



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

No. NEPRA/R/ADG(Trf)/TRF-347/QATPL-2016/11-13  
January 3, 2023

Subject: **Decision of the Authority in the matter of Commercial Operations Date Adjustment of 1181.51 MW (Gross) Quaid-e-Azam Thermal Power Private Ltd. Power Project on RLNG/HSD at Bhikki, Sheikhpura, Punjab (Case No. NEPRA/TRF-347/QATPL-2016)**

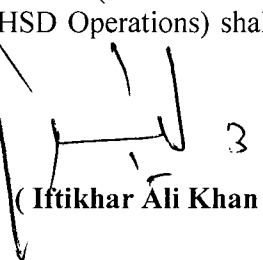
Dear Sir,

Please find enclosed herewith the subject decision of the Authority along with Annex-I, II, III & IV (32 Pages) in Case No. NEPRA/TRF-347/QATPL-2016.

2. The Decision is being intimated to the Federal Government for the purpose of notification in the official Gazette pursuant to Section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 within 30 days from the intimation of this Decision. In the event the Federal Government fails to notify the subject tariff Decision or refer the matter to the Authority for reconsideration, within the time period specified in Section 31(7), then the Authority shall notify the same in the official Gazette pursuant to Section 31(7) of NEPRA Act.

3. The Order of the Authority along with Annex-I (Reference Tariff Table RLNG at COD), Annex-II (Reference Tariff Table HSD at COD), Annex-III (Debt Service Schedule-RLNG Operations) and Annex-IV (Debt Service Schedule-HSD Operations) shall be notified in the official Gazette.

Enclosure: As above

  
( Iftikhar Ali Khan ) 31/1/23

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

CC:

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



**Decision of the Authority in the matter of Commercial Operations Date Adjustment of 1181.51  
MW (Gross) Quaid-e-Azam Thermal Power (Pvt.) Ltd. Power Project on RLNG/HSD at Bhikki,  
Sheikhupura, Punjab**

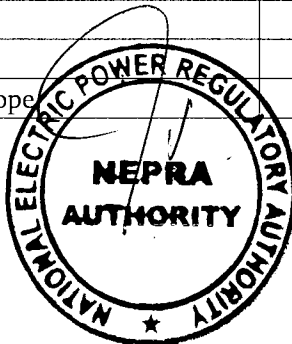
**1. Introduction:**

- i. Quaid-e-Azam Thermal Power (Private) Limited (herein referred to as "QATPL") bearing generation license No. IGSPL/67/2016 dated June 02, 2016 is a 2 Gas Turbines, 2 HRSGs and 1 Steam Turbine 1,181.51 MWs Gross RLNG based generation facility located at Bhikki, Sheikhupura, Punjab.
- ii. The Company filed Petition on February 15, 2016 under the Regulation for Generation, Transmission and Distribution of Electric Power (XL of) 1997 (the "NEPRA Act"), for approval of reference generation tariff for Single Cycle and Combined Cycle Operation for the project with all the terms, conditions and assumptions provided therein for the Project. The application was processed in accordance with the provisions of National Electric Power Regulatory Authority (NEPRA) Act and Tariff (Standards & Procedure) Rules – 1998 made thereunder and granted the generation tariff to the Project vide letter no. NEPRA/TRF-347/QATPL-2016/5034-5037 on April 14, 2016.
- iii. The Company subsequently filed an application to the Authority for modification of the Reference Tariff vide letter no. QATPL-FIN/3018/2018 on September 19, 2018. The Authority admitted the modification application on November 5, 2018 and a decision in the matter was issued by the Authority vide its letter no. NEPRA/R/TRF-453/QATPL-2018/2854-2856 dated January 27, 2020.
- iv. QATPL attained commercial operations date ("COD") with effect from May 20, 2018 which was certified by M/s OMS (Private) Limited (Independent Engineer) and confirmed by the CPPA-G vide its letter No. CTO (CPPA-G)/DGMT-V/MT-XI/20038-42 dated July 11, 2018. After COD of the project, QATPL submitted request for adjustment of relevant components of its tariff vide letter no. QATPL/FIN/4805/2020 dated June 10, 2020 along with relevant documentary evidences.
- v. COD adjustments are processed on the basis of adjustments provided in reference tariff determination, the documentary evidence provided by the petitioner and past practices adopted by the Authority while determining COD tariff adjustments applications. The information submitted by QATPL along with its request for adjustment of tariff at COD was found to be incomplete. Accordingly, QATPL was time and again directed to submit the required information, wherein the reply against the first information direction was received on August 05, 2020 while the last information was submitted on July 01, 2022 which related to Operation and Maintenance (O&M) cost.

**2. Approved Project Cost:**

- i. The summary of reference project cost allowed to QATPL as per reference tariff is as under:

Project Cost	Reference	Modified
	US\$ in million	
EPC cost:	553.710	559.500
Offshore EPC Cost	424.020	424.020
Onshore EPC Cost	115.240	115.240
Items not covered in the EPC contract scope	14.450	20.240





Combustion Monitoring System of Gas Turbines	0.500	0.500
Buffer Vessel	4.250	4.250
Site Housing Complex with Additional Recreational Facilities	2.020	2.020
Auditorium	0.900	0.900
Plant Simulator System & Training	2.300	2.300
BOP Spares	1.710	7.500
Acquisition of Land	0.770	0.770
Fuel Gas treatment plant	2.000	2.000
Non-EPC Cost:	<b>53.171</b>	<b>52.745</b>
Engineering and related consultancy	10.000	10.000
Administrative Expenses	10.508	13.000
O&M mobilization & training	6.000	3.080
Land Cost	2.000	2.000
Security Surveillance	8.257	8.257
Insurance during construction	5.537	5.537
Testing & Commissioning	10.869	10.870
Customs Duties & Cess	25.653	25.653
LTSA Initial Spare Parts	20.880	20.880
Gas Pipeline Cost	13.600	13.600
One month LNG Escrow Account	35.772	35.772
<b>CAPEX</b>	<b>702.786</b>	<b>708.148</b>
Financing Fees & Charges 3.5% of Debt	18.448	18.448
Interest During Construction 27 Months	48.742	48.742
<b>Total Project Cost</b>	<b>769.976</b>	<b>775.338</b>

ii. Summary of the tariff as per the reference tariff is as follows:

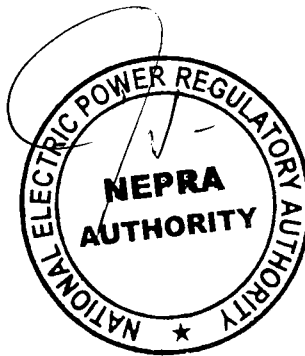
Tariff Components	Original Determination		Modification		Adjustment/ Indexation
	RLNG	HSD	RLNG	HSD	
<b>Capacity Charges (Rs./kW/hr):</b>					
Fixed O&M (Local)	0.0647	0.0647	0.0647	0.0720	CPI (General)
Fixed O&M (Foreign)	0.1453	0.1453	0.1453	0.1616	US CPI & Rs./US\$
Cost of working capital	0.0970	0.0970	0.0970	0.1079	KIBOR & Fuel Price
Insurance	0.0574	0.0574	0.0574	0.0638	Actual subject to maximum limit
ROE	0.4481	0.4481	0.4481	0.4984	Rs./US\$
Debt Servicing	0.9281	0.9281	0.9281	1.0322	KIBOR



(years 1 – 10 only)					
<b>Total 1-10 years</b>	<b>1.7405</b>	<b>1.7405</b>	<b>1.7405</b>	<b>1.9358</b>	
<b>Total 11-30 years</b>	<b>0.8125</b>	<b>0.8125</b>	<b>0.8125</b>	<b>0.9037</b>	
<b>Energy Charge (Rs./kWh):</b>					
Fuel cost Component	4.5101	8.4527	4.5101	8.4527	Fuel Price
Variable O&M (Foreign)	0.3169	0.4572	0.3169	0.4572	US CPI & Rs./US\$
<b>Total</b>	<b>4.8270</b>	<b>8.9099</b>	<b>4.8270</b>	<b>8.9099</b>	
<b>Average &amp; Levelized Tariff</b>					
Avg. Tariff 1-10 years @ 92% (Rs./kWh)	6.7189	10.8018	6.7189	11.0141	
Avg. Tariff 11-30 years @ 92% (Rs./kWh)	5.7101	9.7930	5.7101	9.8921	
<b>Levelized tariff (Rs./kWh)</b>	<b>6.3676</b>	<b>10.4506</b>	<b>6.3676</b>	<b>10.6234</b>	
<b>Levelized tariff (US cents /kWh)</b>	<b>6.0644</b>	<b>9.9529</b>	<b>6.0644</b>	<b>10.1176</b>	

### 3. Adjustments in Project Cost at Commercial Operation Date (COD):

- i. Reference Order Para II of the tariff determination of QATPL dated April 14, 2016 and determination dated January 27, 2020, following one-time adjustments were provided by the Authority in its Cost plus Tariff determination:
  - i. EPC Cost.
    - a) Offshore EPC Cost
    - b) Onshore EPC Cost
  - ii. Items not covered in the EPC Agreement Scope:
    - a) Combustion Monitoring System
    - b) BOP Spares
    - c) Site Housing Complex with recreational facilities
    - d) Auditorium
    - e) Plant Simulator System & Training
    - f) Fuel Gas Treatment Plant
    - g) Buffer Vessel
    - h) Acquisition of Land
  - iii. O & M mobilization cost
  - iv. Security & Surveillance cost
  - v. Administrative cost
  - vi. Customs, Duties and Cess.
  - vii. LTSA Initial Spares Parts
  - viii. Gas pipeline cost
  - ix. One month LNG Escrow Account



*J S*



- x. Financing Fees & Charges
- xi. Interest During Construction (IDC)
- xii. Return on Equity (ROE).

**4. Head wise discussion on the One-Time Adjustments allowed in the project cost:**

Below is the head wise detail on the claim of one-time adjustments;

**4.1 EPC Cost:**

4.1.1 QATPL was allowed a total EPC cost of US \$ 539.260 million. QATPL executed EPC Contract with Joint Venture of Harbin Electric International and Habib Rafiq (Pvt.) Ltd. (HEI-HRL) for the construction of 1181.51 MW (Gross)/1163.123 MW (Net) gas based power generation facility to be located at Bhikki, Sheikhpura. The EPC cost includes power generation sets together with all the necessary auxiliary machinery, equipment and systems and includes, inter alia, the erection, testing, commissioning and completion of the equipment and construction of facility.

4.1.2 Out of total EPC cost of US \$ 539.260 million, Offshore EPC cost and Onshore EPC cost were US \$ 424.020 million and US \$ 115.240 million respectively. As per determination dated January 27, 2020, Order para II "One Time Adjustment at COD", clause (i), states as follows:

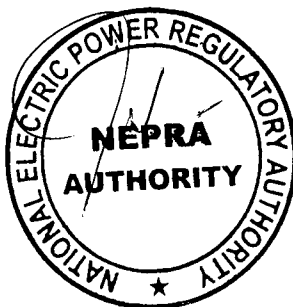
*"Since the exact timing of payment to EPC Contractor is not known at this point of time, therefore an adjustment for relevant foreign currency fluctuation for the US\$ 424.020 million of the EPC portion of payment in the foreign currency shall be made against the reference exchange rate of Rs. 105/US\$ on the basis of actual payment . The adjustment shall be made only for the currency fluctuation against the reference parity values.*

4.1.3 The definition of "Onshore EPC Price" in EPC contract *"means the price for the onshore portion of the works, being US \$ 115.240 million payable in local currency and converted into equivalent PKR based on the NBP's exchange rate for TT & OD prevailing on the date falling 28 days prior to the deadline for submission of the Bid."*

4.1.4 A comparison of EPC cost allowed in the tariff determination, claimed by the Petitioner and verified is as follows:

Description	Determined			Claimed			Verified		
	Gross/Total	Exch. Rate	Total	Gross/Total	Exch. Rate	Total	Gross/Total	Exch. Rate	Total
	US\$ in M	PKR / US\$	PKR in M	US\$ in M	PKR / US\$	PKR in M	US\$ in M	PKR / US\$	PKR in M
	539.26		56,242.01	539.26		61,129.43	539.26		56,793.68
EPC Cost-Offshore	424.02	105.00	44,522.10	424.02	116.53	49,409.52	424.02	106.30	45,073.77
EPC Cost-Onshore	115.24	101.70	11,719.91	115.24	101.70	11,719.91	115.24	101.70	11,719.91

4.1.5 QATPL has claimed EPC Offshore cost of US\$ 424.020 million (Rs. 49,409.52 million @ US\$/Rs. 116.53) and EPC Onshore cost of US\$ 115.24 million (Rs. 11,719.91 @ US\$/Rs. 101.70). At the time of submission of COD petition an amount of US\$ 56.357 million was payable by QATPL to its EPC contractor HEI-HRL. Liquidated damages amounting to US\$ 53.926 million (capped at 10 % of the EPC Agreement Price) have been imposed by QATPL. The amount of liquidated damages adjusted against Offshore and Onshore EPC costs amounts to US\$ 42.402 million and US \$ 11.524 million (US\$/Rs. @ 101.70 ) respectively.



