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National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/R/DG(Lic)/LAG-18/5782-90

April 18, 2025

Mr. Shahab Qader Khan
Chief Executive Officer
Kot Addu Power Company Limited
5 B/3, Gulberg-III, Lahore

Subject: **DETERMINATION OF THE AUTHORITY IN THE MATTER OF APPLICATION OF KOT ADDU POWER COMPANY LIMITED FOR EXTENSION OF ITS GENERATION LICENCE/GRANT OF GENERATION CONCURRENCE**

Reference: KAPCO letter No. KAPCO/CEO/2024/504 dated 14.06.2024

The Determination of the Authority in the matter of application of Kot Addu Power Company Limited (KAPCO) for extension of its Licence/grant of Generation Concurrence (IGSP/C/01/2025) alongwith dissent note of Mr. Rafique Ahmed Shaikh, Member NEPRA is attached herewith. Please note that the Determination of the Authority contains (12 pages) whereas the Concurrence consists of Face Sheet (single page), Articles of Concurrence (07 pages), Schedule I (10 pages) and Schedule II of Concurrence (02 pages).

2. Please quote above mentioned Generation Concurrence No. for future correspondence.

Enclosure: As Above


(Wasim Anwar Bhinder)

Copy to:

1. Secretary, Power Division, Ministry of Energy, 'A' Block, Pak Secretariat, Islamabad
2. Managing Director, Private Power & Infrastructure Board (PPIB), Ground & 2nd Floors, Emigration Tower, Plot No. 10, Mauve Area, Sector G-8/1, Islamabad
3. Managing Director, NTDC, 414 WAPDA House, Lahore
4. Chief Executive Officer, CPPA(G), 73 West, A.K. Fazl-ul-Haq Road, Blue Area, Islamabad
5. General Manager, National Power Control Centre (NPCC – NTDC), Faiz Ahmed Faiz Road, H-8/1, Islamabad
6. Chief Executive Officer, Multan Electric Power Company, MEPCO Headquarters, Khanewal Road, Multan
7. Chief Executive Officer, Faisalabad Electric Supply Company, FESCO Headquarters, West Canal Road, Abdullahpur, Faisalabad
8. Director General, Environmental Protection Department, Government of the Punjab, National Hockey Stadium, Ferozpur Road, Lahore

National Electric Power Regulatory Authority
(NEPRA)

Determination of the Authority
in the Matter of Application of Kot Addu Power Company Limited
for Extension of its Generation Licence/Grant of Concurrence

April 18, 2025
Case No. LAG-18

(A). Background

(i). The Authority in terms of Section-15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act") granted a Generation Licence (No. IPGL/020/2004, dated September 22, 2004, Modification-I dated September 08, 2022) to Kot Addu Power Company Limited (KAPCO) for its 1600.00 MW generation facility located at Kot Addu, Punjab.

(ii). The Authority initially fixed the term of the abovementioned licence to seventeen (17) years from the date of its issuance (i.e. September 22, 2004). Later on, the Authority further extended the term of the Generation Licence of KAPCO for a period of three (03) years i.e. till September 21, 2024.

(B). Filing of Application

(i). KAPCO in accordance with Regulation-13 of the NEPRA Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 (the "Licensing Regulations"), submitted an application for extension/renewal in term of its generation licence on June 21, 2024, restricting the capacity to 550 MW instead of 1600 MW.

(ii). In consideration of the above, KAPCO stated that its Generation Licence (No. IPGL/020/2004, dated September 22, 2004) had an original term of seventeen (17) years which expired on September 21, 2021. The Authority extended the term of the same for another period of three (03) years which has also expired. In consideration of the said, the company/KAPCO requests the Authority



to further extend the term of its Generation Licence for another period of seven (07) years, restricting the installed capacity to the extent of approximately 500 MW.

(iii). About "statement of the reasons in support of extension", the company/KAPCO submitted that its generation facility had operated successfully for more than twenty five (25) since its commissioning and had supplied electric power to the National Grid. Further, it was stated that its original Power Purchase Agreement (PPA) has completed its term. In consideration of the said, the company/KAPCO carried out a study through an independent consultant and hired the service of Ramboll Energy of UK to determine the remaining useful life of the generation facility for any further operation. In this regard, the Remaining Useful Life Assessment Study (the "RULA" Study has confirmed that the generation facility has a remaining useful life of seven (07) years. Further, KAPCO submitted that according to the approved Indicative Generation Capacity Expansion Plan (IGCEP) 2022-31, National Transmission and Despatch Company Limited (NTDC) has considered minimum despatch of 500 MW from its generation facility for the months of May to September up till year 2025 MW owing to various network constraints and the reasons of systems reliability. Further, NTDC in the submitted IGCEP for 2024-34 has duly considered approximately 500 MW capacity of KAPCO to be retained in the system up till June 2027.

(iv). In consideration of the above, KAPCO stated that the proposed extension in the licence will ensure: (a). it duly caters the requirements of IGCEP; (b). it is in line with remaining useful life of the generation facility; and (c). participation in the CTBCM once it becomes operational; (d). stability and reliability of the system due to significance of location of facility, fuel flexibility and storage capacity; (e). provision of ancillary services to the System Operator (SO) as per request; (f). critical operation of facility for supplying power to Multan Electric Power Company Limited (MEPCO) and NTDC during summer season due to increase in demand; and (g). black-start facility to support the system after the complete black-out; and (h). availability of 220/132 kV switchyard for supplying to MEPCO at 132 kV level.



(C). Processing of Application

(i). After completion of the requirement as stipulated under the Regulation-13(1) of the Licensing Regulations, the Authority considered it appropriate to publish the notice in the press for information and comments of general public.

(ii). Accordingly, the required public notice was published on January 23 & 24, 2025 in one (01) English and one (01) Urdu newspaper informing the general public, interested/affected parties, and different stakeholders about the submissions of KAPCO pertaining to its request for extension in the generation licence.

(iii). Apart from the above, separate letters were also sent to government ministries, their attached departments and representative organizations etc. on January 28, 2025, inviting their views and comments in the matter for assistance of the Authority.

(D). Comments of Stakeholders

(i). In response to the above, the Authority received comments from seven (07) stakeholders. These included Faisalabad Electric Supply Company Limited (FESCO), Alliance for Climate Justice & Clean Energy (ACJCE), Pakistan State Oil (PSO), Central Power Purchasing Agency (Guarantee) Limited (CPPA-G), MEPCO, Sui Northern Gas Pipelines Limited (SNGPL) and Petroleum Division of Ministry of Energy (PtDMoE). The salient points of the comments offered by the said stakeholders are summarized in the following paragraphs:

- (a). FESCO submitted that PPA for the generation facility was executed and had a term of twenty-five (25) years (commencing from June 27, 1996) and the same expired on June 21, 2021. The term of the PPA was further extended up till October 24, 2022 for another period of 485 days. On the said, CPPA-G requested to extend the term of generation licence in line with the PPA however, the Authority renewed the term of generation licence of KAPCO for a period of three



(03) years i.e. till September 21, 2024. Further, the Authority through its determination dated May 20, 2024 in the matter of Combined Power Acquisition Program (PAP) that XW-DISCO(s) had submitted retained an approximate capacity of 500 MW of KAPCO for a limited period of time i.e. upto FY 2025-26 to meet with the transmission and other network constraints. In view of the said, the further extension in the term of the generation licence of KAPCO may be considered;

