



National Electric Power Regulatory Authority
Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad
Ph: 9206500, 9207200 Fax : 9210215
E-mail: registrar@nepra.org.pk

Registrar

No. NEPRA/R/LAG-121 / 1820-22

April 28, 2009

Mr. Mohammad Awais Qureshi
Director
Shakarganj Energy (Pvt.) Ltd.
Chak Jhumra Road,
Nishatabad,
Faisalabad.

Subject: Generation Licence No. SGC/46/2009
Licence Application No. LAG - 121
Shakarganj Energy (Private) Limited

Please refer to your letter No. 025/17607 dated August 28, 2008 to NEPRA for a Generation Licence.

2. Enclosed here is Generation Licence No. SGC/46/2009 granted by the Authority to Shakarganj Energy (Private) Ltd. The Licence is granted to you pursuant to Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).
3. Please quote above mentioned Generation Licence No. for your future correspondence with the Authority.

Enclosure: As above.




(Arshad Mehmood)

Copy for information to Director General, Pakistan Environment Protection Agency,
House No. 311, Main Margallah Road, F-11/3, Islamabad.

Chief Executive Officer, Faisalabad Electric Supply Company (FESCO), Abdullahpur,
Canal Bank Road, Faisalabad.

National Electric Power Regulatory Authority
(NEPRA)
Islamabad – Pakistan

GENERATION LICENCE

No. SGC/46/2009

In exercise of the Powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997), the Authority hereby grants a Generation Licence to:

SHAKARGANJ ENERGY (PRIVATE) LIMITED

Incorporated under the Companies Ordinance, 1984
Under Certificate of Incorporation

No. 0065020, dated April 2, 2008

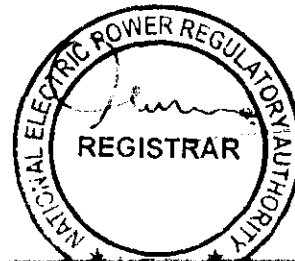
For its Plant located at 38-KM Jhang- Muzzafargarh Road, Dargai Shah
District Jhang, Punjab

(Installed Capacity: 20.00 MW Gross ISO)

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

Given under my hand this 28th day of April, Two Thousand & Nine and expires on 31st day of October, Two Thousand & Twenty Nine.


Registrar






Article-1
Definitions

1.1 In this Licence

- (a) "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997);
- (b) "Authority" means the National Electric Power Regulatory Authority constituted under section 3 of the Act;
- (c)
- (d) "Licensee" means Shakarganj Energy (Private) Limited;
- (e) "Power Purchaser" means a Distribution Licensee or a Bulk Power Consumer who purchases electricity from the Licensee, pursuant to a power purchase agreement for procurement of electricity;
- (f) "Rules" mean the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000.

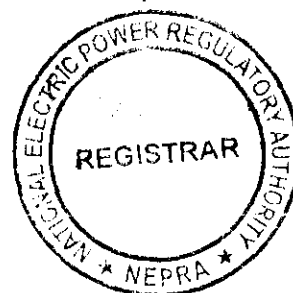
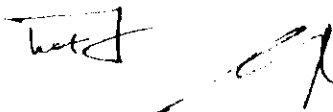
1.2 Words and expressions used but not defined herein bear the meaning given thereto in the Act or in the Rules.

Article-2
Application of Rules

This Licence is issued subject to the provisions of the Rules, as amended 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 power generation facilities of the Licensee are set out in Schedule-I to this Licence.

3.2 The net capacity of the Licensee's generation facilities is set out in Schedule-II hereto.

3.3 The Licensee shall provide the final arrangement, technical and financial specifications and other details specific to generation facilities before commissioning of the generation facilities.

Article-4
Term of Licence

4.1 The Licence is granted for a term of twenty (20) years after the Commercial Operation Date.

4.2 Unless revoked earlier, the Licensee may ninety days (90) days prior to the expiry of the term of the Licence, apply for renewal of the Licence under the Licensing (Application and Modification Procedures) Regulation, 1999.

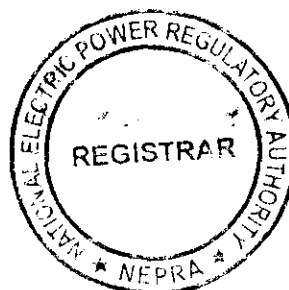
Article-5
Licence fee

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 National Electric Power Regulatory Authority (Fees) Rules, 2002.

Article-6
Tariff

The Licensee is allowed to charge such tariff which has been agreed between the Licensee and the Power Purchaser, pursuant to a power purchase agreement.

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Article-7
Competitive Trading Arrangement

7.1 The Licensee shall participate in such measures 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 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

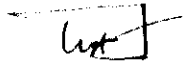

For the purpose of sub-rule (1) of Rule 19 of the Rules, copies of records and data shall be retained in standard and electronic form and all such records and data shall, subject to just claims of confidentiality, be accessible by authorized officers of the Authority.

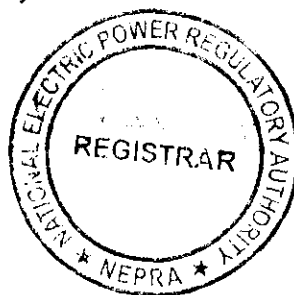
Article-9
Compliance with Performance Standards

The Licensee shall conform to the relevant NEPRA rules on Performance Standards as may be prescribed by the Authority from time to time.

