Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/R/ADG(Trf)/TRF-466/NITP-2019/1396-1398
January 12, 2021

Subject: **Decision of the Authority in the matter of Motion for Leave for Review filed by Norinco International Thatta Power (Pvt.) Ltd. against the Tariff Determination dated August 18, 2020** (Case No. NEPRA/TRF-466/NITP-2019)

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority along with Annex-I & II (17 Pages) in Case No. NEPRA/TRF-466/NITP-2019.

2. The Decision is being intimated to the Federal Government for the purpose of notification in the official gazette pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

3. The Order along with Annex-I & II of the Authority's Decision is to be notified in the official Gazette.

Enclosure: As above

12 01 21
(Syed Safeer Hussain)

Secretary
Ministry of Energy (Power Division)
'A' Block, Pak Secretariat
Islamabad

CC: 1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'A' Block, Pak Secretariat, Islamabad

DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW FILED BY NORINCO INTERNATIONAL THATTA POWER (PRIVATE) LIMITED AGAINST THE TARIFF DETERMINATION DATED AUGUST ~~7, 2018~~ 18, 2020

1. Norinco International Thatta Power (Private) Limited ("NITTPL" or "the Petitioner") vide letter dated August 27, 2020 filed Motion for Leave for Review ("Review Motion") against the Tariff Determination ("Tariff Determination" or "Impugned Determination") issued by National Electric Power Regulatory Authority ("NEPRA" or "the Authority") on August 18, 2020 in respect of NITTPL's 100 MW wind power project ("Project"), to be setup at Jhimpir, District Thatta, Sindh. The Authority through Impugned Determination awarded a cost-plus tariff of Rs. 5.3418/kWh to the Petitioner along with terms and conditions.

2. The Review Motion is filed by NITTPL under Section 7(2)(G) and Section 31 of the Regulation of Generation, Transmission & Distribution of Electric Power Act, 1997 ("NEPRA Act"), read with Rule 16(6) of the NEPRA (Tariff Standards and Procedure) Rules, 1998 ("Tariff Rules") and Regulation 3(2) of the NEPRA (Review Procedure) Regulations, 2009 ("Review Regulations"), each as amended from time to time.

Proceedings

3. The Authority admitted the Review Motion on September 8, 2020 and decided to conduct hearing on this matter. The hearing was scheduled for September 23, 2020 through Zoom starting from 10:00 A.M onwards. Notices of hearing were sent to relevant stakeholders and to NITTPL on September 11, 2020. The copy of the Review Motion was placed on NEPRA's website for information of relevant stakeholders. The hearing was held as per the schedule which was attended by NITTPL and the representative of Central Power Purchasing Agency Guarantee Limited ("CPPAGL"). The Petitioner has sought review on the following grounds:

   i) EPC Cost
   ii) Project Development Cost
   iii) Financial Fee and Charges
   iv) Return on Equity
   v) O&M Cost
   vi) Capacity Factor

4. Following are the arguments as submitted by the Petitioner in the Review Motion and during the course of hearing for the review of the above listed parameters.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

EPC Cost

5. NITTPL submitted that the Authority allowed it EPC cost of around USD 86 against the claim of USD 111 million. In the review motion, NITTPL submitted that it will be able to achieve EPC price of USD 109 million, based on the recent discussions with the EPC Contractor. The Impugned Determination, according to the Petitioner, does not provide any basis for the determined EPC cost. NITTPL submitted that despite a recent significant decline in the prices of wind turbines, the EPC prices determined by NEPRA are lower than the level prevailing in the market. According to the Petitioner, the EPC costs based on generalized regional and international cost analysis as published by Bloomberg and International Renewable Energy Agency ("IRENA") are not applicable in the case of Pakistan due to the addition of country risk premium and country default swap insurance. Further, the Petitioner submitted that the Authority appeared to have applied the reduction in wind turbine prices to whole of EPC costs which is incorrect as the costs such as civil works, commissioning, transportation, interconnection works etc. have increased substantially over the past 3 years.

