

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/R/DL/LAG-505/492/-26

April 11, 2022

Syed Faysal Hussain Naqvi Chief Executive Officer AGJV (Private) Limited LS-30, Block-13 Federal B. Area, Karachi

Subject:

Grant of Generation Licence No. SGC/160/2022

Licence Application No. LAG-505 AGJV (Private) Limited (AGJVPL)

Reference:

AGJVPL's application vide letter nil dated 27.10.2020

Enclosed please find herewith Generation Licence No. SGC/160/2022 granted by National Electric Power Regulatory Authority (NEPRA) to AGJV (Private) Limited (AGJVPL) for its 10.0 MW Coal based Thermal Generation Facility located at Village Singharo Bhitro, Block-II, Taluka Islamkot, District Tharparker in the Province of Sindh, pursuant to Section 14(B) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, as amended or replaced from time to time. Further, the determination of the Authority in the subject matter is also attached.

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

Enclosure: Generation Licence (SGC/160/2022)



(Syed Safeer Hussain)

Copy to:

- 1. Secretary, Ministry of Energy (Power Division), A-Block, Pak Secretariat, Islamabad.
- 2. Managing Director, NTDC, 414-WAPDA House, Lahore.
- 3. Chief Executive Officer, Central Power Purchasing Agency Guarantee Ltd, 73 East, A.K. Fazl-ul-Haq Rd, Blue Area, Islamabad
- 4. Chief Executive Officer, Hyderabad Electric Supply Company, Old State Bank Building, G.O. R Colony, Hyderabad
- 5. Director General, Environmental Protection Agency, Government of Sindh, Plot No. ST/2/1, Sector 23, Korangi Industrial Area, Karachi

National Electric Power Regulatory Authority (NEPRA)

<u>Determination of the Authority</u> <u>in the Matter of Application of AGJV (Private) Limited for the</u> Grant of Generation Licence

April ^{//},2022 Case No. LAG-50*5*

(A). Filing of Application

- (i). AGJV (Private) Limited (AGJVPL) submitted an application on April 08, 2021 for the grant of generation licence in terms of Section-14B of Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act") read with the relevant provisions of the NEPRA Licensing (Application and Modification, Procedure) Regulations, 1999 (the "Licensing Regulations-1999").
- (ii). The Registrar examined the submitted application and found that the application was deficient in terms of the Licensing Regulations-1999. Accordingly, the Registrar directed AGJVPL to submit the missing information/documents as required under the said regulations. AGJVPL completed the submission of missing information/documentation by May 03, 2021. The Registrar submitted the matter before the Authority to decide the admission of the application or otherwise. The Authority considered the matter and found the form and content of the application in substantial compliance with Regulation-3 of the Licensing Regulations-1999. Accordingly, the Authority admitted the application on May 27, 2021 for consideration of the grant of the generation licence as stipulated in Regulation-7 of the Licensing Regulations-1999. The Authority approved a Notice of Admission for inviting comments of general public, interested and affected persons in the matter as stipulated in





Regulation-8 of the Licensing Regulations-1999. Accordingly, notices were published in one (01) Urdu and one (01) English newspapers on May 27, 2021.

(iii). 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-1999. Accordingly, letters were sent to different stakeholders as per the approved list on May 27, 2021, soliciting their comments for assistance of the Authority.

(B). Comments of Stakeholders

- (i). In reply to the above, the Authority received comments from two (02) stakeholders which included Private Power & Infrastructure Board of Ministry of Energy Government of Pakistan (PPIB) and Hyderabad Electric Supply Company Limited (HESCO). The salient points of the comments offered by the above mentioned stakeholders are summarized in the paragraphs as mentioned below: -
 - (a). PPIB in its comments stated that AGJVPL has submitted an application for the grant of generation licence in respect of its proposed 10.00 MW coal fired power plant to be set up at Thar coal Block-II, in the province of Sindh. In this regard, PPIB appreciates and supports initiative of AGJVPL for setting up the coal fired generation facility for supplying to Sindh Engro Coal Mining Company Limited (SECMCL). It is pertinent to mention that SECMCL is meeting its requirement for electric power by operating diesel generating sets which is an expensive mode of power generation. The replacement of this diesel operated genset with coal power generation will significantly lower power generation cost. The same is also expected to reduce per ton cost of coal, which will ultimately reduce power generation tariff of Thar coal based IPP(s). It





may be noted that PPIB is processing five power projects with a cumulative capacity of 2,310 MW to be operated on Thar Block-II Coal. In order to achieve economies of scale by making Thar coal a preferred choice for power generation and reduce the overall basket price of electricity, SECMC should make efforts to reduce the price of coal below U.S. \$25.00/Tons. In view of the above, PPIB supports this initiative of replacing diesel power genset with 10.00 MW coal power project; and

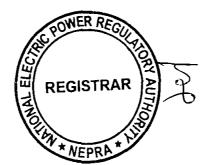
HESCO commented that the application of AGJVPL and its (b). request to confer the supply right is contrary to NEPRA Act and violative of the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 "Generation Rules"), the Licensing Regulations-1999 and National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021, as applicable (the "Licensing Regulations-2021" and collectively with the Licensing Regulations-1999 as the "Regulations", the Distribution Licence dated April 23, 2002 (the "Distribution Licence") and settled principles of law. The Authority has recognized and endorsed the statutory mandate of Rule-3 of the Generation Rules, and further affirmed it as a mandatory pre-condition for grant of a generation licence. AGJVPL is therefore, legally obliged to demonstrate, through documentary evidence, its compliance of the legal thresholds of Rule 3 of the Generation Rules. Admittedly the Application, as well as the contents thereof are insufficient in this respect and cannot, therefore be entertained under law. Regulations-3, 5 and 9 of the Licensing Regulations-1999 and Regulation-3





and 5 of the Licensing Regulations-2021, as applicable, and other applicable provisions of the Regulations lay out binding legal prescriptions which also regulate the grant of a licence under the NEPRA Act. There is nothing on record which demonstrates that AGJVPL has satisfied the mandatory prescriptions of the Regulations. The Application therefore fails to satisfy the applicable statutory thresholds of the Regulations and the law. It is settled law that the Application cannot be processed or approved till its legal defects are rectified. The request of AGJVPL to be granted the rights to supply particularly in context of the Bulk Power Consumer (BPC), is patently illegal. As per the Distribution Licence, HESCO enjoys an exclusive right to distribute and make sale of electricity within its service territory for a defined period. Admittedly, the Distribution License is valid and AGJVPL cannot legally be conferred the Supply Right in contravention of legal rights of HESCO that are protected under law. Even otherwise, the proposed BPC i.e. SECMC is a B3(14T) consumer of HESCO bearing Reference No. 28-37424-0140703 with connection date December 30, 2018 and a sanctioned load of 5000 kW. It is a matter of record that the BPC has been regularly procuring electricity from HESCO, which has been accounted for in preparing electricity procurement plans for the future. In this regard, the arrangement of supply to cater such demand have already been accounted for at the relevant quarters. In fact, the Authority has itself observed that the country is currently facing a crisis whereby the supply of electricity exceeds the required demand. By conferring the right of supply on AGJVPL and accepting the application, the demand of BPC for electricity would correspondingly deplete from the





