

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/R/DL/LAG-225/EGOG- 6609

May 17, 2016

Mr. Akhlaq Ahmed Chief Executive Bismillah Energy (Private) Limited, Sgian Ahmad Ali Wali, Near Al-Rehman Chowk, Sharqpur Road, Lahore.

Subject: Grant of Generation Licence No. SGC/118/2016

Licence Application No. LAG-225

Bismillah Energy (Private) Limited (BEPL)

Reference: Your application vide letter No. nil, dated March 14, 2013.

Enclosed please find herewith Determination of the Authority in the matter of Application of "Bismillah Energy (Private) Limited (BEPL)" for the "Grant of Generation Licence" along with Generation Licence No. SGC/118/2016 annexed to this determination granted by the National Electric Power Regulatory Authority (NEPRA) to "Bismillah Energy (Private) Limited (BEPL)" for its "6.00 MW Bio Mass/Municipal Solid Waste based Thermal Generation Facility located at Al-Rehman Garden Housing Scheme (Phase-II), near Faizpur, Sharqpur Road, Tehsil Ferozwala, District Sheikhupura in the province of Punjab" pursuant to Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

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

Enclosure: Generation Licence (SGC/118/2016) OWER RE

(Syed Safeer Hussain)

Copy to:

1. Chief Executive Officer, Lahore Electric Supply Company Limited, 22-A, Queens Road, Lahore.

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- 2. Director General, Environment Protection Department, Government of Punjab, National Hockey Stadium, Ferozpur Road, Lahore.
- 3. Chief Executive Officer, CPPA-G, 6th Floor, Shaheed-e-Millat Secretariat, Jinnah Avenue, Blue Area, Islamabad

National Electric Power Regulatory Authority (NEPRA)

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

May 09, 2016 Case No. LAG-225

(A). Background

- (i). The Electric Power Sector of the country is experiencing a supply demand gap. Due to shortage of electricity, utilities are finding it hard to meet with the requirements of their consumers.
- (ii). In order to cope with the above mentioned situation, various options are being explored including installation of own generation facilities by different entities/companies/housing societies.

(B). Filing of the Application

- (i). In accordance with Section-15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 ("the NEPRA Act"), Bismillah Energy (Private) Limited (BEPL), submitted an application on March 14, 2013 for the grant of Generation Licence for its 6.00 MW, Bio-mass/Municipal Solid Waste based Generation Facility/Power Plant. The said generation facility is being set up primarily to meet with the electric power requirements of the residents of Al-Rehman Garden Housing Scheme (ARGHS), Phase-II, Near Faizpur, Sharqpur Road, Tehsil Ferozwala, District Sheikhupura, in the Province of Punjab.
- (ii). The Registrar examined the application to confirm its compliance with the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999 ("the Regulations") and found the form and content of the application in substantial compliance with Regulation-3 of the Regulations. Accordingly, the Registrar submitted the case to the Authority for consideration of the admission of the Regulation or otherwise. The Authority considered the matter in its Regulatory Meeting (RM 13-291) held on May 17, 2013 and admitted the application of the REGISTRAR

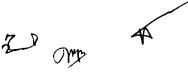
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consideration of grant of Generation Licence as stipulated in Regulation-7 of the Regulations. The Authority approved the Notice of Admission for publication in the press and for inviting the general public for submitting their comments in the matter as stipulated in Regulation-8 of the Regulations. The Authority also approved the list of interested/affected parties for providing their comments or otherwise for assistance of the Authority under Regulation-9 of the Regulations.

(iii). Accordingly, notice was published in one (01) Urdu and one (01) English National Newspaper on May 22, 2013. Apart from the said, separate letters were also sent to Government Ministries, their attached departments and representative organizations etc. on May 23, 2013 for submitting their views/comments in the matter.

