



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/R/SA(Tariff)/TRF-462/EBSPL-2019/14275-14277
June 4, 2020

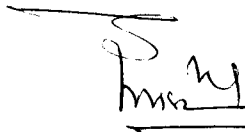
Subject: **Decision of National Electric Power Regulatory Authority in the matter of Motion for Leave for Review filed by M/s. Eneritech Bostan Solar (Pvt.) Ltd. against the Authority's Determination of Generation Tariff dated February 11, 2020 [Case # NEPRA/TRF-462/EBSPL-2019]**

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority along with Annex-I, II & III (17 Pages) in Case No. NEPRA/TRF-462/EBSPL-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 & III of the Authority's Decision are to be notified in the official Gazette.

Enclosure: As above


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(Syed Safer Hussain)

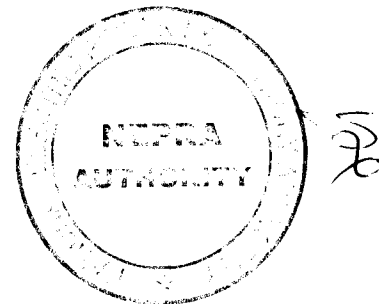
Secretary
Ministry of Energy (Power Division)
'A' Block, Pak Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.

**DECISION OF THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY IN THE MATTER OF MOTION
FOR LEAVE FOR REVIEW FILED BY ENERTECH BOSTAN SOLAR (PVT.) LIMITED AGAINST THE
AUTHORITY'S DETERMINATION OF GENERATION TARIFF DATED FEBRUARY 11, 2020**

1. Enertech Bostan Solar (Pvt.) Limited ("EBSPIL" or "the petitioner") is a company formed to develop a solar PV power project having capacity of 50 MW in Bostan, Baluchistan ("Project"). National Electric Power Regulatory Authority ("NEPRA" or "the Authority") awarded Generation License to EBSPIL on January 17, 2020. The Authority determined a levelized tariff of US Cents. 3.7604/kWh (PKR 5.8418/kWh) for the Project vide Tariff Determination dated February 11, 2020.
2. EBSPIL vide its letter dated February 13, 2020 filed the subject motion for leave for review requesting that its Tariff Determination ("Impugned Determination") may please be reviewed in respect of five parameters, i.e. Security Cost, EPC Cost, Project Development Cost, Return on Equity and Debt Financing. The petitioner has submitted the subject review motion under the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 and NEPRA (Tariff Standards & Procedure) Rules, 1998 and all other applicable provisions of NEPRA laws.
3. The Authority considered the review motion and decided to admit the same. It was also decided to provide the petitioner an opportunity of hearing to present its grounds for the subject review. Earlier, the Authority decided to schedule hearing on this matter on March 02, 2020 in NEPRA Regional Office. Quetta and notices for that purpose were issued to relevant parties and the petitioner on February 25, 2020 for participation in the hearing. However, later the Authority decided to adjourn the hearing and parties were informed about deferment through notices issued on February 27, 2020.
4. Subsequently, the Authority decided to hold hearing on subject matter on March 11, 2020 (Wednesday) at 03:00 P.M. at NEPRA Tower, Islamabad for which notices were issued to relevant parties and the petitioner on March 3, 2020. The hearing was held on March 11, 2020 which was attended by the petitioner and the representative of Central Power Purchasing Agency Guarantee Limited ("CPPAGL").



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Grounds of Review Motion

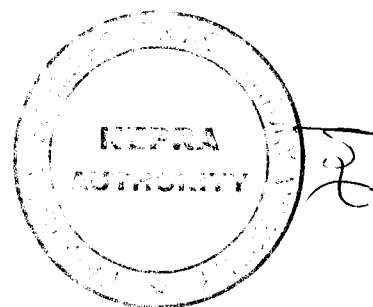
5. As stated above, the petitioner has requested the Authority for the review of following five parameters of the Impugned Determination:

- Adjustment on account of Security Costs
- Adjustments on account of Engineering, Procurement and Construction ("EPC") Costs
- Adjustments on account of Non EPC and Development Costs
- Adjustments on account of Return on Equity
- Adjustments on account of Financing

6. The submissions/arguments of the petitioner on the listed above parameters (both in the review motion and during the hearing) are discussed below.

i. **Adjustments on account of Security Costs:** FBSPI submitted that Directorate General, Balochistan Levies Force, Quetta vide letter dated October 30, 2018 has estimated annual security cost of Rs. 105,743,840 (for two projects of 50 MW each). The petitioner submitted that based on aforesaid estimation, it had requested the Authority to approve the security cost for the Project during the construction as well as for every year during the operation. However, the Authority vide its Impugned Decision has erroneously considered the aforesaid amount of security cost of the Project as a one-off cost only under the head of Project Development Cost (PDC) and not allowed the said amount for the operation phase. The petitioner also highlighted that the actual annual security costs are likely to be higher than the claim of the petitioner as the same neither includes any cost associated with the provision of security to the foreigners working for the Project nor the transportation costs of plant, machinery and equipment from the port to the Project's site. During the hearing, the petitioner submitted that security is a major consideration for any investment in the province of Baluchistan. FBSPI also presented the data of number of attacks in different provinces of Pakistan. Also, the statistics of number of attacks and casualties in the province of Balochistan over last five years were presented by FBSPI.

