

National Electric Power Regulatory Authority Islamic Republic of Pakistan

Registrar

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

No. NEPRA/R/LAG-408/ 2.4/53 - 62-

November 13, 2019

Mr. Xu Jun

Authorized Representative CIHC Pak Power Co. Ltd House No. 6, Street No. 11, F-7/2, Islamabad

Subject:

Grant of Generation Licence No. IGSPL/104/2019

Licence Application No. LAG-408

CIHC Pak Power Company Limited (CIHCPPCL)

Reference: Your letter No. nil dated 12-07-2017

Enclosed please find herewith Determination of the Authority in the matter of application of CIHC Pak Power Company Limited (CIHCPPCL) for the grant of generation licence along with Generation Licence No. IGSPL/104/2019 annexed to this determination granted by the National Electric Power Regulatory Authority (NEPRA) to CIHCPPCL for its 300.0 MW imported coal based generation located at Mouza Darbella Janubi near Sur Bundar, Tehsil and District Gawadar in the province of Balochistan, pursuant to Section 14B of the Regulation of Generation, Transmission and Distribution of Electric Power Act. 1997 (NEPRA Amended Act).

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

Enclosure: As Above



(Syed Safeer Hussain)

Copy to:

- 1. Secretary, Power Division, Ministry of Energy, ** NEBlock, 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), Ground Floor, Enercon Building, G-5/2, Islamabad
- 5. Chief Executive Officer, Quetta Electric Supply Company (QESCO), Zarghoon Road, Quetta
- 6. Director General, Environmental Protection Department, Government of the Baluchistan, Near Woodcock Spinny Nursery, Samungli Road, Quetta
- 7. Deputy Chairman, Planning Commission, (Energy Wing), Ministry of Planning, Development & Reforms, Ministry of Science & Technology Building, 1Constituation Avenue, Islamabad
- 8. Chairman, Gawadar Port Authority, Pak China Friendship Avenue, Gawadar, Balochistan
- 9. Additional Secretary, China Pakistan Economic Corridor, CPEC Secretariat, Ministry of Planning, Development & Reform "P" block Pak-Secretariat, Islamabad,

National Electric Power Regulatory Authority (NEPRA)

<u>Determination of the Authority</u> <u>in the Matter of Application of CIHC Pak Power Company Limited</u> for the Grant of Generation Licence

November 13
October , 2019
Case No. LAG-408

(A). Background

- (i). In order to promote private investment in the power sector, Government of Pakistan (GoP) has set up Private Power Infrastructure Board (PPIB) as a one window facilitator. Previously, PPIB had facilitated a number of foreign and local investors for setting up power projects in the country. Under the Power Generation Policy, 2015, PPIB issued Letter of Intent (LoI) dated May 26, 2017 to China Communications Construction Company Limited (CCCC) for setting up a 300.00 MW imported coal based power project in Gwadar, in the Province of Balochistan.
- (ii). According to the terms and conditions of the above mentioned Lol, the sponsors of the project were required to get incorporated a Special Purpose Vehicle (SPV) for implementation of the project. Accordingly, the sponsors incorporated the SPV in the name of CIHC Pak Power Company Limited (CIHCPPCL). After completion of the said milestone, the SPV/CIHCPPCL decided to approach the Authority for the grant of generation licence for the proposed generation facility/thermal power plant as envisaged in the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act").

(B). Filing of Application

- (i). In accordance with Section-15 (now Section-14B) of the NEPRA Act, read with the relevant provisions of the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999 (the "Licensing Regulations"), CIHCPPCL submitted an application on July 13, 2017 for the grant of generation licence.
- (ii). The Registrar examined the submitted application to confirm its compliance with the Licensing Regulations and found that the application was deficient in terms of the said Regulations. Accordingly, the Registrar directed CIHCPPCL for submitting the missing information/documentation. CIHCPPCL completed the

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submission of missing information/documentation on August 21, 2017 and accordingly the Registrar presented the matter before the Authority to decide the admission of the application or otherwise.

- (iii). The Authority considered the matter on September 08, 2017 and found the form and content of the application in substantial compliance with Regulation-3 of the Licensing Regulations. Accordingly, the Authority admitted the application for consideration of the grant of generation licence as stipulated in Regulation-7 of the Licensing Regulations. The Authority approved the advertisement containing (a). the prospectus; (b). a notice to inform the general public about the admission of the application of CIHCPPCL and inviting them to submit their comments in the matter as stipulated in Regulation-8 of the Licensing Regulations. Accordingly, the notices were published in one (01) Urdu and one (01) English national newspapers on September 13, 2017.
- (iv). In addition to the above, the Authority also approved a list of stakeholders for seeking their comments for its assistance in the matter in terms of Regulation-9(2) of the Licensing Regulations. Accordingly, letters were sent to different stakeholders as per the approved list on September 13, 2017, soliciting their comments for assistance of the Authority.

