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1. DG (Lic.)	2. DG (Admn./HR)
3. DG (M&E)	4. DG (CAD)
5. DG (Trf.)	6. Dir. (Fin.)
7. Dir. (Tech.)	8. Consultant
9. SLA	10. Dir. (IT)

For kind information please

1. Chairman	2. M (Tech.)
3. M (Lic.)	4. M (Trf. & Fin)
5. M (Law)	



Engr. Mazhar Iqbal Ranjha,  
Registrar - NEPRA,  
NEPRA Tower, Attaturk Avenue (East),  
Sector G-5/1,  
Islamabad.

Ref # KE/RA&GR/NEPRA/2024/303  
April 2, 2024

**SUBJECT: MODIFICATION OF GENERATION LICENCE [GL/04/2002]**

**Reference:**

KE letter # KE/RA&GR/NEPRA/2023/634 Dated October 02, 2023

Dear Sir,

KE ("the Company") was granted a generation licence having no. GL/04/2002 on November 18, 2002 ("Generation Licence") under Section 25 of the NEPRA Act, 1997 (as amended). In the past, KE's Generation Licence has been modified by the Honorable NEPRA Authority with the latest modification ("Modification XI") granted vide NEPRA letter # NEPRA/R/LAG-05/36655-61 dated September 15, 2021.

Through the subject application, KE hereby seeks approval of the Honorable NEPRA Authority allowing KE to retain Units 1 and 2 of KE's Bin Qasim Power Station - I ("BQPS I") till the new coal plant becomes operational which is expected by FY 2027. These units shall be kept as a secondary spinning reserve to cater contingency requirements and will be despatched in line with Economic Merit Order (EMO).

With respect to aforementioned, it is humbly submitted that as also informed through KE letter dated October 02, 2023, the need to retain Units 1 and 2 of BQPS I as secondary spinning reserve has arisen keeping in view the contingency requirement for any unavailability of NTDC interconnection, any forced outages of generation fleet and IPPs and RLNG/gas short fall due to reasons beyond control of KE along with pending regulatory and government approvals on the coal power plant. Further, availability of these units will also alleviate the constraints of low gas pressure and help in avoiding utilization of expensive HSD as well as enable KE to avoid increased load management during the peak summer season in case of any untoward eventuality. Therefore, extension in useful lives of Units 1 and 2 of BQPS I will be in the best interest of consumers.

In the light of above, this application is being submitted under Regulation 13 of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 ("Regulations") for extension in the useful lives of Units 1 and 2 of BQPS I in KE's Generation License. In relation, hereto, this is to certify that the following documents enclosed in support with this modification application are prepared and submitted in conformity with the provisions of the Regulations, and that the Company undertakes to abide by the terms and provisions of the Regulations.

**K-Electric Limited**

39-B KE House Sunset Boulevard, DHA- Phase 2, Karachi, Pakistan

RECEIVED OFFICE  
Diary No. 3806  
8.4.24

with cheque of Rs. 244,363/-

NEPRA  
Licensing Department  
Diary No. Reg-722  
Date: 8-4-24



- a) Text of Proposed Modification (Annexure A)
- b) Statement of Reasons and Specifications in support of Modification (Annexure A)
- c) Statement showing the impact of tariff, quality of service and the performances by KE of its obligations under the License (Annexure A)
- d) Request for Condonation of Delay (Annexure B)
- e) Certified True Copy of Board Resolution (Annexure C)
- f) Authority Letter in favor of signatory (Annexure D)
- g) Affidavit (Annexure E)

Additionally, please find enclosed cross cheque of Rs. 2,443,636/- (**copy of workings enclosed herewith**) having # 00005170 dated April 01, 2024, of Habib Bank Limited (HBL) bank being the license modification fee after deduction of withholding tax, calculated in accordance with Schedule II to the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021

KE humbly requests the Honorable NEPRA Authority to allow and approve the requested extension in lives of Units 1 and 2 of BQPS I in KE's Generation License in line with Regulation 13 of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021.

Sincerely,

**Muhammad Imran Qureshi**  
Chief Regulatory Affairs &  
Government Relations Officer

**Enclosures:** documents mentioned in serial (a) to (g) and cheque # 00005170

CALCULATION OF FEES PAYABLE

[SCHEDULE II]10  
[regulations 13(1)(f)]  
Table of Fees

Fees For Extension In Term of License

Generation	Fees (Rs.)
Above 100 MW	1,500,000

CALCULATION

Base Fee  (The respective fee set out in Part I of Schedule II)	1,500,000
Prevalent CPI - (CPIpd)  (Recent CPI - February 2024)	260.01
Base CPI (CPIrd )  (The reference or base CPI - May 2021)	145.24

Actual Fee Payable 2,685,314

Tax to be deducted (9% WHT)	(241,678)
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Amount payable after tax 2,443,636

**EXTENSION IN USEFUL LIVES OF UNITS 1 AND 2 OF BIN QASIM POWER  
STATION - I (BQPS - I)**

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**A. Text of Proposed Modification**

To ensure maximum facilitation to the consumers and to optimally manage the demand/supply situation, K-Electric Limited (KE) humbly seeks the approval of the Honorable NEPRA Authority to retain Units 1 and 2 of Bin Qasim Power Station I (BQPS I) as secondary spinning reserve till the new coal plant is operational, which is expected by FY 2027, due to reasons mentioned in Part B of this document. Further, it may please also be noted that KE has also requested extension in useful lives of Units 1 and 2 of BQPS I in the next iteration of Indicative Generation Capacity Expansion Plan (IGCEP).

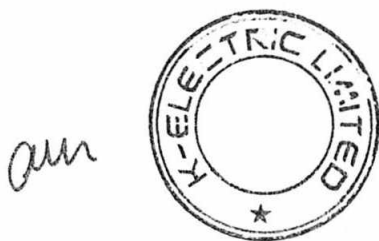
**B. Statement of Reasons and Specification in Support of Modification**

KE is responsible for providing electric power services in the metropolitan city of Karachi and its adjoining areas. Considering the growth in electricity demand, KE since 2009, has added around 1,977 MW in its generation capacity to manage the demand supply situation and to provide reliable power supply to its consumers, which includes addition of KE's flagship 900 MW BQPS III plant into its generation fleet.

Additionally, KE in collaboration with NTDC successfully implemented the cross-trip scheme, subsequent to Cabinet Committee on Energy's (CCoE) approval dated June 19, 2020 and August 27, 2020 for import of additional power from existing interconnections and following rehabilitation of KDA-Jamshoro lines, the equipment capacity to withdraw power from national grid has also been significantly enhanced. Further, KE pursuant to the aforementioned CCoE directives has also entered into a Power Purchase & Agency Agreement (PPAA) and Interconnection Agreement (ICA) with CPPA-G and NTDC for import of additional power from the national grid. As per these agreements, KE will be supplied with 1,000 MW of firm supply from national grid, whereas supply over and above the firm 1,000 MW and upto the interconnection capacity will be on pro-rata basis. In relation to aforementioned, KE is also in the process of setting up new grids and interconnections at 220kV and 500kV level, which shall enhance the off-take capacity from the national grid. This would not only benefit KE consumers in terms of addition of cheaper power in KE system, but also benefit the entire country by reduction in existing burden of idle capacity payments and ensure better utilization of installed grid capacity.

Further, in view of growing electricity demand, KE to ensure provision of reliable, adequate, and affordable electricity has also planned induction of new power generation and power supply sources with a focus on reduction in KE's basket price keeping in view the reliability of the system through induction of renewables and indigenous power sources. In this respect, KE has formulated its Power Acquisition Programme (PAP), details of which have been shared with the Honorable NEPRA Authority through KE letter # BD/MZ/NEPRA-0979/2023-2003 dated March 20, 2023, which is currently under the approval of Honorable NEPRA Authority. KE's PAP focuses on reduction in future generation cost by maximizing induction of renewables and use of indigenous coal for base load generation.

