



National Electric Power Regulatory Authority Islamic Republic of Pakistan

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad
Ph: +92-51-9206500, Fax: +92-51-2600026
Web: www.nepa.org.pk, E-mail: registrar@nepa.org.pk

No. NEPRA/TRF-345/TBCCPL-C-2015/5343-5345

April 1, 2019

Subject: **Decision of National Electric Power Regulatory Authority in the matter of Tariff Adjustments at Commercial Operations Date (COD) of Tricon Boston Consulting Corporation (Private) Ltd.-C (TBCCPL-C) [Case No. NEPRA/TRF-345/TBCCPL-C-2015]**

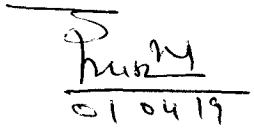
Dear Sir,

Please find enclosed herewith the subject Decision of the Authority along with Annexure-I (07 pages) in Case No. NEPRA/TRF-345/TBCCPL-C-2015.

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. Order of the Authority at paragraph 5 of the Decision is to be notified in the official Gazette.

Enclosure: As above


010419
(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, 'Q' Block, Pak Secretariat, Islamabad.

**DECISION OF NATIONAL ELECTRIC POWER REGULATORY AUTHORITY IN THE MATTER OF TARIFF
ADJUSTMENTS AT COMMERCIAL OPERATIONS DATE (COD) OF TRICON BOSTON CONSULTING
CORPORATION (PVT.) LIMITED – C (TBCCPL-C) CASE NO. NEPRA/TRF-345/TBCCPL-C-2015**

INTRODUCTION

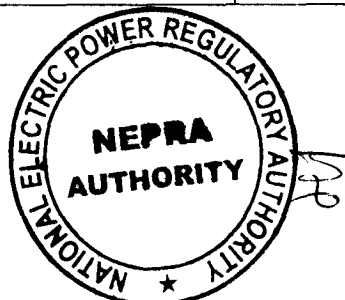
1. Tricon Boston Consulting Corporation (Pvt.) Limited – C (hereinafter referred to as “TBCCPL-C”) on October 02, 2015 filed an application for unconditional acceptance of upfront tariff for wind power generation projects determined and issued by the Authority on June 24, 2015. TBCCPL-C filed the application for adopting the upfront tariff which was accepted by the Authority and decision in this regard was issued on May 13, 2016. This upfront tariff had allowed few openers for tariff true-up, which had to be adjusted after the Project had attained commercial operations.
2. TBCCPL-C in its COD stage tariff adjustment request dated November 01, 2018 submitted that it had achieved financial close on May 10, 2017 as confirmed by AEDB letter No. B/3/1/Tricon boston/11 dated May 10, 2017. Later TBCCPL-C attained the commercial operations on September 11, 2018 as confirmed by CPPAG vide letter No. CPPAGL/CTO/DGMT-II/MT-V/TBCCPL/C/26707-25 dated September 26, 2018. Accordingly TBCCPL-C submitted its request for adjustment of relevant components of its tariff at commercial operations date (hereinafter referred to as “COD”).
3. Following two adjustments were allowed in the upfront tariff determination dated May 13, 2016:
 - i. Adjustment on account of savings in cost of debt
 - ii. Adjustment on account of variations in LIBOR/KIBOR
4. Based on the review of the source documents and information submitted by TBCCPL-C, the Authority has decided to allow the adjustments in the reference tariff of TBCCPL-C as specified below:

4.1 Adjustment on account of savings in cost of debt

4.1.1 In the upfront tariff, the Authority had assessed tariff on the basis of 3 months LIBOR of 0.2706% plus a spread of 450 basis points it is also referred that in case negotiated spread is less than the referred limits, the savings in the spread over LIBOR is to be shared by the power purchaser and the power producer (TBCCPL-C) in the ratio of 60:40 respectively.

4.1.2 TBCCPL-C vide its COD Tariff Adjustment request submitted that it entered into four foreign financing agreements and also submitted that it has negotiated the spread of 450 points (4.5%) over LIBOR with the financiers:

Sr.	Lender	Amount in USD	Spread over LIBOR
1	DEG – Deutsche Investitions Und Entwicklungsgesellschaft Mbh	13,140,000	4.50%
2	International Finance Corporation – IFC	21,900,000	4.50%
3	Asian Development Bank – ADB	21,900,000	4.50%
4	Islamic Development Bank – IsDB	21,900,000	4.50%
Total		78,840,000	4.50%



4.1.3 In view of above and with no saving in spread ceilings allowed, the Authority has decided to allow a spread of 450 points (4.50%) with no sharing applicable for savings.