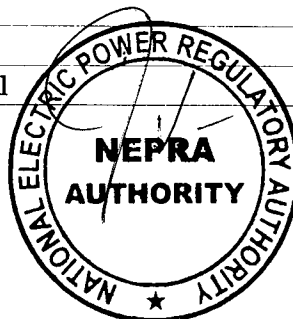


- 4.1.6 The Authority has examined the petitioner's claim and documentary evidence submitted i.e, a copy of contract with the EPC contractor, commercial invoice, milestone completion certificate and payment evidence etc. During the scrutiny it was observed that at the time of filing of COD out of total EPC cost, US\$ 63.15 million (Offshore: US\$ 56.357 million, Onshore: US\$ 6.793 million including retention money of US\$ 2.640 @ PKR/US\$ exchange rate of 101.70) was payable to the EPC contractor.
- 4.1.7 It was further observed that an amount of US\$ 42.402 million was adjusted on account of Liquidated Damages (hereinafter "LDs") from the Offshore EPC cost and remaining amount of US\$ 13.956 million was paid equivalent to Rs. 2,230.790 million at US\$ /Rs. 159.85 dated February 11, 2021. The payments made after RCOD have been converted at an exchange rate of Rs./US \$ 110 prevailing at the day of RCOD i.e December 21, 2017.
- 4.1.8 The Authority observed that QATPL adjusted an amount of US \$ 11.524 million (Rs. 1171.991 million @ US\$/Rs. 101.70) on account of LDs against Rs. 11,719.908 million (US \$ 115.240 million which is total Onshore EPC cost. QATPL paid US\$ 6.793 million (Rs. 690.845 million @ US\$/Rs. 101.70) after filing of COD tariff adjustment application i.e. June 2020.
- 4.1.9 Keeping in view the documentary evidence submitted for verification of the EPC cost, the Authority decided to allow total EPC cost of US \$ 539.260 million (Rs. 56,793.680 million) as against the claimed amount of US\$ 539.260 million (Rs. 61,129.43 million).
- 4.1.10 The EPC cost is comprising of Offshore EPC cost of US \$ 424.020 million ( Rs. 45,073.772 million at Rs./US \$ 106.30) and Onshore EPC cost of US \$ 115.240 million ( Rs. 11,719.908 million at Rs. /US \$ 101.7).

#### 4.2 Items not covered in the EPC Agreement Scope:

- 4.2.1 As per provisions of reference paras (11.6 to 11.19) of NEPRA determination dated April 14, 2016, QATPL in its COD tariff application requested to allow US\$ 10.87 million as cost of "item not covered in the EPC Agreement Scope". The aforementioned costs allowed under 'Items not covered in the EPC Agreement Scope' were increased from US\$ 14.450 million to US\$ 20.240 million, by the Authority vide its modification decision dated January 27, 2020. As per modification decision, allowed cost for BOP spares was increased with US\$ 5.79 million i.e from US\$ 1.71 million to US\$ 7.50 million.
- 4.2.2 QATPL was directed to provide the breakup of the Items not covered in the EPC Agreement Scope along with documentary evidence. Accordingly the details provided by the Company are as under:

Description	Reference	Claimed
Combustion Monitoring System of Gas Turbines	0.50	-
Buffer Vessel	4.25	-
Site Housing Complex with Recreational Facilities	2.02	2.40
Auditorium	0.90	
Plant Simulator System & Training Centre	2.30	-
BOP Spares	7.50	7.50
Acquisition of Land	0.77	0.97
Fuel Gas treatment plant	2.00	-
Total	20.24	10.87



g f



#### 4.2.3 Combustion Monitoring System of Gas Turbine:

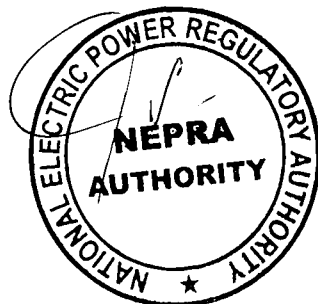
This monitors the condition and status of the combustion parts of the gas turbine. The Authority allowed maximum cap of US\$ 0.5 million for the installation of the combustion monitoring system subject to its verification at the time of COD on account of actual spending based on verifiable documentary evidence. QATPL has not incurred any cost in this head, therefore no cost for this head has been taken into consideration.

#### 4.2.4 Buffer Vessel

The Buffer Vessel is required for the bump-less fuel-changeover to liquid fuel, in case the in service compressor trips. It would regulate the differential pressure between Gas compressor and Filtering Skid, accounting for the discharge flow rate of Gas Compressor and consumption flow rate of GTs. The Authority allowed US\$ 4.25 million with maximum cap subject to adjustment as per actual on the basis of verifiable documentary evidence at COD. QATPL has not incurred any cost in this head, therefore no cost has been taken into consideration.

#### 4.2.5 Site Housing Complex with recreational facilities & Auditorium:

- i. Amounts of US\$ 2.02 million and US\$ 0.90 million were approved for housing complex and auditorium respectively with maximum cap subject to adjustment at actual based on verifiable documentary evidence at the time of COD. In the reference tariff, this cost had been allowed in addition to the staff accommodation/hostel required to be built by EPC contractor free of cost under section 6.5.4 of the Employer's Requirements.
- ii. During the verification, it was found out that an amount equivalent to US\$ 1.748 million (Rs. 188.971 million converted at Rs./US\$ 108.106) has been paid to Infrastructure Development Authority of the Punjab (IDAP) on account of construction of housing complex, whereas US\$ 0.220 million (Rs. 23.129 million claimed @ Rs./US\$ 105) remain payable. Further it is pertinent to mention that no supporting document i.e. invoice was ever raised by IDAP in respect of this claim. In addition, an amount of US\$ 0.381 million (Rs. 40 million claimed @ Rs./US\$ 105) is being payable to LESCO on account of connection as per Schedule B (O & M) as claimed by the Petitioner. The Authority observed that no evidence in support of claim for Rs. 40.00 million (US\$ 0.381 million) has been submitted.
- iii. The Authority considers that the substantiation of claim through documentary evidence is responsibility of the applicant. In the instant case despite several directions the applicant was unable to provide sufficient documents in support of its claim. Accordingly the Authority has decided to allow only paid cost related to Site Housing Complex with recreational facilities which works out to be US\$ 1.748 million (Rs. 188.971 million @ Rs./US\$ 108.106). The payments made after RCOD are converted at an exchange rate of Rs./US \$ 110 prevailing at the day of RCOD i.e December 21, 2017. The payables cost to IDAP of US\$ 0.210 million (Rs. 23.129 million claimed @ Rs./US\$ 105) and amount payable to LESCO amounting to US\$ 0.381 million (Rs. 40 million claimed @ Rs./US\$ 105) has been disallowed in the instant COD decision. Payable Costs to IDAP will be adjusted within one year of issuance of decision as per the precedence in RLNG projects.





- iv. The Authority also noted that QATPL claimed Auditorium Cost together with Site Housing Complex. During verification it was noted that any cost related to Auditorium has not incurred therefore the claim is not justified and hence disallowed.

#### 4.2.6 **Plant Simulator System and Training Centre:**

In the reference tariff US\$ 2.30 million had been allowed with the adjustment on actual at the time of COD on the basis of verifiable documentary evidence. The Petitioner did not claim any cost at the time of COD therefore the same is disallowed by the Authority.

#### 4.2.7 **BOP Spares:**

- i. The Authority as per modification decision, allowed cost of US\$ 7.50 million and the same has been claimed by QATPL at the time of COD. The details provided by QATPL regarding payments on this account is as under:

Dates	Amount in US\$	Amount in PKR	Exchange rates
November 3, 2020	206,295	33,110,357	160.5
November 18, 2020	1,074,460	170,516,848	158.7
April 15, 2021	506,564	78,081,062	153.8
<b>Total</b>	<b>1,787,319</b>	<b>281,708,267</b>	<b>157.6</b>

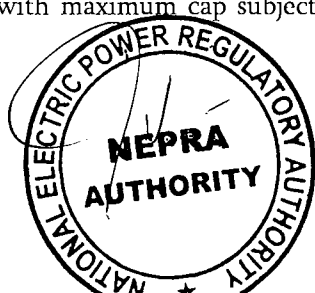
- ii. The Authority observed that all payments have been made after RCOD. Keeping in view the paid amount, the Authority has decided to allow US\$ 7.289 million at the exchange rate of Rs./US\$ 110 prevailing at the date of RCOD which works out to be Rs. 801.815 million. The amount of US\$ 0.211 million being payable is disallowed to the Company.

#### 4.2.8 **Acquisition of Land:**

- i. The Authority in the reference tariff had allowed US\$ 0.77 million with maximum cap for additional purchase of 32 acres of land for construction of housing complex including auditorium and training center with maximum cap subject to adjustment as per actual on the basis of verifiable documentary evidence at COD.
- ii. QATPL submitted that total of 40.64 acres land has been acquired for Rs. 101.813 million (US\$ 0.97 million claimed at Rs./US \$ 105). While justifying the extra land, QATPL submitted that additional land was required to acquire in compliance with directions of EPA NOC in terms of "Plantation" of at least 10,000 trees. QATPL submitted that land was acquired and payment has been made to Assistant Commissioner Land Acquisition Collector.
- iii. Keeping in view the reference tariff, the Authority decided to allow US\$ 0.77 million (Rs. 80.465 million at Rs./US\$ 104.5) based on area of 32 Acres while disallowing land cost incurred for additional land amounting to US\$ 0.20 million (US\$ 0.97 million- US\$ 0.77 million).

#### 4.2.9 **Fuel Gas Treatment Plant:**

- i. In the reference tariff, the Authority had allowed cost of US\$ 2 million on account of fuel gas treatment plant with maximum cap subject to adjustment as per actual at COD on the basis of







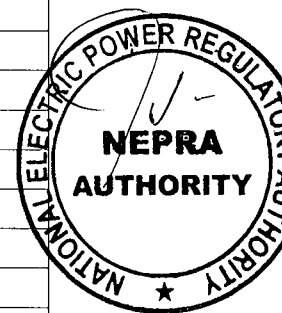
verifiable documentary evidence. QATPL did not claim any cost under this head, therefore no cost is allowed on this account.

- ii. Out of the total claim of US\$ 10.87 million on account of "Items not covered in EPC", US\$ 9.808 million (Rs. 1,071.251 million at Rs./US \$ 109.43) has been paid. The amount of US\$ 0.22 million on account of Site Housing, US\$ 0.380 million payable to LESCO and BOP spares amount of US\$ 0.210 million is still payable. The Authority noted that in other RLNG projects timeline has been granted to the Companies for adjustment of the payable amount. Accordingly as a matter of equity and justice, the Authority has decided to allow one year timeline for adjustment of payable amount of Site Housing and BOP spares from issuance decision. However, payable amount of LESCO will not be accounted for in adjustment.

#### 5. Non-EPC cost:

- 5.1 As per reference para 12 of the determination dated April 14, 2016, the Authority allowed US\$ 52.744 million as cost of 'Non-EPC Cost, including engineering consultancy, Administrative Expenses during construction, O & M mobilization & training, land cost (plant), Security Surveillance, insurance during construction @ 1% of total EPC cost, testing & commissioning.
- 5.2 QATPL submitted a revised claim of US\$ 50.49 million as 'Non-EPC Cost. The cost breakup of these items are as under:

Description	Reference	Claimed	Revised Claim
	US \$ million		
Engineering Consultancy	10.00	10.00	
Administrative Expenses during construction	13.00	6.57	6.80
O&M mobilization & training	3.08	5.56	
Land Cost	2.00	2.00	
Security Surveillance	8.26	8.22	
Insurance during construction	5.54	5.50	
Testing & Commissioning (RLNG)	10.87	10.87	
Testing & Commissioning(HSD)	-		1.54
<b>Total</b>	<b>52.75</b>	<b>48.72</b>	<b>8.34</b>



#### 5.3 Engineering Consultancy:

- 5.3.1 As per reference para 12.6 of the determination dated April 14, 2016, the Authority allowed an Engineering Consultancy cost of US\$ 10.00 million.
- 5.3.2 QATPL submitted that the total price for engineering consultancy as approved by the Authority is US \$ 10 million (Rs. 1,050 million claimed at reference rate of Rs./US \$ 105) and as per the Order no provision exists for adjustment of the same at actual. QATPL entered into a contract with National Engineering Services Pakistan on 25<sup>th</sup> June 2015 with a multicurrency contract amount of Euro 1,755,596, US\$ 88,161 and Rs. 666,569,295. The Petitioner claimed US\$ 10.00 million as per reference determination at the time of COD. QATPL entered into an amendment no. 3, the contract price revised to Euro 1,729,674, US\$ 62,496 and Rs. 904,355,967.