Following demand/supply position is expected from FY 2025 till FY 2027 after incorporating planned projects alongside existing generation:



**DEMAND/SUPPLY POSITION – FY 2025 TILL FY 2027**

Particulars (MW)	FY 2025	FY 2026	FY 2027
<b>Peak Demand (to be served - night)</b>	<b>3,893</b>	<b>3,997</b>	<b>4,110</b>
<b>Supply before Proposed Additions</b>	<b>4,260</b>	<b>4,260</b>	<b>4,084</b>
Supply from National Grid <sup>1</sup>	2,050	2,050	2,050
KE Own Plants	2,057	2,057	1,881
<i>BQ 1 - excl. U1 and U2 and retirement of Unit 5</i>	<i>352</i>	<i>352</i>	<i>176<sup>2</sup></i>
<i>BQ 2</i>	<i>495</i>	<i>495</i>	<i>495</i>
<i>BQ 3</i>	<i>900</i>	<i>900</i>	<i>900</i>
<i>KCCPP<sup>3</sup></i>	<i>200</i>	<i>200</i>	<i>200</i>
<i>SGT<sup>3</sup></i>	<i>20</i>	<i>20</i>	<i>20</i>
<i>KTGT<sup>3</sup></i>	<i>90</i>	<i>90</i>	<i>90</i>
Existing IPPs / CPPs <sup>4</sup>	153	153	153
<b>Proposed Additions</b>	<b>-</b>	<b>49</b>	<b>659</b>
Additions in Local Coal Plant	-	-	610
Additions in Wind Plants	-	49	49
<b>Total Supply</b>	<b>4,260</b>	<b>4,309</b>	<b>4,743</b>
<b>Surplus (existing + proposed additions)</b>	<b>367</b>	<b>312</b>	<b>633</b>

As tabulated above, KE expects the demand to grow at a steady pace, however, considering the contingency requirement for any unavailability of NTDC interconnection, any forced outages of generation fleet and IPPs, and RLNG/gas shortfall due to reasons beyond KE's control as well as pending regulatory and government approvals around the local coal plant, KE in line with prudent practices requests the Honorable NEPRA Authority to allow KE to retain Units 1 and 2 of BQPS I as a secondary spinning reserve till new coal plant becomes operational, which is expected by FY 2027. These units shall be operated on the basis of Economic Merit Order (EMO) to serve contingency requirements and maintaining of a secondary spinning reserve to cater for any emergencies. Further, availability of these units will also alleviate the constraints of low gas pressure and help in avoiding utilization of expensive HSD as well as enable KE to avoid increased load management during the peak summer season in case of any untoward eventuality.

In view of foregoing, it is humbly submitted that allowing KE to retain Units 1 and 2 of BQPS I as secondary spinning reserve will be in the best interests of consumers since the same in addition to being cheaper than HSD, are also dual fuel (gas and FO), which will also provide flexibility of operations in case of shortage of gas supply and any constraints in NTDC system restricting KE to draw power from the national grid.

<sup>1</sup> NTDC firm capacity is 1000 MW, whereas supply over and above the firm 1,000 MW and upto the interconnection capacity will be on pro-rata basis

<sup>2</sup> Unit 5 retirement in Oct'26 as per KE's Generation License

<sup>3</sup> Low gas pressure and quota issues

<sup>4</sup> Solar IPPs not considered due to Night Peak Demand

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## REHABILITATION FOR UNITS 1 AND 2 OF BQPS – I

### OVERVIEW

Over the years, KE to ensure safe, efficient and reliable power supply from Units 1 and 2 has performed routine maintenance of these units in addition to major rehabilitation. After detailed examination of all critical equipment of these units, KE executed a Generation Long Term Investment Plan (GLTIP) to achieve sustainable capacity, efficiency & reliability gains through following means:

- Upgrades & Rehabilitation
- OEM Services and Recommended material
- Complete replacement of equipment having recurring failure history.

Following major rehabilitation/maintenance activities of Units 1 and 2 of BQPS I have been performed over the years:

EQUIPMENT	ACTIVITIES	YEAR
<b>Boiler</b>	<ul style="list-style-type: none"> <li>• Installation &amp; commissioning of boiler Regenerative Air Heater (RAH)-B rotor at Unit1.</li> <li>• Replacement of fin tubes of steam coiler air heater (A&amp;B) at Unit 1</li> <li>• Complete inspection, diagnosis, condition assessment and remaining life assessment of main pressure parts of boiler of Unit 1</li> </ul>	FY 2016-2017
	<ul style="list-style-type: none"> <li>• Replacement of boiler super heater and reheater coils at unit 1.</li> <li>• Installation of lower bank of economizer and inlet header of boiler unit 2.</li> <li>• Complete rehabilitation of flue gas and air ducts with bellows unit 2.</li> <li>• Boiler ducts and bellows rehabilitation unit 1 &amp; 2.</li> <li>• Interconnection of condensate polishing system</li> </ul>	FY 2017-2018
	<ul style="list-style-type: none"> <li>• Replacement of RAH baskets / elements</li> <li>• Rehabilitation of boiler air heater sealing system at unit 1,2</li> </ul>	FY 2019-2020
	<ul style="list-style-type: none"> <li>• Rehabilitation of dosing system for neutralization basins</li> <li>• Boiler ducts and bellows rehabilitation unit 1 &amp; 2.</li> </ul>	FY 2020-2021
	<ul style="list-style-type: none"> <li>• Hot reheater complete coils / tubes replacement work unit 1.</li> <li>• Hot and cold reheater complete coils / tubes replacement work unit 2.</li> <li>• Boiler water walls arch panels complete tubes replacement at unit 2.</li> </ul>	FY 2021-2022
	<ul style="list-style-type: none"> <li>• Turbine major overhaul and life assessment unit 1</li> </ul>	FY 2016-2017
	<ul style="list-style-type: none"> <li>• Boiler feed pump # 03 pump overhauling work unit 1</li> </ul>	FY 2016-2017
<b>Turbine</b>	<ul style="list-style-type: none"> <li>• Turbine major overhaul unit 2</li> </ul>	FY 2017-2018
	<ul style="list-style-type: none"> <li>• Boiler feed pump # 02 pump overhauling work unit 2</li> </ul>	FY 2018-2019
	<ul style="list-style-type: none"> <li>• Steam turbine balancing work unit 1.</li> <li>• LP turbine last stage blade (01 blade turbine side) replacement.</li> <li>• Boiler feed pump # 01 pump overhauling work unit 1 &amp; unit 2.</li> </ul>	FY 2018-2019
	<ul style="list-style-type: none"> <li>• HP heater 5 replacement work unit 2.</li> </ul>	FY 2019-2020
	<ul style="list-style-type: none"> <li>• Battery bank replacement work</li> <li>• Replacement of 6.6 kV boiler feed water pump 1 motor.</li> </ul>	FY 2016-2017
	<ul style="list-style-type: none"> <li>• Complete rewinding of stator core for 6.6 KV condensate pump motor 3</li> </ul>	FY 2017-2018
	<ul style="list-style-type: none"> <li>• Generator rewinding work unit 2</li> </ul>	
<b>Generator</b>		