- (b). ACJCE in its submitted comment made various observations on the request of KAPCO and stated that the country has imported solar panels to the tune of 18.00 GW in the last two years, resulting in changed planning scenario. The Govt. is trying to reduce the reliance on generation facilities in the private sector [i.e. Independent Power producers (IPP(s))] due to their inefficiency and higher costs. The utilization of KAPCO has been very low (i.e. 15.7% in the year 2023) which seriously questions its claims that it is required for grid stability and ancillary services. In this regard, it is pertinent to mention that the IGCEP 2024-2034 is still under review and approval of the Authority therefore, making reliance on it is not appropriate. NTDC must adopt new techniques/technologies for grid flexibility instead of allowing KAPCO to continue its operation after the expiry of its PPA. There is a need to adopt for modernization of the grid and investment in Distributed Energy Resources (DERs) instead of extending contracts for fossil fuel based plants. The delay in adopting the new technologies for grid flexibility, the Renewables Energy (RE) resources are underutilized despite research showing their potential for maintaining the reliability of the grid. The higher cost of KAPCO (42.51 Rs/kWh + 14 billion rupees in capacity payments) contradicts the Alternative and Renewable Energy Policy 2019 (ARE Policy 2019), which aims to



replace costly fossil fuel plants with RE. The relevant rules require least-cost options which KAPCO does not fulfil being expensive & operated on imported fossil fuel, adds to emissions and contradicts the commitments of the country on climate change. KAPCO is located in close proximity to residential and agricultural areas and has caused health and environmental issues previously. The infrastructure of KAPCO is more than three decades old and there is no transparency on its decommissioning plans. The Environmental Impact Assessment (EIA) lacks key details and an independent review of the same is necessary. In consideration of the above, ACJCE strongly opposed the grant of extension in the generation licence for the various reasons including economic, environmental, and policy misalignment issues and urged to have greater transparency by having public consultation with local affected communities before any decision;

- (c). CPPA-G submitted that National Power Control Center (NPCC) had highlighted the requirement of KAPCO in case of termination of the contract of plants of Nishat Lalpir and Nishat PakGen in the same areas, for the reasons that it is a multifuel generation facility and has operational flexibility, better efficiency and availability of provision of black start facility. The IGCEP 2022-31 that the Authority had approved also mentioned the requirement of generation from KAPCO due to network constraints. Furthermore, the Authority had already considered generation to the tune of 500 MW from KAPCO while approving the combined PAP of XW-DISCO(s) for FY 2022-23 to FY 2026-27. Further to the said, CPPA-G also submitted that Power Division of Ministry of Energy (PDMoE) has forwarded the decision of the Cabinet in the matter of KAPCO wherein, it has been desired the Authority to consider and issue the tariff for KAPCO to the extent of the requirements of the grid. Moreover, the Authority has also been





advised to amend the NEPRA (Electric Power Procurement) Regulations, 2022 thus enabling CPPA-G & NTDC to enter into tripartite PPA with KAPCO;

- (d). MEPCO submitted that the Authority approved the combined PAP of XW-DISCO(s) wherein to the extent of about 500 MW capacity of KAPCO was considered, keeping in view the transmission related constraints of the system and according to the said, MEPCO has a share of 85 MW in the years 2024-25 and 2025-26. If the generation licence of KAPCO is extended, the same may be considered as part of pool and capacity may be allocated as per commercial code criteria. In the scenario, where MEPCO is the only power purchaser, it may not be able to sustain the financial burden of the same. In this regard, it was expressed that NTDC may bear the financial implication resulting due to KAPCO instead of XW-DISCO(s) or MEPCO only;
- (e). PSO contested that revised PPA includes the provision for payment at LSFO price and also covers the settlement of a previous claim of an outstanding amount of Rs. 1,963,276,134/- and Rs. 361,600,998/- against differential claims for cargo 183 and cargo 184 which are pending accordingly, KAPCO is required to pay the same for its operational stability;
- (f). SNGPL highlighted that KAPCO has outstanding dues amounting to Rs. 2,251 million which are payable and are detrimental to sustainability and may jeopardize its overall financial health. In view of the said, the Authority may consider the said submissions while evaluating the case of KAPCO for the renewal of its licence; and
- (g). PtDMoE referred to the above comments of SNGPL and requested to consider same before proceeding further in the matter.



(ii). The Authority considered the above comments of stakeholders and in view of observations made, decided to seek the perspective of the company/KAPCO in the matter. On the comments of FESCO, it was submitted that the application for extension/renewal of its generation licence/grant of concurrence was submitted in light of requirements of NTDC for which the Federal Cabinet had already approved the draft tripartite PPA for a term of three (03) years. KAPCO submitted that its capacity of approximately 500 MW had already been envisaged in the approved Combined PAP of XW-DISCO(s) for the reasons of various transmission constraints in the area.

(iii). On the observations of ACJCE, it was submitted that any RE power including that of solar is intermittent in nature and is available only in the presence the natural resource of sun or wind as the case may be not only causing reliability and stability issues in the system but also requiring availability of the fossil fuel based generation to make up the absence of the RE source. About the low utilization of the generation facility of KAPCO (to the tune of 15.7%) in 2023, the same was due to a major flood in the country the same year and also the expiry of the PPA. In this regard, KAPCO submitted that during the year 2022, its generation facility had a load factor of 42.4%, meaning thereby that it remained a reliable source of generation in its area. Further, KAPCO submitted that considerable projects are in pipeline which will enhance the portfolio of the RE in the country but at the same there is requirement of a stable source of generation in the area, requiring the availability of its generation facility in the system of National Grid to ensure a stability and reliability of the system during this transitional period. In view of the said, NTDC has identified a quantum of approximately 500 MW from KAPCO as envisaged in the approved IGCEP of 2022-31 as well as the subsequently submitted iteration of IGCEP for 2024-34. Further, KAPCO submitted that its generation facility consists of a combination of Gas Turbine(s) and Steam Turbine(s) working in a Combined Cycle mode which is not only more efficient than other thermal plants in the area including Nishat Lalpir, Nishat Pakgen, and state-owned generation facility of TPS Muzaffargarh but also have more flexibility.



(iv). Further to the above, KAPCO submitted that it plays a critical role in stabilizing the grid in the areas of the districts of Kot Addu, Muzaffargarh, Layyah, and Bhakkar and that is why NTDC, NPCC and MEPCO are emphasizing on the extension of PPA with a limited capacity of approximately 500 MW. KAPCO stated it uses Low Sulphur Furnace Oil (LSFO) from a local refinery of Attock Petroleum Limited, reducing reliance on expensive imported fuel and supporting domestic oil sector operations of the refinery. The National Electricity Policy 2021 also supports a progressive transition to RE therefore, shutting down the facility of KAPCO abruptly will not only result in disruption in the local oil supply chain but also the stability and reliability issues of the National Grid. About the environmental issues, KAPCO submitted that it follows the ISO certified environmental management systems and the EPA-certified consultant regularly monitors the compliance of the Pakistan Environmental Protection Act of 1997. In this regard, as per latest Punjab EPA compliance report, it has been confirmed that KAPCO meets and fulfils the environmental standards. In this regard, KAPCO has received a Certificate of Appreciation from the National forum for Environment and Health in 2024. Further, KAPCO is actively involved in Corporate Social Responsibility activities in the area with a total contribution of Rs. 218.8 million in various segments providing facilities of health, drinking water and education to the local population.

