Disposal of GE Jenbacher J620 Combined Cycle Power Generation Assets comprising of Gas Engines, HRSGs, Steam Turbines & Associated Plant Assets and Inventory from Site Gas Engine Power Station (SGEPS) & Korangi Town Gas Engine Power Station (KTGEPS), Karachi, Pakistan

Tender Reference:

KEDISP/RFPS&K/26-27

Offer Document

Ref No. KEDISP/RFPS&K/26-27
SAP ARIBA Event Name (For SGEPS): KEDISP-RFP-SK-26 27-(SGEPS)
SAP ARIBA Event Name (For KTGEPS): KEDISP-RFP-SK-26 27-(KTGEPS)
Dated: September 18, 2026 (Updated on October 7, 2026 for Corrigendum)

Corrigendum

Please note that Section 3 (Bid Submission) of this Offer Document has been updated to allow sealed hardcopy bid submission in addition to submission through SAP Ariba. Bidders are requested to carefully review the revised provisions of Section 3. Except as amended herein, all other terms, conditions and requirements of this Offer Document remain unchanged.

Subject: Disposal of GE Jenbacher Gas Engines and other Material of Site Gas Engine Power Station (SGEPS) and Korangi Town Gas Engine Power Station (KTGEPS) on "AS IS WHERE IS" BASIS

K-Electric Limited ("**KE**"), Pakistan's vertically integrated power utility, invites participation in the SAP ARIBA E-Bidding event for the acquisition of utility-scale power generation assets and inventory on an "As Is, Where Is" basis. The offering comprises GE Jenbacher J620 gas engine-based combined cycle power generation facilities from two strategically located power stations in Karachi, Pakistan. Featuring globally recognized Jenbacher engines manufactured in Austria, together with HRSGs, steam turbines and associated plant assets and inventories, this sale presents a unique opportunity for Independent Power Producers (IPPs), utilities, industrial operators, EPC contractors, asset investors and equipment dealers to acquire proven power generation equipment from an established utility environment.

Material is offered on the terms and conditions stipulated in this offer document and as such, only such offers are acceptable which conform to these terms.

1. General Terms & Conditions

a) KE intends to dispose off the Material by selling it to the bidder for collection, removal and disposal of Materials from site, on a non-exclusive basis, in accordance with the terms and conditions set out in this Offer Document

b) This document is issued for offering the sale of the disposal material as per detailed particulars, terms and conditions stipulated therein. Lot summary is available in *Annexure A*.

c) The material offered for sale is strictly on "**AS IS & WHERE IS**" basis. KE makes no representations whether express or implied as to merchantable quality, fitness for purpose or otherwise and hereby excludes without limitation all implied terms and conditions contained in the Sale of Goods Act, 1930 or any other applicable law. Technical specifications and information relating to the power plants are set out in Annexure B, subject to at all times to Clause 1(e) below.

d) By submitting a bid, the bidder shall be deemed to have inspected, or to have had the opportunity to inspect, the material offered for sale and irrevocably accepts the same on an **"AS IS, WHERE IS"** basis. The bidder shall not raise any objection, claim, or dispute regarding the nature, quality, quantity, condition, fitness, or suitability of the material after submission of its bid.

e) The specifications, capacities, ratings and other technical information relating to the Material are based on KE's available records and are provided for reference purposes only Bidders may carry out necessary inspection to their satisfaction, prior to submission of their bids.

f) The successful bidder will be required to make the balance payment in full as per the Letter of Acceptance before the lifting of material.

g) Notwithstanding the estimated quantity stated herein, KE reserves the right, at its sole discretion and without assigning any reason, to reduce, withdraw, or revise the quantity offered for sale, in whole or in part, at any time prior to issuance of RO. The successful bidder shall have no claim whatsoever against KE arising out of any such reduction, withdrawal, or revision in quantity.

h) The successful bidder shall, at its own cost, obtain and maintain adequate insurance coverage in connection with the collection, loading, transportation, handling, and disposal of the subject material. Such insurance shall cover all third-party claims for any and all damage or injury arising out of or in connection with the collection, handling, transportation, or disposal of the subject material. The successful bidder shall provide satisfactory evidence of such insurance coverage to KE prior to the commencement of the disposal activities.

i) An agreement for the disposal of material shall be executed between KE and the Successful Bidder for carrying out the disposal as envisaged in this Offer Document. A sample form of such agreement is attached hereto as Annexure D. The said agreement shall be finalized and executed between KE and the Successful Bidder following award of the contract.

j) In case the Successful Bidder exports the Material outside Pakistan, the Bidder shall comply with all applicable export control, customs, sanctions, rules/regulations of Pakistan and the country of destination.

k) KE reserves the absolute right, at its sole discretion and without assigning any reason, to accept or reject any bid or to cancel the bidding process at any stage. The bidder shall have no right to initiate any litigation, arbitration, claim, or other legal proceedings against KE arising out of or in connection with the acceptance or rejection of any bid or the cancellation of the bidding process, and shall indemnify and hold KE harmless against any losses, costs, or liabilities arising from any breach of the terms and conditions of this Offer Document.

2. Lots inspection

a) Lots inspection can be done as per below schedule only, upon production of offer document and a valid original CNIC / identification document. Lot Inspection timings will be from 09:00 am to 03:00 pm (PST) except Saturday, Sunday & public holidays (if any).

Location	Inspection and bidding dates	Inspection Timings
Korangi Town Gas Engine Power Station	Friday 25th September 2026 – Friday 6th November 2026	09:00 am to 03:00 pm except Saturday, Sunday & public holidays
Site Gas Engine Power Station		

b) Prospective bidders may only be allowed to visit the plant subject to prior scheduling with KE nominated officials and compliance with site security and safety rules and HSEQ requirements.

3. Bid Submission

3.1 For Participation through SAP ARIBA

a) For participation in the ARIBA E-Bidding event, bidders are required to register in SAP ARIBA (if not already registered) via the official website of KE or using the below link.

