

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/R/DL/LAG-363/ 18/28-34

October 01, 2019

(Syed Safeer Hussain)

Mr. Safdar Ali Shah, Director. Lake City Management (Private) Limited, 13 km, Raiwind Road, Lahore.

Subject:

Grant of Generation Licence No. SGC/129/2019

Licence Application No. LAG-363

Lake City Management (Private) Limited (LCMPL)

Reference: LCMPL's application vide letter dated July 20, 2016 (received on July 22, 2016)

Enclosed please find herewith Determination of the Authority in the matter of Application of "Lake City Management (Private) Limited (LCMPL)" for the Grant of Generation Licence along with Generation Licence No. SGC/129/2019 annexed to this determination granted by the National Electric Power Regulatory Authority (NEPRA) to Lake City Management (Private) Limited (LCMPL) for its 3.762 MW HFO based Thermal Power Plant located at 13-km, Raiwind Road, Lahore, in the province of Punjab, pursuant to Section 14B of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (NEPRA Amended Act).

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

Enclosure: Generation Licence No. SGC/129/2019

Copy to:

1. Secretary, Power Division, Ministry of Energy, A-Block, Pak Secretariat, Islamabad.

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2. Managing Director, NTDC, 414-WAPDA House, Lahore.

- 3. Chief Executive Officer, CPPA-G, ENERCON Building, Sector G-5/2, Islamabad.
- 4. Chief Executive Officer, Lahore Electric Supply Company Limited (LESCO), 22-A, Queen Road, Lahore.
- 5. Director General, Environment Protection Department, Government of Punjab, National Hockey Stadium, Ferozpur Road, Lahore.

National Electric Power Regulatory Authority (NEPRA)

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

October 01, 2019 Case No. LAG-363

(A). Filing of Application

- (i). Lake City Management (Private) Limited (LCMPL) submitted an application on July 20, 2016 for the grant of generation licence in terms of Section-15 (now Section-14B) of the 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 application and observed that the application lacked some of the required information/documentation in terms of the Licensing Regulations. Accordingly, the Registrar directed LCMPL for filing of requisite information/documents which were submitted on August 15, 2016. The Registrar submitted the application for consideration of the Authority to decide the admission of the same or otherwise. Accordingly, the Authority considered the matter and found the form and content of the application in substantial compliance with Regulation-3 of the Licensing Regulations. The Authority admitted the application on September 30, 2016 for consideration of grant of generation licence as stipulated in the Regulation-7 of the Licensing Regulations. The Authority approved a notice of admission 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, the said notice was published in one (01) Urdu and one (01) English newspapers on October 04, 2016.
- (iii). In addition to the above, the Authority also approved a list of stakeholders for seeking their comments for assistance of the Authority in the matter, in terms of Regulation-9(2) of the Licensing Regulations. Accordingly, letters were sent to



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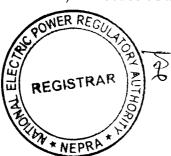
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different stakeholders as per the approved list on October 04, 2016, soliciting their comments for assistance of the Authority.

(B). Comments of Stakeholders

- (i). In reply to the above, the Authority received comments from two (02) stakeholders. These included Board of Investment (BOI) and Ministry of Petroleum & Natural Resources (MOP&NR). The salient points of the comments offered by the said stakeholders are summarized below: -
 - (a). BOI supported the grant of generation licence to LCMPL subject to consumer friendly and competitive tariff and completion of all codal/technical formalities under the Rules & Regulations;
 - (b). MOP&NR remarked that import, sale and pricing of furnace oil have been totally deregulated. Therefore, all fuel supply agreements have to be mutually agreed between the buyer and the seller on commercial terms and conditions. However, the product should conform to the approved specifications of Govt. of Pakistan, which are already available with the Ministry of Energy (MoE).
- (ii). The Authority reviewed the above comments of the stakeholders and considered it appropriate to seek perspective of LCMPL on the observations of MoP&NR. On the said, LCMPL confirmed that the fuel used will conform to the required specifications duly meeting with the environmental standards.
- (iii). The Authority considered the matter on January 18, 2018 and observed that LCMPL is establishing a 3.762 MW Heavy Fuel Oil (HFO) based generation facility which will have significant impact on the consumer end tariff. The Authority considered that the issue in hand needs to be addressed to protect the interests of the consumers/residents of LCHS. Accordingly, the Authority decided to hold a public hearing in terms of Rule-3 of the NEPRA Licensing (Generation) Rules, 2000 (the "Generation Rules") to discuss/deliberate various issues/aspects of the case.





