# National Electric Power Regulatory Authority

**Islamic Republic of Pakistan**

**2nd Floor, OPF Building, G-5/2, Islamabad**
**Ph: 9206500, 9207200, Fax : 9210215**
**E-mail: registrar@nepra.org.pk**

**Registrar**


No.NEPRA/R/TRF-156/FFCEL-2010/3549-3551
November 3, 2010

Secretary
Ministry of Water & Power
'A' Block, Pak Secretariat
Islamabad

Subject: **Clarifications on Determination/Order of the Authority issued on August 10, 2010 in Case No. NEPRA/TRF-156/FFCEL-2010**

*Reference: Our letter No. NEPRA/TRF-156/FFCEL-2010/1560-1562, dated 10.08.2010.*

FFC Energy Limited (FFCEL) vide letter No. FEL/NPR/2 dated October 25, 2010 with respect to determination of the Authority dated August 10, 2010 has sought clarifications regarding some of the tariff components required to be adjusted at the time of Commercial Operation Date (COD). Some of the clarifications sought by FFCEL are already covered in the policy guidelines of Government of Pakistan while others need further elaboration for the purpose of the clarity. Since these clarifications do not require any modification of tariff at this stage, therefore, in order to provide clarity and better understanding for the sponsors/lenders, the Authority has decided to amend its earlier order dated August 10, 2010 to the extent of the following:

- At Para 18 sub-para I under the heading 'One Time Adjustment' the following may be inserted after item "b".

  c) The specific items of project cost to be paid in foreign currency (i.e. US$) shall be adjusted at COD with PKR/US$ exchange rate based on actual date of transaction on production of verifiable documentary evidence by the Petitioner.

  d) Custom duty and other taxes shall be adjusted as per actual at COD based on verifiable documentary evidence.

  e) Return on Equity shall be adjusted at COD in accordance with the GoP Policy for Development of Renewable Energy for Power Generation 2006, to ensure 17% IRR on equity while treating the project on Build-Own-Operate (BOO) basis.

  f) Item 'c' in the original order may now be read as item 'f'.

- At para 18 sub-para II under the heading 'Pass-through Items' the original formula may be substituted with the following formula:

  Withholding Tax Payable = $[\{17\% * (E_{(Ref)} - E(R_{(Red)})\} * 7.5\%]$

  Where;

  $E_{(Ref)}$= the reference amount of equity for the relevant year
  $E_{(Red)}$= the equity redeemed, if any.

*Contd....p/2*

- At Para 18 sub-para III after the heading 'Indexations' under 'Adjustment for KIBOR variation' the following note may be added:

  Note:

  The Petitioner has procured financing on the basis of KIBOR plus 295 basis points. The benefit of 5 basis points (being lower than 300 basis points) in the debt servicing cost shall be shared in a ratio of 60:40 between the Power Purchaser and the Petitioner in accordance with the GoP Policy for Development of Renewable Energy for Power Generation 2006.

- At Para 18 sub-para III after the heading 'Indexations', at the end of 'Return on Equity', the following item be added:

  iv) Insurance

  In case of Insurance in foreign currency (US$), the insurance component of tariff shall be adjusted annually with exchange rate variation (PKR/US$) as per the following formula:

  $$\text{Insurance}_{(Rev)} = I_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

  Where,

  | | | |
  |---|---|---|
  | $I_{(Ref)}$ | = | Relevant Reference Insurance component of tariff |
  | $ER_{(Ref)}$ | = | Reference exchange rate PKR/US$. |
  | $ER_{(Rev)}$ | = | the revised TT & OD selling rate of PKR/US$ as notified by the National Bank of Pakistan. |

2. The above mentioned amendments may be incorporated in the original determination/order of the Authority dated August 10, 2010. For the purpose of clarity the amended order of the Authority is sent herewith for notification in the official Gazette in accordance with Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

Encl:**As above**

**(Syed Safeer Hussain)**
Registrar

Copy for information to:

1. Secretary, Cabinet Division, Government of Pakistan, Cabinet Secretariat, Islamabad.
2. Brig. Tariq Izaz (Retired), Authorized Representative, FFC Energy Limited, 93 –Hareley Street, Rawlapindi.

# AMENDED ORDER OF THE AUTHORITY IN CASE NO. NEPRA/TRF-156/FFCEL-2010 TO BE NOTIFIED IN THE OFFICIAL GAZETTE

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules, 2000, FFC Energy Limited (FFCEL) 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 | Year 1-2 RS/kWh | Year 3-5 Rs/kWh | Year 6-10 Rs/kWh | Year 11-20 Rs/kWh | Indexation |
|---|---|---|---|---|---|
| Fixed O&M Local | 0.4504 | 0.9791 | 0.7678 | 0.7678 | WPI |
| Fixed O&M Foreign | 0.1930 | 0.4196 | 0.3290 | 0.3290 | PKR/US$, US CPI |
| Insurance | 0.6582 | 0.6582 | 0.6582 | 0.6582 | PKR/US$ |
| Debt Service | 12.5637 | 12.5637 | 12.5637 | 0 | KIBOR |
| Return on Equity | 2.6879 | 2.6879 | 2.6879 | 2.6879 | PKR/US$ |
| Total | 16.5532 | 17.3085 | 17.0066 | 4.4429 | |

i) The reference tariff has been calculated on the basis of net annual production of 143.600 GWh at annual net plant capacity factor of 33.12%.

ii) The above charges will be limited to the extent of net annual energy production of 143.600 GWh. Net annual production in excess of 143.600 GWh will be charged at 10% of the tariff for that particular year.