Link: K-Electric ARIBA Registration

(Refer to the "ARIBA Bidder Self-Registration Process" guide attached with the tender pack)

b) Accordingly, bids shall be submitted separately for each plant and against each lot or multiple lots on SAP ARIBA through two separate SAP ARIBA events: KEDISP RFPS&K-SGEPS 26-27 for SGEPS and KEDISP RFPS&K-KTGEPS 26-27 for KTGEPS. Prospective bidders may contact the designated KE representative(s) listed in this document to obtain the relevant SAP ARIBA event invitation link for online bid submission.

3.2 For Participation through Manual Bid Submission

a) Bidders may alternatively submit their bids through sealed hardcopy by duly completing and signing Appendix 1A and/or 1B (**"Bid Submission Form"**) separately available in the tender pack. The bid price for each lot shall be clearly quoted in Pakistani Rupees (PKR) in the space provided in the Bid Submission Form. Bidders may submit bids for one, multiple, or all lots. Incomplete, unclear, or conditional bids may be rejected at KE's sole discretion.

b) Each filled page of the Bid Submission Form(s) shall be signed and stamped by an authorized representative of the bidder. Submission of a bid shall constitute the bidder's unconditional acknowledgement and acceptance of all terms, conditions, requirements and provisions contained in the Offer Document.

3.3 Earnest Money Submission

a) Bidders are also required to submit Earnest Money along with the bids which will be equal to:

i. For local bidders: 10% of the total "quoted" base price or PKR 60 million (per lot), *whichever is lower*, exclusive of all applicable taxes, in favor of KE, in the shape of pay order / bank guarantee (in a format acceptable to KE). The pay order / bank guarantee shall remain valid throughout the Bid Validity Period and for at least thirty (30) days thereafter.

ii. For foreign bidders: 10% of the total "quoted" base price or PKR 60 million (per lot), *whichever is lower*, exclusive of all applicable taxes, in the shape of bank guarantee only (in a format acceptable to KE) which shall remain valid throughout the Bid Validity Period and for at least thirty (30) days thereafter, issued in favor of KE and routed through the designated receiving bank, namely Habib Bank Limited (HBL).

b) Offers without/short earnest money deposit shall not be considered and will be liable to rejection. Earnest money will be returned to unsuccessful bidders without any interest or markup.

c) Validity of the Offer: The offer price must be valid for at least 180 days from the date of bid deadline ("Bid Validity Period"). The Bidder shall, upon written request of KE, extend the Bid Validity Period of its offer for such further period as may be required by KE, provided that such extension shall not exceed 90 days or any longer period as mutually decided between the parties. In the event the Bid Validity Period is extended upon KE's request, the Bidder shall correspondingly extend the validity of the bank guarantee or issue a new bank guarantee for the extended Bid Validity Period and for at least thirty (30) days thereafter. (Note: Cash Deposit Receipt or cheque as a form of payment is not accepted). KE reserves the right to forfeit or encash the earnest money for any failure by the Bidder to fulfil its obligations under this Offer Document. Further, offers without/short earnest money deposit shall not be considered and will be liable to rejection. Earnest money will be returned to unsuccessful bidders without any interest or markup.

3.4 Bid Submission deadline:

a) The bids are to be submitted by the deadline of 6th November 2026 by 05:00 PM PST ("Bid Submission Deadline") and the offer price quoted by the bidder shall be considered exclusive of all taxes. Accordingly, bids may be submitted via SAP ARIBA or sealed hardcopy submission.

b) For SAP ARIBA bid submission, bidders are required to attach proof of Earnest Money instrument in SAP ARIBA during bid submission for each event separately. Post completion of Bid Submission Deadline, the prospective bidders will be required to submit the earnest money instrument on the below location by 13th November 2026.
"General Manager Disposal, Procurement Department, 1st Floor, Block J, Elander Road Powerhouse Complex, Karachi – Pakistan".

c) For Manual Bid Submission, the complete documents including duly filled Bid Submission Form and Earnest Money instrument(s) shall be submitted in a sealed envelope clearly marked with the Tender Reference Number and bidder's name and deposited at the below location on or before the prescribed Bid Submission Deadline.
"General Manager Disposal, Procurement Department, 1st Floor, Block J, Elander Road Powerhouse Complex, Karachi – Pakistan".

4 Lot award and payments

a) The successful bidders will be informed after due approval from the management and completion of the process. After management approval, contract will be awarded to the successful bidder and Letter of Acceptance (s) ("**LoA**") shall be issued to the successful bidder for submission of balance payment within the specified time.

b) Within three working days of an award of a contract, the successful bidder shall also be required to submit a Security Deposit equivalent to 5% (five percent) of the total awarded bid value excluding applicable taxes, in the form of a Pay Order or an unconditional and irrevocable Bank Guarantee (in format acceptable to KE) issued by a scheduled bank acceptable to KE ("**Security Deposit**"). The Security Deposit shall remain valid until the successful completion of all obligations under this Offer Document and until the completion of this sale, including full payment, lifting of awarded quantity, compliance with safety, environmental, regulatory, and operational requirements, and settlement of any outstanding claims, penalties, charges, or damages.

c) KE shall have the right to wholly or partially forfeit, encash, and/or appropriate the Security Deposit without prejudice to any other rights or remedies available under law or under this offer document in the event of any failure by the successful bidder to comply with its obligations under this offer document, including but not limited to non-payment, delayed payment, failure to lift material within stipulated timelines, breach of any terms and conditions, violation of applicable safety, environmental, statutory or regulatory requirements, or causing any loss, damage, or liability to K-Electric Limited due to negligence, misconduct, or non-compliance. The Security Deposit shall be released without any mark-up or interest only after satisfactory completion of all obligations by the successful bidder and after confirmation from KE that no dues, claims, penalties, damages, or liabilities remain outstanding.

d) Any extension in payment submission time will be subject to a penalty of 1-month KIBOR + 2.5% p.a. on per day basis of base price OR PKR 50,000 per day (whichever is greater), upto a maximum of 10 days. However, upon expiry of such late payment penalty time, KE reserves the right to forfeit the entire lot and complete amount of earnest money and/or security deposit *('Base price' is the final accepted bid amount excluding all applicable taxes).*

e) All balance payments must be made along with applicable sales tax at the rate of 18% of bid price plus 4% further sales tax applicable to non-registered bidders only and 10% advance income tax for active tax payer / 20% advance income tax for inactive tax payer (of gross value including sales tax under per Section 236A of the Income Tax

Ordinance, 2001). For clarity, following would be calculation for illustrative purposes. Rates shall be applied as per the latest applicable rates as per law.