Y S



5.3.3 The submitted documents of QATPL has been examined and it has been observed through verification that only Rs. 1,148.834 million was actually paid. Having considered the verified amount, the Authority decided to allow the paid portion of the cost related to Engineering Consultancy for US\$ 9.122 million (Rs. 968.709 million) converted at exchange rate of Rs./US\$ 106.192, allowing exchange rate variations during the construction period and using exchange rate of Rs./US\$ 110 for payments made after RCOD.

#### 5.4 Administrative Expenses during construction:

5.4.1 As per reference para 12.32 of the determination dated April 14, 2016, the Authority allowed Administration Expenses of US\$ 10.508 million.

5.4.2 As per reference para 8.26 & 8.28 of the determination dated January 27, 2020, the Authority in addition to already approved administrative costs allowed Rs. 261.65 million on account of subscriptions fees and charges pertaining to SECP, PPIB and NEPRA, pre-NTP cost of approximately 5-6 months.

5.4.3 QATPL claimed an amount of US\$ 6.570 million (Rs. 689.837 million) translated at the reference exchange rate of Rs. 105/US\$. Subsequently the claim was revised to US \$ 6.797 million (Rs. 714.565 million) when the information was submitted for the verification purpose. Admin expenses mainly comprise of salaries, wages and other benefits, utilities, rent rates & taxes, vehicles related expenses, auditor's remuneration, legal & professional charges, regulatory expenses, training, travelling and communication costs, office equipment and supplies etc.

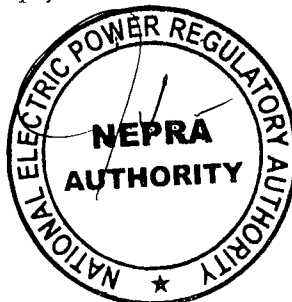
5.4.4 The information provided by QATPL has been examined and observed certain cost items are already allowed in O&M therefore the same has been adjusted. Accordingly administrative expenses during construction amounting to US \$ 6.703 million (Rs. 711.055 million at Rs./US \$ 106.074) has been allowed to the Company.

#### 5.5 O&M mobilization & training:

5.5.1 As per reference para 12.8 of the determination dated April 14, 2016, the Authority allowed O&M Mobilization & Training cost of US\$ 6 million. This cost was reduced to US \$ 3.081 million as per Modification of Tariff determination dated January 27, 2020.

5.5.2 QATPL, conducted an International competitive bidding process in May 2016 where HEI-HRL Joint Venture was declared the successful O & M bidder. QATPL entered into a contract with the joint venture of Harbin Electric International Company Limited and Habib Rafiq (Private) Limited on 12<sup>th</sup> October, 2017 with a contract amount of US \$ 2.00 million lump sum and US\$ 0.5 million applicable per month during the mobilization period.

5.5.3 QATPL has claimed US\$ 5.565 million (Rs. 607.945 million at Rs./US \$ 109.25) against the allowed cost of US\$ 3.08 million with exchange rate of date of invoice. Verifiable evidence was provided by the petitioner in support of its claim including contract, invoices from the O & M mobilization contractor, bank statements against payments.



78



5.5.4 The Authority allowed US\$ 3.08 million in its modification petition. Since the amount requested is in excess of the allowed limit therefore has not been allowed. Accordingly US\$ 3.081 million (Rs. 326.751 million at Rs./US \$ 106.05) against O&M Mobilization & Training cost has been allowed.

**5.6 Land Cost :**

5.6.1 As per reference para 12.10 of the determination dated April 14, 2016, the Authority allowed Land cost of US\$ 2 million. QATPL has claimed cost amounting to US\$ 2 million since no adjustment mechanism was provided in "One Time Adjustment at COD".

5.6.2 During the course of verification, an amount of US\$ 1.202 million equivalent to Rs. 126.248 million (converted at the reference exchange rate of Rs./US\$ 105) has been actually incurred and paid accordingly as per documents against the claimed amount of US\$ 2 million. QATPL submitted letter from Assistant Commissioner Land Acquisition Collector along with payment evidence.

5.6.3 Based on the documentary evidence, the Authority decided to allow paid amount of US\$ 1.243 million (Rs. 126.248 million at Rs. /US\$ 101.6) converted at an exchange rate prevailing on the day of payment.

**5.7 Security Surveillance:**

5.7.1 As per reference Order para II (v) of the determination dated April 14, 2016, the Authority allowed Security & Surveillance cost of US\$ 8.257 million subject to adjustment as per actual at COD. QATPL claimed an amount of US\$ 8.22 million (Rs. 863 million) converted at the reference exchange rate of Rs./US\$ 105.

5.7.2 Keeping in view the documentary evidence of payment, the Authority decided to allow cost of US\$ 7.845 million (Rs. 863 million at exchange rate of Rs./US\$ 110).

**5.8 Insurance during Construction:**

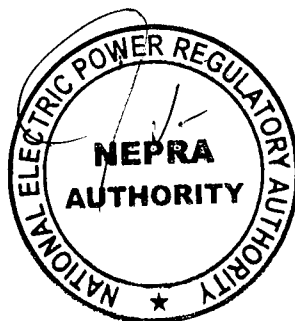
5.8.1 As per reference para 12.12 of the determination dated April 14, 2016, the Authority allowed 1% of the EPC cost i.e. US\$ 5.537 million as insurance cost during construction.

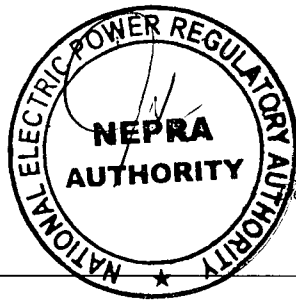
5.8.2 QATPL submitted that from Insurer, National Insurance Company Limited (NICL), following types of insurance covers were being taken. Erection/ Construction All risk insurance cover, marine insurance cover, terrorism insurance cover and third party liability insurance. As per COD application, insurance claimed is of US \$ 5.50 million (Rs. 626.81 million).

5.8.3 QATPL submitted documentary evidence of amount of insurance US\$ 4.972 million (Rs. 539.72 million) at an average exchange rate of Rs./US\$ 108.55. For the purpose of verification, insurance contracts, invoices and bank statements were submitted.

5.8.4 The Authority considered that the amount of Insurance During Construction pertaining to allowed construction period of 27 months is equivalent to US \$ 4.185 million (Rs. 444.430 million) at an average exchange rate of Rs./US\$ 106.185. Accordingly considering the same being legitimate is allowed to the Company.

**5.9 Testing and Commissioning:**





Decision of the Authority in the matter of tariff adjustments at COD of  
Quaid-e-Azam Thermal Power (Pvt.) Ltd.  
Case No. NEPRA/TRF-347/QATPL-2016

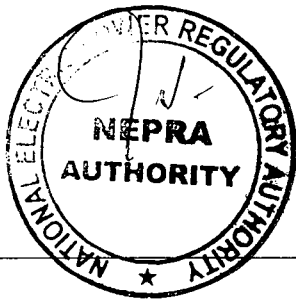
- 5.9.1 As per reference para 12.17 of the determination dated April 14, 2016, the Authority allowed US\$ 10.87 million as Testing & Commissioning cost. The breakup of allowed Testing & Commissioning is that the cost of RLNG fuel during testing works out US \$ 9.38 million and US \$ 1.49 million for fixed LTSA & fixed O &M.
- 5.9.2 QATPL claimed an amount of US\$ 10.87 million (Rs. 1,141.24 million at reference exchange rate of Rs./US \$ 105) Subsequently, QATPL vide letter no. QATPL/FIN/6255/2022 dated February 28, 2022 has made a submission regarding the cost of HSD fuel in post synchronization period. Details of testing and Commissioning on HSD were submitted along with the supporting documentation. An amount of Rs. 161.518 million has been claimed against HSD fuel Cost.
- 5.9.3 As per Order para 9 of the "Decision of the Authority in the matter of HSD Testing on Combined Cycle in the Post Synchronization Period before COD" dated October 24, 2018:
- "Post Synchronization tests on HSD shall be allowed on combined cycle operation."*
- 5.9.4 The Authority has considered the submissions and supportive documents provided by the Company with respect to Testing and Commissioning. In view of post verification of the supporting documents including invoices from SNGPL and invoices of test energy by CPPA-G, US\$ 9.38 million (Rs. 989.027 million at Rs./US \$ 105.44) on account of RLNG fuel cost is verifiable from documents submitted and same is being allowed by the Authority. The Company was unable to provide supportive documents pertaining to fixed LTSA & Fixed O&M. In view thereof the amount of US \$ 1.49 million on this account is disallowed.
- 5.9.5 Keeping in view the documentary evidence with respect to HSD fuel cost for post synchronization period on combined cycle is verified. Rs. 161.518 million (US \$ 1.468 million at Rs./US \$ 110) on this account is allowed to the Company.
- 5.9.6 In total US \$ 10.848 million (Rs. 1,150.545 million at Rs./US \$ 106.057) has been allowed under the head of testing & commissioning. The same is in line with the earlier decision of the Authority with respect to RLNG power projects.

#### **5.10 Customs, Duties and Cess:**

- 5.10.1 As per Order Para II clause (iii) of the determination dated April 14, 2016, the Authority allowed US\$ 25.653 million as Customs, Duties and Cess subject to adjustment as per actual.
- 5.10.2 QATPL claimed an amount of US\$ 20.189 million (Rs. 2,119.804 million) in COD tariff adjustment application, whereas the documentary evidence submitted is for the amount of US\$ 20.50 million (Rs. 2,152.868 million) at the reference exchange rate of Rs./US \$ 105. Goods Declaration notes, packing list, Bill of lading, Cess challans along with payment evidence have been submitted.
- 5.10.3 In view of the submission of documentary evidences, analysis and verification thereof, an amount of Rs. 2,134.097 million, exclusive of sales tax (US\$ 20.301 million at Rs./US \$ 105.13) has been allowed by the Authority on account of Custom Duties and Cess.

#### **5.11 LTSA initial spares inventory:**

- 5.11.1 As per reference para 13.3 of the determination dated April 14, 2016, the Authority allowed US\$ 20.880 million as cost of LTSA initial spares inventory. QATPL has claimed US\$ 20.880 million



(Rs. 2,408.498 million) as per the contract signed with General Electric International Inc. (GE). A contract with General Electric International Inc. (GE) was signed by QATPL dated October 18, 2016. A contract amount of US \$ 18 million plus US \$ 2.88 million (sales tax) works out to be US \$ 20.880 million, inclusive of all applicable taxes.

- 5.11.2 The QATPL provided the contractual arrangement, invoices, payment evidence etc. Having considered the documentary evidence, the Authority has decided to allow US \$ 20.880 million (Rs. 2,271.06 million at Rs./US \$ 108.77) inclusive of sales tax, as per contract and US \$ 18 million (Rs. 1,955.885 million at Rs. 108.66).

#### 5.12 Gas Pipeline Cost:

- 5.12.1 As per reference Order para II (vii) of the determination dated April 14, 2016, the Authority allowed Gas Pipeline cost of US\$ 13.6 million.
- 5.12.2 QATPL claimed an amount of Rs. 1260.731 million (US\$ 12.007 million at the reference exchange rate of US \$/Rs. 105) out of which Rs. 1250.35 million have been paid on this account.
- 5.12.3 An auditor's report dated September 07, 2020 issued by EY Ford Rhodes Chartered Accountants (Lahore Office) has been provided by QATPL regarding total cost incurred on laying of 30" DIA X 18 Km transmission line for Bhikki Power Plant. As per "Statement of Cost Incurred" from July 01, 2016 to June 30, 2019 an amount of Rs. 1,183.092 million has been incurred in respect of transmission line and balance payable by SNGPL to QATPL is Rs. 67.258 million. In addition, the letters from SNGPL for payment of installments, bank statements have been submitted as documentary evidence.
- 5.12.4 Based on the auditor's report by EY Ford Rhodes Chartered Accountants, an amount of US\$ 11.28 million (Rs. 1,183.092 at Rs./US \$ 104.89) is being allowed by the Authority.