iii) In the above tariff no adjustment for Carbon Emission Receipts (CERs) has been accounted for. However, upon actual realization of CERs, the same shall be distributed between the power purchaser and the Petitioner in accordance with the approved mechanism given in the GoP Policy for Development of Renewable Energy Generation, 2006.

iv) The reference PKR/Dollar rate has been assumed at 85.00.

v) The above tariff is applicable for a period of twenty (20) years commencing from the date of the COD.

vi) The monthly benchmark energy production table along with monthly power curves is attached herewith as Annex-I

vii) The component wise tariff is indicated at Annex-II.

viii) Debt Servicing Schedule is attached as Annex-III

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

The following indexations shall be applicable to the reference tariff;

## I. One Time Adjustment

a. The Principal repayment and the cost of debt shall be adjusted at Financial Close as per the actual borrowing composition.

b. Interest During Construction (IDC) shall be adjusted at COD as per actual based on actual disbursement of loans and prevailing KIBOR rates during the project construction period.

c. The specific items of project cost to be paid in foreign currency (i.e. US$) shall be adjusted at COD with PKR/US$ exchange rate based on actual date of transaction on production of verifiable documentary evidence by the Petitioner.

d. Custom duty and other taxes shall be adjusted as per actual at COD based on verifiable documentary evidence.

e. Return on Equity shall be adjusted at COD in accordance with the GoP Policy for Development of Renewable Energy for Power Generation 2006, to ensure 17% IRR on equity while treating the project on Build-Own-Operate (BOO) basis.

f. The Reference tariff table shall be revised at COD while taking into account the above adjustments. The Petitioner will submit its request to the Authority within 15 days of COD for necessary adjustment in tariff.

## II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If the Petitioner is obligated to pay any tax, the exact amount paid by the Petitioner may be reimbursed by CPPA to the Petitioner 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 to fixed charges proposed in the Reference Tariff. Furthermore, in such a scenario, the Petitioner may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to the Petitioner 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 @ 7.5% 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 17% return on equity according to the following formula:

| | | |
|---|---|---|
| Withholding Tax Payable | = | $[\{17\% * (E_{(Ref)} - E_{(Red)})\} \times 7.5\%]$ |
| Where: | | |
| $E_{(Ref)}$ | = | The reference amount of equity for the relevant year. |
| $E_{(Red)}$ | = | Equity Redeemed, if any |



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

In case the Petitioner 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 Petitioner 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 O&M cost will be adjusted on account of Inflation (WPI) and O&M foreign will be adjusted on account of variation in Rupee/Dollar exchange rate and US CPI. Quarterly Adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st July, 1st October, 1st January & 1st April respectively on the basis of average of the latest available information with respect to WPI (notified by the Federal Bureau of Statistics), US CPI (notified by US bureau of labor statistics) and revised TT & OD Selling rate of US Dollar as notified by the National Bank of Pakistan in accordance with the standard practice adopted by the power purchaser. The mode of indexation will be as follows:

$F\ O\&M_{(LREV)} = O\&M_{(LREF)} * WPI_{(REV)} / 168.82$

$F\ O\&M_{(FREV)} = O\&M_{(FREF)} * US\ CPI_{(REV)} / 217.965 * ER_{(REV)} / 85$

Where:

| | | |
|---|---|---|
| $F\ O\&M_{(LREV)}$ | = | The revised applicable Fixed O&M local component of the Fixed Charges indexed with WPI |
| $FO\&M_{(FREV)}$ | = | The revised applicable Fixed O&M foreign component of the Fixed Charges indexed with US CPI and currency fluctuation |
| $FO\&M_{(FREF)}$ | = | The reference fixed O&M foreign component of the Fixed Charges for the relevant period. |
| $FO\&M_{(LREF)}$ | = | The reference fixed O&M local component of the Fixed Charges for the relevant period |
| $WPI_{(REV)}$ | = | The Revised wholesale Price Index (Manufactures) |
| $WPI_{(REF)}$ | = | 168.82, Reference wholesale price index (manufactures) of June 2010 as notified by the Federal Bureau of Statistics |
| $US\ CPI_{(REV)}$ | = | The Revised US Consumer Price Index (All Urban Consumers) notified by US Bureau of Labor Statistics. |
| $US\ CPI_{(REF)}$ | = | 217.965, Reference US CPI notified by the Bureau of Labor Statistics (All Urban |



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

Consumers) for the month of June 2010.

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

ii) Adjustment for KIBOR 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 6-monthly variation in KIBOR while spread on KIBOR (2.95%) remaining the same according to the following formula:

$\Delta I = P_{(REV)} * (KIBOR_{(REV)} - 12.38\%) / 2$

Where:

$\Delta I$ = The variation in interest charges applicable corresponding to variation in 6-month KIBOR. $\Delta$ I can be positive or negative depending upon whether $KIBOR_{(Rev)}$ > or < 12.38%. The interest payment obligation will be enhanced or reduced to the extent of $\Delta$ I for each six-monthly adjustment on the basis of applicable six-monthly KIBOR.

$P_{(REV)}$ = Is the outstanding principal (as indicated in the attached debt service schedule to this order at Annex-III) on a bi-annual basis at the relevant six-monthly calculations date. Period 1 shall commence on the date on which the 1st installment is due after availing the grace period.