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EQUIPMENT	ACTIVITIES	YEAR
	<ul style="list-style-type: none"> <li>Generator precise inspection unit 1. Generator Overhaul</li> <li>0.4 kV ABJG bus bar replacement at Unit 1</li> <li>6.6 kV VCBS replacement.</li> <li>Generator static excitation system rehabilitation and replaced 12 no thyristor stacks accessories unit 2.</li> </ul>	FY 2018-2019
	<ul style="list-style-type: none"> <li>0.4 kV BJE busbar replacement at Unit 1</li> <li>0.4 kV BJA busbar replacement at Unit 2</li> <li>Generator collector ring replacement work at Unit 2</li> </ul>	FY 2019-2020
	<ul style="list-style-type: none"> <li>Auxiliary transformer refurbishment at Unit 2</li> <li>6.6 kV VCBS replacement at units 1,2.</li> </ul>	FY 2020-2021
	<ul style="list-style-type: none"> <li>Rehabilitation of 220kv oil filled cable trays at units 1,2.</li> </ul>	FY 2021-2022
<b>Control System</b>	<ul style="list-style-type: none"> <li>Complete replacement of DCS unit 1</li> </ul>	FY 2016-2017
	<ul style="list-style-type: none"> <li>Rehabilitation of HFO and gas burners' actuators solenoids and limit switches</li> <li>Continues Emission Monitoring System (CEMS) installation unit 1.</li> </ul>	FY 2017-2018
	<ul style="list-style-type: none"> <li>Flame scanner upgradation unit 2.</li> </ul>	FY 2018-2019
	<ul style="list-style-type: none"> <li>Water treatment plant-2 installation and commissioning of silica analysers</li> <li>Implementation software for replacement of 1200 points based online SOE/ DLS unit 2.</li> <li>Instrumentation / level control system installation of HP heater 5 work unit 2.</li> </ul>	FY 2019-2020
	<ul style="list-style-type: none"> <li>O<sub>2</sub> analysers rehabilitation.</li> </ul>	FY 2020-2021
	<ul style="list-style-type: none"> <li>Upgradation of boiler protection system unit 2</li> <li>DEHG HITASS and rse system installation unit 2</li> </ul>	FY 2021-2022
<b>Balance of Plant</b>	<ul style="list-style-type: none"> <li>Installation of raw water basin pump</li> </ul>	FY 2016 -2017
	<ul style="list-style-type: none"> <li>Internal repairing and protective coating of circulating water lines and discharge valves</li> </ul>	FY 2018-2019
	<ul style="list-style-type: none"> <li>Instrument air compressor#2 major overhauling</li> <li>Diesel engine generator-1 overhauling</li> </ul>	FY 2019-2020
	<ul style="list-style-type: none"> <li>Diesel engine generator 3 overhauling</li> </ul>	FY 2020-2021
	<ul style="list-style-type: none"> <li>Instrument and service air compressors overhauling.</li> <li>Main CW pumps overhauling work unit 1 &amp; 2.</li> </ul>	FY 2021-2022

#### EFFECTS OF REHABILITATION:

Through the implementation of the GLTIP rehabilitation plan, critical equipment like Boiler, Turbine, Control System, have been replaced/rehabilitated & overhauled. It is estimated that Units 1 and 2 of BQPS -I can still operate safely at a maximum operating load of 175 - 180 MW each with regular maintenance till FY 2027.

#### **C. Impact on Tariff**

KE after evaluating all possible alternatives such as cost of operations, immediate availability, operational flexibility, etc. humbly requests the Honorable NEPRA Authority to allow KE to retain Units 1 and 2 of BQPS I as part of its secondary spinning reserve to optimally manage the demand/supply gap in the event of any contingent scenario.

In this regard, to ensure availability of Units 1 and 2 of BQPS I as a secondary spinning reserve to cater contingency requirements and ensuring safety of operations during the requested period





i.e. till the operation of new coal plant, annual Operation and Maintenance (O&M) expenses are estimated as c. PKR 288<sup>5</sup> million, of which c. PKR 280 million are fixed and c. PKR 8 million (c. PKR 0.0258 per kWh) are variable derived on the assumptions of 10% utilization of these units on a prudent basis, which is subject to revision based on actual usage as per the EMO. Further, in addition to O&M expenses, KE would also require working capital of c. PKR 133 million to operate these units (Working Capital has been based on cost required to be incurred for 6 months to maintain Fuel-HFO required for Base Load Operation of these units for 3 days). On an overall basis these O&M and working capital costs will have an impact of PKR 0.0267 per kWh on overall tariff (based on projected units billed of FY25 i.e. c. 15,769 GWh). Here, it is pertinent to highlight that the aforementioned O&M expenses are based on an assumption of 10% utilization of these units, on a prudent basis, and do not include any overhaul related expenditures / activities. Therefore, any subsequent change in the above assumptions may result in a consequential change in the estimated O&M expenses.

Further, it is humbly submitted that both Units 1 and 2 of BQPS I plant will be dispatched in accordance with the EMO to ensure consumer interests are protected and that cost of energy (fuel and variable O&M) will be recovered on units produced whereas fixed O&M costs and working capital would be recovered as a fixed charge through monthly capacity and energy invoicing mechanism as per NEPRA determined benchmarks in line with the prescribed proposed framework in KE's Generation Tariff Petition (including Startup Charges & Relevant Indexation Mechanism). Here, it is important to mention that operation of Units 1 and 2 of BQPS I as per EMO will also enable KE to avoid generation from HSD, which is costlier as evident from below:

#### FUEL COST COMPARISON

	BQPS I Unit 1			KCCPP <sup>6</sup> HSD	Savings Per Unit
	FO <sup>7</sup>	RLNG <sup>8</sup>	NG		
Fuel Cost Per Unit (PKR/kWh)	41.99	49.27	11.79	54.86	12.87   5.59   43.07

	BQPS I Unit 2			KCCPP <sup>5</sup> HSD	Savings Per Unit
	FO <sup>2</sup>	RLNG	NG		
Fuel Cost Per Unit (PKR/kWh)	41.84	48.89	11.70	54.86	13.02   5.97   43.16

<sup>5</sup> Numbers are based on the following Macro-Economic Factors (prevalent as of Dec 2023):

- |                               |                             |
|-------------------------------|-----------------------------|
| 1. Pak CPI                    | 255.24                      |
| 2. US CPI                     | 306.75                      |
| 3. Ex. Rate (PKR to USD)      | 281.86                      |
| 4. KIBOR                      | 21.46%                      |
| 5. Spread for Working Capital | 2.00%                       |
| 6. HFO Fuel Prices            | Rs. 161,868.06 per M. Tonne |

<sup>6</sup> HSD – (PKR/MMBTU) based on Dec'23 prices and heat rate proposed in tariff petition without any part load or degradation adjustment.

<sup>7</sup> Furnace Oil – (PKR/ MMBTU) based on Dec'23 fuel prices and heat rate proposed in tariff petition without any part load or degradation adjustment.

<sup>8</sup> RLNG (PKR/ MMBTU) based on Dec'23 fuel prices and heat rate proposed in tariff petition without any part load or degradation adjustment.

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Accordingly, as demonstrated above, the utilization of Units 1 and 2 of BQPS I will result in lower cost per unit in contrast to HSD and will therefore result in lower tariff for the consumers.

In view of foregoing, KE humbly requests the Honorable NEPRA Authority to allow the total annual O&M costs of c. PKR 288 million (including relevant indexations as per petition) as pass through in tariff along with working capital requirements of c. PKR 133 million (including relevant indexations as per petition) for the period till new coal plant becomes operational, which is expected by FY 2027 considering the benefits accrued to the consumers such as enhanced energy reliability and improved flexibility of operations as well as reduce dependency on expensive HSD generation. Recovery of cost of energy (fuel and variable O&M) will be based on units produced whereas fixed O&M costs and working capital would be recovered as a fixed charge (including Startup Charges & Relevant Indexation Mechanism). Further, extension in useful lives of Units 1 and 2 of BQPS I has also been requested by KE in the next iteration of IGCEP.

**D. Impact on Quality of Service and the Performances by KE of its Obligations Under the License**

The request for extension in useful lives of Units 1 and 2 of BQPS I will ultimately increase the available capacity of KE's generation fleet as well as improve the quality of service through better planning to meet any contingency requirements, including but not limited to any unavailability of NTDC interconnection, any forced outages of generation fleet and IPPs, and RLNG/Gas shortfall due to reasons beyond control of KE and pending regulatory and government approvals around the new coal plant, thus improving the performance of KE as per its obligations under the License.

Moreover, there will be no adverse impact on the quality of service provided by KE if the requested extension in lives of Units 1 and 2 of BQPS I is allowed/approved. The Company certifies that it has been fully diligent and dedicated in the performance of its services and aspires to ensure uninterrupted and reliable supply of power to its consumers.