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(C). Framing of Issues and the Public Hearing

- (i). In consideration of the above, the Authority framed following "Issues" for the public hearing: -
 - (a). Whether the Applicant has the financial capacity, technical expertise and resources to construct, own, operate and maintain the generation facility in terms of Regulation-3(5)(d) of the Licensing Regulations?
 - (b). Whether the Applicant has carried out feasibility study of its generation facility in terms of Regulation-3(5)(h) of the Licensing Regulations?
 - (c). Whether the selected site is suitable for setting up HFO based generation facility on environmental, social and other grounds?
 - (d). Whether setting up 3.762 MW (ultimate 68.00 MW), HFO based power project is justified keeping in view the ancillary requirements including transportation, storage and other facilities including heating of oil to maintain viscosity?
 - (e). Why the LCMPL has selected MAN type engines for the proposed generation facility? Has LCMPL considered other options of engines such as Wartsila, Caterpillar or MWM etc?
 - (f). Whether the LCMPL has any backup arrangement to meet huge load requirements in case of total electricity failure/black out?
 - (g). Whether the environmental impact of the proposed power plant has been assessed and necessary approvals has been sought from concerned Environment Protection Agency (EPA)?
- (ii). A notice about the public hearing was published in the press on February 17, 2018 for seeking comments of the general public. Apart from the said, separate letters were also sent to relevant ministries, their attached departments, representative



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organizations and individual experts on February 21, 2018 informing about the date, time and venue of the proposed public hearing. In response to the said, Hyderabad Electricity Supply Company (HESCO) and Punjab Power Development Board (PPDB) submitted their comments. PPDB supported the grant of generation licence to LCMPL whereas, HESCO did not raise any objection to the application of LCMPL for the grant of generation licence. The public hearing was held at NEPRA head office Islamabad on March 01, 2018 wherein, various stakeholders participated including management of LCMPL along with their consultants, the representatives of LESCO and GEPCO, the representatives of various companies, Mr. Abdul Sattar the representative of Board of Investment and few representatives of general public.

During the course of public hearing, the representatives of LCMPL gave (iii). a detailed presentation on the above-mentioned framed issues. The Authority directed LCMPL to submit its stance/position in writing. LCMPL through its letter dated March 09, 2018 submitted that it has the financial capacity, technical expertise and resources to construct, own, operate and maintain the generation facility. About feasibility study, LCMPL took a stance that it has carried out necessary feasibility study of its project and submitted along with the application. Regarding selection of site and necessary approvals from relevant agencies. LCMPL remarked that it has carefully selected the site and obtained all necessary NOCs/approvals of the relevant departments. Regarding setting up large power project, LCMPL ensured that during setting up the power project all the aforementioned requirements were carefully deliberated, and site was selected accordingly. About selection of engines, LCMPL stated that the MAN type engines have been selected after carrying out detailed research and analysing pros and cons of all available options. MAN type engines have assured to place alternate engine within twelve (12) hours in case of any malfunction and replace/repair which others were unable to give. LCMPL mentioned that a number of generators have been placed at different locations as back up arrangement to cater for scheduled/unscheduled outages. Regarding approval/NOC of the concerned EPA, the applicant/LCMPL submitted that impact of the proposed power plant has been assessed by EPD for which an NOC has been provided.





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- (iv). The Authority examined the submissions of LCMPL against the framed issues of hearing on October 02, 2018 and observed that under the scheme of arrangement proposed by LCMPL, the per unit cost of electricity using HFO fuel will be higher than the average consumer end tariff of LESCO. How LCMPL will manage this difference of cost. Accordingly, the Authority decided to conduct another Public Hearing in the matter at Lahore for which following issue was mainly discussed.
 - (a). Under the scheme of arrangement proposed by LCMPL, the per unit cost of electricity using HFO fuel is likely to be higher than the average consumer end tariff of LESCO. How LCMPL will manage this difference of cost?
- (v). In order to encourage the participation of the general public, interested/affected parties and other stakeholders, a notice about the public hearing was published in the press on January 10, 2019. Apart from the said, separate letters were also sent to relevant ministries, their attached departments, representative organizations and individual experts on January 10, 2019 informing them about the date, time and venue of the proposed public hearing. In response to the said, only one (01) stakeholder from the general public i.e. Mr. Mustaqeem Ahmad, a resident of 23-Shadman Colony, Lahore submitted its comments on January 23, 2019. Mr. Mustaqeem Ahmad supported the grant of generation licence to LCMPL subject to consumer end tariff below the utility i.e. LESCO.
- (vi). The public hearing was held at Lahore on February 11, 2019 wherein, different stakeholders participated. These included the management of LCMPL, representatives of LESCO, the representatives of CPPA-G, PPDB, Engro, Fescon, APTMA, Powercom and PIEDMC etc. The Authority after listening the arguments of the stakeholders on the issue at hand, directed the stakeholders to submit their submissions/stance in writing.
- (vii). LCMPL through its letter dated March 09, 2018 submitted that it intends to have final load capacity of 68.70 MW in a period of 10-15 years. Currently generation facility is planned at 3.762 MW which is sufficient for meeting the load demand of three (03) years. Meanwhile LCMPL has started working on LNG based



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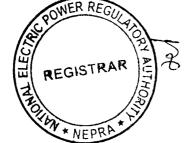
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generation which will also help in compensating the current tariff. In medium terms, LCMPL intends to go for solar generation facilities or may enter into other Power Purchase Agreements with other generation/distribution companies. Regarding higher tariff, LCMPL clarified that in any given situation/scenario the consumer end tariff would be kept 1% lower than the LESCO rates and the subsidy cost would be borne by LCMPL.

