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No. NEPRA/R/ADG(Trf)/TRF-487/GAEL-2019/108-12

January 05, 2026

Subject: **Decision of the National Electric Power Regulatory Authority in the matter of Tariff Adjustment at Commercial Operations Date of Gul Ahmed Electric Limited**

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority alongwith Annex-I, II & III (total 31 pages) regarding tariff Adjustment at Commercial Operations Date of Gul Ahmed Electric Limited in Case No. NEPRA/ TRF-487/GAEL-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 within 30 Calendar days from the intimation of this Decision. In the event the Federal Government fails to notify the subject tariff Decision 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



(Wasim Anwar Bhinder)

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

Copy to:

1. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad
2. Mr. Shehriyar Abbasi, Deputy Secretary, Cabinet Division, Cabinet Secretariat, Islamabad
3. Chief Executive Officer, Central Power Purchasing Agency Guarantee Limited (CPPA-G), Shaheen Plaza, 73-West, Fazl-e-Haq Road, Islamabad
4. Chief executive officer, Gul Ahmed Electric Limited, 7th floor, Al-Tijarah Centre, 32-1-A, Block 6, P.E.C.H.S, Main shahra-e-faisal road, Karachi



DECISION OF THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY IN THE MATTER OF TARIFF ADJUSTMENT AT COMMERCIAL OPERATIONS DATE OF GUL AHMED ELECTRIC LIMITED

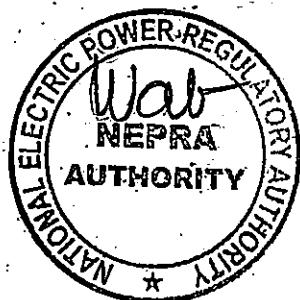
Introduction:

1. M/s. Gul Ahmed Electric Limited (the "GEL" or "Petitioner" or "Company") has been established to develop 50 MW wind power project (the "Project"). The National Electric Power Regulatory Authority (the "NEPRA" or "Authority") granted a Generation License to the Company on August 1, 2017 and modification in the matter was issued on January 01, 2020.
2. Later on, the Authority approved levelized tariff of Rs. 5.6655/kWh (US Cents 4.7212/kWh) of the Company through its determination on November 19, 2018. Thereafter, the Authority on the tariff modification petition tendered its decision on July 23, 2020. Subsequently, the Authority also issued its decision dated May 17, 2021 on the motion for leave for review filed by GEL against the tariff modification decision. All these decisions whether referred collectively or individually shall hereinafter be referred to as the "Tariff Determination").

Adjustment of Tariff at Commercial Operations Date

3. Following mechanism was approved in the Tariff Determination for the adjustment of tariff at the Commercial Operations Date ("COD") of the Company:
 - The EPC cost shall be 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, on production of authentic documentary evidence to the satisfaction of the Authority. The adjustment in approved EPC cost shall be made only 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 120 to calculate the maximum limit of the amount to be allowed at COD.
 - The Petitioner has submitted M/s DNV-GL certification No. TC-DNVGL-SE-0074-00766-0 date August 16, 2016 about the design, specification and country of origin of various component of the wind turbine to be installed for this project. At the time of COD stage tariff adjustments, the Petitioner will have to provide a confirmation from the EPC contractor as to the fullest compliance of the equipment having same design and origin of manufacture as given in the type certificate. Where needed, the bill of lading and other support documents will also have to be submitted.
 - 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.

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- 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 fifteen months allowed by the Authority.
- For full/part of conventional local or foreign loans or a mix of both, if availed by the Company, the IDC shall also be allowed adjustment for change in applicable KIBOR/LIBOR.
- 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.
- The reference tariff has been worked out on the basis of cost of 6% offered under SBP financing scheme. In case cost negotiated by the Company under SBP scheme is less than the said limit of 6%, the savings in that cost shall be shared between the power purchaser and the power producer in the ratio of 60:40 respectively.
- For full or part of local or foreign loan, if any, the savings in the approved spreads shall be shared between the power purchaser and power producer in the ratio of 60:40.
- ROEDC will be adjusted at COD on the basis of actual equity injections (within the overall equity allowed by the Authority at COD) for the project construction period of fifteen months allowed by the Authority.

4. The Authority vide Tariff review decision issued on May 17, 2021, changed the adjustment clause with respect to O&M component of tariff which is produced below:-

- The O&M cost, its mix, and the corresponding mechanism thereof as approved in the Tariff Determination of Gul Ahmed Electric Limited shall be applicable for the period during which the Petitioner has already finalized the Warranty Period (WP) and LT O&M Agreements, i.e. 13 years. During this time, however, the Petitioner shall be required to submit, on an annual basis, the documentary evidence/report pertaining to actual expenditures on account of O&M. The savings, if any, in the actual O&M cost compared to the approved O&M cost shall completely be passed on to the consumers.
- Subsequent to the lapse of the LT O&M Contract, in order to claim O&M costs, the Petitioner shall be required to carry out competitive bidding for the selection of the O&M contractor in accordance with NEPRA's applicable law. Based on this competitive bidding process, the Authority shall make revisions in the O&M cost, while capping the prevailing level of the approved O&M cost. Those revisions may also entail changing the mix of the approved O&M cost (local and foreign) as well as the indexation mechanism (indices, frequency etc.)."

Filing of Tariff Adjustment Request at COD

5. GEL submitted that the Company has successfully achieved COD on April 07, 2022. In this regard, GEL has submitted notification of COD of Complex issued by Central Power Purchasing

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Agency (Guarantee) Limited (CPPAGL) vide letter no. DGMT(R)/MT(B&W)/GAEL/8031-43 dated April 27, 2022.

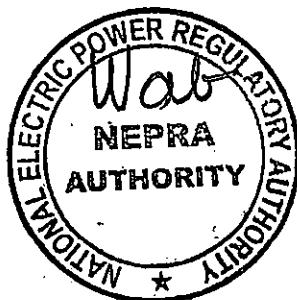
6. The Company through letter No. F-NEPRA-L22-00058 dated December 09, 2022 submitted its request for adjustment of tariff at COD ("COD Application") along with supporting documents. The Company requested to adjust / true-up the relevant tariff components in line with the parameters defined in the Tariff Determination. The Petitioner has claimed levelized tariff of PKR 9.1707/kWh in its COD Application.
7. It was noted that the information submitted by GEL along with its request for adjustment of tariff was not complete. Accordingly, GEL was repeatedly required to furnish the requisite information through emails and telephonic communications. Subsequently, GEL vide letter dated September 19, 2023 submitted addendum to the above tariff adjustment application regarding evidence of final payment of outstanding payable EPC cost, Insurance During Construction, Financing Fee and PDC costs. GEL also submitted an Undertaking for Correctness of Information on December 2, 2025, wherein GEL has mentioned that the information/data submitted is correct and nothing has been concealed or misstated.
8. Below is the summary of project cost allowed by the Authority in the Tariff Determination and claimed by GEL in its tariff adjustment application and subsequent addendums:

Project Cost Heads	Determined		Claimed at COD		Revised Claim*	
	USD	PKR	USD	PKR	USD	PKR
	Million					
EPC Cost	57.04	6,844.68	57.04	9,669.43	57.04	10,066.97
EPC Contractor Claims	-	-	5.07	942.38	5.07	942.38
Duties and Taxes	As per Actual		0.60	97.20	0.60	97.19
PDC & Non-EPC	2.50	300.00	2.19	335.27	2.19	340.36
Insurance during construction	0.29	34.20	0.31	54.20	0.30	53.08
Financial Fee and Charges	1.20	143.52	1.74	283.28	1.74	287.74
Interest during Construction	1.93	231.84	2.34	403.80	2.34	403.80
Total Project Cost	62.95	7,554.24	69.29	11,785.55	69.28	12,191.52

Audit of Project Cost:

9. GEL submitted Audit report conducted by Munif Ziauddin & Co. Chartered Accountants dated February 22, 2023. In the said Audit Report, the project cost as verified by the Auditors is given below:

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Project Cost	USD (million)
EPC Cost	57.04
EPC Contractors claims	5.07
Duties and Taxes	0.60
Project Development Cost and Non-EPC cost	2.19
Insurance during construction	0.31
Financial Fee and Charges	1.74
Interest during Construction	2.34
Total Project Cost	69.29

Force Majeure and Construction Period:

10. The Tariff Determination stipulated that the *"the targeted maximum construction period after financial close is fifteen 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 fifteen months will not invalidate the tariff granted to it."*
11. In the tariff adjustment application and during the processing thereof, GEL informed that post issuance of the Tariff Determination, the Company obtained Letter of Support ("LOS") from Alternative Energy Development Board ("AEDB") on November 07, 2019, signed the Energy Purchase Agreement ("EPA") with CPPAGL on November 11, 2019 and signed Implementation Agreement ("IA") with GOP on November 12, 2019. Accordingly, GEL achieved Financial Closing ("FC") on November 18, 2019. In the EPA, Required Commercial Operations Date is defined as the date that is fifteen (15) months following the Construction Start Date occurs, i.e. in the instant matter the RCOD comes out as October 25, 2021. However, GEL achieved actual COD with effect from April 07, 2022.
12. In the tariff adjustment application, GEL has requested construction period of about 20 months and 13 days from the construction start date i.e. July 25, 2020 till actual COD April 07, 2022 as opposed to the construction period of 15 months allowed in the Tariff Determination. The main reason for the delay in achieving COD as cited by GEL is COVID-19 Pandemic (OFME) and delay in provision of interconnection by the power purchaser.
13. While justifying the delay in achievement of COD, GEL submitted that Covid-19 pandemic widespread disruption to businesses including impact on labour markets, movement of goods and people and global supply chain. Further, Covid-19 pandemic severely impacted the project and its stakeholders, including the Company and the Purchaser, right from the start of the construction period. GEL submitted that the purchaser's obligations of completion of interconnection facilities within the timelines prescribed in the EPA was severely impacted due to Covid-19 resulting delay in supply chain, testing delay, equipment and employee movement restrictions, health and safety of workers, etc. Accordingly, National Transmission and Despatch Company Limited (Now National Grid Company "NGC") issued Force Majeure Event ("FME") notices to CPPAG on February 6, 2020 and then on March 17, 2020, pursuant to relevant provisions of EPA. GEL submitted that subsequently CPPAG vide letter dated March 25, 2020 issued to NGC acknowledged the delays due to Covid-19 as an FME. Further,

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CPPAG vide letter dated March 27, 2020 issued notice of Other Force Majeure Event ("OFME") to GEL of complete halt transmission planning, design, engineering, project development, and execution of the of Purchaser Interconnection works.

