



Registrar

# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

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-511/5488-95

April 20, 2021

**Mr. Umar Farooq**  
Chief Executive Officer  
YDE SA (SMC-Private) Limited  
1<sup>st</sup> Floor, 140-CCA, Sector-C  
DHA, Phase-V, Lahore

**Subject: Grant of Generation Licence No. SGC/164/2022**  
**Licence Application No. LAG-511**  
**YDE SA (SMC-Private) Limited (YDSSPL)**

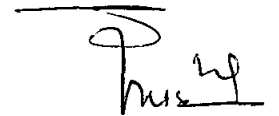
*Reference: Your application submitted vide letter No. nil dated 25-11-2021*

Enclosed please find herewith Generation Licence No. SGC/164/2022 granted by National Electric Power Regulatory Authority (NEPRA) to YDE SA (SMC-Private) Limited (YDSSPL) for its 0.93248 MWp solar based generation located at Alif Industry SMC (Pvt.) Limited at 4-KM, Raiwind Mang Road, District Kasur in the province of Punjab, 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: As Above



  
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(Syed Safer Hussain)

Copy to:

1. Secretary, Power Division, Ministry of Energy, 'A' Block, Pak Secretariat, Islamabad
2. Secretary, Ministry of Science & Technology, Government of Pakistan, Evacuee Trust Building, G-5, Islamabad
3. Managing Director, NTDC, 414 WAPDA House, Lahore
4. Chief Executive Officer, CPPA(G), 73 East, A.K. Fazl-ul-Haq Road, Blue Area, Islamabad
5. Chief Executive Officer, Alternative Energy Development Board (AEDB), 2<sup>nd</sup> Floor, OPF Building, G-5/2, Islamabad
6. Chief Executive Officer, Lahore Electric Supply Company (LESCO), 22-A, Queens Road, Lahore
7. Director General, Environmental Protection Department, Government of the Punjab, National Hockey Stadium, Ferozpur Road, Lahore

**National Electric Power Regulatory Authority**  
**(NEPRA)**

**Determination of the Authority**  
**in the Matter of Application of YDE SA (SMC-Private)**  
**Limited for the Grant of Generation Licence**

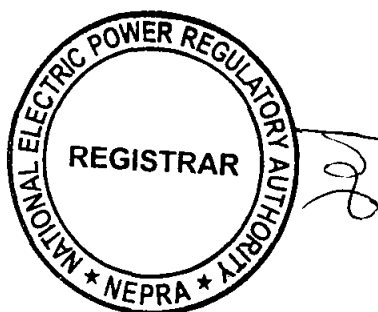
**April 20, 2022**  
**Case No. LAG-511**

**(A). Filing of Application**

(i). YDE SA (SMC-Private) Limited (YDSSPL) submitted an application on November 29, 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, Modification, Extension and Cancellation) Procedure Regulations, 2021 (the "Licensing Regulations").

(ii). The Registrar examined the submitted application and found that the application was deficient in terms of essential documents/information as specified in the Licensing Regulations. Accordingly, the Registrar directed YDSSPL to submit the missing information/documents as required under the said regulations. YDSSPL completed the submission of missing information/documents by December 10, 2021. Accordingly, the Registrar decided to proceed further in the matter and registered the application as stipulated in Regulation-6 of the Licensing Regulations. The Registrar allotted a registration number to the application and forwarded the application to the Licensing Department for processing.

(iii). In consideration of the above, the Registrar published a brief of the particulars of the application/project for which the grant of licence has been sought and an invitation to the general public to submit comments in the matter. In consideration of the said, notice was published on December 31, 2021 in one

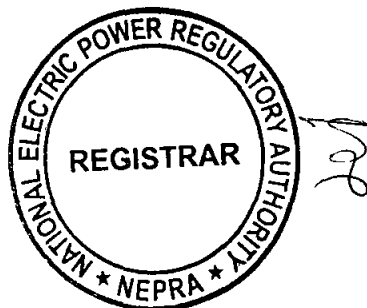


(01) English and one (01) Urdu newspapers, inviting comments of the general public and the interested/affected persons in the matter as stipulated in Regulation-7 of the Licensing Regulations. In addition to the said, the Registrar also sent letters to different stakeholders on December 31, 2021, soliciting their comments for assistance of the Authority.

**(B). Comments of Stakeholders**

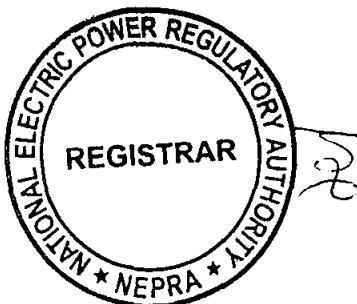
(i). In reply to the above, the Authority received comments from one (01) stakeholder only which included Lahore Electric Supply Company Limited (LESCO). The salient features of the comments offered by the said stakeholder are summarized below: -

- (a). LESCO remarked that YDSSPL is planning to set up a Photovoltaic (PV) cell based generation facility of about 0.93248 MW<sub>P</sub> for supplying/selling to Alif Industry SMC (Pvt.) Limited (AISPL), located at 4-km, Raiwind Manga Road, District Kasur, in the province of Punjab as its Bulk Power Consumer (BPC). In this regard, it is pertinent to mention that AISPL is an existing consumer of LESCO with a sanctioned load of 2.60MW, under tariff of B-3. If AISPL plans to purchase electric power from YDSSPL, it must give LESCO a notice of one (01) year before the stoppage as stipulated under Section-22(2) of NEPRA Act. Further, YDSSPL cannot lawfully be involved in sale of electricity/power within the service territory of LESCO. If YDSSPL is allowed the arrangement, the consumption of AISPL from the grid/LESCO will drop considerably resulting in loss of business to the utility. In this regard, it is clarified that LESCO is already on the list of Privatization and due to said, no action can be taken that can result in (a). Sale or transfer of licenses, permits etc.; or (b). Closing of any line of

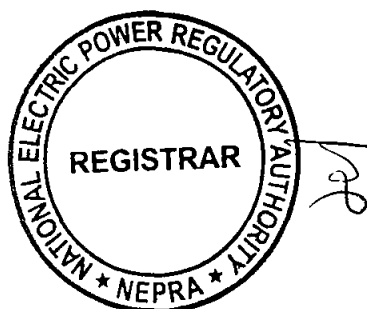


business. It is neither permissible under the Utility Practices nor any law for a BPC to have two separate electric power connections/sources from separate, distinct and independent companies/sources at the same time therefore, AISPL/BPC cannot be allowed to have independent connections simultaneously from LESCO and YDSSPL. Central Power Purchasing Agency (Guarantee) Limited (CPPAGL) on such arrangements had raised certain legal, technical and financial implications vide its letters No. CPPA-G/CEO/NEPRA/6086-91 dated September 14, 2018 and No. CPPA-G/CTO/DGM(Renewable)/Zero Carbon/23861-65 dated November 24, 2020 and the same may also be considered as an integral part of the comments by LESCO before issuance of said generation licence.

(ii). The Authority considered the above comments and in view of the observations raised, considered it appropriate seeking perspective of YDSSPL on the same. On the said, it was submitted that YDSSPL has entered into an agreement for setting up a PV based solar generation facility of 0.93248 MW<sub>p</sub> at the premises of AISPL, for supplying to it the generated energy as a BPC. It is submitted that it is an admitted position that LESCO is a distribution licensee within its defined territory. However, the distribution of electricity within its service territory was always under the NEPRA Act and was also subject to the conditions specified in Distribution Licence of LESCO. As regards to the duties and responsibilities of LESCO, the same has been enunciated in Section-21 of the NEPRA Act. The review of the above-stated provision reveals that although LESCO possessed the right of distribution of electric power within its service territory, the proviso to the said section clearly states that a generation company can make sale of Electric Power to BPC(s). It is further submitted that it is on record that the Authority has been allowing Generation Companies to make sales of power within the service territory of all the distribution licensees. It is further



submitted that Section-22(1) of the NEPRA Act clearly states that "notwithstanding anything contained in Section-21" which means that even if LESCO has the exclusive right to sell electric power within its service territory, this right does not create a "monopoly" in the sense that all the generation companies as well as other corporations are restrained from generating electricity to meet their own requirements or selling or supplying power to other BPC(s) within the service territory of LESCO. It is submitted that had the intention of the legislature been to grant "monopoly" to the LESCO, then there would have been a clear provision which would have restricted the generation of electric power by all entities even for self-generation. It is submitted that the intention of legislature was clear when it was stated that the Authority may permit the sale of electric power to the BPC(s) located within the service territory of the holder of licence under the NEPRA Act therefore, stance of LESCO is not correct. It is submitted that in case a BPC purchases power from any other source in addition to LESCO, the same has been clearly allowed under Section-22(2), which clearly states that a notice has to be given by the BPC to the distribution company only in case it intends to stop purchase of power from LESCO. In consideration of the said, YDSSPL is of the view that the above provision relates to a proposition where the BPC intends to disconnect itself and not in case, where it opts for self-generation or gets power from any other source. In the instant case, the BPC will be obtaining merely 5-7% of its annual electricity consumption from the proposed PV project. It is submitted that the "intention to stop" can by no means be stretched that a BPC cannot have a different source from which it can obtain power to meet its requirement. As stated earlier, had this been intention of the legislature, then self-generation by any corporate entity would also have been restricted by the law. It is submitted that under Article-18 of the Constitution of Pakistan, 1973, every person has a right to engage in a lawful trade or business in the country unless restricted by law. It is submitted that to restrict any entity from generation of power, there should have be a clear provision of law, in the absence of which the comment of LESCO is misconceived. In this regard, it is lastly submitted that if comments of LESCO are admitted then the whole legal structure of open



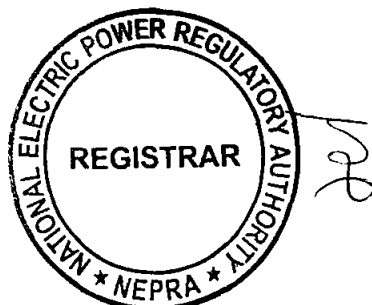
access/wheeling or embarking upon competitive market shall become superfluous as well as being against the wheeling determination of the Authority dated January 11, 2021. In the said determination, the Authority has held that imposition of any additional costs as of today would not only discourage wheeling regime in the country but at the same time would also provide no incentive to DISCO(s) to improve their performance in terms of reduction in T&D losses, pendency of new connections and increase of recoveries etc. About the contention of LESCO regarding its privatization, the instant proceedings are under the NEPRA Act and no policy decision can supersede rights of any entity granted under the relevant law i.e., the NEPRA Act. Regarding the various communications of CPPAGL, it was submitted that the same are not relevant for the purpose of processing instant application of YDSSPL for the grant of generation licence.

(iii). The Authority considered the above submissions and considered it appropriate to proceed further in the matter of the application of YDSSPL for the consideration of the grant of the generation licence as stipulated in the NEPRA Licensing (Generation) Rules, 2000 (the "Generation Rules") and Licensing Regulations.

### **(C). Evaluations/Findings**

(i). The Authority examined the submissions of YDSSPL including the information provided with its application for the grant of generation licence, the comments of the stakeholders, rejoinder submitted by the company/applicant/ YDSSPL and the relevant rules & regulations in the matter.

(ii). The Authority has observed that the applicant i.e. YDSSPL is an entity incorporated under Section-16 of the Companies Act, 2017 (XIX of 2017), having Corporate Universal Identification 0158302 dated September 21, 2020. It is a private limited company with the principal line of business to generate and sell electricity and to carry on all or any ancillary businesses relating to generation, production, sale, storage, supply and distribution of electricity and to



provide such services as are associated with or required for the said business activities and completion/installation of projects of generation and sale of electricity. Further, the Memorandum of Association (MoA) also envisages to perform all other acts which are necessary or incidental to the business of electricity generation, installation, storage, transmission, distribution, supply and sale subject to permission of concerned authorities. Also the MoA envisages to establish, construct, install, equip, operate, use, manage and maintain electricity generation power plants of all types and capacities subject to permission of the relevant authorities.

(iii). The Authority has noted that the applicant company i.e. YDSSPL is a group company of the Yellow Door Energy (YDE) which was founded in 2015 in the UAE and Jordan, with the aim of providing sustainable energy solutions for commercial and industrial businesses. The company/YDE has over 110.00 MW of solar projects in the Middle East and South Asia. The customers of YDE include premier businesses such as Nestlé, Unilever, Carrefour/Majid Al Futtaim, and Landmark Group. The solar and energy efficiency solutions of YDE enable businesses to reduce energy costs, improve power reliability and lower carbon emissions. The shareholders of YDE include the International Finance Corporation (IFC), Equinor Energy Ventures, Mitsui & Co. Limited and Arab Petroleum Investments Corporation. It is pertinent to mention that the sponsors of YDE are planning to diversify their portfolio in South Asia especially Pakistan by investing in the segment of distribution generation whereby it has planned to set up generation facilities through YDSSPL at the door step of the consumers/BPC(s) using PV cells. In view of the said, the Authority considers YDSSPL has the required financial and technical capabilities to implement the project.

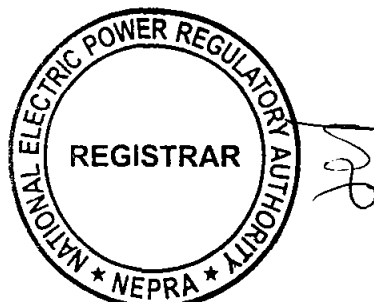
(iv). The Authority has observed that YDSSPL through its current application is pursuing a generation licence for setting up a PV based generation facility of 0.93248 MW<sub>P</sub> to be located within the premises of AISPL at 4-km, Raiwind Manga Road, district Kasur, in the province of Punjab. In consideration



of the said, it is pertinent to mention that YDSSPL plans on supplying to the aforementioned entity/AISPL as BPC through cable(s) located on private property owned by the BPC. According to the submitted information, the total cost of the project will be about U.S. \$ 00.60 million which will be financed through 100% equity of the sponsors.

(v). The sponsors of the project carried out a feasibility study of the project including *inter alia*, solar power plant equipment details, PV-sitting details, power production estimates based on solar irradiation data of the project sites, soil tests reports, technical details pertaining to selected photovoltaic (PV) cells/panels and other allied equipment to be used in the solar power plant, electrical studies, environmental study and project financing etc. The review of the feasibility study reveals that for the proposed location to achieve the capacity of 0.93248 MW<sub>P</sub> the company will be installing 1984 PV cells/panel each of 470 Watt. In consideration of the said, it is clarified that the company plans installing PV cells/panels from Tier-I manufactures including Jinko Solar, JA Solar, Renesola or LONGI. It is pertinent to mention that the company has confirmed that deal for purchase of PV Cells of LR4-72HPH-470M with LONGI has been locked and the manufacture has assured an average capacity factor of around 20.00% at the proposed site.

(vi). The Authority has considered the submissions of YDSSPL and has observed that the supply from proposed generation facility will be supplied to a BPC in the name of AISPL as explained in the preceding paragraphs. According to the system study of the project, the dispersal to the BPC will be made at 220/440 volts through cables located/placed on the roof top/private property owned by the BPC not involving any public or third party. In this regard, it is pertinent to mention that 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. In terms of Section-2 (xxva) of the NEPRA Act, for the purpose of specified means specified by regulations made by the Authority under the NEPRA Act. It is pertinent to mention that the relevant regulations in this regard are still under formation and in the absence of the same the Authority has been allowing even less than 1.00 MW to be treated as BPC therefore, the load of the above mentioned entity explained in the preceding Paras can be considered as BPC.

(vii). Further to the above, 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 facilities to be used for delivery of electric power to above BPC are located on private property (without involving any public property or any third party) will be owned, operated, managed and controlled by the BPC therefore, the supply of electric power to AISPL by YDSSPL does not constitute a distribution activity under the NEPRA Act, and a distribution licence will not be required by the company.

(viii). Further, the Authority has also considered the submissions of YDSSPL that necessary due diligence has been completed and there will be no environmental impact of the proposed arrangement as PV cells/panels will be utilizing only the existing infrastructure of roof top of buildings. In this regard, YDSSPL has confirmed that it will comply with the concerned environmental standards. In view of the said, the Authority considers that YDSSPL is made obligatory to comply with the relevant environmental standards for which a separate article will be included in the proposed generation licence.

(ix). The grant of generation licence is governed by the provisions of Rule-3 of the Generation Rules. The Authority has observed that YDSSPL has provided the details of the proposed generation facility about (a). location; (b).



size; (c). technology; (d). interconnection arrangement; (e). technical limits; (f). technical functional specification and (g). other specific/relevant details as stipulated in Rule-3 (1) of the Generation Rules. According to Rule-3(5) of the Generation Rules, the Authority may refuse to issue a generation licence where the site, technology, design, fuel, tariff or other relevant matters pertaining to the proposed generation facility/solar power plant/roof top solar proposed in an application for a generation licence are either not suitable on environmental grounds or do not satisfy the Least Cost Option Criteria (LCOC). In this regard, Rule-3(5) of the Generation Rules stipulates the conditions pertaining to LCOC 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/solar power plant/Roof Top Solar 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/solar power plant/Roof Top Solar 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/solar power plant/Roof Top Solar; 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.

(x). In view of the above, the Authority considers that the proposal of YDSSPL for installing PV based generation facility will result in optimum utilization of the RE which is currently untapped, resulting in pollution free electric power. It is pertinent to mention that solar is an indigenous resource and such resources should be given preference for the energy security. As explained in the preceding paragraphs above, the company will be supplying electric power to

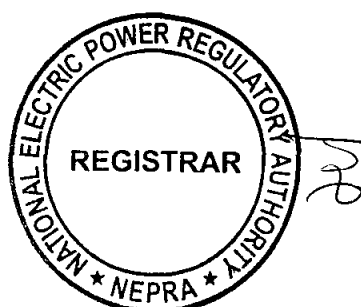


BPC(s) directly which only involve laying small feeder(s), this concludes that the project will not face any constraints in transmission of electric power. Further, being located in the same vicinity as that of the BPC, the project will not result in cost and right-of-way issue for the provision of interconnection facilities. In view of the said, the Authority considers that the project of YDSSPL fulfills the eligibility criteria for the grant of the generation licence as stipulated in the NEPRA Act, rules and regulations and other applicable documents.

**(D). Grant of Licence**

(i). The Authority considers that sustainable and affordable energy/electricity is a key prerequisite for socio-economic development of any country. In fact, the economic growth of any country is directly linked with the availability of safe, secure, reliable and cheaper supply of energy/electricity. In view of the said, the Authority is of the considered opinion that for sustainable development, all indigenous power generation resources especially RE must be developed on a priority basis.

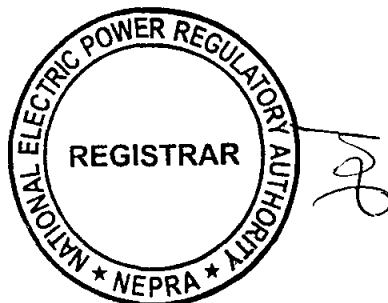
(ii). The Authority observes that the existing energy mix of the country is heavily skewed towards thermal power plants, mainly operating on imported fossil fuels. The continuous import of fossil fuels not only creates pressure on the precious foreign exchange reserves of the country but is also an environmental concern. Therefore, in order to achieve sustainable development, it is imperative that indigenous resources especially RE, are given priority for power generation and their development is encouraged. The Authority is really encouraged to observe that with each passing day, the cost of RE technologies is showing a downward trend making the same affordable for commercial use. The Authority is also encouraged to observe that the Govt. of Pakistan is planning to enhance the share of RE from its current level of 5% of the installed capacity to 30% of the total installed capacity by 2030. Furthermore, a number of initiatives are also being undertaken in the private sector in this regard.



(iii). The Authority has observed that in the current case, YDSSPL has approached for the grant of generation licence for setting up a PV based generation facility with a cumulative Installed Capacity of 0.93248 MW<sub>p</sub> for supplying to AISPL/BPC(s) which is also an existing consumer of the local utility i.e. LESCO. The Authority considers that the above proposal of YDSSPL is in line with the provisions of the NEPRA Act, relevant rules and regulations framed thereunder and vision of the Govt. of Pakistan to enhance the contribution of RE in generation of electric power. The project will not only help YDSSPL in diversifying its portfolio but will also enhance the energy security of AISPL/BPC. Further, the project will also help in reducing carbon emissions by generating clean electricity, thus improving the environment.

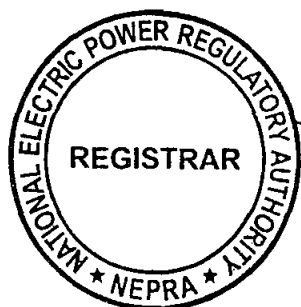
(iv). As explained above, YDSSPL has provided the details of location, technology, size, net capacity/energy yield, interconnection arrangements, technical details and other related information for the proposed PV based generation facility/solar power plant/roof top solar. In this regard, the Authority has observed that sponsors of the project have acquired/available with them the required premises/space for setting up the distinct PV based generation facilities. The said details are being incorporated in the generation licence.

(v). The Authority has observed that proposed generation facility of YDSSPL will be used for supplying to a BPC. According to Section-2(ii) of the NEPRA Act, 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 determine/specify is treated as BPC. It is pertinent to mention that the relevant regulation in this regard are still under formulation and in the absence of the same the Authority has been allowing even amount of less than 1.00 MW to be treated as BPC therefore, the Authority allows the above mentioned entity/AISPL as explained in the preceding Paras to be BPC of YDSSPL.



(vi). Regarding supply to the BPC, the Authority observes that the BPC and the proposed generation facilities of YDSSPL are located within the same premises and the BPC will be supplied through underground cable/feeder of 220/440 volt. Pursuant to proviso to Section-21 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. In view of the said, the Authority allows the YDSSPL to sell electricity to BPC. 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". Based on the said considerations that the proposed BPC is located within the same premises and no public or third party properties are involved, the supply of power to BPC by YDSSPL does not constitute a distribution activity under the NEPRA Act, and YDSSPL will not require a distribution licence for supplying to the BPC.

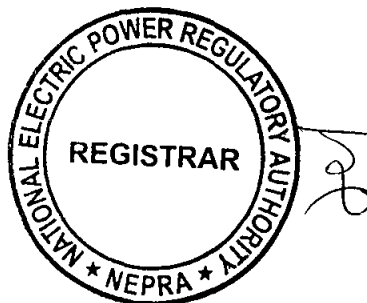
(vii). The term of a generation licence under Rule-5(1) of the Generation Rules is required to match the maximum expected useful life of the units comprised in a generating facility. According to the information provided by YDSSPL, the Commercial Operation Date (COD) of the proposed generation facility/solar power plant/roof top solar will be July 31, 2022 and it will have a useful life of around twenty five (25) years from its COD. In this regard, YDSSPL has requested that the term of the proposed generation licence may be fixed as per the said useful life of generation facility/solar power plant/roof top solar. The Authority considers that said submission of YDSSPL about the useful life of the generation facility/solar power plant/ Roof Top Solar and the subsequent request of YDSSPL to fix the term of the generation licence is consistent with international benchmarks; therefore, the Authority fixes the term of the generation licence to twenty five (25) years from COD of the project.



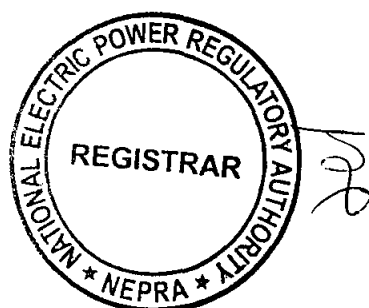
(viii). Regarding compliance with the environmental standards, YDSSPL has confirmed that it will comply with the required standards during the term of the generation licence. In view of the importance of the issue, the Authority has decided to include a separate article in the generation licence along with other terms and conditions making it obligatory for YDSSPL to comply with relevant environmental standards at all times.

(ix). Regarding the rates, charges and terms and conditions of tariff between YDSSPL and its BPC, it is reiterated that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges etc. is the sole prerogative of the Authority. However, the Authority observes that tariff between YDSSPL and its BPC, does not affect any other consumer or third party. Therefore for the purpose of tariff, the Authority considers it appropriate to direct YDSSPL and its BPC to agree on a bilateral agreement and accordingly YDSSPL will be allowed to charge the agreed tariff subsequent to the grant of the generation licence.

(x). The Authority has duly considered the comments of LESCO as explained above. In this regard, the Authority has observed that LESCO has raised various concerns on the proposal including (a). YDSSPL cannot lawfully sell electricity/power within its service territory due to the exclusivity granted to it; (b). requirement of one (01) year notice by AISPL if it plans on switching to YDSSPL as stipulated under Section-22(2) of NEPRA Act; (c). the consumption of AISPL from the grid/LESCO will drop considerably resulting in loss of business to the utility; (d). LESCO is already on the list of privatization and due to said, no action can be taken that can result in (i). Sale or transfer of licenses, permits etc.; or (ii). Closing of any line of business; (e). a BPC cannot have two separate electric power connections/sources; and (f). observations of CPPAGL raised in similar cases.



(xi). In consideration of the above, the Authority has observed that YDSSPL has submitted rejoinders to the above observations of the stakeholders as explained in the preceding paragraphs which the Authority considers tenable. However, the Authority considers it appropriate to give its findings on the above mentioned observations and address the same in the current determination in the matter of application for the grant of generation licence of YDSSPL. Regarding the observations of LESCO that it has exclusivity under its licence and due to the said, YDSSPL cannot lawfully sell to AISPL due to its exclusivity, it is clarified that under its existing distribution licence, LESCO has the same which will expire March 31, 2022 and after that the utility cannot claim any exclusivity considering the fact that legislature through the amendments in the NEPRA Act of 2018 took away the same. Further to the said, the Authority will like to elaborate that under Section-21 of the NEPRA Act, a generation company is allowed to supply to BPC. In consideration of the said, YDSSPL has confirmed that its project will achieve COD after the expiry of the exclusive right of LESCO therefore, there is no violation of the rights of LESCO under its existing Distribution Licence. About the observation of LESCO that the BPC is required to serve it a notice before switching to a generation company under Section-22(2) of NEPRA Act, the Authority hereby clarifies that the said requirement of serving notice is applicable only once a consumer completely switches to another distribution company whereas, in the current case the consumer/AISPL has confirmed that it will continue to maintain its supply from LESCO therefore, the question of notice period does not arise. About the impact on the tariff of allowing the arrangement for BPC(s) to have supply from generation companies, the Authority considers that due to the current structure of tariff the observation of LESCO carries significance however, at the same time it is worth considering that YDSSPL will only be meeting only be supplying a very small fraction (of around 5-6%) of the sanctioned load of AISPL which can be attributed to its natural growth meaning thereby there will not be any adverse impact on the base line consumption pattern of AISPL from the utility. Regarding the observation of LESCO that as per best



utility practices, AISPL should not be allowed to have dual connections, the Authority considers there is no prohibition for such an arrangement and the Authority has been allowing the same and accordingly allows AISPL to have the connection from YDSSPL while maintaining connection from LESCO. However, the Authority directs YDSSPL and AISPL to install suitable system for safety and protection of its facilities to avoid any unwanted situation. About the comments of LESCO that the arrangement will result in less consumption from the grid/utility thus resulting in less contribution towards cross-subsidization, as explained in the preceding paragraphs that despite contracting from the generation company, AISPL will retain the connection from the utility and will have the base line consumption thus not affecting the various charges it is paying to LESCO. Further, the Authority considers that issues of such costs are beyond the scope of the matter under consideration which pertains to the grant of a generation licence for which YDSSPL has completed all the regulatory requirements as explained in the preceding paragraph and qualify for the same. In view of the said, the Authority considers that the observations of LESCO stand addressed and settled.

(xii). Further to the above, the Authority has observed that the honourable Islamabad High Court in its judgement dated July 08, 2021 in the matter of W.P. No. 1592 of 2020 (Islamabad Electric Supply Company Limited VS National Electric Power Regulatory Authority, etc.) had decided that during term of the existing distribution licences, the DISCO(s) will have their exclusivity as per the original NEPRA Act and any other generation company cannot provide electric power to any BPC. In this regard, the Authority has observed that the current distribution licence of LESCO has already expired on March 31, 2022. Further, LESCO has already submitted a request for renewal of its Distribution Licence which is in advance stage of processing and is expected to be decided in terms of the relevant provisions of the NEPRA Act as amended in the year 2018.

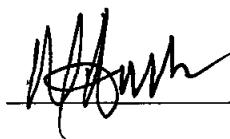




(xiii). In consideration of the above, the Authority hereby approves the grant of generation licence to YDSSPL on the terms and conditions set out in the generation licence annexed to this determination. The grant of generation licence will be subject to the provisions contained in the NEPRA Act, relevant rules, regulations framed thereunder and other applicable documents. Further to the said, the Authority directs YDSSPL to apply for a Supplier Licence under Section-23E of the NEPRA Act, once the necessary/required rules and regulations on the subject are notified and if there is a requirement for such a licence.

**Authority:**

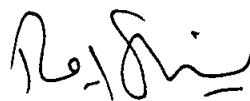
Engr. Maqsood Anwar Khan  
(Member)



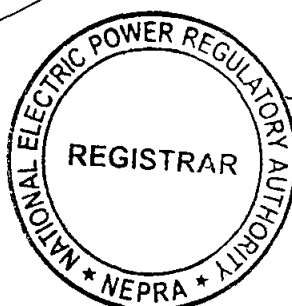
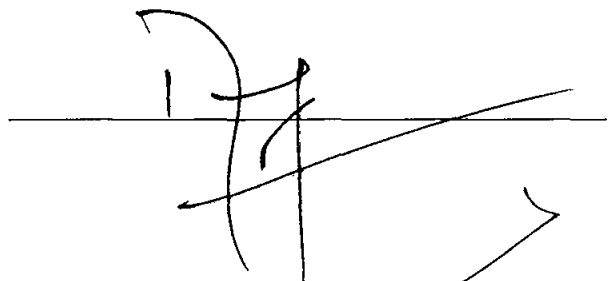
Engr. Rehmatullah Baloch  
(Member)

Retired

Engr. Rafique Ahmed Shaikh  
(Member)



Engr. Tauseef H. Farooqi  
(Chairman)





20 04 22

**National Electric Power Regulatory Authority  
(NEPRA)**

**Islamabad – Pakistan**

**GENERATION LICENCE**

**No. SGC/164/2022**

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:

**YDE SA (SMC-PRIVATE) LIMITED**

Incorporated under Section-16 of  
the Companies Act, 2017 (XIX of 2017) having Corporate Universal  
Identification No. 0158302, dated September 21, 2020

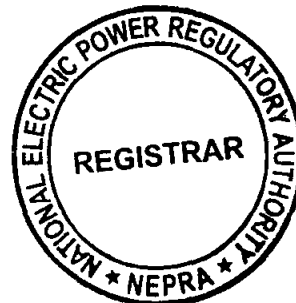
**for its PV based Generation Facility located at  
Alif Industry SMC (Pvt.) Limited at 4-KM, Raiwind Manga Road,  
district Kasur, in the province of Punjab**

(Installed Capacity:  $\approx 0.93248$  MW<sub>P</sub>)

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

Given under my hand on 20<sup>th</sup> day of April Two Thousand &  
Twenty-Two and expires on 30<sup>th</sup> day of July Two Thousand & Forty-  
Seven

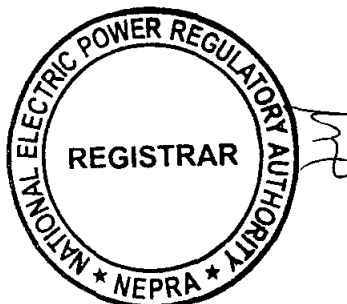
  
2004 22  
**Registrar**



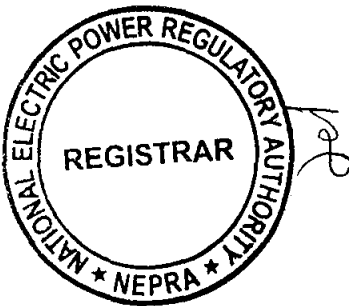
**Article-1**  
**Definitions**

**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;



- (f). "Bus Bar" means a system of conductors in the generation facility/Solar Power Plant/Roof Top Solar of the Licensee on which the electric power from all the photovoltaic cells is collected for supplying to the 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/Solar Power Plant/Roof Top Solar of the Licensee is Commissioned;
- (i). "Commissioned" means the successful completion of commissioning of the generation facility/Solar Power Plant/Roof Top Solar 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). "Energy Purchase Agreement-EPA" means the energy 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/Solar Power Plant/ Roof Top Solar, as may be amended by the parties thereto from time to time;
- (l). "Generation Rules" mean the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 as amended or replaced from time to time;



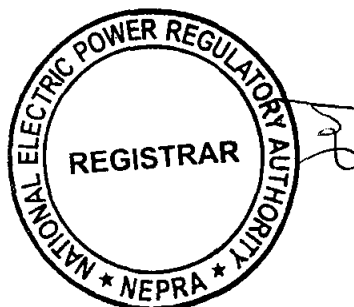
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- (m). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (n). "Licence" means this licence granted to the Licensee for its generation facility/Roof Top Solar;
- (o). "Licensee" means YDE SA (SMC-Private) Limited or its successors or permitted assigns;
- (p). "Licensing Regulations" mean the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 as amended or replaced from time to time;
- (q). "Net Delivered Energy" means the net electric energy expressed in kWh that is generated by the generation facility/Solar Power Plant/Roof Top Solar of the Licensee at its outgoing Bus Bar and delivered to the Power Purchaser;
- (r). "Power Purchaser" means the BPC which will be purchasing electric power from the Licensee, pursuant to a EPA for procurement of electric power;
- (s). "Roof Top Solar" means a cluster of photovoltaic cells installed on the roof top of a building or any other suitable place in the same location used for production of electric power";
- (t). "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.

**Article-3**  
**Generation Facilities**

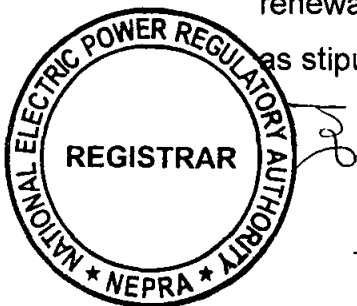
**3.1** The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facility/Solar Power Plant or Roof Top Solar of the Licensee are set out in Schedule-I of this Licence.

**3.2** The net capacity/Net Delivered Energy of the generation facility/Solar Power Plant or Roof Top Solar of the Licensee is set out in Schedule-II of this Licence. The Licensee shall provide the final arrangement, technical and financial specifications and other specific details pertaining to its generation facility/Solar Power Plant or Roof Top Solar 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 twenty five (25) years from the COD of the generation facility/Solar Power Plant or Roof Top Solar, 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.

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**Article-6**  
**Tariff**

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

**Article-7**  
**Competitive Trading Arrangement**

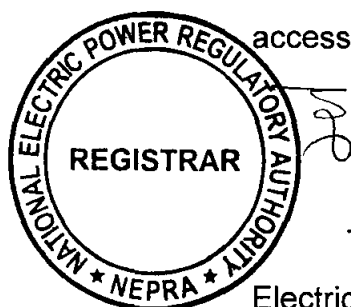
7.1 The Licensee shall participate in such manner as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement.

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.

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**Article-10**  
**Compliance with Environmental & Safety Standards**

**10.1** The generation facility/Solar Power Plant or Roof Top Solar 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.

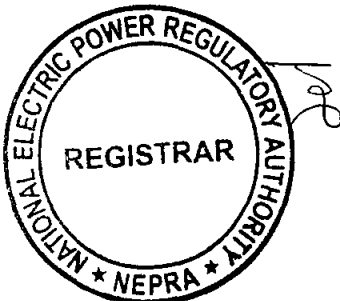
**10.2** The Licensee shall provide a certificate on a bi-annual basis, confirming that the operation of its generation facility/Solar Power Plant or Roof Top Solar is in conformity with required environmental standards as prescribed by the relevant competent authority as amended or replaced from time to time.

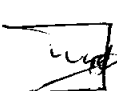
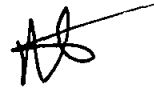
**Article-11**  
**Power off take Point and Voltage**

The Licensee shall deliver the electric power to the Power Purchaser at the outgoing Bus Bar of its generation facility/Solar Power Plant or Roof Top Solar. 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.



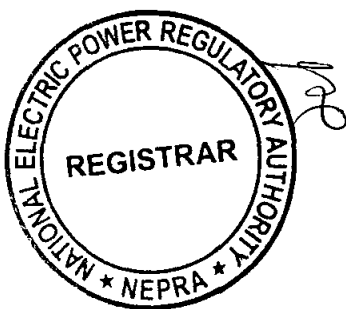


**Article-13**  
**Compliance with Applicable Law**

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.

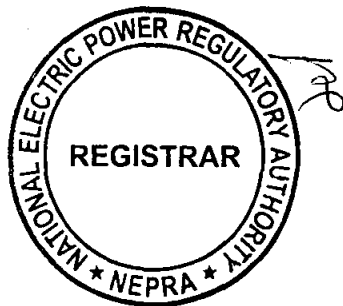
**Article-14**  
**Corporate Social Responsibility**

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



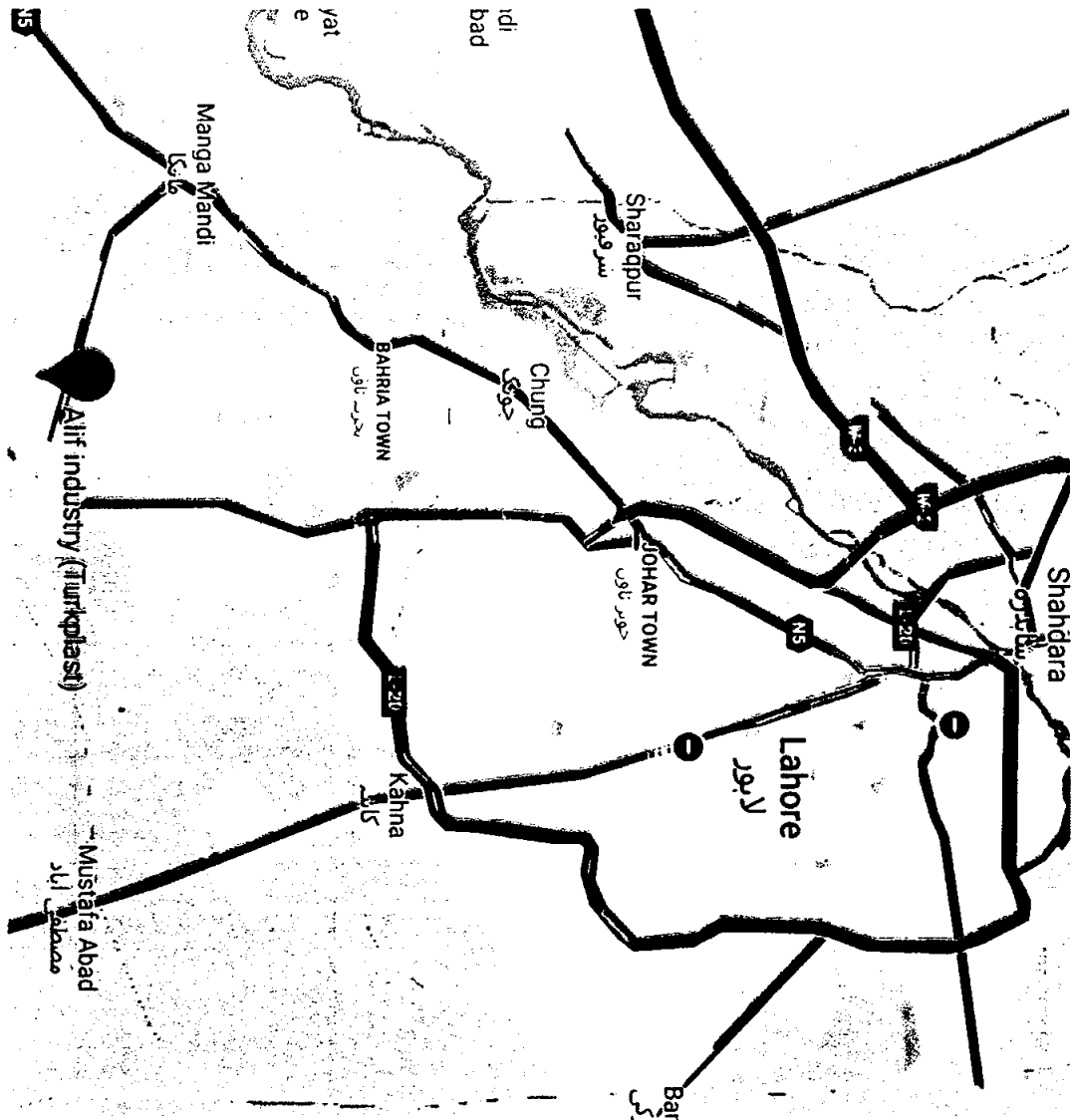
## **SCHEDULE-I**

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.

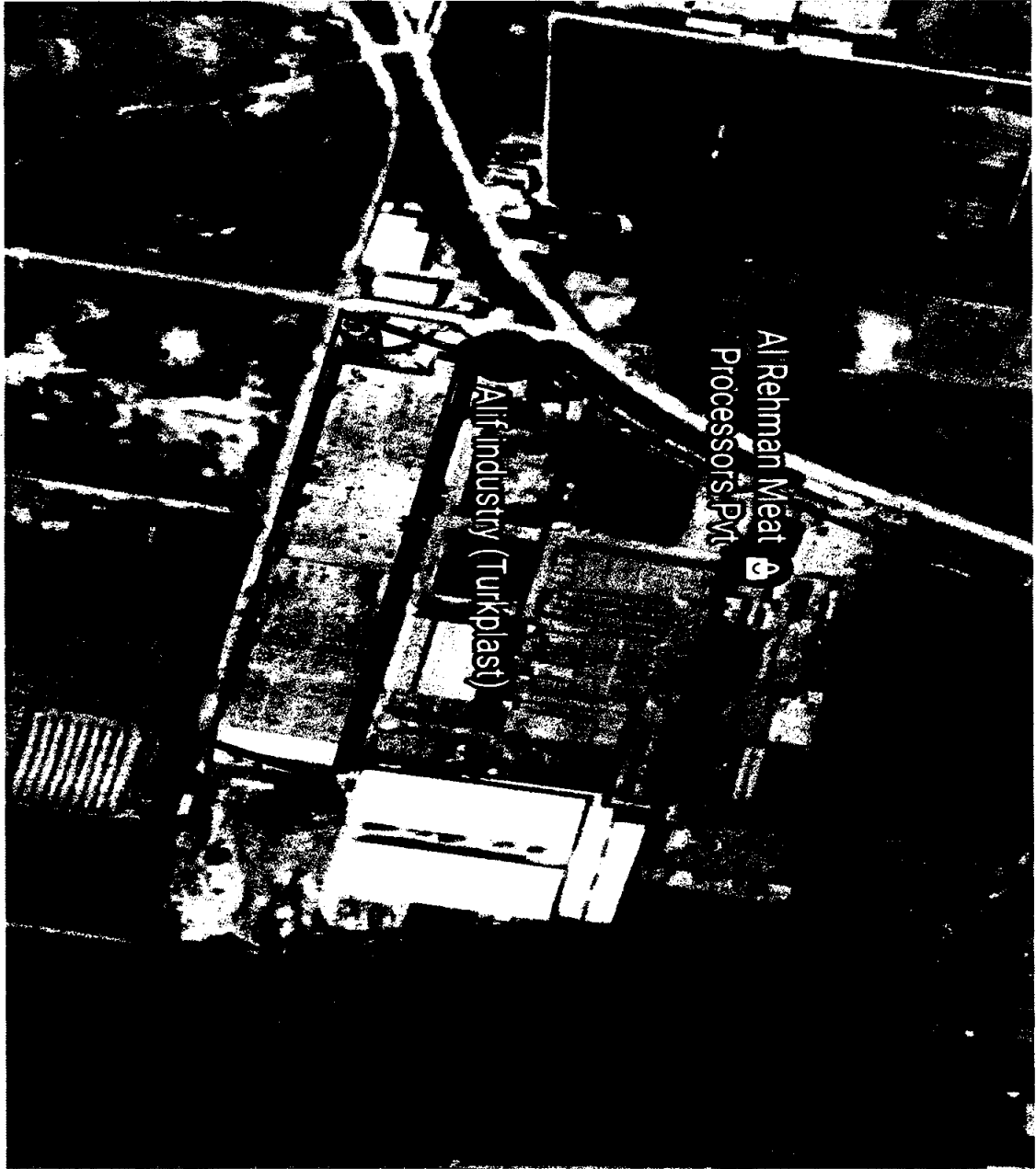


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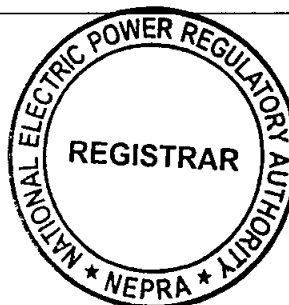
**Location of the  
Generation Facility/Solar Power Plant/Roof Top Solar  
of the Licensee**



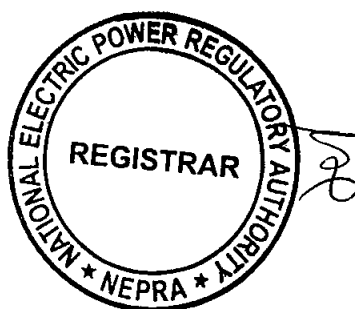
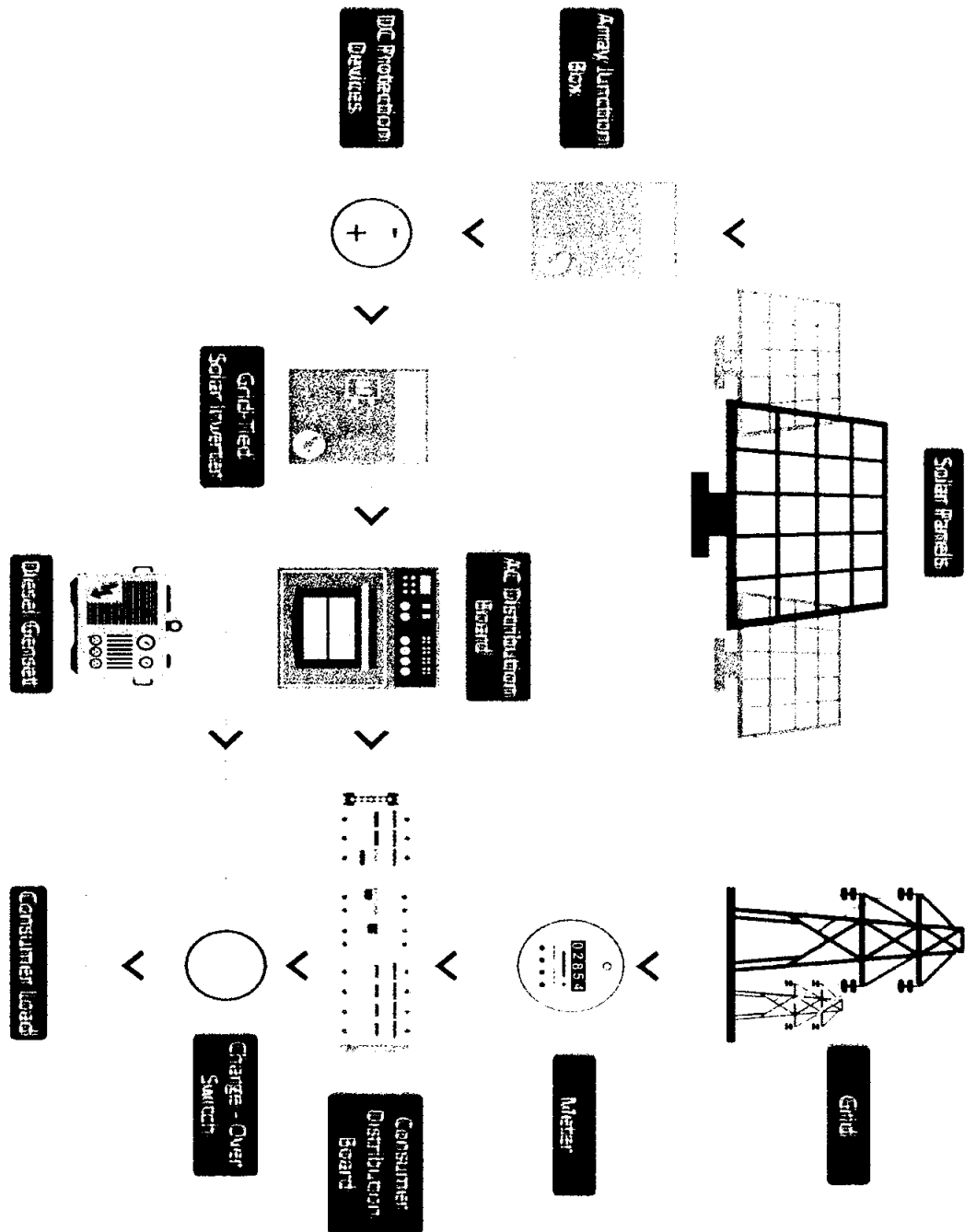
**Land Coordinates of the  
Generation Facility/Solar Power Plant/Roof Top Solar  
of the Licensee**



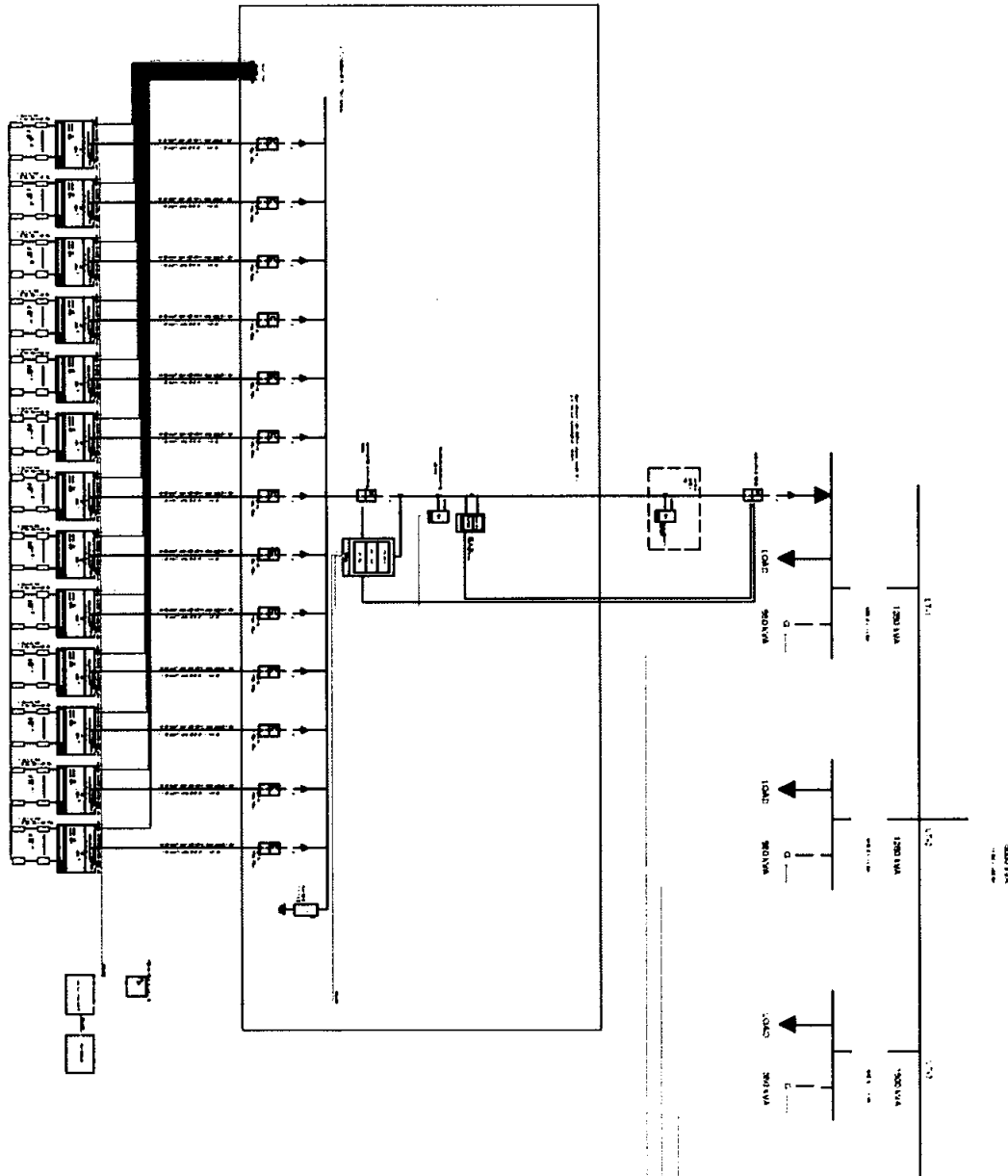
<u>Sr. No.</u>	<u>Location</u>	<u>Site Coordinates</u>	
		Latitude	31°14'47.09"N
1.	Alif Industry SMC (Private) Limited	Longitude	74° 09'54.29"E



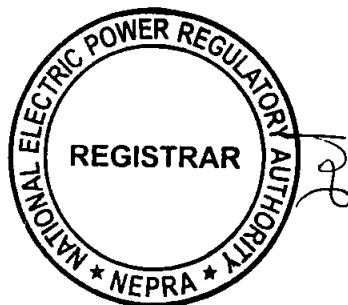
## Process Flow Diagram of the Generation Facility/Solar Power Plant/Roof Top Solar of the Licensee



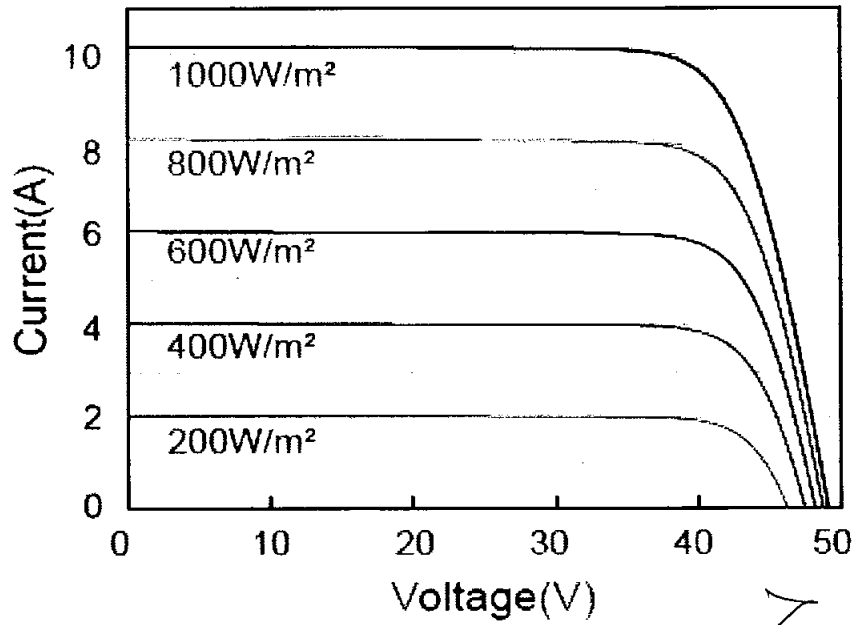
**Single Line Diagram**  
**of the Generation Facility/Solar Power Plant/Solar Farm of the**  
**Licensee**



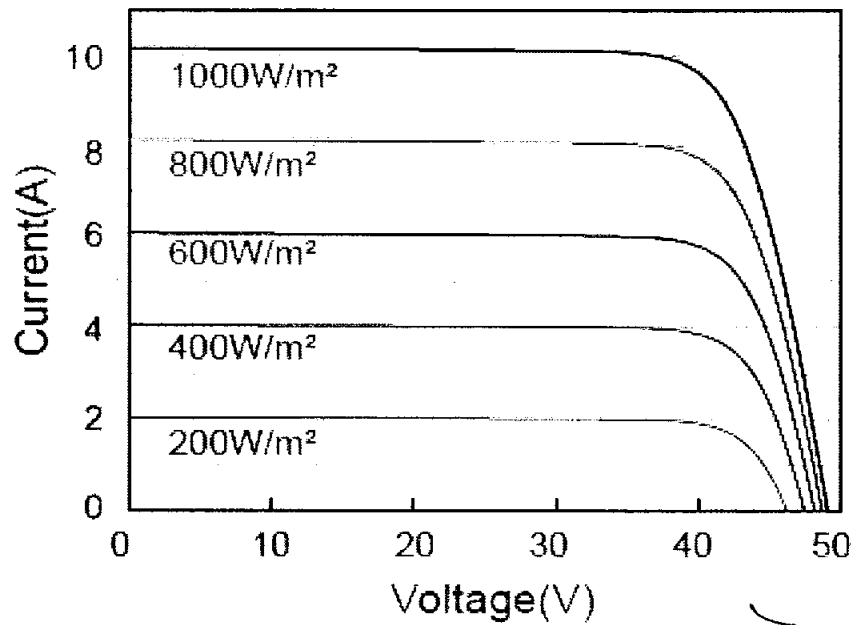
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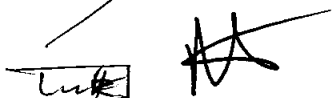


**V-I Curve**  
**Generation Facility/Solar Power Plant/Roof Top Solar**  
**of the Licensee**



**V-I Curve**  
**Generation Facility/Solar Power Plant/Roof Top Solar**  
**of the Licensee**





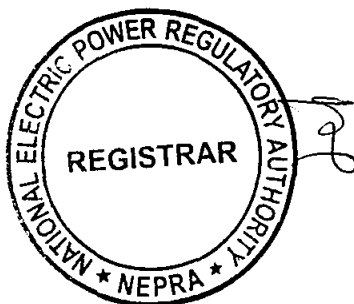




**Interconnection Arrangement/Transmission Facilities for  
Dispersal of Power from the Generation Facility/Solar Power  
Plant/Solar Farm/Roof Top Solar of the Licensee**

The electric power generated from the generation facility of the YDE SA (SMC-Private) Limited-YDSSPL /Licensee will be delivered/supplied to Alif Industry SMC (Pvt.) Limited/AISPL 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.



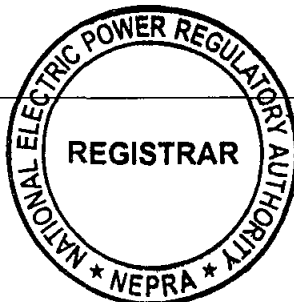
## **Details of** **Generation Facility/Solar Power Plant/** **Solar Farm**

### **(A). General Information**

(i).	Name of the Company/Licensee	YDE SA (SMC-Private) Limited
(ii).	Registered/ Business office of the Company/Licensee	1 <sup>st</sup> Floor 140-CCA, Sector C Phase 5 D.H.A, Lahore, in the province of Punjab
(iii).	Type of the generation facility/Solar Power Plant/Solar Farm	Photovoltaic (PV) Cell
(iv).	Location(s) of the generation facility Solar Power Plant/ Solar Farm	Alif Industry SMC (Pvt.) Limited, at 4-KM, Raiwind Manga Road, District Kasur, in the province of Punjab

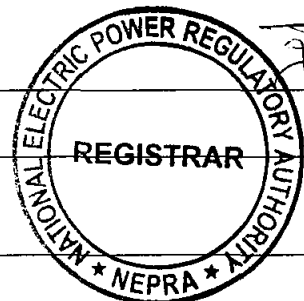
### **(B). Solar Power Generation Technology & Capacity**

(i).	Type of Technology	Photovoltaic (PV) Cell	
(ii).	System Type	On-Grid	
(iii).	Installed Capacity of the generation facility Solar Power Plant/ Roof Top Solar	932.48 kW <sub>P</sub>	
(iv).	No. of Panel/Modules	1984 x 470 Watt	
(v).	PV Array	Nos. of Strings	49
		Modules in a string	16-17
(vi).	Invertor(s)	Quantity	08
		Make	Huawei
		Capacity of each unit	100 kW

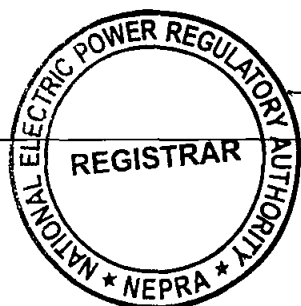


**(C). Technical Details of Equipment**

<b>(a).</b>	<b><u>Solar Panels – PV Modules</u></b>	
(i).	Type of Module	LONGI LR4-72HPH-470M
(ii).	Type of Cell	Mono crystalline
(iii).	Dimension of each Module	2182 mm x 1029 mm x 40 mm
(iv).	Total Module Area	11,460 m <sup>2</sup>
(v).	Frame of Panel	Anodized aluminium alloy
(vi).	Weight of one Module	26.1 kg
(vii).	No of Solar Cells in each module	78
(viii).	Efficiency of module	20.93%
(ix).	Maximum Power (P <sub>max</sub> )	470 W <sub>p</sub>
(x).	Voltage @ P <sub>max</sub>	43.28 V
(xi).	Current @ P <sub>max</sub>	10.86 A
(xii).	Open circuit voltage (V <sub>oc</sub> )	52.14V
(xiii).	Short circuit current (I <sub>sc</sub> )	11.68A
(xiv).	Maximum system open Circuit Voltage	1500VDC (IEC)
<b>(b).</b>	<b><u>Inverters</u></b>	
(i).	Type of Module	100 kW



(ii).	Type/Model of Invertor	SUN2000-100KTL-M0	
(iii).	Input Operating Voltage Range	200 V to 1000 V	
(iv).	Efficiency of inverter	98.7 %	
(v).	Max. Allowable Input voltage	1100V	
(vi).	Max. Current	DC 132 A	
(vii).	Max. Power Point Tracking Range	200 V to 1000 V	
(viii).	Output electrical system	3 Phase AC	
(ix).	Rated Output Voltage	380 to 480	
(x).	Power Factor (adjustable)	0.8 Lagging-0.8 Leading	
(xi).	Power control	MPP tracker	
(xii).	Rated Frequency	50 Hz	
(xiii).	Environmental Enclosures	Relative Humidity	0-100% non-condensing
		Audible Noise	50 DB @ 1m
		Operating Elevation	4000 m
		Operating temperature	-25 to +60°C
(xiv).	Grid Operating protection	A	DC circuit breaker
		B	AC circuit breaker
		C	DC overload protection (Type 2)
		D	Overheat protection



		E	Grid monitoring
		F	Insulation monitoring
		G	Ground fault monitoring
(c).	<u>Data Collecting System</u>		
(i).	System Data	Continuous online logging with data logging software to portal.	
(d).	<u>Unit Transformer</u>		
(i).	Not Applicable		

**(D). Other Details**

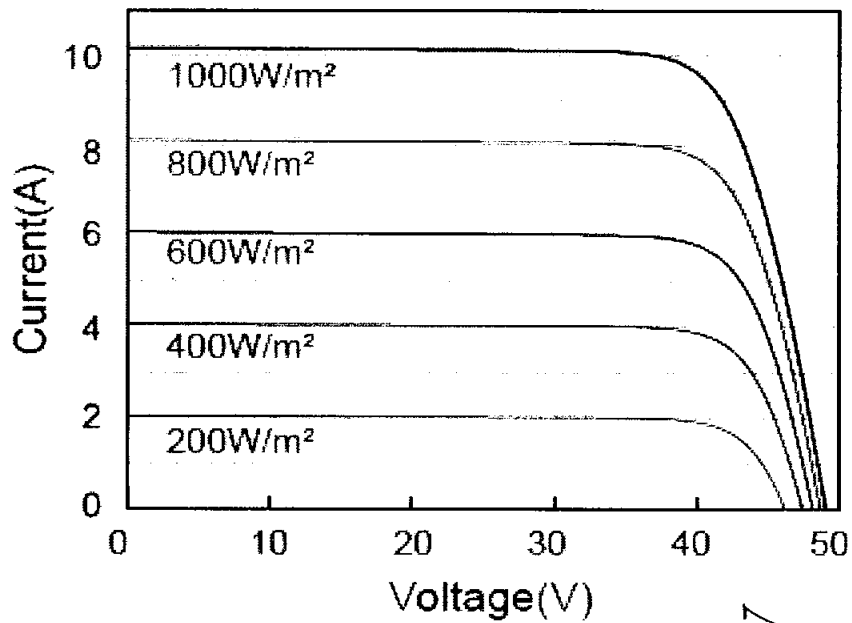
(i).	Expected COD of the generation facility Solar Power Plant/ Roof Top Solar	July 31, 2022
(ii).	Expected useful Life of the generation facility/Solar Power Plant/Roof Top Solar from the COD	25 years



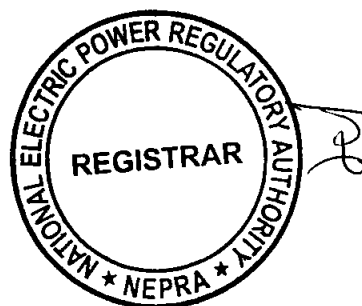
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**V-I Curve**  
**Generation Facility/Solar Power Plant/Roof Top Solar**  
**of the Licensee**



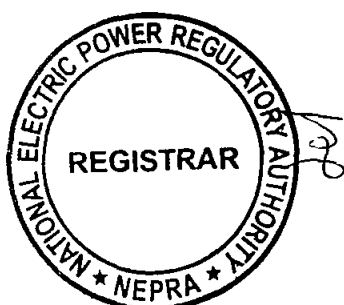
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**Information**  
**Regarding Bulk Power Consumer(s)/BPC(s) to be**  
**Supplied by the Licensee**

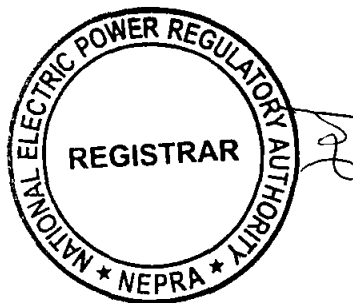
(i).	No. of Consumers	One (01)
(ii).	Location of consumers (distance and/or identity of premises)	Alif Industry SMC (Pvt.) Limited, 4-KM, Raiwind Manga Road, District Kasur, in the province of Punjab
(iii).	Contracted Capacity and Load Factor for consumer	0.93248 MW <sub>P</sub> / 15 - 20%
(iv).	Specify Whether	
	(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
(v).	Specify nature of contractual Relationship	
	(a).	Between each consumer and Licensee. Licensee will construct, own and operate the solar generation facilities and provide electricity to BPC.
	(b).	Consumer and Distribution Company. Yes Existing Consumer of LESCO with B-3 Connection with Connected Load of 02.60 MW
(vi)	Any other network information deemed relevant for disclosure to or consideration of the Authority.	Not Applicable

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## Information Regarding Distribution Network for Supply of Electric Power to BPC

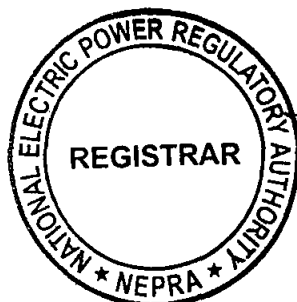
(i).	No. of Feeders	One (01)
(ii).	Length of Each Feeder (Meter)	100-150 meter
(iii).	Length of Each Feeder to each Consumer	-do-
(iv).	In respect of all the Feeders, describe the property (streets, farms, Agri land, etc.) through, under or over which they pass right up to the premises of customer, whether they cross-over.	The underground cable supplying to BPC from the generation facility will be located on private property owned by BPC
(v).	Whether owned by Licensee, Consumer or Distribution Company -(deal with each Feeder Separately)	
	(a).	If owned by Distribution Company, particulars of contractual arrangement
	(b).	Operation and maintenance responsibility for each feeder
(vi).	Whether connection with network of Distribution Company exists (whether active or not)- If yes, provide details of connection arrangements (both technical and contractual)	B-3 consumer of LESCO
(vii).	Any other network information deemed relevant for disclosure to or consideration of the Authority.	NA





## **SCHEDULE-II**

The Total Installed Gross ISO Capacity of the Generation Facility/Power Plant/Solar Plant (MW), Total Annual Full Load (Hours), Average Sun Availability, Total Gross Generation of the Generation Facility/Solar Farm (in kWh), Annual Energy Generation (25 years Equivalent Net Annual Production-AEP) KWh and Net Capacity Factor of the Generation Facility/Solar Farm of Licensee are given in this Schedule.

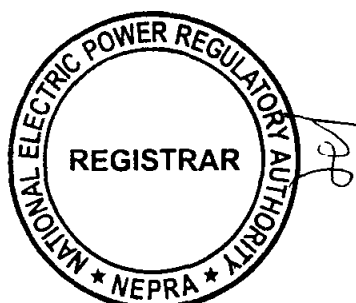


## **SCHEDULE-II**

(1).	Total Installed Capacity of the Generation Facility/Solar Power Plant/Solar Farm	0.93248 MW <sub>p</sub>
(2).	Average Sun Hour Availability/Day (Irradiation on Inclined Surface)	5 to 6.0 Hours
(3).	No. of days per year	365
(4).	Annual generating capacity of Generation Facility/Solar Power Plant/Solar Farm (As Per Simulation)	1432 MWh
(5).	Total (approximated) expected generation of the Generation Facility/Solar Power Plant/Solar Farm during the twenty five (25) years term of this licence	13,632 MWh
(6).	Annual generation of Generation Facility/Solar Power Plant/Solar Farm based on 24 hours working	548.40 MWh
(7).	Net Capacity Factor of Generation Facility/Solar Power Plant/Solar Farm	20.90 %

**Note**

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




**Authorization**  
**by National Electric Power Regulatory Authority (NEPRA) to**  
**YDE SA (SMC-Private) Limited**

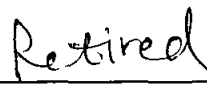
Incorporated under Section-16 of  
the Companies Act, 2017 (XIX of 2017) having Corporate Universal Identification  
No. 0158302, dated September 21, 2020


**NEPRA GENERATION LICENCE No. SGC/164/2022**  
**For Sale to Bulk Power Consumer(s)**

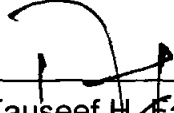
Pursuant to Section-22 of the Act and Rule-7 of the NEPRA Licensing (Generation) Rules-2000, the Authority hereby authorize YDE SA (SMC-Private) Limited-YDSSPL (the Licensee) to engage in second-tier supply business, limited to the following consumers:-

- (a). Alif Industry SMC (Pvt.) Limited, at 4-KM, Raiwind Manga Road,  
District Kasur, in the province of Punjab

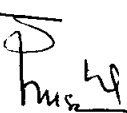
  
Engr. Maqsood Anwar Khan  
(Member)

  
Engr. Rehmatullah Baloch  
(Member)

  
Engr. Rafique Ahmed Shaikh  
(Member)

  
Engr. Tauseef H. Farooqi  
Chairman



  
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