(viii). The CPPA-G through its letter dated February 27, 2019 submitted that in order to grant licenses to multiple players a framework is required. In this regard, CPPA-G has submitted the market design model Competitive Trading Bi-lateral Contract Market (CTBCM) and its implementation plan for the approval of the Authority. CPPA-G recommended that CTBCM may be approved first and a proper framework should be established before opening up of the market. Many rules and regulations need to be formulated or aligned with the Amended Act. CPPA-G clarified that Pakistan has now achieved supply adequacy in terms of meeting the system peak demand and there is surplus capacity already committed by the central pool, therefore, new induction into the system has to be planned carefully as these initiatives may have serious implications on the tariff of other consumers. Moreover, the structure of the end consumer tariff also needs to be considered while analysing such cases. The end consumer structure of all the DISCOs is such that all the costs are recovered based on the energy consumed by the users however, major portion of the cost of electricity is fixed. This pattern has cost implications for the remaining consumers when an existing demand exits the system. So, it is recommended that the cost implications have to be taken into account while allowing existing or future committed demand to exit the system. CPPA-G expressed that DISCOs prepare medium-term forecast for ten (10) years based on the power market survey methodology. The first analysis that needs to be done while considering such applications is to check whether this demand was included in the forecast of the DISCOs or not. If this demand has been incorporated in the forecast of the DISCOs and the capacity has already been committed on their behalf, then who would bear the cost of that capacity? If we allow such contracted consumers of the DISCOs to opt for self-generation and they don't purchase from the pool anymore, then the capacity charges (on take or pay basis) will become stranded cost that will either be paid by other regulated consumers as an additional burden or the government will collect this amount from the taxpayers. In the



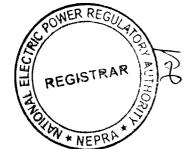




particular case of LCMPL, this demand has already been considered by LESCO in their demand forecast. If applicants (the non-committed ones) install their generation in an island mode, then there will be no impact on the pool price and end consumer tariff of other consumers of DISCOs. Specific directions shall be issued to those applicants regarding the procurement of their future demand. If they choose to buy it in the market in the future, then the respective DISCO shall be directed not to include this demand in their projections. The licensing regime for supply licence is yet to be established. According to Section-23E of the NEPRA amended Act, before issuing the electric power supply licence, there must be the electric power Supply Licensing Rules and further Regulations. Similarly, major amendments are required in the current rules/regulations therefore, it is recommended that all the framework may be aligned first and then applications for the grant of licenses shall be processed under a proper regime for each type of the licence required.

(ix). The Authority examined the submissions of CPPA-G and considered it appropriate seeking perspective of LCMPL on the observations of CPPA-G. In response to the said, LCMPL submitted that the transition under the proper framework has no bearing on LCMPL as it points towards opening of market to others. Regarding the demand and supply situation as quoted by CPPA-G, the same has no official standing and it does not apply to our request. About end consumer tariff structure, the same is not applicable to us because to our reckoning the problem lies in default payments, frequent unplanned outages, electricity theft and line losses. Further, the demand forecast of CPPA-G starts from year 2016-17 projecting up to 2026-27. For first three (03) years, they expect zero from LCMPL. It is pertinent to mention that LCMPL disassociated from LESCO in the year 2015 hence their inclusion of our requirement the demand forecast is unjustified. The position/stance of LCMPL can be justified from first three (03) years of calculations. Further to this LESCO is technically not competent to handle underground power distribution system. Regarding impact on basket price, it was proved during public hearing that our tariff would be less than that of LESCO. Mechanism of future procurement cannot be predicted as it is expected that DISCOs would be privatized in near future. As for as Supply Licensing Regime is concerned, LCMPL is better placed than DISCOs as it will be self-generating, distributing and supplying electricity. Whereas after 5 years, if DISCOs exist, they would be dealing only distribution and generation/supply would be dealt by other





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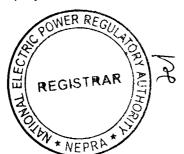
entities. LCMPL submitted that establishing LCHS will enable the residents/occupants of the housing scheme to get continuous, safe, reliable uninterrupted and good quality electric supply. LCMPL clarified that it has laid underground ring main distribution system in the housing scheme for making the electric supply uninterrupted. LCMPL has experienced and qualified staff for operation and maintenance and emergency backup supply system. Due to these factors, it does not intend to procure power from DISCOs rather would gradually build its own generation capacity to lower the tariff from alternate sources including solar and RLNG.

(x). The Authority considered the above observations/comments of stakeholders and submissions of LCMPL and found the same plausible. Accordingly, the Authority decided to proceed further in the matter as stipulated in the Licensing Regulations and the Generation Rules.

(D). Evaluation/Findings

- (i). The Authority has reviewed the submissions of LCMPL including the information provided in its application for the grant of generation licence, comments of stakeholders, the framed Issues, rejoinders of LCMPL other related documents including the NEPRA Act, relevant Rules and Regulations and also considered the feasibility study of the project.
- (ii). The Authority has observed that the applicant company/LCMPL is a private limited company incorporated under Section-32 of the Companies Ordinance, 1984 (XLVII of 1984), having Corporate Identification No. 0095517, dated October 02, 2015. The registered office address of the company/LCMPL is at 13-KM, Raiwind Road Lahore, in the province of Punjab.
- (iii). According to the Memorandum of Association of the company/LCMPL, the objects of the company inter alia, include the business of power generation and its sale. It has been observed that LCMPL is a subsidiary of Lake City Holding (Private) Limited (LCHPL)/the sponsor of the project. According to the submitted information, the total outlay of the project will be Rs. 490.00 million which will be financed through 70% (i.e. Rs. 343 million) debt from the parent company/LCHPL and 30% (i.e. Rs. 147 million) equity which is in line with the benchmark set out in different determinations of



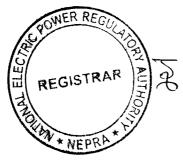


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the Authority. In consideration of the said, the Authority considers that LCMPL has strong financial and technical background to carry out the project.