(C). Comments of Stakeholders

- (i). In reply to the above, the Authority received comments from five (05) stakeholders. These included PPIB, Quetta Electric Supply Company Limited (QESCO), Environmental Protection Agency, Govt. of Balochistan (BEPA), Gwadar Port Authority (GPA) and Mines & Mineral Development Department, Govt. of Balochistan (MMDDGoB). The salient points of the comments of said stakeholders are summarized as below:-
 - (a). PPIB stated that in accordance with the decision taken by Joint Cooperation Committee (JCC) on China Pakistan Economic Corridor (CPEC) on December 29, 2016, it had issued a Lol for the project after approval of its Board and Economic Coordination Committee of the Cabinet (ECC). PPIB supported the grant of generation licence to the project, as per the NEPRA Act, rules and regulation framed thereunder;

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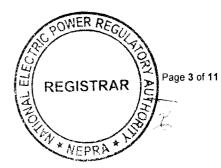




- (b). QESCO power requirements that electric submitted Gwadar/Makran division are primarily being met through import of power from Iran. In order to meet with the growing demand of the area resulting from the initiative of CPEC, a 300 MW coal power plant has been planned. In this regard, QESCO has already started a mega project to interlink Gwadar/Makran Division with the National Grid from the said project for which a PC-I has been submitted for the approval of the competent forum. In this regard, QESCO submitted that the commissioning of the proposed power with the above mentioned aligned must be project interlinking/evacuation scheme and the actual load demand of the area. Further, QESCO suggested that the tariff of the coal power plant should be much less than the rates at which power is being purchased from Iran;
- (c). BEPA commented that under the prevailing rules and regulation on environment, every proponent of any project is required to submit to it an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) of the project to be set up in the province. However, CIHCPPCL has neither informed nor submitted any IEE/EIA of the project for the approval accordingly, it is desired that the sponsors submit the same for approval to comply with the requirements of the law;
- (d). GPA supported the setting up of the project to meet with the electricity requirements of Gwadar and the adjoining areas. However, GPA raised its concerns about combustion of the coal for the project which is considered as a dirty fuel and may cause environmental concerns for the port and shipping activities of the Gwadar Port therefore, approval of BEPA may be obtained; and
- (e). MMDDGoB appreciated the efforts of the sponsors to set up a coal power plant at Gwadar but suggested that instead of using imported coal they may look into the possibility of utilizing indigenous one which is available in abundance. The use of local coal will not only







promote the indigenous resource but will also result in saving of the foreign exchange reserves.

- (ii). The Authority examined above comments/observations of the stakeholders and in view of the concerns of the stakeholders, considered it appropriate to seek the perspective of CIHCPPCL on the observations of QESCO, BEPA, GPA and MMDDGoB. Regarding the observations of QESCO, the company submitted that it is working in close coordination with QESCO and all its concerns will be addressed. Further, CIHCPPCL informed that PC-1 for the project "Interconnection of Isolated Makran Area with National Grid" has been approved by Planning Commission and funds have been allocated by ECNEC. Moreover, the timelines for completion of the said PC-1 are in in line with the proposed COD of the power project. Regarding the tariff, the company stated that it has submitted a tariff petition for determination of tariff and the Authority has determined the same.
- (iii). On the observations of BEPA and GPA, it was submitted that in compliance with the requirement of the rules and regulations pertaining to environment, the Environmental and Social Impact Assessment (ESIA) for the project was carried out and the same was submitted to BEPA for its approval and issuance of No Objection Certificate (NOC) in the matter. Later on, the company provided a copy of the required NOC issued by BEPA thus addressing the issues pertaining to environment raised by different stakeholders.
- (iv). Regarding comments of MMDDGoB to utilize indigenous coal instead of imported coal, the company submitted that the local coal options include the coal available in the provinces of Balochistan and Sindh. In this regard, both the options were evaluated but both were not found feasible to make the project bankable. The coal from the province of Balochistan is of low calorific value, having and may not be available in sufficient quantity for continuous operation of the power plant whereas, the other option is of using Thar coal which may be available but may not be feasible considering the distance it is to be transported making it costly due to high transportation cost. Further, one of the main reason of not using local coal is the excessive quantity of Sulphur and Carbon in local coal and huge emission which may cause damage to the environment while the imported coal is having less quantity of Carbon and Sulphur and less emissions. In view of the said, the project company has preferred imported coal over indigenous coal for generation of electric power.





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- In addition to the above, the Authority also conducted a meeting/hearing (v). of relevant stakeholders (i.e. CIHCPPCL, NTDC, BEPA and Land Revenue Balochistan) in the matter on May 08, 2018 which was Department, participated/attended by the representatives of relevant stakeholders except Land Revenue Department. In the said meeting/hearing, detailed deliberation was made on different parameters of the project including fuel, location, land allocation, environmental aspects and interconnection scheme of the project, etc. Accordingly, the sponsors of the project were directed to address the concerns and provide all the of the concerned information/documents approvals required and departments/agencies.
- (vi). In this regard, CIHCPPCL submitted all the required information/documents and approvals of the concerned departments/agencies. The Authority examined the rejoinders/reply and information/documents submitted by CIHCPPCL and found the same satisfactory. Accordingly, the Authority considered it appropriate to proceed further in the matter for consideration of the grant of generation licence as stipulated in the Licensing Regulations and NEPRA Licensing (Generation) Rules, 2000 (the "Generation Rules").

(D). Findings/Evaluations

- (i). The Authority has examined the entire case in detail including the information provided by CIHCPPCL along with the generation licence application, feasibility study of the project, the interconnection and dispersal arrangement studies, environmental study, tariff granted to CIHCPPCL, provisions of the Power Generation Policy 2015 and relevant rules & regulations.
- (ii). According to the submitted information, CCCC was considered to be the main sponsor of the project with 75.5% equity in the project whereas, Tianjin Energy Investment Group Company Limited was proposed to have 24.5% equity of the project. In consideration of the good financial and technical capability of the sponsors and the project being one of the priority projects included in the CPEC, PPIB issued Lol to the sponsors. Later on, ECC vide its decision dated January 15, 2019 approved the proposal of substitution of CCCC with CCCC Industrial Investment Holding Company Limited (CIHC), a wholly owned subsidiary of China Communication Construction Group (CCCG) as a main sponsor.