Description	***Active Tax Payer (PKR)***	***Inactive Tax Payer (PKR)***
Bid Price	*100*	*100*
Sales Tax	*18*	*18*
Further sales tax (un-registered person/inactive tax payer)	*00*	*04*
Total Value excluding the amount of advance income tax	*118*	*122*
Advance Income Tax under section 236A of ITO, 2001	*11.8*	*24.4*
Gross Value	*129.8*	*146.4*

f) The above payment shall be made through online payments only, in favor of KE as per bank details mentioned below:

Account Title	K-Electric Limited
Bank Name	Standard Chartered Bank
Account#	PKR - 08-1251317-36
IBAN#	PK53SCBL0000008125131736
Branch Code	0071
NTN#	1543137-1
Location	Main Branch, I.I. Chundrigar Road

g) For the avoidance of doubt, all applicable government taxes shall be borne by the successful bidder. Any changes in taxes, duties, or levies whether federal or provincial due to change in legislation before the process is completed, shall also be borne by the successful bidder to entire exclusion of KE. If changes are enacted during execution of a tender, such changes in the taxes shall be applicable till the date of issuance of Sales Cum Release Order ("**RO**"). Taxes shall be calculated at the time of issuance of LoA as per FBR tax status of the successful bidder.

If tax rates are changed after issuance of LoA but before issuance of RO, the revised rates shall be applicable accordingly and the successful bidder will be liable to pay the additional taxes.

h) Upon receipt and successful realization of payment, the successful bidder shall be issued the RO for lifting of materials from the designated locations. Delivery intimation and minimum quantity to be lifted will be made via email or any other means deemed fit for record purpose.

5 Delivery of material

a) The material is to be lifted within the working days specified in the RO. In the event of having failed to collect the material either in full or PART thereof, penalty in lieu of storage charges 1 month KIBOR + 2.5% p.a. on per day basis of base price OR PKR 50,000 per day whichever is greater upto a maximum of ten (10) days shall be charged to the successful bidder until such time the site is cleared to the satisfaction of KE *('Base price' is the final accepted bid amount excluding all applicable taxes).*

However, upon expiry of such time, if the material for sale, for any reason is not collected and removed by the successful bidder from the KE premises, then KE reserves the right to forfeit the remaining lot amount, and shall be at liberty to dispose of the relevant material as it deems fit without reference or notice to the successful bidder. No money received from the successful bidder will be refunded by KE and KE reserves the right to demand storage charges for the remaining lot.

b) RO for all multiple lots won by each successful bidder may be issued at once, and as such the successful bidder will be expected to lift all lots within the specified timeframe. The successful bidder must ensure that a well-planned lifting schedule in advance is executed, taking into account available resources and manpower for lifting of the lots. Failure to adhere to this timeframe may result in penalty as per clause 5(a) of this document.

c) For the avoidance of doubt, all expenses incurred in connection with utilities and resources required for execution of works, including but not limited to electricity, compressed air, water (generator, compressor etc.), deploying labor/personnel, skilled operators for handling material, lifting, removal, loading, weighing and transportation of respective lot material shall be borne by the successful bidder.

d) Presentation of RO at the time of collection of the material from site is the responsibility of the bidder.

e) The bidder will dismantle the power plant in accordance with the method statement including applicable rigging plan, risk assessment and utility isolation verification plan/strategy, which must be submitted by the successful bidder prior to commencement of work.

f) In the event that the actual delivered quantity is less than the declared quantity, KE shall, at its sole discretion, either make available the remaining quantity for lifting or refund to the successful bidder a proportionate amount corresponding to the undelivered quantity, without any mark-up or interest, after expiry of the term of the agreement to be entered into between KE and the Successful Bidder.

g) Any bidder participating in the biding process under this Offer Document expressly acknowledges that KE reserves the right to reject OR accept any or all the offers without assigning any reason thereof and as such, the seller is not bound to accept the highest bid.

h) Person(s) duly authorized by the successful bidder through valid authority letter shall only be allowed to lift the material/take the delivery from KE premises.

i) Conditions imposed by the parties interested in purchasing the material offered for sale shall not be considered. The material is offered as per KE terms and conditions stipulated in this document.

j) The successful bidder shall not be entitled to resell any lot or part of a lot while the goods are still lying within the premises of KE.

k) All information/data provided by any bidder shall be complete, accurate and true. All bidders shall provide valid and complete postal addresses and official email address along with other details for correspondence. KE shall not be responsible in case of any wrong or incomplete information provided by any bidder in this regard.

l) Each company or individual participating in the bidding process shall submit, on its original letterhead, the name of its owner (where applicable) and duly authorized representative. Failure to do so may result in disqualification from the bidding process. Any change in the authorized representative during or after the bidding process shall be promptly notified to KE through a written intimation on the bidder's original letterhead and official company email.

m) Obtaining the security permission and security clearance from KE Security department for the entry of successful bidder’s personnel shall be the responsibility of successful bidder. Required documents will be submitted by successful bidder well in advance for issuance of temporary gate passes.

n) KE reserves the right to take appropriate legal and disciplinary actions in the event of any non-compliance by the successful bidder, or any of its employees, personnel, labour, representatives, agents, subcontractors, or any other persons engaged by or acting on its behalf with the terms and conditions specified in this offer document.

o) KE reserves the right to obtain any documents and data, as may be required, from the bidder for verification purposes at any time during bidding process.

p) KE reserves the right to amend these terms and conditions of the Offer Document at any time prior to execution of the agreement with the successful bidder. Any changes will be communicated on a timely basis to all relevant parties.

q) Only the bidders participating in the disposal process may submit any grievances or complaints relating to the disposal process, which shall be addressed to **complaints.disposal@ke.com.pk**. Complaints submitted by any other person or entity shall not be entertained.

r) KE reserves the right to unload the vehicles for inspection purpose at any time during the lifting process. If it is suspected at any time that the successful bidder has loaded the material(s) for which he is not the purchaser or

if the purchaser is found to carry excess material than that mentioned in the documents, KE has the right to detain the loaded vehicle, unload the goods at the risk, cost & expenses of the successful bidder & terminate the sale forthwith and forfeit the sales value & claim such further losses and damages that maybe caused to KE.

s) The successful bidder shall be solely responsible for any loss, damage, or injury caused to KE's property, personnel, or any third party, including bidder's own property or personnel, arising out of or in connection with the removal, lifting, handling, or transportation of the items. The successful bidder shall, at its own cost, promptly repair, restore, or compensate for such loss or damage to the satisfaction of KE. KE reserves the right to recover from the successful bidder any costs, expenses, losses, or liabilities incurred by it in excess of any amounts paid towards the restoration of such damage or injury.

