



Registrar

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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

No. NEPRA/R/SA(Tariff)/TRF-464/GAEL-2019/14142-14144

June 3, 2020

Subject: **Decision of the Authority in the matter of Motion for Leave for Review filed by Gul Ahmed Energy Limited in respect of the Tariff Determination dated 21st November 2019 regarding Generation Tariff for Term Extension of RFO Based Power Plant of 136.17 MW (Gross) at Karachi [Case # NEPRA/TRF-464/GAEL-2019]**

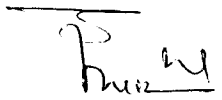
Dear Sir,

Please find enclosed herewith the subject Decision of the Authority (19 Pages) in Case No. NEPRA/TRF-464/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.

3. The Order of the Authority's Decision shall be notified in the official Gazette.

Enclosure: As above


03 06 20
(Syed Safer Hussain)

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

CC:

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

MOTION FOR LEAVE FOR REVIEW FILED BY GUL AHMED ENERGY LIMITED IN RESPECT OF THE TARIFF DETERMINATION DATED 21ST NOVEMBER 2019 REGARDING GENERATION TARIFF FOR TERM EXTENSION OF RFO BASED POWER PLANT OF 136.17 MW (GROSS) AT KARACHI

1. BACKGROUND

- 1.1. GUL AHMED ENERGY LIMITED (“GAEL” or “the Petitioner”) is a company duly established and existing under the law of Pakistan with its registered office at Plot No. 8, Sector Model Village, Humak, Islamabad, Pakistan. The Company was duly incorporated under the laws of Pakistan on July 20, 1994, for the purposes of undertaking the project (the Project) relating to the development, setting up, implementation, construction and operation of a 136.17 MW (Gross) thermal power generation facility (the Facility) located at Korangi, Industrial Township, Karachi, Sindh, Pakistan (the Site) for sale of electricity to K-Electric. The power plant achieved commercial operations on 2nd November 1997.
- 1.2. The Project has been running successfully for over twenty two (22) years. In compliance with its PPA obligations, approximately 790 GWh/annum has been supplied to KE to meet its consumer demand and maintain its system reliability.
- 1.3. Contemplating the expiry of the PPA with KE, GAEL vide its letter No. F-NEPRA-119-00489 dated February 13, 2019 filed a tariff petition for extension of the PPA term to further five years from 3rd November 2019 to 2nd November 2024. Decision in the matter was issued on 21st November 2019 with term extension for a period of three (3) years w.e.f. 3rd November 2019. The tariff was determined on take and pay basis with capacity charges converted to per unit basis on 92% plant factor. The summary of the approved tariff is as under:

Description	Rs./kWh
Energy Charge:	
Fuel cost component	13.5033
Variable O&M (Local)	0.6736
Sub-Total	14.1769
Capacity Charge:	
Fixed O&M (Local)	0.3364
Cost of working capital	0.2113
Insurance	0.0563
Return on Equity	0.5610

Sub-Total	1.1650
Total Tariff	15.3419
Reference Values:	
RFO Price (Rs./ton)	62,586.93
KIBOR	12.97%
CPI General June 2019	246.82

2. FILING OF REVIEW PETITION

- 2.1. Being aggrieved of the above decision of the Authority, GAEL vide its letter dated 28th November 2019 filed a motion for leave for review in the matter. The Review Motion was filed under Rule 16(6) of the NEPRA (Tariff Standards and Procedure) Rules, 1998, (the "1998 Rules"), read together with Regulation 3(2) of the NEPRA (Review Procedure) Regulations, 2009, (the "2009 Regulations"), Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, (the "NEPRA Act"), and all other enabling provisions of the relevant laws.
- 2.2. The motion for leave for review was admitted on 24th December 2019 for further processing.

3. GROUNDS OF REVIEW MOTION

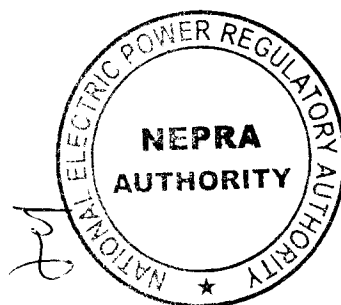
- 3.1. GAEL sought review on following grounds:
- Tariff control period for the extended terms of the new PPA.
 - Take and pay sale arrangement.
 - O&M Cost (variable & fixed).
 - Return on Equity.
 - Sales tax on Energy Charge.

4. HEARING

- 4.1. The Authority decided to hold a hearing in the matter on 29th January 2020. Notices of hearing were sent to stakeholders on 17th January 2020 along with request to file comments in the matter, if any.
- 4.2. Hearing was held as per schedule and was participated by representatives of the Petitioner, CPPA-G, PSO and KE.