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Location of Bin Qasim Power Station - I



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## Details of Units 1 and 2 of Bin Qasim Power Station – I

### (A). Plant Configuration

		Unit No. - 1	Unit No. - 2
(i)	Plant Size Installed Capacity (Gross ISO)	210 MW	210 MW
(ii)	De-rated Capacity (Gross at MSC) <sup>9</sup>	181.20 MW	183.41 MW
(iii)	Expected Remaining Life	June 30, 2027	June 30, 2027
(ii)	Type of Technology	Conventional Thermal Power Generation Plant with Sub-Critical Boilers and Steam Turbines	
(iv)	Unit Make & Model	Hitachi	Hitachi
(v)	Commissioning/Commercial Operation date (of each Unit)	1983	1984

### (B). Fuel Details

		Unit No. - 1	Unit No. - 2
(i)	Primary Fuel	Natural Gas	Natural Gas
(ii)	Alternative Fuel	Residual Furnace Oil (RFO)	Residual Furnace Oil (RFO)
		Re-Gasified Liquefied Natural Gas (RLNG)	Re-Gasified Liquefied Natural Gas (RLNG)
(iii)	Start-Up Fuel	Light Diesel Oil (LDO)/Natural Gas/RLNG	LDO/Natural Gas/RLNG
(iv)	Fuel Source for each of the above (i.e. Imported/ Indigenous)	Imported / Indigenous	
(v)	Fuel Supplier for each of the above	Natural Gas	SSGC
		RFO	PSO/BYCO
		RLNG	SSGC/PLL
		LDO	PSO
(vi)	Supply Arrangement for each of the above	Natural Gas	Through Pipeline
		RFO	PSO – through pipeline BYCO – through tankers
		RLNG	Through Pipeline
		LDO	Tankers
(vii)	No of Storage Tanks	<ul style="list-style-type: none"> <li>Six tanks for RFO.</li> <li>Tank 1,2: Under BYCO for Storage and transfer to KE.</li> <li>Tank 3,4,5: For storage and use By KE.</li> <li>Tank 6: Under PSO for storage and transfer to KE.)</li> <li>Two tanks for LDO</li> </ul>	
(viii)	Storage Capacity of each Tank	LDO : Two tanks of 500 m <sup>3</sup> each	

<sup>9</sup> In line with Schedule II of Modification X dated February 19, 2021 of KE's Generation License. Capacities are based on maximum output during Heat Rate Test i.e Unit 1 on FO firing and Unit 2 on Gas firing

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		RFO: Tank # 1 & 2: 10000 m <sup>3</sup> each. Tank # 3, 4,5, 6: 25000 m <sup>3</sup> each <sup>10</sup>
(ix)	Gross Storage	RFO / LDO: 1,20,000 / 1000 m <sup>3</sup>

### (C). Emission/Effluents Values

(i)	SO <sub>x</sub> (mg/Nm <sup>3</sup> )	The Plant is old and Emission Equipment not Installed.
(ii)	NO <sub>x</sub> (mg/Nm <sup>3</sup> )	
(iii)	CO <sub>2</sub> (%)	
(iv)	Effluents	
(v)	CO (mg/Nm <sup>3</sup> )	
(vi)	PM <sub>10</sub>	

### (D). Cooling System

		Unit No. - 1	Unit No. - 2
(i)	Cooling Water Source/Cycle	Sea Water / open and once through	

### (E). Plant Characteristics

		Unit No. - 1	Unit No. - 2
(i)	Generation Voltage	21 KV	21 KV
(ii)	Frequency	50 Hz	50 Hz
(iii)	Power Factor	0.85	0.85
(iv)	Automatic Generation Control (AGC) (MW control is the general practice)	MW / Hz	MW / Hz
(v)	<b><u>Ramping Rate</u></b>		
	(a). Light mode	1 %	1 %
	(b). Medium mode	3 %	3 %
	(c). Heavy mode	5 %	5 %

### (F). Interconnection Arrangement

(i)	Interconnection & Transmission Arrangement for Bin Qasim Power Plant-I	(a). 220KV Circuit No. 1 to Pipri West Grid (b). 220KV Circuit No. 2 to Pipri West Grid (c). 220KV Circuit No. 3 to Pipri West Grid
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After commissioning of BQPS III, following interconnection arrangements previously in place at BQPS I have been moved to BQPS III:

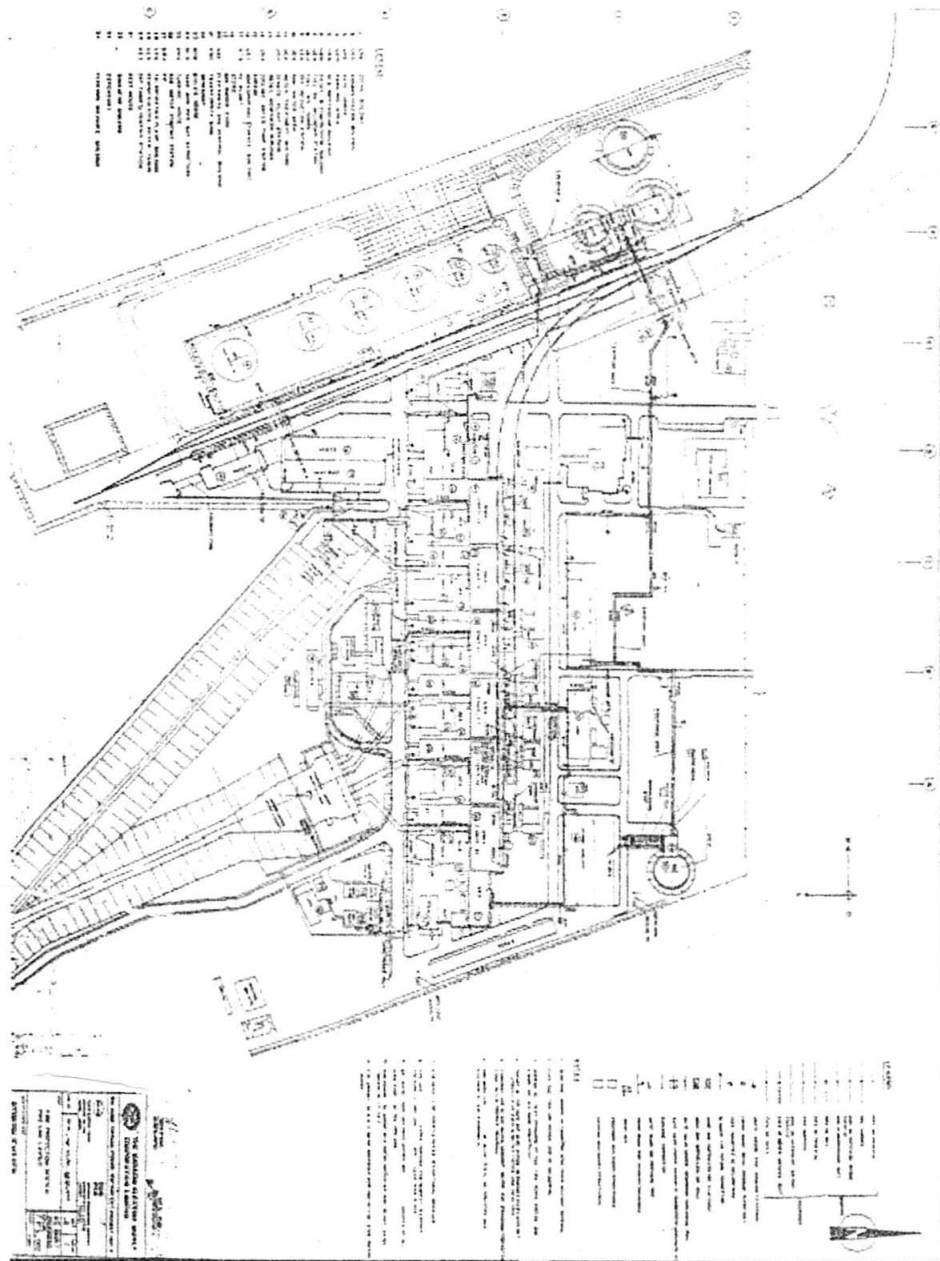
- I. 220KV D/C Circuit No.4 to Pipri West Grid with Loop In/Loop Out to ICI Grid
- II. 220KV D/C Short Line /SL-1 (Interconnection with BQPS II)
- III. 220KV D/C Short Line /SL-1 (Interconnection with BQPS II)