6 General Safety and Work Guidelines

a) All safety regulations shall be followed by the successful bidder in removing the material from KE premises. All personnel engaged by the successful bidder shall strictly observe KE's safety rules, regulations, and site-specific requirements applicable to the delivery location. The detailed safety guidelines are set forth in *Annexure C*.

b) The successful bidder shall ensure all safety measures implemented during execution of work and shall provide all necessary personal protection equipment (PPE) to its personnel (including gloves, goggles, mask, apron, safety shoes, wrist cover, ear plugs etc.) & certified machinery and equipment (i.e. crane lifter, loaders, trucks etc.) by carrying out the work at KE premises. Any damages to any existing work or property or person at KE premises caused by non-compliance of safety regulations by the successful bidder shall be made good by the successful bidder at their own cost to the entire exclusion of KE.

c) The successful bidder shall ensure that the off-take of the material is done in a safe and timely manner fulfilling any and all conditions under the applicable laws.

d) In case of the work-related injury or death of any person(s) at KE premises, which is attributable to the actions and/or negligence of the successful bidder, successful bidder will compensate the legal heirs of the deceased in accordance with law and provide the copy of compensation proof and settlement agreement executed with the legal heirs of the deceased as evidence to KE, for fulfilling the regulatory requirements as well.

e) The successful bidder shall be permitted to work in a maximum of one shift per day, which may be extended up to sunset, if required. Subject to prior intimation and approval from KE, work on Saturdays and Sundays and public holidays may be permitted. Night shift work shall not be permitted.

f) The successful bidder shall be responsible to arrange the residence for its staff, outside KE premises, at its own cost.

g) Notwithstanding the above, the successful bidder shall ensure compliance of all applicable labor laws and shall completely indemnify KE against any and all claims including third-party claims arising out of and/or in relation to any arrangements or activities being undertaken by the successful bidder and/or its personnel for the disposal of material from the premises.

Contacts for Correspondence

In case of any further information regarding site visits and scheduling, bidding process, commercial and technical clarities or any other details, the following personnel may be contacted between Monday to Friday, 9:00 am – 3.00 pm (except public holidays, if any).

Name	Location	Contact number	Email
Muhammad Ali Qazi	Procurement Department, 1st Floor, Block J, Elander Road Powerhouse Complex, Karachi, Pakistan	+92-321-2193791	ali.qazi@ke.com.pk
Mir Shaheer Ali Agha		+92-340-3890193	shaheer.ali@ke.com.pk
Maira Tanwri		+92-346-3321291	maira.tanwri@ke.com.pk

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Annexure A (Lot Summary)

Site Gas Engine Power Station (SGEPS)

For complete list of lots and details, please refer Annexure 2 (2A Part 1 and 2) attached with the tender pack

Lot Nos.	Description
1-32	Gas Engines E11-E48 (32 Units across Sections 1-4)
33-64	Gas Engine MV Systems (VCB with Panel) corresponding to the 32 Gas Engines
65-68	GVCB with Panel & Trolley (Sections 1-4)
69-72	AUX VCB with Panel & Trolley (Sections 1-4)
73-76	110 VDC Charger Panel with Battery Bank (Sections 1-4)
77-84	LV Distribution and LV Incoming/Outgoing Panels
85-88	Section Gas Flow Meters (Sections 1-4)
89-92	Gas Detector Controllers (Sections 1-4)
93-96	ST-1 Panels without MiCom Relays (Sections 1-4)
97-100	ST-2 Panels (Sections 1-4)
101-104	Grid Analyzer with Dummy Panels (Sections 1-4)
105	Chromatograph
106-109	Cooling Towers with Circulation Pumps & Bleed Valve (Sections 1-4)
110-112	Dosing Pump Controllers
113-120	Filter Assemblies (Sub-Sections 1 & 2, Sections 1-4)
121-152	HRSG Complete Modules corresponding to Boilers/Engines E11-E48
153-156	Blowdown Tank & Valve (Sections 1-4)
157-158	DCS/HRSG Control Panel, HMI Engineering Stations & Monitoring/Controlling Systems
159	Steam Turbine and Associated Systems
160	Steam Turbine MV System
161	Reverse Osmosis (RO) Plant and Associated Systems
162	Engine (Stores & Spares / Inventory)
163	HRSG (Stores & Spares / Inventory)
164	Steam Turbine System (Stores & Spares / Inventory)
165	RO Plant (Stores & Spares / Inventory)
166	Instrument Compressor (Stores & Spares / Inventory)
167	Gas Turbine (Stores & Spares / Inventory)

Korangi Town Gas Engine Power Station (KTGEPS)

For complete list of lots and details, please refer Annexure 2 (2B Part 1 and 2) attached with the tender pack