network of HESCO and, further contribute to the afore-stated crisis. It would additionally, deprive HESCO of such transactions and sale, as have been statutorily guaranteed to it under law. The Application is liable to be dismissed. If accepted, the Application shall have the effect of creating and shifting the burden of exponential sunk and stranded costs onto the remaining consumers in the market. The unit cost of electricity available in the pool would therefore, automatically increase and in doing so, place a greater burden on vulnerable consumers of not just HESCO, but the entire country. Additionally, the application therefore seeks to exclusively benefit a private power producer AGJVPL and the BPC, to the utter disadvantage of the ordinary consumers of HESCO and the pool. Such discrimination between consumers violates Article-25 of the Constitution of the Islamic Republic of Pakistan, 1973 and is liable to be checked. AGJVPL can neither claim, nor be granted the right of supply, without securing the requisite Supplier Licence under Section-23E read with Section-23F of the NEPRA Act, which are in the course of being developed. AGJVPL cannot be allowed therefore be conferred the right of supply, in blatant circumvention of binding instructions of law. Without prejudice to the above, under Section-22(2) of the NEPRA Act, certain formalities are required to be fulfilled before a BPC can stop purchasing electric power from a distribution company. In this regard, Section-22(2) provides "...where a bulk power consumer intends to stop purchase of electric power from a distribution company, it shall convey its intention by notice in writing one year before such stoppage...". Admittedly, the BPC has not conveyed or communicated its intention to stop procurement from

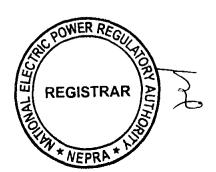




HESCO. In the absence of such consent, the application of AGJVPL cannot be processed as per law. HESCO reserves its right to urge, agitate or raise any additional ground at any time either prior to the hearing and/or at the time of the hearing. In light of the above, it is requested that the Authority consider the Application and decide the same.

(ii). The Authority considered the above comments of the stakeholders and in view of the observations of HESCO, considered appropriate to seek the perspective of AGJVPL in the matter. On the observations of HESCO, it was submitted that SECMC is involved in the development of a coal mine at Islamkot, Thar Coal Block-II, district Tharparkar, in the province of Sindh. In view of the remote location of the site, the electrical power requirements for the mining and other related activities are being met utilizing diesel generators. SECMC is currently meeting electricity requirements for its mining operations through the purchase of electricity from a 5.00 MW solar based generation facility which Reon Alpha (Private) Limited (RAPL) has developed and the diesel generators installed there. The Authority has already issued a generation licence to RAPL for the development of the generation facility and Second Tier Supply Authorization (STSA) for supplying to SECMC as BPC. After going through the competitive process, SECMC has selected the bid of Joint Venture (JV) of AMCORP Engineering & Construction (Private) Limited (AMCORP) and Gasco Engineering (Private) Limited (GASCO) for the installation of a 10.00 MW coal power plant. Later the Special Purpose Vehicle (SPV) in the name of AGJVPL was incorporated in between the shareholder of AMCORP and GASCO. It is pertinent to mention that SECMC is already in the business of mining coal from the area. The coal is to be supplied by SECMC for the use of power plant, which makes the electricity viable. AGJVPL has applied for the grant of generation licence in terms of the relevant regulations and all the documents have been provided in this regard. The submitted information/documentation establishes that the required technical and financial resources are available with the sponsors

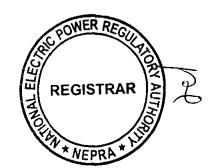




to develop the proposed generation facility/Project. AGJVPL, in its application, has submitted the feasibility study, company constitutional documents, HR strength, Contractor Profile, Company experience and other documentation, as per the regulations. The Applicant has provided the relevant information meeting the eligibility criteria of generation licence as stated under Regulation-5 of the Regulations-1999, after which the Authority has admitted the application. In order to address the environmental aspects, AGJVPL has prepared the required environmental report(s) and submitted the same to Environmental Protection Agency Govt. of Sindh (EPAGoS) which after scrutinizing the report(s) has issued the required No Objection Certificate (NOC) for the Project which has already been submitted with the Authority. The sponsors of AGJVPL have a total assets of Rs 3,660.64 Million which demonstrates the financial resources to carry out the proposed project. The applicant/AGJVPL has also provided the credit certificates of different banks which shows the creditworthiness. The total cost of the project is estimated to be U.S. \$ 14.00 Million which will be financed through a combination of debt and equity in a ratio of 70:30. In this regard, Bank Al-Habib Limited has already issued a Letter of Support for the financing of the proposed project which has also been submitted to the Authority along with the application. The electric power generated will only be supplied to BPC in the name of SECMC which will act as a Power Purchaser. According to Section-2(ii) of the NEPRA Act, a BPC "means a consumer which purchases or receives electric power at one premises, in an amount of one megawatt or more or in such amount and voltage level and with such characteristics as the Authority may specify and the Authority may specify different amounts and voltage levels and with such other characteristics for different areas". In view of the said, it is clear that SECMC qualifies as a BPC under the provisions of the NEPRA Act. The electric power to the BPC will be supplied through two (02) feeder of 11 kV voltage, measuring about 500 meter in length which is located on the property of owned by SECMC and does not involve any public or third-party property. According to Section-22 of the NEPRA Act, the Authority is empowered to allow a generation company to sell electric power to a BPC located in the service territory of a distribution







