



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.nepra.org.pk, E-mail: registrar@nepra.org.pk

No. NEPRA/R/ADG(Trf)/PAR-146/KE(FPCL)-2015/1966-1968

February 9, 2022

Subject: Decision of the Authority in the matter of Tariff Adjustment at Commercial Operations Date (COD) of FFBL Power Company Ltd. [Case # PAR-146/KE(FPCL)-2015]

Dear Sir,

Please find enclosed herewith the subject decision of the Authority along with Annex-I & II (19 Pages) in the matter of Tariff Adjustment at Commercial Operations Date (COD) of FFBL Power Company Ltd. in Case No. NEPRA/PAR-146/KE(FPCL)-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 within 30 days from the intimation of this Decision. In the event the Federal Government fails to notify the subject tariff Decision or refer the matter to the Authority for reconsideration, within the time period specified in Section 31(7), then the Authority shall notify the same in the official Gazette pursuant to Section 31(7) of NEPRA Act.

Enclosure: As above

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


(Iftikhar Ali Khan)

CC:

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



**DECISION IN THE MATTER OF TARIFF ADJUSTMENT AT COMMERCIAL OPERATIONS
DATE (COD) OF FFBL POWER COMPANY LIMITED (FPCL)**

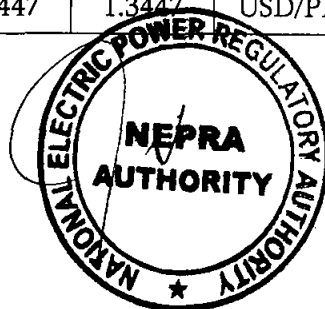
1. Introduction

1.1 FFBL Power Company Limited ("FPCL" or the "Company") is an unlisted public limited company incorporated as a Special Purpose Vehicle (SPV) in June 2014. The complete project management and execution has been carried out by FPCL. The Installed capacity of the Power plant is 118 MW, out of which 52 MW of power is being exported to K-Electric and remaining is supplied to FFBL Fertilizer complex. The plant is generating power at two different frequencies i.e. 50 Hz for K-Electric and 60 Hz for Fauji Fertilizer Bin Qasim Limited (FFBL). The power plant is located at Eastern Industrial Zone of Port Qasim, Karachi in the province of Sindh. FPCL holds Generation License No. (SGC/111/2015) from NEPRA and has commenced its Commercial Operation since May 19, 2017.

1.2 The reference generation tariff was awarded to FPCL through Power Acquisition Request (PAR) of K-Electric vide decision dated Dec 29, 2015 and Jan 26, 2017. Summary of the reference tariff as per the review motion decision is as under;

REFERENCE TARIFF

Tariff Components	Year 1 to 10	Year 11 to 30	Indexation
Energy Charge	Rs./kWh		
Fuel Cost	4.2939	4.2939	Subject to fuel price variation with adjusted losses at 1% on CIF and 1% with local transportation as per prescribed mechanism (if not included in FSA)
Variable O&M-Foreign	0.0811	0.0811	USD/ PKR & US CPI
Variable O&M-Local	0.0121	0.0121	Local CPI
Water Cost	0.1590	0.1590	Subject to actual based on documentary evidence
Ash Disposal	0.1753	0.1753	Subject to actual
Lime Stone	0.0897	0.0897	
Total Energy Charge	4.8111	4.8111	
Capacity Charge	Rs./kWh		
Fixed O&M-Foreign	0.2225	0.2225	USD/ PKR & US CPI
Fixed O&M-Local	0.2514	0.2514	Local CPI
Working Capital	0.2351	0.2351	KIBOR + 2%
Insurance	0.2134	0.2134	Actual premium or 1% of the adjusted EPC whichever is lower
Return on Equity	1.3447	1.3447	USD/PKR



Debt Service (Local)	3.7122	-	KIBOR
Total Capacity Charge at 85% plant factor	5.9793	2.2671	
Total Tariff	10.7904	7.0782	
Levelized Tariff (1-30 Years)			
Rs./kWh	9.4979		
US Cents/kWh	9.2753		

- 1.3 The Authority had approved US\$ 1.46 million per MW for EPC cost and US\$ 1.75 million per MW for overall total project cost. The Summary of the approved project cost of FPCL allocated or allowed to KE is as under;

Description	US\$ (Million)	Rs (Million)
CAPEX without Custom (US\$ 1.46 million/MW)	84.68	8,671.23
Custom Duty and Cess (5.95% of 66.75% of CAPEX)	3.36	344.06
CAPEX with Custom	88.04	9,015.29
Financing Fees and Charges (3% of debt amount)	2.28	233.47
Interest during construction	11.16	1,142.78
Total Project Cost	101.5	10,393.6

- 1.4 Following one-time adjustments have been provided by the Authority in its decisions dated Dec 29, 2015 and Jan 26, 2017;

- i. Customs duties & cess @ 5.95% of the 66.75% of the capital cost has been assumed in the project cost which will be adjusted at the time of COD on actual basis. Withholding tax directly imposed on the EPC contractor during the construction period shall be subject to adjustment based on verifiable documents at the time of COD. Withholding tax on dividends shall not be a pass through item.
- ii. Interest During Construction has been estimated as PKR 1,142.71 million. This will be adjusted at COD on account of actual variation in interest on the basis of actual drawdown for the period of 24 months of project construction period. The power producer shall submit the relevant documents to the K-Electric on onward submissions to NEPRA for adjustment of the relevant components. The total amount has been assumed as 75% of the total project cost. Debt service component of tariff has been based on 100% local financing. The total amount of debt has been assumed as 75% of the total project cost. Debt service component of tariff has been based on 100% local financing.
- iii. The tariff has been calculated on the basis of net capacity of 52 MW and annual generation @ 85% plant factor of 387.19 GWh. The net capacity is subject to adjustment at the time of COD as per IDC test to be carried out for determination of the contracted capacity. In case the net capacity is established higher than the minimum