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- (iii). According to the Annual Report 2018 of the company, CCCG was listed in the Fortune Global 500 list for eleven consecutive years in 2008-2018, and attributable to the continual increase of the Company's comprehensive strength, the Company's ranking soared up from the 426th place in 2008 to the 91st place in 2018. The Company responded actively to the national strategic deployment of "Going Global", participated extensively in cooperation and competition for foreign economic aid programs and international contracting projects, and acted as a leader in implementing the initiative of "the Belt and Road". CCCG has positioned 3rd in ENR's Top International Contractors for three consecutive years and remained the first among the top international contractors and enterprises in Asia and in China for twelve consecutive years. CIHC as a wholly owned subsidiary of CCCG is mainly dedicated to industrial investment that is dominated by park development and innovative business mode, mainly invests in regional comprehensive development projects and industrial park projects in core countries and major cities along the "one belt one road" line.
- (iv). The Authority has observed that in order to implement the project, the sponsors incorporated an SPV in the name of CIHCPPCL as a private limited company (having Corporate Universal Identification No. 0107593, dated April 19, 2017) under Section 32 of the Companies Ordinance, 1984. The registered office of the company is located at Plot No. 20-C, Khayaban-e-Tanzeem, Tauheed Commercial Area, Phase-V DHA, Karachi. The business office of the company is House No. 6, Street No. 11, Sector F-7/2, Islamabad. The memorandum of association of the company, inter alia, includes generation of electric power and supply thereof, as business objective.
- (v). Regarding the proposed generation facility, the Authority has observed that the same will be located at Mouza Darbella Janubi near Sur Bundar, District Gwadar, in the Province of Balochistan. The proposed generation facility/thermal power plant will be consisting of 2 x 150MW sub-critical units each with one boiler, steam turbine and generator. Subcritical technology is very mature with many units in commercial operation for many years with good records. The guaranteed gross efficiency of boiler at Reference Site Conditions (RSC) is about 92.7%, gross efficiency of generators at RSC is 98.5% and the gross efficiency of steam turbines is 44.78%. Accordingly, the gross efficiency of the proposed generation facility/thermal power plant will be more than 40% whereas the net efficiency of same will be greater than 37.25%.



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- (vi). Regarding the fuel required for operation of the project, the Authority has observed that design coal for this project will be South African RB3 and check coal will be blend of 50% Indonesian coal (NAR4700) and 50% South African RB3. According to the submitted information, Glencore, Noble Group and Mercuria Group have been considered as potential coal suppliers. The coal will be transported through marine shipment and trucks. Annual coal consumption of the project will be about 950,000 matric tons. Coal will be shipped to Gwadar Port by sea from oversea suppliers, and then transported to the generation facility/thermal power plant by trucks. Two open coal storage yard will be constructed at site with storage capacity of 90,500 ton each.
- (vii). Regarding water requirement for cooling and other purposes, the Authority has noted that the generation facility/thermal power plant will utilize the water from Arabian Sea through open channel. For the sake of water saving and rational utilization of water resources, the multi-purpose for one water, graded use and repeated utilization mechanism will be applied.
- (viii). Regarding impact of the project on environment, the sponsors have confirmed that the proposed generation facility/thermal power plant will comply with the environmental standards of the country. The proposed generation facility will have air emission control equipment, including an electrostatic precipitator and a flue gas desulfurization system to lower greenhouse gases emissions. Effluents from the plant will be treated and monitored for compliance with National Environmental Quality Standards (NEQS) before being discharged into the sea. All other industrial effluents such as those from the boiler makeup water treatment system, oily waste and sanitary waste will be treated to comply with NEQS and will be re-used to the extent possible. In this regard, the Authority has observed that the applicant/CIHCPPCL completed the ESIA for the project and submitted the same to BEPA which has issued NOC for the project.
- (ix). Regarding land of the project, the Authority has observed that Government of Balochistan through its letter dated December 19, 2018 offered 207 acres of land to the company at Mouza Darbella Janubi near Sur Bundar, District Gwadar, in the Province of Balochistan, on 33 years lease basis. The Company/CIHCPPCL through its letter dated December 31, 2018 accepted the offered land on the terms and conditions mentioned in the offer letter. The land has been leased for setting-up of the 300.0 MW imported coal based power.

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- (x). Regarding grid interconnection of the project, the Authority has noted that sponsors of the project carried out the Grid Interconnection Study (GIS) of the generation facility/thermal power plant. According to the said GIS, the dispersal of power from the generation facility/thermal power plant will be at 132 kV. The grid interconnection scheme of the project will consist of (a). a direct 132 kV, 20-km double circuit transmission line on twin bundled Greeley conductor, from the plant to 132 kV Gwadar grid station and (b). another 132 kV, 120-km double circuit transmission line on twin bundled Greeley conductor, from the plant to 132 kV Turbat grid station. In this regard, NTDC through its letter No. GMPSP/CETP/TRP-/5073-77 dated July 26, 2019 has approved the said GIS for the purpose of grid connectivity.
- (xi). Regarding purchasing power from the project, the Authority has observed the Power Purchaser/CPPA-G through its letter No. CPPA-G/CTO/DGMT-III/MT-VI/19725-29 dated April 10, 2017 has already communicated its consent for procurement of electricity from the imported coal based generation facility of the applicant/CIHCPPCL. Further, the project of CIHCPPCL has been considered to be processed and developed as one of the priority projects under the umbrella of CPEC. In this regard, PPIB through its letter No. 1(103)PPIB-6021-01/19/PRJ/O-53451 dated August 23, 2019 has already issued Letter of Support (LOS) to CIHCPPCL for development of the project.
- (xii). In view of the above clarification, justifications and developments made in the matter, the Authority is of the considered view that the project of CIHCPPCL fulfills the eligibility criteria for the grant of generation licence as given under the NEPRA Act, rules and regulations.