company. Further, under Section-2(v) of the NEPRA Act, ownership, operation, management and control of distribution facilities located on private property and used solely to move or deliver electric power to the person owning, operating, managing and controlling those facilities or to tenants thereof has not been included in the definition of "distribution". In view of the said, the supply of power to BPC by AGJVPL does not constitute a distribution activity under the NEPRA Act and it does not require a distribution licence for supplying to SECMC. It is clarified that SECMC is a B3(14T) consumer of HESCO with a sanctioned load of up to 5000 KW which is being supplied to residential colonies (accommodation camps of Army/FC/Rangers). However, the proposed project will provide power to SECMC mining and auxiliary operations only (which currently is being fulfilled by diesel generators). Further to the said, it is a clarified that SECMC does not intend to discontinue the power supply from HESCO therefore, there will not be any adverse impact on the supply from HESCO. Currently, SECMC is running on diesel generators to fulfil its requirements of electric power of critical equipment relating to mining and dewatering operations for an uninterrupted operation. The proposed project will displace the diesel generation which will reduce the dependency on imported fuel, overall beneficial for the economy of the country. In view of the above explanation, it is also clear that there will not be any reduction in the off take of electricity from HESCO. The utilization of local coal as fuel will decrease the cost of power production for SECMC, resulting in lowering the prices of the local coal. In consideration of the above, it is clear that AGJVPL meets the eligibility criteria for the grant of the generation licence for the proposed project therefore, the same may be granted.

(iii). The Authority considered the above submissions of the AGJVPL and accordingly considered it appropriate to process the application for the grant of generation licence as stipulated in the Licensing Regulations-1999 and the Generation Rules.







(C). Evaluation/Findings of the Authority

- (i). The Authority has examined the submissions of AGJVPL including the information provided in its application for the grant of generation licence. Further, the Authority has considered the feasibility study of the project, interconnection & dispersal arrangement studies, etc., provisions of the NEPRA Act, the relevant rules and regulations.
- (ii). The applicant i.e. AGJVPL is an entity incorporated under Section-16 of the Companies Act, 2017 (XIX of 2017), having Corporate Universal Identification No. 0167161, dated January 26, 2021. It is a private limited company with the principal line of business of generating, purchasing, importing, transforming, converting, distributing, supplying, exporting and dealing in all forms of energy, be it electricity, gas, solar and products or services associated therewith and of promoting the conservation and efficient use of energy and to perform all other acts which are necessary or incidental to the business of electricity generation, transmission, distribution and supply.
- (iii). AGJVPL has been incorporated as a SPV of a joint venture of AMCORP and GASCO to set up 10.00 MW local coal based generation facility for supplying to SECMC for its mining facilities at Block-II of the Thar coal mines. It is pertinent to mention that SECMC is a joint venture of Engro Energy Limited & Affiliates and Government of Sindh and is working on the development of an Open Cast Lignite Mine in the said area. SECMC issued a Request for Proposal on November 14, 2019, inviting proposals for the setting up of a generation facility on BOO (Build, Own, Operate) basis. After going through the bidding process, a Letter of Intent (LoI) was issued to the above joint venture of AMCORP and GASCO.





- (iv). In this regard, it is pertinent to mention that AMCORP is an entity which is almost six decades old and has grown into a well-known and reliable construction company of the country working in almost all sectors of the construction business. The other partner of the JV is GASCO, is also an old entity working in the oil and gas production and transportation industry since 1990. During these years, GASCO has gained an enviable reputation in the said sector due to its efficient service and excellent post-project follow-up. It has carried out significant contracts for many major oil & gas companies over the years. In view of the said, it is clear that sponsors of AGJVPL have the required technical and financial capabilities to develop the proposed generation facility to be operating on local coal of the Block-II of the Thar coal mines.
- (v). As explained above, the application for grant of generation licence under consideration envisages setting up a 10.00 MW generation facility at Thar Coal block-II, district Tharparker for supplying to SECMCL as a BPC. According to the submitted information, the total cost of the project will be about U.S. \$ 14.00 million which will be financed through a combination of debt (70% of the total cost of project i.e. U.S. \$ 09.80 million) and equity (of 30% of the total cost of project i.e. U.S. \$ 04.20 million). In this regard, a number of financial institution/commercial banks have shown their willingness to finance the debt portion of the project.
- (vi). The sponsor carried out a feasibility study of the project including inter alia, selection of technology for the generation facility including minimum efficiency of the type of coal for the facility, coal transportation, coal handing, ash disposal, water requirements, equipment details, soil tests reports, technical details pertaining to selected steam turbine and other allied equipment to be used at the coal power plant, electrical studies, environmental study and project financing etc. It is pertinent to mention that the feasibility study of the project which after considering various factors of the projected including the flexibility in the type





of coal and ultimate requirements of the BPC selected Circulating Fluidized Bed Combustion (CFBC) technology with 1 x 10.00 MW steam turbine.

(vii). The proposed size of the generation facility has been estimated after a thorough analysis of the load requirement of SECMCL/BPC. The proposed generation facility will be utilizing local coal available from Thar coal mines of Block-II with SECMC. As explained above, the consultant carried out a detailed feasibility study and selected CFBC technology for the project. The proposed technology is mature and is capable of using different types of coals (low-grade coal, biomass, sludge, waste plastics, and waste tyres as fuel). CFBC is High combustion efficiency/Improved combustion efficiency that is attained through the use of a circulating fluidization-mode combustion mechanism. The CFBC technology has different features including saving in space and ease of maintenance. The space saving is attained because there is no need for separate desulfurization, de-nitration, and fine-fuel crushing units. Accordingly, troublespots are minimized, and maintenance is simplified. It is pertinent to mention that Sub-Critical is the most deployed technology worldwide and as per the statics available 80% of the coal power plants are Sub-Critical technology. Further, with the proposed sizing only this technology is available in market due to metallurgical limitations. The proposed generation facility is based on the parameters of 67 bar and 485°C at the boiler outlet. AGJVPL has proposed to install a 1 x 10.00 MW condensing steam turbine of Hangzhou Steam Turbine Co. Limited China, Siemens Germany, GE USA, Ansaldo or equivalent etc. which are well reputed worldwide. The guaranteed gross efficiency of boiler at Reference Site Conditions (RSC) is about 88.00%, gross efficiency of generator at RSC is 98.5% and the gross efficiency of steam turbine is approximately 30.00% whereas the net efficiency of same will be around 26.00%.

(viii). Regarding the fuel required for operation of the project, it has been observed that the generation facility will be operated with the local lignite coal of Block-II of the Thar Coal. The coal will be transported through trucks to the site

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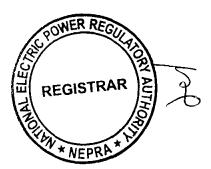
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whereby it will be stored in sheds and yards before using the same for power generation duly complying with the required standards. It is pertinent to mention that the annual requirement of coal for the generation facility will be about 0.50 million tons. It is pertinent to mention that sufficient space will be available for the storage of the coal for the smooth and reliable operation of the generation facility.