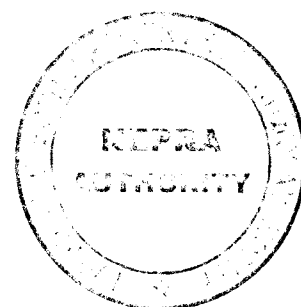
ii. **Adjustments on account of Engineering, Procurement and Construction ("EPC") Costs:** The petitioner submitted that the learned Authority has approved the EPC costs of USD 26.775 Million or USD 0.5355 Million per MW for the Project against the claim of USD 39.856 million. The petitioner submitted that it agrees that the EPC cost has reduced since the date it filed the tariff petition, however, there are certain associated costs which have been overlooked by the



Authority in the Impugned Determination. EBSPL also submitted that the Authority has completely ignored the fact that the EPC cost has been arrived at through a transparent and competitive bidding process which was carried out in accordance with the guidelines issued by the learned Authority. Further, the petitioner submitted the details of the grid cost of a 50 MW solar PV project and also presented the difference in cost of grid between a 50 MW and a 100 MW solar PV project. The petitioner also submitted that the Impugned Determination does not take into account a number of factors which is very specific to the Project which includes construction of concrete walls, security towers cost, construction of trenches, additional structural costs, additional cost of transportation etc. For the reasons mentioned above, the petitioner requested the learned Authority to revise the approved EPC costs upwards to the tune of USD 30.175 million.

- iii. **Adjustments on account of Non-EPC and Development Costs:** The petitioner submitted that it had requested to allow the total PDC of USD 1.513 million. The learned Authority in its Tariff Determination has approved the PDC of USD 1.2 Million on lump sum basis, inclusive of security costs, which amounts to USD 0.85 million only if the security costs are excluded. The petitioner submitted that it has been developing the Project since 2016. EBSPL highlighted that at the time of inception of the Project, the Balochistan Power Development Board ("BPDB") was not active and had not signed any memorandum of understanding with Alternative Energy Development Board (AEDB) for the issuance of Letter of Intents. It also submitted that the feasibility study of the Project prepared by the petitioner was the first feasibility study reviewed by the BPDB. It took a number of meetings in Quetta to formulate the relevant framework through which BPDB was able to formulate a Panel of Experts to review the studies. The petitioner also submitted that the Government of Balochistan did not have the relevant framework to grant lease of land for renewable power projects in the province. EBSPL stated that it tirelessly worked with the Government of Balochistan to support the Authorities in developing all these frameworks. EBSPL also submitted that it met all the expenses incurred to develop such frameworks which is not spent by most developers in Punjab and Sindh. Stating above, the petitioner requested the Authority to allow USD 1.513 million under PDC and also requested to review the mechanism for calculation of the development cost under a single reference exchange rate.
- iv. **Adjustments on account of Return on Equity:** The petitioner submitted that the Authority has unilaterally reduced the Rate of Return (ROI) from 15% to 14% on the basis of the most recent comparable tariff cases of renewable technologies. It submitted that the Project is situated in a high risk zone. Further, Corporate Social Responsibility (CSR) requirements have been

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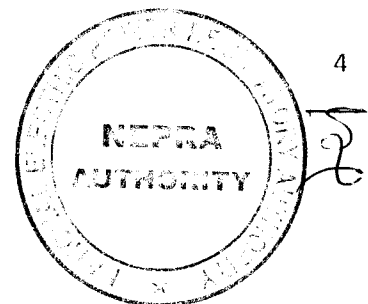
imposed on the Petitioner which further justifies the need for a higher return. The petitioner requested the Authority to review ROF and allow 15% to the petitioner.