Lot Nos.	Description
1-24	Gas Engines E11-E18, E31-E38 & E41-E48 (24 Units across Section 1, 3 , 4)
25-48	Gas Engine MV Systems (VCB with Panels) corresponding to the 24 Gas Engines
49-55	VCBs, AUX VCBs, Maintenance Trolleys & 110 VDC Battery/Charger Systems (Section 1, 3 , 4)
56-58	LV Incoming & Outgoing Panels (Section 1, 3 , 4)
59-61	Gas Detector Controllers (Section 1, 3 , 4)
62-64	Section Gas Flow Meters (Section 1, 3 , 4)
65-67	ST-1 Panels without MiCom Relays (Section 1, 3 , 4)
68-70	ST-2 Panels (Section 1, 3 , 4)
71-73	Grid Analyzers with Dummy Panels (Section 1, 3 , 4)
74	Chromatograph
75-78	Cooling Towers with Circulation Pumps & Bleed Valves (Section 1 - 4)
79-80	Dosing Pump Controllers (Section 1, 3 , 4)
81-86	Filter Assemblies (Section 1, 3 , 4)
87-110	HRSG Complete Modules corresponding to Boilers/Engines E11-E48 (24 Units)
111-113	Blowdown Tank & Valve (Section 1, 3 , 4)
114-115	DCS/HRSG Control Panel, HMI Engineering Stations & Monitoring Systems
116	Steam Turbine and Associated Systems
117	Steam Turbine MV System
118	Reverse Osmosis (RO) Plant and Associated Systems (Stores & Spares / Inventory)
119	Engine (Stores & Spares / Inventory)
120	HRSG (Stores & Spares / Inventory)
121	RO Plant (Stores & Spares / Inventory)
122	Steam Turbine System (Stores & Spares / Inventory)
123	Instrument Compressor (Stores & Spares / Inventory)

Annexure B

Details of Power Plants

Site Gas Engine Power Station (SGEPS)

The SGEPS is located at Plot # F-255, S.I.T.E. Area of Karachi, Pakistan. It comprises of thirty-two (32) Gas Engine units, including thirty-two (32) HRSGs with one (01) Steam Turbine and the associated balance of Plant (BOP) equipment, having total capacity of 107.312 MW (Gross ISO) with Gross capacity of 95.51 MW. This plant put into production successively from 2009 to 2025 as detailed below:

S. No	Unit	Model/Type	OEM	Commissioned
1	Gas Engines	Series 620-E	Jenbacher, INNIO (Austria)	2009
2	Steam Turbine	MC-800	NG Allen (UK)	2016
3	Heat Recovery Steam Generator (HRSG)	Water Tube	DESCON (Pakistan)	2016

All the gas engine units of SGEPS Plant were designed and commissioned for natural gas in year 2009.

The prime movers for the power plant were manufactured at the Jenbacher production facilities in Austria known for manufacturing of natural gas engines. The JGS 620 GS-N E-series of engines installed at the power plant are well designed, reliable, and economical in operation. For combined cycle operation Steam Turbine make NG-Allen and 32 WHRSG (make Descon) have been installed to enhance plant capacity and efficiency.

The plant configuration is based on 4 sections; each comprises of 8 engines + 8 WHRSGs and one 30 MVA 132/11.5 kV transformer (ONAN/ONAF Type of Cooling). Steam Turbine (ST) has a gross rating of 8.5 MW with one 15.5 MVA 132 kV/11 kV transformer. (ONAN Type of Cooling). The generators can maintain constant output for system frequency of 50 Hz in accordance with the requirements.

SGEPS has an 11 kV and 0.4 kV system, water treatment plant (RO), Demin water tank, fire water tank, central control room building, office building, security check post, warehouse & workshop building, emergency diesel generator and firefighting system. Engines cooling-water is closed circuit which is cooled through air cooled radiators installed on each engine. Dedicated cooling towers are also available to cater for hot ambient conditions. Air cooled condenser (ACC) is used as condenser for Steam turbine operation to dissipate heat & condense steam turbine exhaust to maintain rated vacuum level inside turbine exhaust system for Steam turbine operation. Further, ST Lube Oil and Generator cooling is being done through separate cooling water modules.

Gas Engine	
Parameter	Gas Engine (32 Nos.)
Manufacturer	GE Jenbacher (Austria)
Model/Type	J 620 GS-E01
Year of Manufacture	2009
Speed	1500
Engine Capacity	2739 kW
Air Filtration, Type	Forced Draught Pressurized Cabin Filter Type
Turbo Charger, Make & Model	MAN PBS NR20/SJ
Exhaust Bypass Stack available	Yes
Starting System	Cranking DC motor with batteries backup
Control System	Diane XT Controllers
Engine Cooling System	Closed System Radiators
Safety Protection Systems	Diane PLC in-built safety interlocking and hard-wire fail-safe loop

Make: Jenbacher (Innio), Austria	**Type:** Reciprocating Natural Gas Engine
Rated Capacity: 3.041 (ISO)	**Weight:** ~15000 Kg

Gas Engine Alternator	
Parameter	Gas Engines Alternator (32 Nos.)
Manufacturer, Country	AVK Germany (30) /AVK Romania (02)
Year of Manufacture	2009 / 2016
Type/Model	DIG 142 e/4
Rating MVA/MW	4450 KVA
Voltage/Frequency/PF	11 KV / 50 Hz / 0.8-1.0
Speed	1500 rpm
Insulation Class	F
Excitation Type	Brushless
Efficiency	97.6% at 1 pf , 97% at 0.8 pf
Cooling	Air

Steam Turbine	
Parameter	Steam Turbine
Manufacturer	NG Allen
Year	2014
Model	MC-800
Type	Condensing
Stages	9 (Low Reaction)
Rating, ISO & Site	10,000 KW
Speed	6532
HP Steam pressure	17 bar
HP Steam temperature	355 Deg. Celsius
HP Steam Flow	54 TPH
Type & Specs of Lube / Control Oil	ISO VG68
Type of Fire Protection	Heat detection and water deluge system

Make: NG Allen	**Type: Condensing**
Rated Capacity: 10MW (ISO)	**Rating: 17 barg, 355C**