Project Development Cost

6. The Authority allowed the Project Development Cost ("PDC") of USD 2.143 million to NITTPL against the claim of USD 5 million. In the Review Motion, the Petitioner has requested to allow USD 4.5 million under this head. NITTPL submitted that back in 2018, the Authority had approved the PDC of USD 2.5 million for wind power projects having capacity of 50 MW. In terms of PKR, that amount works out to be Rs. 300 million (PKR 120/USD). In the subject case of a 100 MW WPP, the approved amount translates into PKR 361 million (PKR 168.75/USD). NITTPL submitted that PDC includes certain costs that are denominated in foreign currency, however, they were out rightly ignored by the Authority as the whole cost has been approved in local currency. The Petitioner submitted that even if the PDC approved in 2018 tariff is benchmarked, the Authority should consider increasing the same such that it should be reflective of the inflation over the past 2 years. To provide a perspective, the Petitioner has submitted a breakup of its PDC costs (incurred and estimated) aggregating to around Rs. 759.00 million. The Petitioner also informed that 50 MW wind projects are being developed on 300 to 462 acres of land whereas it has been allocated 2500 acres of land by the Government of Sindh ("GOS") against which lease payments are made. NITPPL requested to allow the impact of lease payments in PDC and O&M on actual basis.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

Financing Fee & Charges

7. NITTPL submitted that the Authority has allowed USD 1.417 million under the captioned head against the claimed amount of USD 3.085 million. The approved amount was calculated at 2% of debt portion of project cost (excluding financial charges and interest during construction). The Petitioner submitted that it is unjustified to determine financial charges on debt portion of the capital cost (EPC + PDC + Insurance) and that the approved amount works out to be 1.9% of the debt portion of the total project cost. It requested to allow this cost at the rate of 2.5% of total allowed debt. NITTPL informed that certain portion of the captioned head is of fixed nature and therefore larger projects (in terms of total project cost) can manage their fixed costs within a cap of 2.0%, however, it is not possible for smaller projects to manage the same within this benchmark. The Petitioner also identified and submitted the details of an aggregate amount of USD 2.240 million on account of financing fee & charges that needs to be covered.

Return on Equity

8. The Petitioner has requested for Return of Equity ("ROE") of 14% (both during construction and operation) against the determined rate of 13%. According to the Petitioner, the Authority decreased ROE without any justifiable argument and has requested to provide the basis of this reduction. NITTPL submitted that income tax rate for dividends has recently been increased to 25% (withholding tax increase from earlier rate of 7.5% to 15%), therefore, based on the determined ROE of 13%, the sponsor's actual return works out to be around 9.75% while the 10-year Pakistan Investment Bond is offering a risk free return of 9.5%. Secondly, according to the Petitioner, under the financing agreements, it is required to provide contingency support, Debt Service Reserve Account support and other such supports to the lenders which ranges between USD 14–19 million that reduce the return further by 2% – 3%.

9. The Petitioner also submitted that the Authority in the Impugned Determination has introduced a mechanism whereby the adjustment and payment of return components has been approved on yearly basis. NITTPL submitted that lenders require a Debt Service Coverage Ratio ("DSCR") of 1.3 at every debt repayment period. According to the Petitioner, the aforesaid mechanism does not allow the lenders to approve the project for debt commitment as if the return components are not paid to the company on a regular basis, it is impossible to achieve a DSCR higher than 1.

10. NITTPL also requested to provide the claw back mechanism formula for which only provision has been included in the Impugned Determination. The Petitioner also stated that claw back formula should be devised considering the fact that now wind risk has to be borne by

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

the producer so any shortfalls in returns due to wind risk may be allowed to be carried forward in the succeeding years.

O&M Cost

11. The Petitioner has requested USD 23,000/MW/year against the determined O&M cost of USD 19,400/MW/year. According to the Petitioner, while reducing O&M costs from 23,000/MW/year (approved in 2018) to the determined costs, the Authority has ignored the inflationary impact from 2018 to 2020 and has also not considered the fact that 60%-70% O&M costs are denominated in USD. It also submitted details of the O&M cost summing up to the level of USD 2.50 million per annum.

12. Further, the Petitioner submitted that the Authority has introduced following new mechanism in the Impugned Determination:

"The Authority has decided to allow O&M cost into local and foreign components in the ratio of 50:50. Additionally, the Authority has decided that the approved O&M shall be applicable for first two years of operations. Afterward, the Authority may consider making revisions in the O&M cost, while capping the allowed prevailing level, anytime during the tariff control period. Those revisions may also entail changing the mix of the approved O&M cost (local and foreign) as well as the indexation mechanism (indices, frequency etc.). For that purpose, the Authority may also direct the Petitioner to carry out the competitive bidding to select the contractor for the provision of the O&M cost."