(C). Comments of Stakeholders

- (i). In response to the above, the Authority received comments from five (05) stakeholders. These included the comments from Central Power Purchasing Agency-CPPA (now CPPA-G), Board of Investment (BoI), Ministry of Water & Power (MoW&P), Ministry of Petroleum & Natural Resources (MoP&NR) and Alternative Energy Development Board (AEDB). The salient points of the comments offered by the said stakeholders are summarized below:-
 - (a). CPPA stated that it has no reservation on the grant of Generation Licence to BEPL subject to meeting all the conditions laid down in the NEPRA Licensing (Generation) Rules, 2000 ("the Rules");
 - **(b).** Bol appreciated the process of inviting views/comments from the stakeholders and supported the grant of Generation Licence to BEPL;
 - (c). MoW&P supported the issuance of Generation Licence to BEPL;





- (d). MoP&NR favoured the grant of Generation Licence to BEPL subject to the condition that no request for gas will ever be made in future and fulfilment of all conditions of the Licence; and
- **(e).** AEDB supported the request of BEPL for the grant of Generation Licence.
- (ii). The Authority considered the above comments of the stakeholders and found the same supportive for the grant of Generation Licence to BEPL. Accordingly, the Authority considered it appropriate to process the application of BEPL for consideration of grant of Generation Licence as stipulated in the Regulations and the Rules.

(D). Grant of Generation Licence

- (i). Energy is a fundamental input to economic activity, and thus to human welfare and progress. The importance of electricity in the development of the economy of any country is beyond any doubt. The economic growth of any country is directly linked with the availability of safe, secure, reliable and cheaper supply of electricity. In view of the said reasons, the Authority is of the considered view that for sustainable development, all indigenous resources of power generation must be developed on priority basis in the public and private sectors.
- (ii). The Authority is well aware of the fact that presently there is a demand-supply gap in the country. To minimise this gap, alternative means for generation of electric power are being explored. Therefore, it is imperative to encourage development of public as well as private sector generation facilities/power plants in the country.
- (iii). The instant case pertains to request of BEPL for grant of Generation Licence for a bio-mass/municipal solid waste based Generation Facility/Power Plant which will meet with the electric power requirements of the residents of ARGHS. According to the information made available on record, the waste cility will be utilizing husk from local rice mills as the main fuel and furnice oil as alternate fuel.

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The electric power generated by the Licensee/BEPL shall be supplied strictly to the residents of ARGHS. The said arrangement will be made through 11 KV Feeders.

- (iv). The term of a Generation Licence under the Rule-5 (1) of the Rules, is to be commensurate with the maximum expected useful life of the units comprised in a generation facility except where an applicant consents to a shorter term. The proposed Generation Facility/Thermal Power Plant of BEPL will be consisting of one (01) Steam Turbine Unit of 6.00 MW. According to the International benchmarks available, the useful life of a Steam Turbine is normally taken as thirty (30) years from its Commercial Operation Date (COD). However, the applicant/BEPL has requested that the term of its proposed Generation Facility may be fixed as twenty five (25) years. In view of the request of the applicant/BEPL, the Authority fixes the term of the proposed Generation Licence to twenty five (25) years.
- (v). Regarding the tariff, it is clarified that, for the provision of electric power, the Licensee is allowed to charge only such tariff as may be determined, approved or specified by the Authority.
- (vi). Regarding environmental issues, BEPL confirmed that proposed Generation Facility/Power Plant will meet local regulatory emissions limits and has also provided the No Objection Certificate from the Environmental Protection Department, Government of the Punjab (EPDGoPb). However, to ensure that the Generation Facility/Power Plant conforms to the environmental standards, a separate article (i.e. Article-10) has been included in the Generation Licence along with other terms and conditions that the Licensee will comply with environmental standards as may be prescribed by the relevant competent authority as amended from time to time. Further, the Authority also directs BEPL to submit a bi-annual report confirming that the operation of its proposed Generation Facility/Thermal Power Plant is compliant with the required environmental standards prescribed by EPDGoPb.
- (vii). In consideration of the above, the Authority hereby decides to approve the grant of Generation Licence to BEPL on the terms and conditions set out in the Generation Licence annexed to this determination. The grant of Generation (uponce)

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will be subject to the provisions contained in the NEPRA Act, relevant Rules & Regulations framed there under and the applicable documents.

