
	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	¢ / kWh
1	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.0551	2.4922	6.9653	11.6089
2	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.2320	2.3154	6.9653	11.6089
3	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.4240	2.1233	6.9653	11.6089
4	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.6326	1.9148	6.9653	11.6089
5	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.8591	1.6882	6.9653	11.6089
6	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.1051	1.4422	6.9653	11.6089
7	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.3723	1.1750	6.9653	11.6089
8	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.6624	0.8849	6.9653	11.6089
9	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.9776	0.5697	6.9653	11.6089
10	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	4.3198	0.2275	6.9653	11.6089
11	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
12	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
13	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
14	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
15	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
16	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
17	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
18	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
19	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
20	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
<b>Levelized Tariff</b>	<b>0.0760</b>	<b>0.4611</b>	<b>0.2492</b>	<b>0.3303</b>	<b>1.2037</b>	<b>0.0976</b>	<b>2.0734</b>	<b>1.2086</b>	<b>5.7000</b>	<b>9.5000</b>

\* The Withholding Tax component shall be paid as per the actual according to the prescribed mechanism.

\*\* The above charges have been assessed on the basis of annual generation of 133.4 GWh. Based upon the output established after first year of operation, the reference benchmark output shall be revised and this shall be considered as benchmark for Wind Risk calculation in the future. There shall however be no adjustment in the reference tariff on account of revision in benchmark output.



**DECISION OF THE AUTHORITY IN THE MATTER OF ACCEPTANCE OF REVISED UPFRONT  
TARIFF FOR WIND ENERGY GENERATION DATED JANUARY 17, 2007 BY MILERGO  
PAKISTAN LTD. (MPL) 250 MW WIND POWER PROJECT**

The Authority considered the working paper submitted by Registrar in the matter of application filed by Milergo Pakistan Ltd. (MPL) on March 5, 2008 for acceptance of Revised Upfront Tariff along with assumptions of Wind Energy Generation issued by the Authority on January 17, 2007. Majority of the Members observed that the tariff requested by the MPL was no more valid because the tariff requested was available for the projects who could achieve Commercial Operation Date (COD) before 30<sup>th</sup> June 2008 and it would not be possible for the applicant to meet this condition of Upfront Tariff. The application therefore could not be processed under Upfront Regime.

2. Member Balouchistan while disagreeing with the majority Members opined that on the date of application by MPL the Upfront tariff was in-vogue as the last decision in Upfront Tariff was not time bound. The decision of doing away Upfront Tariff till to date was also not signed. The applicant in the instant case has also paid fee prescribed by the Authority for Upfront Tariff and processing the application other than Upfront Tariff regime the applicant would be required to pay petition fee of 2.5 million + CPI under Tariff Standards and Procedure Rules – 1998. The waiver in fee would require relaxation of rules/regulations.

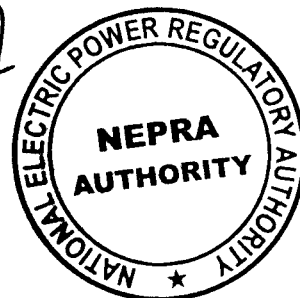
3. The majority of the Members decided to process the case suo moto under Tariff Standards and Procedure Rules – 1998. The majority was of the opinion that the tariff requested by MPL was about 9% less than the recently determined tariff of US Cents 10.4929/kWh in the case of Zorlu Enerji Limited. Since the Authority has carried out all the analysis and evaluation regarding prudence of cost in the case of Zorlu Enerji Limited therefore the detailed scrutiny of the costs in the instant case may not be required. In view of aforementioned it is decided;

- i) To admit the application of MPL under Tariff Standards and Procedure Rules – 1998 and allotted Case No. NEPRA/TRF-97/MPL-2008.
- ii) To approve the levelized tariff of US Cents 9.5/kWh

4. The order of the Authority is as under:

**ORDER**

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Milergo Pakistan Limited (MPL) is allowed to charge, the following specified tariff for delivery of electricity to CPPA of NTDC for procurement on behalf of Ex-WAPDA Distribution Companies:





Tariff Components	Reference Tariff	
	Year 1-10	Year 11-20
	Rs./kWh	
<b>Fixed Charges</b>		
Fixed O&M Foreign	0.4611	0.4611
Fixed O&M Local	0.2492	0.2492
Insurance	0.3303	0.3303
Debt Service	4.5473	-
Return on Equity	1.2037	1.2037
<b>Variable O&amp;M</b>	0.0760	0.0760
<b>Levelized Tariff</b>	<b>9.5000 US Cents/kWh</b>	

- i) The reference tariff has been calculated on the basis of 31.5% Capacity Factor.
- ii) The above charges have been assessed on the basis of annual generation of 133.4 GWh.
- iii) Based upon the output established after first year of operation, the reference benchmark output shall be revised and this shall be considered as benchmark for Wind Risk calculation in the future. There shall however be no adjustment in the reference tariff on account of revision in benchmark output.
- iv) Any annual generation in excess of benchmark generation would be charged on 10% of the above sale rate.
- v) The above tariff is applicable for a period of 20 years commencing from the date of the Commercial Operation.

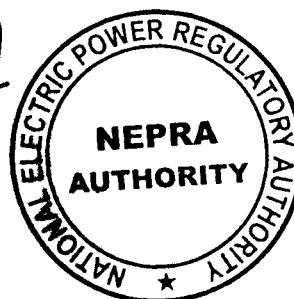
Component wise tariff is indicated at Annex-I.

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. MPL 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, MPL shall provide evidence of actual payment along with the exchange rate prevalent on the date of particular transaction. MPL'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 MPL is obligated to pay any tax on its ROE, the exact amount paid by the company may be reimbursed by CPPA to MPL on production of original receipts. This payment may be considered as pass-through (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, MPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to MPL on account of taxation.

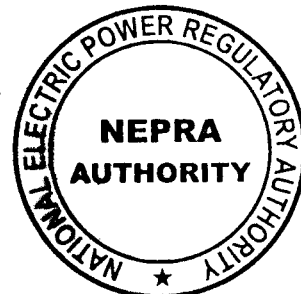
- ii) Withholding tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new MPLs. In a reference tariff table withholding tax number is indicated as reference and CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% reference equity i.e. hourly payment (Rs./kW/hour) spread over a 12 month according to the following formula:

$$\text{Withholding Tax Payable} = \{[15\% * (E_{(\text{Ref})} - E_{(\text{Red})}) + \text{ROEDC}_{(\text{Ref})}] * 7.5\%$$

Where:

$E_{(\text{Ref})}$  = Reference Equity determined at COD

$E_{(\text{Red})}$  = Equity Redeemed





ROEDC<sub>(Ref)</sub>= Reference Return on Equity During Construction

- iii) 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 in hourly payments spread over 12 months period 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**

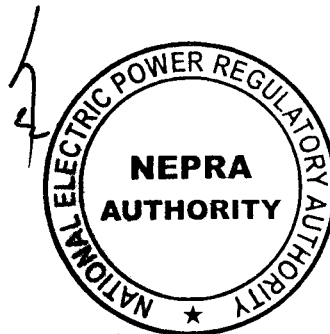
- 1)  $F O\&M_{(LRev)} = 0.2492 * WPI_{(REV)} / 118.76$   
2)  $F O\&M_{(FRev)} = 0.4611 * US CPI_{(REV)} / 201.5 * ER_{(REV)} / 61$

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)  
 $WPI_{(REF)}$  = 118.76 wholesale price index (manufactures) of November 2006 notified by the Federal Bureau of Statistics  
 $US CPI_{(REF)}$  = 201.5 US CPI for the month of November 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)  $V O\&M_{(REV)} = 0.0760 * US\ CPI_{(REV)} / 201.5 * ER_{(REV)} / 61$

Where:

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

$US\ CPI_{(REF)}$  = 201.5 US CPI for the month of November 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:

$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 5.34\%) / 4$$

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  $<$  5.34%. 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 MPL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

**Terms and Conditions of Tariff:**

1. No adjustment on account of project cost variation shall be available.





**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 Risk:**

MPL 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 send the same for approval of the Authority.

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

MPL 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:**

MPL 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 MPL.