- (ix). About the water requirement for cooling and other purposes, it has been noted that the same will be managed by utilizing the ground water available at site through a closed cycle process. In order to have saving of water and rational utilization of water resources, the multi-purpose, graded use and repeated utilization mechanism will be applied. Regarding impact of the project on environment, AGJVPL has confirmed that Initial Environmental Examination (IEE)/Environmental Impact Assessment (EIA) of the project was carried out and the same was submitted for approval of the EPAGoS and necessary NOC was also issued confirming that project will adhere to the National Environmental Quality Standards (NEQS). In view of the importance of the matter, the Authority considers it appropriate that AGJVPL is made obligatory to comply with the relevant environmental standards.
- (x). As explained above, the electric power to the tune of maximum of 10.00 MW from proposed generation facilities will be supplied to SECMCL as a BPC. In this regard, it is pertinent to mention BPC is a defined term as stipulated in Section-2(ii) of the NEPRA Act. According to the said, a BPC is a consumer which purchases or receives electric power, at one premises, in an amount of one megawatt or more or in such other amount and voltage level and with such other characteristics as the Authority may specify and the Authority may specify different amounts and voltage levels and with such other characteristics for different areas. As explained above, SECMCL plans to purchase electric power from AGJVPL in an amount of more than 1.00 MW therefore, the Authority may allow SECMCL as a BPC of AGJVPL.

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- (xi). According to the system study of the project, the Authority has observed that for supplying to the proposed BPC(s), the prospective AGJVPL will be required laying 2 x 11 kV Feeder(s) located on private property owned by SECMCL/BPC. According to Section-2(v) of the NEPRA Act defines the term "Distribution" wherein the ownership, operation, management and control of distribution facilities located on private property and used solely to move or deliver electric power to the person owning, operating, managing and controlling those facilities or to tenants thereof is not included in the definition of "distribution". As explained above, the distribution facilities to be used for delivery of electric power to BPC(s) are located on private property (without involving any public property or any third party) will be owned, operated, managed and controlled by the SECMCL/BPC therefore, the supply of electric power to it by AGJVPL does not constitute a distribution activity under the Act, and a distribution licence will not be required by the company.
- (xii). The Rule-5(1) of the Generation Rules stipulates that the term of a generation licence is to be consistent with the maximum expected useful life of the units comprised in a generating facility, except where an applicant consents to a shorter term. According to the information provided by AGJVPL, its generation facility/thermal power plant will achieve Commercial Operation Code (COD) by October 01, 2023 and will have a useful life of more than thirty (30) years from its COD. In this regard, AGJVPL has requested that the term of the proposed generation licence may be fixed accordingly. In consideration of the said, it is clarified that the submissions of AGJVPL are in line with the industry standards and norms. In view of the said, the term of the proposed generation licence may be set to thirty (30) years from COD of the project.
- (xiii). 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. As the matter of rates, charges and terms and conditions of tariff







between AGJVPL and its proposed BPC do not affect any other consumer or third party therefore, the Authority considers that for the purpose of tariff, it will be appropriate directing AGJVPL and its BPC to agree to a bilateral agreement. Accordingly, AGJVPL may be allowed to charge the agreed tariff from its BPC subsequent to the grant of the generation licence.

(xiv). Regarding the Rule-3(5) of the Generation Rules which stipulates that the Authority may refuse to issue a generation licence where the site, technology, design, fuel, tariff or other relevant matters pertaining to the generation facility/power plant proposed in an application for a generation licence are either not suitable on environmental grounds or do not satisfy the least cost option criteria. In this regard, the Rule-3(5) of the Generation Rules stipulates the conditions pertaining to Least Cost Option Criteria which includes (a). sustainable development or optimum utilization of the RE or non-RE resources proposed for generation of electric power; (b), the availability of indigenous fuel and other resources; (c), the comparative costs of the construction, operation and maintenance of the proposed generation facility/co-generation facility/power plant against the preferences indicated by the Authority; (d). the cost and right-of-way considerations related to the provision of transmission and interconnection facilities; (e). the constraints on the transmission system likely to result from the proposed generation facility/co-generation facility/power plant and the costs of the transmission system expansion required to remove such constraints; (f), the short-term and the long-term forecasts for additional capacity requirements; (g). the tariff resulting or likely to result from the construction or operation of the proposed generation facility/co-generation facility/power plant; and (h), the optimum utilization of various sites in the context of both the short-term and the long-term requirements of the electric power industry as a whole.

(xv). In consideration of the above, the Authority considers that the proposed project will result in optimum utilization of the indigenous resource of local coal which is untapped at the moment, resulting in displacing costly

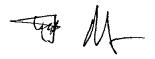
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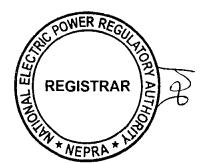


electricity being generated using diesel. It is pertinent to mention that coal from Thar is an indigenous source and such resources should have a preference for energy security. As explained in the preceding paragraphs above, the company will be supplying to a BPC directly which only involve laying a few hundred meters length of feeder(s) which concludes that the project will not face any constraints in transmission of power. Further, being located in the same vicinity of the BPC, the project will not result in cost and right-of-way issue for the provision of interconnection facilities. In view of the said, the Authority considers that the project of AGJVPL fulfills the eligibility criteria for grant of generation licence as stipulated in the NEPRA Act, rules and regulations and other applicable documents.

(D). Grant of Licence

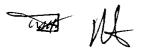
- (i). The Authority considers that electric power/electricity is a fundamental element for the economic growth of any country. The electricity consumption per capita has a strong correlation to the Social Development Indices (Human Development Index-HDI, life expectancy at birth, infant mortality rate, and maternal mortality) and Economic Indices.
- (ii). The Authority is of the considered opinion that increasing the per capita consumption of electricity can directly stimulate faster economic growth and indirectly achieve enhanced social development. In short, the economic growth of any country is directly linked with the availability of safe, secure, reliable and cheaper supply of electricity. In view of the said, the Authority considers that for sustainable development, the availability of electricity to industrial units at an affordable prices must be ensured.
- (iii). The Authority has observed that the demand supply situation of electric power in the country has improved considerably however, the transmission and distribution constraints still exist. In view of the said, there are entities which are still facing issues of reliability and continuity of supply for which





such entities are constraint to have other sources of electricity including Captive Power Plant or supply arrangements from third party sources of generation.

