



National Electric Power Regulatory Authority (NEPRA)

NOTICE OF ADMISSION/HEARING

Tariff Petition filed by Private Power Infrastructure Board (PPIB) for the Determination of Tariff for Matiari-Lahore \pm 660 KV Transmission Line Project

1. All stakeholders, interested/affected persons and the general public are hereby informed that the Authority has admitted a tariff petition filed by the Private Power Infrastructure Board (PPIB) for Matiari-Lahore \pm 660KV HVDC Transmission Line Project. This will be the first HVDC Line in Pakistan. Salient features of the petition are as under:

Petitioner	Private Power Infrastructure Board (PPIB)
Developer/Project Sponsor	State Grid of China/China Electric Power Equipment and Technology Co.Ltd
Design Transmission Capability	4000MW
Design Transmission Capability (Converted into kWh)	35,040,000,000
Length of the Transmission Line (Matiari to Lahore)	878 km
Voltage Level	\pm 660 kV HVDC
Conductor	4*1,250 mm ²
Allowed Loss Ratio	4.3% per annum for Bi-pole operations

2. **Project Cost:** Following are the details of the Project Cost as stated in the petition:

S.No	Project Cost Heads	Project Cost
i.	EPC Cost	1,757.20
ii.	Non EPC Costs/Development Cost	32.921
iii.	Financial Charges @ 3.5% of Debt	58.61
iv.	NTDC Development Cost	15.21
v.	Insurance during construction*	-
vi.	Sinosure fee/premium	21.26
vii.	Taxes	106.31
	Project Cost excluding IDC	1,991.71
viii.	Interest during construction	108.67
	Total Project Cost including IDC	2,100.38

*Note: It is stated in the petition that the study to ascertain insurance is under process and shall be submitted for consideration of NEPRA upon completion.

3. **Proposed Tariff:** Following tariff has been requested in the petition:

Tariff Break-Up (Levelized Tariff)	PKR/kWh	US Cents/kWh
Fixed O & M- Foreign	0.111	0.107
Fixed O & M- ITC Local	0.059	0.057
Fixed O & M- NTDC O & M Local	0.050	0.048
Land Lease	0.007	0.007
Insurance Cost	-	-
Sinosure Fee	0.015	0.014
Debt Service	0.435	0.420
Return On Equity (ROE)	0.218	0.211
Return On Equity including ROEDC	0.051	0.049
Total Tariff (Year 1-30)	0.946	0.914

4. **Assumptions:** The requested tariff is based on the following assumptions:

Debt: Equity	80:20
Interest Rate	Foreign Financing = 0.45% (Six Month LIBOR) + 4.75% Local Financing = 8.5% (6 month KIBOR) + 3.5%
Debt Payment Schedule	Semi-annual payment inclusive of principal and interest
Loan Tenure	Loan Tenure 10 years repayment period plus 27 months grace/availability period
Construction Period	27 months
Reference Exchange Rate	1 USD Dollar = Rs.103.5
NPV Discount	10%
Terms of the Project (BOOT)	25 years from COD
Return on Equity (ROE) IRR Based	17%
Withholding Tax on Dividends	Nil-Pass through as per actual
Corporate Income Tax	Pass through upto first ten (10) years from COD as per Transmission Policy 2015

5. Based on the given information, the following is the summary of major issues framed so far for the subject hearing:

- Is the tariff petition submitted by PPIB duly approved by its Board & submitted after its due diligence on reasonableness for capital and operational costs claimed?
- Have the issues highlighted by NTDC appointed consultants been addressed? If yes, what changes have been proposed in the Project Design and Cost?