#### 5.13 One month LNG Escrow Account:

- 5.13.1 The Authority allowed "One month LNG Escrow Account" cost of US\$ 35.77 million subject to adjustment as per actual of Escrow Account on the basis of revised RLNG price and applicable GST as per reference Order para II (xi) of the modification determination dated January 27, 2020.
- 5.13.2 QATPL has claimed US\$ 65.034 million, out of which Rs. 4,302.498 million, converted at exchange rate of US\$/Rs. 115.71, has been deposited and an amount of Rs. 3,222.808 million was payable at the time of submission of COD application dated June 20, 2020. Amount of Rs. 4,302.498 million has been deposited and is verified through bank statement.
- 5.13.3 Subsequently, QATPL submitted vide letter no. QATPL/FIN/5822/2021 dated September 14, 2021, that an amount of Rs. 3,853.036 million has been deposited in Escrow Account maintained with National Bank of Pakistan through RTGS. The Bank intimation letter and relevant copy of bank statement have been shared that reflected a credit balance of Rs. 8,928.326 million dated September 03, 2021 in Escrow Account.
- 5.13.4 Further, QATPL submitted vide letter no. QATPL/FIN/6512/2022 dated May 27, 2022 an "Undertaking on Maintenance of Escrow Account as per the Gas Supply Agreement (GSA)".

- 5.13.5 QATPL reiterated that currently, the matter regarding Take or Pay (ToP) invoices and illegal withdrawal from Escrow Account by SNGPL, is under adjudication before the London Court of International Arbitration ("LCIA") pursuant to the dispute resolution mechanism prescribed under the GSA. Further, QATPL under clause 8.3 (c) of the GSA, undertakes to comply with in letter and spirit as and when the need arises. It also submitted that:

*"The matter regarding Take or Pay (ToP) invoices and illegal withdrawal from Escrow Account is under adjudication before the London Court of International Arbitration ("LCIA") pursuant to the dispute resolution mechanism prescribed under the GSA. QATPL's position in the arbitration is that a drawdown on the GSD may only be made when the amounts are undisputed as per clause 9.6 of the GSA."*

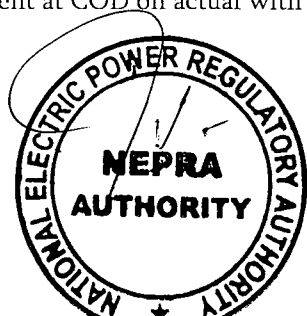
- 5.13.6 As per Section 8.3 Clause (a) of the Gas Supply Agreement between Sui Northern Gas Pipelines Limited (SNGPL) and Quaid-e-Azam Thermal Power (Private) Limited (QATPL), *"The Gas Supply Deposit shall equal one-fourth (1/4) of the Maximum Gas Allocation valued at the current applicable gas price and inclusive of taxes thereon if any ("Deposit Value")"*. Amount to be placed in Escrow account is calculated on the basis of 30 days at the gas price (US\$/MMBTU) of 10.8028 (as determined by OGRA for the month of May 2018) and exchange rate prevailing on the day of actual commercial operations date which is 20-May-2018. Parameters used for the calculation of Escrow Amount:

Description		Calculation
MMSCF-Contracted	A	177
GCV- Contracted	B	969
No. of days	C	30
Gas Price (US\$ / MMBTU)	D	10.8028
SBP Weighted Average Exchange rate (US\$/Rs.)	E	115.7134
Gas Price exclusive of GST	$F = D * E$	1250.029
GST 17 %	$G = F * 17 \%$	212.50
Gas Price inclusive of GST	$H = F + G$	1,462.534
Escrow Amount- Inclusive of GST	$I = A * B * C * H$	<b>7,525.306 million</b>

- 5.13.7 Further, an "Account Balance and Maintenance Certificate" is furnished from NBP where the Escrow account is maintained. It has been stated that a credit balance of Rs. 7,582,511,359.57 is available dated May 26, 2022.
- 5.13.8 On the basis of information submitted by QATPL, the Authority decided to allow Rs. 7,525.306 million (US\$ 65.034 million, at the State Bank of Pakistan (SBP) Weighted Average exchange rate of 115.7134) on actual basis.

## 6. Financing Fees & Charges:

- 6.1 As per reference para 16.3 of the determination dated April 14, 2016, the Authority allowed 3.5% debt amount as financing fees & charges which works out as US\$ 18.448 million which shall be subject to adjustment at COD on actual with maximum cap of 3.5 % of the debt amount.




- 6.2 QATPL claimed an amount of US\$ 20.85 million (Rs. 2,188.993 million inclusive of FED/Sales tax at reference exchange rate of Rs. 105/US\$).

*A sales tax/FED amount of Rs. 304.897 million has been included in Rs. 2,308.156 million, so amount of financing fees and charges net of sales tax works out to be Rs. 2,003.259 million (US \$ 19.078 million at reference rate of Rs./US \$ 105). It also includes an amount of US \$ 68.242 million as payable.*

- 6.3 The verified and paid amount of financial charges net of sales tax is Rs. 1,935.02 million (US \$ 18.17 million at average exchange rate of Rs./US \$ 105.124). Since the maximum allowed limit is 3.5 % of debt of revised and assessed CAPEX, which works out to be Rs. 1,895.079 million (US\$ 18.027 million converted at average exchange rate of Rs./US \$ 105.124) and same is hereby allowed by the Authority.

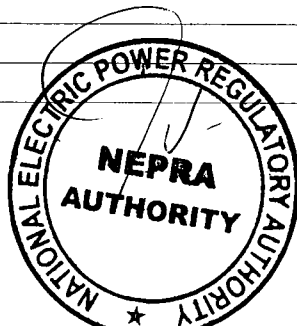
## 7. Interest during Construction:

- 7.1 As per reference para 17.6 of the determination dated April 14, 2016, the Authority allowed Interest during Construction (IDC) of US\$ 48.742 million for 27 months construction period on the basis of debt drawdowns i.e 27%, 60 % and 13 % in 1<sup>st</sup> year, 2<sup>nd</sup> year and last 3 months respectively as proposed by the Petitioner. The reference Order para II (ix) allowed an adjustment which is as follows:

*“The IDC shall be re-established at the time of COD on the basis of applicable KIBOR, actual premium, actual loan and actual loan drawdown”.*

- 7.2 QATPL submitted that the IDC paid during the 32 months actual construction period works out as Rs. 4,492.49 million (US \$ 42.785 million) and the same amount has been claimed at reference exchange rate of Rs. 105/US\$.
- 7.3 QATPL issued Notice to Proceed (NTP) to EPC contractors dated September 22, 2015, therefore the same date has been claimed as construction start date and the COD works out to be on December 21, 2017 for 27 months accordingly. Further QATPL has also submitted CPPA-G's notification of COD vide letter No. CTO (CPPA-G)/DGMT-V/MT-XI/20038-42 dated July 11, 2018 has achieved COD on May 20, 2018 (32 months).
- 7.4 PPIB vide its letter no. Ref No. 2(299)/PPIB/QTPL/FC/16/Fin/O-47319 dated August 22, 2016 has informed CPPA (G) Limited that in accordance with the Implementation Agreement, upon fulfillment of the necessary pre-requisites, it has announced financial close on August 22, 2016.
- 7.5 The Company has entered into a Syndicated Term Finance Agreement with National Bank of Pakistan and other financial institutions to avail financing for the Project on July 14, 2016 for the amount of Rs. 63,750 million being the amount of Finance Facility. Following are the names of the Financiers along with the amounts of disbursements:

Name of the Financier	Amount in PKR
National Bank of Pakistan	20,000,000,000
Habib Bank Limited	20,000,000,000
United Bank Limited	6,916,670,000
The Bank of Punjab	6,916,670,000



*Handwritten signature/initials*



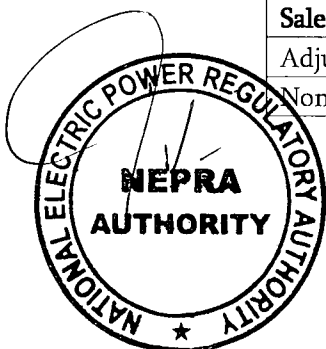
Bank Al-Falah Limited	6,916,660,000
Soneri Bank Limited	3,000,000,000
<b>Total</b>	<b>63,750,000,000</b>

- 7.6 It is important to mention that debt drawdowns actually started from September 26, 2016, to a total loan disbursements of Rs. 38,658.5 million till December 21, 2017 and there was not any debt draw down before September 26, 2016 as the equity was injected as upfront from date of NTP. Therefore IDC was re-established for a period from September 26, 2016 till December 21, 2017 (15 months). As Financial Close is notified by PPIB dated August 22, 2016, so from that date till December 22, 2017 (16 months), IDC of 3,005.478 million is verified along with applicable KIBOR rates.
- 7.7 The Authority in the decision dated April 14, 2016 (para 26.3) stated that *"The 3 % premium over KIBOR shall be subject to adjustment as per actual and saving in premium shall be shared between the power purchaser and the power producer in the ratio 60:40."* The savings on interest premium on foreign/local financing or mix of local and foreign financing shall be shared in the ratio of 60:40 between power purchaser and power producer.
- 7.8 As per the financing agreement it was verified that the company arranged financing on KIBOR Plus 3%, on the same borrowing rate as was allowed by the Authority, therefore there has not been any saving on spread.
- 7.9 During the verification of the calculations of actual interest during construction, it was also noted that QATPL had generated income from debt amount deposited at various banks. The amount of earned income is Rs. 812.779 million net of WPPF, final tax liabilities for the years 2014-15, 2015-16, 2016-17 from such deposited amounts. Income earned on debt amount has been deducted from the IDC for the construction period accordingly.
- 7.10 Furthermore, IDC of Rs. 2,721.854 million is reassessed on the basis of actual drawdowns. The amount of interest income is Rs. 812.779 million and amount of IDC net of interest income works out as Rs. 1,909.075 million (US\$ 17.867 million at weighted average exchange rate, prevailing on payment dates of Rs./US\$ 106.852). The Authority decided to allow the same amount of Rs. 1,909.075 million to the Company.

#### 8. Sales Tax:

- 8.1 The Authority had not considered any type of sales tax in the Tariff Determination and Order. However, the Authority has to consider non-adjustable sales tax which cannot be adjusted against output tax and hence become the final sales tax liability for the Petitioner.
- 8.2 QATPL has claimed sales tax of Rs. 2,076.312 million (US\$ 19.808 million) at the COD stage and has provided the following break up of its claim:

Description	Amount in US \$	Amount in Rs.
<b>Sales Tax</b>		
Adjustable sales tax @ 16 %	19,339,323	2,028,626,092
Non-adjustable sales tax	468,897	47,686,782



*[Signature]*



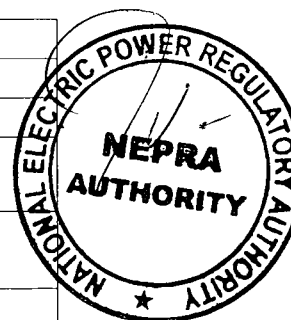


<b>Total</b>	<b>19,808,219</b>	<b>2,076,312,874</b>
--------------	-------------------	----------------------

8.3 QATPL has submitted copies of documentary evidences including sales tax challans, computerized payment Receipts (CPRs), Invoices, Bank Statements which were duly checked and verified accordingly.