14. GEL further submitted that due to the situation prevailing during Pandemic, the EPC contractors were unable to perform/commence construction activities due to restriction on travel from China and closure of offices in China. Accordingly, the EPC contractors issued FME notices to it, pursuant to relevant provisions under the EPC construction (onshore) and EPC supply (offshore) contracts. According to GEL, upon receipt of force majeure notices from EPC contractors, the Company also issued notices to the CPPAG ("the power purchaser") from time to time under the EPA for declaring FME. The 1st notice of OFME to CPPAGL was issued on April 01, 2020.
15. GEL submitted that CPPA-G vide letter dated October 26, 2020 issued notice of cessation of OFME to GEL whereby CPPA-G intimated GEL that the pandemic (Covid-19) OFME claimed has ceased w.e.f. September 30, 2020. The notice further states that the interconnection-related construction activities and all such works have recommenced as of October 1, 2020. GEL submitted that as per EPA the construction of 15 months ended on October 25, 2021. However, the Company achieved COD on April 07, 2022; primarily due to the impact of Covid-19 on the Purchaser Interconnection Works of the Project and the non-availability of the grid until March 4, 2022. As per GEL, the actual COD was achieved within the revised RCOD timelines based on section 6.5 (f) of the EPA i.e. May 4, 2022.
16. Stating above, GEL submitted that the FME period applicable to the Purchaser interconnection works out from February 6, 2020 till September 30, 2020 is calculated to be 237 days. As per EPA Section 6.5(a), the date of readiness of purchaser interconnection facility was August 31, 2021. However, NGC actually provided interconnection facilities on March 04, 2022. Thus, the cumulative impact of Covid-19 and interconnection delay resulted in an actual delay of 422 days (237 as OFME and 185 interconnection) in completion of Purchaser interconnection facilities. GEL in support of its claim submitted certificate of readiness for energization issued on February 4, 2022 by the Independent Engineer.
17. For justification of the extended period claims, GEL also referred the Authority's decision dated September 02, 2021 in the matter of tariff modification petition filed by Pak Matiari Lahore Transmission Company (Pvt.) Ltd. ("PMLTCPL"), decision dated July 3, 2017 in the matter of tariff adjustment at COD of Uch-II Power (Pvt.) Ltd. and decision dated November 23, 2012 in the matter of motion for leave for review filed by Sapphire Electric Company Ltd ("SECL") and requested to allow extension in RCOD as approved by the power purchaser and the corresponding justified costs incurred up to the COD.
18. The Authority has noted that under the EPA signed between GEL and CPPA-G, a complete chapter is devoted to the FME. The FMEs have been divided into 03 categories namely, i.e. (i) CLFME (ii) PPFME and (iii) OFME. The instances under which above stated FMEs can be invoked have also been listed under the respective categories. The Authority further noted that the compensation to the power producer due to the delay in the construction period has only been allowed under CLFME and PPFME, whereas no such compensation is provided for the occurrence of OFME. However, it is given in the EPA that the timelines that the parties are

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obligated to meet shall be extended. Particularly, it is provided in the section 6.5 of the EPA that COD shall be extended on day-for-day basis in case of OFME that materially and adversely affects the purchaser's ability to perform its obligations.

19. As far as the cases (Uch-II, Sapphire) are concerned, these cases are distinguishable from the present case and further in recent precedents the Authority has consistently subscribed to a view that the parties while signing the contracts should take into account the potential risks and the mechanism for the compensation thereof. In the absence of any such compensation on the occurrence of OFME, it is not appropriate to allow any additional cost to the Petitioner in this respect. It is pertinent to mention here that in similar cases of wind power projects, considering the comments of CPPA-G and AEDB, the Authority has not allowed additional cost on account of this delay/extension. Further, the Authority also did not allow any compensation in recent COD tariff adjustment case of Lucky Renewables (Pvt.) Limited on account of OFME. In addition, the Authority has noted that the Petitioner itself acknowledged that in case of PMLTCPL, the Authority allowed extension in RCOD without allied cost.
20. Regarding the delay in purchaser's interconnections as claimed by GEL, the Authority has noted that certificate of readiness for energization was required to be given by the power producer on May 16, 2021 as per EPA whereas the certificate of readiness was issued by GEL on February 04, 2022. Resultantly, CPPAGL imposed penalty to GEL in line with the EPA. Therefore, the stance of GEL that interconnection was not provided by NGC has not been substantiated with documentary evidence.
21. The Authority has noted that Tariff Determination provided 15 months construction period after financial close to GEL. CPPA-G declared cessation of OFME of GEL w.e.f September 30, 2020 and clarified the recommencement of construction works on October 1, 2020. Accordingly, the 15 months construction period comes out from October 1, 2020 till December 31, 2021 as per the Tariff Determination.
22. Keeping in view the above, the Authority has decided to disallow Interest during Construction ("IDC") and Return on Equity during Construction ("ROEDC") for the period declared as OFME i.e. from February 06, 2020 till September 30, 2020 since no compensation for the OFME period is provided in the EPA. Accordingly, the Authority has decided to allow IDC and ROEDC for the construction period of 15 months - from recommencement of construction works (October 01, 2020) till revised RCOD (December 31, 2021) and hereby allowed for the purpose of calculations of IDC and ROEDC.

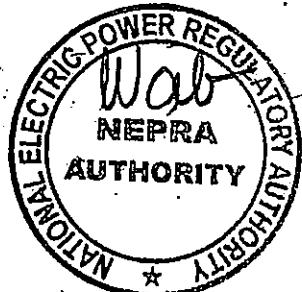
Adjustment of Engineering Procurement and Construction Cost:

23. The Authority in the Tariff Determination allowed Engineering Procurement and Construction ("EPC") cost USD 57.04 million to GEL while stating the following mechanism for its adjustment at COD;

"The EPC cost shall be 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, on production of authentic documentary evidence to the satisfaction of the

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Authority. The adjustment in approved EPC cost shall be made only for the currency fluctuation against the reference parity values."

".....the Petitioner will have to provide a confirmation from the EPC contractor as to the fullest compliance of the equipment having same design and origin of manufacture as given in the type certificate. Where needed, the bill of lading and other support documents will also have to be submitted."

24. GEL in its adjustment request has claimed EPC cost of USD 57.04 million (PKR. 9,669.43 million). The PKR amount was revised to PKR 10,066.97 million submitted through addendum dated Sep 19, 2023). The breakup of the EPC cost as approved in the Tariff Determination, claimed by GEL and verified in the Audit Report as submitted by the Company is given hereunder:

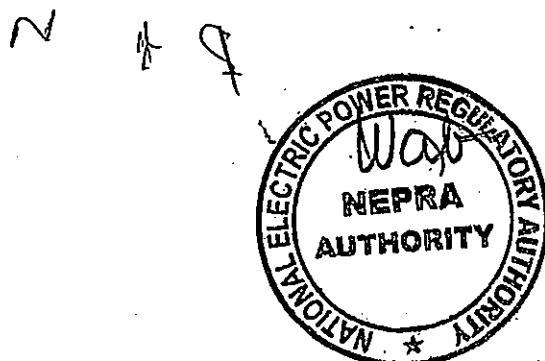
Description	Tariff Determination		Claimed at COD		Revised Claim		Audit Report
	USD	PKR	USD	PKR	USD	PKR	
	(million)						
Offshore EPC	57.04	6844.68	45.08	7,690.88	45.08	8,070.87	45.08
Onshore EPC			11.96	1,978.54	11.96	1,996.10	11.96
Total	57.04	6844.68	57.04	9,669.43	57.04	10,066.97	57.04

Offshore EPC Cost:

25. For the claim of EPC offshore cost, the Petitioner has submitted copy of offshore Equipment Supply Contract ("ESC") dated October 03, 2019 signed with Hangzhou Huachen Electric Power Control Company Limited ("HHEPCCL") for the amount of USD 45.08 million along with three (03) subsequent amendments to ESC signed dated March 04, 2020, July 10, 2020 and November 27, 2020 respectively. In addition to above said contract, GEL also submitted copies of commercial invoices, Payment instructions, bank statements, swift messages, DNV Lender's Technical Advisor Costs Certificates, SBP and NBP exchange rate sheets. Further, the milestone completion certificates issued by Consortium of Tractebel Engineering GmbH and Renewable Resources (Pvt.) Ltd. (herein referred to as "Owner's Engineer" or "OE") and import documents such as copy of Commercial Invoices, Goods Declaration ("GD") and Bill of Lading ("BL") were also submitted by GEL.

26. GEL has also submitted the certificate of compliance issued by equipment supplier i.e. HHEPCCL dated December 09, 2022 which states that the wind turbines installed at Gul Ahmed Electric Limited Project Site contains equipment of same design, specification and country of origin as mentioned in M/s. DNV-GL Certification No.TC-DNVGL-SE-0074-00766-0 dated Aug 16, 2016.