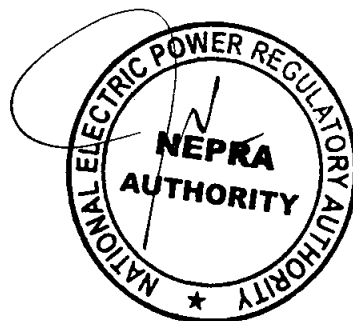

- capacity, the relevant tariff components shall be adjusted accordingly. However, no adjustment is allowed in case the net capacity is established less than minimum net capacity of 52 MW.
- iv. Interest on Working Capital has been calculated on the basis of quarterly KIBOR plus 200 basis point, which will be adjusted for variation in quarterly-KIBOR and weighted average cost of coal inventory (Inventory equivalent to 90 days at 100% plant load and receivables equivalent to one month of fuel charges at 100% plant load) at the time of COD. Cost of Working Capital at the time of COD, shall be adjusted for actual payment terms agreed in the PPA and Coal Supply Agreement and fuel prices. Thereafter, the cost of working capital shall be adjusted quarterly for variation in KIBOR and fuel prices only.
 - v. Return on Equity (ROE) including Return on Equity During Construction (ROEDC) will be adjusted at COD on the basis of actual equity injections and PKR/US\$ exchange rate variation (within the overall equity allowed by the Authority at COD) during the project construction period allowed by the Authority.
 - vi. The cost of water, limestone and ash disposal will be adjusted on actual basis at the time of COD based on documentary evidence.

2. FPCL Request Regarding One-Time True-up/Adjustment

- 2.1 FPCL vide its letter dated Nov 17, 2017 requested the Authority for adjustments of its tariff for 52 MW Power at Commercial Operations Date ("COD") pursuant to NEPRA's Tariff Determination dated Dec 29, 2015 and review motion decision dated Jan 26, 2017. Further FPCL on May 24, 2019 filed Modification Tariff petition for proposed sale of additional 8 MW of electricity to K-Electric, which was admitted by the Authority for consideration. On Aug 27, 2019 FPCL requested to postpone the decision regarding adjustment at COD till the decision of the Authority for the modification in reference tariff.
- 2.2 The Authority considered the request for postponement and decided to return the COD application along with all documents and directed to resubmit the same once the modification petition is decided by the Authority and the same was communicated to the FPCL on Jan 06, 2020.
- 2.3 On May 05, 2020 FPCL withdrew its Review/Modification petition for sale of additional 8 MW of electricity to K-Electric and finally resubmitted its COD adjustment request on Aug 27, 2020. Later on FPCL on Dec 07, 2020 revised claim for insurance during construction and financing fee.

3. Head wise detail of costs claimed on account of One-Time Adjustments:

- 3.1 Based on the submissions of the FPCL and documentary evidence in support of its claim, the Authority has decided to allow following one-time adjustment;

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4. EPC Cost

4.1 FPCL in its COD request has submitted EPC Cost of US\$ 219.85 million (K.E + FFBL), out of which KE cost was indicated as US\$ 96.25 million (Rs. 10,038 million). FPCL in support of its claim submitted documentary evidences such as copies of EPC contracts, purchase order, EPC commercial invoices, good receipt note, bank debit advice, bank statements, FOREX and internal approvals. The comparison of EPC cost allowed in the tariff determination and being claimed by FPCL is as follows;

Description	As per Tariff Determination			Claimed at COD Stage		
	US\$ in Mln	Exch rate	Rs in Mln	US\$ in Mln	Avg Exch Rate	Rs in Mln
Capital Cost less Custom & duties	84.68	102.4	8,671	96.25	104.2	10,038

4.2 After going through all the documentary evidences/actual payments submitted by the petitioner, EPC cost amounting to US\$ 219.42 million (Rs. 22,905.01 million) is verified (converted as per actual exchange rates) for whole project (K.E+FFBL). The Authority in its tariff determination dated Dec 29, 2015 has allowed capital cost of US\$ 1.46 million/MW which becomes US\$ 84.68 million (Rs. 8,671.23 million) at the exchange rate of US\$/Rs 102.40. Accordingly based on the actual exchange rate variation on account of EPC cost the verified amount of US\$ 84.68 million with US\$/PKR actual exchange amounting to Rs. 8,717.59 million is allowed to the FPCL.

5. Custom Duties and Taxes

5.1 FPCL claimed custom duties and taxes of US\$ 4.76 million (Rs. 497.88 million) at the COD stage and has provided following break-up;

#	Cost Head	US\$ in Million	PKR in Million
i.	Custom Duty	3.18	332.68
ii.	ETO/ CESS Charges	0.60	62.93
iii.	CAA/Port payment	0.48	49.94
iv.	Delivery Order Charges	0.14	14.41
v.	Others	0.36	37.92
	Total	4.76	497.88

5.2 In support of its claim FPCL submitted copies of goods declarations of Pakistan Customs, payment challans of SIDS (copies of pay orders of different banks through which these SIDS were paid), other miscellaneous payments to port authorities, copies of bills of entries, internal approvals, forex etc.



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5.3 FPCL was allowed duties and taxes of US\$ 3.36 million in reference tariff determination. Relevant extract of the tariff determination is as under;

"The Custom duties and Cess of US\$ 3.36 million has been estimated at 5.95% of 66.75% of the assessed capital cost and has also been included in the project cost which will be subject to adjustment on actual basis at the time of COD"

5.4 After going through the documentary evidences, actual duties and taxes amounting to US\$ 4.23 million (Rs. 439.30 million) has been verified and the same is allowed to FPCL.

6. Commercial Operation Date and Construction Period

6.1 FPCL vide letter No FPCL/KE/01 Dated May 18, 2017 submitted that Declaration of Commercial Operation Date (COD) was communicated to K-E about COD which is "May 19, 2017 at 0000 hrs". The same was accepted by KE. To determine the construction period, FPCL submitted the letter for confirmation of COD, Power Purchase Agreement and reference tariff determination. Construction start date defined in PPA is as under;

"Means April 30, 2015"

6.2 The Commercial Operation Date (COD) defined in PPA is;

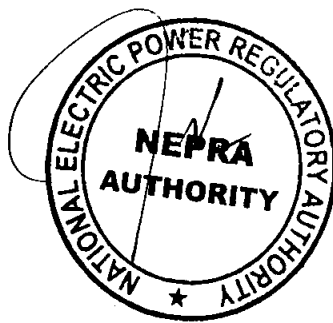
"The date immediately following the date on which the complex is commissioned; provided, that in no event shall the commercial operation date occurred earlier than sixty (60) days prior to the required commercial operation date without the prior written approval of the power purchaser, which approval shall not be withheld unreasonably."