Steam Turbine Alternator	
Parameter	Steam Turbine Generator
Manufacturer	Indar
Year of Manufacture	2014
Model	LSA-900-X/4
Serial Number	4010000891
Rating MVA/MW	12.875 MVA
Voltage	11000 V
Speed	1500
Frequency	50 Hz
Power Factor	0.8
Insulation Class	H
Protection	24, 27, 40, 46, 50, 51, 50N, 51N, 59, 81,87
Cooling Medium	Water-Air
Excitation Type	Brushless
Efficiency	97.3% @ 0.8 pf , 98.1% @ 1 pf
Cooling	IC81W
Heat Recovery Steam Generator	
Parameter	HRSG (32 Nos.)
Manufacturer	Descon Engineering
Country of Manufacture	Pakistan
Year	2014
Type/Model	Vertical HRSG
Heat source	Exhaust Flue Gas
HP Steam pressure	17 bar
HP Steam temperature	355 Deg. Celsius
HP Steam flow	1.7 TPH
List of Parameters recorded at Online Boiler Water Analyzer	PH, Conductivity, Oxygen, Silica

Make: DESCSON	**Type: Water Tube**
Rated Capacity: 1.7 ton/hr	**Rating: 17 barg, 350 C**

Korangi Town Gas Engine Power Station (KTGEPS)

The KTGEPS is located at Plot # 1/19, Sector 10, Korangi Industrial Area of Karachi, Pakistan. It comprises of thirty-two (32) Gas Engine units, including thirty-two (32) HRSG's with one (01) steam Turbine and the associated balance of Plant (BOP) equipment's, having total capacity of 107.312 MW (Gross ISO) with Gross capacity of 95.51 MW. This Plant put into production successively from 2009 to 2025 as detailed below:

S. No	Unit	Model/Type	OEM	Commissioned
1	Gas Engines	Series 620-E	Jenbacher, INNIO (Austria)	2009
2	Steam Turbine	MC-800	NG Allen (UK)	2016
3	Heat Recovery Steam Generator (HRSG)	Water Tube	DESCON (Pakistan)	2016

All the gas engine units of KTGEPS Plant were designed and commissioned for natural gas in year 2009.

The prime movers for the power plant were manufactured at the Jenbacher production facilities in Austria known for manufacturing of natural gas engines. The JGS 620 GS-N E-series of engines installed at the power plant are well designed, reliable, and economical in operation. For combined cycle operation Steam Turbine make NG-Allen and 32 WHRSG (make Descon) have been installed to enhance plant capacity and efficiency.

The plant configuration is based on 4 sections; each comprises of 8 engines + 8 WHRSGs and one 30 MVA 132/11.5 kV transformer (ONAN/ONAF Type of Cooling). Steam Turbine (ST) has a gross rating of 8.5 MW with one 15.5 MVA 132 kV/11 kV transformer. (ONAN Type of Cooling). Please note that Section 2 of KTGEPS (except some components) is not being offered for disposal.

The generators can maintain constant output for system frequency of 50 Hz in accordance with the requirements.

KTGEPS has an 11 kV and 0.4 kV system, water treatment plant (RO), Demin water tank, fire water tank, central control room building, office building, security check post, warehouse & workshop building, emergency diesel generator and firefighting system.

Engines cooling-water is closed circuit which is cooled through air cooled radiators installed on each engine. Dedicated cooling towers are also available to cater for hot ambient conditions. Air cooled condenser (ACC) is used as condenser for Steam turbine operation to dissipate heat & condense steam turbine exhaust to maintain rated vacuum level inside turbine exhaust system for Steam turbine operation. Further, ST Lube Oil and Generator cooling is being done through separate cooling water modules.

Gas Engine	
Parameter	Gas Engine (32 Nos.)
Manufacturer, country	GE Jenbacher
Model/Type	J 620 GS-E01
Year of Manufacture	2009
Speed	1500
Engine Capacity	2739 kW
Air Filtration, Type	Forced Draught Pressurized Cabin Filter Type
Turbo Charger, Make & Model	MAN PBS NR20/SJ
Exhaust Bypass Stack available	Yes
Starting System	Cranking DC motor with batteries backup
Control System	Diane XT Controllers
Engine Cooling System	Closed System Radiators
Safety Protection Systems	Diane PLC in-built safety interlocking and hard-wire fail-safe loop

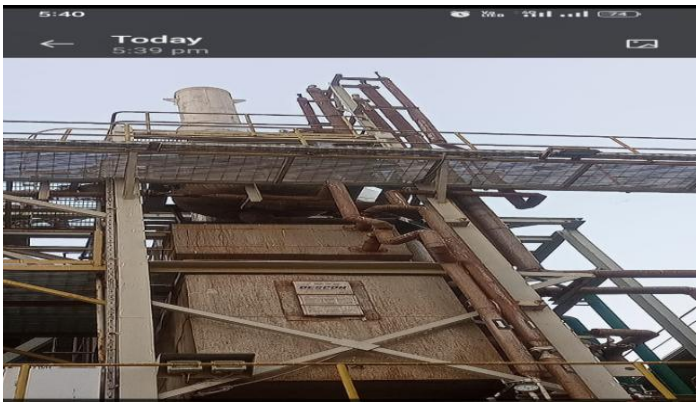
Make: Jenbacher (Innio), Austria	**Type: Natural Gas Engine**
Rated Capacity: 3.041 (ISO)	**Weight: ~15000 Kg**

Gas Engine Alternator	
Parameter	Gas Engines' Alternator (32 Nos.)
Manufacturer, Country	AVK Germany (30) /AVK Romania (02)
Year of Manufacture	2009 / 2016
Type/Model	DIG 142 e/4
Rating MVA/MW	4450 KVA
Voltage/Frequency/PF	11 KV / 50 Hz / 0.8-1.0
Speed	1500 rpm
Insulation Class	F
Excitation Type	Brushless
Efficiency	97.6% at 1 pf , 97% at 0.8 pf
Cooling	Air

Steam Turbine	
Parameter	Steam Turbine (01 Nos.)
Manufacturer	NG Allen
Year	2014
Model	MC-800
Type	Condensing
Stages	9 (low Reaction)
Rating, ISO & Site	10,000 KW
Speed	6532
HP Steam pressure	17 bar
HP Steam temperature	355 Deg. Celsius
HP Steam Flow	54 TPH
Type & Specs of Lube / Control Oil	ISO VG68
Type of Fire Protection	Heat detection and water deluge system

Make: NG Allen	**Type: Condensing**
Rated Capacity: 10MW (ISO)	**Rating: 17 barg, 355C**