- v. **Adjustment on Account of Financing:** EBSPI submitted that the Authority in the Tariff Determination has allowed debt financing to be split 50:50 between foreign and local portions. For local portion, the terms being offered by the State Bank of Pakistan (SBP) under its concessionary financing for renewable energy projects have been used. It has been stated in the Impugned Determination that any savings in the financing cost from the benchmark rate under the determination shall be shared 60:40 between the power purchaser and the power producer. EBSPI submitted that cost of doing business in Balochistan is much higher than any other part of Pakistan. A major portion of this additional costs relates to security that adds on to development, construction and operational cost which is negligible in Punjab, Sindh or even Khyber Pakhtunkhwa. In order to keep tariff low, the petitioner submitted that it is approaching various donors to include some concessional funding to offset these additional costs. Considering Balochistan being challenging and conflict oriented area, the concessional funding is expected which shall help this landmark project in Quetta, Balochistan. The objective of this concessional financing is to support the sponsors developing projects in underdeveloped regions in covering any incremental or project specific costs which may not have been allowed under the tariff. Stating above, EBSPI requested to allow it flexibility on the mode of financing provided that the petitioner is able to match the cost of local finance through fixed rate foreign currency financing for a longer tenor. The change in financing will not have any adverse impact on the tariff. Furthermore, the EBSPI requested to allow 100% savings on the concessional financing rather than the 60:40 split as this financing will only be provided to cover the extra costs of building and operating a project in Balochistan.
7. The representative of CPPACI reiterated the comments it submitted during the proceedings of the Impugned Determination, i.e. the tariff to the petitioner should not be granted under Tariff Rules, 1998 as it falls under the category 3 of the decision made by Cabinet Committee on Energy issued on April 04, 2019.

Analysis and Decision of the Authority

8. The Authority noted that most of the submissions made with respect to aforesaid parameters were already deliberated upon in the Impugned Determination. The Authority noted that it approved the FPC cost of the Project while considering all the project specific factors as presented by the petitioner. It has also been noted that the O&M cost that has been allowed to the Project is higher

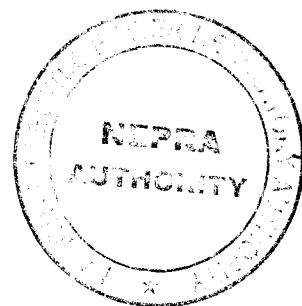
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than all the comparable solar PV projects whose determinations have been issued in the recent past to actually account for the higher cost of security in the area where the Project is being developed. Likewise, relatively higher PDC was allowed to Project when compared with other solar PV projects whose tariffs had been determined for the 1st time. In view thereof, the Authority has decided to maintain its decision in respect of FPC Cost, O&M/Security cost and PDC.

9. With respect to the financing, the Authority is of the view that as the better terms of financing are available under the SBP Refinancing Scheme (at fixed rate and without exposure to the risk of exchange rate variations), hence, the petitioner is directed to obtain local debt on priority basis under the said Scheme. For the provision of commercial local/foreign financing in place of SBP portion of debt, the petitioner shall be required to first exhaust the option of securing loan under SBP Scheme. The company shall have to submit a documentary evidence issued by SBP or commercial bank as a proof that it exhausted the option of availing financing under SBP scheme before going for conventional local/foreign financing in place thereof. It has also been decided that there will not be any change in the sharing mechanism as given in the Impugned Determination in case the petitioner negotiate and achieves better terms than the benchmarks.
10. The Authority further decided that the petitioner is encouraged to obtain foreign financing at the best possible terms and preferably on concessionary fixed rates and for longer debt servicing tenor. For foreign financing on fixed rates, the total cost should not go beyond the level of approved spread, i.e. 4.25%. To encourage the petitioner to opt for this financing, the Authority has decided that it shall be allowed the margin of 0.25% in addition to the fixed cost on which it secures foreign financing, however, the total fixed cost should not go beyond the level of 4.25%.
11. The Authority has deliberated in detail the arguments put forth by the petitioner in respect of review of ROE from 14% to 15%. The Authority also considered that the Government of Balochistan has asked the company to carry out a number of activities for the good of the people of the Province which actually require a significant amount of money. Considering the relatively lower values of different indicators of human development in the province of Balochistan, the Authority has decided to allow 1% additional ROE to the petitioner in respect of carrying out social responsibilities in the province as identified and required by the Government of Balochistan from time to time. For that purpose, the petitioner shall be required to submit a report on annual basis (every year for 25 years) detailing the amount of 1% of ROE + ROI.DC (adjusted value of that year) that has been spent for the purpose of social work in the province. It is hereby directed that the company, post retirement of its annual debt servicing and meeting necessary expenditures, shall first spend the revenue it receives on these social activities.

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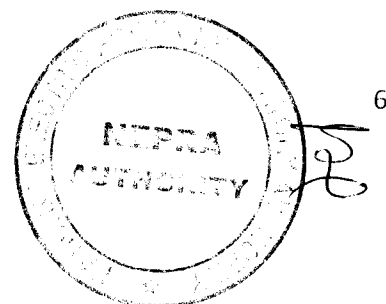
12. The Authority also noted that the comments raised by CPPACI during the hearing had already been considered and addressed in the Impugned Determination.