(v). On the concerns of PSO, it was commented that KAPCO is obligated to pay only the HSFO price to PSO. In this regard, CPPA-G will directly settle the price differential, if any, and failure to pay the same does not constitute a default of KAPCO therefore, the matter may be taken up accordingly at the appropriate forum. About the concerns of SNGPL, KAPCO submitted that it has been making payments for the supply of Re-gasified Liquefied Natural Gas (RLNG) supplies in accordance with the Gas Supply Agreement/ Tri-Partite Agreement of RLNG. The mentioned amount pertains to a late payment surcharge which is under dispute. SNGPL has been requested to reconcile the amounts as per the agreement between KAPCO, SNGPL, and CPPA-G. Following the reconciliation, KAPCO will settle the agreed payable amount.



(vi). The Authority considered the submissions/observations of the various stakeholders and the rejoinder of KAPCO submitted in the matter and found the same plausible. In view of the said, the Authority considered it appropriate to proceed further in the matter as stipulated in the applicable documents.

(E). Observation/Findings

(i). The Authority has considered the entire case in detail including the already granted Generation Licence of KAPCO, its submitted application for extension (including the RULA Study), comments of stakeholders, rejoinders that the company had submitted and provisions of the NEPRA Act, relevant rules & regulations. In this regard, the observations of the Authority in the matter are summarized in the following paragraphs.

(ii). The generation facility of KAPCO consisted of ten (10) Gas Turbines [GT(s)], ten (10) Heat Recovery Steam Generators [HRSG(s)] and five (05) Steam Turbines [ST(s)] working as a Combined Cycle Power Plant (CCPP). The GT(s), HRSG(s) and ST(s) had been arranged in three (03) blocks such that GT-13 & 14 and ST-15 forms Energy Block-I, GT-1 and ST-9 forms Energy Block-II(A) whereas GT-2,5,6,7 & 8 and ST-10,11 & 12 forms the Energy Block-II(B). The GT-3 & 4 and ST-9 & 10 forms Energy Block-III. In this regard, GT-1, 2, 3 & 4 and ST-9 & 10 are connected at 132 KV voltage level whereas, GT-5,6,7,8,13 & 14 and ST-11,12 & 15 are connected at 220 KV voltage level. It is pertinent to mention that the above units were commissioned during the period 1987-1996 and according to the RULA Study these units may be operated safely for another period of ten (10) years from 2021 onwards. Further, the Authority has also observed that the efficiency of generation facility as CCPP ranges from 42-47% depending upon the fuel used for generation of electric power.

(iii). According to the submitted application, KAPCO has requested to further extend the term of its generation licence to the extent of 550 MW (with a net capacity of 500 MW) which comprises of Energy Block-I and Energy Block-IIA for another seven (07) years which has expired on September 21, 2024. In this regard, Regulation-13 of the Licensing Regulations envisages that the Authority may extend or renew the term of a licence if it: (a). is in the interests of the consumers



and the electric power industry as a whole; (b) is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to consumers, keeping in view the financial and technical viability of the licensee; (c) is suitable on environmental grounds; and (d) is justified keeping in view the performance of the licensee during the expiring term. Further, the Authority in terms of Rule-5(2) of the NEPRA Licensing (Generation) Rules 2000, has to consider the performance of the licensee, interests of the consumers and the electric power industry as a whole.

(iv). In consideration of the above, the Authority has observed that the SO/NTDC after a detailed analysis has submitted that it shall require the generation facility of KAPCO for the reliability and stability of the system till 2027-28 during the months of May to September in order to meet the high demand in the region of MEPCO. It is pertinent to mention that in the area adjoining KAPCO there are at least 15 grids of MEPCO which require the operation of the facility due to overloading of the Auto Transformers at various grids. In view of the said, in the summer season non-operation of power plant will result in overloading of the said transformers, forced loadshedding and risk to the stability of system. Further, due to termination of contracts of the generation facilities of Nishat Lalpir, Nishat Pakgen Power and Rousch Power as well as non-operation of TPS Muzaffargarh there will be no generation in the specific area. Therefore, the Authority considers that it will be in the interest of the consumers to operate the generation facility of KAPCO to protect them from unnecessary load-shedding in the humid months of summer. Further, the operation of KAPCO will be necessary to support the transmission network of NTDC and the same will be beneficial to electric power industry/system of the country to avoid any major breakdown. As explained above, the possibility of major breakdown will be definitely be avoided as the abovementioned contracts have been terminated and only generation from KAPCO is available for stability of the system. The Authority is of considered view that the proposed extension is suitable on environmental grounds considering the fact that the generation facility has RLNG and LSFO as its fuel. In this regard, RLNG is considered as cleanest fossil fuel whereas LSFO is far superior when compared to HSFO. The performance of KAPCO during the past term of its Generation Licence has been satisfactory in terms of PPA and that is why CPPA-G as a Power Purchaser has not highlighted anything adverse in the matter but has explicitly supported the same. In view of the



said, the Authority is of the view that the request of KAPCO for allowing further operation of its generation facility is worth considering as the same will be helpful in maintaining the reliability of the National Grid.

(F). Decision of the Authority

(i). In consideration of the above, the Authority is satisfied that KAPCO has complied with all the requirements of the provisions of the NEPRA Act, relevant rules & regulations therefore, it has case for it to be considered. The Authority has further observed all the stakeholders especially the utilities (including FESCO & MEPCO) and the proposed Purchaser/CPPA-G have highlighted the importance of KAPCO for the reliable and stable operation of the network of the National Grid. However, one of the stakeholders i.e. ACJCE has opposed the request of KAPCO for the reason that instead of fossil fuel plants, the projects on RE may be considered. In this regard, the Authority likes to highlight its commitment to promote RE in the country however, at the same time it is critical to maintain and operate the system in a stable & reliable of the system of the National Grid. It is pertinent to mention that due to variable nature of RE resources there is always a requirement to have a stable resource of power generation which is mostly achieved using the fossil fuels. In this regard, ACJCE has not realized this aspect therefore, the observations of ACJCE are not considered relevant to the scope of the request of KAPCO. The Authority has also received a letter from PDMoE wherein it has communicated the decision of the Federal Cabinet/Govt. allowing the parties to execute a tripartite PPA with KAPCO having a term of three (03) years.

(ii). The Authority has observed that the Section-14B(5) of the NEPRA Act envisages an end to the regulatory regime pertaining to the grant of the Generation Licence but at the same time it has introduced another regulatory instrument for the new generation facilities which is concurrence and has the same level of sanctity attached to it considering the fact that it will require all the studies which are for the grant of the generation licence. Further, it is also pertinent to mention that it is not possible that only new generation facilities are asked for concurrence but other generation facilities are totally left without any such regulatory instrument of this sort. In this regard, the Authority has observed that the PPA of KAPCO had already expired and even the size of the generation facility has



been limited to around 550 MW instead of its original installed capacity of 1600 MW therefore, for all practical purpose it is now a new generation facility therefore, there is a case for the grant of concurrence under Section-14B(5) of the NEPRA Act.

(iii). In consideration and for the reasons explained above, the Authority hereby approves the grant of Concurrence for the generation facility of KAPCO located at Kot Addu, Punjab. Accordingly, this concurrence shall become effective from the date of its issuance and shall be co-terminus with the term of PPA which shall not extend beyond the period of three (03) years from the date of its signing. The grant of concurrence shall be subject to the provisions contained in the NEPRA Act, relevant rules, regulations framed thereunder and other applicable documents.