Note:

The Petitioner has procured financing on the basis of KIBOR plus 295 basis points. The benefit of 5 basis points (being lower than 300 basis points) in the debt servicing cost shall be shared in a ratio of 60:40 between the Power Purchaser and the Petitioner in accordance with the GoP Policy for Development of Renewable Energy for Power Generation 2006.

iii) Return on Equity

The Return on Equity (ROE) component of tariff will be adjusted on the basis of revised TT & OD selling rate of US Dollar notified by the National Bank of Pakistan as per decision of the Economic Coordination Committee (ECC) according to the following formula;



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

| | | |
|---|---|---|
| $ROE_{(REV)}$ | = | $ROE_{(REF)}$ x $ER_{(REV)}$ / $ER_{(REF)}$ |
| Where | | |
| $ROE_{(REV)}$: | = | The revised ROE component of the tariff expressed in Rs/kWh |
| $ROR_{(REF}$ | = | The reference ROE component of the tariff expressed in Rs/kWh |
| $ER_{(REV)}$ | = | The revised US$/PKR exchange rate as notified by the National Bank of Pakistan |
| $ER_{(REF)}$ | = | The reference exchange rate of PKR 85=1 US$ |

iv) Insurance

In case of insurance in the foreign currency (US$), the insurance component of tariff shall be adjusted annually with exchange rate variation (PKR/US$) as per the following formula;

Insurance $_{(REV)}$= $I_{(REF)}$ * $ER_{(REV)}$ / $ER_{(REF)}$

Where,

| | | |
|---|---|---|
| $I_{(REF)}$ | = | Relevant Reference Insurance component of tariff |
| $ER_{(REF)}$ | = | Reference exchange rate PKR/US$. |
| $ER_{(REV)}$ | = | the revised TT & OD selling rate of PKR/US$ as notified by the National Bank of Pakistan. |

**IV.** Adjustment on account of inflation, local inflation, US CPI, foreign exchange variation and KIBOR variation will be approved and announced by the Authority within fifteen working days after receipt of the Petitioner's request for adjustment in tariff in accordance with the requisite indexation mechanism stipulated herein.

**V. 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.

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

The Petitioner 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.



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

**Delivery Point:**

The Petitioner 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 Petitioner.

**Emissions Trading/ Carbon Credits:**

The Petitioner 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.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

# FFCEL 49.5 MW WIND POWER PROJECT

## BENCHMARK ENERGY PRODUCTION TABLE

| Months | Benchmark Wind Speed m/s | Benchmark Energy GWh |
|---|---|---|
| January | 5.2 | 4.9 |
| February | 5.6 | 6.2 |
| March | 5.9 | 7.5 |
| April | 7.8 | 13.5 |
| May | 9.9 | 22.1 |
| June | 10.3 | 21.4 |
| July | 10.4 | 22.8 |
| August | 9.6 | 19.8 |
| September | 8 | 14.0 |
| October | 5.2 | 4.6 |
| November | 4.4 | 2.8 |
| December | 4.9 | 3.9 |
| **Mean of Months** | 7.3 | 12.0 |
| **Annual Energy** | | **143.6** |

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

Annex-II

# FFC Energy Limited
## REFERENCE TARIFF

| Year | Fixed O&M Local | Fixed O&M Foreign | Insurance | Return on Equity | Withholding Tax @7.5% | Loan Repayment | Interest Charges | Total Rs/kWh |
|---|---|---|---|---|---|---|---|---|
| | Rs. / kWh | Rs. / kWh | Rs. / kWh | Rs. / kWh | Rs. / kWh | Rs. / kWh | Rs. / kWh | Rs. / kWh |
| 1 | 0.4504 | 0.1930 | 0.6582 | 2.6879 | 0.2016 | 2.9782 | 9.5855 | 16.7548 |
| 2 | 0.4504 | 0.1930 | 0.6582 | 2.6879 | 0.2016 | 3.4523 | 9.1114 | 16.7548 |
| 3 | 0.9791 | 0.4196 | 0.6582 | 2.6879 | 0.2016 | 4.0018 | 8.5619 | 17.5101 |
| 4 | 0.9791 | 0.4196 | 0.6582 | 2.6879 | 0.2016 | 4.6388 | 7.9249 | 17.5101 |
| 5 | 0.9791 | 0.4196 | 0.6582 | 2.6879 | 0.2016 | 5.3772 | 7.1865 | 17.5101 |
| 6 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | 6.2331 | 6.3306 | 17.2082 |
| 7 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | 7.2253 | 5.3384 | 17.2082 |
| 8 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | 8.3754 | 4.1883 | 17.2082 |
| 9 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | 9.7085 | 2.8552 | 17.2082 |
| 10 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | 11.2539 | 1.3098 | 17.2082 |
| 11 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 12 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 13 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 14 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 15 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 16 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 17 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 18 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 19 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| 20 | 0.7678 | 0.3290 | 0.6582 | 2.6879 | 0.2016 | - | - | 4.6445 |
| **Levelized Tariff** | **0.7541** | **0.3232** | **0.6582** | **2.6879** | **0.2016** | **4.0716** | **4.9961** | **13.6927** |

Exchange Rate Used= 1 US$ = Rupees 85.00, Levelized tariff discounted at 10% per annum works out to be US cents 16.1090/kWh.