(E). Grant of Generation Licence

- (i). Electricity is a key infrastructural element for economic growth. The electricity consumption per capita has a strong correlation to the Social Development indices (HDI, life expectancy at birth, infant mortality rate, and maternal mortality) and Economic Indices (such as GDP per capita).
- (ii). Increasing electricity consumption per capita can directly stimulate faster economic growth and indirectly achieve enhanced social development, especially for low and medium human development countries. Electricity plays a key role in both economic and social development. In short, the Economic Growth of any country is directly linked with the availability of safe, secure, reliable and cheaper supply of

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electricity. In view of the said, the Authority is of the considered opinion that for sustainable development all types of power generation resources including Coal, Hydel, Wind, Solar and other Renewable Energy (RE) resources must be tapped and developed on priority basis in public and private sectors.

- (iii). In this regard, the Authority considers that being main part of the CPEC, the deep seaport city of Gwadar holds pivotal importance for the economy of Pakistan. Further, it has the potential to become a key entrepot and to make Pakistan an economic hub of the region. In view of its importance, the government of Pakistan is making unprecedented efforts to develop the city. In this regard, the Authority is of the considered view that all efforts must be made to meet the growing electricity needs of the city. In view of the depleting Natural Gas reserves in the country, relatively longer lead time for the Hydroelectric power projects to materialize, the intermittent nature of Solar and Wind projects, and lack of road infrastructure for the transport of indigenous coal to the project site, the proposed imported coal based power plant is considered to be relatively better option to meet the short and medium term electricity demand of the city. However, the Authority is also of the opinion that as the port is developed, more indigenous and environmentally friendly generation sources may be deployed to meet the long term energy demand of the city.
- (iv). The existing energy mix of the country is heavily skewed towards the costlier thermal generation facilities/power plants, operating on Imported Furnace Oil, resulting in higher consumer end tariff. The increase in the consumer end tariff not only results in higher inflation but it also affects the competitiveness of the local Industry with its foreign peers. In order to address the said issues, the Authority considers it imperative that efforts must be made to change the energy mix based on relatively cheap fuels. In view of the said, the Council of Common Interests (CCI) approved the Power Policy 2015 which envisages rationalizing the energy mix and reducing the demand-supply gap through coal based power generation. In consideration of the said, the Authority is of the view that the proposed project of CIHCPPCL is consistent with the provisions of Power Policy 2015.
- (v). As explained in the preceding paragraphs, CIHCPPCL has provided the details of location, technology, size, net capacity, interconnection arrangements, technical details and other related information for the proposed generation facility/thermal power plant. Further, CIHCPPCL has achieved major milestones regarding implementation of the project (i.e. approval of GIS from NTDC, NOC from

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BEPA, acquisition of land for the project and LOS from PPIB) and fulfils all the requirements for the grant of generation licence. The term of a generation licence under the Rule-5 of the Rules is to be commensurate with the maximum expected useful life of the units comprised in a generating facility. The proposed Generation Facility/Power Plant of CIHCPPCL will be consisting of two Steam Turbine Units of 150.00 MW each. According to the International benchmarks available, the useful life of a Steam Turbine is normally taken as thirty (30) years from its Commercial Operation Date (COD). Further, CIHCPPCL has also confirmed that it will be negotiating a Power Purchase Agreement (PPA) with Power Purchaser having a term based on this available benchmark. Further, the tariff has been granted for control period of 30 years from the date of commercial operation. In view of the said, the Authority fixes the term of the Generation Licence of CIHCPPCL to thirty (30) years from its COD.

- (i). Regarding the tariff, it is hereby clarified that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges, etc. is the sole prerogative of the Authority. In this regard, it is pertinent to mention that Authority through its Determination No. NEPRA/TRF-434/CPPCL-2018/19549-19551 dated December 19, 2018 and subsequent decision/Determination No. NEPRA/TRF-434/CPPCL-2018/9802-9804 dated May 31, 2019 on the review petition of CIHCPPCL, the Authority has already granted cost plus tariff to the company/CIHCPPCL. In view of the said, CIHCPPCL is directed to charge the power purchaser only such tariff which has been determined, approved or specified by the Authority. In this regard an article on tariff (Article-6) has also been included in the generation licence.
- (ii). Regarding land of the project, the Authority has observed that for setting up the power plant, the company has acquired 207 acres of land at Mouza Darbella Janubi near Sur Bundar, District Gwadar, in the Province of Balochistan, on 33 years lease basis. In this regard, the Authority directs CIHCPPCL that the aforementioned land as shown in schedule-I of the generation licence shall be exclusively used by for the proposed generation facility/thermal power plant and CIHCPPCL cannot carry out any other activity on this land except with prior approval of the Authority.
- (iii). Regarding compliance with the environmental standards, the Authority directs CIHCPPCL to ensure that the project will comply with the environmental standards during the term of the generation licence. In view of the said, a separate article on compliance with environment and safety standards (i.e. Article-10) has been included in the generation licence along with other terms and conditions of the licence.

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(iv). In view of the above, the Authority hereby approves the grant of generation licence to CIHCPPCL on the terms and conditions set out in the generation licence annexed to this determination. The grant of generation licence is subject to the provisions contained in the NEPRA Act, relevant rules, regulations framed there under and other applicable documents.