27. The Audit Report provides that the schedule of costs, as prepared by management of the Company, with respect to EPC offshore was obtained. Then the amounts paid/payables and other details appearing therein were compared with copy of commercial invoice, milestone





completion certificate/ engineer certificate, payment instruction, swift acknowledgement, NBP/SBP exchange rate sheet (for payments made from National Bank of Pakistan, Frankfurt, Germany) and bank statement, where applicable and no difference and duplication was found. The Audit report also stated that a compliance certificate of contractor giving confirmation that equipment design and origin of manufacturing as is per type certificate no difference and duplication was found.

28. In the supply contract, it is noted that the price of USD 45.08 million was agreed between the parties. They also agreed on the schedule stating the different milestones based on which the above price was to be paid to the supply contractor. It is pertinent to refer here that as per the milestone schedule the cost of the equipment under different milestones is 88% of the supply contract price while the rest of the payment pertains to the Delivery Confirmation and Final Delivery Confirmation which is 12% of the supply contract price. It is noted that GEL has made payments of EPC offshore cost from National Bank of Pakistan. For the payments made, GEL has used exchange rates applicable on payment dates.
29. Reviewing the above documents, the comparison of offshore EPC cost, as claimed by GEL, verified by auditors and allowed by NEPRA is given below:

EPC Offshore	Claimed by GEL		Verified by Auditors		Approved	
	USD	PKR	USD		USD	PKR
	(Million)					
	45.08	8,070.87	45.08		45.08	7,587.23

30. The difference between the costs claimed by GEL and approved is due to exchange rates variations.

Onshore EPC Cost

31. For the claim of the EPC onshore cost, the Petitioner has submitted copy of EPC Construction contract dated October 03, 2019 signed with Hydrochina International Engineering Company (Pvt) Limited ("HIECL") for USD 11.96 million along with amendments. GEL also submitted commercial invoices, sales tax invoices, withdrawal requests, copies of cheque and bank statements, certificates of collection or deduction of withholding tax, State Bank of Pakistan ("SBP") weighted average exchange rate sheets, Computerized Payment Receipts ("CPR"), milestone completion certificates issued by Owner's Engineer (i.e. Consortium of Tractebel Engineering GmbH and Renewable Resources Pvt Ltd.).
32. The Audit Report provides that the schedule of costs, as prepared by management of the Company, with respect to EPC onshore was obtained. Then the amounts paid/payables and other details appearing therein were compared with copy of commercial invoice, sales tax invoice, milestone completion certificate/ engineer certificate, payment instruction, swift acknowledgement, computerised payment receipt (CPR) for WHT paid to FBR, copy of sales tax invoice, pay order and CPR of Sindh Revenue Board (SRB), NBP/SBP exchange rate sheet and bank statement, where applicable and no difference and duplication was found.





33. In the onshore contract, it is noted that the price of USD 11.96 million was agreed between the parties. The parties also agreed on the schedule based on milestones for the payment. It is noted that NGEL has made payments of EPC onshore cost from National Bank of Pakistan.

34. The onshore contract provides that 50% of the USD amount shall be converted into equivalent PKR at the exchange rate on issuance of Notice to Proceed date which in the instant case was July 15, 2020 where exchange rate was PKR 166.7578/USD. While the remaining 50% will be converted to PKR on the date of issuance of respective invoice by the contractor based on SBP weighted average exchange rates (sell side). In the instant case 50% is locked @ 166.7578 while the remaining is based on date of invoice.

35. The comparison of onshore EPC cost, as claimed by GEL, verified by Auditors and as being allowed after review and verification of the above documents and as per precedent, is given below:

EPC Onshore	Claimed by GEL		Verified by Auditors		Approved	
	USD	PKR	USD		USD	PKR
	(Millions)					
	11.96	1,996.10	11.96		11.96	1,935.97

36. The difference of PKR 60.12 million between the costs claimed by GEL and allowed is due to the exchange rate variations.

EPC Contractor Claims:

37. GEL has claimed USD 5.07 million (PKR 942.38 million) on account of EPC contractor claims in COD adjustment request. The Petitioner submitted that based on the overall delays on account of FME (i.e. Delay in construction works and delay in provision of Purchaser Interconnection Facilities), the additional costs are borne by the Company. The break-up of EPC contractor cost as claimed by GEL as provided hereunder:

Additional cost claimed under:	Total USD	Total PKR
	(Millions)	
Equipment supply contract	1.21	225.79
Construction contract	0.96	174.24
Logistic cost	2.91	542.36
Total	5.07	942.38

38. In support of its claim, GEL submitted detailed summary of each cost item in the COD adjustment request. The claimed cost are related to additional payment by EPC Contractor on account of international travelling, Original Equipment Manufacturer's (OEM) service personnel idle cost at site, exchange losses, anti covid-19 cost, local hindrance cost, delay in approval of design & drawing, Delay of EPA Tests By Employer, extra cost Resulted from strong wind, project catching-up activities, and Employer's Additional Requirements, etc. due to covid-19 pandemic.





39. The Audit Report provides that the schedule of additional cost claims received from the Construction Contractor and Equipment Supplier on account of overall delays relating to the Force Majeure Event and compared the amount demanded with the notices of supplier's claims, where applicable and no difference and duplication was found. However, the additional cost claims are being reviewed by the Company's technical engineering team. Hence, the same are still unpaid.

40. The Authority observed that allowed EPC cost to GEL was fixed in tariff determination with only exchange rate variation for the construction period. No upward revision of EPC cost was allowed in the reference generation tariff. The Authority further observed that there was no adjustment mechanism given on this account in reference generation tariff at the time of COD. Accordingly, the claim of GEL being not in purview of COD adjustment has been declined.

41. Below is the comparison of the total EPC cost claimed by GEL and allowed by the Authority:

EPC	Claimed by GEL		Approved	
	USD	PKR	USD	PKR
	Million			
Offshore	45.08	8,070.87	45.08	7,587.23
Onshore	11.96	1,996.10	11.96	1,935.97
Total	57.04	10,066.97	57.04	9,523.21

Adjustment of Duties and Taxes:

42. The Tariff Determination did not account for the impact of duties and taxes and provides the following with respect to the adjustment of this head:

"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."

43. GEL in its COD tariff application has requested for the duties and taxes of USD 0.60 million (PKR 97.19 million). In support of its claim, GEL has submitted copies of relevant commercial invoices, shipment invoices, GDs, BLs, Cess CPRs, cheques, bank statement etc.

44. The Audit Report provides that schedule of SIDC prepared by management was obtained by the Auditors. Then the amounts paid were matched with the details appearing therein with respect to respective Goods Declaration (GD) number, GD date, Bill of Lading (BL) number, BL date, invoice date, invoice amount (USD), commercial invoice, packing list, SIDC challan, pay order/customer's advice to excise & taxation (if any), invoice from clearing agent (if any), PD account statement downloaded from the Company WEBOC account and bank statement, where applicable. The schedule of Stamp duty prepared by management and the amounts paid in this regard along with the details appearing therein with respect to respective invoice date, invoice amount (PKR) with copy of invoice and bank statements.

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45. The comparison of duties and taxes, as claimed by GEL, verified by Auditors and as being allowed after review and verification of the above documents, is given below:

Description	Tariff Determination		Claimed at COD		Verified by Auditors	Approved	
	USD	PKR	USD	PKR		USD	PKR
	(In Million)						
Duties & Taxes	As per actual		0.60	97.19	0.60	0.57	92.85

46. The difference between claimed and allowed cost is due to FIF, stamp duty and FED on banking transactions which pertains to Insurance during Construction and Project development cost head.

Adjustment of Project Development Cost:

47. The Authority in the Tariff Determination allowed USD 2.50 million in respect of the Project Development Cost ("PDC") to GEL while stating the following mechanism for its adjustment at COD;

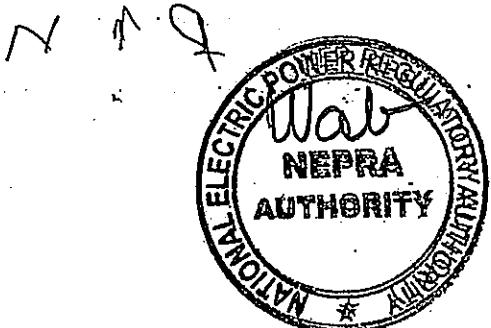
"PDC...shall be adjusted at actual at the time of COD considering the approved amount as the maximum limit. The amount allowed on this account in USD will be converted in PKR using the reference PKR/USD rate of 120 to calculate the maximum limit of the amount to be allowed at COD."

48. As per the above mechanism, the maximum amount allowed to GEL under PDC head @PKR 120/USD works out to be about PKR 300.00 million.

49. The Petitioner in its COD adjustment request has claimed PDC of PKR 335.27 million, equivalent to about USD 2.19 million. The PDC amount was revised to Rs. 340.36 million in subsequent request.

50. The Petitioner submitted that during the construction period, the PKR/USD exchange rate remained much higher compared to allowed PKR 120/USD, therefore, the Company filed Modification Petition for reconsideration of exchange rate of PKR 120/USD and requested to revise the exchange rate prevailing during the construction period. The Petitioner submitted that based on above tariff modification petition the Authority vide decision dated July 23, 2020 decided that "18. the revision/adjustments of tariff on account of debt mix, repayment terms and exchange rate as requested by the Petitioner in the subject modification petition shall be made at the time of COD of the Project".