6.3 The required Commercial Operation Date (RCOD) defined in PPA is as under;

"1st May 2017 as such date may be extended pursuant to section 6.5 or section 8.1(b) or by a reason of Force Majeure Event"

6.4 The Construction period in Authority's tariff determination is 24 months from financial close or first payment to EPC contractor whichever is earlier. The date of financial close is Dec 31, 2015 and 1st payment to EPC contractor is Jan 28, 2015. Following is a summary of the important timelines of FPCL;

#	Particulars	Date / Period in Months
i.	Tariff determination of the Authority	Dec 29, 2015
ii.	Power Purchase Agreement (PPA)	Jul 04, 2018
iii.	Financial close	Dec 31, 2015
iv.	Construction Start Date	Apr 30, 2015
v.	Construction Period as per PPA	24 Months
vi.	Required Commercial Operation Date (RCOD) as per PPA	May 01, 2017






vii.	Actual Commercial Operation Date (COD)	May 19, 2017
viii.	Actual Construction Period from Construction Start Date	24 months and 18 days i.e. Apr 30, 2015 to May 18, 2017

6.5 Consistent to NEPRA's earlier decisions in case of IPPs, the Authority hereby allows construction period from construction start as per PPA date i.e Apr 30, 2015 up to required commercial operations date (RCOD) i.e. May 01, 2017 (24 months) for (a) computation of interest during construction, (b) insurance during construction, and (c) return on equity during construction by disallowing 18 days.

7. Pre-COD Insurance Cost

7.1 FPCL in COD tariff adjustment has claimed insurance during construction of US\$ 0.69 million (Rs. 70.51 million) which was later revised through letter dated Dec 17, 2020 to US\$ 0.85 million (Rs. 86.64 million) which is 0.79% of claimed EPC cost. The petitioner submitted the documentary evidence i.e. insurance invoices, bank statements, insurance policies, FOREX and internal approvals.

7.2 The Authority in the reference tariff determination had allowed pre-COD insurance @1% of 90% of the EPC cost amounting to US\$ 0.8608 million as pre-COD insurance cost. The component of insurance during operations works out as Rs. 0.2134/kWh.

7.3 The CAPEX of FPCL has been assessed as US\$ 88.91 million (Rs. 9,156.89 million). The pre-COD insurance for period starting from construction start date i.e. Apr 30, 2015 till RCOD i.e. May 01, 2017 is calculated as per actual percentage of @ 0.76% of 90% of the verified CAPEX of US\$ 88.90 million, which works out as US\$ 0.60 million (Rs. 61.63 million) or Rs. 0.1592/kWh and same is allowed to FPCL.

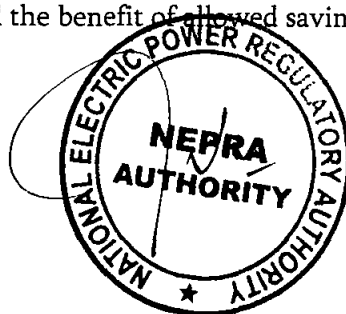
8. Debt :Equity Ratio

8.1 The FPCL requested to allow debt equity ratio on the basis of actual debt and equity which is 72:28. In support of its claim the FPCL submitted bank facility agreements, bank statement indicating actual debt drawdowns and actual equity injections.

8.2 The Authority while calculating the reference generation tariff assumed the debt equity ratio of 75:25. In the reference decision no mechanism for adjustment of debt:equity ratio has been prescribed. In absence of adjustment mechanism, the Authority has decided to maintain the debt equity ratio of 75:25 as allowed in the reference generation tariff.

9. Adjustment on account of Interest During Construction (IDC)

9.1 FPCL in its COD adjustment has requested to allow actual interest during construction (hereinafter referred to as "IDC") of US\$ 7.38 million (Rs. 773.18 million) till COD. FPCL submitted that the Company was able to obtain the loan with financing cost of KIBOR plus spread 1.75% which is within the allowed limit of spread of 3.5%. FPCL submitted that the Company may be allowed the benefit of allowed savings in the spread. FPCL submitted copies





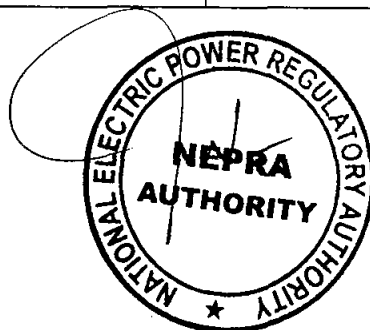
of financial agreement, bank invoice, facility letters, bank statement, FOREX, internal approvals etc.

- 9.2 FPCL was allowed IDC of US\$ 11.16 million. The Authority in the tariff determination had allowed 3 months KIBOR plus spread of 3.5% along with the construction period of 24 months. The Authority has also allowed the benefit of saving in the spread in the ratio of 60:40 between the purchaser and seller. The IDC was subject to adjustment on account of actual variation in interest on the basis of drawdown for the period of 24 months of project construction.
- 9.3 As per Common Terms Agreements, for whole project (FFBL+KE) FPCL entered into a Musharaka (Rs. 10,800.00 million) (Islamic mode of financing) and Commercial (Rs 11,062.5 million) (Conventional mode of financing), financed by consortium of eleven (11) banks. National Bank of Pakistan acted as lead bank and Bank Alfalah as security trustee. FPCL submitted that out of total financing of Rs. 21,862.50 million, Rs. 7,518.0 has been allocated for the K.E on the basis of actual debt and equity ratio of 72:28. The brief working submitted by FPCL is given below.

Description	PKR Million	US\$ Million	Ratio
Actual Debt (FFBL+KE)	21,862.50	208.88	75 %
Actual Equity (FFBL+KE)	8,587.50	83.42	25%
Total Project Cost for K.E	9,953.20	96.64	
Project Debt for K.E	7,464.90	72.48	

- 9.4 FPCL for K.E has claimed IDC of US\$ 7.38 million (Rs. 773.18 million) calculated on the basis of 3 months KIBOR plus spread of 1.75% for 22 months and 19 days i.e. from June 30, 2015 (first drawdown date) to May 19, 2017 (actual COD).
- 9.5 The FPCL submitted documents have been examined. The verified total project cost stands at US\$ 96.64 million (Rs. 9,953.20 million), and on allowed debt equity ratio the project debt for K.E is US\$ 72.48 million (Rs. 7,464.90 million). Actual IDC paid on actual debt of US\$ 208.88 million (Rs. 21,862.5 million) after including the benefit for saving is US\$ 19.49 million (Rs. 2,041.23 million). It was observed that other income on account of debt amount reflected in financial accounts was not deducted by FPCL. Accordingly after prorating the total actual IDC paid, the IDC for K.E after deducting other income works out as US\$ 5.96 million (Rs. 612.84 million) and the same is allowed to FPCL. The breakup is given hereunder;