Authority

Rafique Ahmed Shaikh (Member)

Rehmatullah Baloch (Member)

Saif Ullah Chattha (Member)

(Did not Attend the meeting-Away)

Engr. Bahadur Shah (Member/Vice Chairman)

Tauseef H. Farooqi (Chairman)

(Did not Attend the meeting-Away)





National Electric Power Regulatory Authority (NEPRA) Islamabad – Pakistan

GENERATION LICENCE

No. IGSPL/104/2019

In exercise of the powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section-14B 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 the Generation Licence to:

CIHC PAK POWER COMPANY LIMITED

Incorporated Under Section-32 of the Companies
Ordinance 1984 (XLVII of 1984) Having Corporate Universal
Identification No. 0107593, dated April 19, 2017

for its Imported Coal Based Generation Facility Located at Mouza Darbella Janubi near Sur Bundar, Tehsil and District Gwadar, in the Province of Balochistan

(Installed Capacity: 300.00 MW Gross)

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

Given under my hand this day of October Two Thousand & Nineteen and expires on 30th day of December Two Thousand

& Fifty Two.

Registrar

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Article-1 Definitions

1.1 In this Licence

- (a). Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 as amended or replaced from time to time;
- (b). "Applicable Documents" mean the Act, the NEPRA rules and regulations, 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, Commercial Code, if any, or the documents or instruments made by the licensee pursuant to its generation licence, in each case of a binding nature applicable to the licensee or, where applicable, to its affiliates and to which the licensee 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/Power Plant of the Licensee on which the electric power of all the generators is collected for supplying to the Power Purchaser:
- (f). "Commercial Code" means the National Electric Power Regulatory Authority (Market Operator, Registration, Standards and Procedure) Rules, 2015 as amended or replaced from time to time;
- (g). "Commercial Operations Date (COD)" means the day immediately following the date on which the Generation Facility/ Power Plant of the Licensee is commissioned:



- (h). "Commissioning" means the undertaking of the Commissioning Tests of the generation facility/Wind Power Plant/Wind Farm as stipulated in the PPA;
- (i). "CPPA-G" means "Central Power Purchasing Agency (Guarantee)
 Limited" or any other entity created for the like purpose;
- (j). "Distribution Code" means the distribution code prepared by the concerned distribution company and approved by the Authority, as may be revised from time to time with necessary approval of the Authority;
- (k). "Generation Facility/Power Plant" means the coal fired generation facility for production of electric power;
- (I). "Generation Rules" mean "the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000";
- (m). "GoP" means the Government of Pakistan acting through the PPIB which has issued LoS to the Licensee for the design, engineering, construction, insuring, commissioning, operation and maintenance of the Generation Facility/Power Plant;
- (n). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (o). "IEC" means International Electrotechnical Commission or its successors or permitted assigns;
- (p). "IEEE" means the Institute of Electrical and Electronics Engineers and its successors or permitted assigns;
- (q). "Implementation Agreement (IA)" means the implementation agreement signed or to be signed between the GoP and the Licensee in relation to this particular Generation Facility/Power Plant, as may be amended from time to time;



- (r). "Letter of Support (LoS)" means the letter of support issued by the GoP through PPIB to the Licensee;
- (s). "Licensee" means "CIHC Pak Power Company Limited" and its successors or permitted assigns;
- (t). "Licensing Regulations" mean the National Electric Power Regulatory Authority Licensing (Application & Modification Procedure) Regulations, 1999 as amended or replaced from time to time;
- (u). "NTDC" means National Transmission and Despatch Company Limited and its successors or permitted assigns;
- (v). "Policy" means the Power Generation Policy 2018 of GoP as amended or replaced from time to time;
- (w). "Power Purchase Agreement (PPA)" means the power purchase agreement, entered or to be entered into by and between the Power Purchaser and the Licensee, for the purchase and sale of electric energy generated by the Generation Facility/Power Plant, as may be amended by the parties thereto from time to time;
- (x). "Power Purchaser" means any person or registered entity or licence holder which will be purchasing electric power from the Licensee, pursuant to an PPA for procurement of electric energy;
- (y). "PPIB" means the Private Power and Infrastructure Board or any other entity created for the like purpose established by the GoP to facilitate, promote and encourage development of renewable energy in the country;
- (z). "QESCO" means Quetta Electric Supply Company Limited or its successors or permitted assigns;



- (aa). "XW DISCO" means "an Ex-WAPDA distribution company engaged in the distribution of electric power".
- 1.2 Words and expressions used but not defined herein bear the meaning given thereto in the Act or rules and regulations issued under the Act.

Article-2 Applicability of Law

This Licence is issued subject to the provisions of the Applicable Law, as amended from time to time.

Article-3 Generation Facilities

- 3.1 The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical and functional specifications and other details specific to the Generation Facility/Power Plant of the Licensee are set out in Schedule-I of this Licence.
- 3.2 The net capacity of the Generation Facility/Power Plant of the Licensee is set out in Schedule-II hereto. The Licensee shall provide the final arrangement, technical and financial specifications and other specific details pertaining to its Generation Facility/Power Plant before its COD.

Article-4 Term of Licence

- 4.1 This licence shall become effective from the date of its issuance and will have a term of thirty (30) years from the COD of the Generation Facility/Power Plant of the Licensee, subject to the provisions of Section-14(B) of the Act.
- 4.2 Unless suspended or revoked earlier, the Licensee may apply for renewal of the Licence ninety (90) days prior to the expiry of the above term, as stipulated in the Generation Rules read with the Licensing Regulations.

<u>Article-5</u> Licence fee

The Licensee shall pay to the Authority the Licence fee as stipulated in the National Electric Power Regulatory Authority (Fees) Rules, 2002 as amended or replaced from time to time.



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<u>Article-6</u> Tariff

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

Article-7 Competitive Trading Arrangement

- 7.1 The Licensee shall participate in such manner as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement. The Licensee 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 between the Licensee and another party with the approval of the Authority.
- 7.2 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 agreement of the parties thereto and such terms and conditions as may be approved by the Authority.

<u>Article-8</u> <u>Maintenance of Records</u>

For 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 Licensee shall comply with the relevant provisions of the National Electric Power Regulatory Authority Performance Standards (Generation) Rules 2009 as amended from time to time.