Steam Turbine Alternator	
Manufacturer	Indar
Year of Manufacture	2014
Model	LSA-900-X/4
Rating MVA/MW	12.875 MVA
Voltage	11000 V
Speed	1500
Frequency	50 Hz
Power Factor	0.8
Insulation Class	H
Protection	24, 27, 40, 46, 50, 51, 50N, 51N, 59, 81,87
Cooling Medium	Water-Air
Excitation Type	Brushless
Efficiency	97.3% @ 0.8 pf , 98.1% @ 1 pf
Cooling	IC81W
Heat Recovery Steam Generator	
Parameter	HRSG (32 Nos.)
Manufacturer	Descon Engineering
Country of Manufacture	Pakistan
Year	2014
Type/Model	Vertical HRSG
Heat source	Exhaust Flue Gas
HP Steam pressure	17 bars
HP Steam temperature	355 Deg. Celsius
HP Steam flow	1.7 TPH
List of Parameters recorded at Online Boiler Water Analyser	PH, Conductivity, Oxygen, Silica



Make: DESCSON	**Type: Water Tube**
Rated Capacity: 1.7 ton/hr	**Rating: 17 barg, 350 C**

Annexure C

Safety Guidelines

Safety Guidelines for Handling, Lifting, and Transportation of Material

The following safety requirements shall be strictly complied with by the successful bidder and their personnel during inspection, sampling, handling, lifting, and transportation of material from KE premises.

a) **General Safety Compliance:** All activities involving dismantling and lifting shall be carried out strictly in accordance with KE's Health, Safety, Environment, Quality (HSEQ) policies, regulations, and all relevant environmental and fire safety laws. Any non-compliance with the prescribed safety requirements may result in immediate suspension or termination of operations at the sole discretion of KE.

b) **Personal Protective Equipment (PPE):** All personnel engaged by the successful bidder shall mandatorily wear appropriate personal protective equipment at all times, safety helmets, safety shoes, safety gloves, and safety goggles or face shields. Respiratory protection equipment shall also be used wherever required based on site conditions and risk assessment.

   Additionally, at least 20% spare/buffer PPEs should be available on-site. For SPE (Special Protective Equipment), the contractor must ensure the availability of certified and tested safety harnesses, chemical suits, full-face masks, and other equipment in good condition to ensure maximum safety during operations. Personnel Protective Equipment shall be selected based on the specific work requirements. Before commencing work, a Work Permit, Hazard Risk Assessment for each activity and other relevant safety checks must be completed. In dust-prone areas, dust masks must be provided to all personnel, along with goggles for chemical handling, face shields for cutting and welding, where applicable.

c) **Equipment and Vehicle Requirements:** The successful bidder shall ensure that all vehicles deployed for lifting of material have valid vehicle fitness certificates. The drivers and operators engaged for transportation of material shall hold valid and applicable driving licenses and authorizations required under the prevailing laws for operating such vehicles. KE reserves the right to inspect and reject any equipment, vehicle, driver, or operator deemed unsafe, unsuitable, or non-compliant with applicable requirements. KE reserves the right to inspect and reject any equipment or vehicle deemed unsafe or unsuitable.

d) **Static Electricity and Earthing:** The successful bidder shall ensure that proper earthing and bonding arrangements, where applicable, are in place to eliminate the risk of static electricity buildup. Anti-static measures and devices shall be effectively implemented by the successful bidder throughout the operation.

e) **Fire Prevention and Control:** Smoking, use of open flames, and presence of any ignition source shall be strictly prohibited within operational areas. The successful bidder shall ensure that adequate firefighting arrangements are readily available at all times, including appropriate fire extinguishers such as foam or dry chemical types, and that personnel are trained in their proper use.

f) **Spill Prevention and Environmental Protection:** The successful bidder shall ensure that all necessary precautions are taken to prevent oil spills, if any, during transfer, handling, and transportation. Suitable spill Containment, if applicable and control equipment shall be kept readily available at site. In the event of any spill or environmental contamination, the successful bidder shall be solely responsible for immediate containment, reporting, cleanup, and remediation at their own cost and risk, to the entire exclusion of KE.

g) **Safe Handling and Transfer Operations:** All operations shall be carried out under the supervision of trained and competent personnel.

h) **Post-delivery responsibility**: Upon release of the material from KE premises, all risks, responsibilities, and liabilities associated with transportation, storage, handling, use, environmental compliance, and regulatory compliance shall rest solely with the successful bidder. The successful bidder shall obtain and maintain any and all relevant licenses, permits, approvals, clearances, certifications, and authorizations as required under applicable laws. Any costs, penalties, fines, imposed by any other competent authority arising from non-compliance by the successful bidder, its personnel, vehicles, contractors, or agents shall be borne solely by the successful bidder, and KE shall have no liability whatsoever in this regard.

i) **Emergency Preparedness:** The successful bidder shall ensure that adequate emergency response arrangements are in place, including availability of trained personnel, first aid facilities, and awareness of site-specific emergency procedures and evacuation routes. KE reserves the right to halt any activity in the event of unsafe conditions or inadequate emergency preparedness.

j) **Safety Induction/ orientation:** All personnel must attend the safety induction before commencing the disposal activities, further.

- In case of an emergency, immediately alert the site supervisor, evacuate to the designated assembly point, and follow emergency response procedures.
- Report any incidents/ near misses to the site safety officer without delay, and ensure incident reports are filled out accurately.
- Brief about understanding site-specific hazards and safety protocols Major hazards at the location include chemical exposure, heavy machinery etc.
- Do's: Dispose of waste responsibly, follow site rules, and maintain cleanliness. always wear the provided PPE and follow safety signs
- Don'ts: Smoke outside designated areas, take photographs without permission, or tamper with safety equipment etc.

k) **Method Statement Implementation:** Prior to the commencement of any work, the successful bidder shall submit a detailed method statement with due risk assessment and toolbox talk, required for the dismantling and disposal of the material.