- (iv). The Authority has reviewed the feasibility study of the project including inter alia, proposed equipment for generation facility/power plant, technical details pertaining to selection of generator and other allied equipment, environmental study and project financing etc. The Authority has observed that the project company/LCMPL plans setting up a 3.762 MW HFO based thermal generation facility at the above-mentioned location for supplying/selling electricity to the residents/occupants of LCHS. The feasibility study has revealed that the generation facility consists of 2 x 1.881 MW small bore MAN 9L 21/31 type diesel engines.
- (v). LCMPL has confirmed that the electricity is being generated at 11KV, 50 Hz, with rated power factor of 90%. The fuel used for power generation meets the OEM requirements regarding quality. The Authority observed that the net efficiency of the generation facility is 38%.
- (vi). The Authority has observed that LCMPL has set up an overhead water tank which has capacity which ranges from 50,000-100,000 gallons. Regarding cooling requirements of the generation facility, LCMPL informed that a water treatment plant based on the reverse osmosis principle is proposed.
- (vii). The Authority observes that the power generated from the generation facility will be dispersed to the residential area of LCHS through (08x11) KV underground feeders whereas, the commercial area will be fed through (7x11) KV feeders;
- (viii). The applicant/LCMPL has confirmed that the proposed generation facility will comply with the environmental standards. In this regard, LCMPL has provided a copy of NOC issued by EPD Govt. of Punjab confirming its compliance in the matter.
- (ix). In terms of Rule-3 of the Generation Rules, the Authority may grant a generation licence to any person to engage in the generation business. The said rule stipulates various conditions pertaining to the grant of generation licence as explained





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in the Generation Rules. In the particular case under consideration, the Authority considers that conditions of the relevant Generation Rules stand satisfied as LCMPL has provided details of location, technology, size, net capacity/energy yield, interconnection arrangements, technical limits, technical functional specifications and other details specific to the generation facility/Power Plant. In view of the said, the Authority considers that the project of LCHPL fulfills the eligibility criteria for grant of generation licence as stipulated in the NEPRA Act, rules, regulations and other applicable documents.

(E). Grant of Generation Licence

- (i). The uninterrupted, continuous, safe, reliable and quality of electric supply is the primary requirement of consumers of electricity. As per the scheme of arrangement, LCMPL will be supplying to the residents a good quality of electric supply at affordable price i.e. the price less than LESCO tariff as mentioned at Para-C(vii) above. This will improve the living standard of the residents/occupants of the housing scheme/LCHS.
- (ii). During processing of the case of LCMPL for the grant of generation licence, the concerned utility i.e. LESCO did not raise any objection to the grant of generation licence to LCMPL. The Authority has also observed that no LESCO connection exist in the service area/housing scheme of LCMPL. The only source of supply for the consumers of the LCHS is power generation by LCMPL. The Authority believes that LCMPL will provide uninterrupted power supply to the consumers of the housing scheme/LCHS which LESCO is not capable of doing so due to various distribution system constraints, inefficiencies, lack of skilled/trained staff and lack of equipment for operation and maintenance of the ring main underground distribution system.
- (iii). Regarding term of generation licence, the Authority has observed that under Rule-5(1) of the Generation Rules, the term of generation licence is required to match with the maximum expected useful life of the units comprised in a generating facility except where an applicant for a generation licence consents to a shorter term. According to the information provided by LCMPL, the proposed generation facility/power plant will have a useful life of twenty-five (25) years from its Commercial

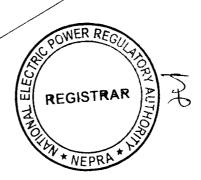




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Operation Date (COD). In this regard, the Authority fixes the term of the generation licence to twenty-five (25) years from the date of COD subject to the conditions prescribed in the amended NEPRA Act;

- (iv). Regarding the tariff, the Authority considers that under Section-7(3)(a) of the NEPRA Act, determining tariff, rate and charges etc. is the sole prerogative of the Authority. In this regard, it is clarified that LCMPL has submitted a petition under the NEPRA (Tariff Standards and Procedure) Rules, 1998 for determination of tariff for the project. The Authority has already admitted the said petition of LCMPL and the same is in advance stage of processing. In view of the said, it is considered appropriate that LCMPL may be directed to charge the power purchaser only such tariff which has been determined, approved or specified by the Authority. In view of the said, a suitable Article on tariff i.e. Article-6 in the generation licence has been included.
- (v). About the compliance with the environmental standards, LCMPL has provided the NOC from EPD and has confirmed that the project will comply with the required standards during the term of the generation licence. In view of the importance of the issue, the Authority has included a specific Article in the generation licence of LCMPL along with other terms and conditions making it obligatory for LCMPL to comply with relevant environmental standards at all times. Further, the Authority directs LCMPL to submit a report on a bi-annual basis, confirming that operation of its Generation Facility/Power Plant is in compliance with the required environmental standards as prescribed by the concerned EPA.