Description	Rs. Million	US\$ Million
Total IDC paid (K.E+FFBL)	2,041.23	19.49
IDC for K.E only	696.97	6.76
Less Other Income	(84.13)	(0.80)
Net IDC to be allowed	612.84	5.96



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10. Financial Charges

- 10.1 In COD adjustment request FPCL has claimed US\$ 2.23 million (Rs. 233.61 million) as financing fee and charges which is 1.62% of actual debt. In support of its claim FPCL has provided banks statements, bank advices, details, computations, etc.
- 10.2 The Authority in the tariff determination had allowed US\$ 2.28 million (Rs. 233.47 million) as financial charges limiting it to 3% of the total allowed debt subject to adjustment at the time of COD.
- 10.3 The financial charges have been verified through the documentary evidence submitted by FPCL. Accordingly the verified amount allocated to K-Electric has been worked out as US\$ 1.17 million (Rs. 121.85 million) which is 1.62% of actual allowed debt of US\$ 72.48, and the same is allowed to FPCL.

11. Return on Equity and Return on Equity During Construction (ROEDC)

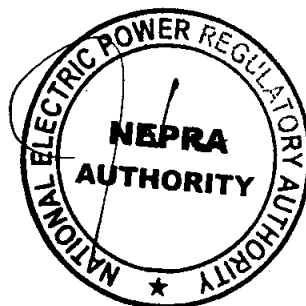
- 11.1 FPCL in its COD adjustment petition requested ROE (including ROEDC) US\$ 8.27 million (Rs. 879.80 million). The FPCL has requested ROE & ROEDC @ 17% on equity injections of US\$ 35.86 million (Rs. 3,759.49 million) and calculated the component of ROE (including ROEDC) as Rs/kWh 2.2404. FPCL submitted the copies Bank statement to confirm equity injection, PPA & NEPRA determination, project start and completion date, FOREX etc.
- 11.2 The Authority has allowed 17% return on equity in the tariff determination. Return on equity during construction (ROEDC) is also the part of ROE tariff component. The following adjustment mechanism is given in the decision.

“Return on Equity (ROE) including Return on Equity during Construction (ROEDC) will be adjusted at COD on the basis of actual equity injections and PKR/USD exchange rate variation (within the overall equity allowed by the Authority at COD) during the project construction period allowed by the Authority.”

- 11.3 The total project cost for FPCL to be allocated to KE is US\$ 96.64 million (Rs. 9,953.20 million). Accordingly based on 25% equity injection the amount works out as US\$ 24.16 million (Rs. 2,488.30 million). Keeping in view the allowed construction period of 24 months starting from construction start date i.e. Apr 30, 2015 to RCOD i.e. May 01, 2017, the amount of ROEDC has been worked out as Rs. 700.18 million. The tariff component of ROE has been worked out as Rs. 1.0925/kWh and ROEDC as Rs. 0.3102/kWh and the same is allowed to FPCL.

12. Fuel During Testing

- 12.1 FPCL requested the Authority to allow an amount of US\$ 1.19 million (Rs. 124.91 million) as cost of fuel during testing in COD adjustment. FPCL as payment evidence submitted fuel invoices, bank statements and internal approvals.



12.2 COD is true-up/adjustment of the reference tariff components. In the reference tariff no such adjustment has been accounted for on account of fuel during testing. Accordingly the same is not adjusted being outside the scope of COD true-up/adjustment.

13. Cost of Land

13.1 The petitioner in its One-time adjustment application requested the Authority to allow US\$ 6.3 million for cost of land of 100 acres. At the time of reference generation tariff being subsidiary Company of FFBL, the total project cost allocated to KE was USD 114 million without including the cost of land. It was based on the assumption that 50 acres of land within the existing FFBL fertilizer complex at Bin Qasim KHI will be the total project area and will be transferred from Fauji Fertilizer Bin Qasim Limited (FFBL) to FPCL on Free of Cost (FOC).

13.2 However subsequently it was learnt that the transfer of land on FOC basis by a public limited listed company to another unlisted public limited company having separate legal entity will be considered as arm's length transaction. Based on the audit observations, a third party surveyor was hired to assess the value of land in Oct 2016. Total land area finally carved out for the project was 100 acres owing to its structural footprint and the value of the land was assessed at Rs. 1.3 billion by valuator 'Iqbal A. Najee & Co'. Accordingly, FPCL paid an amount of Rs. 1.3 billion to FFBL in Dec 2016 and got the land transferred in its name. Out of Rs. 1.3 billion FPCL claimed amount of Rs. 645.26 (US\$ 6.17 million) on account of FPCL land area and remaining have been accounted for in the cost of FFBL.

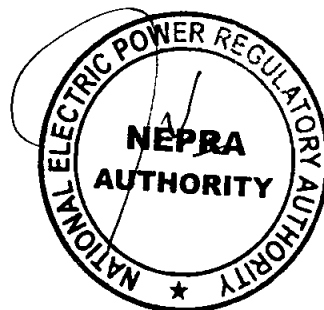
13.3 FPCL requested the Authority that being prudent utility practice, legitimate cost of land which is basic part of project cost may be allowed. FPCL submitted that this is in line with the Section 7(6) of the NEPRA Act wherein Authority is empowered to protect the legitimate right of investor keeping in view the going concern, viability of the project and legitimate cost established through the documentary evidence.

13.4 The Authority observed that the cost of land was not allowed in the reference tariff determination since no claimed was made. COD is true-up/adjustment of the reference tariff components allowed by the Authority. In the reference tariff no such adjustment has been accounted for on account of land. Accordingly the same is not adjusted being outside the scope of COD true-up/adjustment.

14. Cost of working Capital

14.1 FPCL requested the Authority to adjust the cost of working capital in line with the mechanism given in reference generation tariff which is as under;

“Cost of working capital at the time of COD, shall be adjusted for actual payment terms agreed in PPA and coal supply agreement and fuel prices. Thereafter, the cost of working capital shall be adjusted quarterly for variation in KIBOR and Fuel prices only.”