13. The Petitioner submitted that wind projects in Pakistan, being of project finance nature, are required to engage Original Equipment Manufacturers ("OEM") of Wind Turbine Generators ("WTGs") as Long Term ("LT") O&M Contractors, hence, competitive bidding for LT O&M Operator during debt servicing is not possible. It stated that financiers, in particular for Pakistan wind sector, require a certainty with respect to LT O&M at the outset for the entire debt service tenor (i.e. a minimum of 11 years after 2 years of warranty period) and the Petitioner shall have to enter into a firm agreement much ahead of completing the construction. Further, NITTPL stated that as the approved O&M cost is below the annual estimates and therefore further risk of split and review and revision of indexation makes it difficult for the lenders to accept this condition. Given the above, the Petitioner has requested the Authority to remove the requirement of competitive bidding as well as revision in local/foreign mix and indexation mechanism of approved O&M cost.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

Capacity Factor

14. NITTPL has requested the Authority to revise the determined capacity factor of 39% to 37.75% as per the Wind Resource Report ("WRA") submitted by the Petitioner. It stated that no basis for approving the annual capacity factor of 39% was provided in the Impugned Determination. According to the Petitioner, online tools or engineering formulas for determining energy from wind speeds are not bankable and dependable for such large-scale and long-life projects. The Petitioner further submitted that sales claims by various equipment manufacturers are also unreliable because they are based on lenient assumptions which vary from on-ground realities. The Petitioner also submitted that wind resource varies significantly from one location to another, therefore, the Authority's analysis of the energy yields of the prevailing operational wind plants (within and outside Pakistan) ignores the implication of variation in wind resource from one site to another. The most relevant factor, according to the Petitioner, that has an impact on capacity factor is the improvement in efficiency in wind turbines, however, in the instant case, the Project is utilizing exactly the same wind turbine as that of the wind power projects which have achieved financial close in 2019, therefore, the Authority may refer to the capacity factors as determined in those cases to approve the same in the instant case. The Petitioner also highlighted that the determined capacity factor would not be acceptable to the lenders to finance the Project.

Comments of CPPAGL

15. CPPAGL vide letter dated September 21, 2020 as well as during the hearing provide following comments:

"It is submitted that all of the 5 wind power projects namely Moro Power Company, Sino Well, Shafi Energy, Iran-Pak Wind Power and Norinco International Thatta Power fall under category-III of the CCoE decisions dated March 29, 2019, April 19, 2019 and June 16, 2020 whereby CCoE directed that "Projects that have been issued LOI prior to the expiry of RE Policy, 2006 on March 8, 2018, but have not received a tariff from NEPRA, may be allowed to proceed ahead subject to becoming successful in the competitive bidding process to be undertaken by AEDB specifically designed for each technology under this category based on the quantum ascertained for each technology by Indicative Generation Capacity Expansion Plan (IGCEP) by NTDCL.

The above mentioned decisions of CCOE is binding on CPPAGL. Therefore, stance of this office as communicated vide letter referred may be considered for instant determination also. Furthermore, it is reiterated that tariff be awarded to subject WPPs through process of competitive bidding under ARE Policy, 2019."

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

Analysis and Decision of the Authority

16. The Authority noted that most of the submissions made with respect to aforementioned grounds/parameters have already been deliberated upon by the Authority in the Impugned Determination and that the Petitioner has neither produced new and important documentary evidence in support of its claim nor pointed out any error or mistake therein as required under Review Regulations. That is, regarding EPC cost, the Authority noted that while requesting for additional amount, the Petitioner failed to produce new documentary evidence to support the same. Likewise, in the case of PDC, the grounds raised by the Petitioner were already considered in the Impugned Determination wherein it is clearly stated that PDC (including land cost), as considered rationale by NEPRA, was allowed. While determining Financing Fee & Charges, the Authority approved costs in line with its Benchmark for Tariff Determination Guidelines, 2018, which were issued well in advance and were applicable on all subsequent projects including the instant case. Regarding O&M cost, the impact of inflation (both foreign and local) and size of the Project was duly taken into account while approving the amount of USD 19,400/MW/Year. About the ROE and capacity factor, the Authority considered the arguments of the Petitioner and decided to maintain its approvals, however, the sharing mechanism for energy beyond set capacity factor has been changed slightly which is given in the Order part of this decision.