4.2 Adjustment on account of variations in LIBOR/KIBOR

4.2.1 In the UFT, the Authority had assessed interest during construction based on parameter as prevalent. The interest during construction is to be accordingly reassessed after commercial operations date for the allowed construction period of eighteen month, This computation starts from the date of financial close, on the same computation basis, by applying 3 months LIBOR of last day of the preceding quarter (plus allowed spread thereon), on the basis of phasing for debt injection applied in the computation of upfront tariff.

4.2.2 TBCCPL-C submitted a cumulative claim of USD 5.307 million on account of IDC after incorporating variations in LIBOR during the construction period.

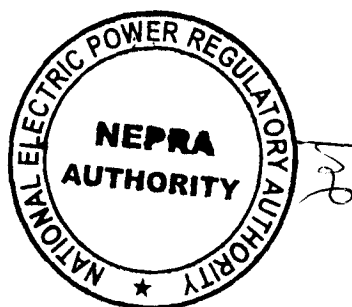
4.2.3 As per the mechanism defined in the tariff determination, the Authority decided to allow an IDC component of USD 5.307 million after incorporating the variations in LIBOR restricting IDC within the construction period of eighteen months.

ORDER

5. Pursuant to section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 read with Rule 6 of the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000, TBCCPL-C (the applicant) is allowed to charge the following specified/approved tariff for delivery of electricity to the power purchaser;

COD STAGE TARIFF ON BOO BASIS

Years	O & M	Insurance	Return on equity	Principal repayment of debt	Interest	Total tariff
1	1.5039	0.6349	3.6480	4.3188	2.4977	12.6034
2	1.5039	0.6349	3.6480	4.5286	2.2880	12.6034
3	1.5039	0.6349	3.6480	4.7485	2.0679	12.6034
4	1.5039	0.6349	3.6480	4.9791	1.8374	12.6034
5	1.5039	0.6349	3.6480	5.2210	1.5956	12.6034
6	1.5039	0.6349	3.6480	5.4745	1.3420	12.6034
7	1.5039	0.6349	3.6480	5.7404	1.0760	12.6034
8	1.5039	0.6349	3.6480	6.0192	0.7973	12.6034
9	1.5039	0.6349	3.6480	6.3115	0.5050	12.6034
10	1.5039	0.6349	3.6480	6.6181	0.1985	12.6034
11 to 20	1.5039	0.6349	3.6480	-	-	5.7868
Levelized – Rs./kWh.						10.7066
Indexation	PKR/US \$ & US CPI	PKR/US \$	PKR/US \$	PKR/US \$	PKR/US \$ & LIBOR	



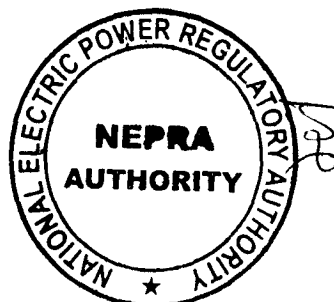
Levelized tariff discounted at 10% per annum works out to US cents 10.5484/kWh.

- (i) This tariff is applicable for wind power generation only for this project as licensed.
- (ii) This tariff will be limited to the extent of net annual energy generation supplied to the power purchaser up to 35% net annual plant capacity factor. Net annual energy generation supplied to the power purchaser in a year, in excess of 35% net annual plant capacity factor will be charged at the following tariffs

<u>Net annual plant capacity factor</u>	<u>% of the prevalent tariff</u>
Above 35% to 36%	75%
Above 36% to 37%	80%
Above 37%	100%

- (iii) The wind risk is to be borne by TBCCPL-C (power producer).
- (iv) As tabulated above, no adjustment for certified emission reductions has been accounted for in this tariff. However, upon actual realization of carbon credits, the same shall be distributed between the power purchaser and the applicant in accordance with the applicable GOP Policy for Development of Renewable Energy for Power Generation, 2006, as amended from time to time.
- (v) This tariff is applicable for a period of twenty (20) years from the commencement of commercial operations.
- (vi) The terms and conditions specified herein form an integral part of this tariff.
- (vii) This tariff has been finalized on the basis of information and source documents provided by the applicant regarding its financing structure including 100% foreign loan and is not be subject to any further change, except for the application of relevant indexations/adjustments as detailed below in this order.
- (viii) Indexations/adjustment