13. **ORDER**

In pursuance of section 7(3)(a) read with the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 and NEPRA (Tariff Standards & Procedure) Rules, 1998, the Authority hereby determines and approves the generation tariff along with terms and conditions for Enertech Bostan Solar (Pvt.) Limited (EBSPL) for its 50 MWp solar power project for delivery of electricity to the power purchaser as follows:

- Levelized tariff works out to be Rs. 5.9364/kWh (US Cents 3.8213/kWh).
- The tariff has been worked out on Build, Own and Operate and Transfer basis.
- EPC cost of USD 26.775 million has been approved.
- Project Development Cost of USD 1.200 million has been approved.
- Insurance during construction at the rate of 0.4% of the approved EPC cost has been approved.
- Financing fee at the rate of 2% of the debt portion of the capital cost has been approved.
- Debt to Equity ratio of 80:20 has been approved.
- Financing mix of 50% local and 50% foreign has been used.
- ROE and ROI DC of 15% has been allowed.
- Equity redemption has been made from 16th till 25th year.
- The cost of debt of 5.5% (SBP scheme) has been used for local financing.
- The cost of debt of 3 month LIBOR (1.9055%) + spread (4.25%) has been used for foreign financing.
- Debt servicing period of 10 years from COD has been used for local financing under SBP scheme.
- Debt servicing period of 14 years from COD has been used for foreign financing.
- O&M Cost of USD 10,000 per MW per year has been allowed.
- Insurance during Operation has been calculated as 0.40% of the allowed EPC Cost.
- Construction period of 10 months has been allowed.
- Net Annual Plant Capacity Factor of 22.4% has been approved.

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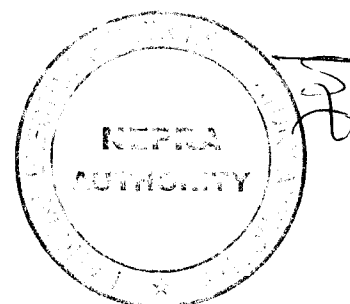
- Reference Exchange Rates of 155.35 PKR/USD has been used.
- IDC and ROI IDC have been worked out using following drawdown schedule:

Month 1	5.00%
Month 2	5.00%
Month 3	5.00%
Month 4	15.00%
Month 5	15.00%
Month 6	15.00%
Month 7	6.67%
Month 8	6.67%
Month 9	13.33%
Month 10	13.33%

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

A. One Time Adjustments at COD

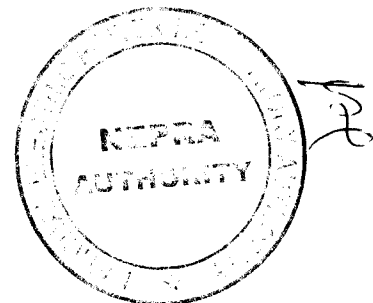
- The EPC cost shall be verified and adjusted at actual considering the approved amount as the maximum limit. Applicable foreign portion of the EPC cost will be adjusted at COD on account of variation in PKR/USD parity during the construction period, on production of authentic documentary evidence by the petitioner to the satisfaction of the Authority. The adjustment in approved EPC cost shall be made for the currency fluctuation against the reference parity values.
- PDC, insurance during construction and Financing Fee and 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 155.35 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.
- 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 IRR 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 10 months starting from the date of financial close. For foreign loan, the 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 10 months from the date of financial close.
- For foreign loan, the savings in the approved spreads shall be shared between the power purchaser and power producer in the ratio of 60:40. To compute the saving in cost of local financing under SBP scheme, the rate of 6% as given in the said scheme shall be taken into account and then the computed savings shall be shared between power purchaser and power producer in the ratio of 60:40.

B. Indexations

Adjustment of O&M, ROE, ROEDC, applicable Debt Servicing Components shall be made on quarterly basis to be applicable from 1st July, 1st October, 1st January and 1st April. Adjustment of Debt Servicing Components, where applicable, may also be allowed on bi-annual basis depending upon the final terms approved by the Authority at the time of COD. For bi-annual adjustments, the periods shall start from 1st July and 1st January. Insurance component shall be adjusted on annual basis starting from either 1st January or 1st July. Land cost component shall remain fixed during the tariff control period and no adjustment shall be applicable thereon. The indexation mechanisms are given hereunder:



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i) Operation and Maintenance Costs

O&M component of tariff shall be adjusted on account of change in local Inflation (CPI) as notified by the Pakistan Bureau of Statistics according to the following mechanism:

$L.O\&M (RI V)$	$L.O\&M (RI I) * CPI (RI V) / CPI (RI I)$
Where:	
$L.O\&M (RI V)$	the revised O&M Local Component of Tariff
$L.O\&M (RI I)$	the reference O&M Local Component of Tariff
$CPI (RI V)$	the revised CPI (General)
$CPI (RI I)$	the reference CPI (General) of 263.59 for the month of November, 2019