8.4 In support of sales tax claim, QATPL has submitted an opinion from Yousaf Saeed & Company Chartered Accountants, a member firm of the Alliance of Independent firms dated March 24, 2022 which expressed an opinion on sales tax. It segregated the sales tax and Federal excise duty incurred by QATPL as follows:

Description	Amount in Rs.
Total Sales Tax/FED Paid	2,421,680,933
Less: Non-adjustable sales tax /FED	(60,117,876)
Less: Input tax rejected u/s 7,8, 59 & 73 (Adjustment not allowed by tax authorities)	(1,576,990,275)
Add: Invoices duplicated in assessment orders	96,992,342
<b>Net Adjustable Sales Tax /FED</b>	<b>881,565,124</b>



8.5 After the submission of Auditors report on sales tax, QATPL has filed addendum for one-time adjustment of the Tariff at COD vide letter no. QATPL/FIN/6365/2022 dated March 31, 2022 and revised its claim for sales tax in the light of the auditor's report. The revised claim is as per table below:

Revised Claim of Sales Tax	
Description	Amount in Rs.
Adjustable sales tax @ 16 %	881,565,124
Non-adjustable sales tax	1,540,115,809

8.6 The Authority on the basis of verifiable documentary evidence observed that out of the total revised claim of Rs. 2,421.681 million ( US \$ 23.103 million at Rs./US \$ 105) the amount of non-adjustable sales tax on construction services amounts to Rs. 20.307 million (which is US \$ 0.200 million at Rs./US \$ 101.70). This amount has been deducted from the total revised claim of sales tax along with Rs. 5.947 million on financing fees & charges, so the balance amount works out to be Rs. 2,394.739 million ( US \$ 22.846 million) is deducted from CAPEX on account of adjustable sales tax. As per the fact that only non-adjustable sales tax on construction services has been allowed by the Authority. The Authority considers that it would not be prudent to allow sales tax which has been revised and claimed as non-adjustable although the matter is pending and subjudice before High Court. Accordingly the same has been disallowed.

## 9. Adjustment in Net Capacity:

9.1 The Authority allowed in the reference determination as per following:

*"The reference tariff has been determined on the basis of guaranteed net capacity of 1,156.675 MW with auxiliary consumption of 1.99% (23.455 MW). All the tariff components of capacity charge*

8

*shall be adjusted at the time of COD based upon the Initial Dependable Capacity (IDC) tests to be carried out for determination of net contracted capacity. In case net capacity is established lower than the guaranteed level, maximum 3 % of the auxiliary consumption shall be allowed and appropriate adjustment in the tariff components shall be made after adjusting LDs as per schedule 10 to the EPC contract against the project cost. ”*

- 9.2 QATPL submitted the certificate of Initial Tested Capacity (ITC) from independent engineer i.e. OMS (Pvt) Ltd. dated May 19, 2018. As per the certificate *“it was certified that the Initial Tested Capacity of the complex, adjusted to reference site conditions, in combined cycle operation on Gas Fuel (without taking into account degradation impact due to simple cycle operation) of the Complex is 1163.123 MW.”*
- 9.3 Further it has also been notified by CPPA vide its letter No. CTO (CPPA-G/DGMT-V/MT-XI/20038-42 dated July 11, 2018.
- 9.4 On the basis of information submitted by the Independent engineer, OMS (Pvt) Ltd. and further verification, the Authority decided to allow the net capacity of 1,163.123 MW and 1,067.252 MW on RLNG and HSD respectively.

#### **10. Fuel Cost Component (Heat Rate Test):**

- 10.1 The Authority had allowed and stated as per section IV (Heat Rate Test) of the Order part of the reference determination, as per following:-
- “In case the efficiencies on either fuel establish lower than the guaranteed levels, appropriate adjustment in the fuel cost components shall be made after adjusting LDs as per Schedule 10 to the EPC contract against the project cost. In case the efficiencies on either fuel establish higher than the guaranteed levels, the gain shall be shared in the ratio of 60:40 between the power purchaser and power producer and fuel cost components shall be adjusted accordingly.”*
- 10.2 As per para 8.65 of Modification tariff decision dated January 27, 2020 regarding “Degradation and Part Load Adjustments”
- “The adjustments like part load, degradation (output & heat rate) and start-up costs etc, which are impacting/influencing the generation tariff of the company shall be considered by the Authority at COD stage tariff based on correction curves of the complex specified by the OEM/EPC contractor on its letter head. CPPA-G is directed to continue to pay on account of Output Degradation Factor, Heat Rate Degradation Factor and Part Load Adjustment Correction as per the terms of the PPA agreed between the parties till final approval of the Authority in the matter.”*
- 10.3 QATPL submitted a copy of certificate of Independent Engineer regarding net heat rate test along with relevant portions of test report for said test on RLNG. Accordingly, the Heat Rate Test, conducted in accordance with the above said testing procedures and witnessed by the Independent Engineer and CPPA, resulted in a combined cycle efficiency of 60.90% on RLNG fuel (“RLNG Tested Efficiency”) which is lower than the guaranteed efficiency. After adjusting the same with degradation curve / factor for the number of fired hours, the corrected combined cycle efficiency was established as 61.60% which was higher than the EPC Contractors’ guaranteed value of 61.59%, hence, LD was not applicable on the EPC Contractor in terms of the EPC Contract.

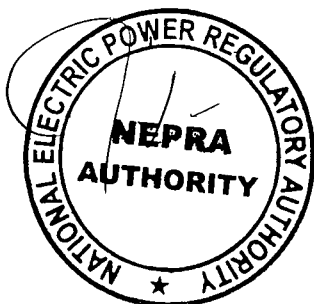
- 1.4 Similarly, QATPL submitted a copy of certificate of Independent Engineer regarding net heat rate test along with relevant portions of test report for said test on HSD. The combined cycle efficiency on HSD fuel was established as 54.49% ("HSD Tested Efficiency") which was lower than the Guaranteed Efficiency. After adjusting the same with degradation curve/factor for the number of fired hours the corrected combined cycle efficiency was established as 55.13% which was higher than the EPC Contractors' guaranteed value of 54.90%.
- 1.5 Since the Tested Efficiency on both RLNG and HSD is established lower than the guaranteed efficiency, hence *no sharing required*. QATPL requested for the following one-time adjustments/correction factors:

No.	Description	Percentage
1	Recoverable and non-recoverable adjustments	0.33%
2	Blow down adjustment	0.46%
3	Misc. adjustment	0.24%
4	Temperature adjustment	0.11%
	<b>Total Adjustment</b>	<b>1.14%</b>

- 1.6 QATPL submitted that the applicable efficiencies for purposes of tariff calculation after one-time adjustments/correction factors are 59.76% (60.90% - 1.14 %) on RLNG and 53.35% (54.49% - 1.14%) on HSD. The fuel cost components have been calculated at the aforementioned efficiencies i.e. 59.76% for RLNG and 53.35% for HSD accordingly.
- 1.7 QATPL was allowed efficiency of 61.59% & 54.90% on RLNG & HSD subject to adjustment at the time of COD. The Determination of the Authority included the following:
- "In case the efficiencies on either fuel establish lower than the guaranteed levels, appropriate adjustment in the fuel cost components shall be made after adjusting LDs as per Schedule-10 to the EPC contract against the project cost."*
- 1.8 The efficiencies of 60.90% on RLNG and 54.49% on HSD has been established. The Authority considered the request of QATPL for one-time adjustments / corrections factor to the heat rate tests. The Authority considers that the request of QATPL for further one-time adjustment / corrections in heat rates is not justified. Similarly the same are not in line with Authority's earlier decisions and accordingly the same is declined. Based on the efficiency of 60.90% and 54.49% on RLNG and HSD, the fuel cost components has been worked out as Rs. 7.1413 /kWh and Rs. 14.2743 /kWh and the same is allowed.

**1. O&M Component:**

- 1.1 The Authority allowed O&M as per section II (xi) of the order:
- "O&M component shall be adjusted as per the signed O&M agreement, LTSA agreement and actual recurring administrative expenses".*
- 1.2 QATPL submitted that it followed a bidding process and has signed an O&M Contract with HEI HRL Joint Venture (Joint Venture of Harbin Electric International Company Limited & Habib Rafiq (Private) Limited dated October 12, 2017 for agreement price of US \$ 133,069,926.

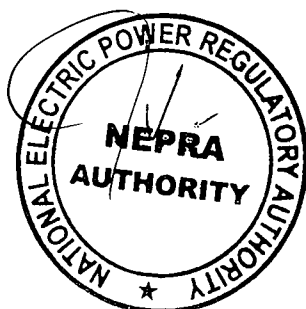


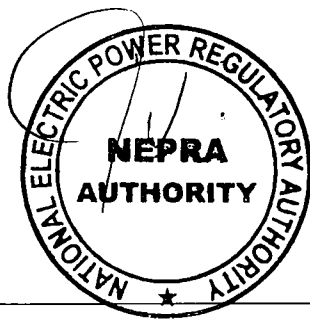
- 1.3 Subsequently, QATPL vide letter no. QATPL/FIN/6650/2022 dated July 01, 2022 submitted that as per Schedule R of O&M agreement dated October 12, 2017, the agreement price does not include the cost of extra works/services/ eventualities. In pursuance of the above, QATPL executed an addendum of the O & M agreement on 20-11-2020 for inclusion of extra works/eventualities which were not covered in original agreement. The extra works included in the amended agreement includes but not limited to periodic software up gradation and implementation of technical information letters etc. Consequently, the total O&M fee in Schedule R of the O & M agreement was increased from US \$ 133,069,926 to US \$ 152,534,806, thereby increasing the O&M cost of the Petitioner to the tune of US \$ 19,464,880. QATPL has revised its claim of overhead costs from US \$ 5,000,000 to US \$ 4,171,924.
- 1.4 Based on the copy of agreement along with the verified amounts, the Authority has decided to allow O & M components exclusive of Amendment to O & M agreement as per table below:

Description (RLNG)	Determined	Claimed	Assessed
Rs./kW/h			
Variable O&M (F)	0.3169	0.1147	0.1147
Fixed O&M (F)	0.1453	0.1636	0.1588
Fixed O&M (L)	0.0647	0.0559	0.0436
<b>Total</b>	<b>0.5269</b>	<b>0.3342</b>	<b>0.2024</b>

1. **Insurance during Operations:**

- 2.1 As per reference para 24.2 of the determination dated April 14, 2016, the Authority had allowed 1 % of EPC cost as annual insurance cost for the instant project. Accordingly the insurance cost component of tariff is Rs. 0.0574/kW/h was approved. Further, it states that:
- "The insurance cost component shall be adjusted annually on actual subject to maximum of 1 % of the EPC cost and prevailing exchange rate on the first day of the insurance coverage period."*
- 2.2 QATPL has obtained insurance from National Insurance Company Limited (NICL) against Political Violence and Third Party Liability and Operations All Risk insurance for the first year of operations, amounting to an aggregate of US \$ 10.648 million, Federal Insurance Fee ("FIF") of US \$ 0.106 million plus Punjab Sales Tax/ Federal Excise Duty of US \$ 1.704 million, which works out to be 2.310 % of the EPC cost.
- 2.3 QATPL has requested to allow it insurance tariff component of Rs. 0.1204 per kW/h for RLNG and Rs. 0.1312 per kW/h for HSD at the COD stage on the basis of US \$ 10.648 million (2.310% of EPC cost) for insurance during operations for the 1<sup>st</sup> year of operations (365 Days) i.e. May 20, 2018 to May 19, 2019. In support of its claim, QATPL has provided photocopies of Insurance policies and bank statements for payments. All the documents submitted to support the claim have been verified by the concerned professionals and found correct.
- 2.4 The company's claim over and above the 1% of the EPC cost already declined by the Authority in the review for modification decision. According to the information submitted by QATPL, its insurance cost for the first year of its post COD operations works out as Rs. 520.29 million (US\$ 4.9514 million) based on 1% of the assessed EPC cost instead of claimed insurance being 2.31% of





the EPC Cost. Accordingly insurance component of tariff works out as Rs. 0.0517 per kW/h and the same is allowed to QATPL. The Authority also decided that in future, insurance will be adjusted annually, on the basis of actual expenditure, not exceeding 1% of the approved EPC cost, upon production of authentic documentary evidence by QATPL.

- 12.5 Following insurance component of tariff works out on the basis of 1 % of EPC cost:

Description	Determined	Claimed	Assessed
		Rs./kW/h	
Insurance during Operations (RLNG)	0.0574	0.1204	0.0574
Insurance during Operations (HSD)	0.0638	0.1312	0.0626

**13. Cost of Working Capital:**

- 13.1 The Authority had allowed Rs. 0.0970 per kW/h and Rs. 0.1079 per kW/h for RLNG and HSD respectively, as cost of working capital tariff components to QATPL in the determination dated January 27, 2020. As per Section VI (iv) of the Order Para:

*“At the time of COD, cost of working capital shall be adjusted for actual payment terms agreed in the PPA and GSA and fuel prices. Thereafter, the cost of working capital shall be adjusted quarterly for variation in KIBOR and fuel prices only.”*

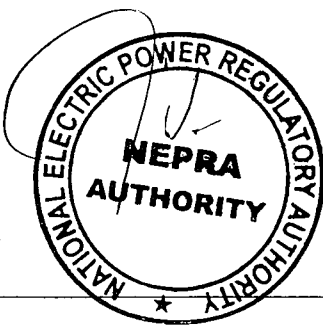
- 13.2 QATPL claimed working capital components of Rs. 0.1180 per kW/h and Rs. 0.1286 per kW/h for RLNG and HSD respectively.
- 13.3 The actual facts and figures have been checked and impact of cost of working capital is revised on the basis of heat rate, gas price, actual days required, SBLC charges (non-renewal but charges at reference rate of 1.5% is taken), actual annual plant load factor, Fuel Cost Component, total net capacity, rate of General Sales Tax, Exchange Rate and KIBOR variation. Therefore, the Authority decided to allow the tariff component for cost of working capital at Rs. 0.0686 per kW/h and Rs. 0.0748 per kW/h on RLNG and HSD respectively.