17. With respect to the condition of revision of the O&M cost (amount, mix, indexation) through, inter alia, competitive bidding, the Authority during the hearing asked the representative of the Petitioner about the possibility of giving 1st right of refusal to the OEM while conducting the bidding to select the O&M contractor. The Petitioner responded that this arrangement may be discussed and that it shall file comments thereon, however, no comments were filed. The Authority noted that since 2013, reduction in the approved O&M costs to the tune of around 50% has been made in light of the decreasing O&M cost trends that occurred across the world primarily due to the increase in competition in this industry. The Authority noted that this decrease may continue in the future as well, therefore, it may not be considered appropriate and justified to let the approved O&M cost remain fixed for the whole tariff term. However, the Authority noted that it is in the process of developing the legal framework for the review of O&M cost through, inter alia, competitive bidding and this matter shall be governed under that document.

18. With respect to payment of return on equity components on monthly instead of yearly basis, it is viewed that the Petitioner has put forth sufficient reasons and the Authority has decided to approve monthly payment of the said components. For that purpose, the tariff being approved through the instant decision has been computed taking into account the monthly payments of return on equity components such that annual rate comes out as 13%.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

Regarding the request of the Petitioner to disclose the mechanism of claw back, the Authority noted that it is in the process of developing the related legal framework wherein the said mechanism shall be stated and this matter then shall be governed under that document.

19. The Authority has considered the submissions put forth by CPPAGL and is of the view that those points had already been considered and addressed in the Impugned Determination.

20. Order

In pursuance of section 7(3)(a) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 read with NEPRA (Tariff Standards & Procedure) Rules, 1998, the Authority hereby determines and approves the following generation tariff along with terms and conditions for Norinco International Thatta Power (Private) Limited for its 100 MW wind power project for delivery of electricity to the power purchaser:

- Levelized tariff works out to be Rs. 5.2707/kWh (US Cents 3.1234/kWh).
- The tariff has been worked out on Build, Own and Operate basis.
- EPC cost of USD 86.00 million has been approved.
- PDC cost, including cost of land, of USD 2.143 million has been approved.
- Insurance during construction at the rate of 0.5% of the EPC cost has been allowed.
- Financing fee & charges at the rate of 2.0% of the debt portion of the capital cost has been approved.
- Debt to Equity ratio of 80:20 has been approved.
- 100% foreign loan has been used.
- The cost of debt of 3 month LIBOR (0.302%) + spread (4.25%) has been used.
- Debt Repayment period of 13 years has been taken into account.
- Annual ROE & ROEDC of 13% has been allowed.
- Net Annual Plant Capacity Factor of 39% has been approved.
- O&M Cost of USD 19,400 per MW per year has been approved.
- Insurance during Operation has been calculated as 0.4% of the allowed EPC Cost.
- Reference Exchange Rates of 168.75 PKR/USD has been used.
- Construction period of 18 months has been used for the workings of ROEDC and IDC.
- IDC and ROEDC have been worked out using following drawdown schedule:

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

Quarter 1	10%
Quarter 2	10%
Quarter 3	20%
Quarter 4	20%
Quarter 5	20%
Quarter 6	20%

- Detailed component wise tariff is attached as **Annex-I** of this decision.
- Debt Servicing Schedule for foreign loan is attached as **Annex-II** of this decision.

A. **One Time Adjustments at COD**

- The EPC cost shall be verified and adjusted at actual considering the approved amount as the maximum limit. Applicable foreign portion of the EPC cost will be adjusted at COD on account of variation in PKR/USD parity during the constriction period, on production of authentic documentary evidence by the Petitioner to the satisfaction of the Authority. The adjustment in applicable foreign portion of the approved EPC cost shall be made only for the currency fluctuation against the reference parity values.
- The Petitioner has submitted M/s DNV GL certification No. TC-DNVGL-SE-0074-00766-0 dated August 16, 2016 about the design, specification and country of origin of various components of the wind turbine to be installed for the Project. At the time of COD stage tariff adjustments, the Petitioner will have to provide a confirmation from the EPC Contractor as to the fullest compliance of the equipment having same design and origin of manufacture as given in the type certificate. Where needed, the bill of lading and other support documents will also have to be submitted.
- PDC, Insurance during construction and Financing fee & charges shall be adjusted at actual at the time of COD considering the approved amount as the maximum limit. The amounts allowed on these accounts in USD will be converted in PKR using the reference PKR/USD rate of 168.75 to calculate the maximum limit of the amount to be allowed at COD.
- Duties and/or taxes, not being of refundable nature, relating to the construction period directly imposed on the company up to COD will be allowed at actual upon production of verifiable documentary evidence to the satisfaction of the Authority.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