5. COMMENTNS

- 5.1. In response to the notice of hearing, comments were received from KE, PSO and CPPA-G which are reproduced hereunder:

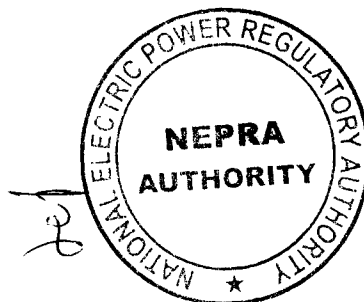


Comments of CPPA-G

- i. Following table shows the OEM indicated efficiency at ISO conditions and NEPRA's determined efficiency at mean site conditions for subject power plants:

Efficiency (Net LHV)	Tapal Energy	Gul Ahmed Energy
Engine Type	18V38	18V46
OEM indicated Efficiency @ 100% load under ISO conditions	46.3	48.7
NEPRA Determined Efficiency @ 100% load under mean site conditions	41.34	40.73

- ii. It is noted that the parameters relied upon by NEPRA while determining heat rates/efficiency as shown above have been provided by Tapal Energy and Gul Ahmed Energy like RFO consumption (in MT's), Export (kWh) and Calorific value (in Btu/kg) etc. for the last five years. Pertinent to mention that, Although there is a claw back mechanism in place for sharing of the profits higher than the regulated profits, however, in view of the difference between OEM indicated efficiency at ISO conditions and Authority's determined efficiency at mean site conditions and in order to ensure transparency, the Authority may direct Tapal Energy and Gul Ahmed Energy to conduct Heat rate Test by a reputable Int'l Independent Engineer to assess the actual performance (capacity and heat rate) of afore said IPPs as per recognized testing codes. In case the net efficiency and net output of the complex are established higher than the approved values, downward adjustments may be made in fuel cost component and capacity charge components respectively. No adjustments may be made in tariff components in case the net efficiency and net output of the complex are established lower than the approved values.
- iii. The results of the performance test will show actual performance degradation since COD of the projects. Moreover, regarding partial loading the Authority may not allow any sort of adjustments as Engines operating in open cycle have favorable part load characteristics and the efficiency curve for diesel engines is comparatively flat between 50 and 100% load (Ref: Parsons Brinckerhoff 2009 Study). A plant with several units can turn down some units and run the remaining ones at full load, thereby eliminating part load efficiency losses. This type of operation is called the efficiency mode (Ref: Wartsila Technical Journal). Generally, the heat rate of DG unit does not vary significantly between 70% and 100%. In case, station load comes down to 70% or less, some D.G. unit(s) can be shut down maintaining higher loading of the working DG sets. (Ref: Indian Policy Document).

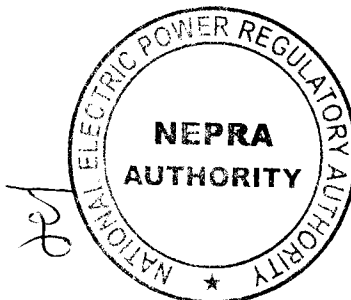


2

- iv. The O&M cost may be linked to regional benchmarks like 2.5% of capital cost as an annual O&M cost (Ref: National Electricity Plan of Central Electricity Authority, 2012).
- v. Furthermore, power procurement from Tapal Energy and Gul Ahmed Energy be based on take and pay arrangement and the plants shall be dispatched on the basis of KE's merit order without any sovereign guarantees commitment by GOP.
- vi. The Authority may direct both IPPs to include contract termination clause in their respective PPAs with mutual consent.

Comments of PSO

- i. We refer to the decision by NEPRA no. NEPRA/R/TRF-464/GAEL-2019/24939-24941 on Tariff petition of Gul Ahmed Energy Limited dated November 21, 2019. According to the decision, PPA extension has been approved by NEPRA for a period of 3 years. In this context we draw your attention towards intervention filed by PSO vide letter dated June 17, 2019 and also in person recording intervention at the Notice of Hearing on June 18, 2019. PSO also received letter from NEPRA no. NEPRA/R/TRF-464/12419-20 dated July 15, 2019 wherein it was mentioned that intervention request filed by PSO has been accepted
- ii. Competent authority has passed decision on Tariff Petition of Gul Ahmed Energy Limited, however the decision does not address concerns of PSO. We reiterate that Power Purchase Agreement (PPA) and Fuel Supply Agreement (FSA) were part of the security package for the power plants under 1994 energy policy. According to FSA, Gul Ahmed Energy Limited should procure all its fuel requirements from PSO exclusively. This FSA serves as an interconnection between the Implementation Agreements (GOP and IPPs) and the Power Purchase Agreements (Wapda and IPPs). In case of non-extension of FSA, PSO being national fuel supplier will incur loss on the investments made in this regard considering long term supply prospects.
- iii. It may also be noted that given the change in energy mix in the country; which includes LNG, Power Plants are running on local Furnace Oil (FO). Given the excess supply and reduced demand, FO is sold at time at a discount on notified price to IPPs. Leaving IPPs to procure FO from market without firm supply contracts, this may create transparency issues in Fuel prices. PSO being a public sector company can ensure that actual fuel prices are passed on to the IPPs. This will help in regulating the power tariff to the advantage of consumers.



- iv. We would like to state our reservation with respect to non-consideration of our intervention and the decision thereof dated November 20, 2019 and would like to record our concerns; seeking redressal in the upcoming subject hearing.

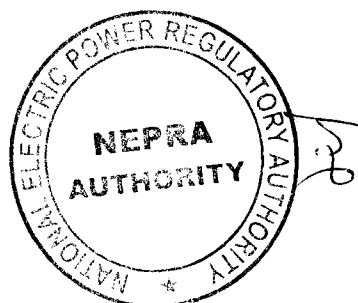
Comments of K-Electric

- i. GAEL supplies 127.5 MW to KE, keeping in view the sustained power demand in KE system especially during peak summers, the supply from GAEL facility is of significant importance. Hence continuity of this project is important for smooth supply of power to our consumers. It should be noted here that the Authority determined the tariff of GAEL on "Take and Pay" basis and has required KE to follow the Economic Merit Order. Therefore, review motion filed by GAEL may be considered by the Authority on its merits for sustainable tariff and smooth operations of the plant.
- ii. Further, with regard to Para 8.3 of NEPRA's Determination, we would like to submit that KE has exclusive right to make sales of electricity across its service territory and accordingly KE would facilitate GAEL to sell power directly to bulk power consumers outside KE's service territory.