<sup>10</sup> This includes un-pumpable stock of approximately 2,772 m<sup>3</sup> / tank for tanks 3, 4 and 5

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# Layout of Bin Qasim Power Station - I

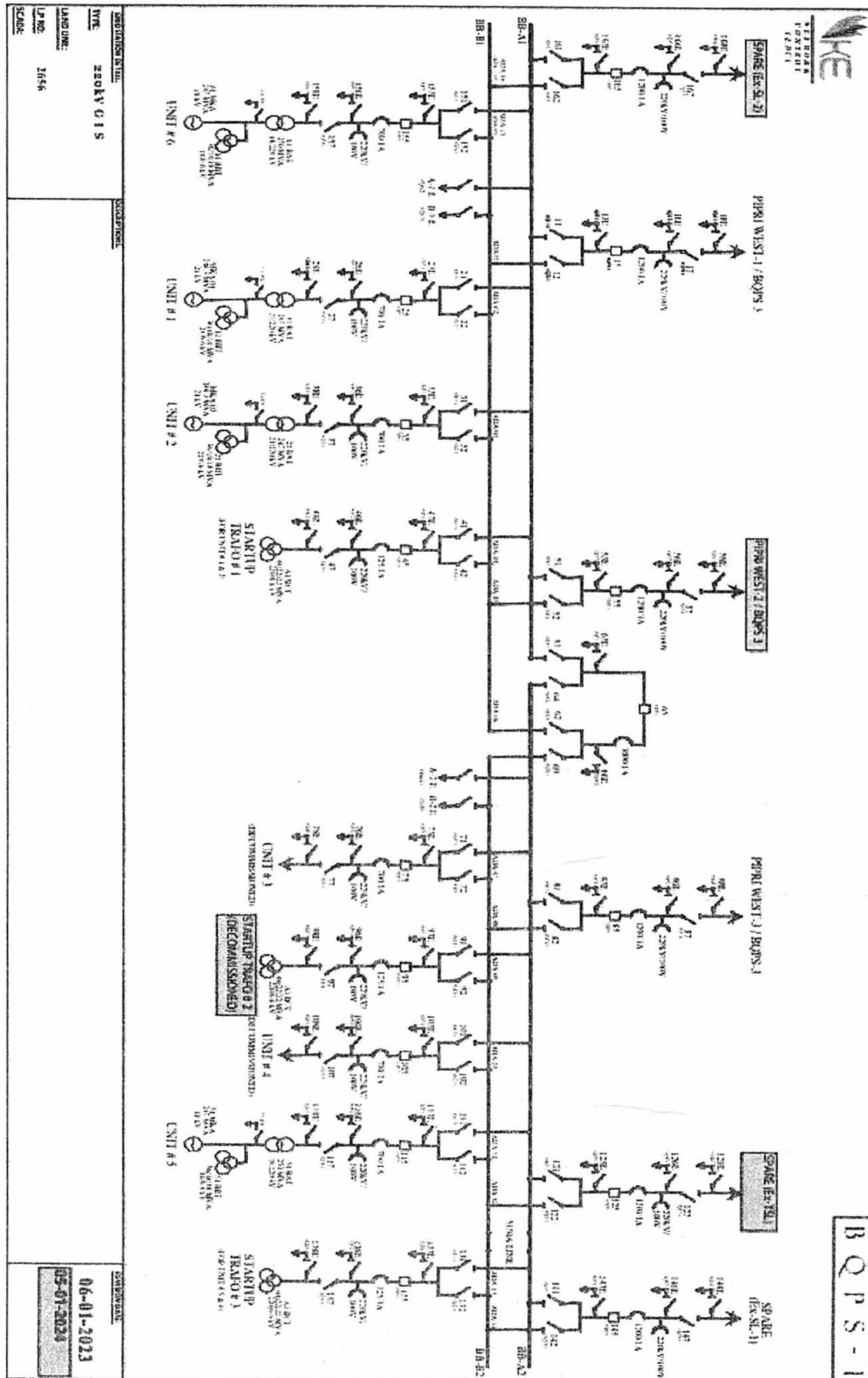


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# Single Line Electrical Diagram of Bin Qasim Power Plant-I



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**BEFORE THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY**

IN THE MATTER OF REQUEST FOR EXTENSION IN USEFUL LIVES OF UNITS 1 AND 2 OF BIN QASIM POWER STATION I (BQPS I) FILED BY K-ELECTRIC LIMITED (KE) IN ITS GENERATION LICENSE

**APPLICATION FOR CONDONATION OF DELAY IN RESPECT OF K-ELECTRIC'S REQUEST FOR EXTENSION IN USEFUL LIVES OF UNITS 1 AND 2 OF BIN QASIM POWER STATION I (BQPS I)**

**Whereas**, KE has filed request through KE letter # KE/RA&GR/NEPRA/2024/303 dated April 02, 2024 for extension in the useful lives of Units 1 and 2 of the Bin Qasim Power Station I (**BQPS I**) under Regulation 13 of the NEPRA Licensing (Application, Modification, Extension and Cancellation Procedures) Regulations, 2021 ("**Licensing AMEC Regulations**") with the National Electric Power Regulatory Authority (NEPRA) ("**the Authority**"), which as per KE's Generation License dated November 18, 2002 ("**the License**") have completed their useful lives in September 2023.

**Whereas**, under the said Licensing AMEC Regulations, the said application for the renewal / extension is to be filed ninety (90) days prior to the expiry of the License;

**Whereas**, the Power Purchase Agency Agreement and Interconnection Agreement ("**the Agreements**") with CPPA-G and NTDC were signed in January and February 2024 respectively setting out and confirming the power available for KE to draw from the national grid along with its terms and conditions; and

**Whereas**, prior to execution of the Agreements, KE was therefore unable to determine the requirement for the extension in the useful lives of Units 1 and 2 of the BQPS I.

**Now therefore**, for the reasons stated as above, KE humbly requests the Honorable NEPRA Authority to condone the delay in filing of KE's request for extension in useful lives of Units 1 and 2 of BQPS I.

We look forward to your understanding and usual support in this respect.

**Muhammad Imran Qureshi**  
Chief Regulatory Affairs and  
Government Relations Officer



**Certified True Copy (CTC) of Resolution**  
**Passed by K-Electric Limited's (KEL's) Board of Directors In the**  
**Meeting Held On Thursday, 28 March 2024 at KE House,**  
**39-B, Sunset Boulevard, Phase-II, DHA, Karachi**

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**Extension In Useful Lives of Units 1 and 2 of KEL's Bin Qasim Power Station I (BQPS I)**

**RESOLVED THAT** K-Electric Limited (hereinafter referred to as 'the Company') be and is hereby authorized to file an Application for extension in useful lives of Units 1 and 2 of its Bin Qasim Power Station I (BQPS I) (hereinafter referred to as 'the Application') with the National Electric Power Regulatory Authority (NEPRA), pursuant to Regulation 13 of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021.

**RESOLVED FURTHER THAT** Chief Executive Officer (CEO) of the Company be and is hereby authorized to nominate any officer(s) of the Company, as he may deems appropriate, to sign and file the Application with NEPRA and such other deeds, documents, instruments etc. and take all necessary actions incidental and related to the aforesaid Application and appear before NEPRA and admit execution thereof for and on behalf of the Company.