* ***The above rate is limited to an annual energy production up to 143.600 GWh. Any generated energy beyond 143.600 GWh in a year will be charged at 10% of the Reference Tariff for that year.***

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

**Annex-III**

## FFC Energy Limited
### Debt Servicing Schedule

Kibor=12.38%, Premium=2.95%

| Period | Local Debt | | | | | Annual Principal Repayment Rs./kWh | Annual Interest Rs./kWh | Annual Debt Servicing Rs./kWh |
|---|---|---|---|---|---|---|---|---|
| | Principal Million $ | Repayment Million $ | Mark-Up Million $ | Balance Million $ | Debt Service Million $ | | | |
| | 106.8460 | 2.4229 | 8.1897 | 104.4231 | 10.6126 | | | |
| | 104.4231 | 2.6086 | 8.0040 | 101.8145 | 10.6126 | | | |
| 1 | 106.8460 | 5.0315 | 16.1938 | 101.8145 | 21.2253 | 2.9782 | 9.5855 | 12.5637 |
| | 101.8145 | 2.8085 | 7.8041 | 99.0060 | 10.6126 | | | |
| | 99.0060 | 3.0238 | 7.5888 | 95.9822 | 10.6126 | | | |
| 2 | 101.8145 | 5.8324 | 15.3929 | 95.9822 | 21.2253 | 3.4523 | 9.1114 | 12.5637 |
| | 95.9822 | 3.2556 | 7.3570 | 92.7266 | 10.6126 | | | |
| | 92.7266 | 3.5051 | 7.1075 | 89.2214 | 10.6126 | | | |
| 3 | 95.9822 | 6.7607 | 14.4645 | 89.2214 | 21.2253 | 4.0018 | 8.5619 | 12.5637 |
| | 89.2214 | 3.7738 | 6.8388 | 85.4476 | 10.6126 | | | |
| | 85.4476 | 4.0631 | 6.5496 | 81.3846 | 10.6126 | | | |
| 4 | 89.2214 | 7.8369 | 13.3884 | 81.3846 | 21.2253 | 4.6388 | 7.9249 | 12.5637 |
| | 81.3846 | 4.3745 | 6.2381 | 77.0101 | 10.6126 | | | |
| | 77.0101 | 4.7098 | 5.9028 | 72.3003 | 10.6126 | | | |
| 5 | 81.3846 | 9.0843 | 12.1409 | 72.3003 | 21.2253 | 5.3772 | 7.1865 | 12.5637 |
| | 72.3003 | 5.0708 | 5.5418 | 67.2294 | 10.6126 | | | |
| | 67.2294 | 5.4595 | 5.1531 | 61.7700 | 10.6126 | | | |
| 6 | 72.3003 | 10.5303 | 10.6950 | 61.7700 | 21.2253 | 6.2331 | 6.3306 | 12.5637 |
| | 61.7700 | 5.8780 | 4.7347 | 55.8920 | 10.6126 | | | |
| | 55.8920 | 6.3285 | 4.2841 | 49.5635 | 10.6126 | | | |
| 7 | 61.7700 | 12.2065 | 9.0188 | 49.5635 | 21.2253 | 7.2253 | 5.3384 | 12.5637 |
| | 49.5635 | 6.8136 | 3.7990 | 42.7499 | 10.6126 | | | |
| | 42.7499 | 7.3358 | 3.2768 | 35.4141 | 10.6126 | | | |
| 8 | 49.5635 | 14.1494 | 7.0758 | 35.4141 | 21.2253 | 8.3754 | 4.1883 | 12.5637 |
| | 35.4141 | 7.8981 | 2.7145 | 27.5159 | 10.6126 | | | |
| | 27.5159 | 8.5035 | 2.1091 | 19.0124 | 10.6126 | | | |
| 9 | 35.4141 | 16.4017 | 4.8236 | 19.0124 | 21.2253 | 9.7085 | 2.8552 | 12.5637 |
| | 19.0124 | 9.1553 | 1.4573 | 9.8571 | 10.6126 | | | |
| | 9.8571 | 9.8571 | 0.7555 | (0.0000) | 10.6126 | | | |
| 10 | 19.0124 | 19.0124 | 2.2128 | (0.0000) | 21.2253 | 11.2539 | 1.3098 | 12.5637 |