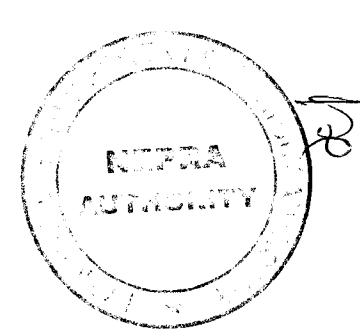
Note: The reference index of CPI shall be revised for making the required adjustments in O&M component at the time of COD. For the adjustment of O&M component at COD, the revised CPI value for the middle month of preceding quarter prior to the date of COD shall be considered. Thereafter, the CPI value taken at COD shall be the reference for subsequent adjustments in the 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	$Ins (Act) / P (Ref) * P (Act)$
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. 105/USD
$P (Act)$	Actual premium or 0.4% of the approved EPC Cost converted into Pak Rupees on exchange rate prevailing on last day of the insurance coverage period whichever is lower

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iii) **Return on Equity**

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

ROI (Rev)	$ROI (Ref) * ER (Rev) / ER (Ref)$
Where:	
ROI (Rev)	Revised ROI Component of Tariff
ROI (Ref)	Reference ROI Component of Tariff
ER (Rev)	Revised IT & OD selling rate of US dollar as notified by National Bank of Pakistan
ER (Ref)	Reference IT & OD selling rate of Rs. 155.35/USD

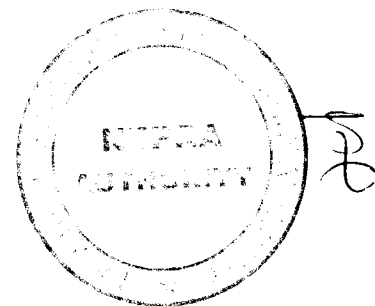
Note: The reference ROI component shall be revised after making the required adjustments at the time of COD.

iv) **Indexations applicable**

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

v) **Variations in LIBOR**

The interest part of tariff component for the loan shall remain unchanged throughout the term except for the adjustment due to variation in interest rate as a result of variation in LIBOR according to the following formula:



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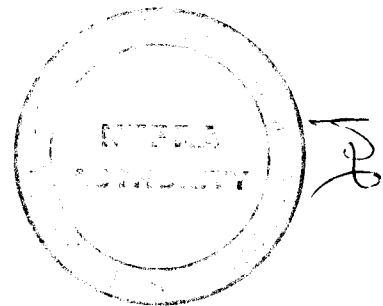
ΔI	$(REV - LIBOR (REV) - 1.9055\%) / 4$
Where:	
ΔI	variation in interest charges applicable corresponding to variation in 3 month LIBOR. ΔI can be positive or negative depending upon whether 3 month LIBOR (REV) per annum > or < 1.9055%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter after under adjustment.
P (REV)	outstanding principal (as indicated in the attached service schedule to this order), at the relevant quarterly calculations date. Quarter 1 shall commence on commercial operations date (i.e. the first figure will be for the purposes of calculation of interest for the first quarter after commercial operations date)
LIBOR (REV)	adjusted 3 month LIBOR as at the last day of the preceding quarter.

Note: The reference component shall be revised after making the required adjustment 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 shall be done by the independent engineer at the time of the commissioning of the project 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 22.40% net annual plant capacity factor. Net annual energy generation supplied to the power purchaser in a year, in excess of 22.40% net annual plant capacity factor, will be charged at the following tariffs:

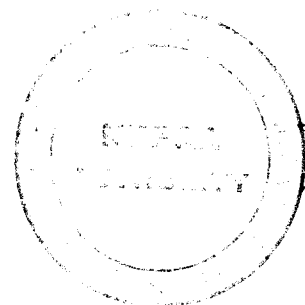


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Plant Capacity Factor	% of prevalent tariff allowed to power producer
Above 22% up to 23%	
Above 23% up to 23.75%	20%
Above 23.75% to 24.5%	40%
Above 24.5% to 25.25%	80%
Above 25.25%	90%

- The risk of solar resource shall be borne by the power producer.
- The maximum plant PV capacity shall not exceed 50 MWp.
- In the above tariff no adjustment for certified emission reductions has been accounted for. However, upon actual generation of carbon credits, the same shall be distributed between the power purchaser and power producer in accordance with the applicable GOP Policy, amended from time to time.
- The petitioner is required to ensure that all the equipment is installed as per the details/specifications in the generation license as awarded by NEPRA.
- The petitioner is hereby required to secure the maximum available loan under the SBP scheme. The savings in the cost of financing under SBP scheme shall be shared between power purchaser and power producer in the ratio of 60:40 at the time of COD or during any time of the loan tenor, as applicable. To compute that saving, the cost/spread as given in the SBP scheme shall be taken into account. The savings in the approved limit of spread on 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.
- Allowed limit of degradation has been made part of the approved project cost. No extra financial compensation shall be provided in the EPA.
- The company will have to have financial close within one year from the date of issuance of Impugned Determination. The tariff granted to the company will no longer remain applicable/valid.