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14.2 Keeping in view the above mechanism, based on the coal inventory equivalent to 90 days at 100% plant load and receivables equivalent to one month of fuel charges at 100% plant load, the cost of working capital at three months KIBOR plus 2% spread works out to be Rs. 72.92 million i.e. Rs. 0.1883/kWh and the same is allowed to FPCL.

15. Overall Project Cost

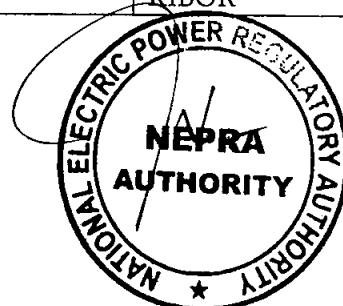
15.1 Below table shows the head-wise detail of the cost allowed at COD to FPCL;

Description	US\$ (Million)	Rs. (Million)
EPC cost	84.68	8,717.59
Custom Duties & Taxes	4.23	439.30
Insurance during construction	0.60	61.63
Interest during Construction	5.96	612.84
Financing Fee	1.17	121.85
Total Project Cost	96.64	9,953.20

16. Order

I. FFBL Power Company Limited (FPCL) is hereby allowed to charge K-Electric following tariff along with terms and conditions prescribed hereunder, true-up/adjusted in line with the reference tariff dated December 29, 2015 and review decision January 26, 2017 for its 52 MW power plant:

Description	Rs./kWh		As per Power Policy
	1-10 Years	11-30 Years	Indexation / Adjustments
Variable O&M			
Foreign	0.0855	0.0855	US\$ / PKR & US CPI
Local	0.0129	0.0129	Local CPI
Fuel cost	5.1253	5.1253	Subject to fuel price variation with adjusted losses at 1% on CIF and 1% with local transportation as per prescribed mechanism (if not included in FSA)
Water Cost	0.000	0.000	Quarterly adjustment on actual basis subject to documentary evidence to be submitted by power producer within three months of issuance of the COD decision.
Ash Disposal	0.000	0.000	
Limestone	0.000	0.000	
Total Energy Charge	5.2237	5.2237	
Capacity Charge			
Fixed O&M: Foreign	0.2347	0.2347	US\$ / PKR & US CPI
Local	0.2675	0.2675	Local CPI
Working Capital	0.1883	0.1883	KIBOR+2%
Insurance	0.1592	0.1592	
ROE	1.4027	1.4027	US\$/PKR
Debt Servicing	2.8900	-	KIBOR



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Total Capacity Charge @ 85% plant factor	5.1436	2.2535	
Total Tariff Levelized	9.3612		

- i. The tariff has been calculated on the basis of net capacity of 52 MW and annual generation @ 85% plant factor of 387.19 GWH.
- ii. The above tariff is applicable for the period of 30 years on BOO basis commencing from the date of Commercial Operate Date (COD)
- iii. Debt Service shall be paid in the first 10 years of commercial operation of the plant or 387.192 GWh whichever is earlier.
- iv. The sole criterion for dispatch of all of the coal based power plants shall be the "merit order dispatch. The Seller shall be entitled for the capacity charge in case it falls in the merit order and K-Electric did not procure power from the Seller. The Capacity Charge on this account shall be borne by the K-Electric.
- v. The dispatch criterion shall be Energy Purchase Price.
- vi. Thermal efficiency has been taken as 29.24% flat over the project life,
- vii. The component-wise tariff is attached as Annex-I The debt service schedule is attached as Annex-II
- viii. The 1-10 years tariff in US Cents is 9.9021/kWh and for 11-30 years is US Cents 7.1418/kWh, The levelized tariff in US Cents is 8.9410/kWh.

II. Adjustment of Rupee / Dollar Parity

The relevant tariff components has been adjusted on account of actual variation of Rupee /US\$ parity over the reference is Rs. 104.7/US\$.

a) Adjustment in Insurance as per Actual

The actual insurance cost for the minimum cover required under the contractual obligations with the Power Purchaser not exceeding 1% of the EPC Cost will be treated as pass-through item. Insurance component of reference shall be adjusted as per actual on yearly basis upon production of authentic documentary evidence by the power producer according to the following formula:

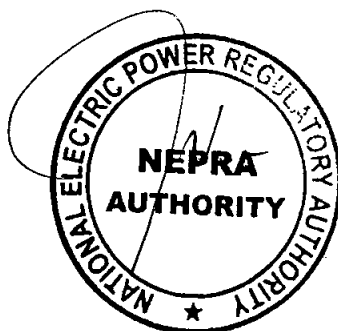
$$\text{Insurance (Adj)} = \text{Rs. } 0.1592 \text{ per kWhour} / P_{(\text{Ref})} \cdot P_{(\text{Act})}$$

Where:

$$P_{(\text{Ref})} = \text{Reference premium Rs. } 61,627,037$$

$$P_{(\text{Act})} = \text{Actual premium or 1\% of the adjusted EPC whichever is lower.}$$

FPCL tariff is based on take and pay basis therefore the above insurance component has been worked on 85% plant factor i.e. 387.19 GWh. Accordingly the same amount shall be recovered on the above units. Power purchaser to ensure that the insurance amount be released/paid keeping in view the above factor.





b) Return on Equity

The Return on Equity (ROE) has been adjusted on account of actual variation in PKR/US\$ parity. Subsequently, the indexation shall be made according to the following formula;

$$ROE_{(Rev)} = ROE_{(Ref)} * ER_{(Rev)} / 104.7$$

Where

ROE_(Rev) = Revised ROE

ROE_(Ref) = Reference ROE

ER_(Rev) = The revised TT & OD selling rate of US\$ as notified by the National Bank of Pakistan

III. Pass Through Items

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 spread over a period of twelve months. Furthermore, in such a scenario, the company shall also submit to the power purchaser details of any tax savings and the power purchaser shall deduct the amount of these savings from its payment to the company on account of taxation. However, withholding tax on dividend will not be passed through.