51. GEL further submitted that during construction and development phase it was required to engage some services where fees and costs were payable in foreign currency. However, the Authority in its determination stated that the amount allowed under PDC will be converted to PKR using the reference PKR/USD rate of 120 to calculate the maximum limit of the amount to be allowed at COD. This limit imposed by the Authority restricts the Petitioner to recover the legitimate costs incurred under Project Development budget. The Petitioner also submitted that the Authority in the past had allowed variation of PKR/USD exchange rate on





PDC heads which are denominated in foreign currency. Therefore, in view of the above and the extension in RCOD, the Petitioner requested the Authority to allow the actual incurred cost under PDC head.

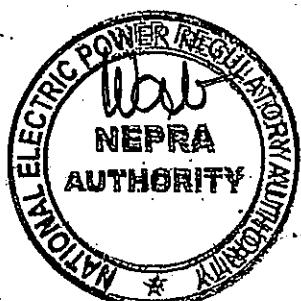
52. The Auditor's Report provides that the Company incurred PDC amounting to USD 2.19 million. The Audit report also provides that the schedules of costs prepared by the management were obtained and the amount paid were checked with the documents as mentioned under different heads:

- Technical Studies: Copy of agreement, schedule of costs prepared by management, commercial invoices, sales tax invoices, cheque / payment instructions, CPRs and bank statements where applicable.
- Legal and Professional Fee: Copy of commercial invoice, payment date, Cheque/payment instruction/pay order, CPRs (if any) and bank statement.
- Financial Consultant: Copy of commercial invoice, cheque /payment instruction/ pay order, CPRs, copy of sales tax invoice and bank statement, where applicable.
- Fixed Assets: Copy of commercial invoice, cheque/ payment instruction/ pay order, CPRs, NBP exchange rate sheet and bank statement, where applicable.
- Regulatory Authorities: Copy of commercial invoice, cheque/ payment instruction/ pay order, NBP exchange rate sheet, copy of sales tax invoice, and bank statement, where applicable.
- Others Direct Cost: Copy of invoice/claim expense voucher, and the details with respect to payroll sheet, pay order / petty cash voucher, cheque, CPRs of withholding income tax and bank statement, where applicable.
- The Auditor also stated that no difference was found.

53. It is pertinent to note here that Petitioner's understanding regarding tariff modification decision dated July 23, 2020 (as referred above) relating to PDC is not correct since the cost allowed under PDC i.e. PKR 300 million was the maximum limit. Hence, no further adjustment in the rupee term was allowed by the Authority in the decision of July 23, 2020.

54. The claim submitted by GEL has been analysed. The Authority has noted that the Company incurred the cost of PKR 344.89 million (PKR 340.36 million+ PKR 3.30 million transferred from Duties & taxes and + PKR 1.24 million transferred from Financing Fee & Charges). The relevant documents as submitted by the Company in relation to the claim of the PDC have been checked. Considering the above details, the Authority has decided to allow the expenses on account of PDC to the limit of Tariff Determination, i.e. PKR 300 million. To convert the approved PKR amount in USD, the average exchange rate of PKR 163.21/USD has been taken into account. The said average exchange rate has been computed using three rates of each month, i.e. rate at the start, middle and end of that month as published by NBP on its website

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for the construction period of 15 months i.e. from October 01, 2020 till December 31, 2021. Accordingly, the corresponding USD amounts works out to be about USD 1.84 million and the same is allowed.

Adjustment of Insurance during Construction

55. The Authority in the Tariff Determination allowed USD 0.29 million for insurance during construction while stating the following mechanism for its adjustment at COD;

“...Insurance during construction...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 120 to calculate the maximum limit of the amount to be allowed at COD.”

56. As per the above mechanism, the maximum amount allowed to GEL under captioned head @PKR 120/USD works out to be about PKR 34.20 million.

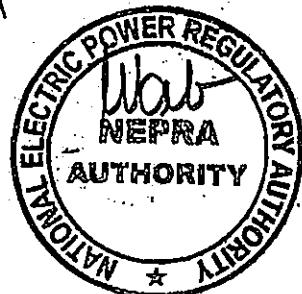
57. The Petitioner in its COD adjustment request has claimed insurance amount of PKR 54.20 million (equivalent to about USD 0.31 million). However, this include outstanding payables which were paid and submitted a revised claim amounting to PKR 53.08 million (equivalent to about USD 0.30 million) through addendum. The Petitioner has claimed insurance amount after deducting Sales tax (FED), FIF Fee and Stamp Duty. The claimed amount works out to be about 0.53% of the claimed EPC cost. In support of its claim, GEL has submitted copies of insurance policies, premium invoices, sales tax invoices, NBP ER sheet, withdrawal requests, copy of cheques and bank statements.

58. While justifying its claim, the Petitioner submitted that owing to 164 days delay due to the FME, it was required to extend its construction period insurance to cover entire actual construction period. GEL submitted that cost of insurance premium is directly linked to the EPC price, most part of which is denominated in foreign currency. The Authority in Tariff Determination restricted the insurance during construction cost at reference exchange rate of PKR 120, which deprives the Company to recover justified and legitimate incurred cost which are within the USD amount determined by the Authority.

59. The Petitioner also submitted that as per the common terms agreement of the Company which has been signed between the financier and the borrower, Material Insurances of at least 90% have to be acquired by insurers and reinsurers who carry a financial credit rating of “A-” or better from Standards and Poor's or AM Best rating agency. Local insurers neither have enough capacity to insure exorbitant risks nor have the adequate credit rating. The top insurance companies in Pakistan have a credit rating of BB+ and BBB- which is now in further decline due to the volatile economic situation and downgrade of Pakistan's overall “Fitch Credit rating” from B+ to CCC-. Due to these issues, the insurance cover for Pakistan projects is underwritten in foreign re-insurance market due to limitation of Pakistan insurance companies, therefore the insurance premium is charged in USD terms. Keeping in view the above, the Petitioner requested to allow the actual insurance cost incurred till COD date.

60. As per the details submitted by GEL the breakup of the claimed insurance during construction for the insured period is given hereunder:

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Description	Claimed Cost	
	PKR (Million)	USD (Million)
Insurance Cost	60.20	0.35
Other Insurance	0.023	0.0002
Total (including FED & Federal Insurance Fee)	61.02	0.35
Less: Federal Excise Duty	(6.90)	(0.04)
Less: Federal Insurance Fee	(0.53)	(0.003)
Less: Stamp duty	(0.51)	(0.003)
Total (excluding FED & Federal Insurance Fee)	53.08	0.30

61. The Auditors in their Report has also verified the amount of USD 0.31 million (including payables) in respect of the insurance cost. The Audit Report provides that the schedule of costs prepared by management was obtained and compared the amount paid/payable and the details with respect to insurance policies, insurance policy amount, payment date, invoices, sales tax invoices, premium bill, premium paid receipts (PPR), NBP exchange rate sheet and bank statements, where applicable and no difference and duplication was found.
62. GEL claimed FIF and Stamp duty on Insurance amounting to PKR 1.036 million (USD 0.006 million) under the head of duties and taxes. Being relevant, this cost is shifted under this cost head i.e. Insurance during construction. Accordingly, the net claimed insurance cost works out to be USD 0.310 million (PKR 54.118 million). The claim of the Petitioner has been checked and found that the claimed amount under insurance during construction is higher than the approved maximum limit.
63. Considering the above details, the Authority has decided to allow the expenses under the captioned head to the limit of Tariff Determination, i.e. PKR 34.20 million. The corresponding USD amount has been worked out on the basis of the average of the exchange rates prevailing on the respective payment dates. The resultant amount works out to be about USD 0.21 million which is being allowed.

Adjustment of Financing Fee and Charges:

64. The Authority in the Tariff Determination had allowed financing fee and charges of USD 1.20 million. The caption head was allowed at the rate of 2.50% of the approved debt in the Tariff Determination. Following mechanism for the adjustment of financing fee and charges at the time of COD was prescribed;

.... 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 120 to calculate the maximum limit of the amount to be allowed at COD."

65. As per the above mechanism, the maximum amount allowed to GEL under this head @ PKR 120/USD works out to be about PKR 143.52 million.

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66. The Petitioner in its COD adjustment request application has claimed financing fee and charges amounting to PKR 283.28 million which was subsequently revised to PKR 287.74 million (USD 1.74 million) through addendum.

67. GEL submitted that the decision to allow financing fee and charges at the reference exchange rate of PKR 120 was based on the assumption of 100% local SBP financing. As submitted in the Tariff Modification Petition, the SBP financing was available up to maximum of 50% of the total debt requirements, therefore, GEL arranged the balance amount in form of foreign financing through IFC and DEG. Accordingly, the fees and costs under foreign financing were directly linked to exchange rate fluctuations. GEL submitted that the unprecedented devaluation of PKR has a direct impact on project cost and increase in required financing, therefore, restricting financing fee and charges at maximum of applying reference exchange rate of PKR 120 on USD values is not justified. GEL further stated that the increase in Financing Fee and Charges (as compared to those approved under the Tariff Determination) is primarily attributable to the significant devaluation of PKR against USD from the issuance of the Tariff Determination to the end of the construction period and the increase should therefore be allowed. GEL has requested the Authority to allow actual financing fee of PKR 287.74 million based on actual foreign: local debt mix.

68. Below is the detailed breakup of financing fee and charges as claimed by the Petitioner and as verified by the Auditors:

Description	Claim		Revised Claim		Audited USD
	USD	PKR	USD	PKR	
	(in Million)				
Local Financing fee	0.34	55.61	0.34	55.61	1.74
Foreign Financing fee	1.40	227.67	1.40	232.13	
Total	1.74	283.28	1.74	287.74	1.74

69. The Audit Report provides that for financing fee and charges, schedule of costs prepared by management were obtained and compared the amount paid and the details with respect to commercial invoice, cheques/payment instructions, swift acknowledgement, FBR CPR, if any where WHT paid, NBP/SBP exchange rate sheet and bank statement, where applicable and no difference and duplication was found. However, the Auditor identified an additional amount of USD 5,000 related to management fee which is presented as a difference between tariff true-up cost claimed by the Petitioner and verified in cost audit report.