6. CONSIDERATION OF THE SUBMISSIONS OF THE PETITIONER, VIEWS OF THE STAKEHOLDERS, ANALYSIS, FINDINGS AND DECISIONS:

Tariff control period for the extended terms of the new PPA:

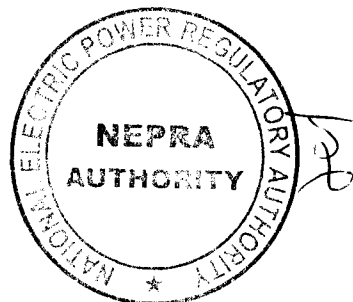
- 6.1. The Petitioner submitted that according to the paragraph 7.4 of the tariff Determination, the term of the PPA has been extended for three (3) years or till the time the CPPA-G/NTDC are willing and capable of supplying equivalent additional power to KE, whichever comes earlier. In this regard, KE has also been directed to upgrade its system as early as possible to take additional power from CPPA-G/NTDC.
- 6.2. GAEL further submitted that the above can only be workable if, KE is directed that the new PPA cannot be terminated without KE giving the Company at least twelve (12) month's prior written notice of termination. The notice period has not been accounted for by the Authority, which is necessary to allow the Company reasonable time to make alternative arrangements (if possible) for sale of power, otherwise, to bring the Generation facility to a closure through de-mobilization of operation activities in a safe and orderly manner.
- 6.3. The submissions of the Petitioner have been evaluated. The determination of the Authority is very clear that if cheaper electricity is available in the national grid and can be transmitted to KE, then there is no reason to buy costlier electricity from the subject power plant. Since



the current interconnection arrangements between KE and national grid do not permit immediate dispersal of power and that it would take 2 to 3 years, therefore, the three years PPA term was decided. So far as the earlier termination of the contract, it is a standard clause of the PPA. The reasonable notice period shall be decided between the parties keeping in view the requirement of 15 days inventory and all other considerations and shall be made part of the PPA. The request of the Petitioner for 12 months' notice period is not justified and has not been accepted.

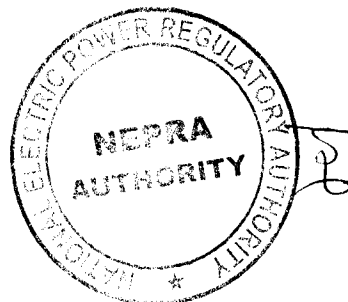
Take and pay sale arrangement

- 6.4. The Petitioner submitted that under paragraph 8.3 of the Tariff determination, the Authority has allowed KE procurement of power from the Company under a 'take and pay' arrangement in reliance on the following and requested to pay capacity payments on take or pay basis for making the contract capacity available:
- i. Case of FFBL Power Company Limited (FFBL) supplying electricity generated by its coal power plant to KE under a tariff worked out on 'take and pay basis'
 - ii. Comments of the Ministry of Planning, Development & Reform (Energy Wing) (MoPDR) sharing consensus with the Authority that the PPA should be on take and pay basis with no capacity charges;
 - iii. Comments of CPPA-G wherein, inter alia, CPPA-G also suggested to allow procurement of power from the Company to take and pay basis and that such power shall be dispatched on the basis of KE's merit order without any sovereign guarantee by the GOP;
 - iv. The Company's willingness to accept the take and pay sale arrangement, as demonstrated in the Company's letter dated October 2, 2019 vide reference No. F-NEPRA-L 19-00140 on the basis that, inter alia, KE gives minimum dispatch guarantee of 60% and the tariff is revised by the Authority on the basis of the guaranteed dispatch level by KE;
 - v. Take and pay will give the company flexibility to sell its energy to BPCs in addition to KE and that will in return help introduce competition in the market.
- 6.5. The Petitioner has objected the reference case of FFBL being a captive power plant primarily supplying power to Fauji Fertilizer Bin Qasim Limited. Surplus power is being provided to KE. According to the Petitioner, FPCL's fixed costs are met through power supply to its holding company and none of these facts are applicable to the Petitioner which is an IPP.



The Petitioner further submitted that unlike FFBL, the company can only sell to KE due to exclusivity clause in the generation license of KE.

- 6.6. According to the Petitioner, notwithstanding the above, it is important for the Authority to understand the following reasons for the company to submit a 'take or pay' tariff petition.
- i. The Petitioner is obligated to remain available to KE, failure of which, the KE shall impose damages. In reciprocation, KE pays for the fixed cost irrespective of actual dispatch.
 - ii. The Petitioner has a legitimate expectation that the existing terms and conditions shall remain applicable while determining tariff for the extended period [PLD 2007 Lahore 61]
 - iii. The sale of power by FFBL to its group entity, integrated with the generation unit, do not conflict with the licensing conditions of KE.
 - iv. The Petitioner offered 92% availability under take or pay arrangement so that the best maintenance practices can enable the company to offer such a high level of availability.
- 6.7. According to the Petitioner, MoPDR desired the extended PPA on take and Pay basis without providing any explanation. The Petitioner further submitted that it is trite law that any governmental decision must be based on clear reasoning and not just on popular public sentiment. The Petitioner referred Clause 24-A of the General Clauses Act 1897, PLD 1970 Supreme Court and PLD 2018 Sindh High Court 724. The Authority has placed reliance on the communication of MoPDR without any clear reasoning and application to the facts of the case at hand, which is not only unjust to the company but is also in violation of the aforesaid well established statutory and legal principles for government bodies. The Petitioner submitted similar reservations to the comments of CPPA-G. In addition to that, the Petitioner submitted that the comments of CPPA-G can not be taken into consideration as it is not the buyer in the instant case.
- 6.8. According to the Petitioner, its acceptance of take and pay tariff was based on guaranteed minimum dispatch by KE which is ignored by the Authority. The Petitioner reiterated its commitment and requested to revise the tariff on the basis of guaranteed dispatch level by KE. The Petitioner further submitted that the assumption for sale to bulk power is not correct. The Petitioner listed following obstacles in this regard:
- i. KE has the exclusive right to sell electric power till July 2023 in its service territory.