Authority

Maj. Rtd. Haroon Rashid (Member)

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Syed Masoodul Hasan Naqvi (Member)

Himayat Ullah Khan (Member/Vice Chairman)

Brig.(R) Tariq Saddozai (Chairman) Jus s.

min 2 17.05.16



National Electric Power Regulatory Authority (NEPR) Islamabad – Elekistan

GENE LICENCE

No. SGC/118/2016

In exercise of the Powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section-15 of the Regulation of Generatori, Transmission and Distribution of Electric Power Act, 1997, the authority electric parts are the Electric Power act,

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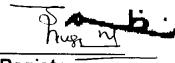
Installed Capacity: 6.00 MW Gross S

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Registrar 1705.16









Article-1 Definitions

1.1 In this Licence

- (a). "Act" means "the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997";
- (b). "Applicable Documents" have the same meaning as defined in the Rules:
- (c). "Authority" means "the National Electric Power Regulatory Authority constituted under Section-3 of the Act";
- (d). "Bus Bar" means "a system of conductors in the generation facility of the Licensee on which the electric power of all the generators is collected for supplying to the Power Purchaser";
- (e). "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 NEPRA Act";
- (f). "Law" means" the Act, relevant rules and regulations made there under and all the Applicable Documents";
- (g). "Licensee" means "<u>Bismillah Energy (Private) Limited</u> and its successors or permitted assigns";
- (h). "Power Purchaser" means "a consumer who purchases power from the Licensee pursuant to a power purchase agreement";

(i). "Power Purchase Agreement" means "the wer

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agreement, entered or to be entered into by and between the Power Purchaser and the Licensee, for the purchase and sale of electricity generated by the generation facility, as may be amended by the parties thereto from time to time";

- (j). "Regulations" mean "the National Electric Power Regulatory
 Authority Licensing (Application & Modification Procedure)
 Regulations, 1999";
- (k). "Rules" mean "the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000".
- **1.2** Words and expressions used but not defined herein bear the meaning given thereto in the Act or in the Rules.

Article-2 Applicability of Law

This Licence is issued subject to the provisions of the 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 and functional specifications and other details specific to the generation facility of the Licensee are set out in Schedule-I of this Licence.
- 3.2 The net capacity of the generation facility of the Licensee is set out in Schedule-II hereto.



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3.3 The Licensee shall provide the final arrangement, technical and financial specifications and other specific details pertaining to its generation facility before its Commercial Operation Date (COD).

Article-4 Term of Licence

- **4.1** The Licence is granted for a term of twenty five (25) years from the date of its issuance.
- **4.2** Unless suspended or revoked earlier, the Licensee may within ninety (90) days prior to the expiry of the term of the Licence, apply for renewal of the Licence under the Regulations, as amended or replaced from time to time.

Article-5 Licence fee

After the grant of the Generation Licence, the Licensee shall pay to the Authority the Licence fee, in the amount and manner and at the time set out in the National Electric Power Regulatory Authority (Fees) Rules, 2002.

Article-6 Tariff

The Licensee shall charge only such tariff which has been determined, approved or specified by the Authority in terms of Rule-6 of the Rules.

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 an contract

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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 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.

<u>Article-9</u> <u>Compliance with Performance Standards</u>

The Licensee shall comply with the relevant provisions of the National Electric Power Regulatory Authority Performance Standards (Generation) Rules, 2009 as amended from time to time.

Article-10 Compliance with Environmental Standards

- **10.1** The Licensee at all times shall comply with the environmental standards as may be prescribed by the relevant competent authority as amended 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 is in line with environmental standards as prescribed by the relevant competent authority.