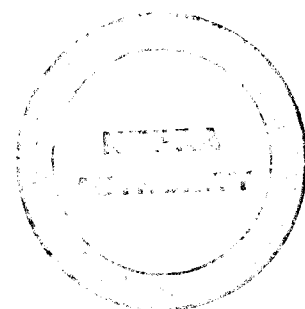
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if financial close is not achieved by the company, for whatever reason, in the abovementioned timeline or its generation license is declined/revoked by NEPRA.

- The targeted maximum construction period from prescribed date/time of financial close is 10 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 10 months will not invalidate the tariff granted to it.
- The company shall be required to submit a report to the Authority on annual basis (every year for 25 years) detailing the amount of 1% of ROE + ROEDC (adjusted/indexed value of that year) has been spent for the purpose of social work in the province of Balochistan.
- The tariff has been calculated and approved on Build, Own, Operate and Transfer basis. Relevant agencies, prior to signing the security/concession and other documents, may consider the arrangements decided between GOB and project company for the transfer of the project after completion of tariff control period of 25 years.
- Pre COD sale of electricity is allowed to the power producer, subject to the terms and conditions of EPA, at the applicable tariff excluding debt servicing and return components. However, pre COD sales shall be after the required COD stipulated in the EPA in any manner.
- In case the company is required to pay any tax on its income from generation of electricity, or any duties and/or taxes, which are 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 amount shall be considered as a pass through payment. However, withholding tax on dividends will not be passed through.
- 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 covered in this determination, may be dealt with as per the standard terms of the contract.

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Decision of the Authority in the matter of review motion filed by
Enertech Bostan Solar (Pvt.) Limited

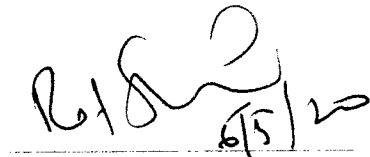
14. The Order part along with 3 Annexures is recommended for notification by the Federal Government in the official gazette in accordance with Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY




(Saif Ullah Chattha)

Member



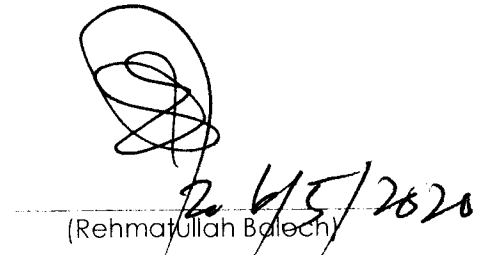
(Rafique Ahmed Shaikh)

Member



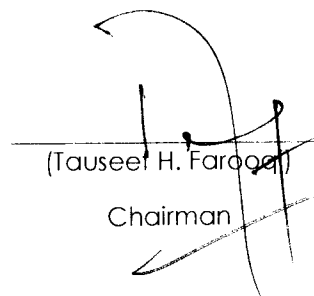
(Eng. Bahadur Khan)

Vice Chairman



(Rehmatullah Batech)


Member



(Tauseef H. Farooq)

Chairman





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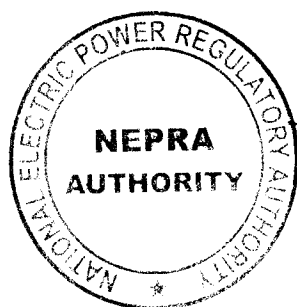
**ENERTECH BOSTAN SOLAR (PVT.) LIMITED
REFERENCE TARIFF TABLE**