70. The claimed financing fee and charges amount is PKR 287.74 million (USD 1.74 million) (after deducting FED and Bank charges) whereas the verified/assessed amount comes out to be PKR 280.057 million (net of FED & bank charges). The difference is on account of exchange rate variation, out of pocket expenses and other charges.

71. GEL in support of its claim has submitted copies of financing agreements and Lender's Legal and Technical Contracts/agreement, Fee Invoices, payment evidences, bank statements, relevant exchange rate etc. which have been checked. It was noted that although the Authority vide the modification decision issued on July 23, 2020 recognized that the foreign financing be also obtained by GEL. However, the term of adjustment of financing fee and charges was not modified.

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Considering the decision for not allowing additional cost related to extended period, the Authority has decided to allow the expenses under the captioned head to the limit of Tariff Determination, i.e. PKR 143.52 million. The corresponding USD amount has been worked out on the basis of the average of the exchange rates prevailing on the respective payment dates. The resultant amount works out to be about USD 0.89 million which is being allowed.

Adjustment of Debt Amount and Interest during Construction:

72. The reference Tariff Determination was issued on debt-to-equity ratio of 80:20 while stating that the tariff shall be adjusted on actual debt to equity mix at the time of COD, subject to equity share of not more than 20%. In the COD adjustment application, GEL has submitted that the total project cost (excluding EPC contractor claims) has been financed by the Company as per the following details:

Description	PKR Million	USD Million
Debt	8,121.48	50.00
Equity	1,943.56	12.67
Total	10,065.05	62.67

73. The Tariff Determination of GEL was approved on the basis of 100% SBP concessionary debt refinancing scheme for renewable energy projects issued on June 02, 2016 ("SBP Scheme 2016") with the following provisions:

"in case the Petitioner is not able to secure financing under SBP scheme then the tariff of GEL shall be adjusted on conventional local/foreign financing, or a mix of both, at the time of its COD. However, the Petitioner shall have to prove through documentary evidence issued by SBP/commercial bank that it exhausted the option of availing 100% financing under SBP scheme before availing part/full of conventional local/foreign loan. For conventional full/part of local loan, if any, the tariff of the Petitioner shall be approved on applicable KIBOR plus spread of 2.25% and foreign loan on applicable LIBOR plus spread of 4.25%. For conventional loans, the term of debt servicing shall not be lesser than thirteen years."

74. The aforesaid refinancing scheme was revised by SBP on July 26, 2019 ("SBP Scheme 2019") and allowed renewable energy projects, having capacity of more than 20 MW, to obtain up to 50% of financing (debt) under the said Scheme. Since the Project is of more than 20 MW capacity, therefore, the Petitioner filed Tariff Modification Petition requesting the Authority to base tariff on a mix of foreign and local financing, on the pretext that not more than 50% financing can be obtained under SBP Scheme 2019. The decision of the Authority on the Modification Petition was issued on July 23, 2020 whereby the Authority decided that the adjustment of tariff on mix of local and foreign financing shall be made at the time of tariff adjustment at COD of the Project.

75. GEL submitted that in view of the SBP Scheme 2019 as stated above, the Company was only able to secure concessionary finance under the Revised SBP Scheme for the maximum of fifty percent (50%) of its debt requirement. Accordingly, GEL had to arrange the balance debt financing in foreign currency. Stating that, GEL requested the Authority to adjust the tariff determination and

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tariff table to reflect the 50:50 financing mix of local and foreign financing, instead of hundred percent (100%) SBP Scheme local financing.

76. On the review of the latest financing documents as submitted by the petitioner, it was noted that following debt commitments were secured by the GEL:

Source of Debt	Financiers	Debt Commitment
		(Millions)
SBP RE Scheme debt	• Meezan Bank Limited	PKR 4,500.00
Commercial Foreign debt	• International Finance Corporation (IFC)	USD 12.75
	• DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH	USD 12.75

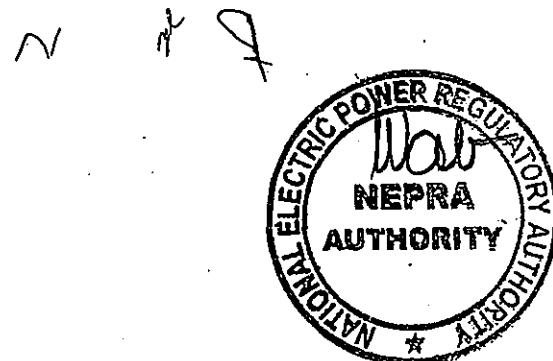
77. The amount of debt as claimed by GEL and verified by the Auditors is provided as under:

Source of Debt	Claimed by GEL		Verified by Auditors		% of claimed Debt in USD term
	USD	PKR	USD	PKR	
	(Million)				
SBP RE Scheme debt	25.50	4,129.32	25.50	4,129.325	51.00%
Foreign debt (LIBOR)	24.50	3,992.16	24.50	3,992.16	49.00%
Total	50.00	8,121.48	50.00	8,121.48	100%

78. It is noted that the SBP loan has been secured by the company for 10 years repayment period at the cost of 4.75% (5.25% inclusive of savings) to be paid on quarterly basis having equal principal instalments. The foreign loan has been obtained by the company for 13 years repayment period at the cost of 3-month LIBOR + 4.25% to be paid on quarterly basis having certain fixed percentage of principal repayments.

79. The Audit Report provides that Schedule of Debt Drawdown prepared by management were obtained and compared the amount received and the details appearing therein with respect to receipt date and amount with Lender Technical Advisor (LTA) Certificates, with the copy of bank statements, swift messages for loan receipt (for foreign loan), and NBP Rate Sheet, where applicable and no difference and duplication was found.

80. GEL has submitted copies of financing agreements, copies of bank statements in which debt drawdown were credited, NBP rate sheets and audited accounts for the construction period. Further, in support of the equity injections GEL submitted copies of bank statement in which equity was-injected (for some transaction only), Auditor's certificate on Equity invested, exchange rate sheets, and audited accounts for the construction period. The final position and terms of different loans, as obtained by GEL and approved, is provided below:





Source of Debt	USD in million	PKR in million	% of Debt in USD terms	Terms	Repayment
SBP RE Scheme debt	25.50	4,129.32	51.00%	5.25% (4.75%+0.50% saving share)	10 years
Foreign debt (LIBOR)	24.50	3,992.16	49.00%	3-Month LIBOR + 4.25%	13 years
Total	50.00	8,121.48	100%		

81. In the Tariff Determination, the IDC of USD 1.93 million (PKR 231.84 million) was approved. The said amount of IDC was computed on the basis of 100% SBP refinancing scheme at 6% interest rate using certain percentage of drawdowns for the construction period of 15 months. The Tariff Determination provides the following mechanism with respect to adjustment of IDC at the time of COD:

"IDC will be recomputed at COD on the basis of actual timing of debt drawdowns (for the overall debt allowed by the Authority at COD) for the project construction period of fifteen months allowed by the Authority."

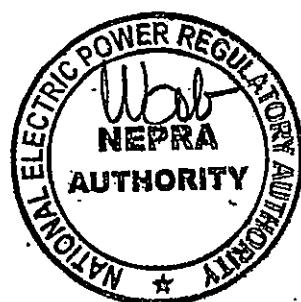
"The reference tariff has been worked out on the basis of cost of 6% offered under SBP financing scheme. In case cost negotiated by the company under SBP scheme is less than the said limit of 6%, the savings in that cost shall be shared between the power purchaser and the power producer in the ratio of 60:40 respectively."

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

"In case the company shall secure full or part of foreign conventional loan then the tariff of company shall be adjusted at the time of COD at applicable LIBOR + spread of 4.25%. The savings in the approved spreads during the loan tenor shall be shared between the power purchaser and power producer in the ratio of 60:40. The tenor of the debt servicing shall not be less than thirteen years for this loan."

"In case the company shall secure foreign loan under any credit insurance (Sinosure etc.) then the cost of that insurance shall be allowed to the maximum limit of 0.6% of the yearly outstanding principal and interest amounts. For that purpose, the spread over that full/part of loan shall be considered as 3.5% as the maximum limit. The savings in the spread during the loan tenor shall be shared between the power purchaser and power producer in the ratio of 60:40."

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82. GEL in its COD tariff application has requested for IDC based on actual debt drawdown for the actual construction period of more than 20 months.

Description	Claimed by GEL		Verified by Auditors
	Amount (USD in million)	Amount (PKR in million)	Amount (USD in million)
SBP RE scheme/PKR Facility	1.58	268.58	1.58
Commercial Foreign Loan	0.76	135.23	0.76
Less: Interest Income	-	-	-
Net Interest During Construction	2.34	403.804	2.34

83. The Audit report provides that financing agreement and schedule of costs prepared by management were obtained and compared the amount paid and the details with respect to invoice, payment instruction, swift acknowledgement, SBP refinancing scheme, SBP's KIBOR rate sheet, LIBOR historical rate report, financing agreement, drawdowns, NBP exchange rate sheet and bank statement, where applicable and no difference and duplication was found.