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Article-11 Power off take Point and Voltage

The Licensee shall deliver power to the Power Purchaser at the outgoing bus bar of its generation facility. The up-gradation (step up) of generation voltage to the required Interconnection voltage level will be the responsibility of the Licensee.

Article-12 Provision of Information

- **12.1** The obligation of the Licensee to provide information to the Authority shall be in accordance with Section-44 of the Act.
- 12.2 The Licensee shall be subject to such penalties as may be specified in the relevant rules made by the Authority for failure to furnish such information as may be required from time to time by the Authority and which is or ought to be or has been in the control or possession of the Licensee.

Article-13 Generation Capacity Reserve Requirements

The Licensee shall comply with the minimum and maximum capacity requirements as stipulated and agreed in the Power Purchase Agreement signed between the Licensee and the power purchaser.





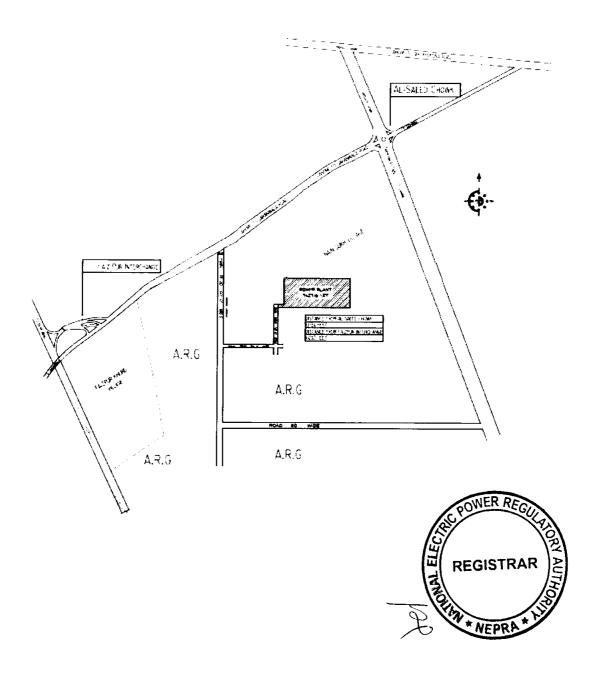
SCHEDULE-I

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



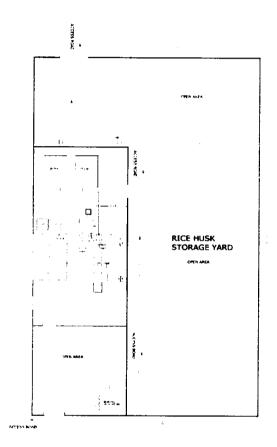


Location of the Generation Facility/Power Plant



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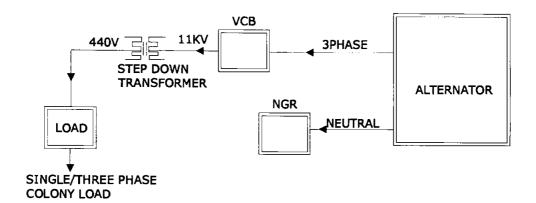
Layout of the Generation Facility/Power Plant

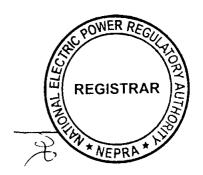




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Block Diagram of the Generation Facility/Power Plant





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

The Electric Power generated by the Licensee/BEPL shall be supplied strictly to the residents of AL-Rehman Garden Housing Scheme, Phase-II, Near Faizpur, Sharqpur Road, Tehsil Ferozwala, District Sheikhupura Punjab. The said arrangement will be made through 11 KV Feeders. Any change in the final Interconnection and Transmission Arrangement(s) for the dispersal of power other than the said shall be communicated to the Authority.