  
**Rizwan Pesnani**  
Chief Risk Officer & Company Secretary

Dated: March 29, 2024

### **Authority Letter**

WHEREAS, I, Syed Moonis Abdullah Alvi s/o Syed Riazuddin Alvi, Chief Executive Officer of K-Electric Limited (the "Company"), having its registered office at KE House, 39-B, Sunset Boulevard DHA, Phase-II, Karachi, in terms of clause 14 of General Power Attorney (the "GPA") dated 11<sup>th</sup> June 2018 given to me by the Board of Directors (BOD) of the Company, am empowered to make and sign applications to appropriate Federal, Provincial or Local Government Departments, authorities or other competent authority for all and any licenses, filing of any and all applications, petitions with National Electric Power Regulatory Authority (NEPRA) (the "Authority") which include Licensee Proposed Modifications (LPM) and others, permissions and consents required by any order, statutory instrument, regulation, byelaw or otherwise in connection with the business, management and affairs of the Company.

WHEREAS Clause 26 of the GPA empowers me to delegate to any person such of the powers as I deem fit.

Now, therefore, in exercise of powers vested in me by the BOD of the Company through the above GPA, I, hereby authorize M. Imran Hussain Qureshi s/o Ghulam Hussain Qureshi, having CNIC No. 35201-5044493-5, Muslim, Adult, Resident of Islamabad, Chief Regulatory Affairs and Government Relations Officer of K-Electric Limited, to sign and file with the Authority, KE's request for extension in useful lives of Units 1 and 2 of Bin Qasim Power Station – I (BQPS I) (the "Application") along with such other deeds, documents, instruments, etc. and take all necessary actions incidental and related to the Application and appear before the Authority for and behalf of the Company.



**Syed Moonis Abdullah Alvi**  
Chief Executive Officer  
K-Electric Limited

Authorized Person:



**M. Imran Hussain Qureshi**  
Chief Regulatory Affairs & Government Relations Officer  
K-Electric Limited

K-Electric Limited

39-BKE House Sunset Boulevard, DHA- Phase 2, Karachi, Pakistan

**Certified True Copy (CTC) of Resolution(s)  
passed by K-Electric Board of Directors at its Meeting No. 1198  
held on Thursday, 07 June 2018 at 11:00 hours in KE's Board Room,  
3<sup>RD</sup> Floor, KE House, 39-B, Sunset Boulevard, Phase-II, DHA, Karachi**  
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**Re: Appointment of Chief Executive Officer (CEO)**

**RESOLVED THAT** in exercise of powers vested through section 187 and 188 of Companies Act, 2017 and Article 76(ii) and (vi) of K-Electric (KE) Articles of Association, Syed Moonis Abdullah Alvi be and is hereby appointed as interim Chief Executive Officer of the Company in place of Mr. Muhammad Tayyab Tareen with effect from 07 June 2018.

**RESOLVED THAT** a General Power of Attorney as per draft set out in Appendix "A" be and is hereby given to Syed Moonis Abdullah Alvi, CEO, K-Electric and any two (2) Directors of the Company be and are hereby jointly authorized to sign, on behalf of the Board of Directors, the General Power of Attorney for Syed Moonis Abdullah Alvi and affix common seal of the Company on the instrument.



**Muhammad Rizwan Dalia  
Company Secretary**

MUHAMMAD RIZWAN DALIA  
Company Secretary  
K-ELECTRIC LIMITED



**Certified True Copy (CTC) of Resolution dated 31 July 2019  
Passed by K-Electric Board of Directors**

**Election of Directors – Appointment of Chairman and Chief Executive Officer**

**RESOLVED FURTHER THAT** Syed Moonis Abdullah Alvi be and is hereby appointed as Chief Executive Officer of the Company for a three (3) year term effective from 30 July 2019. The terms & conditions of appointment of Syed Moonis Abdullah Alvi for the position of CEO, as already approved by the Board, shall remain unchanged.

  
**Rizwan Pesnani**  
Company Secretary

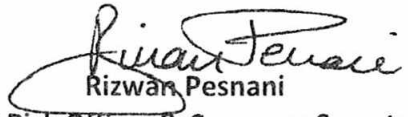


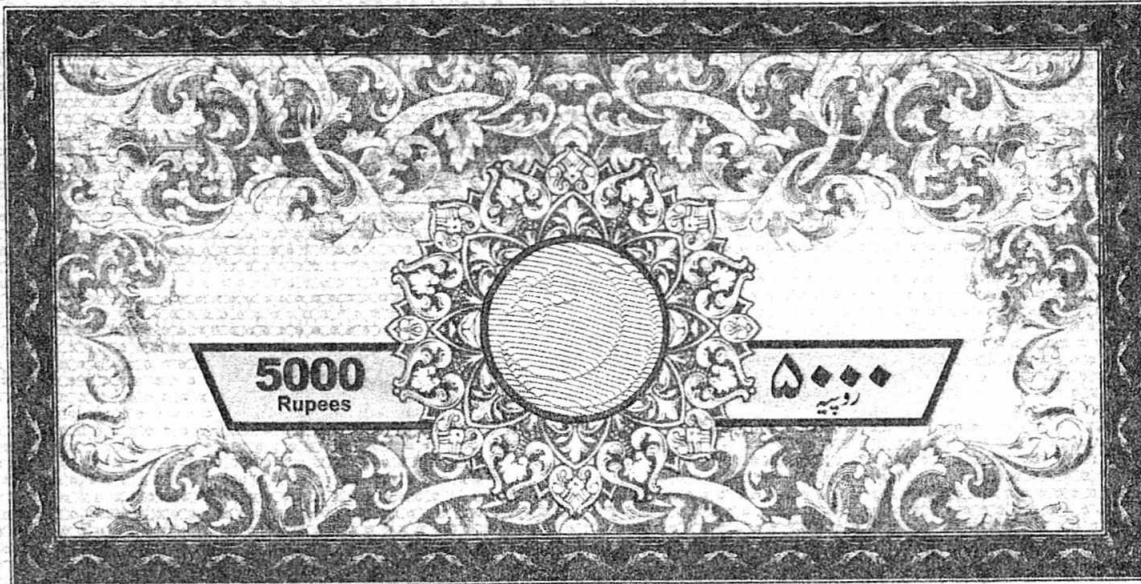
CERTIFIED TRUE COPY (CTC) OF THE  
MINUTES OF 1233<sup>RD</sup> MEETING OF K-ELECTRIC LIMITED BOARD OF DIRECTORS (BOD)  
HELD ON THURSDAY, 11 AUGUST 2022 AT 10:30 HOURS (PST) IN KE BOARD ROOM  
3RD FLOOR, KE HOUSE, 39-B SUNSET BOULEVARD, PHASE-II, DHA, KARACHI

**RE-APPOINTMENT OF CHIEF EXECUTIVE OFFICER**

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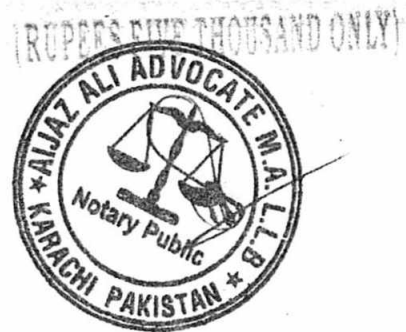
**RESOLVED THAT** Syed Moonis Abdullah Alvi be and is hereby appointed as Chief Executive Officer of the Company for a term of three (3) years with effect from 30 July 2022.

  
Rizwan Pesnani  
Chief Risk Officer & Company Secretary



STAMP OFFICE CITY COURT, KARACHI

Issued to K. Electric  
 CNIC/LEG No. 42101-6298941-9  
 Vide D.S.R. No. 02 Dt. 11-6-18  
 On behalf of Chaitan No. 21 Dt. 11-6-18  
 for the purpose of ARR.  
 Entry No. 02 Dt. 11-6-18



## GENERAL POWER OF ATTORNEY

**TO ALL TO WHOM** these presents shall come, K-ELECTRIC LIMITED (KE), having its registered office at KE House, 39-B, Sunset Boulevard, Phase-II, DHA, Karachi (hereinafter called the "Company") send greetings.