- The tariff has been determined on debt : equity ratio of 80 : 20. The tariff shall be adjusted on actual debt : equity mix at the time of COD, subject to equity share of not more than 20%. For equity share of more than 20%, allowed ROE shall be neutralized for the additional cost of debt : equity ratio.
- IDC will be recomputed at COD on the basis of actual timing of debt draw downs (for the overall debt allowed by the Authority at COD) for the project construction period of 18 months starting from the date of financial close. For foreign loan, IDC shall also be allowed adjustment for change in applicable LIBOR.
- ROEDC will be adjusted at COD on the basis of actual equity injections (within the overall equity allowed by the Authority at COD) during the project construction period of 18 months from the date of financial close.
- For foreign and local loans, if any, the savings in the approved spreads shall be shared between the power purchaser and power producer in the ratio of 60:40.

B. Indexations during Operations

ROE, ROEDC, Debt Servicing and O&M components shall be allowed adjustment on quarterly basis starting from 1st July, 1st October, 1st January and 1st April. Insurance shall be allowed adjustment on yearly basis starting from either 1st July or 1st January The indexation mechanisms are given hereunder:

i) **Operation and Maintenance Costs**

O&M components of tariff shall be adjusted based on revised rates of local Inflation (CPI) as notified by Pakistan Bureau of Statistics, foreign inflation (US CPI) as notified by US Bureau of Labour Statistics and TT&OD selling rate of US Dollar as notified by National Bank of Pakistan according to the following formula;

$F.\ O\&M_{(REV)}$	=	$F.\ O\&M_{(REF)} * US\ CPI_{(REV)} / US\ CPI_{(REF)} * ER_{(REV)}/ER_{(REF)}$
$L.\ O\&M_{(REV)}$	=	$L.\ O\&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$
Where;		
$F.\ O\&M_{(REV)}$	=	The revised O&M Foreign Component of Tariff
$L.\ O\&M_{(REV)}$	=	The revised O&M Local Component of Tariff
$F.\ O\&M_{(REF)}$	=	The reference O&M Foreign Component of Tariff

NEPRA AUTHORITY
NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

$L.\ O\&M_{(REF)}$	=	The reference O&M Local Component of Tariff
$US\ CPI_{(REV)}$	=	The revised US CPI (All Urban Consumers)
$US\ CPI_{(REF)}$	=	The reference US CPI (All Urban Consumers) of 256.394 for the month of May, 2020
$CPI_{(REV)}$	=	The revised CPI (General)
$CPI_{(REF)}$	=	The reference CPI (General) of 268.25 for the month of May, 2020
$ER_{(REV)}$	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan
$ER_{(REF)}$	=	The reference TT & OD selling rate of RS. 168.75/USD

Note: (i) The reference index of CPI shall be revised for making the required adjustments in local O&M component at the time of COD. For the adjustment of local O&M component at COD, the revised CPI General value for the middle month of preceding quarter prior to the date of COD shall be considered. Thereafter, the CPI value taken at COD shall become reference for subsequent adjustments in the local O&M component.

(ii) The reference indices of US CPI and exchange rate shall be revised for making the required adjustments in foreign O&M component at the time of COD. For the adjustment of foreign O&M component at COD, the revised US CPI for the middle month of preceding quarter prior to the date of COD shall be considered. The revised exchange rate for the last day of the preceding quarter prior to the date of COD shall be considered. Thereafter, the values of US CPI and exchange rates taken at COD shall become reference for subsequent adjustments in the foreign O&M component.

ii) **Insurance during Operation**

The actual insurance cost for the minimum cover required under contractual obligations with the Power Purchaser, not exceeding 0.4% of the approved EPC cost, will be treated as pass through. Insurance component of reference tariff shall be adjusted annually as per actual upon production of authentic documentary evidence according to the following formula:

AIC	=	$Ins_{(Ref)} / P_{(Ref)} * P_{(Act)}$
Where;		
AIC	=	Adjusted insurance component of tariff
$Ins_{(Ref)}$	=	Reference insurance component of tariff
$P_{(Ref)}$	=	Reference premium @ 0.4% of approved EPC Cost at Rs. 168.75/USD