Article-10 Compliance with Environmental & Safety Standards

10.1 The Generation Facility/Power Plant of the Licensee at all times shall comply with the environmental and safety standards as may be prescribed by the relevant competent authority as amended from time to time.



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

Article-11 Power off take Point and Voltage

The Licensee shall deliver power to the Power Purchaser at the outgoing bus bar of its grid station. The up-gradation (step up) of generation voltage up to the required interconnection voltage level will be the responsibility of the Licensee.

Article-12 Provision of Information

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

Article-13 Design & Manufacturing Standards

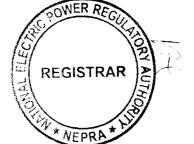
All the components of the Generation Facility/Power Plant of the Licensee shall be designed, manufactured and tested according to the latest IEC, IEEE or any other equivalent standards. All plant and equipment shall be unused and brand new.

Article-14 Compliance with Applicable Law

The Licensee shall comply with the provisions of the Applicable Law, guidelines, directions and prohibitory orders of the Authority as issued from time to time.

Article-15 Corporate Social Responsibility

The Licensee shall provide the descriptive as well as monetary disclosure of its activities pertaining to Corporate Social Responsibility (CSR) on annual basis.



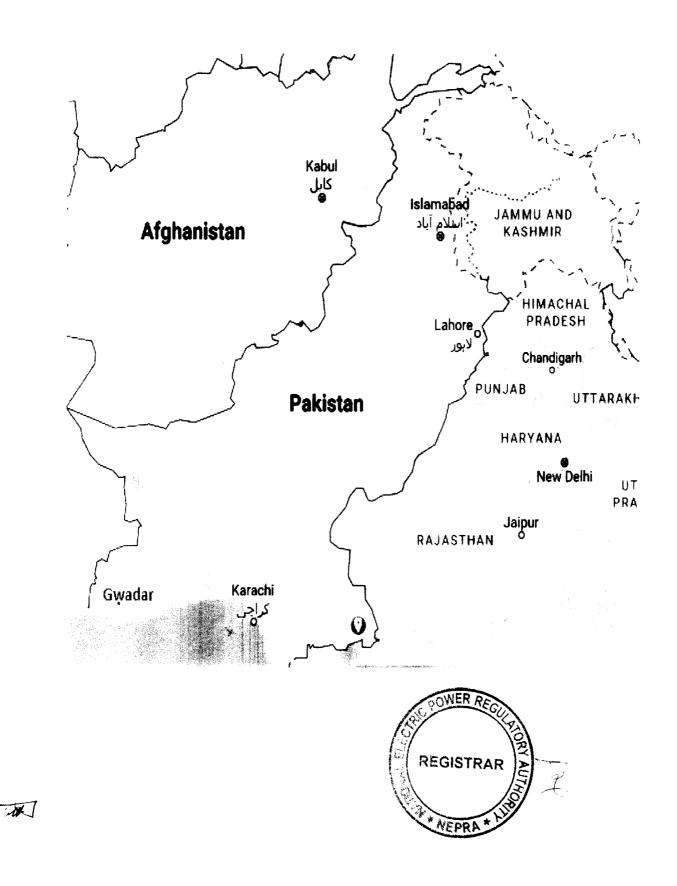


SCHEDULE-I

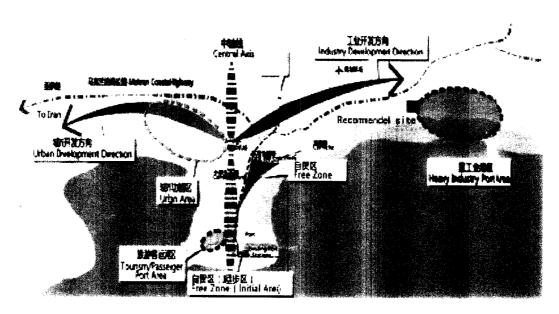
The Location, Size (i.e. Capacity in MW), Type of Technology, Interconnection Arrangements, Technical Limits, Technical/Functional Specifications and other details specific to the Generation Facilities of the Licensee are described in this Schedule