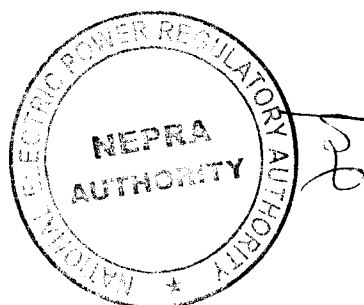


- ii. Neither There is any single buyer in the close vicinity who can purchase 127.5 MW and nor there is any transmission network which allow wheeling of bulk power of this capacity.
- iii. Consequently, the company would have to find multiple BPCs willing to buy power which is an impossible task.
- iv. The tariff determination do not offer explanation of how the company can adjust its supply between KE and BPCs during load variation which occurs throughout a daily cycle of 24 hours. The company will be unable to guarantee availability.
- v. The existing transmission/distribution system of KE does not have the ability to offer guaranteed wheeling of power from the generation facility.
- vi. KE, as a transmission service provider, should not be a demand participant.
- vii. All these activities are not achievable unless there is an actual market to cater for such operations.
- viii. In case of captive power plants, only the surplus power is sold and cost is shared between two buyers whereas the company provides guaranteed availability to KE.

6.9. The Petitioner during the hearing informed that KE has declined in writing to the company to provide open access to their network for wheeling in their service territory. Further, the Petitioner also submitted that the dispatch factor applied to the tariff should be reflective of the ground reality and the average dispatch over the last five years is 60%. The Petitioner has also calculated the difference in tariff due to dispatch factor of 92% and 60% which is Rs. 0.6213/kWh

6.10. The Petitioner's submissions have been evaluated. The Authority decided to fix the tariff on 92% allowing GAEL to sell surplus power to BPCs in the neighbouring areas. Since KE is not willing to allow GAEL to sell surplus power to any of the BPC in its territory, the sale to BPC by GAEL is not likely to take place in the extended term of the PPA, out of which 6 months have already expired and approximately 2.5 years are left. Therefore, in case the plant is not dispatched up to 92%, there will be a revenue shortfall in the capacity purchase price which may be substantial and will be detrimental for the operation of the power plant. However the actual dispatch factor over the five years (FY 2015 to FY 2019) is around 64.2% instead of 60%. The details of units exported to KE as provided by the Petitioner and counter verified by the Financial Statements is as under:

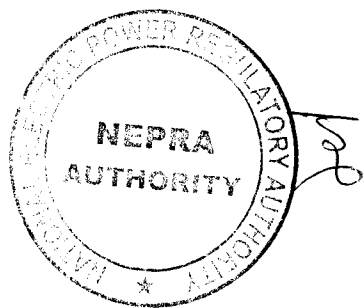
Particulars	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Average
Export (GWh)	718.36	687.88	788.48	712.71	675.54	716.59



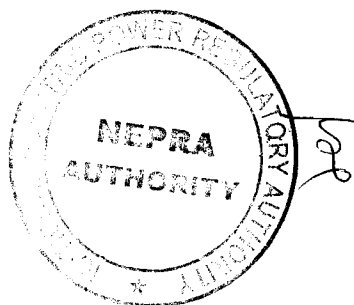

- 6.11. The Authority has reconsidered the request of the Petitioner that the dispatch factor applied to the tariff should be reflective of the ground reality and accordingly decided to fix the tariff on average dispatch factor of 64.2% instead of availability factor of 92% with the condition that in case of plant operation in excess of 64.2% in a year, the power purchaser shall make payment on the basis of energy charge only i.e. fuel and variable O&M. None of the components of the capacity charge shall be paid for units delivered in excess of 64.2% plant/dispatch factor.
- 6.12. Regarding KE claims of exclusivity, it is clarified that the law does not contemplate an inviolable, unconditional, unfettered or inalienable right held by distribution licensees in the form of "exclusivity". This is evident from Section 22 of the Act (a non-obstante to Section 21) (pre-amendment) which provides that another generation or distribution company can sell power in an 'exclusive' distribution service territory. NEPRA has established an entire regime to implement this statutory provision through rule 7 of NEPRA Licensing (Distribution) Rules, 1999, under which generation companies can obtain a Second Tier Supply Authorization from NEPRA allowing them to sell power to bulk power consumers in an 'exclusive' territory. Therefore, the interpretation of distribution 'exclusivity' as being an unconditional and inalienable right under law is misconceived, since the same law also provides frameworks for abridging 'exclusivity'. After the notification of Regulation of Generation, Transmission and Distribution of Electric Power (Amendment) Act, 2018, the word "exclusivity" and period of "15 years" were omitted. The intention of legislature pre and post amendment was always to liberate the market. Therefore, the stance of KE cannot be considered as valid.