Authority

Engr. Maqsood Anwar Khan
(Member)

Maqsood Anwar Khan

My dissent is attached.

Rafique Ahmed Shaikh
(Member)

Rafique Ahmed Shaikh

Mathar Niaz Rana (nsc)
(Member)

On Leave

Amina Ahmed
(Member)

Amina Ahmed

Waseem Mukhtar
(Chairman)



Waseem Mukhtar

In the presence of available surplus and more economical 'Take or Pay' generation capacity, granting concurrence to KAPCO under the same 'Take or Pay' regime may impose an additional and unnecessary financial burden on the power sector. Therefore, I am of the considered opinion that any concurrence should be extended strictly on a 'Take and Pay' basis. For a clearer understanding of my dissenting position, a detailed note on the KAPCO tariff decision is attached herewith.



Kuwari

Additional Note of Member (Technical) – Interim Tariff Request filed by KAPCO

It is a well-established fact that the installed generation capacity in the CPPAG system, as of June 2024, totalling around 42,512 MW, including around 25000 MW of thermal generation, exceeds the current demand. The utilization of thermal generation capacity in the past two financial years, FY 2023 and FY 2024, remained at around 32% and 29%, respectively. Furthermore, a significant portion of this surplus capacity available in pool is more cost-effective than the proposed interim tariff by KAPCO. Additionally, it is important to note that this is not the first time the case for extending the operation of KAPCO power plant has been presented to the Authority. Previously, the Authority approved an extension of 485 days for this plant.

It is important to note that, when renewing the Generation License for KAPCO on September 8, 2022, for a period of three years, the Authority explicitly directed the NTDC and MEPCO to resolve the identified technical issues within this timeframe. These issues were causing KAPCO to operate in violation of the Economic Merit Order (EMO). Unfortunately, despite the clear direction from the Authority, and with only six months remaining in the three-year period, the situation has not improved as required.

It is relevant to highlight that, on one hand, all stakeholders are working diligently to eliminate costly "Take or Pay" generation capacity. On the other hand, the extension for operation of KAPCO's more expensive generation capacity is being proposed on a "Take or Pay" basis, citing transmission and grid constraints. Moreover, it is worth mentioning that the 4,000 MW HVDC line, built to transfer cheaper generation from the south to the north, is operating at a low utilization rate (around 38 % during FY 2024) despite the full capacity payment charges being paid for.

The failure to address these issues has resulted in a situation where the country is unable to optimally utilize its more economical and indigenous energy resources in the South, primarily due to the limitations of the transmission system. Consequently, we find ourselves reinvesting in outdated and inefficient generation capacity, further exacerbating the problem.

These facts highlight significant flaws in both the planning and execution of power generation and transmission system projects. It is unfair to shift the burden of these inefficiencies onto electricity consumers, particularly when these issues stem from inadequate planning and execution by the power transmission company.

In light of the responsibilities outlined for power transmission company, including NTDC and DISCOs in NEPRA Act and Applicable Documents, I am of the considered opinion that the interim tariff should be granted to this company strictly on a "Take and Pay" basis. However, whenever this plant operates in violation of the Economic Merit Order (EMO), the differential cost between the available cheaper generation and the cost of generation from the plant operated in violation of EMO should not be passed on to electricity consumers. Instead, this cost should be borne by the entities responsible for providing a constraints-free transmission system.



**National Electric Power Regulatory Authority
(NEPRA)
Islamabad – Pakistan**

GENERATION CONCURRENCE

No. IGSP/C/01/2025

In exercise of the powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section-14(B)(5) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, as amended or replaced from time to time, the Authority hereby grants a Concurrence to:

KOT ADDU POWER COMPANY LIMITED

Incorporated under the Companies Ordinance, 1984
having Certificate of Incorporation No. I-01977, dated April 25, 1996

**for its Combined Cycle Gas Turbine Based Generation Facility/
Thermal Power Plant located at Kot Addu,
in the Province of Punjab**

(Installed Capacity: 550.0 MW)

to engage in generation business subject to and in accordance with the Articles of this Concurrence.

Given under my hand on 18th day of April Two Thousand & Twenty-
Five

Naseem Khan
Registrar

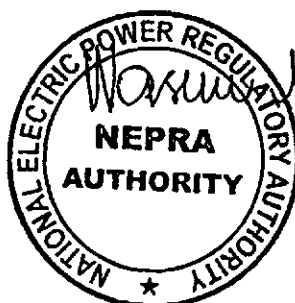


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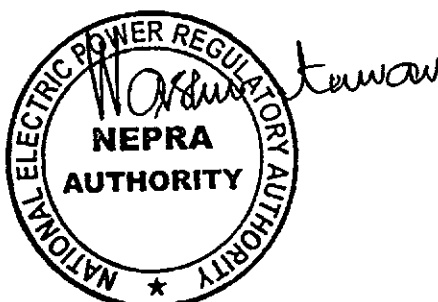
Article-1 **Definitions**

1.1 In this concurrence

- (a). "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 as amended from time to time;
- (b). "Applicable Documents" means the rules and regulations framed by the Authority under the Act, any documents or instruments issued or determinations made by the Authority under any of the foregoing or pursuant to the exercise of its powers under the Act, the Grid Code, the applicable Distribution Code, the Commercial Code, or the documents or instruments made by the Generation Company, in each case of a binding nature applicable to the Generation Company or, where applicable, to its affiliates and to which the Generation Company or any of its affiliates may be subject;
- (c). "Applicable Law" means all the Applicable Documents;
- (d). "Authority" means the National Electric Power Regulatory Authority constituted under Section-3 of the Act;
- (e). "Bus Bar" means a system of conductors in the generation facility/Thermal Power Plant of the Generation Company on which the electric power from all the generators is collected for supplying to the Power Purchaser;
- (f). "Commercial Code" or "Market Commercial Code" means the commercial code prepared and maintained by the Market Operator or its successors or permitted assigns pursuant to sections 23A and 23B of the Act and approved by the Authority, from time to time;



- (g). "Generation Rules" means the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 as amended or replaced from time to time;
- (h). "Grid Code" means the code prepared by NTDC as a system operator under section 23H of the Act and approved by the Authority;
- (i). "Generation Company" means Kot Addu Power Company Limited or its successors or permitted assigns;
- (j). "Licensing Regulations" mean the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 as amended or replaced from time to time;
- (k). "MEPCO" means Multan Electric Power Company Limited or its successors or permitted assigns;
- (l). "NTDC" means National Transmission and Despatch Company Limited or its successors or permitted assigns;
- (m). "Power Purchaser" means a person or registered entity/licence holder which will be purchasing electric power from the Generation Company, pursuant to a PPA for procurement of electric power;
- (n). "Power Purchase Agreement (PPA)" means the power purchase agreement, entered or to be entered into by and between the Power Purchaser and the Generation Company, for the purchase and sale of electric energy generated by the generation facility/Thermal Power Plant, as may be amended by the parties thereto from time to time;



- (o). "SCADA System" means the supervisory control and data acquisition system for gathering of data in real time from remote locations to control equipment and conditions;
- (p). "Thermal Power Plant " means a generation facility for production of electric power using fossil fuels as source;

1.2 The words and expressions used but not defined herein bear the meaning given thereto in the Act or Generation Rules and Licensing Regulations issued under the Act.