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

# FFCEL 49.5 MW Wind Power Project

Monthlty Complex Power Curves

| Wind Speed m/s | Energy Production Estimates - GWh | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| 3.0 | 0.6 | 0.7 | 0.7 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.5 |
| 3.1 | 0.7 | 0.9 | 0.8 | 0.5 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.6 |
| 3.2 | 0.8 | 1.0 | 0.9 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.7 |
| 3.3 | 0.9 | 1.1 | 1.0 | 0.7 | 0.5 | 0.7 | 0.6 | 0.7 | 0.6 | 0.8 | 0.9 | 0.8 |
| 3.4 | 1.0 | 1.2 | 1.2 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.8 | 0.9 | 1.1 | 0.9 |
| 3.5 | 1.2 | 1.4 | 1.3 | 1.0 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.1 | 1.2 | 1.1 |
| 3.6 | 1.3 | 1.5 | 1.5 | 1.1 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 | 1.3 | 1.2 |
| 3.7 | 1.5 | 1.7 | 1.6 | 1.2 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.3 | 1.5 | 1.4 |
| 3.8 | 1.6 | 1.9 | 1.8 | 1.4 | 1.1 | 1.3 | 1.3 | 1.3 | 1.3 | 1.5 | 1.7 | 1.5 |
| 3.9 | 1.8 | 2.1 | 2.0 | 1.5 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.6 | 1.8 | 1.7 |
| 4.0 | 2.0 | 2.2 | 2.2 | 1.7 | 1.4 | 1.6 | 1.6 | 1.6 | 1.6 | 1.8 | 2.0 | 1.9 |
| 4.1 | 2.2 | 2.4 | 2.4 | 1.9 | 1.6 | 1.8 | 1.7 | 1.8 | 1.7 | 2.0 | 2.2 | 2.0 |
| 4.2 | 2.4 | 2.6 | 2.6 | 2.1 | 1.8 | 1.9 | 1.9 | 2.0 | 1.9 | 2.2 | 2.4 | 2.2 |
| 4.3 | 2.6 | 2.9 | 2.8 | 2.2 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.4 | 2.6 | 2.4 |
| 4.4 | 2.8 | 3.1 | 3.1 | 2.4 | 2.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.6 | 2.8 | 2.7 |
| 4.5 | 3.0 | 3.3 | 3.3 | 2.6 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.8 | 3.1 | 2.9 |
| 4.6 | 3.3 | 3.6 | 3.5 | 2.9 | 2.6 | 2.7 | 2.7 | 2.8 | 2.7 | 3.0 | 3.3 | 3.1 |
| 4.7 | 3.5 | 3.8 | 3.8 | 3.1 | 2.8 | 2.9 | 2.9 | 3.0 | 2.9 | 3.3 | 3.5 | 3.4 |
| 4.8 | 3.8 | 4.0 | 4.1 | 3.3 | 3.0 | 3.2 | 3.2 | 3.2 | 3.1 | 3.5 | 3.8 | 3.6 |
| 4.9 | 4.1 | 4.3 | 4.3 | 3.6 | 3.2 | 3.4 | 3.4 | 3.5 | 3.4 | 3.8 | 4.0 | 3.9 |
| 5.0 | 4.4 | 4.6 | 4.6 | 3.8 | 3.5 | 3.7 | 3.6 | 3.7 | 3.6 | 4.0 | 4.3 | 4.1 |
| 5.1 | 4.6 | 4.8 | 4.9 | 4.1 | 3.7 | 3.9 | 3.9 | 4.0 | 3.9 | 4.3 | 4.6 | 4.4 |
| 5.2 | 4.9 | 5.1 | 5.2 | 4.4 | 4.0 | 4.2 | 4.2 | 4.2 | 4.1 | 4.6 | 4.9 | 4.7 |
| 5.3 | 5.3 | 5.4 | 5.5 | 4.7 | 4.3 | 4.5 | 4.5 | 4.5 | 4.4 | 4.9 | 5.2 | 5.0 |
| 5.4 | 5.6 | 5.6 | 5.8 | 4.9 | 4.5 | 4.7 | 4.7 | 4.8 | 4.7 | 5.2 | 5.5 | 5.3 |
| 5.5 | 5.9 | 5.9 | 6.1 | 5.2 | 4.8 | 5.0 | 5.0 | 5.1 | 5.0 | 5.5 | 5.8 | 5.7 |
| 5.6 | 6.2 | 6.2 | 6.5 | 5.6 | 5.1 | 5.3 | 5.4 | 5.4 | 5.3 | 5.8 | 6.1 | 6.0 |
| 5.7 | 6.6 | 6.5 | 6.8 | 5.9 | 5.4 | 5.6 | 5.7 | 5.7 | 5.6 | 6.1 | 6.4 | 6.3 |
| 5.8 | 6.9 | 6.8 | 7.1 | 6.2 | 5.8 | 5.9 | 6.0 | 6.0 | 5.9 | 6.4 | 6.7 | 6.7 |
| 5.9 | 7.3 | 7.1 | 7.5 | 6.5 | 6.1 | 6.3 | 6.3 | 6.4 | 6.2 | 6.7 | 7.0 | 7.0 |
| 6.0 | 7.6 | 7.4 | 7.8 | 6.9 | 6.4 | 6.6 | 6.7 | 6.7 | 6.5 | 7.1 | 7.3 | 7.4 |
| 6.1 | 8.0 | 7.7 | 8.2 | 7.2 | 6.8 | 6.9 | 7.1 | 7.1 | 6.9 | 7.4 | 7.7 | 7.7 |
| 6.2 | 8.3 | 7.9 | 8.5 | 7.6 | 7.2 | 7.3 | 7.4 | 7.4 | 7.2 | 7.7 | 8.0 | 8.1 |
| 6.3 | 8.7 | 8.2 | 8.9 | 7.9 | 7.5 | 7.6 | 7.8 | 7.8 | 7.6 | 8.1 | 8.3 | 8.5 |
| 6.4 | 9.1 | 8.5 | 9.2 | 8.3 | 7.9 | 8.0 | 8.2 | 8.1 | 7.9 | 8.4 | 8.6 | 8.8 |
| 6.5 | 9.4 | 8.8 | 9.6 | 8.7 | 8.3 | 8.3 | 8.6 | 8.5 | 8.3 | 8.8 | 9.0 | 9.2 |
| 6.6 | 9.8 | 9.1 | 9.9 | 9.0 | 8.7 | 8.7 | 9.0 | 8.9 | 8.7 | 9.2 | 9.3 | 9.6 |