(vi). In view of the above, the Authority hereby approves the grant of generation licence to Lake City Management (Private) Limited on the terms and conditions set out in the generation licence annexed to this determination. The grant of generation licence is subject to the provisions contained in the Act, relevant rules, regulations framed thereunder and other Applicable Documents.

Authority:

Engr. Rafique Ahmed Shaikh (Member)

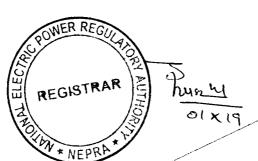
Engr. Rehmatullah Baloch (Member)

Saif ullah Chattha (Member)

Engr. Bahadur Shah Member/Vice Chairman 26/9/19

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Did Not attend-on Duty





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National Electric Power Regulatory Authority (NEPRA) Islamabad – Pakistan

GENERATION LICENCE

No. SGC/129/2019

In exercise of the powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section 14B of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, as amendment or replaced from time to time, the Authority hereby grants a Generation Licence to:

Lake City Management (Private) Limited

Incorporated under Section-32 of the Companies Ordinance, 1984 (XLVII of 1984), having Corporate Universal Identification No. 0095517, Dated October 02, 2015

for its HFO based Thermal Generation Facility/Power Plant
located at 13-KM, Raiwind Road Lahore in
the Province of Punjab

(Total Installed Capacity: 3.762 MW Gross)

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

Given under my hand this 1st day of October Two Thousand & Nineteen and expires on 14th day of October Two Thousand &

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Article-1 Definitions

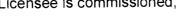
1.1 In this Licence

- (a). "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 as amended or replaced from time to time;
- (b). "Applicable Documents" mean the Act, the 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, 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 the Act, relevant rules and regulations made there under and all the Applicable Documents;
- (d). "Authority" means the National Electric Power Regulatory Authority constituted under Section-3 of the Act;
- (e). "Bus Bar" means a system of conductors in the generation facility/ Power Plant of the Licensee on which the electric power from all the generators is collected for supplying to the Power Purchaser;
- (f). "Commercial Code" means the National Electric Power Regulatory
 Authority (Market Operator, Registration, Standards and Procedure)
 Rules, 2015 as amended or replaced from time to time;

(g). "Commercial Operations Date (COD)" means the day immediately following the date on which the generation facility/Power Plant of the Licensee is commissioned;

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- (h). "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 approval of the Authority;
- (i). "Distribution Company-DISCO" means "a company engaged in the distribution of electric power, to whom the Authority has granted a Distribution Licence under Section 20-21 of the Act";
- (j). "Generation Rules" mean the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000 as amended or replaced from time to time;
- (k). "Grid Code" means the grid code prepared and revised from time to time by NTDC with necessary approval of the Authority;
- (I). "IEC" means the International Electrotechnical Commission or its successors or permitted assigns;
- (m). "IEEE" means the Institute of Electrical and Electronics Engineers or its successors or permitted assigns;
- (n). "LESCO" means Lahore Electric Supply Company Limited or its successors or permitted assigns;
- (o). "Licensee" means <u>Lake City Management (Private) Limited</u> or its successors in interest or permitted assigns;
- (p). "Licensing Regulations" mean the National Electric Power Regulatory Authority Licensing (Application & Modification Procedure) Regulations, 1999 as amended or replaced from time to time;
- (q). "Power Purchaser" means Lake City Housing Scheme which will be purchasing electric energy from the Licensee.
- 1.2 Words and expressions used but not defined herein bear the meaning given thereto in the Act or rules and regulations issued under the Act.





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Article-2 Applicability of Law

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

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

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

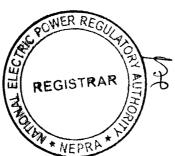
Article-4 Term of Licence

- 4.1 This licence shall become effective from the date of its issuance and will have a term of twenty-five (25) years from the COD of the Generation Facility/Power Plant of the Licensee, subject to the provisions of Section-14B 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 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.





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Article-6 Tariff

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

<u>Article-7</u> **Competitive Trading Arrangement**

- The Licensee shall participate in such manner as may be directed by the 7.1 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.
- Any variation or modification in the above-mentioned contracts for allowing the 7.2 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 the 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.





Articles of Generation Licence

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Generation Licence Lake City Management (Private) Limited 13-KM Raiwind Road District Lahore In the Province of Punjab

Article-10 Compliance with Environmental & Safety Standards

- **10.1** The generation facility/Power Plant of the Licensee shall comply with the environmental and safety standards as may be prescribed by the relevant competent authority from time to time.
- **10.2** The Licensee shall provide a certificate on a bi-annual basis, confirming that the operation of its generation facility/Power Plant is in conformity with required environmental standards as prescribed by the relevant competent authority.