l) **Working procedures and schedule of work:** The successful bidder shall submit daily working schedules showing list and duration of all activities to be carried out at site. These procedures and schedules shall be submitted before the commencement of work throughout the duration of work. The same shall be submitted to the nominated on-site representative of plant. The progress of work shall be checked on a day-to-day basis as per daily work schedule submitted by the successful bidder and a daily progress report shall be shared by the successful bidder at the end of the day to the nominated plant representative.

m) **Deployment of Safety Lead:** A suitably qualified and experienced Safety Lead shall have to be deputed by the successful bidder to monitor the safety measures during the work. The safety lead should also have enough safety supervisors to cover each and every activity of site. As such a suitably qualified/certified and experienced safety personnel shall have to be deputed by the contractor to monitor the safety measures during the works. The safety supervisor will be separated from the site supervisor. The safety supervisor must be an experienced industry professional with relevant safety expertise, such as hazard identification, risk assessment, and implementation of mitigation controls. The safety supervisor is required to be present on-site during the activities. Additionally, the supervisor must be authorized to exercise the 'Stop Work Authority' to halt any unsafe operations immediately.

n) **Arrangement of Utilities/Resources**: The Successful bidder shall at its own cost all utilities and resources required for execution of works, including but not limited to electricity, compressed air, water (generator, compressor etc). The successful bidder shall also make its own arrangements of pipe, fittings, cables, switches, circuit breakers and fuses, etc., where required, under the supervision of a licensed electrician/technician.

o) **Removal of Insulation**: Where applicable, the successful bidder shall safely remove dispose off all insulation, cladding and refractory from piping and equipment prior to the commencement of the dismantling activities in accordance with applicable environmental and waste disposal regulations.

p) **Removal of Oil and Chemical**: Where applicable, the successful bidder shall safely remove and dispose off all oil and Chemical from piping and equipment and associated systems prior to the commencement of dismantling activities in accordance with all applicable environmental and waste disposal regulations.

q) **Safety and security of contractor equipment and material**: The successful bidder shall be solely responsible for the safety, security, maintenance and protection of all equipment, parts and materials, and other assets brought by the contractor at site. KE shall not be liable for any loss, theft or damage thereto.

r) **Tools, and fixtures:** The quality and quantity of all the material, tools, and fixtures to be used by the successful bidder for carrying out the disposal activities, when brought on site, shall be inspected and checked by the authorized personnel of KE. Lifting tools and equipment/vehicles should have valid certification from third party.

s) **Site Remediation Plan:** The successful bidder will submit the detailed plan for the remediation of plant site which shall include but not limited to all the openings in the buildings which will emerge due to removal of piping and equipment.

t) **Lifting Tools and vehicles**: When work involves lifting & rigging, the successful bidder shall submit a detailed separate method statement and risk assessment. As such, all lifting tools, machinery and vehicles (cranes, riggers etc.) involved in the process should be certified, calibrated and tagged by third party. For all vehicles, the driver should have valid and relevant driving license along with third party certification. Vehicles should have valid fitness certificate. Standard signaling systems will be used for crane movements. All lifting certificates and test reports must be available and can be produced at any time at the plant site. Additionally, lifting equipment operators must have an HTV license and a defensive driving training certificate.

u) **Working at height:** Where activity will involve working at height, the types of equipment which may be used to minimize risk while working at height must include material such as, but not limited to, general access scaffold, mobile scaffold towers, mobile elevated work platform, man basket, fall protection systems etc. The erection, alternation or dismantling of any scaffolding must be carried out by third party certified scaffolders and verified/tagged by certified scaffolding Inspector deputed by the successful bidder. Scaffolding shall be built in accordance with KE HSEQ requirements for working at height. Personnel(s) working at height should use tested full body harness with shock absorbers.

v) **Confined Space:** When work within a confined space is required, the successful bidder shall submit a separate method statement & risk assessment of work to the authorized personnel of KE. Confined space certificate shall be prepared and all requirements of confined space works shall be fulfilled by the successful bidder permit holder for clearance of work.

w) **Hot work:** Hot Work includes, but is not limited to, welding, brazing, cutting, and grinding. Hot Work of aforementioned types are fire hazards. A Hot Work Certificate issuance requirement shall be met by the successful bidder in order to carry out hot works with a safety document whenever there is a need for hot work to be carried out. Hot work areas need to barricaded and the staff deployed by the successful bidder must ensure the availability of welding blanket and fire extinguishers. Additionally, all gas cutters are to be fitted with surge arresters.

x) **Electrical Equipment:** All electrical equipment, such as generators, grinders, welding plants, etc., shall be inspected by a competent electrician appointed by the contractor. The inspection findings will be recorded in accordance with the KE SP 12 checklist. Electrical equipment operating in HAC zones must have relevant ratings (e.g., ATEX, IP, etc.). The electrical distribution board (DB) must be equipped with an ELCB to provide protection against electrical faults. Load limitations should be clearly indicated on the DB to prevent overloading and ensure safe operation. Regular inspection and testing of DB are essential to maintain safety standards throughout the demolition process. Additionally, proper earthing and isolation procedures must be strictly followed when working near or on the electrical distribution board to prevent accidents. No torn or damaged wires, extension reels, or similar equipment will be permitted on-site.

y) **Excavation Works:** When excavation activities are required, the successful bidder shall submit a separate method statement & risk assessment of work to the authorized personnel by KE. Cable Avoidance Tool (CAT) for buried cables and lines will be done prior to commencement of work. The successful bidder must have a certified live line detector for confirmation of no underground buried services. Additionally, all machines involved in excavation should be certified & inspected.

z) **Incident Reporting:** The successful bidder shall immediately report all accidents, incidents, near misses, unsafe acts, unsafe conditions, environmental spills, property damage, and injuries to KE. A detailed investigation report, including root cause analysis and corrective actions, shall be submitted to KE in two working days.

aa) **Housekeeping:** The successful bidder shall maintain good housekeeping throughout the work site. All work areas shall be kept clean, orderly, and free from debris, scrap materials, oil spills, and other hazards at all times. Upon completion of the works, the successful bidder shall carry out final cleaning of the work area to the satisfaction and subject to the approval of KE prior to demobilization.

bb) **Toolbox Talk:** Toolbox talk will be done by the successful bidder's team with KE personnel on daily basis before the execution of work at site.