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

# FFCEL 49.5 MW Wind Power Project

Monthlty Complex Power Curves

| Wind Speed m/s | Energy Production Estimates - GWh | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| 6.7 | 10.2 | 9.4 | 10.3 | 9.4 | 9.1 | 9.1 | 9.4 | 9.3 | 9.1 | 9.5 | 9.6 | 10.0 |
| 6.8 | 10.6 | 9.7 | 10.6 | 9.8 | 9.5 | 9.4 | 9.8 | 9.6 | 9.4 | 9.9 | 10.0 | 10.4 |
| 6.9 | 10.9 | 9.9 | 11.0 | 10.2 | 9.9 | 9.8 | 10.2 | 10.0 | 9.8 | 10.2 | 10.3 | 10.7 |
| 7.0 | 11.3 | 10.2 | 11.3 | 10.6 | 10.4 | 10.2 | 10.6 | 10.4 | 10.2 | 10.6 | 10.6 | 11.1 |
| 7.1 | 11.7 | 10.5 | 11.7 | 10.9 | 10.8 | 10.6 | 11.0 | 10.8 | 10.6 | 10.9 | 10.9 | 11.5 |
| 7.2 | 12.0 | 10.8 | 12.0 | 11.3 | 11.2 | 11.0 | 11.4 | 11.2 | 11.0 | 11.3 | 11.3 | 11.9 |
| 7.3 | 12.4 | 11.0 | 12.4 | 11.7 | 11.7 | 11.3 | 11.9 | 11.6 | 11.3 | 11.6 | 11.6 | 12.3 |
| 7.4 | 12.7 | 11.3 | 12.7 | 12.1 | 12.1 | 11.7 | 12.3 | 12.0 | 11.7 | 12.0 | 11.9 | 12.6 |
| 7.5 | 13.1 | 11.6 | 13.0 | 12.4 | 12.5 | 12.1 | 12.7 | 12.4 | 12.1 | 12.3 | 12.2 | 13.0 |
| 7.6 | 13.5 | 11.8 | 13.4 | 12.8 | 13.0 | 12.5 | 13.1 | 12.8 | 12.5 | 12.7 | 12.5 | 13.4 |
| 7.7 | 13.8 | 12.1 | 13.7 | 13.2 | 13.4 | 12.9 | 13.5 | 13.2 | 12.9 | 13.0 | 12.8 | 13.7 |
| 7.8 | 14.1 | 12.4 | 14.0 | 13.5 | 13.9 | 13.3 | 14.0 | 13.5 | 13.3 | 13.4 | 13.1 | 14.1 |
| 7.9 | 14.5 | 12.6 | 14.3 | 13.9 | 14.3 | 13.6 | 14.4 | 13.9 | 13.6 | 13.7 | 13.4 | 14.5 |
| 8.0 | 14.8 | 12.9 | 14.7 | 14.2 | 14.8 | 14.0 | 14.8 | 14.3 | 14.0 | 14.0 | 13.7 | 14.8 |
| 8.1 | 15.1 | 13.1 | 15.0 | 14.6 | 15.2 | 14.4 | 15.2 | 14.7 | 14.4 | 14.4 | 14.0 | 15.2 |
| 8.2 | 15.5 | 13.3 | 15.3 | 14.9 | 15.6 | 14.8 | 15.6 | 15.1 | 14.7 | 14.7 | 14.3 | 15.5 |
| 8.3 | 15.8 | 13.6 | 15.6 | 15.3 | 16.1 | 15.1 | 16.0 | 15.4 | 15.1 | 15.0 | 14.6 | 15.8 |
| 8.4 | 16.1 | 13.8 | 15.9 | 15.6 | 16.5 | 15.5 | 16.4 | 15.8 | 15.4 | 15.3 | 14.9 | 16.2 |
| 8.5 | 16.4 | 14.0 | 16.1 | 15.9 | 16.9 | 15.9 | 16.8 | 16.2 | 15.8 | 15.6 | 15.1 | 16.5 |
| 8.6 | 16.7 | 14.3 | 16.4 | 16.2 | 17.4 | 16.2 | 17.2 | 16.5 | 16.1 | 15.9 | 15.4 | 16.8 |
| 8.7 | 17.0 | 14.5 | 16.7 | 16.5 | 17.8 | 16.6 | 17.5 | 16.9 | 16.5 | 16.2 | 15.7 | 17.1 |
| 8.8 | 17.3 | 14.7 | 17.0 | 16.8 | 18.2 | 16.9 | 17.9 | 17.2 | 16.8 | 16.5 | 15.9 | 17.4 |
| 8.9 | 17.6 | 14.9 | 17.2 | 17.1 | 18.6 | 17.3 | 18.3 | 17.6 | 17.1 | 16.8 | 16.2 | 17.7 |
| 9.0 | 17.9 | 15.1 | 17.5 | 17.4 | 19.0 | 17.6 | 18.6 | 17.9 | 17.4 | 17.1 | 16.4 | 18.0 |
| 9.1 | 18.2 | 15.3 | 17.7 | 17.7 | 19.3 | 17.9 | 19.0 | 18.3 | 17.8 | 17.3 | 16.7 | 18.3 |
| 9.2 | 18.4 | 15.5 | 18.0 | 18.0 | 19.7 | 18.3 | 19.3 | 18.6 | 18.1 | 17.6 | 16.9 | 18.6 |
| 9.3 | 18.7 | 15.7 | 18.2 | 18.3 | 20.1 | 18.6 | 19.6 | 18.9 | 18.4 | 17.9 | 17.2 | 18.9 |
| 9.4 | 19.0 | 15.9 | 18.4 | 18.5 | 20.4 | 18.9 | 20.0 | 19.2 | 18.7 | 18.1 | 17.4 | 19.2 |
| 9.5 | 19.2 | 16.1 | 18.7 | 18.8 | 20.8 | 19.2 | 20.3 | 19.5 | 19.0 | 18.4 | 17.6 | 19.5 |
| 9.6 | 19.5 | 16.3 | 18.9 | 19.1 | 21.1 | 19.5 | 20.6 | 19.8 | 19.2 | 18.6 | 17.8 | 19.7 |
| 9.7 | 19.7 | 16.4 | 19.1 | 19.3 | 21.5 | 19.8 | 20.9 | 20.1 | 19.5 | 18.9 | 18.0 | 20.0 |
| 9.8 | 19.9 | 16.6 | 19.3 | 19.6 | 21.8 | 20.1 | 21.2 | 20.4 | 19.8 | 19.1 | 18.3 | 20.2 |
| 9.9 | 20.2 | 16.8 | 19.5 | 19.8 | 22.1 | 20.3 | 21.5 | 20.7 | 20.0 | 19.3 | 18.5 | 20.5 |
| 10.0 | 20.4 | 17.0 | 19.7 | 20.0 | 22.4 | 20.6 | 21.7 | 21.0 | 20.3 | 19.6 | 18.7 | 20.7 |
| 10.1 | 20.6 | 17.1 | 19.9 | 20.3 | 22.7 | 20.9 | 22.0 | 21.2 | 20.5 | 19.8 | 18.9 | 20.9 |
| 10.2 | 20.8 | 17.3 | 20.1 | 20.5 | 23.0 | 21.1 | 22.3 | 21.5 | 20.8 | 20.0 | 19.0 | 21.2 |
| 10.3 | 21.1 | 17.4 | 20.2 | 20.7 | 23.3 | 21.4 | 22.5 | 21.8 | 21.0 | 20.2 | 19.2 | 21.4 |