Operations and Maintenance (O&M) cost (variable and fixed)

- 6.13. The Petitioner submitted that paragraph 10.8 of the tariff determination, the Authority has decided a variable O&M cost of PKR 0.673/kWh for extended term of the PPA. Further, as per paragraph 10.2 of the determination, the Authority has approved fixed O&M cost of PKR 345.681 million which translates into PKR 0.3364/kWh.
- 6.14. According to the Petitioner, the fixed O&M cost is determined by the Authority at PKR 345.681 million and is calculated at 92% capacity factor, whereas, in reality KE has never operated the plant at 92% capacity factor and therefore, PKR 345.681 million under 'take and pay' regime will never be recovered by the company. This should be calculated at 60% capacity factor, or at the very least PKR 345.681 million should be paid to the Company on take or pay basis. For the record, KE has on average dispatched the plant during the last five (5) FY 2014-2018 years at 62.50%.

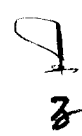
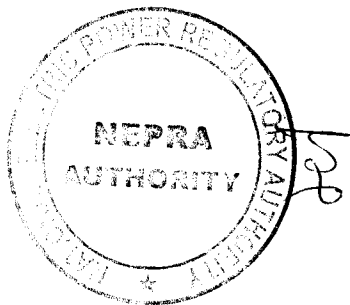


- 6.15. According to the Petitioner, the Authority has determined O&M costs on the basis of other Wartsila 18V46 power plants established under the Policy for Power Generation Projects Year 2002 at PKR 1.01/kWh, whereas these power plants today are being allowed PKR 1.85/kWh and above for the Variable and Fixed O&M component by the Authority. We request that this error be corrected by the Authority, as otherwise, this will result in a mismatch of actual O&M costs and those determined. In addition, the Authority has omitted to distinguish the foreign component of O&M costs from the local component, which covers imported spares, whereas, this was allowed by the Authority to the power plants established under the 2002 Power Policy. These are actual costs that will be incurred by the Company in USD for necessary plant operations and maintenance.
- 6.16. The Petitioner reiterated that as per Section 31(3) of the NEPRA Act, the Authority shall be mindful of, inter alia, the encouragement of efficiency in licensees, operations and quality of service when determining tariffs, and therefore, the Company's proposal for review of the Tariff Determination in these matters (as explained herein) mirror what the Authority should have done in the first place as per the legislative guidelines for determining tariff. If expenditure in USD is not accounted for in the O&M costs, the plant cannot be maintained, will become unsafe and will not be available for dispatch. Contrary to the legislative principles for determining tariffs under the NEPRA Act, the Authority has not offered any explanation for deviating from precedent practice why the Company should be treated in the discriminatory manner.
- 6.17. Together with inclusion of the foreign component of the O&M costs and consistent with relevant tariffs in the power sector, indexations will be apply to the foreign component of the O&M costs to account for changes in USD consumers price index (CPI) and exchange rate failing which the Company will end up short of recovering its foreign currency based costs. The again is contrary to the legislative guidelines and principles for determining tariffs under the NEPRA Act. the Petitioner reiterate that pursuant to Section 31(3)(c) of the NEPRA Act, tariffs should allow licensees a rate of return which promotes continued reasonable investment in equipment and facilities for improved efficiency. The Petitioner further reiterate that in terms of Section 31(2)(b) of the NEPRA Act, tariffs should be determined keeping in view the research, development and capital investment program costs of licensees.
- 6.18. As stated above, the Variable O&M slowed by the Authority is on the basis of power plants established under 2002 Power Policy, while completely ignoring the following parameters which have a direct bearing on the O&M costs:



- i. The operating conditions where load variation is experienced prematurely age the plants and the major spares end up aging quicker due to fatigue. The consumption of spares also varies from year to year depending on the original equipment manufacturer (OEM) recommended maintenance cycle, therefore, a simple average ignoring the type and number of overhauls carried out in each of the previous years is not correct and fails to justify the concept of cost plus tariff to be applied for a future period.
- ii. Price variation of spares in the international market which have a compounding effect due to local duties and taxes have also been ignored by the Authority.
- iii. The lube and chemical prices locally move with variation in crude prices and the exchange rates which were considerably lower in last five years as compared to the current prevailing rates, therefore, it is highly unlikely that the Company will recover its cost for lube oil and chemicals used in operation of Generation Facility.
- iv. None of the major spares used in the Generation Facility are locally manufactured therefore are subject to variation in exchange rate and international CPI which has always been allowed to IPPs and was also allowed to FFBL. The Authority has not offered any explanation for deviating from established practice and why the Company should be treated in the discriminatory manner.
- v. The Generation Facility is twenty two (22) years old and all engines have run more than 123,000 hours approximately. Consequently, the Company requires a greater number of spare parts for maintenance. This request is in line with the guidelines for determining tariffs under Section 31 of the NEPRA Act, which clearly state that tariff should encourage quality of service, maintenance, operation and efficiency.
- vi. It has to be highlighted that the reason for the application of a cost-plus tariff by the Company was that historical costs are not reflective of the future costs which need to be indexed to the factors allowed by the Authority to all other IPPs.