**14. Adjustment of Return on Equity:**

- 14.1 The Authority had allowed Rs. 0.4481 per kW/h (RLNG) and Rs. 0.4984 per kW/h (HSD) as return on equity (hereinafter referred to as "ROE") tariff component to QATPL in the determination. As per the determination dated April 14, 2016, Order para II clause (x) which states;

*“ROE component of tariff shall be adjusted for variation in actual equity investment and actual equity drawdown.”*

- 14.2 QATPL has requested to allow ROE of Rs. 0.5073 per kW/h (RLNG) and Rs. 0.5529 per kW/h (HSD) at the COD stage based on the equity amount of Rs. 21,250 million at 16 % IRR from Notice to Proceed (NTP) dated September 22, 2015 to actual COD dated May 20, 2018 equivalent to 32 months.
- 14.3 In pursuant to the CCoE decision No. CCE/46/13/2020 dated August 27, 2020 which was ratified by the Cabinet in case No. 648/35/2020 dated September 08, 2020. The decision was conveyed by Ministry of Energy (Power Division) vide letter No. IPPs-10(18)/2020 dated October 06, 2020. According to the decision, the RoE of the Government owned power projects (RLNG IPPs) have been reduced from 16 % IRR with dollar indexation to 12 % IRR with dollar indexation. The relevant para of the CCoE decision pertaining to Government owned RLNG IPPs is reproduced as under:



*"To compare the Returns on Equity of Government owned RLNG IPPs with the other Government owned Projects, the Return is reduced to 12 % IRR with dollar indexation. The projected reduction in RLNG projects will be Rs. 6.71 billion. Currently, the projects owned by the NPPMCL (Federal Government Owned Plants) is in the privatization list and bidding process is near to finalization stage. Post privatization the returns will be dependent on the new investors in case of local investor's returns will be 17 % without dollar indexation using US\$ to Rupee parity at Rs. 148 per US\$, however, foreign equity will get 12 % with dollar indexation....."*

14.4 As per Order paras (II) & (III), of the decision dated February 24, 2021,

*"The modified tariff components shall take effect from October 06, 2020."*

and

*"The revised RoE components of tariff shall be adjusted for variation in actual equity investment and actual equity injection at the time of COD tariff adjustment in accordance with the adjustments stipulated in the earlier approved/notified tariff."*

14.5 On the basis of revised equity of US \$ 180.66 million (25% of the total actual project cost) and exchange rate of US\$/Rs. 106.52, the ROE component of tariff works out as Rs.0.4243/kW/h at 16 % (first 2 operational years) and Rs.0.3443/kW/h at 16 % till Oct 06, 2020 and 12 % from Oct 07, 2020 onwards. From 3<sup>rd</sup> year of operations ROE component is calculated as Rs 0.2951/kW/h.

#### 15. Debt Servicing Component:

15.1 The Authority had assessed the debt servicing component of Rs. 0.9281 per kW/h in the determination. The tariff had been determined on the basis of a debt equity ratio of 75:25. The project financing is on the basis of 100 % debt from local banks and financial institutions. As per the determination dated January 27, 2020, Order para VIII clause (iii) states;

*"The tariff has been determined on the basis of debt equity ratio of 75:25. Minimum equity requirement is 20%. There will be no limit on the maximum amount of equity; however, equity exceeding 30% of the total project cost will be treated as debt."*

15.2 QATPL has now requested to allow a debt servicing component of Rs. 1.0328 per kW/h (RLNG) and Rs. 1.1256 per kW/h (HSD) at the COD stage. Debt repayment for Rs. 0.6148 per kW/h and Interest charges of Rs. 0.4180 per kW/h for the first year of operations for RLNG.

15.3 The Company has entered into a Syndicated Term Finance Agreement with National Bank of Pakistan and other financial institutions for the amount of Rs. 63,750 million being the amount of the Finance Facility on July 14, 2016. The IDC paid during the 32 months actual construction period works out as Rs. 4,492.49 million and the same amount has been claimed.

15.4 The Financial close is achieved on August 22, 2016 whereas, Notice to Proceed (NTP) was issued dated September 22, 2015 and allowed construction period is 27 months. With respect to NTP 27 months expired on December 22, 2017. Total disbursements made till RCOD and actual COD are Rs. 38,658.5 million and Rs. 45,133.140 million respectively.

15.5 On the basis of actual drawdowns till RCOD and the assessed amount of debt has been worked out as Rs. 57,733.98 million (US \$ 541.98 million at Rs./US \$ 106.52), 3-month KIBOR at 6.50 % dated March 30, 2018 and spread over KIBOR of 3.00 %. Summary of determined, claimed and assessed components



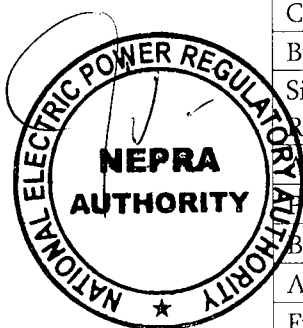
worked out on the basis of applicable KIBOR, actual premium, actual loan and actual debt drawdowns is as follows:

RLNG	Determined	Claimed	Assessed
Levelized Tariff	Rs./kW/h	Rs./kW/h	Rs./kW/h
Principal	0.3629	0.2746	0.3432
Interest	0.2420	0.3986	0.2330
Debt Servicing	0.6049	0.6732	0.5762

#### 16. Project Cost:

- 16.1 The adjusted project cost after incorporating the above one-time adjustments in the reference tariff are as under:

Breakup of Project Cost	Determined	Claimed	Allowed
	US\$ in million		
<b>EPC cost:</b>	<b>557.200</b>	<b>550.130</b>	<b>549.067</b>
Offshore EPC Cost	424.020	424.020	424.020
Onshore EPC Cost	115.240	115.240	115.240
<b>Items not covered in EPC contract scope</b>	<b>17.940</b>	<b>10.870</b>	<b>9.807</b>
Combustion Monitoring System of Gas Turbines	0.500	-	-
Buffer Vessel	4.250	-	-
Site Housing Complex with Additional Recreational Facilities	2.020	2.020	1.748
Auditorium	0.900	0.373	-
Plant Simulator System & Training	2.300	-	-
BOP Spares	7.500	7.500	7.289
Acquisition of Land	0.770	0.977	0.770
Fuel Gas treatment plant	2.000	-	-
<b>Non EPC Cost:</b>	<b>52.745</b>	<b>50.499</b>	<b>43.028</b>
Engineering and related consultancy	10.000	10.000	9.122
Administrative Expenses	13.000	6.805	6.703
O&M mobilization & training	3.081	5.565	3.081
Land Cost	2.000	2.000	1.243
Security Surveillance	8.257	8.219	7.845
Insurance during construction	5.537	5.500	4.185
Testing & Commissioning	10.870	10.870	9.380
HSD Post Synchronization tests		1.540	1.468
Customs Duties & Cess	25.653	20.430	20.301
LTSA Initial Spare Parts	20.880	20.880	20.880
Gas Pipeline Cost	13.600	12.010	11.280
One month LNG Escrow Account	35.772	65.036	65.036
Sales Tax		(22.490)	(22.85)
<b>CAPEX</b>	<b>708.150</b>	<b>696.495</b>	<b>686.746</b>



*[Signature]*

Financing Fees & Charges 3.5% of Debt	18.448	21.98	18.027
Interest During Construction 27 Months	48.742	42.79	17.867
<b>Total Project Cost</b>	<b>775.34</b>	<b>761.265</b>	<b>722.640</b>

7. **Tariff Components:**

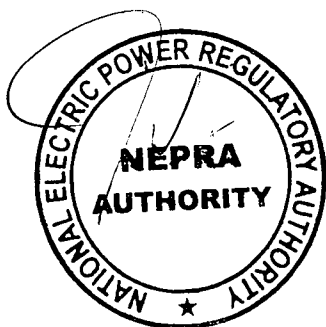
Summarizing the project cost, following adjustments/indexations at COD are allowed to QATPL as per the determination of the Authority:

Component	Adjustment
<b>Energy Part:</b>	
Fuel cost Component	Fuel Price
Variable O&M (Foreign)	US CPI & Rs./US\$
<b>Capacity Part:</b>	
Fixed O&M (Local)	CPI General (quarterly)
Fixed O&M (Foreign)	US CPI & US\$/Rs. (quarterly)
Cost of working capital	KIBOR & Fuel Price
Insurance	Annually adjustment up to 1% of EPC Cost
ROE	US\$ /Rs. (quarterly)
Debt Service	KIBOR

8. **Order:**

The Authority hereby determines and approves the following generation tariff at COD for Quaid-e-Azam Thermal Power Private Limited (QATPL) for its combined cycle power project at Bhikki, Sheikhpura on the basis of net capacity of 1163.123 MW on RLNG and 1067.25 MW on HSD, along with adjustments/indexations for delivery of electricity to the power purchaser:

Tariff Components	RLNG	HSD	Adjustment/ Indexation
<b>Capacity Charges (Rs./kW/hr):</b>			
Fixed O&M (Local)	0.0436	0.0469	CPI (General)
Fixed O&M (Foreign)	0.1588	0.1730	US CPI & Rs./US\$
Cost of working capital	0.0686	0.0748	KIBOR & Fuel Price
Insurance	0.0574	0.0626	Actual subject to maximum limit
ROE (Year 1-2)	0.4243	0.4625	Rs./US\$
ROE (Year 3)	0.3443	0.3753	
ROE (Year 4-30)	0.2951	0.3216	
Debt Servicing (years 1 – 10 only)	0.8840	0.9634	KIBOR
<b>Total 1-2 years</b>	<b>1.6368</b>	<b>1.7831</b>	
<b>Total year 3</b>	<b>1.5568</b>	<b>1.6959</b>	
<b>Total 4-10 years</b>	<b>1.5076</b>	<b>1.6423</b>	
<b>Total 11-30 years</b>	<b>0.6236</b>	<b>0.6789</b>	
<b>Energy Purchase Price (Rs./kWh)</b>			





Fuel Cost Component	7.1413	14.2743	Fuel Price
Variable O&M (Foreign)	0.1147	0.1250	US CPI & Rs./US\$
Total	7.2561	14.3993	
<b>Levelized tariff (Rs./kWh)</b>	<b>8.5903</b>	<b>15.8526</b>	
<b>Levelized tariff (US Cents/kWh)</b>	<b>8.0641</b>	<b>14.8817</b>	

The tariff tables and Debt Service Schedule are attached as Annex-I, Annex II, Annex III and Annex IV to this decision.

#### I. Adjustments on account of Project Cost Payables:

In accordance with the decision of the Authority following adjustments with respect to project costs which stand payable at COD shall be made after submitting the verifiable documentary evidence and without any exchange rate variation beyond Rs. 110/ US \$ within one year of the decision of the Authority;

- BOP Spares for an amount of US \$ 0.211 million.
- Site Housing Complex for an amount of US \$ 0.210 million.

The one time payable adjustments will be incorporated in the project cost based on the provision of verifiable documentary evidence once paid full and final and the revised tariff shall be applicable prospectively from the date of revised COD order.

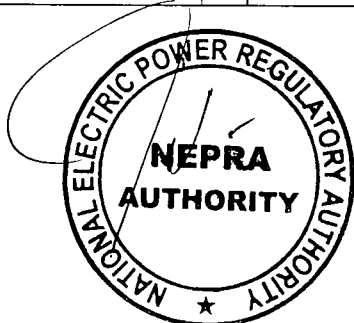
#### II. Adjustment due to variation in Net Capacity:

The reference tariff was determined on the basis of guaranteed net capacity of 1,156.675 MW with auxiliary consumption of 1.99 % (23.455 MW) which was subject to adjustment at the time of COD. At COD Initial Dependable Capacity (IDC) has been established at 1163.123 MW (net). Accordingly all tariff components of capacity charge has been adjusted based on the revised net capacity.