- (iv). The Authority has noted that the generation facility of AGJVPL is being set up primarily to meet with the electric power requirements of the coal mining that SECMCL is carrying out at Block-II of the Thar Coal for supplying to different generation facilities set up there. As explained in the preceding paragraphs, AGJVPL will be supplying to SECMCL as a BPC for which it fulfils the requirements as stipulated in Section-2(ii) of the NEPRA Act. In view of the said, the Authority declares SECMCL as a BPC of AGJVPL under Section-22 of the NEPRA Act.
- (v). As explained in the preceding paragraphs, the supply to the generation facility of AGJVPL to BPC will be made through two (02x11 kV) feeders measuring about 500 meter in length. According to the information provided, the proposed feeders will be mostly located on private property owned by the SECMCL itself. In light of the explanation in the preceding paragraphs, such an arrangement does not constitute a distribution activity in terms of Section-2(v) of the NEPRA Act and therefore, the Authority considers that AGJVPL does not require any such licence.
- (vi). The term of a generation licence under Rule-5(1) of the Generation Rules is required to match with the maximum expected useful life of the units comprised in a generating facility, except where an applicant for a generation licence consents to a shorter term. According to the information provided by the company/AGJVPL, the COD of the proposed generation facility/thermal power plant will be October 01, 2023 and it will have a useful life of more than thirty (30) years from its COD. In this regard, the AGJVPL has requested that the term of the proposed generation licence may be fixed to thirty (30) years. The Authority observes the submission of AGJVPL regarding the useful life of the proposed generation facility are as per national and international benchmarks and





standards therefore, the term of the generation licence is set to thirty (30) years from COD of the generation facility, subject to provisions of Section-14B of the NEPRA Act.

(vii). Regarding the rates, charges and terms and conditions of the tariff between MEP and its BPC(s), the Authority clarifies that under Section-7 is its sole prerogative. However, the Authority observes that the tariff between AGJVPL and its BPC is a bilateral issue and does not affect any other consumer or third party. Therefore, in this particular case, the Authority considers it appropriate to direct AGJVPL and its BPC to agree on a bilateral agreement and accordingly, AGJVPL will be allowed to charge the mutually agreed tariff to its BPC.

(viii). As explained in the preceding paragraphs, AGJVPL has already obtained NOC from EPDGoS and has confirmed that the project will comply with the required standards during the term of the generation licence. In view of the importance of the issue, the Authority has included an exclusive article (i.e. Article-10) in the generation licence, making it obligatory for AGJVPL to comply with relevant environmental standards at all times. Further, the Authority directs AGJVPL to submit a report on bi-annual basis, confirming that operation of its generation facility/thermal power plant is in compliance with the required environmental standards as prescribed by the concerned environmental protection agency.

(ix). The Authority has considered the comments of the stakeholders offered during the course of the processing of the application. As explained in the preceding paragraphs, HESCO have raised various issues including (a). non-compliance of the provisions of the relevant rules and regulations; (b). the exclusive right to provide distribution services during the term of the existing distribution licence; (c). non-fulfillment of notice period under Section-22 of the NEPRA Act for switching from DISCO to any other source; and (d). requirement of the supplier licence for supplying to a BPC. In consideration of the above, the







Authority has observed that AGJVPL has also responded to the queries raised and found the same plausible. However, the Authority considers it appropriate to give its determination in the matter by addressing the above observations. The Authority has observed that AGJVPL has provided the required information and documents as stipulated in the relevant rules and regulations as explained in the preceding paragraphs. The Authority is of the considered opinion that the objections of HESCO that AGJVPL does not fulfil the eligibility criteria is not based on the facts therefore the observations on the issue are dismissed. About the observations of HESCO that it enjoys "Exclusivity" and therefore, no other entity can be allowed supplying to SECMCL as its BPC in its Service Territory. In this regard, the Authority clarifies that in terms of the existing Distribution Licence (No.05/DL/2002, dated April 21, 2002) of HESCO, it has exclusivity for a period of twenty (20) years which will be expiring on April 21, 2022. In this regard, the Authority will like to clarify that in terms of the amendments of 2018 in the NEPRA Act, the Section-21 stands amended dispensing the exclusivity for Distribution Companies. In this regard, AGJVPL has confirmed that the proposed generation facility will achieve COD on October 01, 2023 which is well beyond the deadline by which the utility has exclusivity. In view of the said, the Authority is of the considered opinion that by allowing AGJVPL to supply to SECMCL as a BPC will not violate the current term of the licence of HESCO. About the notice to be served by BPC if it switches to any other source other than Distribution Company, AGJVPL has clarified that SECMC will not be disconnecting supply from HESCO therefore, the question of notice does not arise. Regarding the observation that for supplying to BPC, the company will be requiring a Supplier Licence under Section-23E of the NEPRA Act, the Authority hereby clarifies that necessary rules and regulations on the subject are still under formation and once the same are notified and if there is a requirement for such a licence, AGJVPL shall file an application before the Authority for such a licence as stipulated under the relevant rules and regulations. In consideration of the above, the Authority considers that observations of HESCO stand resolved and addressed.





(x). In view of the above, the Authority hereby approves the grant of generation licence to AGJVPL on the terms and conditions set out in the generation licence annexed to this determination. The grant of generation licence will be subject to the provisions contained in the NEPRA Act, relevant rules, regulations framed thereunder and other applicable documents.

Authority:

Engr. Magsood Anwar Khan (Member)

Rehmatullah Baloch (Member)

Rafique Ahmed Shaikh (Member)

Tauseef H. Farooqi (Chairman)

Retired



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National Electric Power Regulatory Authority (NEPRA) Islamabad - Pakistan

GENERATION LICENCE No. SGC/160/2022

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

AGJV (PRIVATE) LIMITED

Incorporated under Section-16 of the Companies Act, 2017 (XIX of 2017) having Corporate Universal Identification No. 0167161, dated January 26, 2021

for its Local Coal based Generation Facility/ Thermal Power Plant located at village Singharo Bhitro, Block-II, taluka Islamkot, district Tharparkar, in the province of Sindh

(Installed Capacity: 10.00 MW)

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

Given under my hand on _______ day of April Two Thousand & Twenty Two and expires on 30th day of September Two Thousand & Fifty-Three

Registrar



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 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 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). "Bulk Power Consumer (BPC)" means a consumer which purchases or receives electric power, at one premises, in an amount of one (01) megawatt or more or in such other amount and voltage level and with such other characteristics as the Authority may specify and the Authority may specify different amounts and voltage levels and with such other characteristics for different areas:
 - "Bus Bar" means a system of conductors in the generation facility/thermal power plant of the Licensee on which the electric

was

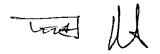
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(f).

