



# 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/DL/LAG-502/4942-47

April 11, 2022

**Mr. Maaz Mashkooor**  
Director  
Burj DG (Private) Limited  
16- Abdullah Haroon Road  
3<sup>rd</sup> Floor, Faysal Bank Building, Karachi

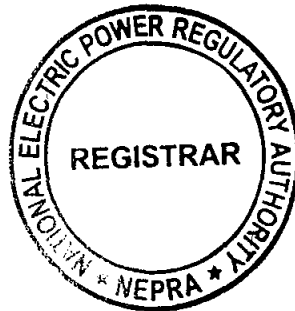
**Subject: Grant of Generation Licence No. SGC/161/2022**  
**Licence Application No. LAG-502**  
**Burj DG (Private) Limited (BDGPL)**


**Reference:** BDGPL's application vide letter nil dated 27.10.2020

Enclosed please find herewith Generation Licence No. SGC/161/2022 granted by National Electric Power Regulatory Authority (NEPRA) to Burj DG (Private) Limited (BDGPL) for its 520.46 KWp PV based Generation Facility located at Crescent Textile Mills Limited, Hattar Industrial Estate, District Haripur in the Province of Khyber Pakhtunkhwa, 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/161/2022)**



  
11 04 22

(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, Peshawar Electric Supply Company, 166 WAPDA House, Shami Road, Peshawar
5. Director General, Environmental Protection Agency (EPA), 3rd Floor, Old Courts Building Khyber Road, Peshawar

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

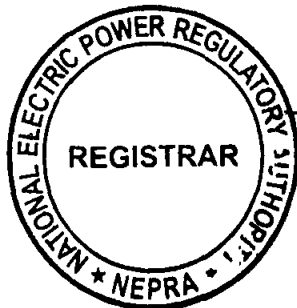
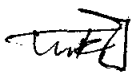
**Determination of the Authority**  
**in the Matter of Application of Burj DG (Private) Limited for**  
**the Grant of Generation Licence**

**April 11, 2022**  
**Case No. LAG-502**

**(A). Filing of Application**

(i). Burj DG (Private) Limited (BDGPL) submitted an application on February 12, 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").

(ii). The Registrar examined the submitted application and found the same compliant in terms of the Licensing Regulations. Accordingly, 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. Accordingly, the Authority admitted the application on February 25, 2021 for consideration of the grant of the generation licence as stipulated in Regulation-7 of the Licensing Regulations. The Authority approved a Notice of Admission (hereafter the "Notice") to be published in the press for inviting comments of general public, interested and affected persons in the matter as stipulated in Regulation-8 of the Licensing Regulations. Accordingly, Notice was published in one (01) Urdu and one (01) English newspapers on February 27, 2021.

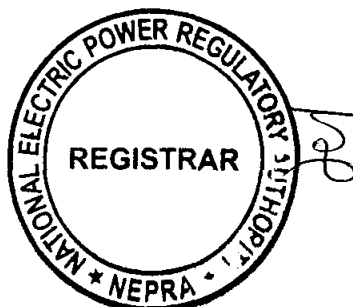
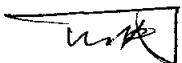


(iii). In addition to the above, the Authority also approved a list of stakeholders for seeking their comments for its assistance in the matter in terms of Regulation-9(2) of the Licensing Regulations. Accordingly, letters were sent to different stakeholders as per the approved list on March 02, 2021, soliciting their comments for assistance of the Authority.

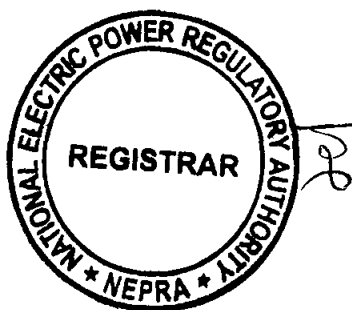
**(B). Comments of Stakeholders**

(i). In reply to the above, the Authority received comments from three (03) stakeholders including Central Power Purchasing Agency (Guarantee) Limited (CPPAGL), Ministry of Science and Technology of Govt. of Pakistan (MoST) and Peshawar Electric Supply Company Limited (PESCO). The salient points of the comments offered by stakeholders are summarized below: -

- (a). CPPAGL submitted that BDGPL is planning to set up a Photo Voltaic (PV) cell based generation facility of 520.46 kW<sub>p</sub> for supplying/selling to Crescent Textile Mills Limited (CTML), district Haripur, in the province of Khyber Pakhtunkhwa. According to the existing tariff structure for the end consumer, the major portion of fixed charge (Capacity, UoSC, MOF, DM) is being recovered through sale of energy to end consumers (i.e. Volumetric Charges). As a result, the more the number of units being sold, the less will be the per unit rate for the fixed capacity charges and vice versa. In the view of foregoing, it is requested that further comments in this matter may be obtained from relevant Distribution Company i.e. PESCO because CTML is a consumer of the said utility;



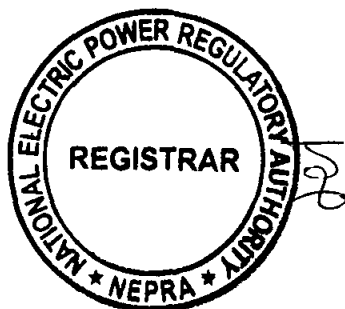
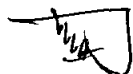
- (b). MoST stated that the installation of PV based generation facility of 520.46 kW<sub>P</sub> will help to decrease the load on the grid in the area. The type of PV panel/module mentioned in the notice is Monocrystalline Half Cut PERC. It is recommended that the panels should be IEC and UL certified and from Tier-I manufacturer; and
- (c). PESCO remarked that BDGPL submitted an application for grant of generation licence for its proposed 520.46 kW<sub>P</sub> Solar Power Project at Hattar, District Haripur. The applicant i.e. BDGPL cannot lawfully sell electric power under Section-22 of NEPRA Act) to Bulk Power Consumer (BPC) of PESCO by applying for a generation licence. CTML being a BPC of PESCO is bound under Subsection-2 of Section-22 of NEPRA Act to give one-year prior notice for switching to another generation company. The sanctioned load of CTML is 1970 kW which means that BDGPL will only contribute some portion of the electricity demand of the mill and utility will provide the rest, thereby inculcating PESCO to keep network and grid system on standby to meet its unexpected demand which will result in the O&M cost of PESCO to remain intact or escalate and in return the sales/revenue of the utility will drop significantly. It is neither permissible under the Utility Practices nor any law that a BPC can have two separate electric power connections from two separate, distinct and independent companies/sources at the same time therefore CTML cannot be allowed to have two independent connections simultaneously from PESCO and the BDGPL. According to the existing tariff structure for the end consumer, the major portion of fixed charge (Capacity, UoSC, MOF, DM) is being recovered through sale of energy



Handwritten signature and initials.

to end consumers (i.e. Volumetric Charges). As a result, the more number of units being sold, the less will be the per unit rate for the fixed capacity charges and vice versa. Under the current tariff structure, large consumers pay higher tariff to cross-subsidize the small consumers. Cross-subsidization is a policy/regulatory decision and is applicable to all consumers irrespective of purchasing electricity from PESCO or having bilateral contract(s) with generators. Cross subsidy is a policy/regulatory decision and as such, big consumers cannot be discriminated on the basis that if the consumers opt for self-generation, it can avoid cross subsidy while the same category of consumers of PESCO continue to pay cross subsidy. If this practice is not discontinued, this in turn will become an undue incentive for the remaining regulated BPC(s) to leave PESCO. Therefore, cross-subsidy charges should accordingly be charged to all BPC(s) irrespective of they are consumers of PESCO or engaged in bilateral contract. CPPAGL has intimated to PESCO that for future procurement, it is mandatory that a power project is included in indicative Generation Capacity Expansion Plan (IGCEP). In order to have a proper planning and to adjust the demand/supply that may arise due to any bilateral arrangement, the BPC must give a notice in advance before it exits the system of DISCO.

(ii). The Authority considered the above comments of the stakeholders and in view of the observations raised, considered it appropriate to seek perspective of BDGPL on the same. On the observations of CPPAGL, it was submitted that against a connected load of 1970 kW from the utility, BDGPL has planned to construct, install and operate a generation facility of 520.46 kW<sub>p</sub> at the premises of CTML to supply PV solar based electric power which will only be



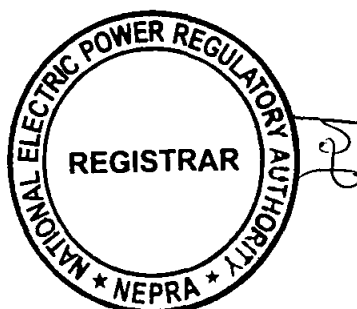
about 4.75% of the units supplied by PESCO. Therefore, there will not be any significant drop in the units of electric power that PESCO is supplying to CTML. However, it will have a very positive impact on CTML as it will now be obtaining environment friendly electric power for its textile products mainly for export purposes. About the observations of MoST, it was confirmed that the proposed PV cells will be of Tier-I manufacturer and supplier.

(iii). Regarding the comments of PESCO it was clarified that under Section-22 of the NEPRA Act, a BPC can have electric power from a licensee including a generation company. Further, one year notice is required if the BPC plans to stop purchasing from the utility however, in the current case CTML/BPC will continue to purchase from PESCO despite having another source from BDGPL. In this regard, it is pertinent to mention that there is no prohibition in the law that prevents a BPC from purchasing electric power from the utility and a generation company at the same time. In view of the fact it is clear that CTML will continue to be a consumer of PESCO and will continue to pay cross subsidy. About the IGCEP, it was submitted that the same is in the formulation stage and the distribution companies and the national planner may consider the reduction in demand of the utilities due to distributed generation being inducted through various initiatives, including third party generation and net metering.

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

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

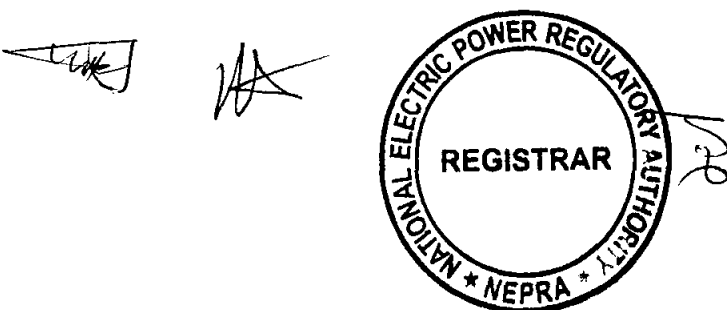
(i). The Authority examined the submissions of BDGPL including the information provided with its application for the grant of the generation licence, the comments of the stakeholders, rejoinder submitted by the company/applicant/BDGPL, the relevant rules & regulations in the matter.



(ii). The Authority has observed that the applicant i.e. BDGPL is an entity incorporated under Section-16 of the Companies Act, 2017 (XIX of 2017), having Corporate Universal Identification No. 0157069 dated September 03, 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. BDGPL is a group company of the Burj Capital (BC) which is a leading Renewable Energy Company of the country involved in the clean energy business and has already set up a 50 MW wind farm at Jhampir in the province of Sindh. Further, a number of other projects of wind and solar are in different stages of implementation. Further, the sponsors of the group are planning to diversify their portfolio by investing in the segment of distributed generation whereby it is planned to set up generation facilities at the door step of the consumers/BPC(s) using PV cells. In view of the said, the Authority considers BDGPL/BC has the required financial and technical capabilities to implement the project.

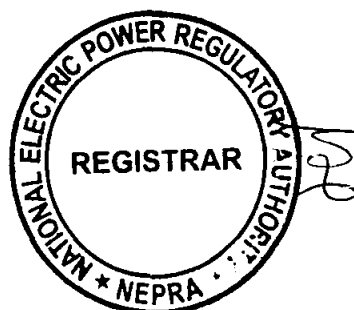
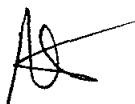
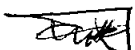
(iv). The Authority has observed that BDGPL through its current application is pursuing a generation licence for setting up a PV based generation facility of 520.46 kW<sub>P</sub> to be located at CTMCL at Hattar Industrial Estate, Haripur in the province of Khyber Pakhtunkhwa. In consideration of the said, it is pertinent



to mention that BDGPL plans to supply to the aforementioned entity/CTMCL 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. \$. 0.322 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 PV 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 520.46 kW<sub>p</sub> the company will be installing 982 PV panel each of 530 Watt. In consideration of the said, it is clarified that the company plans to install PV 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 panels of LR5-72HPH has been locked with LONGI Solar where the manufacturer has assured an average capacity factor of 16.67% for the proposed location.

(vi). The Authority has considered the submissions of BDGPL and has observed that the supply from the proposed generation facility will be supplied to a BPC in the name of CTMCL 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 Volt 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



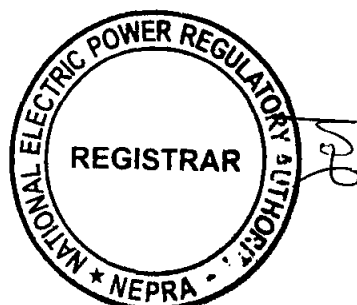
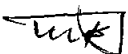


specified means specified by regulations made by the Authority under the NEPRA Act. It is pertinent to mention that the relevant regulations in this regard are still under formation and in the absence of the same the Authority has been allowing even less than 1.00 MW to be treated as BPC therefore, the 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) and will be owned, operated, managed and controlled by the BPC therefore, the supply of electric power to CTMCL by BDGPL does not constitute a distribution activity under the NEPRA Act, and a distribution licence will not be required by the company.

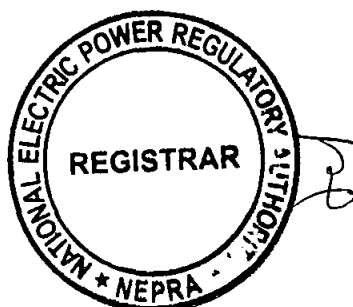
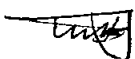
(viii). Further, the Authority has also considered the submissions of BDGPL that necessary due diligence has been completed and there will be no environmental impact of the proposed arrangement as PV cells/Panels will be utilizing only the existing infrastructure of roof top of buildings. BDGPL has confirmed that it will comply with the concerned environmental standards. In view of the said, the Authority considers that BDGPL 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 BDGPL 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 the 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, the 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 BDGPL 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 directly which only involve laying small feeder(s), concluding that the project will not face any constraints in transmission of electric power. Further, being located in the

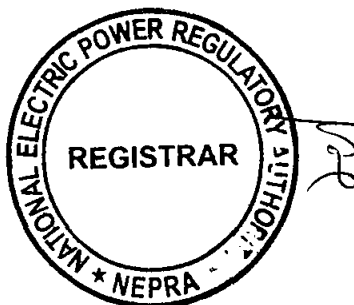
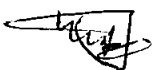


same vicinity of the BPC, the project will not result in cost and right-of-way issue for the provision of interconnection facilities. In view of the said, the Authority considers that the project of BDGPL fulfills the eligibility criteria for the grant of the generation licence as stipulated in the NEPRA 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 priority basis.

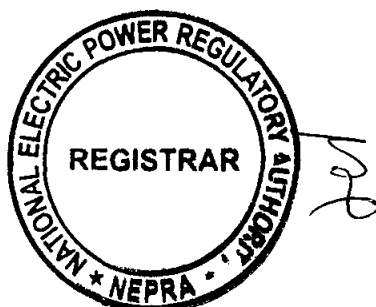
(ii). The Authority observes that the existing energy mix of the country is heavily skewed towards the thermal power plants, mainly operating on imported fossil fuels. The continuous import of fossil fuels not only creates pressure on the precious foreign exchange reserves of the country but is also 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 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, BDGPL has approached for the grant of a generation licence for setting up a PV based generation facility with a cumulative installed capacity of 520.46 kW<sub>P</sub> for supplying to CTMCL/BPC(s) which is also an existing consumer of the local utility i.e. DISCO. The Authority considers that the above proposal of BDGPL 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 BDGPL in diversifying its portfolio but will also enhance the energy security of the CTMCL/BPC. Further, the project will also help in reducing the carbon emission by generating clean electricity, thus improving the environment.

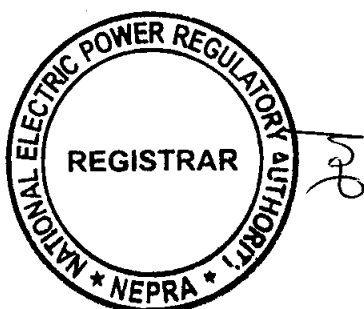
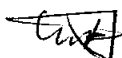
(iv). As explained above, BDGPL has provided the details of location, technology, size, net capacity/energy yield, interconnection arrangements, technical details and other related information for the proposed PV based generation facility/solar power plant/ Roof Top Solar. In this regard, the Authority 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 BDGPL 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 regulations 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/CTMCL as explained in the preceding Paras to be BPC of BDGPL.



(vi). Regarding supply to the BPC, the Authority observes that the BPC and the proposed generation facilities of BDGPL 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 BDGPL 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 BDGPL does not constitute a distribution activity under the NEPRA Act, and BDGPL 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 with the maximum expected useful life of the units comprised in a generating facility. According to the information provided by BDGPL, the Commercial Operation Date (COD) of the proposed generation facility/solar power plant/ Roof Top Solar will be May 31, 2022 and it will have a useful life of around twenty five (25) years from its COD. In this regard, BDGPL 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 BDGPL about the useful life of the generation facility/solar power plant/ Roof Top Solar and the subsequent request of BDGPL 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.

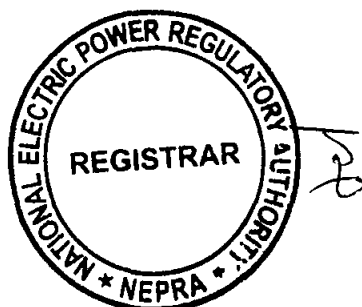


(viii). Regarding compliance with the environmental standards, BDGPL has confirmed that it will comply with the required standards during the term of the generation licence. In view of the importance of the issue, the Authority has decided to include a separate article in the generation licence along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

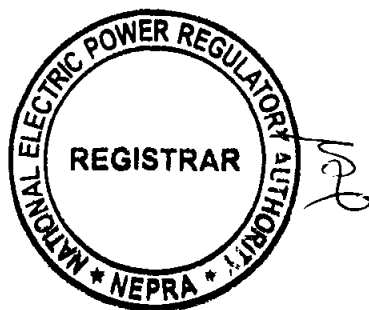
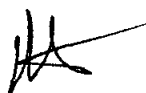
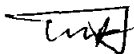
(ix). Regarding the rates, charges and terms and conditions of tariff between BDGPL and its BPC, it is reiterated that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges etc. is the sole prerogative of the Authority. However, the Authority observes that tariff between BDGPL and its BPC, does not affect any other consumer or third party. Therefore for the purpose of tariff, the Authority considers it appropriate directing BDGPL and its BPC to agree on a bilateral agreement and accordingly BDGPL 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 different stakeholders as explained above. In this regard, the Authority has observed that CPPAGL and PESCO have raised various concerns on the proposal of BDGPL of supplying the proposed BPC/CTML including (a). impact on the tariff of the arrangement; (b). BDGPL cannot sell electric power under Section-22 of NEPRA Act) to BPC; (c). requirement for a BPC to serve notice to PESCO before switching to a generation company under Section-22(2) of NEPRA Act; (d). requirement of PESCO to maintain network/grid system vis-a-viz the O&M cost; (e). allowing dual connections; (e). issue of cross-subsidization; and (f). requirement of notice for BPC and approval of IGCEP.

(xi). In consideration to the above, the Authority has observed that BDGPL 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



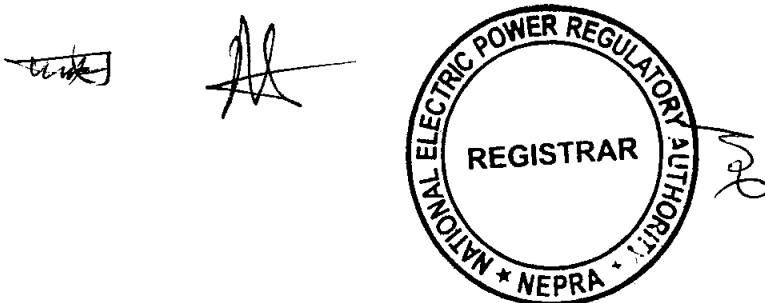
matter of application for the grant of generation licence of BDGPL. Regarding the impact on the tariff of allowing the arrangement for BPC(s) to have supply from generation companies, the Authority considers that due to the current structure of tariff the observation of CPPAGL and PESCO carries significance however, at the same time it is worth considering that BDGPL will only be meeting a very small fraction (of around 4-5%) of the sanctioned load of CTML which can be attributed to its natural growth meaning thereby there will not be any adverse impact on the base line consumption pattern of CTML from the utility. About the observation of PESCO that BDGPL cannot sell electric power under Section-22 of NEPRA Act to CTML/BPC, the Authority clarifies that the interpretation is not in line with the provisions of the NEPRA Act and a generation company is allowed supplying to BPC in terms of the provisions of the said Section. In consideration of the comments of PESCO 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 when a consumer completely switches from a distribution company whereas, in the current case the consumer/CTML has confirmed that it will continue to maintain its supply from PESCO therefore, the question of notice period does not arise. In light of the said, the observation of PESCO that it will be required to maintain network/grid system and recovery of the O&M cost also stands addressed as CTML will continue to maintain its supply from the said utility with almost the same baseline consumption as explained above. Regarding the observation of PESCO that as per the best utility practices, CTML 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 CTML to have the connection from BDGPL while maintaining connection from PESCO. However, the Authority directs BDGPL and CTMCL to install suitable system for safety and protection of its facilities to avoid any unwanted situation. About the comments of PESCO that the arrangement will result in less consumption from the grid/utility thus resulting in less contribution towards cross-subsidization. In this regard, as explained in the preceding



paragraphs that despite contracting from BDGPL. 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 BDGPL has completed all the regulatory requirements as explained in the preceding paragraph and qualify for the same. About the observation of PESCO requirement of notice for BPC and approval of IGCEP, the same stands addressed as explained previously. Accordingly, the Authority considers that the observations of CPPAGL and PESCO 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 PESCO will be expiring on April 30, 2022. Further, PESCO 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. Regarding the current matter involving setting a PV based generation facility by BDGPL at the premises of CTML for supplying electric power to it, the generation company/BDGPL has submitted an undertaking that it will not generate or sell/supply electric power to its proposed BPC prior to expiry of the distribution licence of PESCO.

(xiii). In consideration of the above, the Authority hereby approves the grant of the generation licence to BDGPL on the terms and conditions set out in the generation licence annexed to this determination. The grant of the 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 BDGPL to apply for a Supplier Licence under

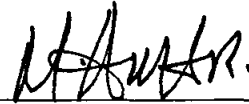




Section-23E of the NEPRA Act, once the necessary/required rules and regulations on the subject are notified and if there is a requirement for such a licence.

**Authority:**

Engr. Maqsood Anwar Khan  
(Member)



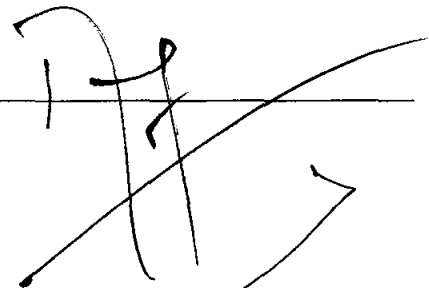
Engr. Rehmatullah Baloch  
(Member)

Retired


Engr. Rafique Ahmed Shaikh  
(Member)



Engr. Tauseef H. Farooqi  
(Chairman)





  
11 04 22

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

**Islamabad – Pakistan**

**GENERATION LICENCE**

**No. SGC/161/2022**

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:

**BURJ DG (PRIVATE) LIMITED**

Incorporated Under Section-16 of the  
Companies Act, 2017 (XIX of 2017) Having Corporate Universal Identification  
No. 0157069, dated September 03, 2020

**for its PV based Generation Facility/Roof Top Solar/Solar Power  
Plant located at Crescent Textile Mills Limited, Hattar Industrial  
Estate, District Haripur in the Province of Khyber Pakhtunkhwa**

(Total Installed Capacity:  $\approx$  520.46 kW<sub>P</sub> Gross)

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

Given under my hand on 11<sup>th</sup> day of April Two Thousand &  
Twenty Two and expires on 30<sup>th</sup> day of May Two Thousand & Forty-  
Seven

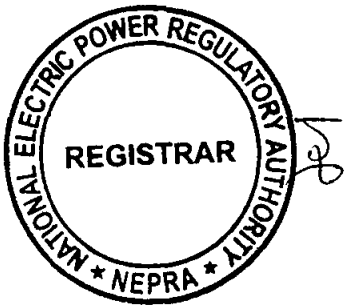
  
11 04 22  
**Registrar**



**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



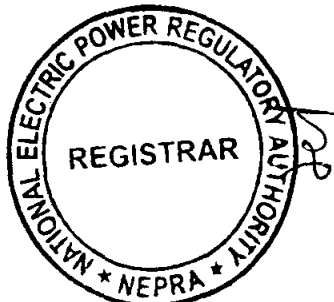
which the electric power from all the photovoltaic cells is collected for supplying to the Power Purchaser;

- (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;
- (m). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;



- (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/ Solar Power Plant/Roof Top Solar;
- (p). "Licensee" means **Burj DG (Private) Limited** 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). "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;
- (s). "Power Purchaser" means the BPC which will be purchasing electric power from the Licensee, pursuant to a EPA for procurement of electric power;
- (t). "Roof Top Solar" means a cluster of photovoltaic cells/panels installed on the roof top of a building or any other suitable place in the same location used for production 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.

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

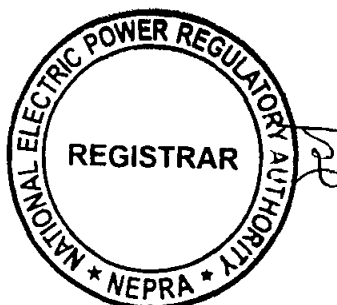
**3.1** The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facility/Solar Power Plant/Roof Top Solar of the Licensee are set out in Schedule-I of this Licence.

**3.2** The net capacity/Net Delivered Energy of the generation facility/Solar Power Plant/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/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/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.

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

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

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

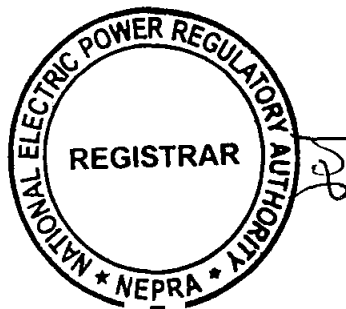
**7.1** The Licensee shall participate in such manner as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement.

**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/Solar Power Plant/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.

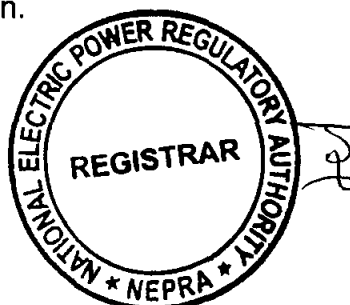
**10.2** The Licensee shall provide a certificate on a bi-annual basis, confirming that the operation of its generation facility/Solar Power Plant/Roof Top Solar is in conformity with required environmental standards as prescribed by the relevant competent authority as amended or replaced from time to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



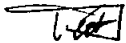


**Article-13**  
**Compliance with Applicable Law**

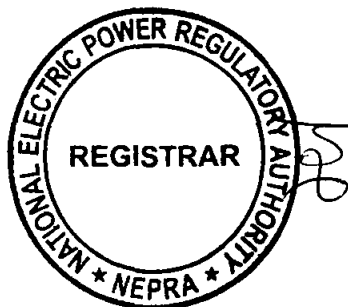
The Licensee shall comply with the provisions of the Applicable Law, guidelines, directions and prohibitory orders of the Authority as issued from time to time.

**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.

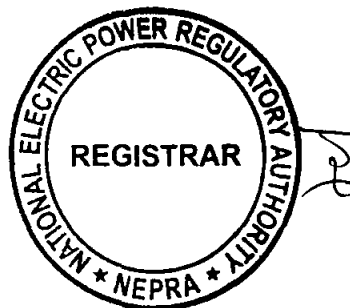






## **SCHEDULE-I**

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.



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

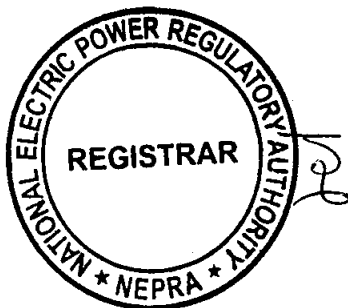
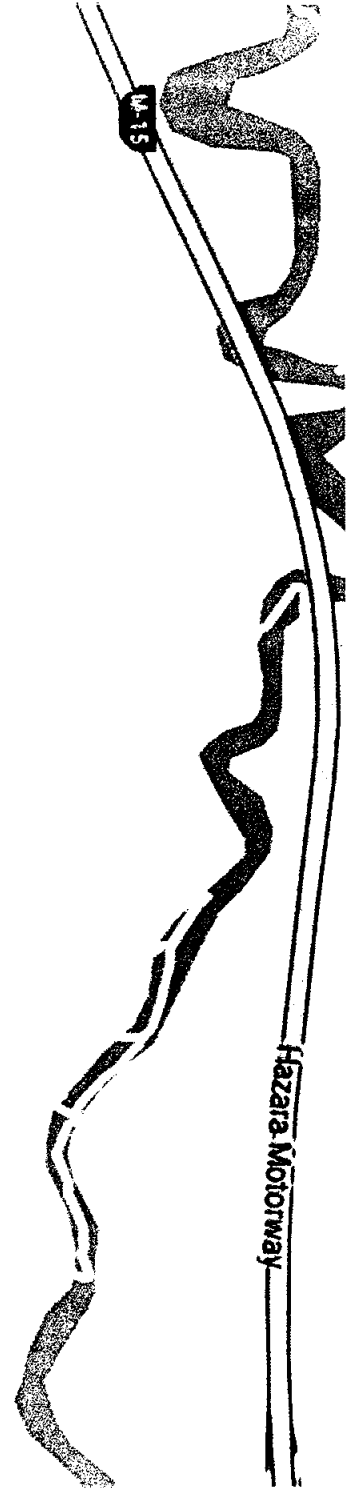
Industrial Rd



Crescent Textile  
Mills, Hattar Haripur

LABOUR  
COLONY 600  
QUARTER

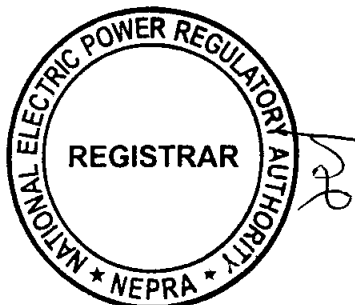
MAIRA SHEENI



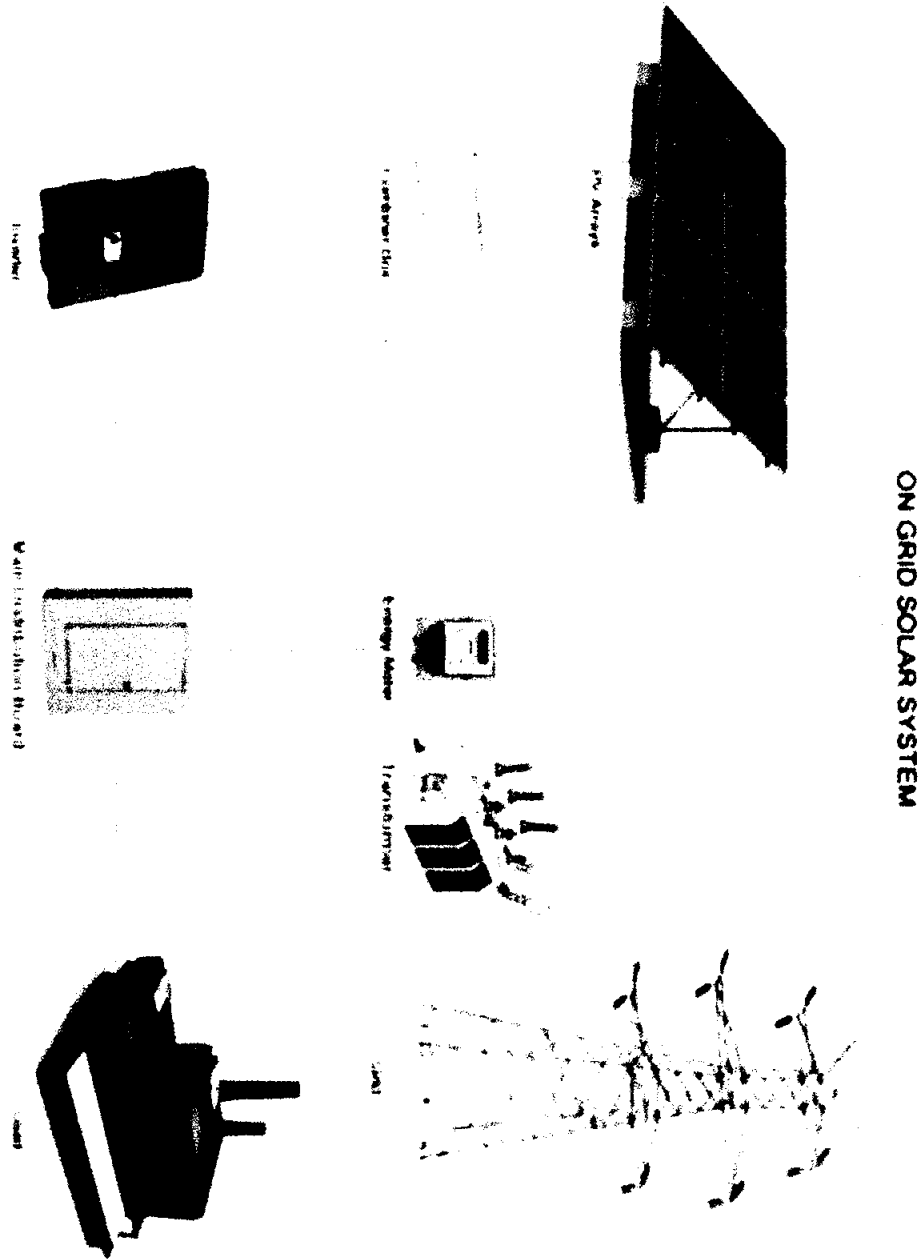
**Land Coordinates of the**  
**Generation Facility/ Solar Power Plant/ Roof Top Solar**  
**of the Licensee**



<u>Sr. No.</u>	<u>Location</u>	<u>Site Coordinates</u>	
01	Crescent Textile Mills Limited-CTML	Latitude	33°54'35.6"N
		Longitude	72°50'23.5"E



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



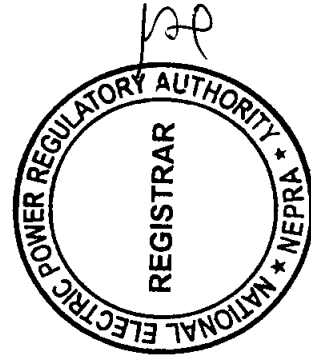
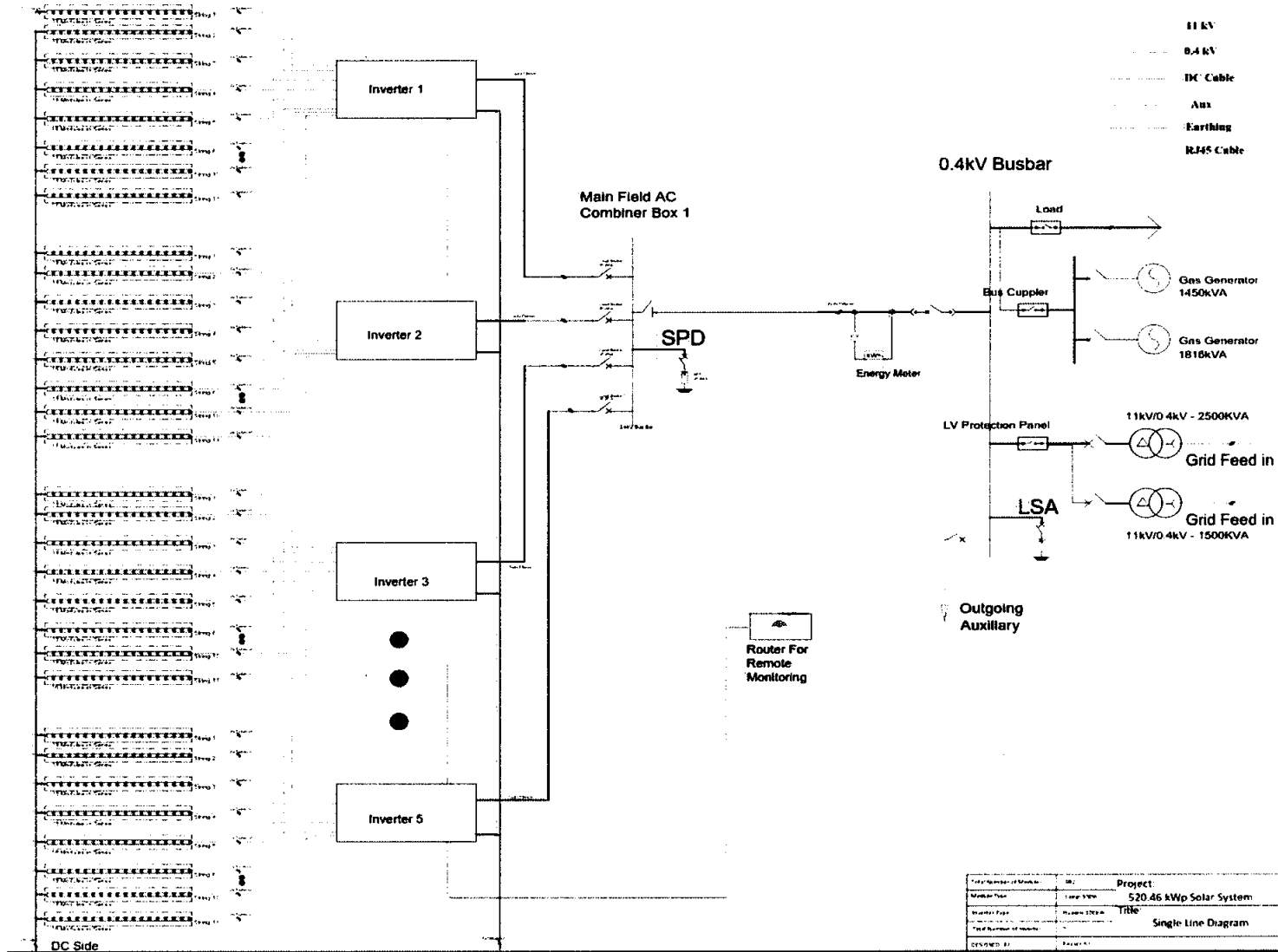
Handwritten signature/initials.

Handwritten signature/initials.



Handwritten signature/initials.

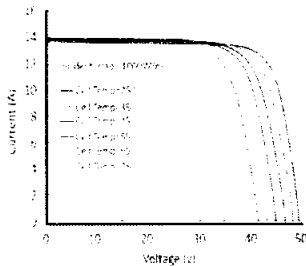
**Single Line Diagram**  
**Generation Facility/ Solar Power Plant/ Roof Top Solar**  
**of the Licensee**



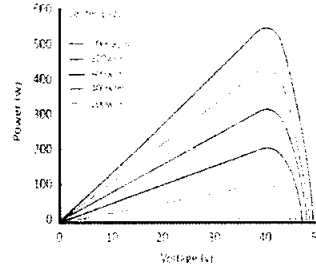
*[Handwritten signature]*

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

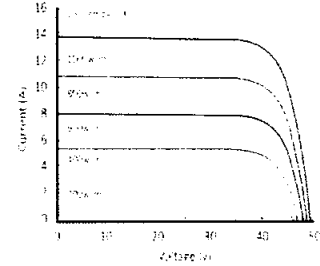
Current-Voltage Curve (LR5-72HPH-530M)



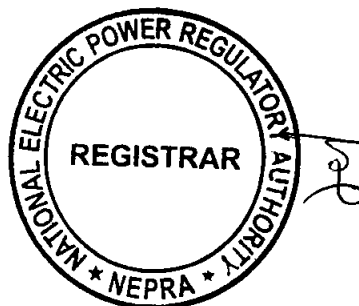
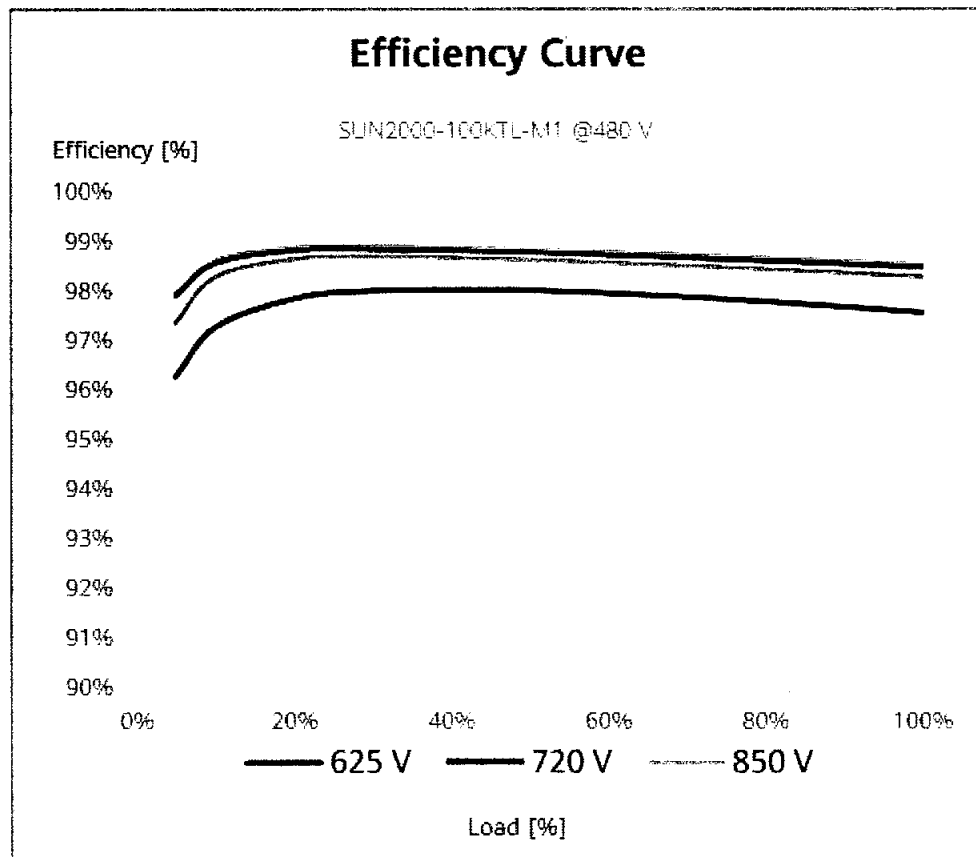
Power-Voltage Curve (LR5-72HPH-530M)



Current-Voltage Curve (LR5-72HPH-530M)



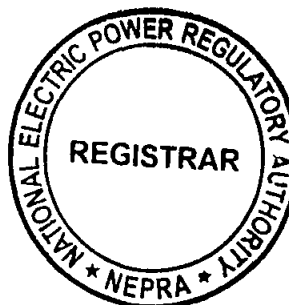
### LR5-72HPH-530



**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 Burj DG (Private) Limited-BDGPL/Licensee will be delivered/supplied to Crescent Textile Mills Limited-CTML located at Hattar in the province of Khyber Pakhtunkhwa.

(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.





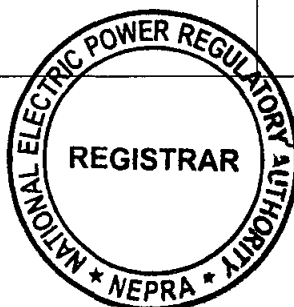
**Details of**  
**Generation Facility/Solar Power Plant/**  
**Solar Farm**

**(A). General Information**

(i).	Name of the Company/Licensee	Burj DG Private Limited
(ii).	Registered/ Business office of the Company/Licensee	16 Abdullah Haroon Road, 3 <sup>rd</sup> Floor Faysal Bank Building, Karachi
(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	Pearl Continental Hotel Lahore located at Mall Road, Lahore, in the province of Punjab

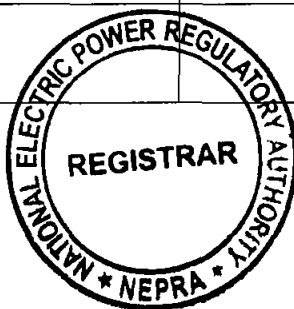
**(B). Solar Power Generation Technology & Capacity**

(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	520.46 kW <sub>p</sub>	
(iv).	No. of Panel/Modules	982 x 530 Watt	
(v).	PV Array	Nos. of Strings	55
		Modules in a string	16-18
(vi).	Inverter(s)	Quantity	5
		Make	Huawei
		Capacity of each unit	100 kW

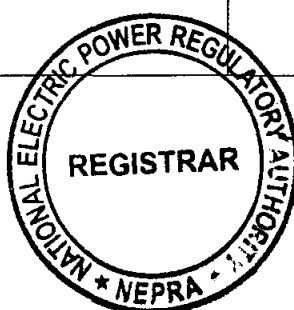


**(C). Technical Details of Equipment**

<b>(a).</b>	<b><u>Solar Panels – PV Modules</u></b>	
(i).	Type of Module	Longi Solar LR5-72HPH
(ii).	Type of Cell	Mono crystalline
(iii).	Dimension of each Module	2256*1133*35 mm
(iv).	Total Module Area	2.556048 m <sup>2</sup>
(v).	Frame of Panel	Anodized aluminium alloy
(vi).	Weight of one Module	27.2 kg
(vii).	No of Solar Cells in each module	144 (6×24)
(viii).	Efficiency of module	20.7%
(ix).	Maximum Power (P <sub>max</sub> )	530 W <sub>P</sub>
(x).	Voltage @ P <sub>max</sub>	41.35 V
(xi).	Current @ P <sub>max</sub>	12.82 A
(xii).	Open circuit voltage (V <sub>oc</sub> )	49.20 V
(xiii).	Short circuit current (I <sub>sc</sub> )	13.71 A
(xiv).	Maximum system open Circuit Voltage	1000V/1500V DC (IEC)
<b>(b).</b>	<b><u>Inverters</u></b>	
(i).	Type of Module	100KW
(ii).	Type of Cell	SUN2000-100KTL-M1



(iii).	Input Operating Voltage Range	200 V to 1000 V	
(iv).	Efficiency of inverter	98.6%	
(v).	Max. Allowable Input voltage	1100 V	
(vi).	Max. Current	22A	
(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%
		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		

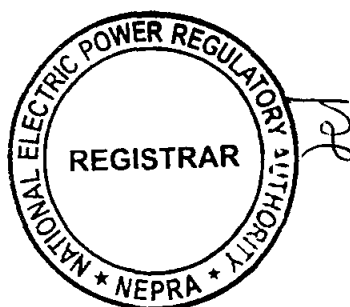
**(D). Other Details**

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



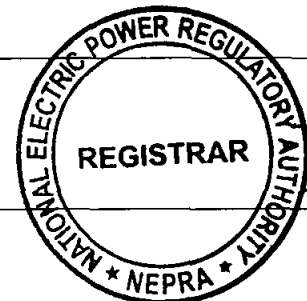
**Information**  
**Regarding Bulk Power Consumer(s)/BPC(s) to be**  
**Supplied by the Licensee**

(i).	No. of Consumers	One (01)
(ii).	Location of consumers (distance and/or identity of premises)	Crescent Textile Mills Limited, Hattar, in the province of Khyber Pakhtunkhwa
(iii).	Contracted Capacity and Load Factor for consumer	520.46 kW <sub>p</sub> / 10 - 15%
(iv).	Specify Whether	
	(a).	The consumer is an Associate undertaking of the Licensee -If yes, specify percentage ownership of equity;
	(b).	There are common directorships:
	(c).	Either can exercise influence or control over the other.
(v).	Specify nature of contractual Relationship	
	(a).	Between each consumer and Licensee.
	(b).	Consumer and Distribution Company.
(vi)	Any other network information deemed relevant for disclosure to or consideration of the Authority.	Not Applicable



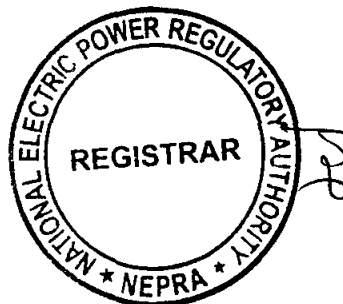
**Information**  
**Regarding Distribution Network for Supply of Electric**  
**Power to BPC**

(i).	No. of Feeders	One (01)
(ii).	Length of Each Feeder (Meter)	300-350 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)	Yes- B3 (14)T consumer of PESCO
(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.

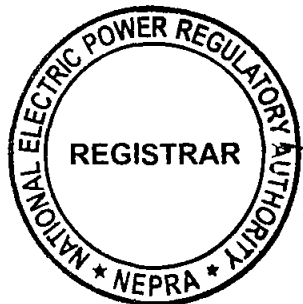


## **SCHEDULE-II**

(1).	Total Installed Capacity of the Generation Facility/Solar Power Plant/Solar Farm	520.46 kW <sub>P</sub>
(2).	Average Sun Hour Availability/ Day (Irradiation on Inclined Surface)	5 to 5.5 Hours
(3).	No. of days per year	365
(4).	Annual generating capacity of Generation Facility/Solar Power Plant/Solar Farm (As Per Simulation)	760 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	17632 MWh
(6).	Annual generation of Generation Facility/Solar Power Plant/Solar Farm based on 24 hours working	3316 MWh
(7).	Net Capacity Factor of Generation Facility/Solar Power Plant/Solar Farm	16.67%

**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).





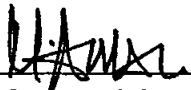
**Authorization**  
**by National Electric Power Regulatory Authority (NEPRA) to**  
**Burj DG (Private) Limited**


Incorporated under Section-16 of  
the Companies Act, 2017 (XIX of 2017) having Corporate Universal Identification  
No. 0157069, dated September 03, 2020


**NEPRA GENERATION LICENCE No. SGC/161/2022**  
**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 Burj DG (Private) Limited- (BDGPL) the Licensee to engage in second-tier supply business, limited to the following consumers:-

- (a). Crescent Textile Mills Limited-CTML, Hattar Industrial Estate, District Haripur in the Province of Khyber Pakhtunkhwa

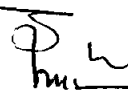
  
Engr. Madsood Anwar Khan  
(Member)

  
Engr. Rehmatullah Baloch  
(Member)

  
Engr. Rafique Ahmed Shaikh  
(Member)

  
Engr. Tauseef H. Farooqi  
Chairman





11 04 22