84. GEL in support of the claim has submitted copies of financing agreement, interest payment invoices, advance rental notices, withdrawal requests, bank statement, exchange rate sheets, KIBOR rate sheet swift acknowledgement and LIBOR rates. which have been checked. In addition, as per the sharing mechanism provided in the tariff determination the calculation of saving in SBP loan as a result of sharing of spread in a ratio of 60:40 (Purchaser: Producer) has also been checked and considered.

85. Based on the documentary evidence submitted by the company, the interest expense of the company as verified on account of local and foreign debt for the construction period from October 1, 2020 till December 31, 2021 (excluding OFME period) is given hereunder:

Local Loan	Total Drawdowns	Interest Rate	Verified IDC	
	PKR in million	%	PKR in million	Equiv. USD in million
SBP RE scheme	4,129.325	<ul style="list-style-type: none"> Rate before refinancing is KIBOR + 1.75%. SBP Refinancing rate is 4.75%+0.5% saving. 	188.66	1.13
Foreign Loan	USD in million			
Commercial Foreign loan	24.50	LIBOR+4.25%	80.61	0.46
Total Interest payment			269.27	1.59

86. The amount of PKR has been converted in USD using the rate prevailing on the date of the interest payment, as obtained from NBP's website. Likewise, the amount of interest paid in USD has been converted in PKR using the above said mechanism. The petitioner in its COD Tariff adjustment request has not mention any interest income during construction period.

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87. Based on above the interest during construction tabulated as under is hereby allowed:

Loan	IDC	
	PKR in million	USD in million
SBP RE scheme	188.66	1.13
Commercial Foreign loan	80.61	0.46
Less: Interest Income	-	-
Total verified IDC	269.27	1.59

88. The Authority observed that GEL claimed project cost of USD 64.20 million (net of contractors claim) however during the proceedings the verified project financing to the extent of USD 62.67 million (USD 50.00 million debt and USD 12.67 million Equity).

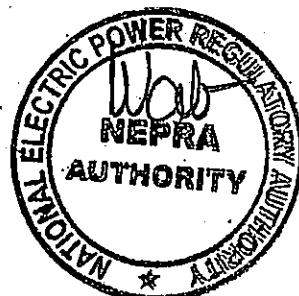
89. Recapitulating above, the project cost determined in the Tariff Determination, claimed in the tariff adjustment application, verified in the Audit Report and being allowed by the Authority is as under:

Description	Determined		Claimed		Auditors	Assessed	
	USD	PKR	USD	PKR		USD	PKR
	Million						
Total EPC Cost	57.04	6,844.68	57.04	10,066.97	57.04	57.04	9,523.21
Duties and Taxes	-		0.60	97.20	0.60	0.57	92.85
Project Development Cost	2.50	300.0	2.19	340.36	2.19	1.84	300.00
Insurance during construction	0.29	34.20	0.30	53.08	0.314	0.21	34.20
Financing Fee and Charges	1.20	143.52	1.74	287.74	1.742	0.89	143.52
Interest during Construction	1.93	231.84	2.34	403.80	2.340	1.59	269.27
Interest Income	-	-	-	-	-	-	-
Total Capital Cost	62.95	7,554.24	64.21	11,249.15	64.220	62.14	10,363.05

90. Based on the above project cost, following table shows the amount of different debts which have been used to compute the debt servicing component of the tariff being approved by the Authority:

Loans	USD in million	PKR in million
SBP RE Scheme Loan	25.35	4,228.12
Foreign Loan	24.36	4,062.32
Total	49.71	8,290.44

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Adjustment of Equity Amount, Return on Equity ("ROE") and Return on Equity during Construction ("ROEDC"):

91. The total equity injected by Gul Ahmed Energy Limited, as submitted by GEL, is PKR 1,943.561 million.
92. The Audit Report provides that the schedule of equity contribution by the Company shareholders prepared by management were obtained and compared the amount received and the details appearing therein with respect to shares and their amount, with copy of share certificate, return of allotments of shares (SECP Form-3), bank statement, NBP exchange rate sheet, where applicable and a copy of equity certification done by A.F.Ferguson & Co. Chartered Accountants to ascertain the equity value and no difference and duplication was found. The amount of equity as verified by the auditors is PKR 1,943.561 million.
93. Equity Injections were deposited in NBP bank account. Equity injections amounting to PKR 1,643.561 million are only traced from bank statements. However, the same can be verified through SECP Form 3. For the purpose of verification, equity claim has been verified from the audited accounts for the financial year ending June 2022. Based on the review and verification of the above documents, the Equity in term of equivalent USD amount comes out to be USD 12.17 million.
94. GEL in support of its claim submitted copies of bank statement in which equity was injected (for some transaction only), Auditor's certificate on Equity invested, exchange rate sheets, and audited accounts for the construction period. The ratio of equity contribution comes out to be higher than what was prescribed in the Tariff Determination therefore, the Authority has decided to consider the equity contribution more than 20% as being financed by debt, in accordance with the Tariff Determination. Based on the project cost being approved, the amount of equity being allowed works out as following:

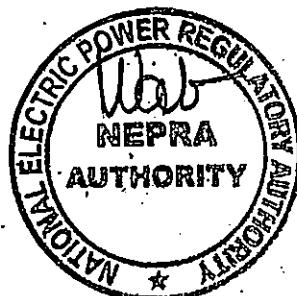
Equity (20%)	USD	PKR
	(Million)	
	12.43	2,072.61

95. The ROEDC component of PKR 0.1145/kwh was approved in the Tariff Determination, while stating the following mechanism for its adjustment:

"ROEDC will be adjusted at COD on the basis of actual equity injections (within the overall equity allowed by the Authority at COD) for the project construction period of fifteen months allowed by the Authority."

96. It is noted that about 100% of the equity amount had been disbursed till COD. The claimed equity amount was USD 12.67 million. It was observed that the equity was injected from January 20, 2016 till April 27, 2021. The Authority in the instant case allowed the construction period of 15 months from October 1, 2020 to December 31, 2021. Accordingly, the equity injected from January 20, 2016 till 1st date of construction period has been converted in USD term with the exchange rate of PKR 166.10/USD. Based on the aforesaid, the equity amount works out USD 12.17 million. The

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ROEDC on the verified equity has been worked as USD 1.64 million and the same is allowed to the company. Using the PMT formula, the ROEDC component till revised RCOD component works out to be PKR. 0.2474/kWh (using exchange rate of PKR 183.2/USD as on 31 March, 2022).

97. Based on the allowed project cost of USD 62.14 million, the 20% equity portion has been worked out as USD 12.43 million. The amount of annual ROE, using rate of 14%, at allowed equity amount comes out as USD 1.64 million. Accordingly, the ROE component works out to be PKR 1.8021/kWh (using exchange rate of PKR 183.2/USD as on 31 March, 2022).
98. It is important to mention here that the equity IRR of 14% per annum was allowed to GEL and the calculations in the Tariff Determination were made assuming the payment is to be made on annual basis, whereas the payment of ROE is to be paid on monthly basis as per EPA. Therefore, the Authority has decided to approve IRR while using the monthly payment of return components as has also been allowed in the recent similar COD cases.

Operation and Maintenance (O&M) Cost

99. The Authority in the tariff determination approved O&M cost of USD 23,000 per MW per annum for GEL. The allowed O&M had been approved in the ratio of 50:50 in local and foreign components. Detail is as under:

O&M	Cost allowed	Tariff	Component	Indexation
Local O&M		0.4146	50%	CPI (General)
Foreign O&M	USD 23,000/MW/year	0.4146	50%	US-CPI and PKR/USD Exchange rate

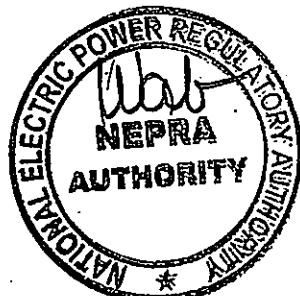
100. Further, the Authority vide review motion decision dated May 17, 2021 decided as under:

"The O&M cost, its mix, and the corresponding mechanism thereof as approved in the Tariff Determination of Gul Ahmed Electric (Pvt.) Limited shall be applicable for the period during which the Petitioner has already finalized the WP and LT O&M Agreements, i.e. 13 years. During this time, however, the Petitioner shall be required to submit, on an annual basis, the documentary evidence/report pertaining to actual expenditures on account of O&M. The savings, if any, in the actual O&M cost compared to the approved O&M cost shall completely be passed on to the consumers."

Subsequent to the lapse of the LT O&M Contract, in order to claim O&M costs, the Petitioner shall be required to carry out competitive bidding for the selection of the O&M contractor in accordance with NEPRA's applicable law. Based on this competitive bidding process, the Authority shall make revisions in the O&M cost, while capping the prevailing level of the approved O&M cost. Those revisions may also entail changing the mix of the approved O&M cost (local and foreign) as well as the indexation mechanism (indices, frequency etc.)."

101. The petitioner in its COD adjustment request has claimed local O&M of PKR 0.5926/kWh and foreign O&M of PKR 0.7350/kWh for tariff control period. The tariff being approved is to be applicable for the energy supplied by the company during the quarter April-June, 2022, therefore,

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the O&M Cost being allowed in this decision has been adjusted/indexed, as per the prescribed mechanism, on the indices applicable for the said quarter which is detailed as under:

O&M Cost	Determined		Claimed	Approved
	%age	PKR/kWh	PKR/kWh	PKR/kWh
Local O&M	50%	0.4146	0.5926	0.5946
Foreign O&M	50%	0.4146	0.7350	0.7121
Indexation values:				
NCPI (General)		229.27	160.07	160.61
PKR/USD exchange rate		120.00	186.60	183.20
US-CPI		252.146	287.504	283.716

- For the purpose of calculation of assessed numbers; N-CPI and US CPI for month of February, 2022 has been used. The exchange rate of March 31, 2022 has been used.
- Due to discontinuation of CPI, the Authority vide decision dated March 10, 2021 (notified in the official Gazette) has replaced the same with NCPI. The reference generation tariff was determined on CPI. Accordingly, CPI of August 2018 i.e. 229.27 was revised with the equivalent NCPI of May 2020 i.e. 131.01. Subsequently the same was indexed with NCPI of February 2022.