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

$P_{(Act)}$	=	Actual premium or 0.4% of the approved EPC Cost converted into Pak Rupees on exchange rate prevailing on 1st day of the insurance coverage period whichever is lower

iii) **Return on Equity**

The ROE (ROE + ROEDC) component of the tariff will be adjusted quarterly on account of change in PKR/USD parity. The variation relating to these components shall be worked out according to the following formula:

$ROE_{(Rev)}$	=	$ROE_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$
Where;		
$ROE_{(Rev)}$	=	Revised ROE Component of Tariff
$ROE_{(Ref)}$	=	Reference ROE Component of Tariff
$ER_{(Rev)}$	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan
$ER_{(Ref)}$	=	The reference TT & OD selling rate of Rs. 168.75/USD

Note: The reference tariff component shall be revised after making the required adjustments at the time of COD.

iv) **Indexations applicable to debt**

For foreign debt, respective principal and interest components will be adjusted on quarterly (bi-annual/annual, if applicable) basis, on account of revised TT & OD selling rate of US Dollar, as notified by the National Bank of Pakistan as at the last day of the preceding period, over the applicable reference exchange rate as approved at COD.

v) **Variations in LIBOR**

The interest part of tariff component for the foreign loan shall also be subject to variation in interest rate as a result of variation in LIBOR according to the following formula:

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

Δ I	=	P (REV) * (LIBOR (REV) – 0.3020%) / 4
Where;		
ΔI	=	The variation in interest charges applicable corresponding to variation in 3 month LIBOR. ΔI can be positive or negative depending upon whether 3 month LIBOR (REV) per annum > or < 0.3020%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment.
P (REV)	=	The outstanding principal (as indicated in the attached debt service schedule to this order), at the relevant quarterly calculations date. Quarter 1 shall commence on the COD (i.e. the first figure will be used for the purposes of calculation of interest for the first quarter after COD).
LIBOR (REV)	=	Revised 3 month LIBOR as at the last day of the preceding quarter.

Note: *The reference tariff component shall be revised after making the required adjustments at the time of COD. These variations may also be approved on biannually/yearly basis depending on the final terms approved at the time of COD.*

C. Terms and Conditions

The following terms and conditions shall apply to the determined tariff:

- All plant and equipment shall be new and of acceptable standards. The verification of the plant and equipment will be done by the Independent Engineer at the time of the commissioning of the plant duly appointed by the power purchaser.

- This tariff will be limited to the extent of net annual energy generation supplied to the power purchaser up to 39% net annual plant capacity factor. Net annual energy generation supplied to the power purchaser in a year, in excess of 39% net annual plant capacity factor will be charged at the following tariffs:

Net annual plant capacity factor	% of prevalent tariff allowed to power producer
Up to 40%	10%
Above 40% up to 41%	20%
Above 41% up to 42%	30%

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

Above 42% up to 43%	40%
Above 43%	50%

- The Petitioner is required to ensure that all the equipment is installed as per the details/specifications provided in the Generation License/Tariff Determination. Any change in the power curve of the turbines as provided in studies along with the petition and the relevant assumptions contained therein shall not be allowed.

- The Petitioner is required to maintain the availability levels as declared in the Tariff Petition and the studies provided therein. Necessary clauses shall be included in the EPA so that the power producer cannot intentionally suppress the capacity factors. NPCC shall conduct detailed monitoring/audit of the operational record/log of all the wind turbines on quarterly basis to verify output/capacity of the power plant.

- The risk of wind resource shall be borne by the power producer.

- In the tabulated above tariff, no adjustment for certified emission reductions has been accounted for. However, upon actual realization of carbon credits, the same shall be distributed between the power purchaser and the power producer in accordance with the applicable GOP Policy, amended from time to time.

- The savings in the approved limit of spread over foreign loan shall also be shared between power purchaser and power producer in the ratio of 60:40 at the time of COD or during any time of loan tenor, as applicable.

- In case the company shall secure full or part of local commercial loan then the tariff of company shall be adjusted at the time of COD at applicable KIBOR + spread of 2.25%. The savings in the approved spreads during the loan tenor shall be shared between the power purchaser and power producer in the ratio of 60:40. The tenor of the debt servicing shall not be less than thirteen years for this loan.

- In case the company shall secure foreign loan under any credit insurance (Sinosure etc.) then the cost of that insurance shall be allowed to the maximum limit of 0.6% of the approved yearly outstanding principal and interest amounts. For financing with Sinosure, the spread/margin over LIBOR shall be adjusted to the extent such that the total financing cost (applicable LIBOR + Adjusted Margin +

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

Sinosure) shall not exceed the financing cost without Sinosure (applicable LIBOR + Approved Margin).