#### III. Adjustment in Insurance as per actual:

The actual insurance cost for the minimum cover required under contractual obligations with the power Purchaser not exceeding 1 % of the EPC cost shall be treated as a pass-through. Insurance component of reference tariff shall be adjusted annually as per actual upon production of authentic documentary evidence according to following formula:

AIC	=	$\text{Ins}_{(\text{Ref})} / P_{(\text{Ref})} * P_{(\text{Act})}$
Where		
AIC	=	Adjusted Insurance Component of Tariff
$\text{Ins}_{(\text{Ref})}$	=	Reference Insurance Component of Tariff
$P_{(\text{Ref})}$	=	Reference Premium US\$ 5.491 million at Rs. 106.52/US\$.






$P_{(Act)}$	=	Actual Premium or 1% of the EPC cost at exchange rate prevailing on the 1st day of the insurance coverage period whichever is lower
-------------	---	---

#### IV. Indexations:

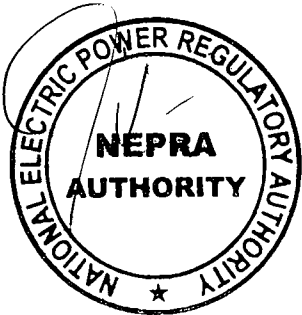
The following indexations shall be applicable to the reference tariff:

##### i) Indexation of Return on Equity (ROE):

ROE component of tariff shall be quarterly indexed on account of variation in Rs./US\$ parity 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
$ER_{(Ref)}$	=	The reference exchange rate of Rs. 106.52/US\$

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



At COD, O&M components has been adjusted as per the signed O&M Agreement, LTSA Agreement and actual recurring administrative expenses. O&M components of tariff shall be adjusted on account of local Inflation (CPI), foreign inflation (US CPI) and exchange rate quarterly on 1<sup>st</sup> July, 1<sup>st</sup> October, 1<sup>st</sup> January and 1<sup>st</sup> April based on the latest available information with respect to CPI notified by the Pakistan Bureau of Statistics (PBS), US CPI (All Urban Consumers) issued by US Bureau of Labor Statistics and revised TT & OD selling rate of US Dollar notified by the National Bank of Pakistan as per the following mechanism:

$F V. O\&M_{(REV)}$	=	$F V. O\&M_{(REF)} * US CPI_{(REV)} / US CPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$
$L F. O\&M_{(REV)}$	=	$L F. O\&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$
$F F. O\&M_{(REV)}$	=	$F F. O\&M_{(REF)} * US CPI_{(REV)} / US CPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$
Where:		
$F V. O\&M_{(REV)}$	=	The revised Variable O&M Foreign Component of Tariff
$L F. O\&M_{(REV)}$	=	The revised Fixed O&M Local Component of Tariff
$F F. O\&M_{(REV)}$	=	The revised Fixed O&M Foreign Component of Tariff
$F V. O\&M_{(REF)}$	=	The reference Variable O&M Foreign Component of Tariff
$L F. O\&M_{(REF)}$	=	The reference Fixed O&M Local Component of Tariff
$F F. O\&M_{(REF)}$	=	The reference Fixed O&M Foreign Component of Tariff
$CPI_{(REV)}$	=	The revised CPI (General)

$CPI_{(REF)}$	=	The reference CPI (General) of 220.25 for March 2018
$US\ CPI_{(REV)}$	=	The revised US CPI (All Urban Consumers)
$US\ CPI_{(REF)}$	=	The reference US CPI of 249.554 for March 2018
$ER_{(REV)}$	=	The revised TT & OD selling rate of US dollar
$ER_{(REF)}$	=	The reference exchange rate of Rs. 115.40/US\$

iii) **Indexation for KIBOR variation:**

The interest part of capacity charge component will remain unchanged throughout the term except for the adjustment due to variation in interest rate as a result of variation in 3 months KIBOR according to the following formula;

$I$	=	$P_{(REV)} * (KIBOR_{(REV)} - 6.50\%) / 4$
Where:		
$\Delta I$	=	The variation in interest charges applicable corresponding to variation in 3 months KIBOR. $\Delta I$ can be positive or negative depending upon whether $KIBOR_{(REV)}$ is > or < 6.50%. The interest payment obligation will be enhanced or reduced to the extent of $\Delta I$ for each quarter under adjustment applicable on quarterly basis.
$P_{(REV)}$	=	The outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculation date. Period 1 shall commence on the date on which the 1 <sup>st</sup> installment is due after availing the grace period.

iv) **Cost of Working Capital**

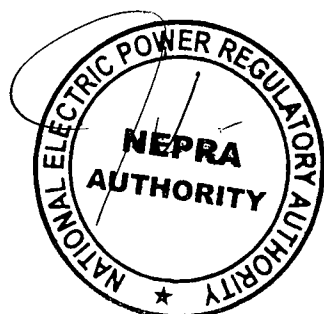
The cost of working capital shall be adjusted quarterly for variation in KIBOR and fuel prices. The cost of receivables shall also be subject to adjustment as per actual dispatch factor of the preceding quarter.

Any post COD variation in RLNG price (including impact of US \$ to PKR exchange rate) over and above (or vice versa) the cost for escrow amount locked at COD, will be added to or reduced from cost of SBLC as part of cost of working capital.

V. **Fuel Price Adjustment:**

The fuel cost component of tariff shall be adjusted on account of fuel price variation as and when notified by the relevant Authority as per the following mechanism:

$FCC_{RLNG(Rev)}$	=	$FCC_{RLNG(Ref)} * P_{RLNG(Rev)} / P_{RLNG(Ref)}$
Where:		
$FCC_{RLNG(Rev)}$	=	The revised fuel cost component on RLNG
$FCC_{RLNG(Ref)}$	=	The reference fuel cost component on RLNG
$P_{RLNG(Rev)}$	=	The revised HHV RLNG price notified by the relevant Authority
$P_{RLNG(Ref)}$	=	The reference HHV RLNG price of Rs. 1,150.76 /MMBtu
$FCC_{HSD(Rev)}$	=	$FCC_{HSD(Ref)} * P_{HSD(Rev)} / P_{HSD(Ref)}$

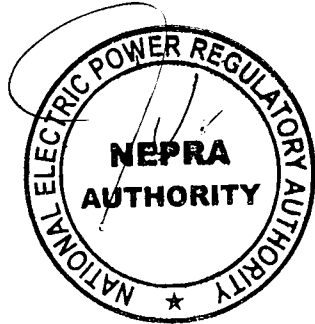



Where:		
$FCC_{HSD(Rev)}$	=	The revised fuel cost component on HSD
$FCC_{HSD(Ref)}$		The reference fuel cost component on HSD
$P_{HSD(Rev)}$	=	The revised HHV HSD price notified by the relevant Authority
$P_{HSD(Ref)}$	=	The reference HHV HSD price of Rs. 77.46/litre.

#### VI. Terms & Conditions

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

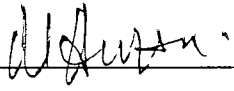
- i) The plant availability shall be 92%.
- ii) The tariff control period shall be 30 years from the date of commercial operation.
- iii) The dispatch will be at appropriate voltage level mutually agreed between the power purchaser and the power producer.
- iv) The dispatch shall be in accordance with economic merit order.
- v) 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 in lump sum and this payment shall be considered as a pass-through payment. However, withholding tax on dividend shall not be passed through.
- vi) CPPA-G to ensure RoE payments to QATPL be made on annual basis so that the payment of RoE component and its working is in line.
- vii) General assumptions, which are not covered in this determination, may be dealt with as per the standard terms of the Power Purchase Agreement.
- viii) The local component has been adjusted with CPI. In case Pakistan Bureau of Statistics revised / rebase or adjust the same in future, the revised indices shall be used for indexation.



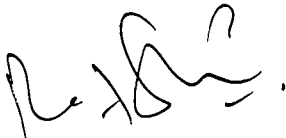

VII. Notification

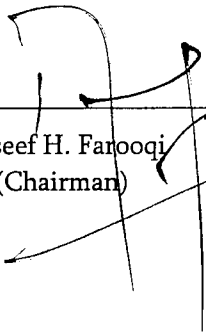
The above Order of the Authority along with revised tariff table and debt servicing schedules as attached thereto as Annex-I, II, III & IV shall be notified in the Official Gazette in terms of Section 31(7) of the Regulations of Generation, Transmission and Distribution of Electric Power Act, 1997.

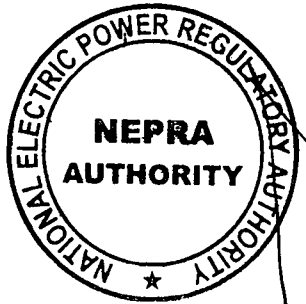
AUTHORITY

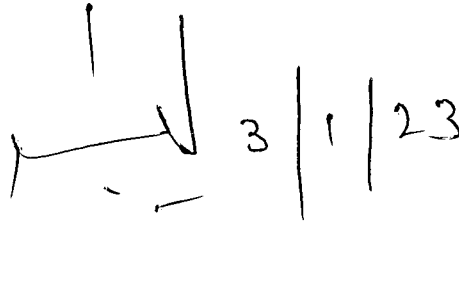
  
Engr. Maqsood Anwar Khan  
(Member)

(Did not Attend)  
Mather Niaz Rana  
(Member)

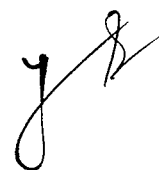
  
Rafique Ahmed Shaikh  
(Member)

  
Tauseef H. Farooqi  
(Chairman)





Handwritten signature and date: 3/1/23

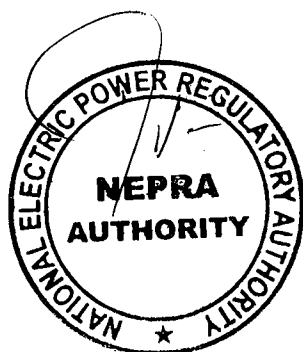


**Quaid-e-Azam Thermal Power (Pvt) Limited**  
**Reference Tariff Table RLNG at COD**

Year	Energy Purchase Price (Rs./kWh)			Capacity Purchase Price (Rs./kW/Hour)									Total Tariff	
	Fuel	Var. O&M	Total EPP	Fixed O&M local	Fixed O&M foreign	Cost of W/C	Insurance	ROE	Debt Repayment	Interest Charges	Total CPP	Capacity charge@ 92%	Rs. / kWh	Cents/kWh
1	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.4243	0.3582	0.5258	1.6368	1.7791	9.0351	8.4818
2	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.4243	0.3935	0.4905	1.6368	1.7791	9.0351	8.4818
3	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.3443	0.4322	0.4518	1.5568	1.6921	8.9482	8.4001
4	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.4747	0.4093	1.5076	1.6387	8.8947	8.3499
5	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.5215	0.3625	1.5076	1.6387	8.8947	8.3499
6	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.5728	0.3112	1.5076	1.6387	8.8947	8.3499
7	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.6292	0.2548	1.5076	1.6387	8.8947	8.3499
8	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.6911	0.1929	1.5076	1.6387	8.8947	8.3499
9	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.7592	0.1248	1.5076	1.6387	8.8947	8.3499
10	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.8339	0.0501	1.5076	1.6387	8.8947	8.3499
11	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
12	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
13	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
14	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
15	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
16	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
17	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
18	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
19	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
20	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
21	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
22	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
23	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
24	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
25	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
26	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
27	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
28	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
29	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
30	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	-	-	0.6236	0.6778	7.9338	7.4479
<b>Average</b>														
1-10	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.3259	0.5666	0.3174	1.5383	1.6721	8.9281	8.3813
11-30	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.2951	0.0000	0.0000	0.6236	0.6778	7.9338	7.4479
1-30	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.3054	0.1889	0.1058	0.9285	1.0092	8.2653	7.7591
<b>Levelized</b>														
1-30	7.1413	0.1147	7.2561	0.0436	0.1588	0.0686	0.0574	0.3228	0.3432	0.2330	1.2275	1.3342	8.5903	8.0641