Insurance during Operation

102. The tariff determination provides following provision with regard to insurance during operations:

"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..."

103. GEL has not submitted complete information. It is noted that in the Tariff Determination, the reference insurance component has been calculated considering 0.4% of the allowed EPC cost (USD 57.039 million) which works out to be around USD 0.23 million. Based on the same mechanism, the insurance component has been adjusted/revised at COD and is being allowed as PKR 0.2439/kWh. The adjustment mechanism of operational insurance is given in order part of this decision.

104. ORDER

In pursuance of section 7(3)(a) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 read with Rule 3 of NEPRA (Tariff Standards & Procedure) Rules, 1998, the Authority hereby approves the following generation tariff along with terms and conditions for Gul Ahmed Electric Limited for its 50 MW wind power project for delivery of electricity to the power purchaser:

- Levelized tariff works out to be Rs. 8.0707/kWh (US Cents 4.4054/kWh).
- Net Annual Plant Capacity Factor of 38% has been approved.
- The aforementioned tariff is applicable for twenty-five (25) years from COD.
- Debt to Equity ratio of 80:20 has been approved.

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- Debt Repayment period of 10 years has been taken into account for local financing under SBP Scheme.
- Debt Repayment period of 13 years has been taken into account for foreign financing.
- The cost of financing of debt of 5.25% (inclusive of saving) for SBP loan and LIBOR+4.25% for foreign loan, both for construction and operation period has been considered.
- Return on Equity during construction and operation of 14% on monthly payment basis has been allowed.
- Construction period of 15 months has been used for the workings of ROEDC and IDC from October 01, 2020 till revised RCOD of December 31, 2021 (excluding OFME period).
- Insurance during operation has been calculated at 0.4% of the allowed EPC cost.
- Reference Exchange Rates of 183.20 PKR/USD of March 31, 2022 has been used.
- Detailed component wise tariff is attached as Annex-I of this decision.
- Debt Servicing Schedule for SBP financing is attached as Annex-II of this decision.
- Debt Servicing Schedule for foreign financing is attached as Annex-III of this decision.

A. Indexation

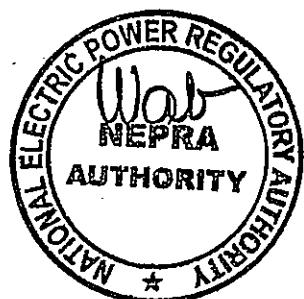
Adjustment of O&M, return on equity, return on equity during construction shall be made on quarterly basis for the quarters starting from 1st January, 1st April, 1st July and 1st October, based on latest available information. Adjustment of debt servicing components, where applicable, shall also be made on quarterly basis. Insurance component shall be adjusted on annual basis. The indexation for the 1st quarter i.e. April-June 2022 except for insurance component has already been made in this decision. The indexation mechanisms for subsequent quarters are given hereunder:

i) Operation and Maintenance Costs

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

F. O&M _(REV)	=	F. O&M _(REF) * US CPI _(REV) / US CPI _(REF) * ER _(REV) / ER _(REF)
L. O&M _(REV)	=	L. O&M _(REF) * N-CPI _(REV) / N-CPI _(REF)
Where;		
F. O&M _(REV)	=	The revised O&M Foreign Component of Tariff
L. O&M _(REV)	=	The revised O&M Local Component of Tariff
F. O&M _(REF)	=	The reference O&M Foreign Component of Tariff
L. O&M _(REF)	=	The reference O&M Local Component of Tariff
US CPI _(REV)	=	The revised US CPI (All Urban Consumers) of the middle month of preceding quarter as notified by US Bureau of Labor Statistics
US CPI _(REF)	=	The reference US CPI (All Urban Consumers) of 283.716 of February, 2022
N-CPI _(REV)	=	The revised N-CPI of the middle month of preceding quarter as notified by Pakistan Bureau of Statistics

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N-CPI _(Ref)	=	The reference N-CPI of 160.61 for the month of February, 2022
ER _(Rev)	=	The 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)	=	The reference TT & OD selling rate of PKR 183.20/USD of March 31, 2022.

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 to the satisfaction of the Authority according to the following formula:

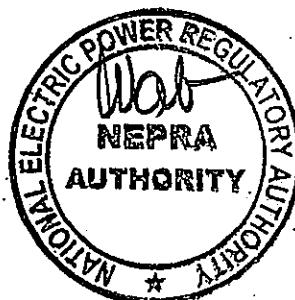
AIC	=	Ins _(Ref) / P _(Ref) * P _(Act)
Where;		
AIC	=	Adjusted insurance component of tariff
Ins _(Ref)	=	Reference insurance component of tariff
P _(Ref)	=	Reference premium @ 0.4% of approved EPC Cost (USD 57.039 million) at PKR 177.95/USD of December 31, 2021.
P _(Act)	=	Actual premium or 0.4% of the EPC Cost converted into PKR on exchange rate prevailing at the time of insurance premium payment of the insurance coverage period, whichever is lower.

iii) Return on Equity

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

ROE _(Rev)	=	ROE _(Ref) * ER _(Rev) / ER _(Ref)
Where;		
ROE _(Rev)	=	Revised ROE Component of Tariff
ROE _(Ref)	=	Reference ROE Component of Tariff
ER _(Rev)	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan as at the last day of the preceding quarter.
ER _(Ref)	=	The reference TT & OD selling rate of PKR 183.20/USD of March 31, 2022.

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iv) Indexations applicable to debt

The principal component of foreign debt 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 period, over the applicable reference exchange rate. The interest part of tariff component for the foreign loan shall also be adjusted with respect to change in applicable LIBOR according to the following formula:

ΔI	=	$P_{(REV)} * (LIBOR_{(REV)} - 0.9616\%) / 4$
Where;		
ΔI	=	The variation in interest charges applicable corresponding to variation in 3-month LIBOR. ΔI can be positive or negative depending upon whether $3\text{-month LIBOR}_{(REV)}$ per annum $>$ or $<$ 0.9616%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment.
$P_{(REV)}$	=	The outstanding principal (as indicated in the attached debt service schedule to this order at Annex-III), on a quarterly basis at the relevant calculations date.
$LIBOR_{(REV)}$	=	Revised 3-month LIBOR as at the last day of the preceding quarter.

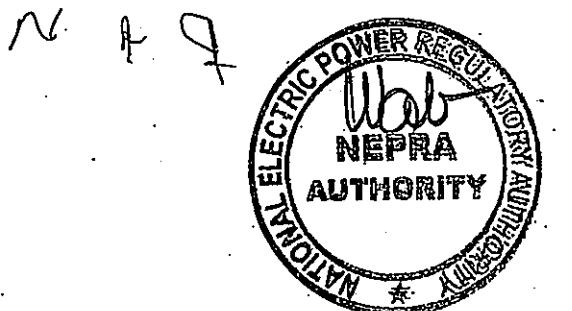
Note: The revised LIBOR shall be replaced with SOFR with effect from July 01, 2023 in light of the decision of the Authority regarding Suo moto proceedings for transition from LIBOR to SOFR dated December 5, 2024 and December 13, 2024. The Company shall submit the indexation of the debt service component (foreign) in light of the aforesaid decision.

The foreign interest component will also 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.

B. Terms and Conditions

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

- The O&M Cost, its mix, and the corresponding mechanism thereof as approved shall be applicable for 13 years from COD. During this time, however, the Petitioner shall be required to submit, on an annual basis, the documentary evidence/report pertaining to actual expenditures on account of O&M. The savings, if any, in the actual O&M cost compared to the approved O&M cost shall completely be passed on to the consumers.
- Subsequent to the lapse of the LT O&M Contract, in order to claim O&M costs, the Petitioner shall be required to carry out competitive bidding for the selection of the O&M contractor in accordance with NEPRA's applicable law. Based on this competitive bidding process, the Authority shall make revisions in the O&M cost, while capping the prevailing level of the approved O&M cost. Those revisions may also entail changing the mix of the approved O&M cost (local and foreign) as well as the indexation mechanism (indices, frequency etc.).





- This tariff will be limited to the extent of net annual energy generation supplied to the power purchaser up to 38% net annual plant capacity factor. Net annual energy generation supplied to the power purchaser in a year, in excess of 38% net annual plant capacity factor will be charged at the following tariffs:

<u>Net annual plant capacity factor</u>	<u>% of prevalent tariff allowed to power producer</u>
Above 38% up to 40%	5%
Above 40% up to 42%	10%
Above 42% up to 44%	20%
Above 44% up to 46%	40%
Above 46% up to 48%	80%
Above 48%	100%

- The risk of wind resource shall be borne by the power producer.
- The Company is required to maintain the availability levels as declared in the Tariff Petition and the studies provided therein. Power purchaser shall conduct detailed monitoring/audit of the operational record/log of all the wind turbines to verify output/capacity of the power plant so that the power producer cannot intentionally suppress the capacity factor.
- In the tabulated above-mentioned tariff, no adjustment for certified emission reductions has been accounted for. However, upon actual realization of carbon credits, the same shall be distributed between the power purchaser and the power producer in accordance with the applicable GOP Policy, amended from time to time.
- The savings in the cost of any financing during any time of debt servicing period shall be shared between the power purchaser and the Company in the ratio of 60:40.
- In case the Company is obligated to pay any tax on its income from generation of electricity, or any duties and/or taxes, not being of refundable nature, are imposed on the Company, the exact amount paid by the Company on these accounts shall be reimbursed on production of original receipts. This payment shall be considered as a pass-through payment. However, withholding tax on dividend shall not be a pass-through item.
- 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 indexation already allowed on interim basis shall not be applicable after the notification of this decision. Subsequent to notification, the indexations/adjustment shall be made in line with the COD true-up decision.