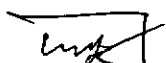
Article-2 **Applicability of Law**

This concurrence is issued subject to the provisions of the Applicable Law, as amended from time to time. The Generation Company shall comply with the provisions of the Applicable Law, guidelines, directions and prohibitory orders of the Authority as issued from time to time.

Article-3 **Generation Facilities**

3.1 The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facility/Thermal Power Plant of the Generation Company are set out in Schedule-I of this Concurrence.

3.2 The net capacity of the generation facility/Thermal Power Plant of the Generation Company is set out in Schedule-II of this Concurrence. The Generation Company shall provide the final arrangement, technical and financial specifications and other specific details pertaining to its generation facility/Thermal Power Plant.



Article-4 **Term of Concurrence**

4.1 This concurrence shall become effective from the date of its issuance and shall be co-terminus with the term of PPA which shall not extend beyond the period of three (03) years from the date of its signing.

4.2 Unless suspended or revoked earlier or Concurrence ceases to have effect, the Generation Company may apply for renewal of this Concurrence ninety (90) days prior to the expiry of the above term, as stipulated in the Licensing Regulations.

Article-5 **Annual fee**

The Generation Company shall pay to the Authority the annual fee as stipulated in the National Electric Power Regulatory Authority (Fees) Regulations, 2021 as amended or replaced from time to time.

Article-6 **Tariff**

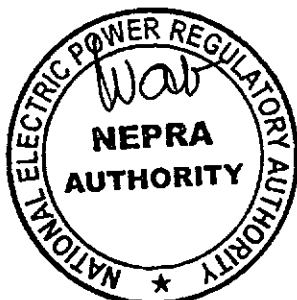
The Generation Company shall charge only such tariff from the Power Purchaser which has been determined, approved or specified by the Authority.

Article-7 **Competitive Trading Arrangement**

7.1 The Generation Company shall participate in such manner as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement.

7.2 The Generation Company shall in good faith work towards implementation and operation of the aforesaid Competitive Trading Arrangement in the manner and time period specified by the Authority. Provided that any such participation shall be subject to any contract entered into between the Generation Company and another party with the approval of the Authority.





7.3 Any variation or modification in the above-mentioned contracts for allowing the parties thereto to participate wholly or partially in the Competitive Trading Arrangement shall be subject to mutual agreement of the parties thereto and such terms and conditions as may be approved by the Authority.

Article-8
Maintenance of Records

For the purpose of sub-rule(1) of Rule-19 of the Generation Rules, copies of records and data shall be retained in standard and electronic form and all such records and data shall, subject to just claims of confidentiality, be accessible by authorized officers of the Authority.

Article-9
Compliance with Performance Standards

The Generation Company shall comply with the relevant provisions of the National Electric Power Regulatory Authority Performance Standards (Generation) Rules, 2009 as amended or replaced from time to time.

Article-10
Compliance with Environmental & Safety Standards

10.1 The generation facility/Thermal Power Plant of the Generation Company shall comply with the environmental and safety standards in accordance with the NEPRA Power Safety Code, 2021 and such other standards as may be prescribed by the relevant competent authority from time to time.

10.2 The Generation Company shall provide a certificate on a bi-annual basis, confirming that the operation of its generation facility/Thermal Power Plant is in conformity with required environmental standards as prescribed by the relevant competent authority.



Article-11
Power off take Point and Voltage

The Generation Company shall deliver the electric energy to the Power Purchaser at the outgoing Bus Bar of its generation facility/Thermal Power Plant. The Generation Company shall be responsible for the up-gradation (step up) of generation voltage up to the required dispersal voltage level.

Article-12
Provision of Information

In accordance with provisions of Section-44 of the Act, the Generation Company shall be obligated to provide the required information in any form as desired by the Authority without any exception.

Article-13
Corporate Social Responsibility

The Generation Company shall comply with the NEPRA Social Investment Guidelines, 2021, as may be amended from time to time and submit a report on its activities pertaining to Corporate Social Responsibility (CSR) on an annual basis.

Article-14
Compliance with the Cyber Security Regulations

The Generation Company shall comply with National Electric Power Regulatory Authority (Security of Information Technology and Operational Technology) Regulations, 2022 as amended from time to time.





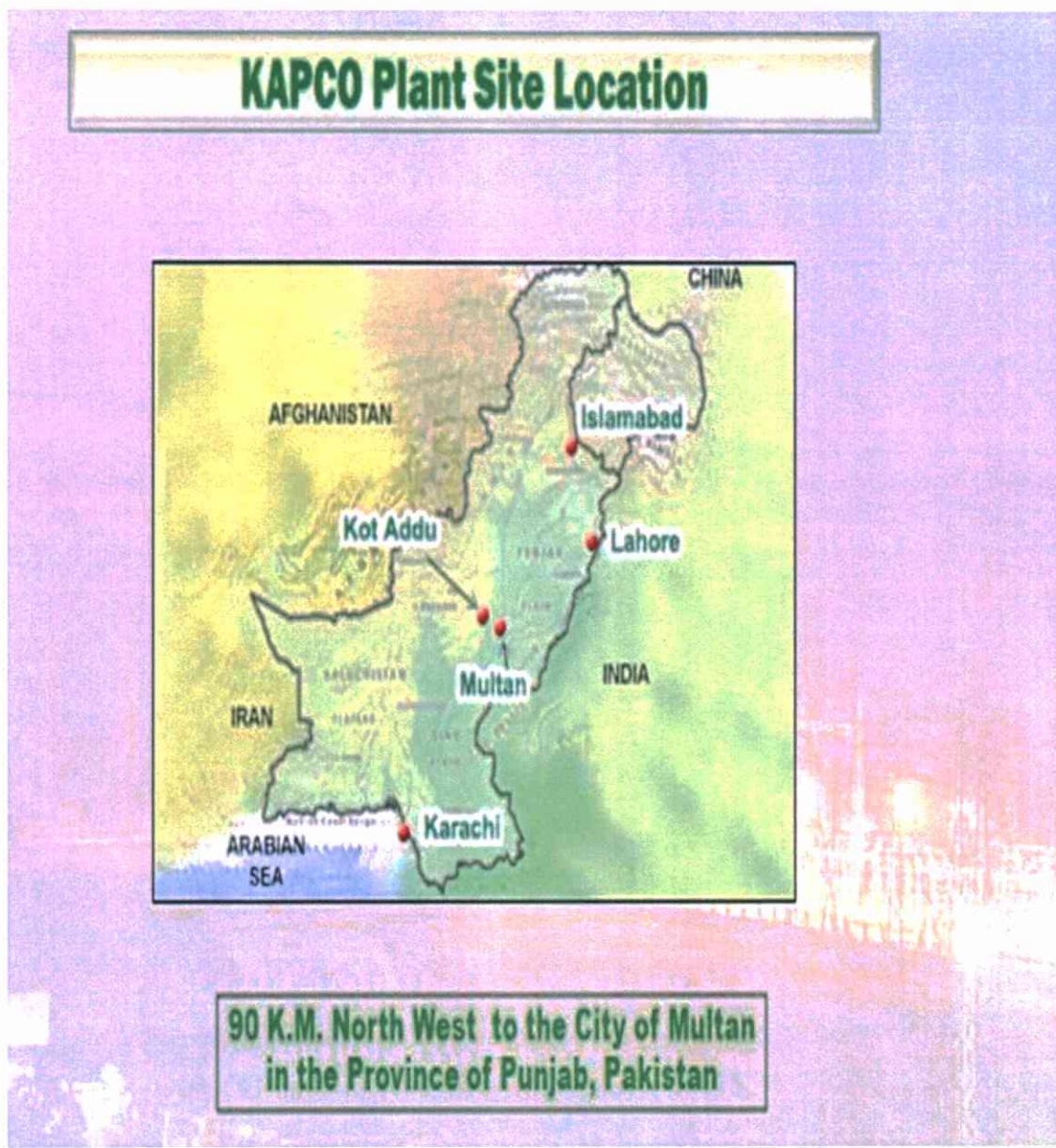
SCHEDULE-I

The Location, Size (i.e. Capacity in MW), Type of Technology, Interconnection Arrangements, Technical Limits, Technical/Functional Specifications and other details specific to the Generation Facilities of the Generation Company are described in this Schedule.