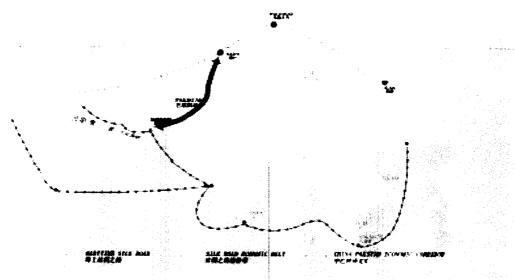


Location of the Generation Facility/Power Plant of the Licensee



Location Map of the Generation Facility//Power Plant of the Licensee



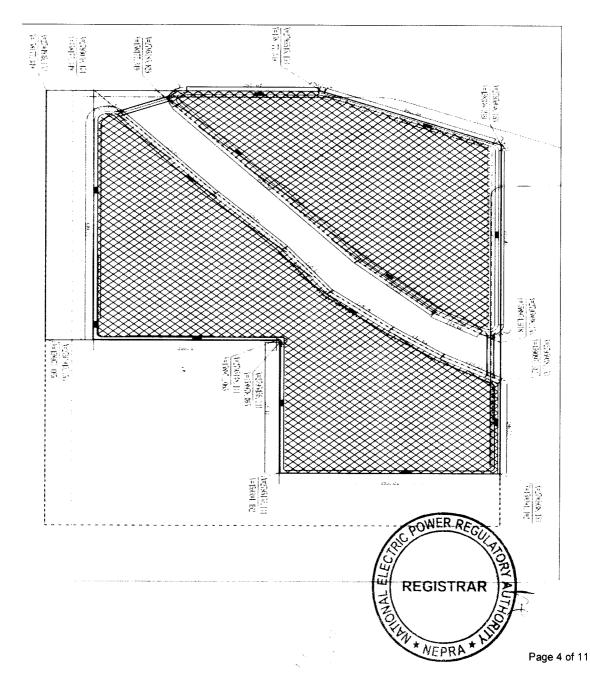






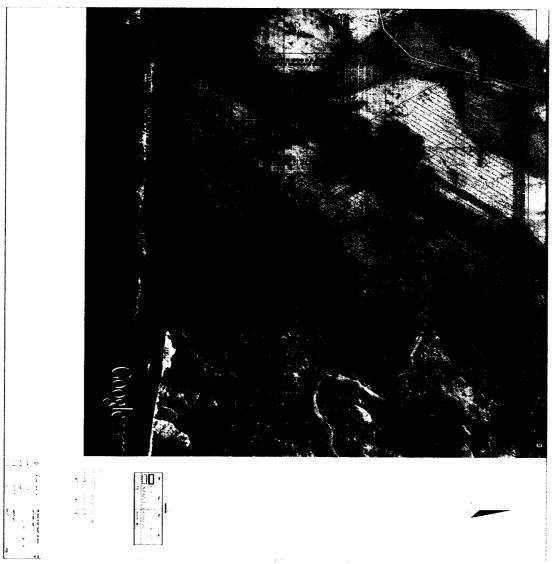
<u>Land Coordinates of the Generation Facility//Power Plant</u> <u>of the Licensee</u>

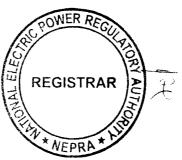
Location Point	Coordinate X	Coordinate Y
Α	X=2795938.153	Y=458346.349
В	X=2795938.153	Y=458974.918
С	X=2795938.153	Y=459097.102
D	X=2795938.153	Y=459394.492
E	X=2795455.141	Y=459394.492
F	X=2795455.141	Y=458978.065
G	X=2795448.141	Y=458971.065
H	X=2794945.153	Y=458971.065
I	X=2794945.153	Y=458177.349
J	X=2795049.474	Y=458177.349
K	X=2795185.829	Y=458177.349
L	X=2795545.153	Y=458177.349



THE

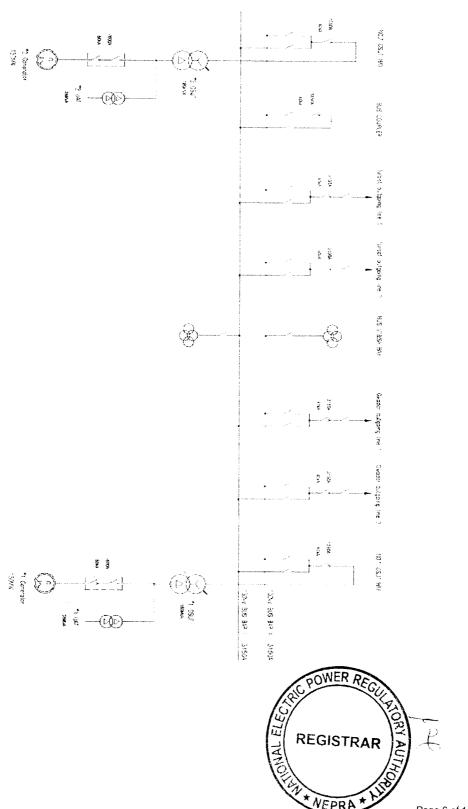
<u>Layout of the Generation Facility//Power Plant</u> <u>of the Licensee</u>







Single Line Diagram (Electrical) of the Generation Facility//Power Plant of the Licensee

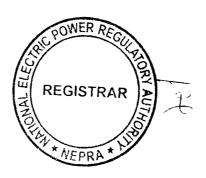




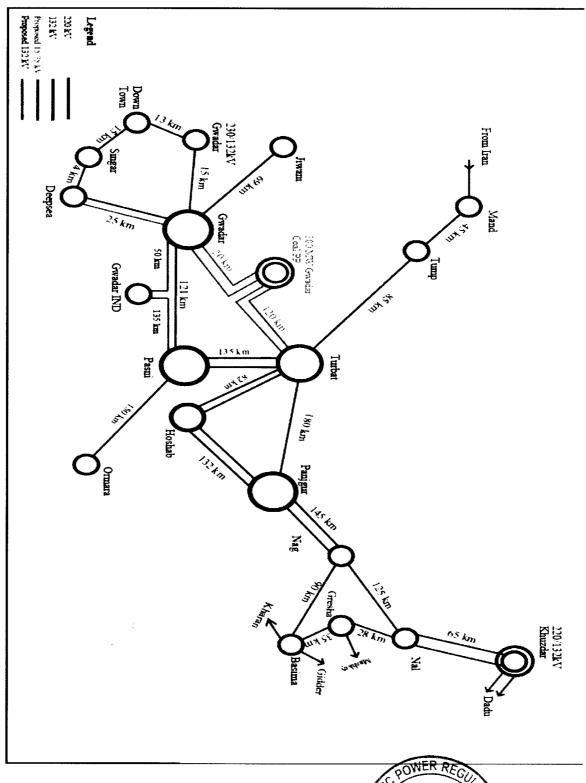
Interconnection Facilities/ Transmission Arrangements for Dispersal of Power from the Generation Facility/Power Plant of the Licensee

The electric power from the Imported Coal based generation facility/power plant of the Licensee/CIHC Pak Power Company Limited (CIHCPPCL) will be dispersed to the National Grid.