Article-11 Power off take Point and Voltage

The Licensee shall deliver the electric power to Power Purchaser/Lake City Housing Scheme at the outgoing Bus Bar of its Generation Facility/Power Plant. The Licensee shall be responsible for the up gradation (step up) of generation voltage up to the required dispersal voltage level.

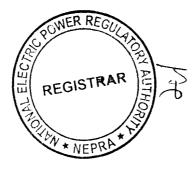
Article-12 Provision of Information

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

Article-13 Design & Manufacturing Standards

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





Articles of Generation Licence Page 5 of 6



Generation Licence Lake City Management (Private) Limited 13-KM Raiwind Road District Lahore In the Province of Punjab

Article-14 Compliance with the 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.



Articles of Generation Licence Page 6 of 6

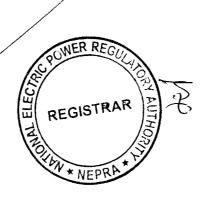




Generation Licence Lake City Management (Private) Limited 13- KM Raiwind Road District Lahore In the Province of Punjab

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/Lake City Management (Private) Limited are described in this Schedule.



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Location of the Generation Facility/Power Plant of the Licensee/LCMPL on the Map of Pakistan



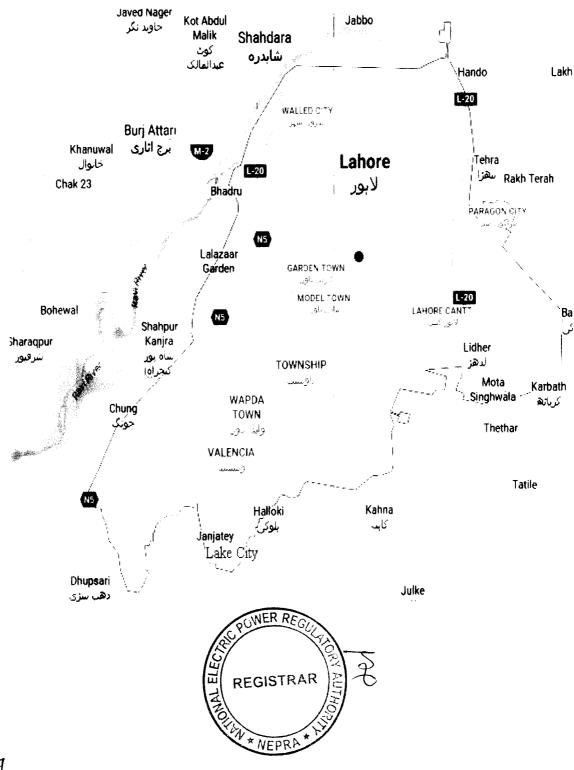


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Location of the Generation Facility Plant of the Licensee/ LCMPL on the Map of Punjab



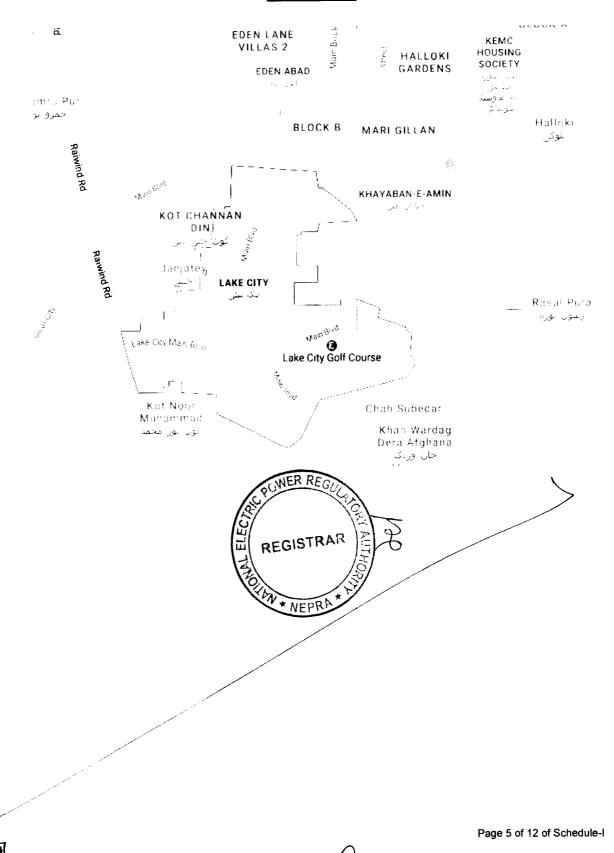
Location of the Generation Facility/the Licensee/LCMPL on the Map of Lahore