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- This decision is based on the data/information submitted by the petitioner. In case it comes to the knowledge of the Authority subsequently that any document or information submitted is incorrect, false, forged, untrue or that the petitioner has misrepresented, the Authority reserves the right to make any consequential modifications/adjustment in the tariff and appropriate action will be initiated against the petitioner in accordance with the NEPRA Act, Rules and Regulations made thereunder.

105. The instant decision along with attached three Annexures is intimated to the Federal Government for notification in the official Gazette as per Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

(Amina Ahmed)

Member

(Eng. Maqsood Anwar Khan)

Member

(Waseem Mukhtar)

Chairman



Annex-I

Gul Ahmed Electric Limited

Tariff Table (PKR/kWh)

Year	O&M - Local	O&M - Foreign	Insurance	ROE	ROEDC	Foreign Loan - Principal	Foreign Loan - Interest	SBP Loan - Principal	SBP Loan - Interest	Total
1	0.5946	0.7121	0.2439	1.8021	0.2474	1.3352	1.3716	2.5403	1.2837	10.1309
2	0.5946	0.7121	0.2439	1.8021	0.2474	1.4290	1.3001	2.5403	1.1503	10.0200
3	0.5946	0.7121	0.2439	1.8021	0.2474	1.5282	1.2237	2.5403	1.0169	9.9094
4	0.5946	0.7121	0.2439	1.8021	0.2474	1.6328	1.1421	2.5403	0.8836	9.7990
5	0.5946	0.7121	0.2439	1.8021	0.2474	1.7480	1.0547	2.5403	0.7502	9.6935
6	0.5946	0.7121	0.2439	1.8021	0.2474	1.8714	0.9613	2.5403	0.6168	9.5900
7	0.5946	0.7121	0.2439	1.8021	0.2474	2.0001	0.8613	2.5403	0.4835	9.4853
8	0.5946	0.7121	0.2439	1.8021	0.2474	2.1368	0.7544	2.5403	0.3501	9.3818
9	0.5946	0.7121	0.2439	1.8021	0.2474	2.2869	0.6402	2.5403	0.2167	9.2844
10	0.5946	0.7121	0.2439	1.8021	0.2474	2.4451	0.5180	2.5403	0.0834	9.1870
11	0.5946	0.7121	0.2439	1.8021	0.2474	2.6167	0.3872	-	-	6.6041
12	0.5946	0.7121	0.2439	1.8021	0.2474	2.7963	0.2473	-	-	6.6439
13	0.5946	0.7121	0.2439	1.8021	0.2474	2.9840	0.0978	-	-	6.6821
14	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
15	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
16	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
17	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
18	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
19	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
20	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
21	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
22	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
23	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
24	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
25	0.5946	0.7121	0.2439	1.8021	0.2474	-	-	-	-	3.6002
Levelized Tariff	0.5946	0.7121	0.2439	1.8021	0.2474	1.4771	0.7410	1.7196	0.5326	8.0707



Gul Ahmed Electric Limited
Debt Servicing Schedule - SBP Loan

SBP refinance rate	3.00%	p.a
Spread+saving share	2.25%	
All-in Rate	5.25%	p.a

Period	PKR			PKR/kWh	
	Outstanding	Principal	Interest	Principal	Interest
1	4,228,115,783	105,702,895	55,494,020	-	-
2	4,122,412,888	105,702,895	54,106,669	-	-
3	4,016,709,994	105,702,895	52,719,319	-	-
4	3,911,007,099	105,702,895	51,331,968	2.5403	1.2837
5	3,805,304,205	105,702,895	49,944,618	-	-
6	3,699,601,310	105,702,895	48,557,267	-	-
7	3,593,898,415	105,702,895	47,169,917	-	-
8	3,488,195,521	105,702,895	45,782,566	2.5403	1.1503
9	3,382,492,626	105,702,895	44,395,216	-	-
10	3,276,789,732	105,702,895	43,007,865	-	-
11	3,171,086,837	105,702,895	41,620,515	-	-
12	3,065,383,943	105,702,895	40,233,164	2.5403	1.0169
13	2,959,681,048	105,702,895	38,845,814	-	-
14	2,853,978,153	105,702,895	37,458,463	-	-
15	2,748,275,259	105,702,895	36,071,113	-	-
16	2,642,572,364	105,702,895	34,683,762	2.5403	0.8836
17	2,536,869,470	105,702,895	33,296,412	-	-
18	2,431,166,575	105,702,895	31,909,061	-	-
19	2,325,463,681	105,702,895	30,521,711	-	-
20	2,219,760,786	105,702,895	29,134,360	2.5403	0.7502
21	2,114,057,891	105,702,895	27,747,010	-	-
22	2,008,354,997	105,702,895	26,359,659	-	-
23	1,902,652,102	105,702,895	24,972,309	-	-
24	1,796,949,208	105,702,895	23,584,958	2.5403	0.6168
25	1,691,246,313	105,702,895	22,197,608	-	-
26	1,585,543,419	105,702,895	20,810,257	-	-
27	1,479,840,524	105,702,895	19,422,907	-	-
28	1,374,137,629	105,702,895	18,035,556	2.5403	0.4835
29	1,268,434,735	105,702,895	16,648,206	-	-
30	1,162,731,840	105,702,895	15,260,855	-	-
31	1,057,028,946	105,702,895	13,873,505	-	-
32	951,326,051	105,702,895	12,486,154	2.5403	0.3501
33	845,623,157	105,702,895	11,098,804	-	-
34	739,920,262	105,702,895	9,711,453	-	-
35	634,217,367	105,702,895	8,324,103	-	-
36	528,514,473	105,702,895	6,936,752	2.5403	0.2167
37	422,811,578	105,702,895	5,549,402	-	-
38	317,108,684	105,702,895	4,162,051	-	-
39	211,405,789	105,702,895	2,774,701	-	-
40	105,702,895	105,702,895	1,387,350	2.5403	0.0834



Gul Ahmed Electric Limited
Debt Servicing Schedule - Foreign Loan

LIBOR	0.9616%	p.a
Spread	4.2500%	p.a
All-in Rate	5.2116%	p.a

Period	USD			PKR/kWh	
	Outstanding	Repayment percentage	Principal	Interest	Principal
1	24,357,691	1.21%	294,728	317,355	-
2	24,062,963	1.23%	299,600	313,515	-
3	23,763,363	1.26%	306,907	309,611	-
4	23,456,456	1.28%	311,778	305,612	1.3352
5	23,144,678	1.30%	316,650	301,550	-
6	22,828,028	1.32%	321,522	297,425	-
7	22,506,506	1.34%	326,393	293,236	-
8	22,180,113	1.37%	333,700	288,983	1.4290
9	21,846,413	1.39%	338,572	284,635	-
10	21,507,841	1.41%	343,443	280,224	-
11	21,164,397	1.44%	350,751	275,749	-
12	20,813,647	1.46%	355,622	271,179	1.5282
13	20,458,024	1.48%	360,494	266,546	-
14	20,097,531	1.51%	367,801	261,849	-
15	19,729,730	1.54%	375,108	257,057	-
16	19,354,621	1.56%	379,980	252,170	1.6328
17	18,974,641	1.59%	387,287	247,219	-
18	18,587,354	1.62%	394,595	242,173	-
19	18,192,759	1.64%	399,466	237,032	-
20	17,793,293	1.67%	406,773	231,827	1.7480
21	17,386,520	1.70%	414,081	226,528	-
22	16,972,439	1.73%	421,388	221,133	-
23	16,551,051	1.76%	428,695	215,642	-
24	16,122,356	1.79%	436,003	210,057	1.8714
25	15,686,353	1.82%	443,310	204,376	-
26	15,243,043	1.85%	450,617	198,600	-
27	14,792,426	1.88%	457,925	192,729	-
28	14,334,501	1.91%	465,232	186,763	2.0001
29	13,869,269	1.94%	472,539	180,702	-
30	13,396,730	1.98%	482,282	174,545	-
31	12,914,448	2.01%	489,590	168,261	-
32	12,424,858	2.04%	496,897	161,883	2.1368
33	11,927,961	2.08%	506,640	155,409	-
34	11,421,321	2.11%	513,947	148,808	-
35	10,907,374	2.15%	523,690	142,111	-
36	10,383,684	2.19%	533,433	135,288	2.2869
37	9,850,250	2.22%	540,741	128,338	-
38	9,309,509	2.26%	550,484	121,293	-
39	8,759,026	2.30%	560,227	114,121	-
40	8,198,799	2.34%	569,970	106,822	2.4451
41	7,628,829	2.38%	579,713	99,395	-
42	7,049,116	2.42%	589,456	91,842	-
43	6,459,660	2.46%	599,199	84,162	-
44	5,860,460	2.50%	608,942	76,355	2.6167
45	5,251,518	2.54%	618,685	68,422	-
46	4,632,833	2.59%	630,864	60,361	-
47	4,001,969	2.63%	640,607	52,141	-
48	3,361,361	2.67%	650,350	43,795	2.7963
49	2,711,011	2.72%	662,529	35,322	-
50	2,048,482	2.77%	674,708	26,690	-
51	1,373,774	2.81%	684,451	17,899	-
52	689,323	2.83%	689,323	8,981	2.9840
					0.0978

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