The tariff allowed to applicant, will remain unchanged throughout the tariff control period, except for the adjustments due to indexations/adjustment detailed in this order. The indexations of Operation & Maintenance Cost, return on equity, principal repayment of debt and interest is allowed on quarterly basis on 1st July, 1st October, 1st January and 1st April. Whereas, insurance component will be adjusted annually. The mechanism of indexations/adjustment will be as under:



(a) Indexations applicable to O & M:

$$OM_{(FREV)} = OM_{(FREF)} * US\ CPI_{(REV)} / US\ CPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$$

Where:

$OM_{(FREV)}$ = The revised applicable O&M tariff component indexed with US CPI and exchange rate parity

$OM_{(FREF)}$ = The reference O&M tariff component for the relevant period

$US\ CPI_{(REV)}$ = The revised US CPI (all urban consumers) based on latest available information with respect to US CPI (notified by US Bureau of Labor Statistics)

$US\ CPI_{(REF)}$ = Reference US CPI (all urban consumers)-current reference 233.707 US CPI (all urban consumers) for the month of January, 2015 as notified by the US Bureau of Labor Statistics

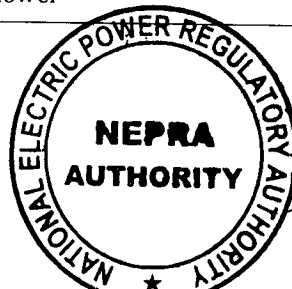
$ER_{(REV)}$ = Revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan as at the last day of the preceding quarter

$ER_{(REF)}$ = Reference TT & OD selling rate of US dollar - current reference 101.50

(b) Adjustment of insurance component

The actual insurance cost for the minimum cover required under contractual obligations with the power purchaser not exceeding 1% of Rs. 194.67 million per MW (US \$ 1.9179 million per MW) will be treated as pass-through. Insurance component of reference tariff shall be adjusted annually as per actual, upon production of authentic documentary evidence by the applicant, 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 @ 1% of Rs.194.67 million
$P_{(Act)}$	=	Actual premium per MW of installed capacity or 1% of US \$ 1.9179 million converted into Pak Rupees on exchange rate prevailing on the 1 st day of the insurance coverage period, whichever is lower



(c) Indexations applicable to return on equity

$$ROE_{(FREV)} = ROE_{(FREF)} * ER_{(REV)} / ER_{(REF)}$$

Where:

$ROE_{(FREV)}$ = The revised applicable return on equity tariff component indexed with exchange rate parity

$ROE_{(FREF)}$ = The reference return on equity tariff component for the relevant period

$ER_{(REV)}$ = Revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan as at the last day of the preceding quarter

$ER_{(REF)}$ = Reference TT & OD selling rate of US dollar – current reference 101.50

(d) Indexations applicable to debt

Foreign debt and its interest will be adjusted on quarterly 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 quarter, over the applicable reference exchange rate.

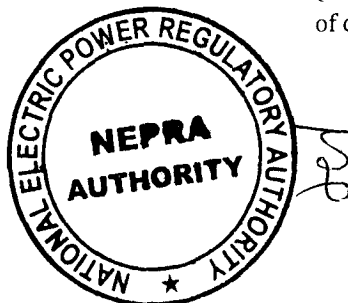
(e) Indexations applicable to interest after achieving COD

$$\Delta I = P_{(REV)} * (LIBOR_{(REV)} - 0.2706\%) / 4$$

Where:

ΔI = The variation in interest charges applicable corresponding to variation in 3 months LIBOR. ΔI can be positive or negative depending upon whether 3 months LIBOR_(REV) per annum > or < 0.2706%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment.

$P_{(REV)}$ = is the outstanding principal (as indicated in the attached debt service schedule to this order at Annex I), on a quarterly basis at the relevant quarterly calculations date. Quarter 1 shall commence on the commercial operations date (i.e. the first figure will be used for the purposes of calculation of interest for the first quarter after



commercial operations date).

LIBOR_(REV) = Revised 3 months LIBOR rate as at the last day of
the preceding quarter

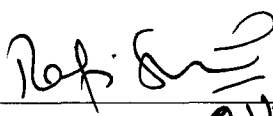
(ix) **Other Terms and Conditions of Tariff:**

General:

- General assumptions, which are not covered in this decision, determination of the Authority in the matter of upfront tariff for wind power generation dated June 24, 2015 and National Electric Power Regulatory Authority Upfront Tariff (Approval & Procedure) Regulations, 2011, may be dealt with as per the standard terms of the Energy Purchase Agreement.