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

# FFCEL 49.5 MW Wind Power Project

Monthlty Complex Power Curves

| Wind Speed m/s | Energy Production Estimates - GWh | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| 10.4 | 21.3 | 17.6 | 20.4 | 20.9 | 23.6 | 21.6 | 22.8 | 22.0 | 21.3 | 20.4 | 19.4 | 21.6 |
| 10.5 | 21.5 | 17.7 | 20.6 | 21.1 | 23.8 | 21.9 | 23.0 | 22.3 | 21.5 | 20.6 | 19.6 | 21.8 |
| 10.6 | 21.7 | 17.9 | 20.8 | 21.3 | 24.1 | 22.1 | 23.3 | 22.5 | 21.7 | 20.8 | 19.8 | 22.0 |
| 10.7 | 21.9 | 18.0 | 20.9 | 21.5 | 24.3 | 22.3 | 23.5 | 22.7 | 21.9 | 21.0 | 19.9 | 22.2 |
| 10.8 | 22.1 | 18.1 | 21.1 | 21.7 | 24.6 | 22.6 | 23.7 | 23.0 | 22.1 | 21.2 | 20.1 | 22.4 |
| 10.9 | 22.2 | 18.2 | 21.2 | 21.9 | 24.8 | 22.8 | 23.9 | 23.2 | 22.3 | 21.4 | 20.3 | 22.6 |
| 11.0 | 22.4 | 18.4 | 21.4 | 22.0 | 25.0 | 23.0 | 24.1 | 23.4 | 22.5 | 21.6 | 20.4 | 22.8 |
| 11.1 | 22.6 | 18.5 | 21.5 | 22.2 | 25.3 | 23.2 | 24.3 | 23.6 | 22.7 | 21.7 | 20.6 | 23.0 |
| 11.2 | 22.8 | 18.6 | 21.7 | 22.4 | 25.5 | 23.4 | 24.5 | 23.8 | 22.9 | 21.9 | 20.7 | 23.2 |
| 11.3 | 22.9 | 18.7 | 21.8 | 22.6 | 25.7 | 23.6 | 24.7 | 24.0 | 23.1 | 22.1 | 20.9 | 23.4 |
| 11.4 | 23.1 | 18.8 | 21.9 | 22.7 | 25.9 | 23.8 | 24.9 | 24.2 | 23.3 | 22.2 | 21.0 | 23.5 |
| 11.5 | 23.3 | 18.9 | 22.0 | 22.9 | 26.1 | 23.9 | 25.1 | 24.4 | 23.4 | 22.4 | 21.1 | 23.7 |
| 11.6 | 23.4 | 19.0 | 22.2 | 23.0 | 26.3 | 24.1 | 25.3 | 24.5 | 23.6 | 22.5 | 21.3 | 23.9 |
| 11.7 | 23.6 | 19.1 | 22.3 | 23.2 | 26.5 | 24.3 | 25.5 | 24.7 | 23.8 | 22.7 | 21.4 | 24.0 |
| 11.8 | 23.7 | 19.2 | 22.4 | 23.3 | 26.6 | 24.4 | 25.6 | 24.9 | 23.9 | 22.8 | 21.5 | 24.2 |
| 11.9 | 23.9 | 19.3 | 22.5 | 23.5 | 26.8 | 24.6 | 25.8 | 25.1 | 24.1 | 22.9 | 21.6 | 24.3 |
| 12.0 | 24.0 | 19.3 | 22.6 | 23.6 | 27.0 | 24.7 | 26.0 | 25.2 | 24.2 | 23.1 | 21.7 | 24.5 |
| 12.1 | 24.1 | 19.4 | 22.7 | 23.7 | 27.1 | 24.9 | 26.1 | 25.4 | 24.4 | 23.2 | 21.8 | 24.6 |
| 12.2 | 24.2 | 19.5 | 22.8 | 23.9 | 27.3 | 25.0 | 26.3 | 25.5 | 24.5 | 23.3 | 21.9 | 24.7 |
| 12.3 | 24.4 | 19.5 | 22.9 | 24.0 | 27.4 | 25.2 | 26.4 | 25.7 | 24.7 | 23.4 | 22.0 | 24.9 |
| 12.4 | 24.5 | 19.6 | 23.0 | 24.1 | 27.6 | 25.3 | 26.5 | 25.8 | 24.8 | 23.5 | 22.1 | 25.0 |
| 12.5 | 24.6 | 19.7 | 23.1 | 24.2 | 27.7 | 25.4 | 26.7 | 25.9 | 24.9 | 23.6 | 22.2 | 25.1 |
| 12.6 | 24.7 | 19.7 | 23.1 | 24.3 | 27.8 | 25.6 | 26.8 | 26.1 | 25.1 | 23.7 | 22.3 | 25.2 |
| 12.7 | 24.8 | 19.8 | 23.2 | 24.5 | 28.0 | 25.7 | 26.9 | 26.2 | 25.2 | 23.8 | 22.4 | 25.3 |
| 12.8 | 24.9 | 19.8 | 23.3 | 24.6 | 28.1 | 25.8 | 27.1 | 26.3 | 25.3 | 23.9 | 22.4 | 25.4 |
| 12.9 | 25.0 | 19.8 | 23.3 | 24.7 | 28.2 | 25.9 | 27.2 | 26.4 | 25.4 | 24.0 | 22.5 | 25.5 |
| 13.0 | 25.1 | 19.9 | 23.4 | 24.8 | 28.3 | 26.0 | 27.3 | 26.5 | 25.5 | 24.1 | 22.6 | 25.6 |
| 13.1 | 25.1 | 19.9 | 23.5 | 24.8 | 28.5 | 26.1 | 27.4 | 26.6 | 25.6 | 24.2 | 22.6 | 25.7 |
| 13.2 | 25.2 | 19.9 | 23.5 | 24.9 | 28.6 | 26.2 | 27.5 | 26.7 | 25.7 | 24.3 | 22.7 | 25.8 |
| 13.3 | 25.3 | 20.0 | 23.6 | 25.0 | 28.7 | 26.3 | 27.6 | 26.8 | 25.8 | 24.3 | 22.7 | 25.9 |
| 13.4 | 25.3 | 20.0 | 23.6 | 25.1 | 28.8 | 26.4 | 27.7 | 26.9 | 25.9 | 24.4 | 22.8 | 26.0 |
| 13.5 | 25.4 | 20.0 | 23.7 | 25.2 | 28.9 | 26.4 | 27.8 | 27.0 | 26.0 | 24.5 | 22.8 | 26.0 |
| 13.6 | 25.4 | 20.0 | 23.7 | 25.2 | 29.0 | 26.5 | 27.9 | 27.1 | 26.1 | 24.5 | 22.9 | 26.1 |
| 13.7 | 25.5 | 20.0 | 23.7 | 25.3 | 29.1 | 26.6 | 28.0 | 27.2 | 26.2 | 24.6 | 22.9 | 26.2 |
| 13.8 | 25.5 | 20.0 | 23.7 | 25.4 | 29.2 | 26.6 | 28.1 | 27.3 | 26.3 | 24.6 | 22.9 | 26.2 |
| 13.9 | 25.5 | 20.0 | 23.8 | 25.4 | 29.2 | 26.7 | 28.2 | 27.3 | 26.3 | 24.7 | 22.9 | 26.3 |
| 14.0 | 25.6 | 20.1 | 23.8 | 25.5 | 29.3 | 26.8 | 28.3 | 27.4 | 26.4 | 24.7 | 23.0 | 26.3 |