- Whether the option of HVDC instead of HVAC is justifiable? Has N - 1 contingency made available for this transmission line?
 - What is the rationale and criteria for the selection of \pm 660 KV HVDC instead of 500 \pm KV? What is the estimated resultant impact on consumer end tariff?
 - What will be the technical and financial impact of varying power transfer from 4000 MW to 3000 MW?
 - What is the status of SGCC/CET application for a Special Purpose Transmission License for the Proposed Project & compliance with the Section 19 of NEPRA Act, 1997?
 - Whether the proposed/claimed EPC Project Cost is competitive and comparative internationally?
 - Is the EPC and O&M cost claimed rational in view of SGCC also built Ningdong-Shandong HVDC Transmission Line (also a \pm 660 kV 4000 MW)?
 - Has the tower design been optimized to minimize the cost and ROW incidents?
 - As CET will be the only EPC contractor, are the overlaps of substantial Project Management costs being claimed under sub-components of EPC justified?
 - Whether the Non-EPC cost is Justifiable? Particularly for NTDC Development Costs, Advisors and Consultants, high HR cost?
 - What is the justification for additional cost being claimed on account of Security when GOP has to make necessary arrangements for the Project?
 - What will be the difference of scope and responsibilities between foreign & local O&M Contractors to be engaged for US\$ 37.6 M and US \$ 19.95 M respectively?
 - Is the high 'Administration' cost justified for local O&M total cost for Converter Stations?
 - Does NTDC have the required capacity to carry out O&M operations and render quality service for a HVDC Transmission Line?
 - What are the major differences in design from the earlier parameters proposed by SNC-LAVALIN in their feasibility study?
 - Has NTDC carried out interconnection studies, including load flows, short-circuit and transient stability studies for the Project?
 - Has the Petitioner taken into account the proposed RLNG based and Coal based Generation Plants near load centre in finalizing the design of line?
 - What is the rationale of the proposed losses and non-penalized 1.5% non-availability period for transmission line in view of International practices for an HVDC line?
 - Has NTDC evaluated the option of building this transmission line through own resources or funding? Does NTDC has financial capacity to meet obligations for this line?
 - Have the reliability of transmission networks in accordance with NEPRA Performance Standards (Transmission) Rules-2005 been evaluated and confirmed?
 - What international Standards will be complied with for the type/make/model number of equipment/materials & how their compliance will be monitored and ensured?
 - Whether the claimed IRR of 17% & spread of 4.75% over LIBOR justified particularly with GOP providing guarantee for securing payment obligation?
 - Whether the construction period of 27 months is reasonable?
 - Do the NTDC have the required financial health & working capital to meet payments obligations for Transmission Service Charges?
 - What will be the allied cost of A.C lines? What additional cost will be borne for system stability with the proposed induction of HVDC
 - What is the estimated timeline for ROW acquisition by NTDC? Has the necessary approval been taken for ROW from the concerned Provincial and related Authorities?
 - What is the segment-wise ROW cost that has been worked out? Will ROW be acquired at official rates?
 - Have all the environmental issues been taken care of?
For a detailed list of issues framed, and a copy of the Petition, please visit the official website: www.nepra.org.pk.
8. The Authority has decided to hold a hearing on the subject matter as per the following schedule:
- Time: 1100 Hours
Date: 24th March 2016
Venue: Auditorium, NEPRA Tower, Sector G-5/1, Islamabad
7. Interested persons who desire to participate in the proceedings may file an intervention request within seven (7) days from the date of publication of this notice. Such intervention requests shall state the name and address of the person filing it, objections and the manner in which such person is or is likely to be substantially and specifically affected by any determination in the proceedings. The intervention request may also contain the contentions of the person making the request, the relief sought and the evidence, if any, in support of the case.
8. Anyone may also file comments on the matter within seven (7) days of publication of this notice and the Authority, if deems it fit, may permit participation of this person in the proceedings and also may consider those comments in the final determination.

NEPRA Tower, Sector G-5/1, Islamabad
24th March 2016

نیشنل الیکٹرک پاور ریگولیشن اتھارٹی (نیپرا)



داخلہ نمٹنے کے متعلق

پرائیویٹ پاور انفراسٹرکچر بورڈ (PPIB) کی جانب سے متعلق ± 660 KV (Matari) کی جانب سے

1۔ تمام اسٹیک ہولڈرز، خواہ مخواہ اسٹارڈ افراد اور عوام الناس کو گاہ کیا جاتا ہے کہ قرارداد نے پرائیویٹ پاور انفراسٹرکچر بورڈ (PPIB) کی جانب سے متعلق ± 660 KV (Matari) کی جانب سے فراہم کیے گئے فائل کردہ تعریف پیشکش داخل کر لی ہے۔ یہ پاکستان میں پہلی ایچ وی ڈی کی لائن ہوگی۔ پیشکش کی تفصیلات مندرجہ ذیل ہیں:-

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6۔ قرارداد نے متعلقہ معاملے میں درج ذیل شرائط متعلقہ کے انعقاد کا فیصلہ کیا ہے:-

وقت: دن 11:00 بجے

تاریخ: 24 مارچ 2016

مقام: آڈیٹر جنرل، ممبرانہ اور سیکٹر 5-G اسلام آباد

7۔ کارروائی میں شرکت کا خواہش مند کوئی بھی شخص نوٹس ہذا کی اشاعت کے 7 دنوں کے اندر داخلات کی درخواست جمع کر سکتا ہے۔ اس درخواست میں فرد کا نام، پتہ، اعتراضات بیان کرے اور بتائے کہ وہ کارروائی میں کس طرح، کس خاص حد تک اثر انداز ہو سکتا ہے۔ کسی کی معاونت میں، داخلات کی درخواست، فرد کے تنازعات، تعلیف اور جوت، اگر ہیں، پر بھی مبنی ہو سکتی ہے۔

8۔ کوئی بھی شخص اس معاملے میں اشتہار ہذا کی اشاعت کے 7 دنوں کے اندر داخلات بھی پیش کر سکتا ہے اور قرارداد، اگر مناسب سمجھے تو ایسے شخص کو کارروائی میں شامل ہونے کی اجازت دے سکتی ہے اور وہ آزادانہ جہتی نہیں میں کسی زیر غور لائی جاسکتی ہیں۔