- After two years of operations, the Authority may consider making revisions in the O&M cost as per the legal framework being developed by NEPRA.

- In case the company earns annual profit in excess of the approved return on equity (including ROEDC), then that extra amount shall be shared between the power producer and consumers through claw back formula to be decided by the Authority in the framework being developed by NEPRA. For that sharing, the share of producer as given in the bonus energy mechanism shall be taken into account.

- The company will have to achieve financial close within one year from the date of issuance of tariff determination. The tariff granted to the company will no longer remain applicable/valid, if financial close is not achieved by the company, for whatever reason, in the abovementioned timeline or its generation license is declined/revoked by NEPRA.

- The targeted maximum construction period from prescribed date/time of financial close is 18 months. No adjustment will be allowed in this tariff to account for financial impact of any delay in project construction. However, the failure of the company to complete construction within 18 months will not invalidate the tariff granted to it.

- Pre COD sale of electricity is allowed to the project company, subject to the terms and conditions of EPA, at the reference tariff excluding debt servicing and return on equity components. However, pre COD sale will not alter the required commercial operations date stipulated by the EPA in any manner.

- In case the company is obligated to pay any tax on its income from generation of electricity, or any duties and/or taxes, not being of refundable nature, are imposed on the company, the exact amount paid by the company on these accounts shall be reimbursed on production of original receipts. This payment shall be considered as a pass-through payment. However, withholding tax on dividend shall not be a pass through item.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY

- No provision for the payment of Workers Welfare Fund and Workers Profit Participation has been made in the tariff. In case, the company has to pay any such fund, that will be treated as pass through item in the EPA.

- The approved tariff along with terms & conditions shall be made part of the EPA. General assumptions, which are not covered in this determination, may be dealt with as per the standard terms of the EPA.

21. The Order part along with two Annexures is recommended for notification by the Federal Government in the official gazette in accordance with Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

(Rafique Ahmed Shaikh)
Member

(Eng. Bahadur Khan)
Member

30/12/2020

(Rehmatullah Baloch)
Member

(Saif Ullah Chattha)
Vice Chairman
29.12.2020

(Tauseef H. Farooqi)
Chairman

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
AUTHORITY

12.01.21

Annex - I

Norinco International Thatta Power (Pvt.) Ltd.
Reference Tariff Table

Year	O&M Foreign	Insurance	Return on Equity	Return on Equity During Construction	Loan Repayment	Interest Charges	Tariff
	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh	Rs. / kWh
1	0.9582	0.1699	1.1188	0.1072	2.1048	1.6221	6.0811
2	0.9582	0.1699	1.1188	0.1072	2.2023	1.5247	6.0811
3	0.9582	0.1699	1.1188	0.1072	2.3042	1.4227	6.0811
4	0.9582	0.1699	1.1188	0.1072	2.4109	1.3160	6.0811
5	0.9582	0.1699	1.1188	0.1072	2.5226	1.2044	6.0811
6	0.9582	0.1699	1.1188	0.1072	2.6394	1.0876	6.0811
7	0.9582	0.1699	1.1188	0.1072	2.7616	0.9654	6.0811
8	0.9582	0.1699	1.1188	0.1072	2.8895	0.8375	6.0811
9	0.9582	0.1699	1.1188	0.1072	3.0232	0.7037	6.0811
10	0.9582	0.1699	1.1188	0.1072	3.1632	0.5637	6.0811
11	0.9582	0.1699	1.1188	0.1072	3.3097	0.4173	6.0811
12	0.9582	0.1699	1.1188	0.1072	3.4629	0.2640	6.0811
13	0.9582	0.1699	1.1188	0.1072	3.6233	0.1037	6.0811
14	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
15	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
16	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
17	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
18	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
19	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
20	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
21	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
22	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
23	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
24	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
25	0.9582	0.1699	1.1188	0.1072	-	-	2.3541
Levelized Tariff	**0.9582**	**0.1699**	**1.1188**	**0.1072**	**2.0654**	**0.8512**	**5.2707**

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
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Norinco International Thatta Power (Pvt.) Ltd.
Debt Service Schedule - Foreign