Year	Land Cost	O&M	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	Rs. / kWh
1	0.0689	0.7917	0.1696	1.4247	0.0859	2.3527	2.1640	7.0575
2	0.0689	0.7917	0.1696	1.4247	0.0859	2.4908	2.0259	7.0575
3	0.0689	0.7917	0.1696	1.4247	0.0859	2.6371	1.8796	7.0575
4	0.0689	0.7917	0.1696	1.4247	0.0859	2.7920	1.7247	7.0575
5	0.0689	0.7917	0.1696	1.4247	0.0859	2.9560	1.5606	7.0575
6	0.0689	0.7917	0.1696	1.4247	0.0859	3.1297	1.3869	7.0575
7	0.0689	0.7917	0.1696	1.4247	0.0859	3.3137	1.2030	7.0575
8	0.0689	0.7917	0.1696	1.4247	0.0859	3.5085	1.0082	7.0575
9	0.0689	0.7917	0.1696	1.4247	0.0859	3.7147	0.8019	7.0575
10	0.0689	0.7917	0.1696	1.4247	0.0859	3.9332	0.5835	7.0575
11	0.0689	0.7917	0.1696	1.4247	0.0859	4.1630	0.4038	4.5751
12	0.0689	0.7917	0.1696	1.4247	0.0859	4.4043	0.3011	4.5751
13	0.0689	0.7917	0.1696	1.4247	0.0859	4.6571	0.1920	4.5751
14	0.0689	0.7917	0.1696	1.4247	0.0859	4.9214	0.0759	4.5751
15	0.0689	0.7917	0.1696	1.4247	0.0859	-	-	2.5408
16	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
17	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
18	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
19	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
20	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
21	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
22	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
23	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
24	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
25	0.0689	0.7917	0.1696	1.8209	0.0859	-	-	2.9370
Levelized Tariff	0.0689	0.7917	0.1696	1.4889	0.0859	2.2353	1.0961	5.9364



ENERTECH BOSTAN SOLAR (PVT.) LIMITED
Debt Servicing Schedule-Local

Relevant Quarters	Base amount (Rs.)	Principal Repayment (Rs.)	Interest (Rs.)	Balance Principal (Rs.)	Total Debt Service (Rs)	Annual Principal Repayment Rs./kWh	Annual Interest Rs./kWh
1	1,863,766,526	35,261,173	25,626,790	1,828,505,353	60,887,963		
2	1,828,505,353	35,746,014	25,141,949	1,792,759,339	60,887,963	1.4675	1.0149
3	1,792,759,339	36,237,522	24,650,441	1,756,521,817	60,887,963		
4	1,756,521,817	36,735,788	24,152,175	1,719,786,030	60,887,963		
5	1,719,786,030	37,240,905	23,647,058	1,682,545,125	60,887,963		
6	1,682,545,125	37,752,967	23,134,995	1,644,792,158	60,887,963	1.5499	0.9325
7	1,644,792,158	38,272,070	22,615,892	1,606,520,088	60,887,963		
8	1,606,520,088	38,798,311	22,089,651	1,567,721,776	60,887,963		
9	1,567,721,776	39,331,788	21,556,174	1,528,389,988	60,887,963		
10	1,528,389,988	39,872,600	21,015,362	1,488,517,388	60,887,963	1.6369	0.8455
11	1,488,517,388	40,420,848	20,467,114	1,448,096,540	60,887,963		
12	1,448,096,540	40,976,635	19,911,327	1,407,119,905	60,887,963		
13	1,407,119,905	41,540,064	19,347,899	1,365,579,841	60,887,963		
14	1,365,579,841	42,111,240	18,776,723	1,323,468,601	60,887,963	1.7288	0.7536
15	1,323,468,601	42,690,269	18,197,693	1,280,778,332	60,887,963		
16	1,280,778,332	43,277,260	17,610,702	1,237,501,072	60,887,963		
17	1,237,501,072	43,872,323	17,015,640	1,193,628,749	60,887,963		
18	1,193,628,749	44,475,567	16,412,395	1,149,153,182	60,887,963	1.8259	0.6565
19	1,149,153,182	45,087,106	15,800,856	1,104,066,075	60,887,963		
20	1,104,066,075	45,707,054	15,180,909	1,058,359,021	60,887,963		
21	1,058,359,021	46,335,526	14,552,437	1,012,023,495	60,887,963		
22	1,012,023,495	46,972,639	13,915,323	965,050,856	60,887,963	1.9284	0.5540
23	965,050,856	47,618,513	13,269,449	917,432,343	60,887,963		
24	917,432,343	48,273,268	12,614,695	869,159,075	60,887,963		
25	869,159,075	48,937,025	11,950,937	820,222,050	60,887,963		
26	820,222,050	49,609,909	11,278,053	770,612,140	60,887,963	2.0367	0.4457
27	770,612,140	50,292,046	10,595,917	720,320,095	60,887,963		
28	720,320,095	50,983,561	9,904,401	669,336,534	60,887,963		
29	669,336,534	51,684,585	9,203,377	617,651,949	60,887,963		
30	617,651,949	52,395,248	8,492,714	565,256,700	60,887,963	2.1510	0.3314
31	565,256,700	53,115,683	7,772,280	512,141,017	60,887,963		
32	512,141,017	53,846,024	7,041,939	458,294,994	60,887,963		
33	458,294,994	54,586,406	6,301,556	403,708,588	60,887,963		
34	403,708,588	55,336,969	5,550,993	348,371,618	60,887,963	2.2718	0.2106
35	348,371,618	56,097,853	4,790,110	292,273,765	60,887,963		
36	292,273,765	56,869,198	4,018,764	235,404,567	60,887,963		
37	235,404,567	57,651,150	3,236,813	177,753,418	60,887,963		
38	177,753,418	58,443,853	2,444,109	119,309,564	60,887,963	2.3993	0.0830
39	119,309,564	59,247,456	1,640,507	60,062,109	60,887,963		
40	60,062,109	60,062,109	825,854	0	60,887,963		