IV. Indexation

The following indexation shall be applicable to the tariff:

a) Indexation applicable to O&M

The foreign component of fixed O&M shall be adjusted with US CPI notified by US Bureau of Labour & Statistics and revised IT & OD selling rate of US\$ rate notified by National Bank of Pakistan. The local component of fixed O&M shall be adjusted with local CPI notified by Pakistan Bureau of Statistics. The fixed O&M shall be adjusted on quarterly basis on 1st July, 1st October, 1st January & 1st April of the Financial Year on the basis of available information with respect to exchange rate, US CPI and local CPI. The mode of indexation will be as under:

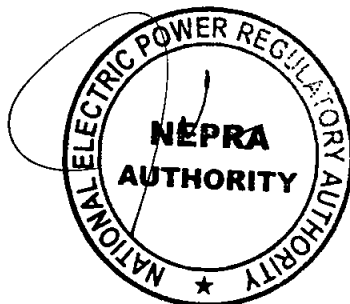
Fixed O&M

$$\text{Fixed O\&M}_{(FRev)} = \text{Rs. } 0.2347/\text{kWh} \cdot \text{US CPI}_{(Rev)} / 243.603 \cdot \text{ER}_{(Rev)} / 104.7$$

$$\text{Fixed O\&M}_{(LRev)} = \text{Rs. } 0.2675/\text{kWh} \cdot \text{CPI}_{(Rev)} / 211.54$$

Where:

Fixed O&M _(FRev)	=	the revised fixed O&M foreign component of tariff
Fixed O&M _(LRev)	=	the revised fixed O&M local component of tariff
CPI _(Ref)	=	the reference CPI of 211.54 notified by Pakistan Bureau of Statistics for the month of Feb 2017
CPI _(Rev)	=	the revised CPI notified by Pakistan Bureau of Statistics





US CPI (Ref)	=	the reference US CPI of 243.603 notified by US Labour Bureau & Statistics (All Urban Consumers) for the month of Feb 2017
US CPI (Rev)	=	the revised US CP I notified by US Labour Bureau & Statistics (All Urban Consumers)
ER (Ref)	=	PKR /US\$ exchange rate of 104.7
ER (Rev)	=	the revised IT & OD selling rate of US\$ as notified by the National Bank of Pakistan at invoice date.

Variable O&M

Variable O&M (FRev) = Rs. 0.0855/kWh * US CPI (Rev) / 243.603 * ER (Rev) /104.7
 Variable O&M (LRev) = Rs. 0.0129/kWh * CPI (Rev) / 211.54

Where:

Variable O&M (FRev)	=	the revised variable O&M foreign component of tariff
Variable O&M (LRev)	=	the revised variable O&M local component of tariff
CPI (Ref)	=	the reference CPI of 211.54 notified by Pakistan Bureau of Statistics for the month of Feb 2017
CPI (Rev)	=	the revised CPI notified by Pakistan Bureau of Statistics
US CPI (Ref)	=	the reference US CPI of 243.60 notified by US Labour Bureau & Statistics (All Urban Consumers) for the month of Feb 2017
US CPI (Rev)	=	the revised US CP I notified by US Labour Bureau & Statistics (All Urban Consumers)
ER (Ref)	=	PKR /US\$ exchange rate of 104.7
ER (Rev)	=	the revised IT & OD selling rate of US\$ as notified by the National Bank of Pakistan

Note: The Ash, lime Stone and water charges shall be adjusted as per actual within three months of the issuance of this decision based on documentary evidence.

V. Adjustment for KIBOR variation

The interest part of fixed charge component shall remain unchanged throughout the term except for the adjustment due to variation in interest rate as the result of variation in quarterly KIBOR according to the following formula:

$\Delta I (L) = P(LRev) (KIBOR(Rev)*6.12\%) / 4$

Where:

$\Delta I (L)$ = the variation in interest charges on local loan applicable corresponding to variation in quarterly KIBOR. $\Delta I (L)$ can be positive or negative depending upon whether KIBOR (Rev) > or < 6.12%. The interest payment obligation will be enhanced or reduced to the extent of . $\Delta I (L)$ for each quarter under adjustment applicable on quarterly basis.





P (Rev) = In the outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date. Period 1 shall commence on the date on which the 1st installment is due after availing the grace period.

VI. Cost of Working Capital

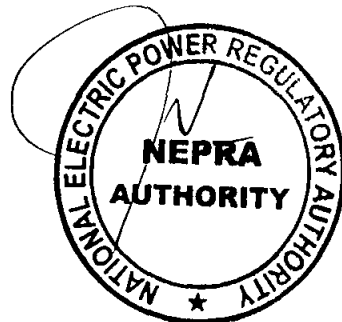
The Cost of working capital shall be adjusted quarterly for variation in KIBOR and fuel prices only.

VII. Fuel Price Variation

The cost of fuel is a pass through item and is variable with dispatch. The Fuel Cost Component is calculated using the delivered coal price at the coal yard, the heating value of coal and the plant heat rate. As a matter of reference, the figures indicated by the FFBL Power Company Limited has been taken which are given hereunder:

Description	US\$/M.Ton
Coal Price Richards Bay (CP RB)	79.05
Marine Freight (FT m)	9.62
Marine Insurance (MI)	0.05
Other Charges (OC)	7.73
Discount	-
Coal Price CIF	93.79
Coal Losses @ 1 % on CIF	0.94
Coal Price after 1% adjustment losses	94.73
Inland Freight	2.87
Coal Price with Freight	97.60
Coal Transportation losses @1% on coal price	0.98
Total Coal Price with above losses	98.58
Heat Rate (HR) (29.24% Net LHV)	11,672.37
Heating Value Richards Bay (HV RB)	23,512
PKR to US\$ currency exchange rate	104.70
Fuel Cost Component with Losses- Rs./kWh	5.1253
Fuel Cost Component without above losses:	5.1105

- *The reference price is subject to adjustment as per actual in accordance with the prescribed mechanism laid down in the Order of decision.*
- *In case the coal handling and transportation losses are part of the Fuel Supply Agreement (FSA) then there will be no adjustment on this account.*
- *Marine Insurance will be allowed at 0.1% of the CFR price or actual whichever is lower. For this purpose the Petitioner shall submit all the relevant documents, including insurance invoice, etc.*
- *Other Charges shall include port/terminal charges, UC charges, common jetty cost if any etc. This shall be adjusted on actual based on the submission of authentic documentary evidence.*