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

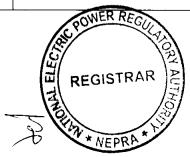
A. <u>General Information</u>

(i).	Name of the Company/the Licensee	Bismillah Energy (Private) Limited	
(ii).	Registered /Business Office of the Company/the Licensee	Sagian Ahmed Ali Wali near Al-Rehman Chowk, Sharaqpur Road, Lahore	
(iii).	Location of the Generation Facility/Power Plant	Al-Rehman Garden (Phase-II) Housing Scheme, Near Faizpur, Sharqpur Road, Tehsil Ferozwala District Sheikhupura in the Province of Punjab	
(iv).	Type of Generation Facility/Power Plant	Bio-Mass/Municipal Solid Waste fired Thermal Power Plant.	

B. <u>Plant Configuration</u>

(i).	Installed Capacity/Size of the Generation Facility/Power Plant	6.00 MW
(ii).	Type of Technology of the Generation Facility/Power Plant	Conventional Steam Turbine
(iii).	Number of Units/Size	1 x 6.00 MW
(iv).	Unit Make/Model & Year of Manufacture	Siemens, Germany/Make-1999
(v).	Date of Commissioning of Generation Facility/Power Plant	July, 2013

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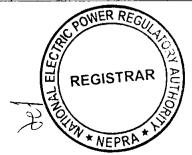
(vi).	Expected Remaining useful Life of the Facility at the time of grant of Generation Licence	25 Years
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C. <u>Fuel/Raw Material Details</u>

(i).	Primary Fuel	Bio-Mass/Municipal Solid Waste	
(ii).	Alternate/Start up Fuel	Furnace Oil	
	Fuel Source	Primary Fuel	Alternative Fuel
(iii).	(Imported/Indigenous)	Indigenous	Imported/Indigenous
		Primary Fuel	Alternative Fuel
(iv).	Fuel Supplier	Local Rice Mills, TMA Sheikhupura	Shell Pakistan Ltd / PSO
		Primary Fuel	Alternative Fuel
(v).	Supply Arrangement	Through Conveyor Belts/Loading Trucks/Tractor Trolleys etc	Through Oil Tankers
(vi)	Eugl Storage facilities	Primary Fuel	Alternative Fuel
(vi).	. Fuel Storage facilities	Bulk Storage	1 Tank
	Capacity of Storage facilities	Primary Fuel	Alternative Fuel
(vii).		25,000 Tons Bulk Storage	100 Tons
		Primary Fuel	Alternative Fuel
(viii).	Gross Storage Capacity	25,000 Tons Bulk Storage	100 Tons







D. <u>Emission Values</u>

		Primary Fuel	Alternative Fuel
(i).	SO _x (mg/Nm ³)	< 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/Nm ³)	< 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	Condensate Water, Ground Water Turbine	
(1).	Source/Cycle		with Cooling Tower/Closed Loop Cycle	

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		0.1 % per second
(vi).	Time required to Synchronize to Grid and loading the complex to full load	4 Hours for Cold start and 30 seconds to synchronize with Grid



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SCHEDULE-II

The Installed Capacity/ISO Capacity (MW), De-Rated Capacity at Mean Site Conditions (MW), Auxiliary Consumption (MW) and the Net Capacity at Mean Site Conditions (MW) of Generation Facilities of Licensee is given in this Schedule.





SCHEDULE-II

(1).	Total Gross Installed Capacity of the Generation Facility.	06.00 MVV
(2).	De-rated Capacity of the Generation Facility at Mean Site Conditions.	06.00 MVV
(3).	Auxiliary Consumption of the Generation Facility.	00.50 MW
(4).	Net Capacity of the Generation Facility at Mean Site Conditions.	05.50 MVV

Note

All the above figures are indicative as provided by the Licensee. The Net Capacity available to Power Purchaser(s) for dispatch will be determined through procedure(s) contained in the Power Purchase Agreement or any other applicable document(s).