power from all the generators is collected for supplying to the Power Purchaser or Bulk Power Purchaser:

- (g). "Commercial Code" means the commercial code prepared under the National Electric Power Regulatory Authority (Market Operator, Registration, Standards and Procedure) Rules, 2015 as amended or replaced from time to time;
- (h). "Commercial Operations Date (COD)" means the day immediately following the date on which the generation facility/Thermal Power Plant of the Licensee is Commissioned:
- (i). "Commissioned" means the successful completion of commissioning of the generation facility/Thermal Power Plant for continuous operation and despatch to the Power Purchaser;
- (j). "Distribution Code" means the distribution code prepared by the concerned XW-DISCO and approved by the Authority, as may be revised from time to time with necessary approval of the Authority;
- (k). "Generation Rules" mean the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 as amended or replaced from time to time;
- (I). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (m). "HESCO" means Hyderabad Electric Supply Company Limited and its successors or permitted assigns;
- (n). "Law" means the Act, relevant rules and regulations made there under and all the Applicable Documents;
- (o). "Licence" means this licence granted to the Licensee for its generation facility/Thermal Power Plant;



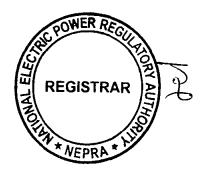
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- (p). "Licensee" means <u>AGJV (Private) Limited</u> or its successors or permitted assigns;
- (q). "Licensing Regulations" mean the National Electric Power Regulatory Authority Licensing (Application & Modification Procedure) Regulations, 1999 as amended or replaced from time to time;
- (r). "Power Purchaser" means a person or registered entity/licence holder which will be purchasing electric power from the Licensee, pursuant to a PPA for procurement of electric power;
- (s). "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 power generated by the generation facility/thermal power plant of the Licensee, as may be amended by the parties thereto from time to time;
- (t). "Thermal Power Plant" means a generation facility or power plant using fossil fuel for generation of electric power;
- (u). "XW-DISCO" means an Ex-WAPDA distribution company engaged in the distribution of electric power".
- 1.2 The 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 or replaced from time to time.





<u>Article-3</u> Generation Facilities

- **3.1** The location, size (capacity in MW), technology, interconnection arrangements, technical limits, functional specifications and other details specific to the generation facility/Thermal Power Plant of the Licensee are set out in Schedule-I of this Licence.
- 3.2 The total installed capacity, the de-rated capacity, the auxiliary consumption of the and the net capacity generation facility/Thermal Power Plant of the Licensee and the amount of electric power available to BPC are set out in Schedule-II of this Licence.
- 3.3 The Licensee shall provide the final arrangement, technical and financial specifications and other specific details pertaining to its generation facility/Thermal Power Plant before it is Commissioned.

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/Thermal Power Plant, 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 this Licence ninety (90) days prior to the expiry of the above term, as stipulated in the Generation Rules read with the Licensing Regulations.

Article-5 Licence fee

The Licensee shall pay to the Authority the Licence 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 Licensee is allowed to charge the Power Purchaser/BPC a mutually agreed tariff.

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.
- 7.2 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 into between the Licensee 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 Licensee 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 Licensee shall comply with the environmental and safety standards as may be prescribed by the relevant competent authority as amended or replaced 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/Thermal Power Plant is in conformity with required environmental standards as prescribed by the relevant competent authority as amended or replaced from time to time.

Article-11 Power off take Point and Voltage

The Licensee shall deliver the electric power to the Power Purchaser at the outgoing Bus Bar of its generation facility/ Thermal Power Plant. The Licensee 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 Licensee shall be obligated to provide the required information in any form as desired by the Authority without any exception.

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Article-13 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-14 Corporate Social Responsibility

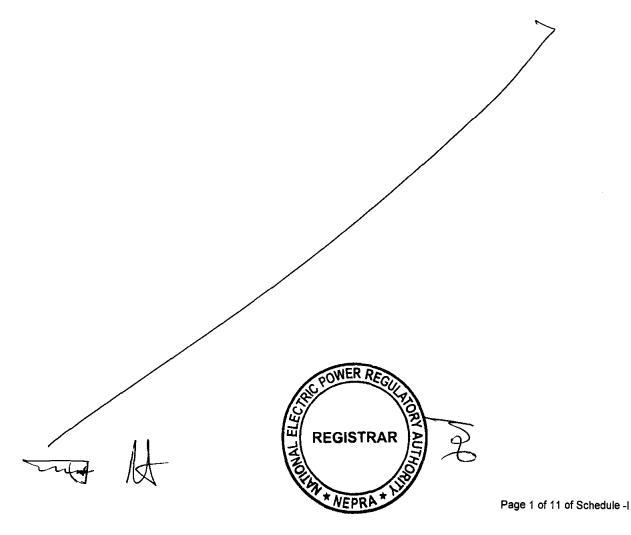
The Licensee shall provide the descriptive as well as monetary disclosure of its activities pertaining to corporate social responsibility (CSR) on an annual basis.



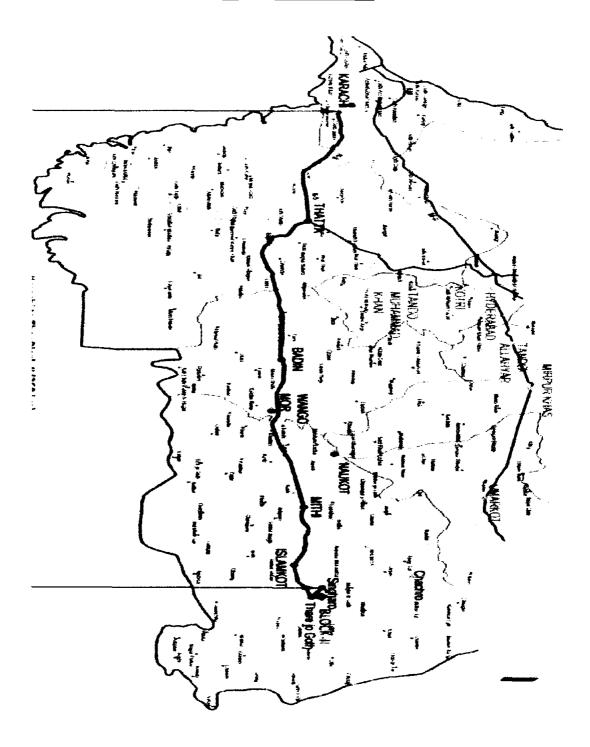


SCHEDULE-I

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/Thermal Power Plant of the Licensee