**WHEREAS** the Company was incorporated under the Companies Act 1882 as a company limited by shares and continues to operate as such under the Companies Act, 2017.

**AND WHEREAS** by virtue of the powers conferred upon them by Article 77 of the Company's Articles of Association, the Board of Directors of the Company have passed the resolution dated 07 June 2018 and entrusted to and conferred upon Syed Moonis Abdullah Alvi, the Chief Executive Officer of the Company, the following powers which shall be exercisable by him from the date that a Power of Attorney enumerating the same is executed in his favor by any two (2) Directors of the Company.

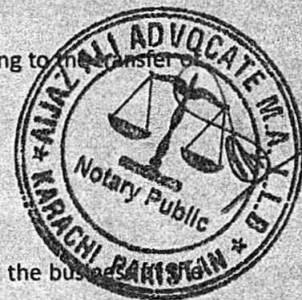
**NOW THESE PRESENTS WITNESS THAT** Syed Moonis Abdullah Alvi son of Syed Riazuddin Alvi CNIC # 42201-6886191-3, the Chief Executive Officer of the Company, is hereby appointed Attorney of the Company to act in the name and on behalf of the Company to do and perform the following acts and things only:

- 1) To purchase, sell, endorse, transfer, negotiate, encash, receive interest or otherwise deal in securities of all kinds including Government of Pakistan securities and securities of the Provincial Governments of Pakistan;
- 2) To sign all registers, reports and returns and others documents as may be required by law to be signed or filed with any Federal, Provincial or Local Governmental authority including but not limited to the Securities and Exchange Commission of Pakistan, Stock Exchanges, Registrar Joint Stock Companies, State Bank of Pakistan and Income Tax, Customs and other authorities;

*Handwritten signature*



- 3) To sign all acceptances and endorsements on bills of exchanges, hundies, securities and cheques drawn on behalf of the Company and to receive the amount of bills, hundies, securities and cheques and to give receipts and discharge for the same and to sign all documents drawn on or by the Company to which the signature of the Company as agents is required;
- 4) To sign for and on behalf of the Company all documents, assurances, deeds, and matters or things in or about the business of the Company as fully and effectively as the Company could do if personally present, to present such documents and deeds to the registering authority and admit execution thereof;
- 5) To process certificates of shares of the Company and to sign all papers relating to the transfer of shares including temporary receipts thereof;
- 6) To process Dividend Warrants and their revalidation;
- 7) To authenticate and or cancel the registration of Debentures;
- 8) To sign all correspondence that may be necessary in the ordinary course of the business of the Company;
- 9) To sign all deeds of sale, purchase, lease, mortgage, redemption, re-conveyance and present them before the registering authority and admit execution thereof;
- 10) To execute all bonds, deeds and documents and give such security as may be required now or at any future time by the Government of Pakistan or by any person, corporate body, company or firm to enable the Company to carry on its business;
- 11) To appoint and authorize any officer of the Company as his agent or agents to admit execution of deeds and documents of whatsoever nature before the registering authority and to revoke such appointment or appointments;
- 12) To sign, execute, determine or terminate and negotiate terms and conditions thereto agreements/appointment for employment and training with employees and trainees, in line with requirements of the Companies Act 2017 and Code of Corporate Governance Regulations 2017 as applicable;
- 13) To sign for and on behalf of the Company all documents, agreements, contracts, assurances, deeds, matters or things in or about the business of the Company as fully and effectively as the Company could do personally and to present such documents, agreements, contracts, assurances, deeds, matters or things to the registering authorities and appear before such authorities and admit execution thereof and to do all such other things and acts that may be necessary for registration;
- 14) To make and sign applications to appropriate Federal, Provincial or Local Government departments, authorities or other competent authority for all and any licenses, filing of any and all applications, petitions with NEPRA which include Licensee Proposed Modifications (LPMs) and others, permissions and consents required by any order, statutory instrument, regulation, byelaw or otherwise in connection with the business, management and affairs of the Company;
- 15) To obtain securities from any person, corporate body, company or firm for the due performance of any contract in respect of rendering any service or supplying any material to the Company and to accept the same on such terms as may be deemed proper or expedient by the Attorney;
- 16) To realize debts due to the Company and to receive any money due to the Company from any person, corporate body, company or firm and to grant receipts and discharges for the same;
- 17) To make payments to any person, corporate body, company or firm for any service rendered to the Company and for such other purposes of the Company and for carrying on of the Company's business and to sign and deliver all receipts, charges and drafts on the bank and other accounts of the Company or on the customers of the Company and to endorse all bills and bills of

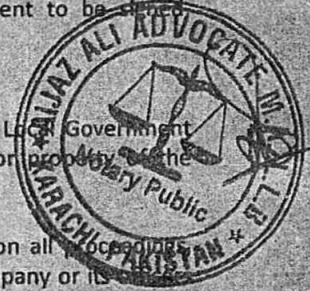


*[Handwritten signature]*

*[Handwritten mark]*



exchange received by the Company which may be necessary or expedient to be endorsed or given for the purpose of carrying on of the Company's business;



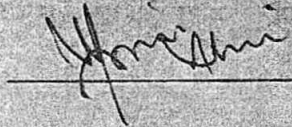
- 18) To represent the Company before any Court of law, Federal, Provincial or Local Government authority or any other authority in all matters concerning the business or property of the Company;
- 19) To commence, institute, prosecute, and to defend, compound and abandon all proceedings, actions, suits, petitions, appeals, claims and demands by or against the Company or its property in relation to the business or property of the Company or otherwise and for such purpose to sign, verify and present any document, pleading, complaint, writ, affidavit application or other instrument in writing and to appear and make statements on oath or otherwise in relation to the affairs of the Company and to appoint and remunerate any barrister, solicitor, advocate, pleader, vakil, mukhtar, or any legal practitioner or any revenue agent, accountants, valuers or surveyors for the said purpose and to obtain legal advice on behalf of the Company on any matter, contentious or otherwise, affecting the Company;
- 20) To write off amounts as approved by the Board of Directors arising as a result of correction / cancellation / adjustment of electricity bills in the normal course of business of the Company. To approve formula for write offs, adjustment and settlement of electricity bills based on prudent business practices / judgement and within the policy framework approved by the Board of Directors. To sub-delegate such of the powers as he deems fit to the concerned executives / officers of the Company, to fix authority limits, thereof, and to revoke the same at his discretion.
- 21) To obtain refund of stamp duty or repayment of court fees;
- 22) To appear and act in the offices of the District Registrar and Sub- Registrar of Deeds and Assurances for registration of documents and in any other office of the Federal, Provincial and local Government, including without prejudice to the generality of the foregoing, City District Government Karachi, any Union Council, District Council, Cantonment Board, Municipal Corporation, any Co-operative Society, State Bank of Pakistan, Collector of Customs, Excise & Taxation Offices and the Chief Controller of Imports and Exports in all matters concerning the business or property of the Company;
- 23) To file and receive back documents, to deposit and withdraw money and to grant receipts therefore;
- 24) To negotiate and to enter into and complete contracts with any person, corporate body, company or firm for the lease or purchase of any lands and buildings and to alter, repair, add to, and improve any building or structure and to let or sub-let any immovable property held by the Company and to submit plans of buildings relating to the Company's properties or lands on the Company's behalf before any competent authority and to obtain receipts therefor;
- 25) To use, sign and attest the name and style of the Company in any transaction, deed, document or muniment of title on all such occasions as may be necessary or expedient for conducting the business of the Company or for the due and proper management of the lands and buildings leased or purchased or to be leased or purchased by the Company and to execute and sign all such deeds and documents as may be required or proper for or in relation to all or any of the matters or purposes aforesaid;
- 26) To delegate to any person such of the powers as he deems fit and revoke the same at his discretion.
- 27) Generally to do all other acts and things incidental to the exercise of the aforesaid powers; and
- 28) The Company hereby agrees to ratify and confirm all and whatever the said Attorney shall lawfully do or cause to be done by virtue of this Power of Attorney.