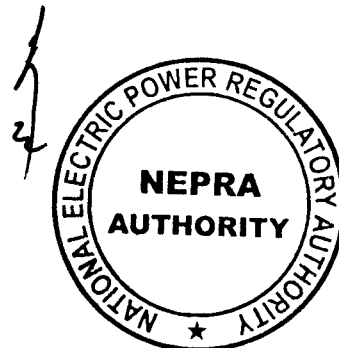
**Emissions Trading/ Carbon Credits:**

MPL would process and obtain emissions /carbon credits expeditiously and credit the proceeds to the Power Purchaser as per the 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 MPL shall be in accordance with the Guidelines approved by the Federal Government, Grid Codes and applicable documents issued by NEPRA and as per the tariff terms approved by NEPRA.

*(Handwritten initials)*

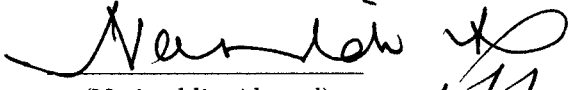




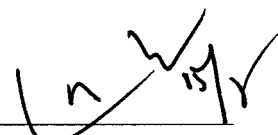
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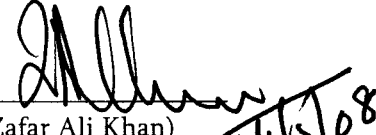
The approved tariff in respect of MPL should be intimated to the Federal Government for notification in pursuance of Section 31(4) of the Act.

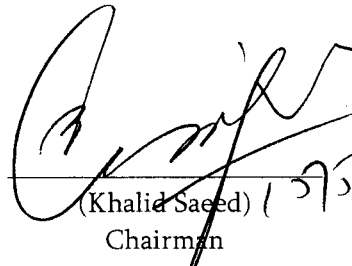
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(Nasiruddin Ahmed)  
Member

NOT Attended  
(Abdul Rahim Khan)  
Member

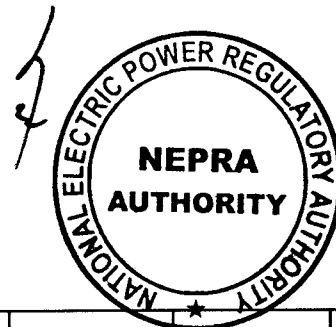
  
(Maqbool Ahmad Khawaja)  
Member

  
(Zafar Ali Khan)  
Vice Chairman

  
(Khalid Saeed)  
Chairman







Annex-I

**MILERGO PAKISTAN LIMITED (MPL)  
REFERENCE TARIFF**

Year	Variable O&M Cost	Fixed O&M Cost Foreign	Fixed O&M Cost Local	Insurance	Return on Equity	Withholding Tax @7.5% *	Loan Repayment	Interest Charges	Tariff **	
	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	¢ / kWh
1	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.0551	2.4922	6.9653	11.6089
2	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.2320	2.3154	6.9653	11.6089
3	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.4240	2.1233	6.9653	11.6089
4	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.6326	1.9148	6.9653	11.6089
5	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	2.8591	1.6882	6.9653	11.6089
6	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.1051	1.4422	6.9653	11.6089
7	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.3723	1.1750	6.9653	11.6089
8	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.6624	0.8849	6.9653	11.6089
9	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	3.9776	0.5697	6.9653	11.6089
10	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	4.3198	0.2275	6.9653	11.6089
11	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
12	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
13	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
14	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
15	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
16	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
17	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
18	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
19	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
20	0.0760	0.4611	0.2492	0.3303	1.2037	0.0976	-	-	2.4180	4.0300
<b>Levelized Tariff</b>	<b>0.0760</b>	<b>0.4611</b>	<b>0.2492</b>	<b>0.3303</b>	<b>1.2037</b>	<b>0.0976</b>	<b>2.0734</b>	<b>1.2086</b>	<b>5.7000</b>	<b>9.5000</b>

\* The Withholding Tax component shall be paid as per the actual according to the prescribed mechanism.

\*\* The above charges have been assessed on the basis of annual generation of 133.4 GWh. Based upon the output established after first year of operation, the reference benchmark output shall be revised and this shall be considered as benchmark for Wind Risk calculation in the future. There shall however be no adjustment in the reference tariff on account of revision in benchmark output.

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