- (2). The Interconnection Facilities (IF)/Transmission Arrangements (TA) for supplying to National Grid from the above mentioned generation facility shall be at 132 kV level. The IF/TA of the project will be consisting of (i). 132 kV Double Circuit (D/C), 20.0 km long transmission line, connecting the project with 132 kV Gwadar Grid Station and (ii). 132 kV D/C, approximately 120.0 km long transmission line, connecting the project with 132 kV Turbat Grid Station.
- (3). Any change in the above mentioned IF/TA for dispersal of electric power as agreed by the Licensee and the Power Purchaser shall be communicated to the Authority in due course of time.



Schematic Diagram for Interconnection Arrangement/Transmission Facilities for Dispersal of Electric Power from the Licensee







<u>Detail of</u> <u>Generation Facility/</u> <u>Power Plant</u>

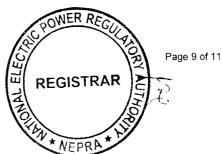
(A). General Information

(i).	Name of Company/ Licensee	CIHC Pak Power Company Limited	
(ii).	Registered/Business Office	House No. 6, Street No. 11, F-7/2, Islamabad.	
(iii).	Location of the Generation Facility/ Power Plant	Mouza Darbella Janubi near Sur Bundar, Tehsil and District Gwadar, in the Province of Balochistan	
(iv).	Type of Generation Facility/ Power Plant	Thermal Generation Facility	

(B). Configuration of Generation Facility

(i).	Installed Capacity/Size of the Generation Facility/ Power Plant	300.00 MW	
(ii).	Type of Technology	Pulverized Power Pla	d Coal Boiler Based Technology Based ant
(iii).	Number of Units/Size (MW)	2 x 150 M	W
(iv).	Unit Make/Model/Type & Year of Manufacture Etc.	Boiler Steam Turbine	2 units/Once Intermediate Reheat, Natural Circulation, Single Furnace, π-Type Layout, Balanced Ventilation, all-steel Cradle, Dry Bottom pulverized coal fired Boiler of Dongfang, China. Model: DG482/14.4-II 2 units of improved Super High pressure, Once Intermediate Reheat, Single axis, Double cylinder, Single back pressure, Condensing Steam Turbine of Dongfang China. (Model N150-13.75/538/538)
(v).	Commercial Operation Date (COD) of the Generation Facility/ Power Plant	December 31, 2022 (Anticipated)	
(vi).	Expected Useful Life of the Generation Facility/ Power Plant from COD		





(C). <u>Fuel/Raw Material Details</u>

(i).	Primary Fuel	Imported Coal		
(ii).	Start-Up Fuel	Light Speed Diesel or High Speed Diesel/HSD		
	Fuel Source for each	Primary Fuel	Start-Up Fuel	
(iii).	of the above (i.e. Imported/Indigenous)	To be imported from South Africa/Australia/ Indonesia	Indigenous/Imported	
	Fuel Supplier for each	Primary Fuel	Start-Up Fuel	
(iv).	of the above	Glencore/Noble Group/Mercuria Energy Group	Shell/Pakistan State Oil	
(v).	Supply Arrangement for each of the above	Primary Fuel	Start-Up Fuel	
(V).	Fuels	[Shipping](Marine) +[Truck](Inland)	Oil Tankers	
(vi).	No of Storage Bunkers/Tanks/	Primary Fuel	Start-Up Fuel	
(VI).	Open Yard	Two Coal Pile Open Rectangular Yard	Oil tankers	
(vii).	Storage Capacity of each Bunkers/Tanks/	Primary Fuel	Start-Up Fuel	
(VII).	Open Yard	90,500 tons	100 m³	
(viii).	Gross Storage	Primary Fuel	Start-Up Fuel	
(VIII).	Closs Stolage	181,000 tons	200 m³	

(D). <u>Emission Values</u>

		Primary Fuel	Start-Up Fuel
(i).	SO _x (mg/Nm³)	<100	<200
(ii).	NO _x (mg/Nm ³)	<100	As per NEQS*
(iii).	PM ₁₀ (mg/Nm ³)	≤30	As per NEQS





^{*} National Environmental Quality Standards

(E). Cooling System

(i).	Cooling Water Source/Cycle	Once through cooling water system
 	o o a locatory or c	-

(F). Plant Characteristics

(i).	Generation Voltage	15.75 kV		
(ii).	Frequency	50Hz		
(iii).	Power Factor	0.85 (lagging, p	provisional)	
(iv).	Automatic Generation Control (AGC) (MW control is the general practice)	Yes		
(v).	Ramping Rate (MW/min) (the applicant has provided Indicative data) [†]	100% ~ 50% TMCR 7.5 MW/min.	50% ~ 30% TMCR 4.5 MW/Min.	Below 30% TMCR 3.0 MW/Min.
(vi).	Time required to Synchronize to Grid (Minutes.) (the applicant has	for Cold Start	for Warm Start	for Hot Start
	provided Indicative data)‡	340	133	50





[†]Indicative values as provided by the Licensee. The same will be firmed up at the time of finalization of PPA, after final design of the plant.

[‡] Indicative values as provided by the Licensee. The same will be firmed up at the time of finalization of PPA, after final design of the plant.

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 Licensee is given in this Schedule



SCHEDULE-II

(1).	Total Gross Installed Capacity of the Generation Facility/Power Plant	300.00 MW
(2).	De-rated Capacity of Generation Facility/Power Plant at Reference Site Conditions	300.00 MW
(3).	Auxiliary Consumption of the Generation Facility/Power Plant	26.94 MW
(4).	Total Installed Net Capacity of Generation Facility/Power Plant at Reference Site Condition	273.06 MW

Note

All the above figures are indicative as provided by the Licensee. 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).