8.5903 Rs./kWh

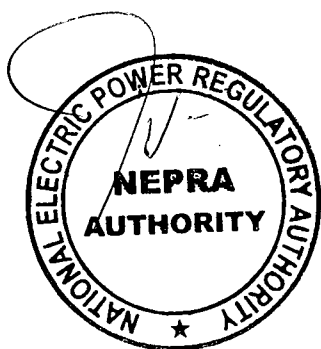
8.0641 US Cents/kWh



**Quaid-e-Azam Thermal Power (Pvt) Limited**  
**Reference Tariff Table HSD at COD**

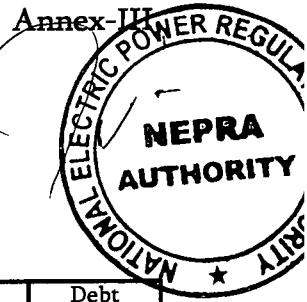
Year	Energy Purchase Price (Rs./kWh)			Capacity Purchase Price (Rs./kW/Hour)									Total Tariff	
	Fuel	Var. O&M	Total EPP	Fixed O&M local	Fixed O&M foreign	Cost of W/C	Insurance	ROE	Debt Repayment	Interest Charges	Total CPP	Capacity charge@ 92%	Rs. / kWh	Cents/kWh
1	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.4625	0.3904	0.5730	1.7831	1.9382	16.3375	15.3369
2	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.4625	0.4288	0.5346	1.7831	1.9382	16.3375	15.3369
3	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3753	0.4710	0.4924	1.6959	1.8434	16.2427	15.2479
4	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.5174	0.4460	1.6423	1.7851	16.1844	15.1932
5	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.5683	0.3951	1.6423	1.7851	16.1844	15.1932
6	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.6243	0.3391	1.6423	1.7851	16.1844	15.1932
7	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.6857	0.2777	1.6423	1.7851	16.1844	15.1932
8	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.7532	0.2102	1.6423	1.7851	16.1844	15.1932
9	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.8274	0.1360	1.6423	1.7851	16.1844	15.1932
10	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.9088	0.0546	1.6423	1.7851	16.1844	15.1932
11	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
12	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
13	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
14	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
15	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
16	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
17	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
18	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
19	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
20	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
21	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
22	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
23	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
24	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
25	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
26	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
27	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
28	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
29	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
30	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	-	-	0.6789	0.7379	15.1372	14.2101
<b>Average</b>														
1-10	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3552	0.6175	0.3459	1.6758	1.8216	16.2209	15.2274
11-30	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3216	0.0000	0.0000	0.6789	0.7379	15.1372	14.2101
1-30	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3328	0.2058	0.1153	1.0112	1.0991	15.4985	14.5492
<b>Levelized</b>														
1-30	14.2743	0.1250	14.3993	0.0469	0.1730	0.0748	0.0626	0.3518	0.3741	0.2539	1.3371	1.4533	15.8526	14.8817

Levelized Tariff = 15.8526 Rs./kWh 14.8817 US Cents/kWh



**Quaid-e-Azam Thermal Power (Pvt) Limited**  
**Debt Service Schedule- RLNG Operations**

Gross Capacity	1181.51	MWs	PKR/US\$ Parity	106.52
Net Capacity	1163.12	MWs	Debt	541.98 US\$ Million
KIBOR	6.50%		Debt in Pak Rupees	57,733.98 Rs. Million
Spread over KIBOR	3.00%			
Total Interest Rate	9.50%			

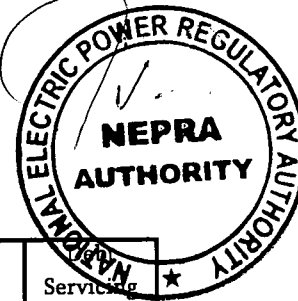


Period	Principal Million Rs.	Principal Repayment Million Rs.	Interest Million Rs.	Balaance Million Rs.	Debt Service Million Rs.	Principal Repayment Rs./kW/h	Interest Rs./kW/h	Debt Servicing Rs./kW/h
1	57,733.98	880.57	1,371.18	56,853.41	2,251.75			
2	56,853.41	901.48	1,350.27	55,951.93	2,251.75			
3	55,951.93	922.89	1,328.86	55,029.03	2,251.75			
4	55,029.03	944.81	1,306.94	54,084.22	2,251.75	0.3582	0.5258	0.8840
1st Year		3,649.76	5,357.25		9,007.01			
5	54,084.22	967.25	1,284.50	53,116.97	2,251.75			
6	53,116.97	990.22	1,261.53	52,126.74	2,251.75			
7	52,126.74	1,013.74	1,238.01	51,113.00	2,251.75			
8	51,113.00	1,037.82	1,213.93	50,075.18	2,251.75	0.3935	0.4905	0.8840
2nd Year		4,009.04	4,997.97		9,007.01			
9	50,075.18	1,062.47	1,189.29	49,012.71	2,251.75			
10	49,012.71	1,087.70	1,164.05	47,925.01	2,251.75			
11	47,925.01	1,113.53	1,138.22	46,811.48	2,251.75			
12	46,811.48	1,139.98	1,111.77	45,671.50	2,251.75	0.4322	0.4518	0.8840
3rd Year		4,403.68	4,603.33		9,007.01			
13	45,671.50	1,167.05	1,084.70	44,504.45	2,251.75			
14	44,504.45	1,194.77	1,056.98	43,309.68	2,251.75			
15	43,309.68	1,223.15	1,028.60	42,086.53	2,251.75			
16	42,086.53	1,252.20	999.56	40,834.33	2,251.75	0.4747	0.4093	0.8840
4th Year		4,837.17	4,169.84		9,007.01			
17	40,834.33	1,281.94	969.82	39,552.39	2,251.75			
18	39,552.39	1,312.38	939.37	38,240.01	2,251.75			
19	38,240.01	1,343.55	908.20	36,896.46	2,251.75			
20	36,896.46	1,375.46	876.29	35,521.00	2,251.75	0.5215	0.3625	0.8840
5th Year		5,313.33	3,693.68		9,007.01			
21	35,521.00	1,408.13	843.62	34,112.87	2,251.75			
22	34,112.87	1,441.57	810.18	32,671.30	2,251.75			
23	32,671.30	1,475.81	775.94	31,195.49	2,251.75			
24	31,195.49	1,510.86	740.89	29,684.63	2,251.75	0.5728	0.3112	0.8840
6th Year		5,836.37	3,170.64		9,007.01			
25	29,684.63	1,546.74	705.01	28,137.89	2,251.75			
26	28,137.89	1,583.48	668.27	26,554.41	2,251.75			
27	26,554.41	1,621.09	630.67	24,933.32	2,251.75			
28	24,933.32	1,659.59	592.17	23,273.74	2,251.75	0.6292	0.2548	0.8840
7th Year		6,410.89	2,596.12		9,007.01			
29	23,273.74	1,699.00	552.75	21,574.74	2,251.75			
30	21,574.74	1,739.35	512.40	19,835.39	2,251.75			
31	19,835.39	1,780.66	471.09	18,054.72	2,251.75			
32	18,054.72	1,822.95	428.80	16,231.77	2,251.75	0.6911	0.1929	0.8840
8th Year		7,041.97	1,965.04		9,007.01			
33	16,231.77	1,866.25	385.50	14,365.52	2,251.75			
34	14,365.52	1,910.57	341.18	12,454.95	2,251.75			
35	12,454.95	1,955.95	295.81	10,499.00	2,251.75			
36	10,499.00	2,002.40	249.35	8,496.60	2,251.75	0.7592	0.1248	0.8840
9th Year		7,735.17	1,271.84		9,007.01			
37	8,496.60	2,049.96	201.79	6,446.65	2,251.75			
38	6,446.65	2,098.64	153.11	4,348.00	2,251.75			
39	4,348.00	2,148.49	103.27	2,199.51	2,251.75			
40	2,199.51	2,199.51	52.24	(0.00)	2,251.75	0.8339	0.0501	0.8840
10th Year		8,496.60	510.41		9,007.01			



**Quaid-e-Azam Thermal Power (Pvt) Limited**  
**Debt Service Schedule- HSD Operations**

Gross Capacity	1079.43	MWs	PKR/US\$ Parity	106.52
Net Capacity	1067.25	MWs	Debt	541.98 US\$ Million
KIBOR	6.50%		Debt in Pak Rupees	57,733.98 Rs. Million
Spread over KIBOR	3.00%			
Total Interest Rate	9.50%			



Period	Principal Million Rs.	Principal Repayment Million Rs.	Interest Million Rs.	Balaance Million Rs.	Debt Service Million Rs.	Principal Repayment Rs./kW/h	Interest Rs./kW/h	Service Rs./kW/h
1	57,733.98	880.57	1,371.18	56,853.41	2,251.75			
2	56,853.41	901.48	1,350.27	55,951.93	2,251.75			
3	55,951.93	922.89	1,328.86	55,029.03	2,251.75			
4	55,029.03	944.81	1,306.94	54,084.22	2,251.75	0.3904	0.5730	0.9634
<b>1st Year</b>		<b>3,649.76</b>	<b>5,357.25</b>		<b>9,007.01</b>			
5	54,084.22	967.25	1,284.50	53,116.97	2,251.75			
6	53,116.97	990.22	1,261.53	52,126.74	2,251.75			
7	52,126.74	1,013.74	1,238.01	51,113.00	2,251.75			
8	51,113.00	1,037.82	1,213.93	50,075.18	2,251.75	0.4288	0.5346	0.9634
<b>2nd Year</b>		<b>4,009.04</b>	<b>4,997.97</b>		<b>9,007.01</b>			
9	50,075.18	1,062.47	1,189.29	49,012.71	2,251.75			
10	49,012.71	1,087.70	1,164.05	47,925.01	2,251.75			
11	47,925.01	1,113.53	1,138.22	46,811.48	2,251.75			
12	46,811.48	1,139.98	1,111.77	45,671.50	2,251.75	0.4710	0.4924	0.9634
<b>3rd Year</b>		<b>4,403.68</b>	<b>4,603.33</b>		<b>9,007.01</b>			
13	45,671.50	1,167.05	1,084.70	44,504.45	2,251.75			
14	44,504.45	1,194.77	1,056.98	43,309.68	2,251.75			
15	43,309.68	1,223.15	1,028.60	42,086.53	2,251.75			
16	42,086.53	1,252.20	999.56	40,834.33	2,251.75	0.5174	0.4460	0.9634
<b>4th Year</b>		<b>4,837.17</b>	<b>4,169.84</b>		<b>9,007.01</b>			
17	40,834.33	1,281.94	969.82	39,552.39	2,251.75			
18	39,552.39	1,312.38	939.37	38,240.01	2,251.75			
19	38,240.01	1,343.55	908.20	36,896.46	2,251.75			
20	36,896.46	1,375.46	876.29	35,521.00	2,251.75	0.5683	0.3951	0.9634
<b>5th Year</b>		<b>5,313.33</b>	<b>3,693.68</b>		<b>9,007.01</b>			
21	35,521.00	1,408.13	843.62	34,112.87	2,251.75			
22	34,112.87	1,441.57	810.18	32,671.30	2,251.75			
23	32,671.30	1,475.81	775.94	31,195.49	2,251.75			
24	31,195.49	1,510.86	740.89	29,684.63	2,251.75	0.6243	0.3391	0.9634
<b>6th Year</b>		<b>5,836.37</b>	<b>3,170.64</b>		<b>9,007.01</b>			
25	29,684.63	1,546.74	705.01	28,137.89	2,251.75			
26	28,137.89	1,583.48	668.27	26,554.41	2,251.75			
27	26,554.41	1,621.09	630.67	24,933.32	2,251.75			
28	24,933.32	1,659.59	592.17	23,273.74	2,251.75	0.6857	0.2777	0.9634
<b>7th Year</b>		<b>6,410.89</b>	<b>2,596.12</b>		<b>9,007.01</b>			
29	23,273.74	1,699.00	552.75	21,574.74	2,251.75			
30	21,574.74	1,739.35	512.40	19,835.39	2,251.75			
31	19,835.39	1,780.66	471.09	18,054.72	2,251.75			
32	18,054.72	1,822.95	428.80	16,231.77	2,251.75	0.7532	0.2102	0.9634
<b>8th Year</b>		<b>7,041.97</b>	<b>1,965.04</b>		<b>9,007.01</b>			
33	16,231.77	1,866.25	385.50	14,365.52	2,251.75			
34	14,365.52	1,910.57	341.18	12,454.95	2,251.75			
35	12,454.95	1,955.95	295.81	10,499.00	2,251.75			
36	10,499.00	2,002.40	249.35	8,496.60	2,251.75	0.8274	0.1360	0.9634
<b>9th Year</b>		<b>7,735.17</b>	<b>1,271.84</b>		<b>9,007.01</b>			
37	8,496.60	2,049.96	201.79	6,446.65	2,251.75			
38	6,446.65	2,098.64	153.11	4,348.00	2,251.75			
39	4,348.00	2,148.49	103.27	2,199.51	2,251.75			
40	2,199.51	2,199.51	52.24	(0.00)	2,251.75	0.9088	0.0546	0.9634
<b>10th Year</b>		<b>8,496.60</b>	<b>510.41</b>		<b>9,007.01</b>			