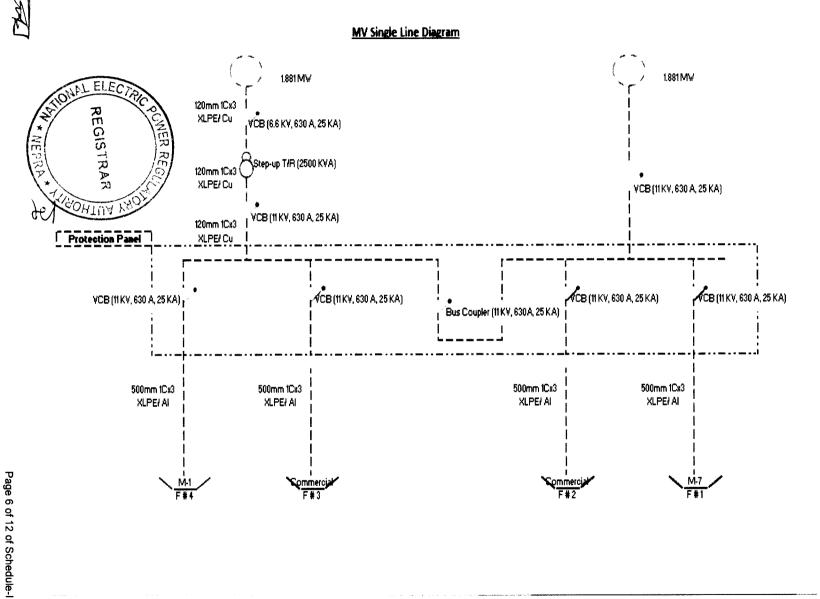
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Access Road/Link of Lake City Housing Scheme onthe Map of Lahore





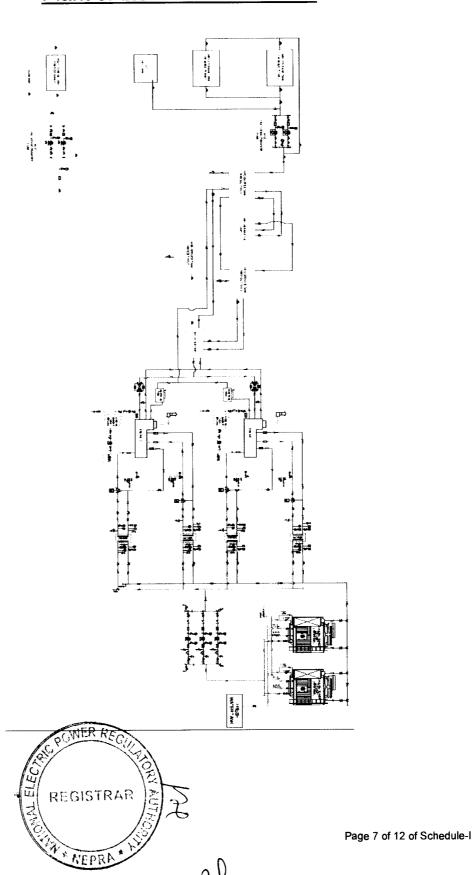
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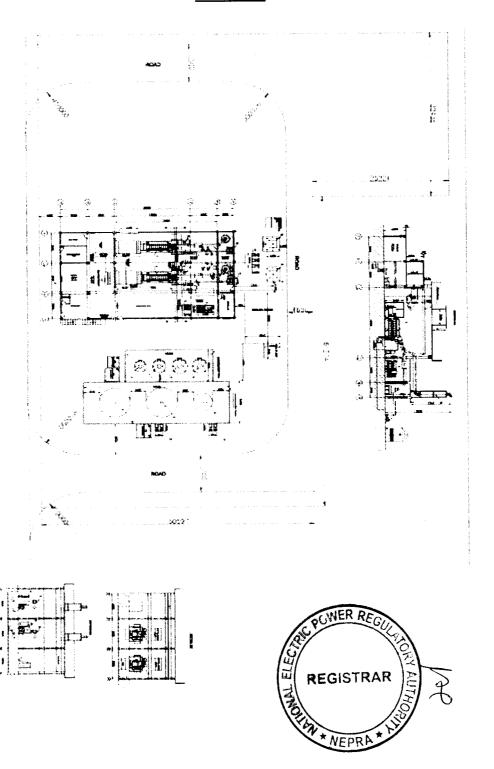
Single Line Diagram of Generation Facility/Power Plant of the Licensee/LCMPL

Generation Licence Lake City Management (Private) Limited 13- KM Raiwind Road District Lahore In the Province of Punjab

Process Flow Diagram of the Generation Facility/Power Plant of the Licensee/LCMPL



Generation Facility/Power Plant Layout of the Licensee/ LCMPL



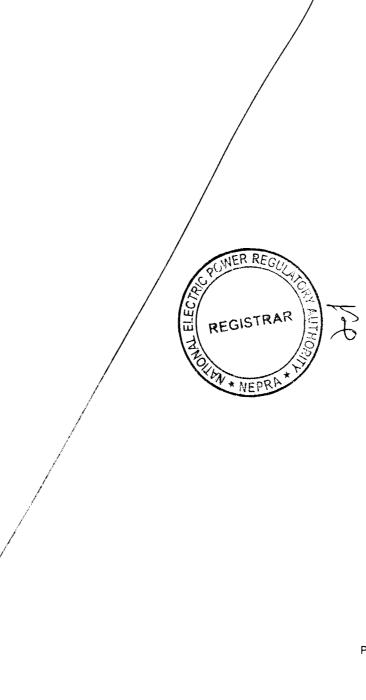


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<u>Interconnection</u> <u>Arrangement for Dispersal of Power from the Generation</u> <u>Facility of the Licensee/LCMPL</u>

The power generated from the Generation Facility/Power Plant of Lake City Management (Private) Limited shall be dispersed to the commercial and residential areas of the Lake City Housing Scheme.