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**Location of the
Generation Facility/Thermal Power Plant
of the Generation Company**

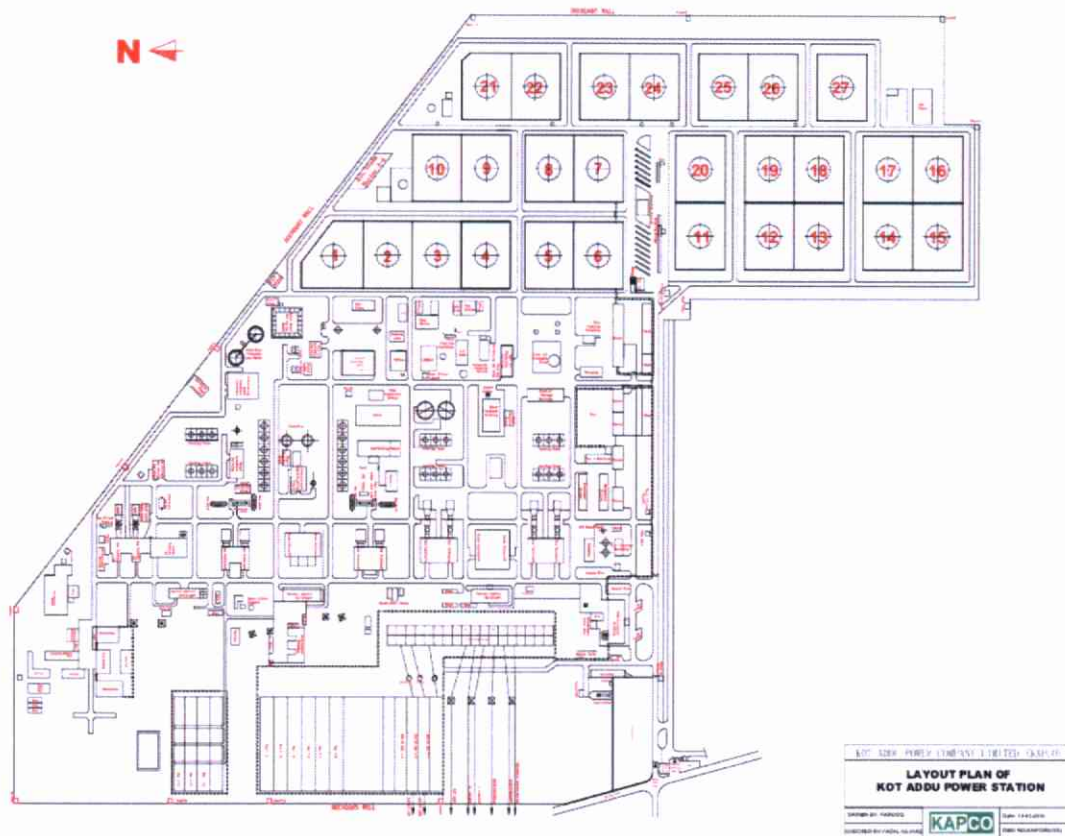


UTM Coordinates: E = 690117.02, N = 3369794.76 Zone 42R

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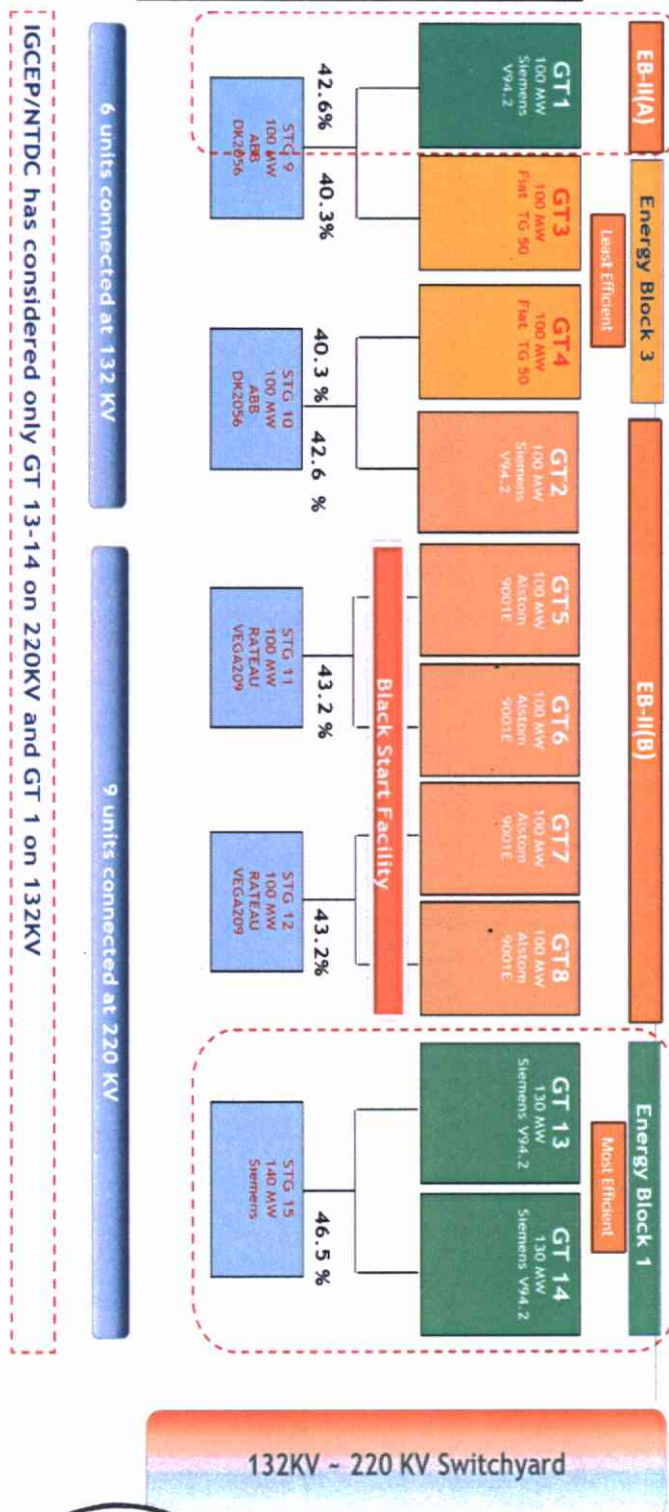