ENERTECH BOSTAN SOLAR (PVT.) LIMITED
Debt Servicing Schedule-Foreign

Relevant Quarters	Base amount (USD)	Principal Repayment (USD)	Interest (USD)	Balance Principal (USD)	Total Debt Service (USD)	Annual Principal Repayment Rs./kWh	Annual Interest Rs./kWh
1	11,997,210	136,569	184,622	11,860,641	321,191		
2	11,860,641	138,671	182,520	11,721,970	321,191	0.8851	1.1491
3	11,721,970	140,805	180,386	11,581,166	321,191		
4	11,581,166	142,971	178,220	11,438,194	321,191		
5	11,438,194	145,171	176,020	11,293,023	321,191		
6	11,293,023	147,405	173,786	11,145,617	321,191	0.9409	1.0934
7	11,145,617	149,674	171,517	10,995,944	321,191		
8	10,995,944	151,977	169,214	10,843,966	321,191		
9	10,843,966	154,316	166,875	10,689,650	321,191		
10	10,689,650	156,691	164,500	10,532,960	321,191	1.0002	1.0341
11	10,532,960	159,102	162,089	10,373,858	321,191		
12	10,373,858	161,550	159,641	10,212,308	321,191		
13	10,212,308	164,036	157,155	10,048,271	321,191		
14	10,048,271	166,561	154,630	9,881,711	321,191	1.0632	0.9711
15	9,881,711	169,124	152,067	9,712,587	321,191		
16	9,712,587	171,726	149,465	9,540,860	321,191		
17	9,540,860	174,369	146,822	9,366,491	321,191		
18	9,366,491	177,052	144,139	9,189,439	321,191	1.1301	0.9042
19	9,189,439	179,777	141,414	9,009,662	321,191		
20	9,009,662	182,544	138,647	8,827,118	321,191		
21	8,827,118	185,353	135,838	8,641,766	321,191		
22	8,641,766	188,205	132,986	8,453,561	321,191	1.2013	0.8330
23	8,453,561	191,101	130,090	8,262,459	321,191		
24	8,262,459	194,042	127,149	8,068,417	321,191		
25	8,068,417	197,028	124,163	7,871,389	321,191		
26	7,871,389	200,060	121,131	7,671,329	321,191	1.2770	0.7573
27	7,671,329	203,139	118,052	7,468,190	321,191		
28	7,468,190	206,265	114,926	7,261,925	321,191		
29	7,261,925	209,439	111,752	7,052,486	321,191		
30	7,052,486	212,662	108,529	6,839,824	321,191	1.3574	0.6769
31	6,839,824	215,935	105,256	6,623,890	321,191		
32	6,623,890	219,258	101,933	6,404,632	321,191		
33	6,404,632	222,632	98,559	6,182,000	321,191		
34	6,182,000	226,058	95,133	5,955,943	321,191	1.4429	0.5913
35	5,955,943	229,536	91,655	5,726,406	321,191		
36	5,726,406	233,069	88,122	5,493,337	321,191		
37	5,493,337	236,655	84,536	5,256,682	321,191		
38	5,256,682	240,297	80,894	5,016,385	321,191	1.5338	0.5005
39	5,016,385	243,995	77,196	4,772,390	321,191		
40	4,772,390	247,750	73,441	4,524,640	321,191		
41	4,524,640	251,562	69,629	4,273,077	321,191		
42	4,273,077	255,434	65,757	4,017,644	321,191	1.6304	0.4038
43	4,017,644	259,364	61,827	3,758,279	321,191		
44	3,758,279	263,356	57,835	3,494,923	321,191		
45	3,494,923	267,408	53,783	3,227,515	321,191		
46	3,227,515	271,524	49,667	2,955,991	321,191	1.7331	0.3011
47	2,955,991	275,702	45,489	2,680,289	321,191		
48	2,680,289	279,945	41,246	2,400,345	321,191		
49	2,400,345	284,253	36,938	2,116,092	321,191		
50	2,116,092	288,627	32,564	1,827,465	321,191	1.8423	0.1920
51	1,827,465	293,069	28,122	1,534,396	321,191		
52	1,534,396	297,579	23,612	1,236,818	321,191		
53	1,236,818	302,158	19,033	934,660	321,191		
54	934,660	306,808	14,383	627,852	321,191	1.9584	0.0759
55	627,852	311,529	9,662	316,323	321,191		
56	316,323	316,323	4,868	0	321,191		