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

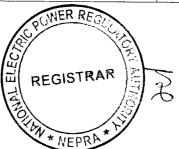
A. <u>General Information</u>

(i).	Name of the Company/the Licensee	Lake City Management (Private) Limited	
(ii).	Registered /Business Office of the Company/the Licensee	13-KM Raiwind Road Lahore	
(iii).	Location of the Generation Facility/Power Plant	Lake City Holdings (Private) Limited,13-KM Raiwind Road, District Lahore in the Province of Punjab	
(iv).	Type of Generation Facility/Power Plant	HFO based Thermal Generation Facility/Power Plant.	

B. <u>Plant Configuration</u>

(i).	Installed Capacity/Size of the Generation Facility/Power Plant	3.762 MW
(ii).	Type of Technology of the Generation Facility/Power Plant	HFO Power Plant
(iii).	Number of Units/Size	2 x 1.881 MW
(iv).	Unit Make/Model & Year of Manufacture	MAN 9L 21/31 2015/2016
(v).	Anticipated Date of Commissioning of Generation Facility/Power Plant	October 15, 2019





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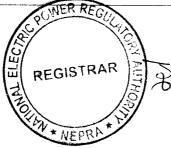
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(vi).	Expected Remaining useful Life of the Generation Facility/Power Plant at the time of grant of Generation Licence	25 Years
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C. <u>Fuel/Raw Material Details</u>

r			
(i).	Primary Fuel	Heavy Fuel Oil (HFO)	
(ii).	Alternate/Start up Fuel	High Speed Diesel (HSD)	
	(iii). Fuel Source (Imported/Indigenous)	Primary Fuel	Alternative Fuel
(iii).		Indigenous	Indigenous
(iv). Fuel Supplier		Primary Fuel	Alternative Fuel
	Fuel Supplier	PARCO	PSO
	Supply Arrangement	Primary Fuel	Alternative Fuel
(v).		Through Oil Tankers	Through Oil Tankers
(, ii)	Fuel Characa facilities	High Speed I Primary Fuel Indigenous Primary Fuel PARCO Primary Fuel Through Oil Tankers Primary Fuel Tanks Primary Fuel	Alternative Fuel
(vi).	Fuel Storage facilities		Tank
,	Canacity of Storage	Primary Fuel	Alternative Fuel
(vii).	facilities	406934 Liters	3500 Liters
		Primary Fuel	Alternative Fuel
(viii).	Gross Storage Capacity	33,911,179 Liters	135,644 Liters





D. <u>Emission Values</u>

		Primary Fuel	Alternative Fuel
(i).	SO _x (mg/Nm³)	< 400mg/m ³	350 p.p.m
(ii).	NO _x (mg/Nm ³)	< 400mg/m ³	150 p.p.m
(iii).	CO ₂	12% ~ 13%	8% ~ 10%
(iv).	CO (mg/Nm³)	< 3%	2 ~ 3 p.p.m
(v).	PM ₁₀	0.107mg/m ³	0.107mg/m ³

E. <u>Cooling System</u>

(i).	Cooling Water Source/Cycle	Natural water shall be used obtained from underground resource and will be used
		after Reverse Osmosis process treatment.

F. Plant Characteristics

(i).	Generation Voltage	11.0 KV
(ii).	Frequency	50 Hz
(iii).	Power Factor	0.8 ~ 0.90
(iv).	Automatic Generation Control (AGC)	Yes
(v).	Ramping Rate	5%
(vi).	Time required to Synchronize to Grid and loading the complex to full load	NA

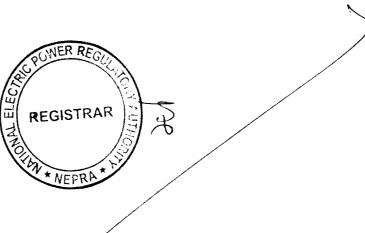




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SCHEDULE-II

The Installed/ISO Capacity (MW), De-rated Capacity at Mean Site Conditions (MW), Auxiliary Consumption (MW) and the Net Capacity at Mean Site Conditions (MW) of the Generation Facilities of the Licensee/Lake City Management (Private) Limited are given in this Schedule.



Page 1 of 2 of Schedule-II

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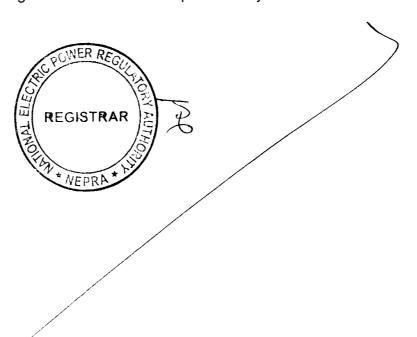
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SCHEDULE-II

(1).	Total Gross Installed Capacity of the Generation Facility.	3.762 MW
(2).	De-rated Capacity of the Generation Facility at Mean Site Conditions.	3.762 MW
(3).	Auxiliary Consumption of the Generation Facility.	0.379 MW
(4).	Net Capacity of the Generation Facility at Mean Site Conditions.	3.383 MW

Note

All the above figures are indicative as provided by the Licensee/LCMPL.





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