6. The order at paragraph 5 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 Electricity Act, 1997.

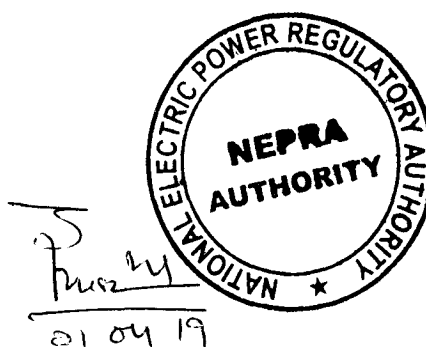
AUTHORITY


(Rafique Ahmed Shaikh)
Member



(Rehmatullah)
Member/ Vice Chairman


(Saif Ullah Chattha)
Member
20.3.2019



Tricon Boston Consulting Corporation (Pvt.) Limited, Project-C

Debt Servicing Schedule based on 100% foreign financing for the purpose of Indexation of debt component only

Relevant Quarter	Base amount (USD)	Principal Repayment (USD)	Interest (USD)	Balance Principal (USD)	Total Debt Service Million USD	Principal Repayment of debt Rs./kwh.	Interest Rs./kWh
1	81,065,959	1,593,361	966,833	79,472,599	2,560,194	4.3188	2.4977
2	79,472,599	1,612,364	947,830	77,860,235	2,560,194		
3	77,860,235	1,631,594	928,600	76,228,642	2,560,194		
4	76,228,642	1,651,053	909,141	74,577,589	2,560,194		
5	74,577,589	1,670,744	889,450	72,906,845	2,560,194	4.5286	2.2880
6	72,906,845	1,690,670	869,523	71,216,174	2,560,194		
7	71,216,174	1,710,834	849,360	69,505,340	2,560,194		
8	69,505,340	1,731,238	828,955	67,774,102	2,560,194		
9	67,774,102	1,751,886	808,308	66,022,216	2,560,194	4.7485	2.0679
10	66,022,216	1,772,780	787,414	64,249,437	2,560,194		
11	64,249,437	1,793,923	766,271	62,455,514	2,560,194		
12	62,455,514	1,815,318	744,876	60,640,196	2,560,194		
13	60,640,196	1,836,968	723,225	58,803,227	2,560,194	4.9791	1.8374
14	58,803,227	1,858,877	701,317	56,944,350	2,560,194		
15	56,944,350	1,881,047	679,147	55,063,304	2,560,194		
16	55,063,304	1,903,481	656,712	53,159,822	2,560,194		
17	53,159,822	1,926,183	634,011	51,233,639	2,560,194	5.2210	1.5956
18	51,233,639	1,949,156	611,038	49,284,484	2,560,194		
19	49,284,484	1,972,402	587,791	47,312,081	2,560,194		
20	47,312,081	1,995,926	564,268	45,316,155	2,560,194		
21	45,316,155	2,019,731	540,463	43,296,424	2,560,194	5.4745	1.3420
22	43,296,424	2,043,819	516,375	41,252,606	2,560,194		
23	41,252,606	2,068,194	491,999	39,184,411	2,560,194		
24	39,184,411	2,092,861	467,333	37,091,550	2,560,194		
25	37,091,550	2,117,821	442,372	34,973,729	2,560,194	5.7404	1.0760
26	34,973,729	2,143,080	417,114	32,830,649	2,560,194		
27	32,830,649	2,168,639	391,555	30,662,010	2,560,194		
28	30,662,010	2,194,503	365,690	28,467,507	2,560,194		
29	28,467,507	2,220,676	339,518	26,246,831	2,560,194	6.0192	0.7973
30	26,246,831	2,247,161	313,033	23,999,670	2,560,194		
31	23,999,670	2,273,962	286,232	21,725,709	2,560,194		
32	21,725,709	2,301,082	259,112	19,424,627	2,560,194		
33	19,424,627	2,328,526	231,668	17,096,101	2,560,194	6.3115	0.5050
34	17,096,101	2,356,297	203,897	14,739,804	2,560,194		
35	14,739,804	2,384,399	175,794	12,355,404	2,560,194		
36	12,355,404	2,412,837	147,357	9,942,567	2,560,194		
37	9,942,567	2,441,614	118,580	7,500,954	2,560,194	6.6181	0.1985
38	7,500,954	2,470,734	89,460	5,030,220	2,560,194		
39	5,030,220	2,500,201	59,993	2,530,019	2,560,194		
40	2,530,019	2,530,019	30,174	(0)	2,560,194		