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

# FFCEL 49.5 MW Wind Power Project

Monthlty Complex Power Curves

| Wind Speed m/s | Energy Production Estimates - GWh | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| **14.1** | 25.6 | 20.0 | 23.8 | 25.5 | 29.4 | 26.8 | 28.4 | 27.4 | 26.5 | 24.7 | 23.0 | 26.3 |
| **14.2** | 25.6 | 20.0 | 23.8 | 25.6 | 29.5 | 26.9 | 28.4 | 27.5 | 26.5 | 24.7 | 23.0 | 26.4 |
| **14.3** | 25.6 | 20.0 | 23.8 | 25.6 | 29.6 | 26.9 | 28.5 | 27.6 | 26.6 | 24.8 | 23.0 | 26.4 |
| **14.4** | 25.6 | 20.0 | 23.8 | 25.6 | 29.6 | 27.0 | 28.6 | 27.6 | 26.6 | 24.8 | 23.0 | 26.4 |
| **14.5** | 25.6 | 20.0 | 23.8 | 25.7 | 29.7 | 27.0 | 28.6 | 27.6 | 26.6 | 24.8 | 23.0 | 26.4 |
| **14.6** | 25.6 | 20.0 | 23.8 | 25.7 | 29.8 | 27.0 | 28.7 | 27.7 | 26.7 | 24.8 | 23.0 | 26.4 |
| **14.7** | 25.6 | 20.0 | 23.8 | 25.7 | 29.8 | 27.1 | 28.7 | 27.7 | 26.7 | 24.8 | 23.0 | 26.4 |
| **14.8** | 25.6 | 20.0 | 23.7 | 25.7 | 29.9 | 27.1 | 28.8 | 27.7 | 26.7 | 24.8 | 23.0 | 26.4 |
| **14.9** | 25.6 | 19.9 | 23.7 | 25.7 | 29.9 | 27.1 | 28.8 | 27.8 | 26.8 | 24.8 | 22.9 | 26.4 |
| **15.0** | 25.6 | 19.9 | 23.7 | 25.7 | 30.0 | 27.1 | 28.9 | 27.8 | 26.8 | 24.8 | 22.9 | 26.4 |

Note : For Average Monthly Wind speed values above 15 m / s, the Energy Production values shall be same as for 15 m /s

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY