National Electric Power Regulatory Authority
Islamic Republic of Pakistan

Registrar

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No. NEPRA/R/DL/LAG-447/1934-91

January 17, 2020

Mr. Maqsood Ahmad,
Chief Executive Officer,
Atlas Energy Limited,
26/27 km, Lahore-Sheikhupura Road,
Sheikhupura.
Contact No. 056-3406193-94

Subject: **Grant of Generation Licence No. SGC/132/2020**
Licence Application No. LAG-447
Atlas Energy Limited (ATEL)

Reference: *ATEL's application vide letter No. nil dated February 04, 2019 (received on February 14, 2019).*

Enclosed please find herewith Determination of the Authority in the matter of Application of "Atlas Energy Limited (ATEL)" for grant of Generation Licence along with Generation Licence No. SGC/132/2020 annexed to this determination granted by the National Electric Power Regulatory Authority (NEPRA) to ATEL for its 829.60 KWP Solar Power Plant located at different locations in the province of Punjab pursuant to Section 14(B) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (The Amended Act).

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

Enclosure: Generation Licence (SGC/132/2020)

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(Syed Safeer Hussain)

Copy to:

1. Secretary, Ministry of Energy, Power Division, A-Block, Pak Secretariat, Islamabad.
2. Chief Executive Officer, Alternative Energy Development Board (AEDB), 2nd Floor, OPF Building, G-5/2, Islamabad.
3. Managing Director, NTDC, 414-WAPDA House, Lahore.
4. Chief Executive Officer, Multan Electric Power Company Limited (MEPCO), MEPCO Head Quarters, Khanewal Road, Multan.
5. Chief Executive Officer, Lahore Electric Supply Company Limited, 22-A, Queens Road, Lahore.
6. Director General, Environmental Protection Department, Government of Punjab, National Hockey Stadium, Ferozpur Road, Lahore
7. Secretary, Energy Department, Government of the Punjab, 8th Floor, EFU House, 6-D Main Gulberg, Jail Road, Lahore.

National Electric Power Regulatory Authority (NEPRA)

Determination of the Authority in the Matter of Application of Atlas Energy Limited for Grant of the Generation Licence

January 17, 2020
Case No. LAG-447

(A). Filing of Application

(i). Atlas Energy Limited (ATEL) submitted an application on February 14, 2019 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 that application was deficient in terms of the Licensing Regulations. Accordingly, the Registrar directed ATEL for submitting the missing information/documents as required under the said regulations. ATEL completed the submission of missing information/documentation by March 12, 2019. 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 April 02, 2019 for consideration of the grant of the generation licence as stipulated in Regulation-7 of the Licensing Regulations. The Authority approved an advertisement to invite comments of general public, interested and affected persons in the matter as stipulated in Regulation-8 of the Licensing Regulations. Accordingly, notices were published in one (01) Urdu and one (01) English newspapers on April 06, 2019.

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(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 April 09, 2019, soliciting their comments for assistance of the Authority.

(B). Comments of Stakeholders

(i). In reply to the above, the Authority received comments from two (02) stakeholders which included Ministry of Science and Technology of Govt. of Pakistan (MoST) and Central Power Purchasing Agency (Guarantee) Limited (CPPAGL). The salient points of the comments offered by the said stakeholder are summarized below: -

(a). MoST submitted that the gross capacity as per the number of panels i.e. 2074 pieces given in the notice of admission and the Maximum Power (P_{max}) of 400 W_p accumulates to 829.60 KW_{DC} which is in contradiction with the subject title of the notice which states that total power generation is 10.00 MW. The type of technology being deployed is Mono Crystalline which is recommended for utilization in the Province of Punjab. The referred make and model of the panels mentioned in the notice are IEC & UL certified and made by Jinko Solar which is a Tier-I manufacturer. MoST cannot comment on the financial and other ToRs of the project and the Authority may consider if required;

(b). CPPAGL stated that ATEL has applied for the generation license for the development of 10.00 MW generation on different distinct locations including (a). Lahore; (b). Multan; (c). Sheikhupura; (d). Multan; (e). Rahim yar khan. It has been observed from the Generation License Application that

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ATEL has not provided the proper information to the Authority regarding the generating capacity as letter received is portraying that the company is applying for 10.00MW which is in contradiction to the Notice of Admission/Advertisement attached showing it as 829.6 KW. The company is connecting to the National Grid as Off or On Grid supplier, no matter whatever be the mode of connection, the induction/inclusion of the unplanned Power Plants will going to impact the overall Energy mix and will also impact the IGCEP which NTDC has already submitted to the Authority till 2040 for its approval. A Registration Mechanism may kindly be developed either at level of DISCO or the Authority for ensuring that such induction would not disturb the National Plan (IGCEP) for integration of new power plant either technically or financially. The Authority is also requested to develop a Recovery Mechanism for the Distributed Generator (Self consumption or Net metered) regarding the fixed cost component in order to avoid any detrimental impact on overall payment instrument. The Authority is requested to provide a quantum of Distributed Generator (Self consumption or Net metered) after getting necessary information from the concerned quarters to NTDC so that the same is considered while planning IGCEP;

(c). CPPAGL in its other correspondence remarked that as rooftop solar is gathering pace, the concept of grid defection is taking shape. Grid defection occurs when customers cut their grid usage, either partially or fully, by investing in self-generation, storage and generators. Although full grid defection is economically not feasible at the moment, partial

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grid defection is on the rise. The problem gets exacerbated because when people defect from the grid, electricity rates increase for the remaining customers to cover for fixed costs, which encourages them to defect as well. This results in a 'death spiral' for utilities that is a threat to their business. In Pakistan, the utility business is mostly regulated. However, our utilities are already facing the spiral of death due to rising electricity prices. Industries have been defecting the utilities in favor of captive generation and industrial base load is down from 32% to less than 20% already (According to an independent research conducted by LUMS Energy institute titled as "A Study on the Opportunities and Challenges of Distributed Solar and Other Innovations in Pakistan"). With distributed solar, the good residential customer and small business customers has also started to leave the grid which will raise the price of electricity for remaining ones thus forcing more customers to resort to alternate energy solutions. As per existing tariff structure for the end consumers, the major portion of fixed charge (Capacity, UoSC, MOF, DM) is being recovered through sale of energy to end consumers (i.e. Volumetric Charge). As a result, the more the number of units being sold, the less will be the per unit rate for the fixed capacity charge and vice versa. Accordingly, such mechanism/scheme that decreases the energy from pool (for which the capacity has been added at central pool level) will result into: - (a). An increase in rate of fixed capacity charge for other consumers; and (b). Stranded costs at central pool level which will be borne by other consumers. Therefore, it is suggested that such major changes on regulatory level, may not be carried out without capturing concomitant change in tariff structure, failing which

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will result in increase in the remaining pool basket price and resultantly increase in the tariff of remaining consumers. In view of the foregoing, a few suggestions are being placed for consideration of the Authority, so to ensure sustainable development of the power sector including (a). A Quantum for Distributed Generation needs to be ascertained in light of the demand projections (against which agreements/ procurements have already taken place) while keeping in view the energy charge avoided by the Distributed Generation consumer/source against which the capacity charge was supposed to be recovered (as per existing tariff structure of the end consumers); (b). A uniform tariff requires to be introduced (in the existing end consumer tariff setting framework) for the Grid Connected Distributed Generator Consumer (be it for Net-Metering or Self-Consumption) by incorporating a new tariff category in the Schedule of Tariff (SOT); and (c). A Separate Category for Grid-Connected Distributed Generation (be it for Net-Metering or Self-Consumption) needs to be introduced through a Central Planning Mechanism in order to ensure proper registration and charge of respective tariff.

(ii). The Authority considered the above comments and in view of the observations raised, considered it appropriate seeking perspective of ATEL. On the observations of MoST, it was submitted that the company is planning to install PV based solar facilities at different locations which may be upto 10.00 MW in different phases. However, in the initial phase five (05) locations have been identified with a cumulative capacity of 829.60 kW. It is to be noted that for addition of any other facilities subsequently, the required rules and regulations will be followed. ATEL elaborated that the PV based facilities are being developed

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to supplement supply from grid which is necessary due to fragile system of the distribution company existing at site.

(iii). On the comments of CPPAGL, it was submitted that the energy plan being referred is still in the planning phase, therefore, NTDC/CPPAGL may considering the ground realities rationalize the future demand instead of blocking such initiative which is actually providing stability to the system at the cost of such developers. Regarding the suggestion of Registration mechanism, the same is upto the Authority to decide the same. About the recovery mechanism for distributed generator(s), the matter is relating to tariff and it is the prerogative of the Authority to consider the same however, for this purpose the Distribution companies and CPPAGL may submit formal petition instead of submitting/highlighting this issue in the current case for supplying to Bulk Power consumers. Regarding the quantum of the capacity through distributed generation, NTDC/Distribution Companies/CPPAGL may carry out the necessary studies keeping in view the import of PV cells in consultation with relevant stakeholders to actually determine the size. In this regard, the Govt. of Pakistan through AEDB has envisaged adding 5000 MW of solar based generation by 2023 through net metering and other related initiatives which may be considered accordingly.

(iv). On the other correspondence of CPPAGL referred at Para B(i)(c) above, ATEL acknowledged that with the lowering the prices of the PV cells, the roof top solar solution is becoming very cost effective and popular. ATEL conceded that such initiatives may decrease the ultimate demand-supply situation of the Distribution Companies. However, the very reason for the installation of these systems is the poor and unreliable quality of service from the DISCO(s) which needs to be improved. In the absence of the initiatives of improvement, it will be double jeopardy for the consumers as they will not be allowed installing alternative solutions as being suggested by the company. CPPAGL has referred to a study from LUMS about shifting of industry and other consumers however, the company is not aware of any study available in public

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domain. Any comments on the said study can only be made if assumptions of such study are made available and known in public domain which is not the case currently. About the possible change in tariff structure, the same is not the scope of the application under consideration. In this regard, it is reiterated that CPPAGL/DISCO may approach the Authority through tariff petition as envisaged in the NEPRA Act, rules and regulations framed thereunder. Further to the said, ATEL submitted that by adding Distributed solar, a number of benefits of National importance may be achieved including (a). 1 U.S. $ of foreign exchange saved against each 14 kWh; (b). Rs. 15.00 saving to the consumer for every 14 kWh; and (c). Avoided pollution generated through burning of RLNG. In consideration of the said, it was stated that DISCOs including LESCO are actually promoting net metering by printing on electricity bills sharing the benefits relating to energy generated by solar with the caption "Electricity You Generate We Purchase". On the bills, it is mentioned that net metering would result: - (a). Promotion of Friendly Environment; (b). Lessening burden on National Grid; (c). Reducing Grid Investment; (d). Community Participation in Power Generation; (e). Consumer get credit for exported electricity, recorded via bi-directional energy meters; and (f).Non consumed electricity gets automatically exported to National Grid.

(v). The Authority considered the above submissions and considered it appropriate to proceed further in the matter of the application of ATEL for the consideration of grant of Generation Licence as stipulated in the Licensing Regulations and the Generation Rules.

(C). Evaluations/Findings

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

(ii). The Authority has observed that the applicant i.e. ATEL is an entity incorporated under Section 32 of the Companies Ordinance, 1984 (XLVII of

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1984), having Corporate Universal Identification No. 0099710, dated May 18, 2016. It is a public limited company with the principal line of business to design, insure, build, establish, own, operate, maintain, manage electric power generating plants for the generation, supply & transmission of electric power arid in relation thereto including solar energy system, its manufacturing through poly silicon and chemical technology, processing, casting, cell manufacturing, module manufacturing and installation thereof, installing, running, owning and managing biomass/waste-to energy power plant, and dealing in all other forms or services associated therewith.

(iii). The Authority has noted that the applicant company i.e. ATEL is a group company of the Shirazi Trading Company (Pvt.) Limited, has a portfolio involving "Business Solutions", "Health Care" , "Industrial Solutions" and "Power Generation". It is pertinent to mention that ATEL is already involved in owning, operation and maintenance of a 225 MW oil fired generation facility near Shiekhupura in the province of Punjab supplying to National Grid for almost a decade now. ATEL/Shirazi Group is one of the strongest company in terms of financial and technical capabilities which now plans entering to the market of Renewable Energy (RE).

(iv). The Authority has noticed that ATEL through its current application pursuing a generation licence for setting up different generation facilities by installing roof top solar at distinct locations. According to the submitted information, ATEL plans setting up said type of facilities at (a). Atlas Honda Branch, Multan (30.00 kW); (b). Atlas Honda Branch, Rahim Yar Khan (21.60kW); (c). Atlas Honda Branch, Lahore (19.20kW); (d). Atlas Honda Limited, Lahore (8.00 kW); (e). Atlas Honda Limited, Sheikhupura (578.00 kW); and Atlas Autos Limited, Sheikhupura (172.80kW).

(v). The Authority has observed that ATEL plans supplying to the aforementioned entities as Bulk Power Consumers [BPC(s)] through cable located on private property owned by the respective BPC. According to the

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submitted information, the total cost of the project will be about U.S $ 0.562 million which will be financed through a combination of debt (80% of the total cost of project) and equity (of 20% of the total cost of project). In this regard, a number of financial institution/commercial banks have expressed their interest to finance the debt portion of the project.

(vi). The sponsor 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 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 six locations to achieve a total capacity of 829.60 kW the company will be installing 2074 PV cells each of 400 Watt$_P$. In consideration of the said, it is clarified that the company plans installing PV cells from Tier-I manufactures including Jinko Solar, JA Solar or Renesola.

(vii). The Authority has considered the submissions of ATEL confirming that a deal for purchase of PV Cells of JKM400M-72H has been locked with Jinko Solar where the manufacturer has assured an average capacity factor of 16.50%. As explained above, the supply from proposed generation facilities will be supplied to different entities of the shirazi group as BPC(s). According to the system study of the project, the dispersal to the BPC will be made at 220/400 volt through cables located/placed on the roof top/private property owned by the respective BPC not involving any public or third party.

(viii). Further, the Authority has also considered the submissions of ATEL that necessary due diligence has been completed and there will be no environmental impact of the proposed arrangement as PV cells will be utilizing only the existing infrastructure of roof top of buildings. Further, due to smaller sizing of the project/locations being developed as roof top solar, there is no requirement to have Initial Environmental Examination (IEE). ATEL has

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confirmed that it will comply with the concerned environmental standards. In view of the said, ATEL is being made obligatory to comply with the relevant environmental standards for which a separate article has been proposed to be included in the proposed generation licence.

(ix). The grant of a generation licence is governed by the provisions of Rule-3 of the Generation Rules. The Authority has observed that ATEL 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. In this regard, the Rule-3(5) of the Generation Rules stipulates the conditions pertaining to Least Cost Option Criteria which includes (a). sustainable development or optimum utilization of the RE or non-RE resources proposed for generation of electric power; (b). the availability of indigenous fuel and other resources; (c). the comparative costs of the construction, operation and maintenance of the proposed generation facility/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

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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 consideration of the above, the Authority considers that the proposal of ATEL for installing different PV based generation facilities 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(s), 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 ATEL fulfills the eligibility criteria for grant of generation licence as stipulated in the NEPRA Act, rules and regulations and other applicable documents.

(D). Grant of Licence

(i). The Authority considers that 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,

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it is imperative that indigenous RE resources 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, ATEL has approached for the grant of a Generation Licence for setting up different/distinct PV based generation facilities with a cumulative Installed Capacity of 829.60 kW_P for supplying to different BPC(s) which are also existing consumers of their respective DISCOs. The Authority considers that the above proposal of ATEL 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 ATEL in diversifying its portfolio but will also enhance its energy security. Further, the project will also help in reducing the carbon emission by generating clean electricity, thus improving the environment.

(iv). As explained above, ATEL 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 land 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 facilities of ATEL will be used for supplying to different BPC(s). According to Section-2(ii) of the NEPRA Act, a consumer which purchases or receives electric power at one

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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 formation 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 all the above mentioned entities explained in the preceding Paras to be BPC(s) of ATEL.

(vi). Regarding supply to the BPC, the Authority observes that all the BPC(s) and the proposed generation facilities of ATEL 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 ATEL to sell electricity to BPC(s). 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(s) are located within the same premises and no public areas are involved, the supply of power to BPC(s) by ATEL does not constitute a distribution activity under the NEPRA Act, and ATEL will not require a distribution licence for supplying to the BPC(s).

(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 ATEL, the Commercial Operation Date (COD) of the proposed generation facility/solar power plant/ Roof Top Solar will be December 31, 2020 and it will have a useful life of around twenty five (25) years from its COD. In this regard, ATEL 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

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considers that said submission of ATEL about the useful life of the generation facility/solar power plant/ Roof Top Solar and the subsequent request of ATEL 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, ATEL 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 ATEL to comply with relevant environmental standards at all times.

(ix). Regarding the rates, charges and terms and conditions of tariff between ATEL and its BPC(s), 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 ATEL and its BPC(s), does not affect any other consumer or third party. Therefore for the purpose of tariff, the Authority considers it appropriate directing ATEL and its BPC(s) to agree on a bilateral agreement and accordingly ATEL 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 has raised various concerns including (a). non-submission of proper information regarding installed capacity; (b). the proposed BPC(s) of ATEL are also consumers of the Distribution Companies; (c). the induction/inclusion of such generation will impact IGCEP; (c). adoption of a Registration mechanism for players like ATEL; (d). development of a mechanism for recovery of the fixed cost from distributed generator to avoid adverse impact on overall payment instrument; (e). determination of quantum of Distributed Generator (DG) for self consumption or net metered arrangement; (f). impact of grid defection by

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installing roof top solar by consumers; and (g). review of the existing structure for tariff for end consumer and introduction of a new uniform tariff for end consumers having DG.

(xi). In consideration to the above, the Authority hereby clarifies that ATEL has confirmed that it plans to have a generation licence with a cumulative installed capacity of 829.60 kW and the same was reflected in the notice of Admission published in the press on April 06, 2019. The Authority has noticed that the BPC(s) to be supplied by ATEL are also consumers of their respective DISCO(s) however, the capacity planned to be supplied is very low as compared to their full requirements and will not have any significant impact at all and will not have any impact on the IGECP which is still to be submitted for the consideration of the Authority. According to the existing regulatory framework, an entity supplying to a BPC requires a generation licence and accordingly ATEL has approached the Authority for the same. Regarding, the proposal to have a mechanism for registration or any other suitable means to ensure that proper generation requirements are ensured, the Authority stresses that DISCO(s) and NTDC must refine their process to capture a true picture for the future requirements by revitalizing their planning function by having suitable tools in the matter. About the various issues pertaining to the recovery of cost from such consumers which are planning to have similar arrangement being proposed by ATEL and its planned BPC(s), the Authority is cognizant of the situation and will be addressing such issues in the forthcoming tariff petition of DISCO(s) by framing the issues and deliberating the same through consultation to arrive at an informed decision. In view of the said, the observations of CPPAGL stands addressed and settled.

(xii). In view of the above, the Authority hereby approves the grant of generation licence to ATEL 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.

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Authority:

Rafique Ahmed Shaikh
(Member)

Did not Attend

Rehmatullah Baloch
(Member)

15/1/2020

Saif Ullah Chattha
(Member)

15.1.2020

Engr. Bahadur Shah
(Member/Vice Chairman)

Did not Attend

Engr. Tauseef H. Farooqi
(Chairman)

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National Electric Power Regulatory Authority
(NEPRA)
Islamabad – Pakistan

GENERATION LICENCE
No. SGC/132/2020

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:

ATLAS ENERGY LIMITED

Incorporated under Section-32 of
the Companies Ordinance, 1984 (XLVII of 1984) having Corporate Universal Identification No. 0099710, dated May 18, 2016

for its distinctly located PV based Generation Facility/Roof Top Generation Facilities Located at different locations in the Province of Punjab as prescribed in Schedule-I of this Generation Licence

(Installed Capacity: 829.60 KW_P Gross ISO)

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

Given under my hand on 17th day of January Two Thousand & Twenty and expires on 30th day of December Two Thousand & Forty-Five.

17/01/20

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 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/Solar Farm;

(p). "Licensee" means Atlas Energy 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/Solar Farm 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 PPA for procurement of electric power;

(t). "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";

(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 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) Rules, 2002 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. 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.

7.2 Any variation or modification in the above-mentioned contracts for allowing the parties thereto to participate wholly or partially in the Competitive Trading Arrangement shall be subject to 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 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.

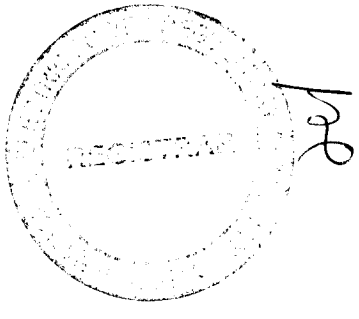
Article-13
Compliance with Applicable Law

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.

SCHEDULE-I

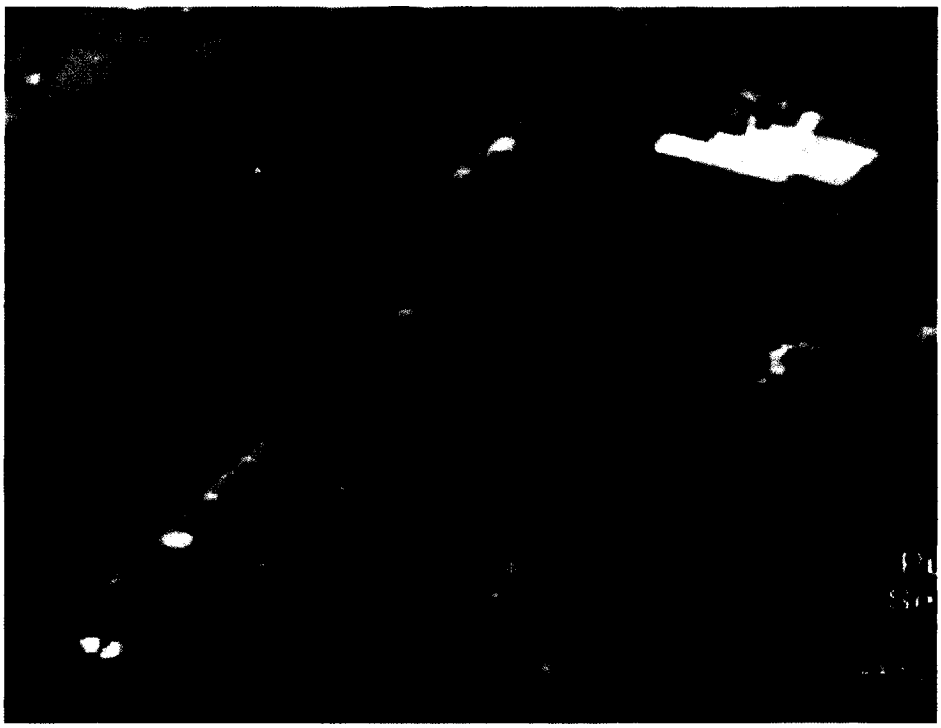
The Location, Size (i.e. Capacity in MW), Type of Technology, Interconnection Arrangements, Technical Limits, Technical/Functional Specifications and other details specific to the Generation Facilities of the Licensee are described in this Schedule.

Locations
of Different Generation Facilities of the Licensee
Being Set Up under this Licence

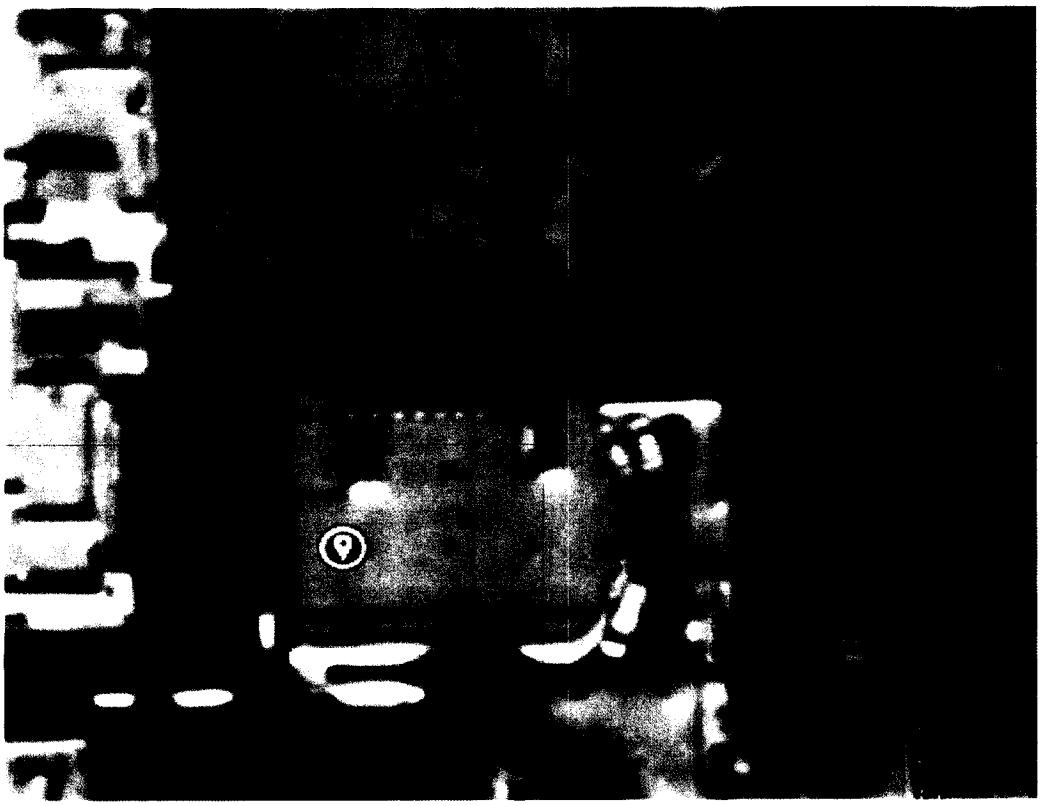


Location-I of the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee

Location-II of the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee



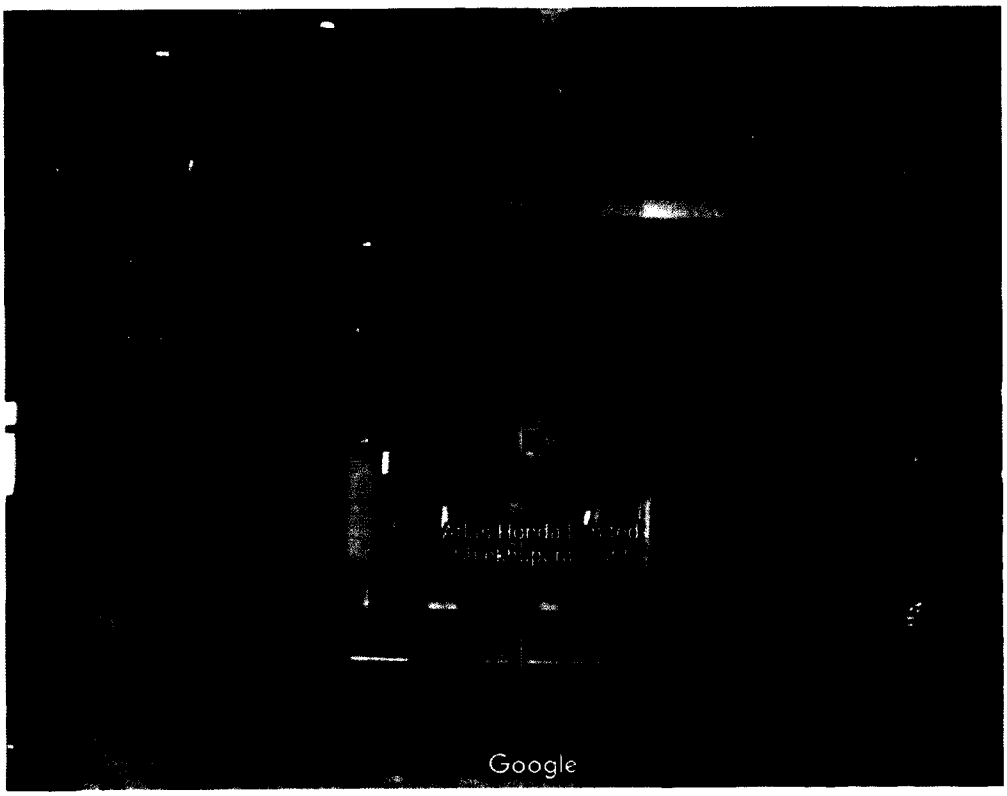
Location-III of the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee



REGISTRAR

Location-IV of the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee

Location-V of the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee



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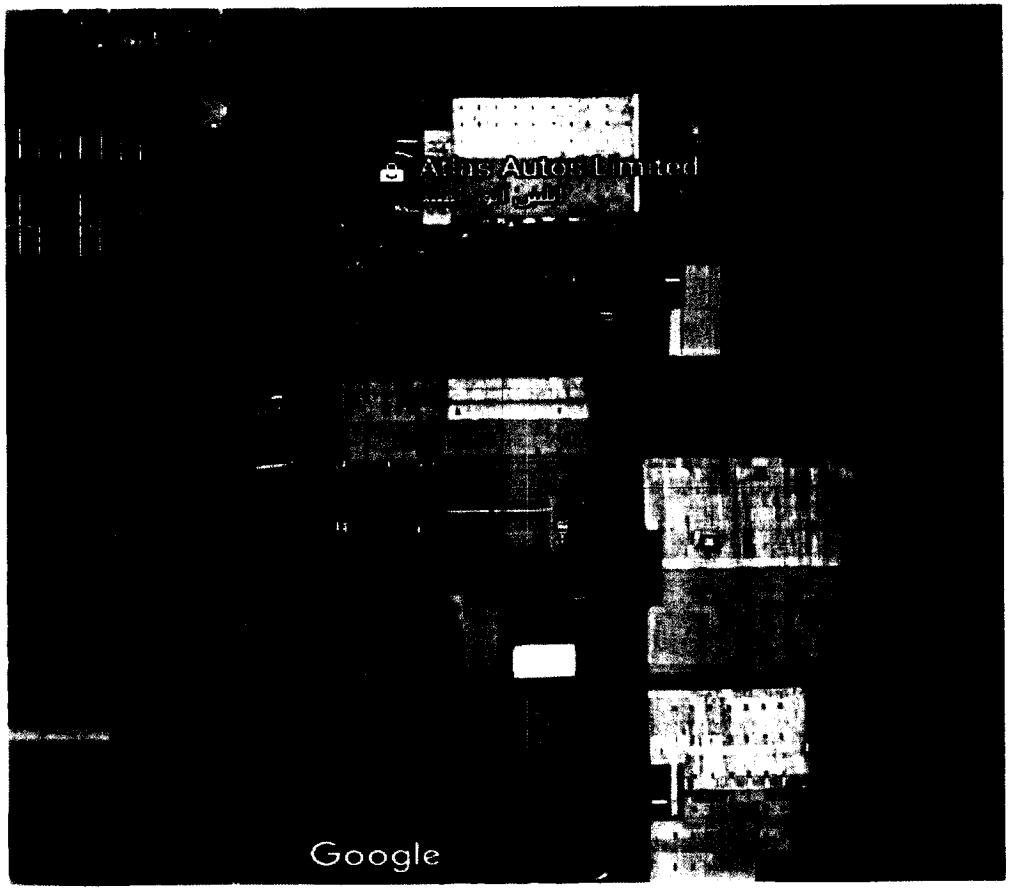
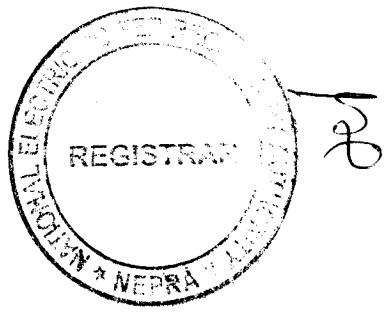
Location-VI of the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee



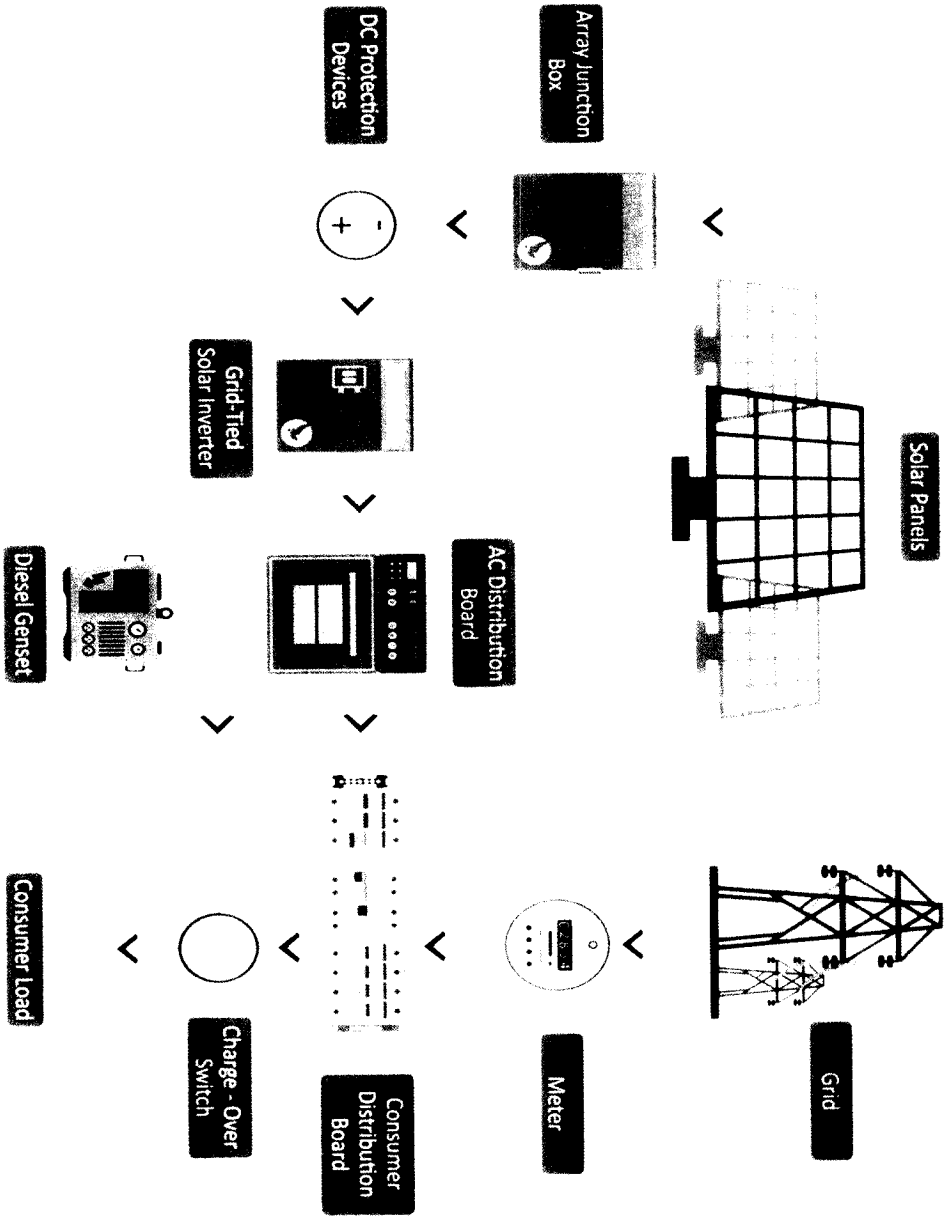
REGISTRAR

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

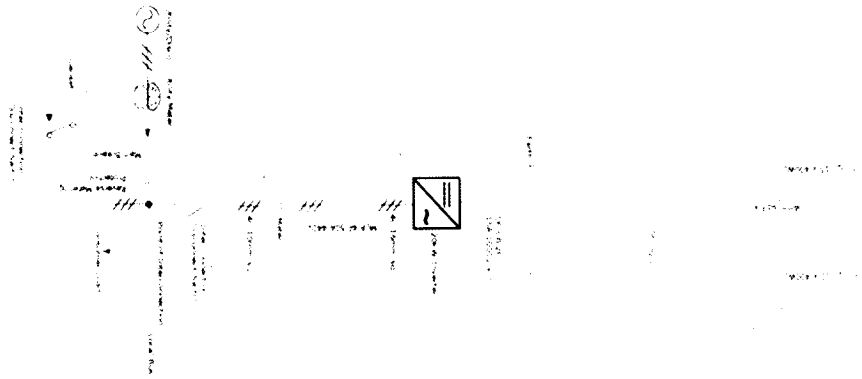
Sr. No.	Location	Site Coordinates
(1).	Atlas Honda Limited Branch Office & Customer Care Centre. Azmat Wasti Road, Multan (Location-I)	Latitude: 30°.18 N Longitude: 71°.45 E Field Type Fixed tilt plane Field Parameters: Tilt 15° & Azimuth 0°
(2).	Atlas Honda Limited Branch Office & Customer Care Centre Rahim Yar khan (Location-II)	Latitude: 28°.41 N Longitude: 70°.33" E Field Type Fixed tilt plane Field Parameters: Tilt 15° & Azimuth 0°
(3).	Atlas Honda Limited Branch Office & Customer Care Centre 1st Floor, 28-Mozang Road, Lahore (Location-III)	Latitude: 31°.55 N Longitude: 74°.31 E Field Type Fixed tilt plane Field Parameters: Tilt 15° & Azimuth 0°
(4).	Atlas Honda Limited, 1-McLeod Road, Lahore (Location-IV)	Latitude: 31°.5612 N Longitude: 74°.31 E Field Type Fixed tilt plane Field Parameters: Tilt 15° & Azimuth 0°
(5).	Atlas Honda Limited (Engine Plant Roof) 26/27 km, Lahore-Sheikhupura Road, Sheikhupura. (Location-V)	Latitude: 31°.68 N Longitude: 74°.09 E Field Type Fixed tilt plane Field Parameters: Tilt 15° & Azimuth 0°
(6).	Atlas Autos Limited 26/27 km, Lahore-Sheikhupura Road, Sheikhupura. (Location-VI)	Latitude: 31°.68 N Longitude: 74°.09" E Field Type Fixed tilt plane Field Parameters: Tilt 15° & Azimuth 0°



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



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



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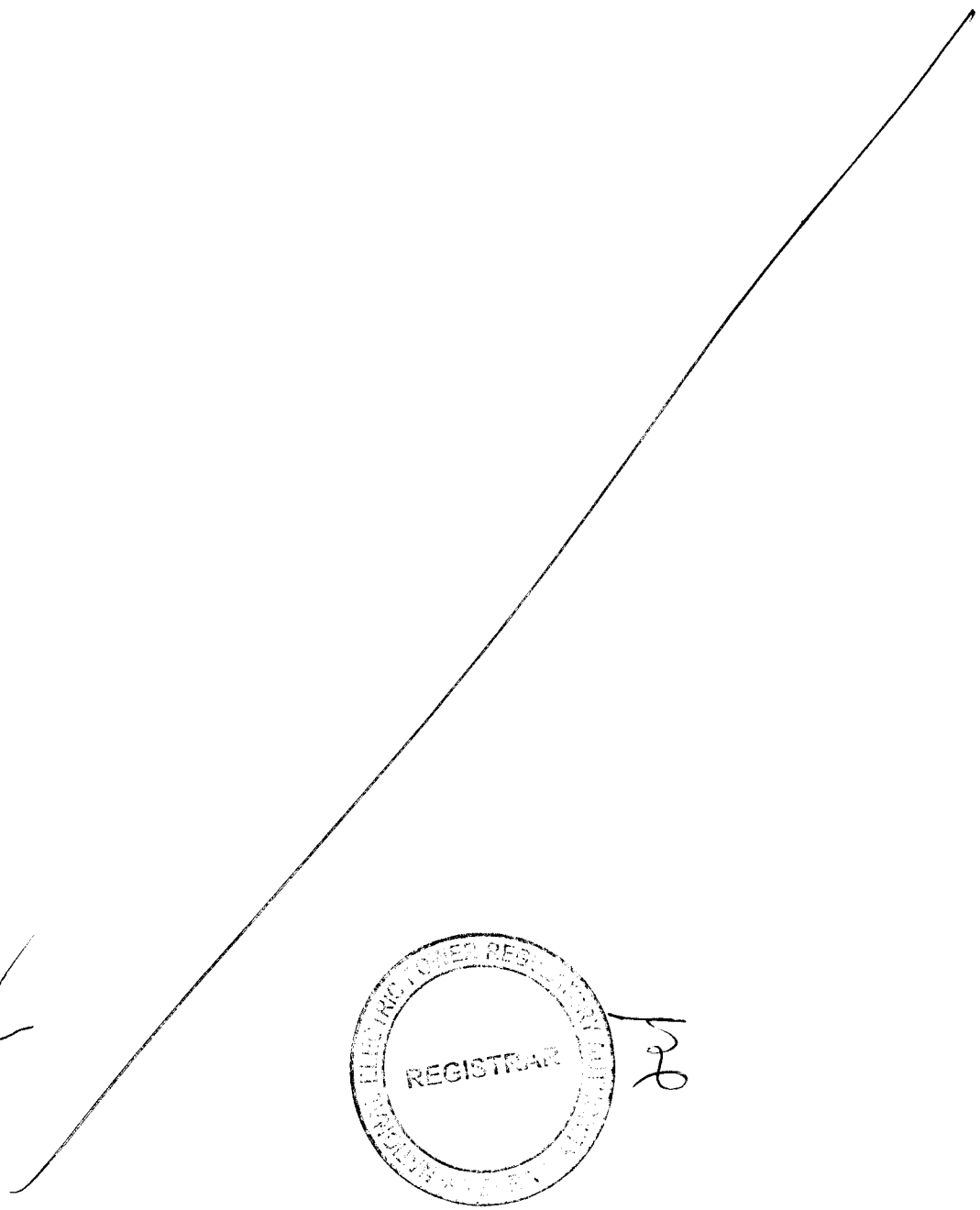
Interconnection Arrangement/Transmission Facilities for Dispersal of Power from the Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee

The electric power generated from the different/distinctly located generation facilities/Solar Power Plants/Solar Farms /Roof Top Solar of the Atlas Energy Limited-ATEL/Licensee will be delivered/supplied to different distinctly located Bulk Power Consumers (BPCs).

(2). The details pertaining to different BPCs, their respective 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	Atlas Energy Limited	
(ii).	Registered/ Business office of the Company/Licensee	26/27 Km, Lahore-Sheikhupura Road, Sheikhupura.	
(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	**Location-I**	Atlas Honda Limited Branch Office & Customer Care Centre Azmat Wasti Road, Multan.
		Location-II	Atlas Honda Limited Branch Office & Customer Care Centre Rahim Yar khan
		Location-III	Atlas Honda Limited Branch Office & Customer Care Centre 1st Floor, 28-Mozang Road, Lahore.
		Location-IV	Atlas Honda Limited, 1-McLeod Road, Lahore
		Location-V	Atlas Honda Limited (Engine Plant Roof) 26/27 km, Lahore-Sheikhupura Road, Sheikhupura.
		Location-VI	Atlas Autos Limited 26/27 km, Lahore-Sheikhupura Road, Sheikhupura.

(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	Location-I	30.00 kW
		Location-II	21.60 kW

	Power Plant/ Solar Farm (MW/KW)	Location-III	19.20 kW	
		Location-IV	8.00 kW	
		Location-V	578.00kW	
		Location-VI	172.80 kW	
		Total	**829.60 kW**	
(iv).	No. of Panel/Modules	Location-I	75 x 400 Watt	
		Location-II	54 x 400 Watt	
		Location-III	48 x 400 Watt	
		Location-IV	20 x 400 Watt	
		Location-V	1,445 x 400 Watt	
		Location-VI	432 x 400 Watt	
(v).	PV Array	Location-I	Nos. of Strings	3
			Modules in a string	25
		Location-II	Nos. of Strings	3
			Modules in a string	18
		Location-III	Nos. of Strings	3
			Modules in a string	16
		Location-IV	Nos. of Strings	1
			Modules in a string	20
		Location-V	Nos. of Strings	85
			Modules in a string	17
		Location-VI	Nos. of Strings	24
			Modules in a string	17
(vi).	Invertor(s)	Location-I	Quantity	1
			Make	ABB
			Capacity of each unit	20 KW
		Location-II	Quantity	1
			Make	ABB

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			Capacity of each unit	20 KW
		Location-III	Quantity	1
			Make	ABB
			Capacity of each unit	20 KW
		Location-IV	Quantity	1
			Make	ABB
			Capacity of each unit	7.50 KW
		Location-V	Quantity	5
			Make	ABB
			Capacity of each unit	20 KW
		Location-VI	Quantity	5
			Make	ABB
			Capacity of each unit	100 KW

(C). Technical Details of Equipment (at Each of above Location)

(a).	**Solar Panels – PV Modules**	
(i).	Type of Module	JKM400M-72H
(ii).	Type of Cell	Mono crystalline
(iii).	Dimension of each Module	2008x1002x40mm(79.06x39.45x1.57 inch)
(iv).	Total Module Area	2.012016 m2
(v).	Frame of Panel	Anodized aluminium alloy
(vi).	Weight of one Module	22.5 kg
(vii).	No of Solar Cells in each module	144 (6×24)
(viii).	Efficiency of module	19.88%
(ix).	Maximum Power (P_{max})	400 W_P
(x).	Voltage @ P_{max}	41.7 V

(xi).	Current @ P_{max}	9.60 A	
(xii).	Open circuit voltage (V_{oc})	49.8V	
(xiii).	Short circuit current (I_{sc})	10.36A	
(xiv).	Maximum system open Circuit Voltage	1000VDC (IEC)	
(b).	**Inverters (PVS-100-TL)**		
(i).	Size/Rating of PVS-100-TL	100 KW	
(ii).	Input Operating Voltage Range	360 V to 1000 V	
(iii).	Efficiency of inverter	98.4 %	
(iv).	Max. Allowable Input voltage	1000V	
(v).	Max. Current	36 A	
(vi).	Max. Power Point Tracking Range	480 V to 850 V	
(vii).	Output electrical system	3 Phase AC	
(viii).	Rated Output Voltage	320 to 480	
(ix).	Power Factor (adjustable)	>0.995	
(x).	Power control	MPP tracker	
(xi).	Rated Frequency	50 Hz	
(xii).	Environmental Enclosures	Relative Humidity	4-100%, condensing
		Audible Noise	68 dB(A) @ 1m
		Operating Elevation	2000 m
		Operating temperature	-25 to +60°C
(xiii).	Grid Operating protection	A	DC circuit breaker
		B	AC circuit breaker
		C	DC overload protection (Type 2)
		D	Overheat protection

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		E	Grid monitoring
		F	Insulation monitoring
		G	Ground fault monitoring
(c).	**Inverters (TRIO-7.5-TL-OUTD)**		
(i).	Size/Rating of TRIO-7.5-TL-OUTD	7.5 KW	
(ii).	Input Operating Voltage Range	360 V to 1000 V	
(iii).	Efficiency of inverter	98 %	
(iv).	Max. Allowable Input voltage	1000V	
(v).	Max. Current	20 A	
(vi).	Max. Power Point Tracking Range	320 V to 800 V	
(vii).	Output electrical system	3 Phase AC	
(viii).	Rated Output Voltage	320 to 480	
(ix).	Power Factor (adjustable)	>0.995	
(x).	Power control	MPP tracker	
(xi).	Rated Frequency	50 Hz	
(xii).	Environmental Enclosures	Relative Humidity	4-100%, condensing
		Audible Noise	50 dB(A) @ 1m
		Operating Elevation	2000 m
		Operating temperature	-25 to +60°C
(xiii).	Grid Operating protection	A	DC circuit breaker
		B	AC circuit breaker
		C	DC overload protection (Type 2)
		D	Overheat protection

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		E	Grid monitoring
		F	Insulation monitoring
		G	Ground fault monitoring
(d).	**Inverters TRIO-20-TL-OUTD**		
(i).	Size/Rating of TRIO-20-TL-OUTD	20 KW	
(ii).	Input Operating Voltage Range	440 V to 800 V	
(iii).	Efficiency of inverter	98.2 %	
(iv).	Max. Allowable Input voltage	1000V	
(v).	Max. Current	30 A	
(vi).	Max. Power Point Tracking Range	440 V to 800 V	
(vii).	Output electrical system	3 Phase AC	
(viii).	Rated Output Voltage	320 to 480	
(ix).	Power Factor (adjustable)	>0.995	
(x).	Power control	MPP tracker	
(xi).	Rated Frequency	50 Hz	
(xii).	Environmental Enclosures	Relative Humidity	4-100%, condensing
		Audible Noise	50 dB(A) @ 1m
		Operating Elevation	2000 m
		Operating temperature	-25 to +60°C
(xiii).	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

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		G	Ground fault monitoring
(e).	**Data Collecting System**		
(i).	System Data	Continuous online logging with data logging software to portal.	
(f).	**Unit Transformer**		
(i).	Not Applicable		

(D). Other Details

(i).	Expected COD of the generation facility Solar Power Plant/ Solar Farm	December 31, 2020
(ii).	Expected useful Life of the generation facility Solar Power Plant/ Solar Farm from the COD	25 years

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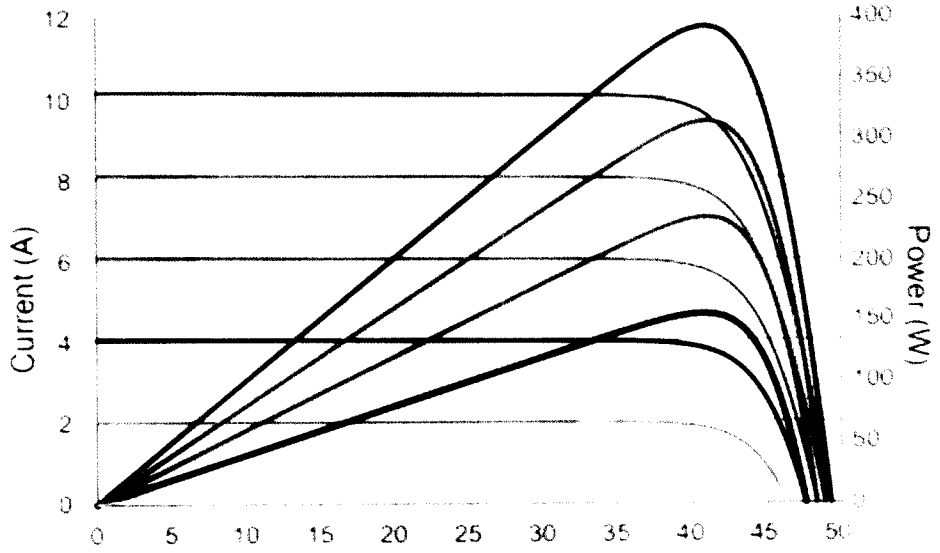
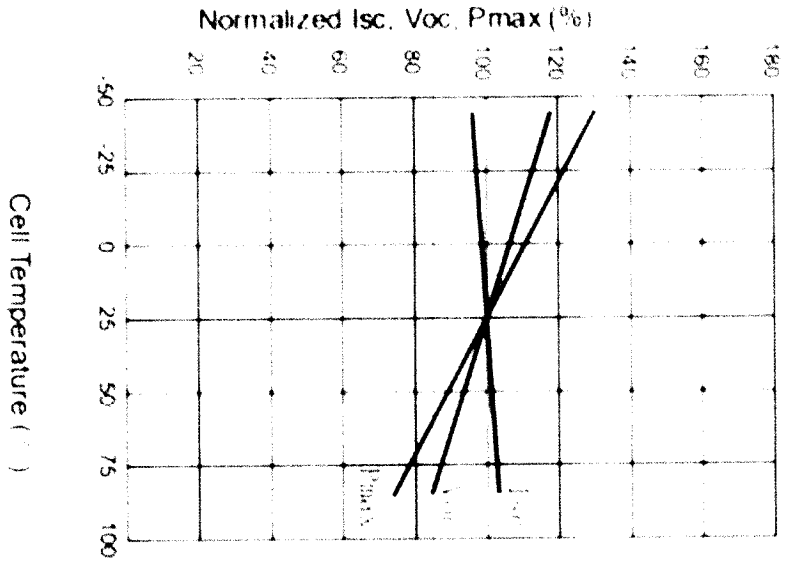
V-I Curve
Generation Facility/Solar Power Plant/Solar Farm/Roof Top Solar of the Licensee





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Information
Regarding Consumer(s) i.e. Atlas Honda Limited (AHL) to be Supplied by the Licensee i.e. ATEL (Location-I)

(i).	No. of Consumers		6 (Six)	
(ii).	Location of consumers (distance and/or identity of premises)		Location - I	Atlas Honda Limited (AHL) Branch Office & Customer Care Centre Azmat Wasti Road, Multan.
			Location - II	Atlas Honda Limited (AHL) Branch Office & Customer Care Centre Rahim Yar khan
			Location - III	Atlas Honda Limited (AHL) Branch Office & Customer Care Centre 1st Floor, 28-Mozang Road, Lahore
			Location - IV	Atlas Honda Limited (AHL), 1-McLeod Road, Lahore
			Location - V	Atlas Honda Limited (AHL) (Engine Plant Roof) 26/27 km, Lahore-Sheikhupura Road, Sheikhupura.
			Location - VI	Atlas Autos Limited (AAL) 26/27 km, Lahore-Sheikhupura Road, Sheikhupura
(iii).	Contracted Capacity and Load Factor for consumer		0.8296 KWp/ 10 - 15%	
(iv).	Specify Whether			
	(a).	The consumer is an Associate undertaking of the Licensee -If yes, specify percentage ownership of equity;	ATEL does not have direct association with AHL/Zero (Directorship is Common & Holding Company is same)	

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	(b).	There are common directorships:	Yes
	(c).	Either can exercise influence or control over the other.	Yes
(v).	Specify nature of contractual Relationship		
	(a).	Between each consumer and the Licensee	ATEL will construct, own and operate solar plant and provide electricity to AHL for its operations.
	(b).	Consumer and DISCO.	Location-I: AHL — 100 Kw (MEPCO) Location-II: AHL — 30 Kw (MEPCO) Location-III: AHL — 30 Kw (LESCO) Location-IV: AHL — 25 Kw (LESCO) Location-V: AHL — 4.5 MW (LESCO) Location-VI: AAL — 2 MW (LESCO)

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Information
Regarding Distribution Network for Supply of Electric Power Consumer in the name of AHL

(i).	No. of Feeders		N/A	
(ii).	Length of Each Feeder (Meter)		Location-I	100 Ft
			Location-II	50 Ft
			Location-III	60 Ft
			Location-IV	100 Ft
			Location-V	250 Ft
			Location-VI	50 Ft
(iii).	Length of Each Feeder to each Consumer		Location-I	100 Ft
			Location-II	50 Ft
			Location-III	60 Ft
			Location-IV	100 Ft
			Location-V	250 Ft
			Location-VI	50 Ft
(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.		N/A.	
(v).	Whether owned by ATEL, Consumer or DISCO-(deal with each Feeder Separately)			
	(a).	If owned by DISCO, particulars of contractual arrangement	N/A.	
	(b).	Operation and maintenance responsibility for each feeder	By respective BPC	
(vi).	Whether connection with network of DISCO exists (whether active or not)- If yes, provide details of connection arrangements (both technical and contractual)		Yes as explained above	
(vii).	Any other network information deemed relevant for disclosure to or consideration of the Authority.		N/A.	

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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.

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SCHEDULE-II

		Location - I	Location - II	Location - III	Location - IV	Location - V	Location - VI
(1).	Total Installed Capacity of the Generation Facility/Solar Power Plant/Solar Farm	30.00 KWp	21.60 KWp	19.20 KWp	8.00 KWp	578.00 KWp	172.80 KWp
(2).	Average Sun Hour Availability/ Day (Irradiation on Inclined Surface)	8.00 to 8.50 Hours	8.00 to 8.50 Hours	8.00 to 8.50 Hours	8.00 to 8.50 Hours	8.00 to 8.50 Hours	8.00 to 8.50 Hours
(3).	No. of days per year	365	365	365	365	365	365
(4).	Annual generating capacity of Generation Facility/Solar Power Plant/Solar Farm (As Per Simulation)	43.00 MWh	32.00 MWh	28.00 MWh	12.00 MWh	835.00 MWh	250.00 MWh

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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(5).	Total (approximated) expected generation of the Generation Facility/Solar Power Plant/Solar Farm during the twenty five (25) years term of this licence	997.69 MWh	731.40 MWh	638.52 MWh	266.05 MWh	19,222 MWh	5,746 MWh
(6).	Annual generation of Generation Facility/Solar Power Plant/Solar Farm based on 24 hours working	263.00 MWh	189.00 MWh	168.00 MWh	70.00 MWh	5,063 MWh	1,514 MWh
(7).	Net Capacity Factor of Generation Facility/Solar Power Plant/Solar Farm	16.50%	16.80 %	16.50%	16.50%	16.50%	16.50%

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 Power Purchase Agreement (PPA) or the Applicable Document(s).

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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NEPRA

Revised/Modified Authorization by National Electric Power Regulatory Authority (NEPRA) to Atlas Energy Limited

Incorporated under Section-32 of the Companies Ordinance, 1984 (XLVII of 1984) having Corporate Universal Identification No. 0099710, dated May 18, 2016

NEPRA GENERATION LICENCE No. SGC/132/2020 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 Atlas Energy Limited-ATEL (the Licensee) to engage in second-tier supply business, limited to the following consumers:-

(a). Atlas Honda Limited Branch Office & Customer Care Centre. Azmat Wasti Road, Multan (Location-I);
(b). Atlas Honda Limited Branch Office & Customer Care Centre Rahim Yar khan (Location-II);
(c). Atlas Honda Limited Branch Office & Customer Care Centre 1st Floor, 28-Mozang Road, Lahore (Location-III);
(d). Atlas Honda Limited, 1-McLeod Road, Lahore (Location-IV);
(e). Atlas Honda Limited (Engine Plant Roof) 26/27 km, Lahore-Sheikhupura Road, Sheikhupura (Location-V);
(f). Atlas Autos Limited 26/27 km, Lahore-Sheikhupura Road, Sheikhupura (Location-VI).

Did not Attend
Engr. Rafique Ahmed Shaikh
(Member)

Engr. Rehmatullah Baloch
(Member)

Saif Ullah Chatha 15.1.2020
(Member)

Did not Attend
Engr. Bahadur Shah
(Member)/Vice Chairman

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY ★ NEPRA ★ REGISTRAR

17/01/20

Engr. Tauseef H. Farooqi
Chairman