6.19. The submissions of the Petitioner have been evaluated. It would be pertinent to mention that no error has been committed in assessed O&M cost on the basis of similar technology IPPs established under 2002 Power Policy. The assessment has been made on the basis of average actual O&M cost for last three years of the three power plants with similar technology as per their audited financial statements rather than the approved/allowed O&M cost to these power plants which is already under question. Proceedings are underway to ascertain the reasons for variation in the actual and approved O&M cost of these IPPs. There is no justification to allow O&M cost on assumptions instead of actual cost incurred by running plants.



6.20. Another issue raised by the Petitioner is the exchange rate and US CPI indexation of the O&M cost. The approved fixed and variable O&M cost is subject to local CPI. The Petitioner however requested indexation on account of foreign exchange variation and US CPI on the variable O&M component. In case of 6 RFO based IPPs established under 2002 Power Policy, similar indexations were provided as requested by the Petitioner, however, the long term impact of both local CPI and foreign exchange & US CPI combined are close. For example an analysis of indexation of local and foreign O&M from 2007 to 2020 shows following:

Particulars	Increase Times
O&M Foreign	3.23
O&M Local	2.99

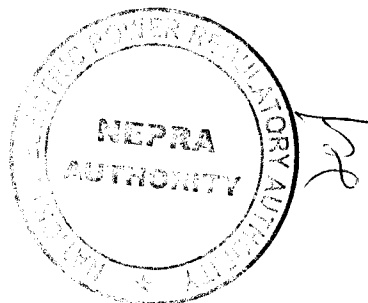
6.21. Keeping in view the above analysis, the Authority has decided to maintain its earlier decision of allowing indexation to fixed and variable O&M components on the basis of CPI (General) published by Pakistan Bureau of Statistics.

Return on Equity (ROE)

6.22. The Petitioner submitted that according to paragraph 13.3 of the Tariff Determination, annual ROE of PKR 576.46 million resulting in ROE component of PKR 0.5610/kWh has been approved by the Authority on the basis of ROE of 12% for the extended term of the PPA and no indexation shall be applicable on the ROE component of the reference tariff in the Tariff Determination. As per paragraph 13.4 of the Tariff Determination, the Authority has further decided to incorporate a claw back mechanism in case the regulated return increased over 12% due to saving in other tariff components.

6.23. Notably, the Authority has determined ROE of 12% and has not allowed indexation of this component against the US dollar. Today, three (3) month KIBOR is at 13.64%, and the ROE determined by the Authority is 12% without any indexation; this is a mismatch and against market norms. The Authority should consider this mismatch and grant ROE component to be indexed against US dollar and US CPI.

6.24. According to the Petitioner, it is also noted that the Authority itself has used the reference factors for CPI, KIBOR Rate and Fuel Price based on the rates prevailing in June 2019. The justified and fair approach would be that the Authority should have taken the conversion rate PKR/USD 164.5 as was prevailing on the reference date of June 28, 2019, in addition to



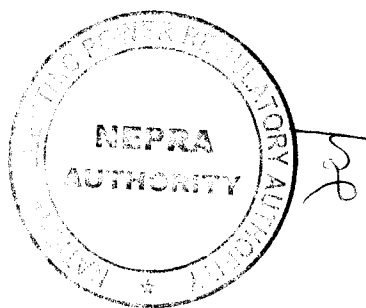
allowing indexation for ROE component to USD rates as is consistent with the precedence set by the Authority in all previous tariffs.

6.25. The Petitioner submitted that the ROE is calculated at 92% capacity factor, whereas, in reality KE has never operated that plant at 92% capacity factor and therefore, PKR 576.46 million under 'take and pay' regime will never be recovered by the Company. This should be calculated at 60% capacity factor to give the shareholders on ROE return of 12% in actual terms. Following is Analysis of ROE working on different dispatch levels:

Particulars	Dispatch %	ROE %	ROE (PKR in Million) Without ER indexation
AS determined by the Authority	92%	12.0%	576.46
Assumed dispatch of	70%	9.1%	438.61
5 year average dispatch (FY 2014-FY2018)	63%	8.2%	394.75
Assumed dispatch of	60%	7.8%	375.95
Assumed dispatch of	50%	6.5%	313.29

6.26. The Petitioner proposed ROE working at 12% on current Exchange Rate of Rs. 156.1/US\$ and dispatch level of 63%.

6.27. According to the Petitioner, as a further deviation from established market norms, the Authority has introduced a claw-back mechanism without giving the Company an opportunity of being heard and meaningfully participating in the tariff approval process - contrary to the legislative guidelines provided in inter alia, the NEPRA Act. Again, this change has occurred without any explanation and without giving the Company the right to respond or to be heard. It is pertinent to mention that the sponsors have already offered 20% reduction in ROE (from 15% to 12%). The Authority also allows ROEDC to new projects, whereas, no such component exists in the Tariff Petition since the Project has already been constructed. These gestures result in significant savings already passed on to the consumers. Once again, we bring to the Authority's attention that this deviation from market norms and discriminatory treatment of the Company and failure to adequately protect the interests of the Company under the Tariff Determination and that too, without explanation in a majority



of places, is stark violation of the legislative guidelines for determining tariffs under the NEPRA Act.

6.28. The Petitioner highlighted that the Authority has stated in the Tariff Determination that the Company itself offered an ROE of 12% in letter dated October 2, 2019. This has been basis of reliance for the Authority in the determination of ROE in the Tariff Determination. However, the Authority has ignored the fact that the offer was subject to the following:

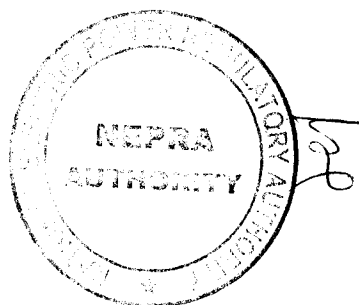
- i. KE be directed to make minimum of 60% dispatch; and
- ii. Quarterly indexation to the USD PKR exchange rate and local CPI as well as US CPI indexation be allowed.