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- *The Petitioner will have the option to procure coal from these loading regions, i.e. South Africa, Australia and Indonesia. In this regard fuel cost component shall be adjusted based on actual weightage. In the instant case, fuel price adjustment mechanism based on South African coal has been prescribed.*
- *The Petitioner shall ensure a minimum calorific value of coal of 5500 kCal/kg (NAR). Argus's ICI-2 (which is already benchmark for a coal CV of 5500 kCal/kg NAR) or equivalent index shall be used provided that the index is transparent and liquid.*
- *The pricing mechanism shall be reviewed after three years when the actual coal price, quality, quantity, source, etc., data is available. It can be reviewed earlier if it is noted that current mechanism leads to a coal price that is unrealistic and detrimental to both the interest of consumers and the project sponsors.*
- *Bill of lading will be used as date of coal procurement.*

During the tariff period the fuel cost shall be calculated according to the following formula on monthly basis:

Fuel Cost Component (South African Coal)

$$FCC = \left(\left((CP_{(RB)} + Ft_{(M)} + MI + OC - \text{Discount} + Ft_{(Inland)}) \times \frac{HR}{HV_{(RB)}} \right) \times FC_{(Exch)} \right)$$

CP(RB) = Actual Weighted Average Richard Bay (South Africa) Coal Prices (CP) in US\$/kg on the basis of Opening Inventory of coal and purchases of coal till the month immediately preceding the invoice month indicated in Argus/McCloskey's Coal Price Index (API 4) 6000 kCal/kg NAR

HV(RB) = Actual Weighted Average Heating Value (HV) (LHV) in Btu/kg of the coal imported from South Africa

HR = Heat Rate in Btu/kWh

Ft(M) = Actual marine freight computed on the basis of approved mechanism in US\$/kg

OC = Other Charges to include all port and terminal charges etc. in US\$/kg

MI = Marine Insurance in US\$/kg

FC(Exch) = Average PKR to US\$ exchange rate for the month

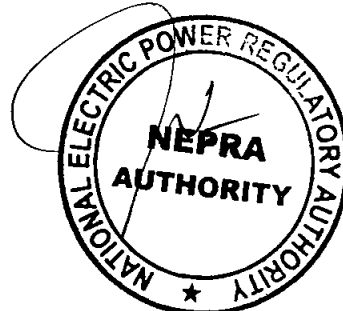
Ft(inland) = Inland Freight expressed in Rs/kg

VIII. Losses on Transportation of Coal

The power producer will be allowed losses on coal handling, transportation of imported / local coal up to 2%. If the Coal Supply Agreement caters for the transportation losses in the price, there will be no adjustment in coal pricing on account of transportation losses.

IX. Monitoring Mechanism for the use of coal fuel

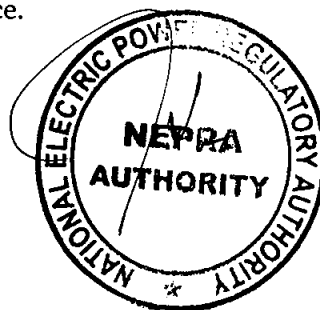
The Power Producer shall furnish a monthly coal usage and coal procurement statement duly verified and certified by the power purchaser or through internationally recognized reputable third-party firm for each month, along with the monthly energy bill. The statement shall cover details such as:



- Quantity of fuel (tons) consumed and procured for each source along with heating value during the month for power generation purposes,
- Cumulative quantity (tons) of coal consumed and procured till the end of that month during the year source wise,
- Actual (gross and net) energy generation (denominated in units) during the month,
- Cumulative actual (gross and net) energy generation (denominated in units) until the end of that month during the year,
- Opening fuel stock quantity (tons),
- Receipt of fuel quantity (tons) at the power plant site and
- Closing fuel stock quantity (tons) for available at the power plant site.

X. Definitions and Interpretations

- i. "Auxiliary energy consumption" means the quantum of energy consumed by auxiliary equipment of the generating facility, and transformer losses within the generating facility, expressed in Megawatts as well as in percentage of the sum of gross output at the generator terminals of all the units of the generating plant;
- ii. "Capital cost" means the cost of all capital work including plant and machinery, civil work, erection and commissioning and evacuation infrastructure up to inter-connection point;
- iii. "Design Coal" means the ideal type of coal or fuel that is selected to be used during performance testing of steam generators in power plant engineering;
- iv. "Grace Period" means a period equivalent to the construction period of the coal project.
- v. "Installed capacity" means the summation of the name plate capacities of all the units of the generating facility or the capacity of the generating facility (reckoned at the generator terminals), approved by the Authority from time to time as indicated in the generation license;
- vi. "Inter-connection Point" shall mean interface point of energy generating facility with the transmission system or distribution system, as the case may be;
- vii. "Operation and maintenance expenses" or 'O&M expenses' means the expenditure incurred on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables and overheads;
- viii. "Project" means a generating facility or the evacuation system up to inter-connection point;
- ix. "Tariff period" means the period from date of commercial operation.
- x. 'Useful Life' in relation to a unit of a generating facility including evacuation system shall mean the period during which the generating facility including evacuation system is expected to be usable for the purpose of generating electricity from the date of commercial operation (COD) of such generation facility, namely coal based power project is 30 years;
- xi. "Year" means a period of 12 months.
- xii. All plant and equipment shall be new and shall be designed, manufactured and tested in accordance with the acceptable standards.
- xiii. The verification of the new machinery will be done by the independent engineer at the time of the commissioning of the plant duly verified by the power purchaser.
- xiv. Taxes and duties on the import of plant & machinery during the construction period have been included in the project cost and shall be adjusted on actual at the time of COD on the basis of verifiable documentary evidence.





- xv. General assumptions, which are not covered in this determination, may be dealt with as per the standard terms of the Power Purchase Agreement.
- xvi. The PPA executed shall be consistent with all applicable documents including Generation License and NEPRA's tariff determination for the power producer. Any provision of PPA, which is inconsistent with NEPRA's tariff determination shall be void to that extent audits financial impact shall not be passed on to the end-consumers.
- XI. The above tariff along with two annexures will be notified in the official Gazette in accordance with the section 31(7) of the NEPRA Act 1997.