The Power of Attorney executed in favor of Mr. Muhammad Tayyab Tareen pursuant to the Resolution of the Board of Directors passed on 27 November 2014 is hereby revoked. This Power of Attorney will be valid till the time Syed Moonis Abdullah Alvi holds the position of Chief Executive Officer of KE.

IN WITNESS WHEREOF the Common Seal of the Company has been affixed hereto at Karachi on this the 11 day of June 2018 by the undersigned Directors of the Company pursuant to the resolution dated 07 June 2018 passed by the Board of Directors of the Company.

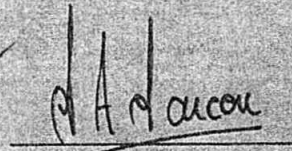
Signature of Syed Moonis Abdullah Alvi  
Attorney



THE COMMON SEAL of  
the Company is hereunto  
affixed in the presence of



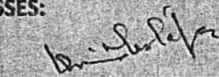
Director



Director

WITNESSES:

1.



Anjad Mustafa

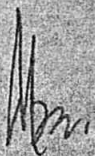
42201-7393750-3

2.



MUHAMMAD ARIE

42401-1568587-5



ATTESTED  
AIJAZ ALI ADVOCATE M.A. LL.B  
Advocate & Notary  
Public Karachi.

12 JUN 2018

HBL

Habib Bank Limited, Pakistan  
HBL PLAZA BR, KARACHI  
HBL PLAZA I.I. CHUNDRIGAR ROAD

Not Negotiable

Payee's A/C Only



00005170

1-Apr-2024

Date

National Electric Power Regulatory Authority (NEPRA)

Pay \_\_\_\_\_ or bearer

Rupees Two Million Four Hundred Forty Three Thousand

Six Hundred Thirty Six only

PK86 HABB 0007867000959117  
K-ELECTRIC LTD



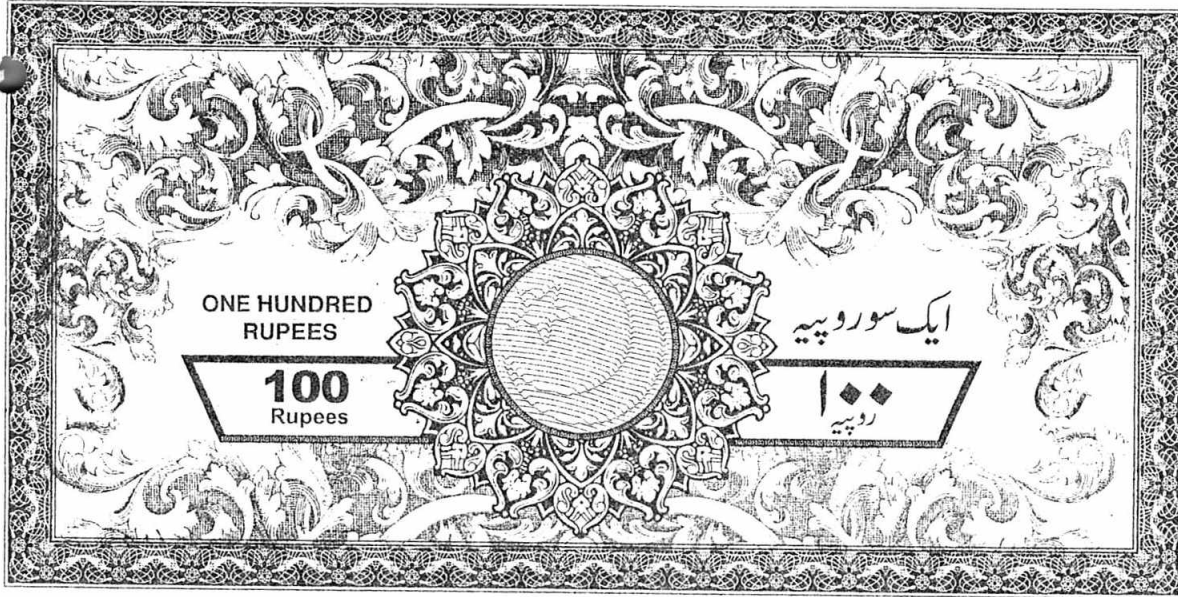
Please do not write below this line

PKR

2,443,636 /=

Signature

⑈00005170⑈0540786⑈0007867000959117⑈000⑈



SYED RIAZ MUSTAFA RIZVI  
Stamp Vendor Licence #59,  
5-C-5/4, Urdu Mehal Nazimabad, Karachi

09 FEB 2024

SR NO:.....DATE.....  
ISSUED TO WITH ADDRESS: Abdul Majeed Khan Advocate  
THROUGH WITH ADDRESS: 18 Ave Chamber Opp. City Court, Ahl.  
PURPOSE:.....  
VALUE RS:.....ATTACHED: *SY*  
STAMP VENDOR SIGNATURE:.....

BEFORE THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

AFFIDAVIT of Mr. Muhammad Imran Hussain Qureshi s/o Ghulam Hussain Qureshi having CNIC No. 35201-5044493-5, Chief Regulatory Affairs Officer, K-Electric Limited (the "Company"), a company incorporated under the laws of the Islamic Republic of Pakistan, having its registered office at KE House, 39-B, Sunset Boulevard, Phase II, Defence Housing Authority, Karachi.

I, the above-named deponent, being the duly authorized representative of the Company solemnly affirm and declare that the contents of the application requesting extension in useful lives of Units 1 and 2 of KE's Bin Qasim Power Station I (BQPS I) being submitted vide Letter KE/RA&GR/NEPRA/2024/303, including all supporting documents are true to the best of my knowledge and belief and that nothing has been concealed.



Dated April 02, 2024

*Amir*  
MUHAMMAD IMRAN HUSSAIN QURESHI

04 APR 2024



The Registrar,  
NEPRA – Registrar Office,  
NEPRA Tower, Attaturk Avenue (East),  
Sector G-5/1,  
Islamabad.

Ref # KE/RA&GR/NEPRA/2024/337  
April 16, 2024

**SUBJECT: MODIFICATION OF GENERATION LICENCE [GL/04/2002]**

Dear Sir,

This is with reference to the captioned subject and in furtherance to KE letter # KE/RA&GR/NEPRA/2024/303.

In this regard, it is humbly submitted that KE through its letter dated April 02, 2024 submitted fee amounting to a total of **PKR 2,443,636 /- (net of 9% WHT)** for processing of KE's request for extension in useful lives of Units 1 and 2 of KE's Bin Qasim Power Station-I (BQPS-I) as prescribed in Schedule II of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Regulations 2021, which was calculated in accordance with applicable fee effective from March 01, 2024, as mentioned on NEPRA's website.

However, with effect from April 01, 2024, the applicable fees payable has been revised to **PKR 2,485,458 /- (net of 9% WHT)**, hence, the differential fee amounting to **PKR 41,822 /- (net of 9% WHT)** is being submitted as cheque # 7747403 dated April 16, 2024, for processing of the subject application.

We humbly request for expeditious processing of the subject application and look forward to your kind support in this regard.

Sincerely,

**Muhammad Imran Qureshi**  
Chief Regulatory Affairs &  
Government Relations Officer

**Enclosure:**

- Cheque no. 7747403 dated April 16, 2024

Habib Bank Limited, Pakistan  
HBL Plaza Branch, Habib Sant Plaza,  
1-1, Chundrigar Road, Karachi. (0726)

Panama's Air Corps



Cheque No 07747403

16.04.2024

Date \_\_\_\_\_

D	D	M	M	T	Y	Y	Y
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Not Negotiable

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

Pay \_\_\_\_\_ or bearer  
— FORTY ONE THOUSAND EIGHT HUNDRED TWENTY ONE AND EIGHTY

~~41,821.80~~

РКЯ

Ruppes

PAISAS ONLY

IBAN NO: PK86 KABB 0007867000959117



Please do not write below this line.

Signature 1

~~Signature 2~~

11077474031105407861000786700095911711000