6.29. The Petitioner reiterated that a 12% ROE is acceptable provided there is minimum dispatch guarantee of 60% and the tariff is revised by the Authority on the basis of the guaranteed dispatch level by KE, quarterly indexation is applied to account for variation in the exchange rate and the claw-back mechanism is removed. In terms of Section 31(2) and Section 31(3) of the NEPRA Act, tariffs should be determined, inter alia, to encourage efficiency in licensees. Operations and quality of service, to account for the development and capital investment program costs of licensees, to allow licensees a rate of return which promotes continued reasonable investment in equipment and facilities for improved efficiency and etc. Through the introduction of the claw-back arrangement, the Authority is acting contrary to legislative guidelines.

6.30. The submissions of the Petitioner have been reviewed. The Petitioner has requested for indexation of ROE component for exchange rate parity and removal of claw back mechanism. The Petitioner has also submitted that instead of calculating the reference ROE component on exchange rate of Rs. 110.40/US\$, the rate of Rs. 156.1/US\$ should be the used. All of these factors have been taken into consideration while determining ROE component. The Authority has decided to maintain its earlier decision in the matter.

Sales tax on Energy Charge:

6.31. According to the Petitioner, the tariff Determination is silent about sales tax on Energy Charge as pass through item and to be recovered from the power purchaser. It is the industry norm and also allowed to all power generation projects and was also allowed to the Company under previous PPA.



6.32. Sales tax is a value added tax and is dealt in accordance with the provisions of Sales Tax Act. In accordance with the provisions of the Sales Tax Act, sales tax at the prescribed rates shall be added to the energy invoices which shall be paid by the power purchaser to the power producer. The power purchaser (KE) shall recover the sales tax from end consumers on the electricity bill.

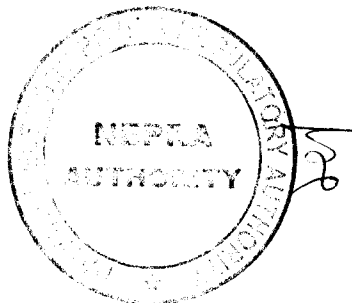
Comments from PSO

6.33. The Authority has also considered the comments submitted by PSO. In the opinion of the Authority, the submissions made by the commentator are not maintainable. However, in case the Petitioner procure fuel on discount, the same shall be passed on to the consumers and fuel cost component shall be adjusted on actual discounted price.

7. Summary of approved Tariff

7.1. The summary of the approved tariff is provided hereunder:

Description	Rs./kWh
Energy Charge:	
Fuel cost component	13.5033
Variable O&M	0.6736
Sub-Total	14.1769
Capacity Charge:	
Fixed O&M	0.4821
Cost of working capital	0.3028
Insurance	0.0806
Return on Equity	0.8039
Sub-Total	1.6694
Total Tariff	15.8463
Reference Values:	
RFO Price (Rs./ton)	62,586.93
KIBOR	12.97%
CPI General June 2019	246.82
Plant/Dispatch Factor	64.2%



8. Order

- I. The Authority hereby determines and approves the following generation tariff for Gul Ahmed Energy Limited for its RFO based power plant of 127.5 MW net along with adjustments/indexations for delivery of electricity to the power purchaser on take and pay basis:

Description	Rs./kWh	Indexation
Energy Charge:		
Fuel cost component	13.5033	Fuel Price
Variable O&M (Local)	0.6736	CPI (General)
Sub-Total	14.1769	
Capacity Charge:		
Fixed O&M (Local)	0.4821	CPI (General)
Cost of working capital	0.3028	KIBOR and Fuel Price
Insurance	0.0806	Actual subject to maximum limit
Return on Equity	0.8039	Nil
Sub-Total	1.6694	
Total Tariff	15.8463	
Reference Values:		
RFO Price (Rs./ton)	62,586.93	
KIBOR	12.97%	
CPI General June 2019	246.82	
Plant/Dispatch Factor	64.2%	

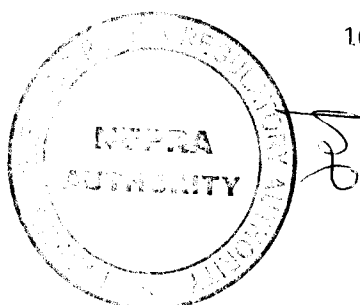
II. Adjustments/Indexations

The following adjustments/ indexations shall be applicable to the reference tariff;

i) **Adjustment in Insurance as per actual**

The actual insurance cost for the minimum cover required under contractual obligations with the Power Purchaser shall be treated as pass-through. Insurance component of reference tariff shall be adjusted annually as per actual upon production of authentic documentary evidence according to the following mechanism:

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 Rs. 57.81 million
$P_{(Act)}$	Actual Premium or US\$ 798,219 at exchange rate prevailing on the 1st day of the insurance coverage period whichever is lower



[Handwritten mark]

ii) **Indexation applicable to O&M**

O&M components of tariff shall be adjusted on account of local Inflation (CPI) quarterly on 1st July, 1st October, 1st January and 1st April based on the average CPI for the preceding quarter as per the following mechanism:

V. O&M _(REV)	$V. O&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$
F. O&M _(REV)	$F. O&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$
Where:	
V. O&M _(REV)	The revised Variable O&M Component of Tariff
F. O&M _(REV)	The revised Fixed O&M Component of Tariff
V. O&M _(REF)	The reference Variable O&M Component of Tariff
F. O&M _(REF)	The reference Fixed O&M Component of Tariff
CPI _(REV)	The average revised CPI (General) for the preceding quarter
CPI _(REF)	The reference CPI (General) of 246.82 for June 219

iii) **Cost of Working Capital**

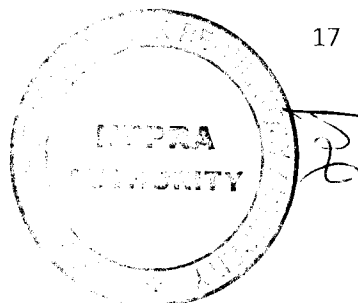
Cost of working capital shall be adjusted quarterly for variation in KIBOR and fuel price as per the following mechanism:

COWC _(Rev)	$COWC_{(Ref)} * P_{(Rev)} / P_{(Ref)} * I_{(Rev)} / I_{(Ref)}$
Where:	
COWC _(Rev)	Revised cost of working capital component.
COWC _(Ref)	Reference cost of working capital component.
P _(Rev)	Revised Ex-GST delivered RFO price per ton.
P _(Ref)	Reference Ex-GST delivered RFO price of Rs. 62,586.93/ton.
I _(Ref)	Reference interest rate of 12.97% KIBOR plus 2% premium.
I _(Rev)	Revised interest rate of KIBOR plus 2% premium.

iv) **Fuel Price Adjustment**

The fuel cost component of tariff shall be adjusted on account of fuel price variation as per the following mechanism:

FCC _(Rev)	$FCC_{(Ref)} * P_{(Rev)} / P_{(Ref)} * CV_{(Ref)} / CV_{(Rev)}$
Where:	
FCC _(Rev)	Revised Fuel cost component.
FCC _(Ref)	Reference Fuel cost component.
P _(Rev)	Revised Ex-GST delivered RFO price per ton.
P _(Ref)	Reference Ex-GST delivered RFO price of Rs. 62,586.93/ton.
CV _(Ref)	Reference LHV calorific value of 38,584.49 BTUs/Kg.
CV _(Rev)	Revised LHV actual calorific value subject to minimum of 17,333 BTUs/lb.



Handwritten mark resembling a stylized '2' or '8'.

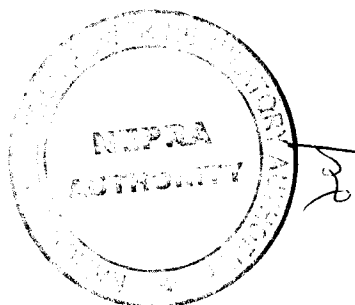
I. Terms & Conditions

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

- i. The approved tariff shall be applicable w.e.f. 3rd November 2019 for a term of three years or till the time CPPA-G/NTDC are willing and capable of supplying equivalent additional power to KE, whichever comes earlier.
- ii. The early termination of the power purchase agreement during the extended term of the PPA shall be subject to reasonable notice period which shall be incorporated in the PPA.
- iii. Dispatch shall be in accordance with the merit order as defined in the grid code.
- iv. In case of plant operation in excess of 64.2% in a year, the power purchaser shall make payment for the excess units on the basis of energy charge only i.e. fuel and variable O&M. None of the components of the capacity charge shall be paid for units delivered in excess of 64.2% plant/dispatch factor in a year.
- v. In case the Petitioner procure fuel on discount, the same shall be passed on to the consumers and fuel cost component shall be adjusted on actual discounted price.
- vi. No bonus payments shall be allowed over and above the approved tariff.
- vii. WWF and WPPF shall be pass-through items.
- viii. Taxes on income, if any, shall be pass-through.
- ix. In case the regulated return increases over 12% due to saving in other tariff components, the gain shall be shared as per the following mechanism:

Percentage of ROE	Sharing	
	IPP	Consumers
Upto 12% of Reference Equity	100%	-
> 12% but ≤ 15% of Reference Equity	50%	50%
> 15% of Reference Equity	25%	75%


- x. All adjustments/indexations i.e. fuel price, CPI, KIBOR and insurance shall be done by KE in accordance with the stipulated mechanism.






IV Notification

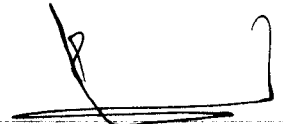
The above Order of the Authority shall be notified in the Official Gazette in terms of Section 31(7) of the Regulations of Generation, Transmission and Distribution of Electric Power Act, 1997.

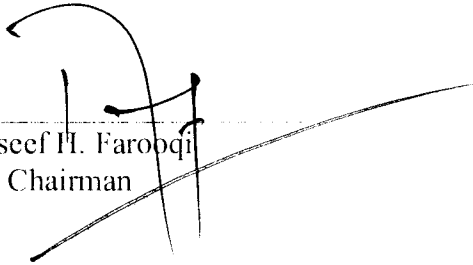
AUTHORITY


Saif Ullah Chattha
Member 13.5.2020

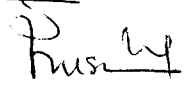

22/12/15/2020
Rehmatullah Baloch
Member


15/5/20
Rafique Ahmed Shaikh
Member


Engr. Bahadur Shah
Member


Tauseef H. Farooqi
Chairman




03 06 20