**Layout of the
 Generation Facility/Thermal Power Plant
 of the Generation Company**

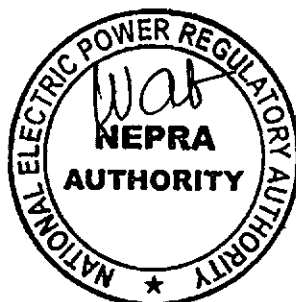
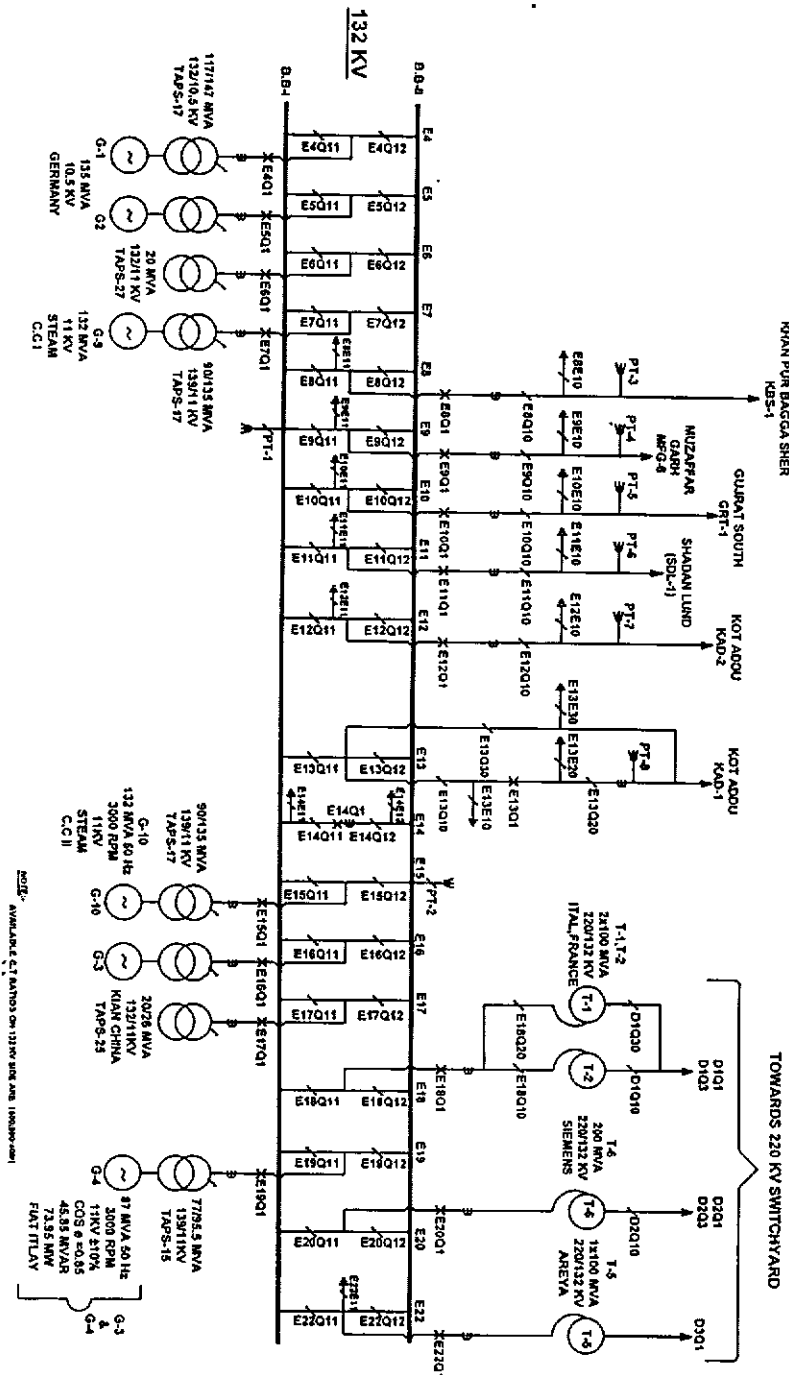


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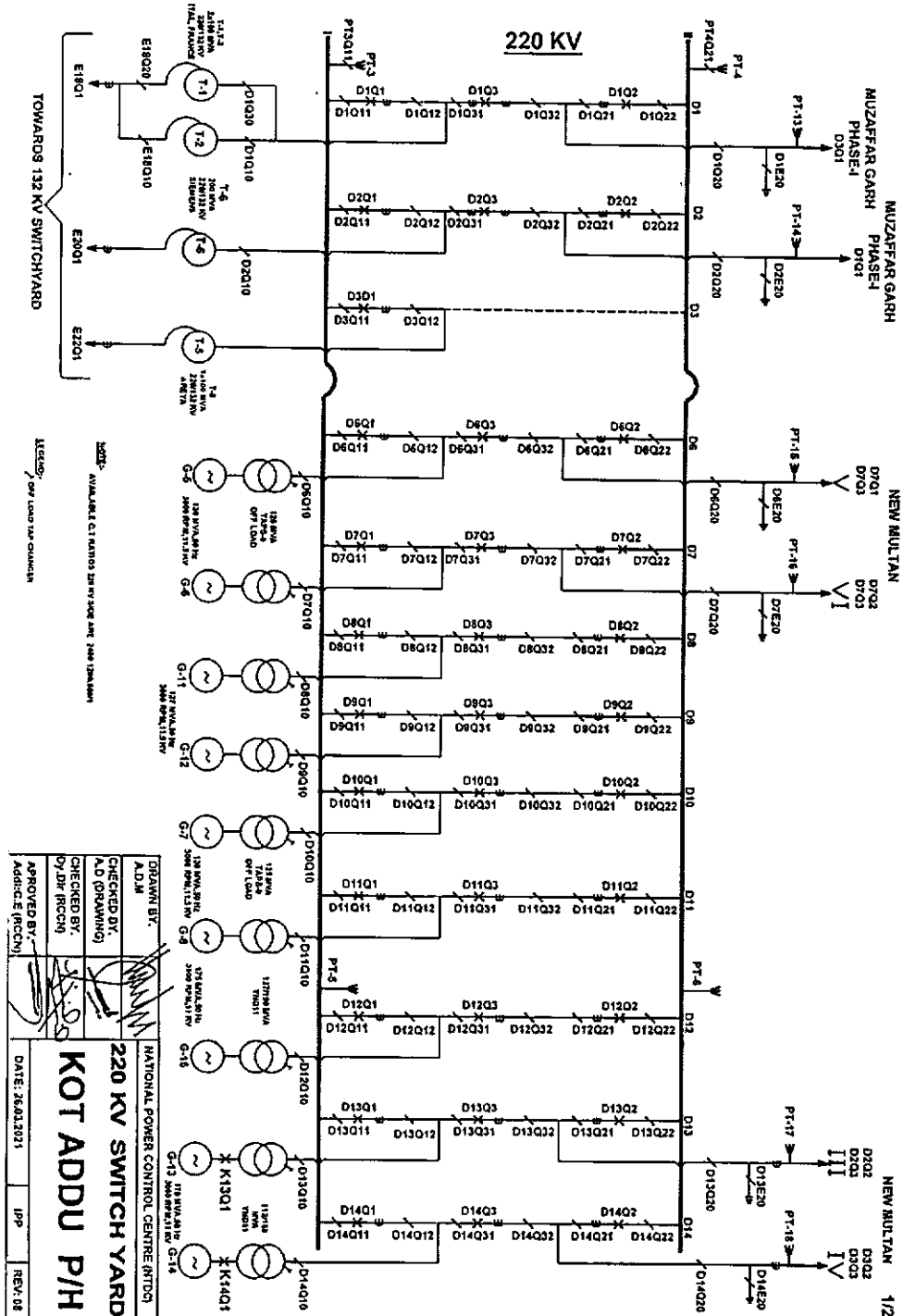
Plant Layout of the Generation Facility/Thermal Power Plant of the Generation Company



Single Line Diagram (132 KV) **of the Generation Facility/Thermal Power Plant** **of the Generation Company**



Single Line Diagram (220 KV) **of the Generation Facility/Thermal Power Plant** **of the Generation Company**



Interconnection/Transmission Arrangements
for Dispersal of Electric Power from the Generation Facility/
Thermal Power Plant of the Generation Company

The electric power from the multi-fuel based generation facility/Thermal Power Plant of the Generation Company/ Kot Addu Power Company Limited (KAPCO) will be supplied to the National Grid.