Relevant Quarters	Base amount (USD)	Principal Repayment (USD)	Interest (USD)	Balance Principal (USD)	Total Debt Service (Million USD)	Annual Principal Repayment Rs./kWh	Annual Interest Rs./kWh
1	73,728,787	1,047,303	839,034	72,681,484	1,886,337	2.1048	1.6221
2	72,681,484	1,059,222	827,115	71,622,262	1,886,337		
3	71,622,262	1,071,276	815,061	70,550,986	1,886,337		
4	70,550,986	1,083,467	802,870	69,467,520	1,886,337		
5	69,467,520	1,095,797	790,540	68,371,723	1,886,337	2.2023	1.5247
6	68,371,723	1,108,267	778,070	67,263,456	1,886,337		
7	67,263,456	1,120,879	765,458	66,142,578	1,886,337		
8	66,142,578	1,133,634	752,703	65,008,943	1,886,337		
9	65,008,943	1,146,535	739,802	63,862,408	1,886,337	2.3042	1.4227
10	63,862,408	1,159,583	726,754	62,702,825	1,886,337		
11	62,702,825	1,172,779	713,558	61,530,047	1,886,337		
12	61,530,047	1,186,125	700,212	60,343,922	1,886,337		
13	60,343,922	1,199,623	686,714	59,144,299	1,886,337	2.4109	1.3160
14	59,144,299	1,213,275	673,062	57,931,024	1,886,337		
15	57,931,024	1,227,082	659,255	56,703,942	1,886,337		
16	56,703,942	1,241,046	645,291	55,462,896	1,886,337		
17	55,462,896	1,255,169	631,168	54,207,727	1,886,337	2.5226	1.2044
18	54,207,727	1,269,453	616,884	52,938,274	1,886,337		
19	52,938,274	1,283,899	602,438	51,654,374	1,886,337		
20	51,654,374	1,298,510	587,827	50,355,864	1,886,337		
21	50,355,864	1,313,287	573,050	49,042,577	1,886,337	2.6394	1.0876
22	49,042,577	1,328,232	558,105	47,714,345	1,886,337		
23	47,714,345	1,343,348	542,989	46,370,997	1,886,337		
24	46,370,997	1,358,635	527,702	45,012,362	1,886,337		
25	45,012,362	1,374,096	512,241	43,638,266	1,886,337	2.7616	0.9654
26	43,638,266	1,389,733	496,603	42,248,532	1,886,337		
27	42,248,532	1,405,549	480,788	40,842,984	1,886,337		
28	40,842,984	1,421,544	464,793	39,421,440	1,886,337		
29	39,421,440	1,437,721	448,616	37,983,719	1,886,337	2.8895	0.8375
30	37,983,719	1,454,082	432,255	36,529,637	1,886,337		
31	36,529,637	1,470,630	415,707	35,059,007	1,886,337		
32	35,059,007	1,487,365	398,972	33,571,642	1,886,337		
33	33,571,642	1,504,292	382,045	32,067,350	1,886,337	3.0232	0.7037
34	32,067,350	1,521,410	364,926	30,545,940	1,886,337		
35	30,545,940	1,538,724	347,613	29,007,216	1,886,337		
36	29,007,216	1,556,235	330,102	27,450,981	1,886,337		
37	27,450,981	1,573,945	312,392	25,877,036	1,886,337	3.1632	0.5637
38	25,877,036	1,591,856	294,481	24,285,180	1,886,337		
39	24,285,180	1,609,972	276,365	22,675,208	1,886,337		
40	22,675,208	1,628,293	258,044	21,046,915	1,886,337		
41	21,046,915	1,646,823	239,514	19,400,092	1,886,337	3.3097	0.4173
42	19,400,092	1,665,564	220,773	17,734,528	1,886,337		
43	17,734,528	1,684,518	201,819	16,050,010	1,886,337		
44	16,050,010	1,703,688	182,649	14,346,323	1,886,337		
45	14,346,323	1,723,076	163,261	12,623,247	1,886,337	3.4629	0.2640
46	12,623,247	1,742,684	143,653	10,880,562	1,886,337		
47	10,880,562	1,762,516	123,821	9,118,046	1,886,337		
48	9,118,046	1,782,574	103,763	7,335,473	1,886,337		
49	7,335,473	1,802,859	83,478	5,532,614	1,886,337	3.6233	0.1037
50	5,532,614	1,823,376	62,961	3,709,238	1,886,337		
51	3,709,238	1,844,126	42,211	1,865,112	1,886,337		
52	1,865,112	1,865,112	21,225	(0)	1,886,337		

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA AUTHORITY