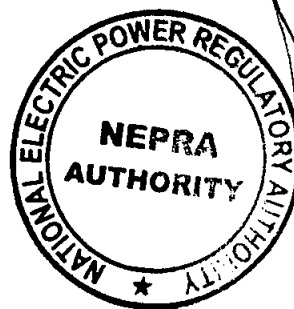
AUTHORITY

Rehmatullah Baloch
Member

Engr. Maqsood Anwar Khan
Member

Engr. Rafique Ahmed Shaikh
Member

Tauseef H. Farooqi
Chairman



9/2/22

FFBL Power Company Limited - 52 MW Coal Based Generation Power Plant

Annex - 1

	Energy Purchase Price (RS./KWh)							Capacity Purchase Price (PKR/KWh)							Total	Total	
	Fuel Component	Disposal	Lime Stone	Var. O&M		Water Charges	Total EPP	Fixed O&M		Cost of W/C	Insurance	ROE	Debt Repayment	Interest Charges	Total CPP	Tariff Rs./kWh	Tariff Cents/kWh
				Foreign	Local			Local	Foreign								
1	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.2781	1.6119	5.1436	10.3675	9.9021
2	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.3912	1.4988	5.1436	10.3675	9.9021
3	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.5144	1.3757	5.1436	10.3675	9.9021
4	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.6484	1.2417	5.1436	10.3675	9.9021
5	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.7942	1.0958	5.1436	10.3675	9.9021
6	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.9530	0.9370	5.1436	10.3675	9.9021
7	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	2.1259	0.7642	5.1436	10.3675	9.9021
8	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	2.3140	0.5761	5.1436	10.3675	9.9021
9	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	2.5187	0.3713	5.1436	10.3675	9.9021
10	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	2.7416	0.1484	5.1436	10.3675	9.9021
11	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
12	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
13	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
14	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
15	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
16	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
17	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
18	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
19	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
20	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
21	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
22	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
23	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
24	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
25	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
26	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
27	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
28	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
29	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
30	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418

Average

1-10	5.1253			0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.9280	0.9621	5.1436	10.3675	9.9021
11-30	5.1253			0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.0000	0.0000	2.2535	7.4774	7.1418
1-30	5.1253			0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	0.6427	0.3207	3.2169	8.4408	8.0619

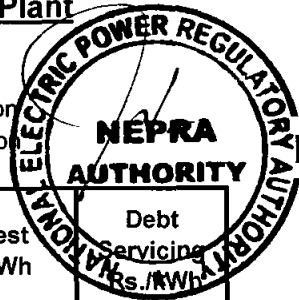
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1-30	5.1253	0.0000	0.0000	0.0855	0.0129	0.0000	5.2237	0.2675	0.2347	0.1883	0.1592	1.4027	1.1761	0.7076	4.1373	9.3612	8.9410
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* Without coal transportation losses

FFBL Power Company Limited - 52 MW Coal Based Generation Power Plant

Gross Capacity	58.000	MW	US\$/PKR Parity	104.70
Net Capacity	52.000	MW		
KIBOR	6.12%		Debt 75.00%	72.47938 US\$ Million
Spread over KIBOR	2.45%		Debt in Pak Rupees	7,464.90 PKR Million
Total Interest Rate	8.57%			



Period	Principal Million PKR	Principal Repayment Million PKR	Interest Million PKR	Balance Million PKR	Debt Service Million PKR	Principal Repayment Rs./kWh	Interest Rs./kWh	Debt Servicing Rs./kWh
1	7,464.90	119.82	159.94	7,345.09	\$279.75			
2	7,345.09	122.38	157.37	7,222.70	279.75			
3	7,222.70	125.00	154.75	7,097.70	279.75			
4	7,097.70	127.68	152.07	6,970.02	279.75	1.2781	1.6119	2.8900
1st Year		494.88	624.12		1,119.00			
5	6,970.02	130.42	149.33	6,839.60	279.75			
6	6,839.60	133.21	146.54	6,706.39	279.75			
7	6,706.39	136.07	143.68	6,570.32	279.75			
8	6,570.32	138.98	140.77	6,431.34	279.75	1.3912	1.4988	2.8900
2nd Year		538.68	580.32		1,119.00			
9	6,431.34	141.96	137.79	6,289.38	279.75			
10	6,289.38	145.00	134.75	6,144.38	279.75			
11	6,144.38	148.11	131.64	5,996.27	279.75			
12	5,996.27	151.28	128.47	5,844.99	279.75	1.5144	1.3757	2.8900
3rd Year		586.35	532.65		1,119.00			
13	5,844.99	154.52	125.23	5,690.47	279.75			
14	5,690.47	157.83	121.92	5,532.64	279.75			
15	5,532.64	161.21	118.54	5,371.42	279.75			
16	5,371.42	164.67	115.08	5,206.75	279.75	1.6484	1.2417	2.8900
4th Year		638.24	480.77		1,119.00			
17	5,206.75	168.20	111.55	5,038.56	279.75			
18	5,038.56	171.80	107.95	4,866.76	279.75			
19	4,866.76	175.48	104.27	4,691.28	279.75			
20	4,691.28	179.24	100.51	4,512.04	279.75	1.7942	1.0958	2.8900
5th Year		694.72	424.29		1,119.00			
21	4,512.04	183.08	96.67	4,328.96	279.75			
22	4,328.96	187.00	92.75	4,141.96	279.75			
23	4,141.96	191.01	88.74	3,950.95	279.75			
24	3,950.95	195.10	84.65	3,755.84	279.75	1.9530	0.9370	2.8900
6th Year		756.19	362.81		1,119.00			
25	3,755.84	199.28	80.47	3,556.56	279.75			
26	3,556.56	203.55	76.20	3,353.01	279.75			
27	3,353.01	207.91	71.84	3,145.10	279.75			
28	3,145.10	212.37	67.38	2,932.73	279.75	2.1259	0.7642	2.8900
7th Year		823.11	295.89		1,119.00			
29	2,932.73	216.92	62.83	2,715.82	279.75			
30	2,715.82	221.56	58.19	2,494.25	279.75			
31	2,494.25	226.31	53.44	2,267.94	279.75			
32	2,267.94	231.16	48.59	2,036.78	279.75	2.3140	0.5761	2.8900
8th Year		895.95	223.05		1,119.00			
33	2,036.78	236.11	43.64	1,800.67	279.75			
34	1,800.67	241.17	38.58	1,559.50	279.75			
35	1,559.50	246.34	33.41	1,313.16	279.75			
36	1,313.16	251.62	28.13	1,061.54	279.75	2.5187	0.3713	2.8900
9th Year		975.24	143.76		1,119.00			
37	1,061.54	257.01	22.74	804.53	279.75			
38	804.53	262.51	17.24	542.02	279.75			
39	542.02	268.14	11.61	273.88	279.75			
40	273.88	273.88	5.87	-	279.75	2.7416	0.1484	2.8900
10th Year		1,061.54	57.46		1,119.00			