2. The 132 kV and 220 kV transmission lines are connected to the generation facility/Thermal Power Plant of KAPCO consisting of feeders which serve the local regions around Kot Addu, Muzaffar Garh, DG Khan and Layyah. There are six (06) 132 kV and six (06) 220 kV feeders which are connected to 132 kV and 220 kV bus bars respectively.



Detail of
Generation Facility/Thermal Power Plant
of the Generation Company

(A). General Information

(i).	Name of Company	Kot Addu Power Company Limited
(ii).	Registered Office	Office no. 309, 3 rd floor, Evacuee Trust Complex Agha Khan Road, Sector F-5/1, Islamabad
(iii).	Business Office	5B/3, Gulberg-III, Lahore, Punjab
(iv).	Location of the Generation Facility/ Power Plant	Kot Addu, District Kot Addu, in the province of Punjab
(v).	Type of Generation Facility/ Power Plant	Combined Cycle Gas Turbine (CCGT) based Thermal Generation Facility

(B). Configuration of Generation Facility

(i).	Type of Technology	Combined Cycle Power Plant having Three (03) Gas Turbines (GTs), Three (03) Heat Recovery Steam Generators-(HRSGs) and Two (02) Steam Turbines (STs)	
(ii).	Number of Units/Size (MW)	2 x 130.0 MW + 1 x 100.0 MW GTs 1 x 140.0 MW + 1 x 100.0 MW STs	
(iii).	Unit Make/Model/Type & Year of Manufacture Etc.	Gas Turbines (GT) -1, 13 & 14	Siemens V94.2
		Steam Turbine (ST) -9	ABB DK2056
		ST-15	Siemens
(iv).	Date Commissioning of Units of the Generation Facility	GT-1	1987
		ST-9	1991
		GT-13	1994
		GT-14	1994



		ST-15	1996
(v).	Remaining Useful Life of the Generation Facility/Thermal Power Plant from date of issuance of this Concurrence based on RULA Study	More than 07 years*	

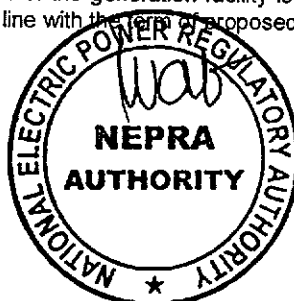
(C). Fuel/Raw Material Details

(i).	Fuel	Re-Gasified Liquefied Natural Gas (RLNG), Natural Gas and Low Sulphur Furnace Oil (LSFO)	
		Gas/RLNG	LSFO
(iii).	Fuel Source	Indigenous/Imported	Indigenous/Imported
(iv).	Fuel Supplier	SNGPL or any other OGRA approved gas supplier	PSO/Attock Petroleum Limited or any other OGRA approved Oil Marketing Company or local refinery or importer
(v).	Supply Arrangement	Pipeline	Pipeline / Decanting
(vi).	No of Storage Tanks	Not applicable	Total: 22 Tanks 11 Tanks for 550 MW capacity
(vii).	Storage Capacity of each Tanks	Not applicable	7100 MT
(viii).	Gross Storage	Not applicable	Total: 156,000 MT 75,000 MT for 550 MW capacity

(D). Emission Values

Sr.	Parameter	Time-weighted Average	Concentration in Air
(i).	Sulphur Dioxide	Annual Mean	80 µg/m ³

* Although as per RULA Study, the remaining useful life of the generation facility is seven (07) years however, the concurrence is granted for a term of three (03) years in line with the term of proposed tripartite PPA.



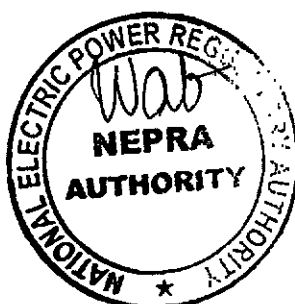
	Ambient Air	Maximum 24 Hours	120 $\mu\text{g}/\text{m}^3$
		Maximum 1 Hour average	350 $\mu\text{g}/\text{m}^3$
(ii).	Nitrogen Oxides Ambient Air	Maximum 24 Hours	120 $\mu\text{g}/\text{m}^3$
		Maximum 1 Hour average	400 $\mu\text{g}/\text{m}^3$
(iii).	Chemical Oxygen Demand	-	150 mg/Liter

(E). Cooling System

(i).	Cooling Water Source/Cycle	Intake from Muzaffargarh Canal for 8-9 months of the year. Well Water: During canal closure period, utilization of deep well pumps as source of cooling water.
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(F). Plant Characteristics

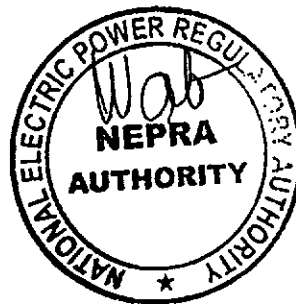
(i).	Generation Voltage	11 KV
(ii).	Frequency	50 Hz (rated)
(iii).	Power Factor	0.85 (lagging)-0.95 (leading)
(v).	Automatic Generation Control (AGC)	Not Applicable
(vi).	Ramping Rate (MW/Min)	As per PPA
(vii).	Time required to Synchronize to Grid	As per PPA

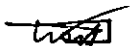


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SCHEDULE-II

The Installed/ISO Capacity (MW), De-Rated Capacity at Mean Site Conditions (MW), Auxiliary Consumption (MW) and the Net Capacity at Mean Site Conditions (MW) of the Generation Facilities of the Generation Company are given in this Schedule.





SCHEDULE-II

(1).	Total/Gross Installed Capacity (ISO) of the Generation Facility/Thermal Power Plant	550.0 MW
(2).	De-rated Capacity of Generation Facility/Thermal Power Plant at Mean Site Conditions	510.0 MW on RLNG/Gas
		493.0 MW on LSFO
(3).	Auxiliary Consumption of the Generation Facility/Thermal Power Plant at Mean Site Conditions	15.0 MW
(4).	Total Net Capacity of Generation Facility/Thermal Power Plant at Mean Site Conditions	495.0 MW on RLNG/Gas
		478.0 MW on LSFO

Note

All the above figures are indicative as provided by the Generation Company. The net capacity available to Power Purchaser for dispatch will be determined through procedure(s) contained in the Power Purchase Agreement or any other Applicable Document(s).