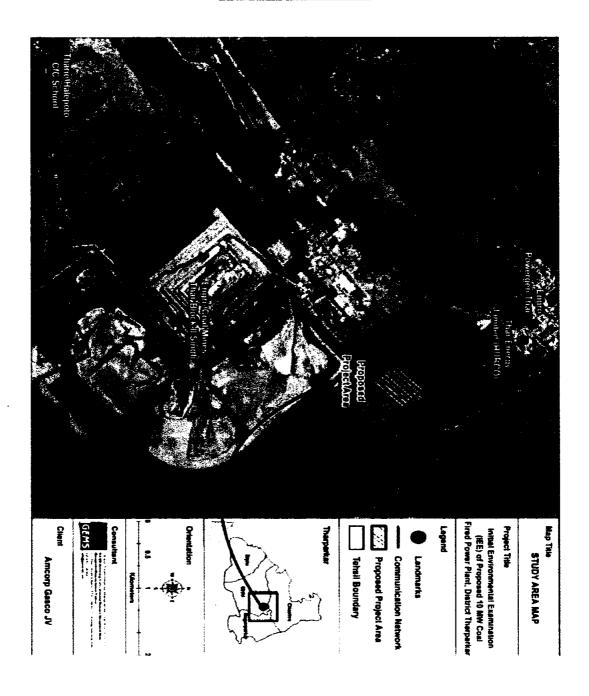








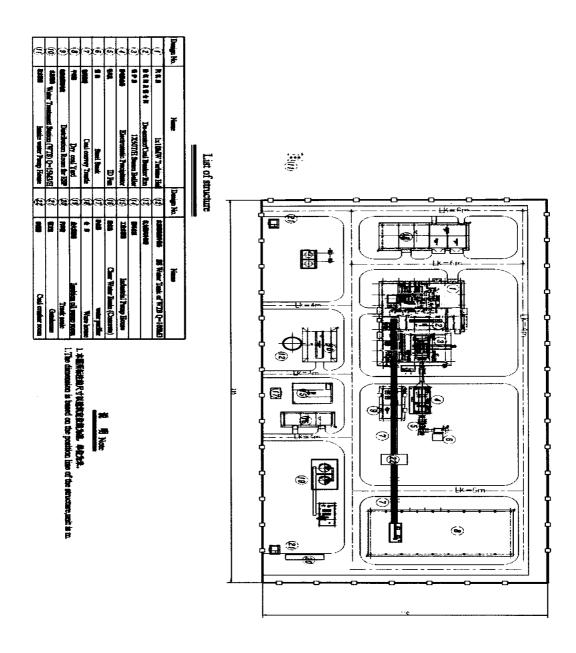
Location of the Generation Facility/Thermal Power Plant of the Licensee







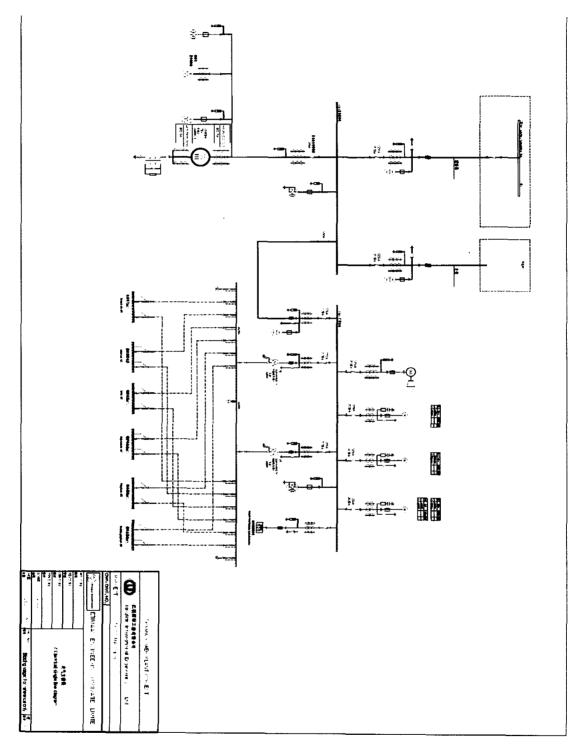
Lay Out of the Generation Facility/Thermal Power Plant of the Licensee



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Single Line Diagram Generation Facility/Thermal Power Plant of the Licensee









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

The electric power generated from the generation facility/Thermal Power Plant of the AGJV (Private) Limited-AGJVPL/Licensee will be delivered/supplied to Sindh Engro Coal Mining Company Limited-SECMCL as a Bulk Power Consumer (BPC).

(2). The details pertaining to BPC, the supply arrangements and other relating information are provided in the subsequent description of this schedule. Any changes in the said, shall be communicated to the Authority in due course of time.





<u>Details of</u> <u>Generation Facility/Thermal Power Plant</u> <u>of the Licensee</u>

(A). General Information

(i).	Name of the Company/Licensee	AGJV (Private) Limited
(ii).	Registered/ Business office of the Company/Licensee	LS-30, Block - 13, Federal B Area, Karachi, Pakistan
(iii).	Type of the generation facility/Thermal Power Plant	Thermal Power Plant
(iv).	Location(s) of the generation facility/Thermal Power Plant	Village Singharo Bhitro, Block-II, Taluka Islamkot, District Tharparkar, in the province of Sindh

(B). <u>Technology & Configuration</u>

(i).	Type of Generation Facility	Thermal Power Plant	
(ii).	Type of Technology	Condensing Pressure Steam Turbine Boiler	
(iii).	Number of Units/Size (MW)	1 x 10.00 MW	
		Boiler	Steam Turbine
(iv).	Unit Make & Model	Wuxi Huaguang, PR China Mode Nol: UG50-6.8/485	HCTC, China (Hangzhou Chinen Steam Turbine Co Model No. N10-6.7/475
(v).	Commissioning/ Commercial Operation date of Unit of the Generation Facility	October 01, 2023	

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Expected Us Unit of the G (vi). Facility from Commercial Commission	eneration its Operation/	30 years
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(C). Fuel Details

		,			
	(i).	Primary Fuel	Local Coal		
	(ii).	Alternative/Secondary Fuel	Imported Coal Diesel		
	(iii).	Start Up Fuel			
	(iv)	Fuel Source for each of the above (i.e.	Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel
	(iv).	Imported/Indigenous)	Indigenous	Imported	Indigenous/ Imported
	(v).	Fuel Supplier for each of	Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel
	(*).	the above	SECMCL	Any local supplier	PSO/Shell/ Total
	(vi).	Supply Arrangement for	Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel
158.00	(*1).	each of the above	Via Trucks	Via Trucks	Via Bowsers
	(i)	No. of Storage	Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel
REGISTRAF	(vi).	Bunkers/Tanks/Open Yard	Two (02) Covered coal sheds	Two (02) Covered coal sheds	1
REGISTRAF	(vii).	Storage Capacity of each Bunkers/Tanks/ Open	Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel
* NEPRA		Yard	312 Tons	312 Tons	20 M ³
	(viii).	Gross Storage	Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel

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	2500 tons	2500 tons	100 m ³
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(D). <u>Emission Values</u>

		Primary Fuel	Alternative/ Secondary Fuel	Start Up Fuel
(i).	SO _x	<1700 mg/Nm ³	<1700 mg/Nm ³	As per NEQS
(ii).	NO _x	<1200 mg/Nm³	<1200 mg/Nm³	-do-
(iii).	СО	<800 mg/Nm ³	<800 mg/Nm ³	-do-
(iv)	PM ₁₀	<500 mg/Nm ³	<500 mg/Nm ³	-do-

(E). Cooling Water System

(i). Source/Cycle Mine dewatering Pond/ Cooling Tower	(i). Cooling Water Source/Cycle	Mine dewatering Pond/ Cooling Tower
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(F). Plant Characteristics

(i).	Generation Voltage	11KV	
(ii).	Frequency	50 Hz	
(iii).	Power Factor	0.85 lagging	
(iv).	Automatic Generation Control	Not Applicat	ple
		Cold Start	3-hours on cold
(v).	Ramping Rate	Warm Start	1-hour on Warm
		Hot Start	30-minutes on hot.
(vi).	Time required to Synchronize to Grid and loading the complex to full load.	Not applicable	

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Information Regarding Bulk Power Consumer(s)/BPC(s) to be Supplied by the Licensee

(i).	No. o	f Consumers	One
(ii).		tion of consumers (distance or identity of premises)	Village Singharo Bhitro, Block-II Taluka Islamkot, District Tharparkar in the province of Sindh
(iii).	1	racted Capacity and Load or for consumer	10.00 MVV/70-80%
	Spec	ify Whether	
(iv).	(a).	The consumer is an Associate undertaking of the Licensee -If yes, specify percentage ownership of equity;	No
()	(b).	There are common directorships:	No
	(c).	Either can exercise influence or control over the other.	No
		ify nature of contractual ionship	
(v).	(a).	Between each consumer and Licensee.	Licensee will construct, own and operate the coal based generation facilities and provide electricity to BPC.
	(b).	Consumer and Distribution Company.	SECMCL is an existing consumer of the utility i.e. HESCO
(vi)	Any other network information deemed relevant for disclosure to or consideration of the Authority.		Not Applicable

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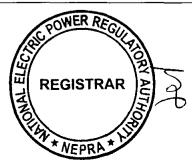
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Information Regarding Distribution Network for Supply of Electric Power to BPC

(i).	No. of Feeders		Two (02)
(ii).	Length of Each Feeder (Meter)		500 meter (apprxoimatellY0
(iii).	Length of Each Feeder to each Consumer		-do-
(iv).	In respect of all the Feeders, describe the property (streets, farms, Agri land, etc.) through, under or over which they pass right up to the premises of customer, whether they cross-over.		The feeder(s) supplying to BPC from the generation facility will be located on private property owned by BPC
	Whether owned by Licensee, Consumer or Distribution Company -(deal with each Feeder Separately)		
(v).	(a). If owned by Distribution Company, particulars of contractual arrangement		NA
	(b). Operation and maintenance responsibility for each feeder		By BPC
(vi).	Whether connection with network of Distribution Company exists (whether active or not)- If yes, provide details of connection arrangements (both technical and contractual)		No
(vii).	Any other network information deemed relevant for disclosure to or consideration of the Authority.		NA





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 are given in this Schedule



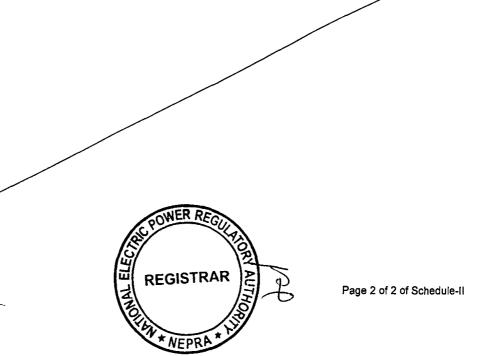
Page 1 of 2 of Schedule-II

SCHEDULE-II

(1).	Total Gross Installed Capacity/Name Plate Rating of the Generation Facility/Power Plant (1 x 10.00 MW Steam Turbine)	10.00 MVV
(2).	De-rated Capacity of Generation Facility/Power Plant (1 x 10.00 MW Steam Turbine) at Reference Site Conditions	10.00 MW
(3).	Auxiliary Consumption of the Generation Facility/Power Plant (1 x 1.20 MW Steam Turbine)	01.20 MW
(4).	Total Net Capacity of Generation Facility/Power Plant (1 x 08.80 MW Steam Turbine) at Reference Site Conditions	08.80 MW

Note

All the above figures are indicative as provided by the Licensee. The Net Power available to Power Purchaser for dispatch will be determined through procedures contained in the Power Purchase Agreement (PPA) or the Applicable Document(s).



<u>Authorization</u> by National Electric Power Regulatory Authority (NEPRA) to AGJV (Private) Limited

Incorporated under Section-16 of the Companies Act, 2017 (XIX of 2017) having Corporate Universal Identification No. 0167161, dated January 26, 2021

NEPRA GENERATION LICENCE No. SGC/160/2022 For Sale to Bulk Power Consumer(s)

Pursuant to Section-22 of the Act and Rule-7 of the NEPRA Licensing (Generation) Rules-2000, the Authority hereby authorize AGJV (Private) Limited-AGJVPL (the Licensee) to engage in second-tier supply business, limited to the following consumers:-

(a). Sindh Engro Coal Mining Company Limited-SECMCL

Engr. Magsood Anwar Khan

(Member)

Engr. Rafique Ahmed Shaikh (Member)

Retired

Engr. Rehmatuilah Baloch (Member)

Engr. Tauseef H. Fargoqi

Chairman

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Page 1 of 1 of Second Tier Supply Authorization-STSA