Article-10
Compliance with Environmental Standards

The Licensee shall conform to the environmental standards as may be prescribed by the relevant competent authority from time to time.



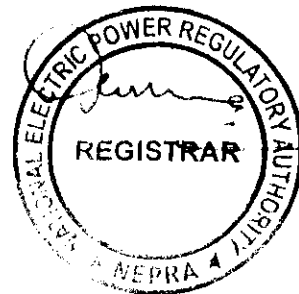
Article-11
Provision of Information

11.1 The obligation of the Licensee to provide information to the Authority shall be in accordance with Section 44 of the Act.

11.2 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.

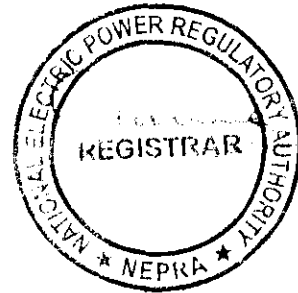
Article-12
Emissions Trading /Carbon Credits

The Licensee shall process and obtain emissions/Carbon Credits expeditiously and credit the proceeds to the Power Purchaser, as per policy of the Government on the subject.

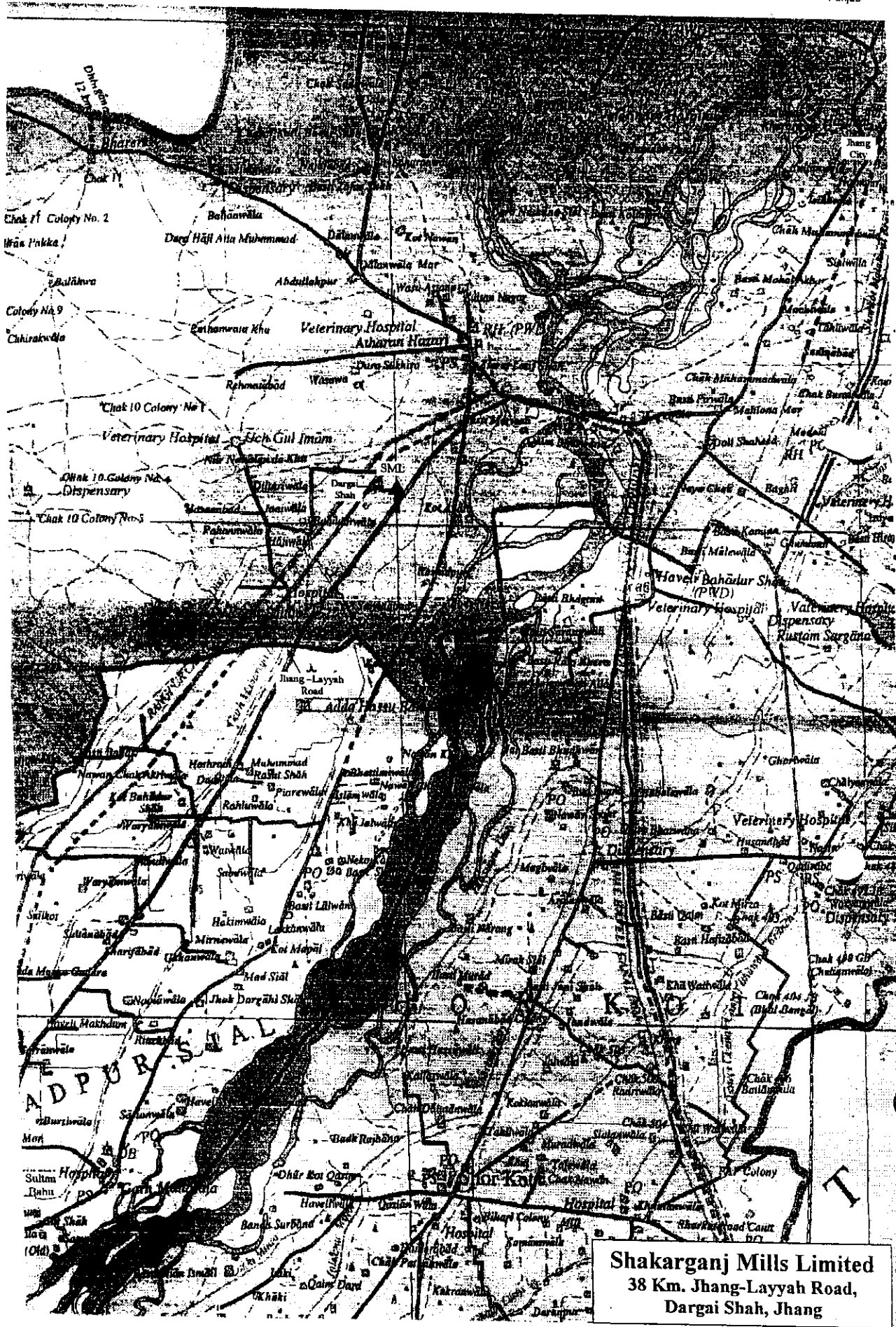


SCHEDULE-I

The location, size (capacity in MW) technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the Generation Facilities of the Licensee.



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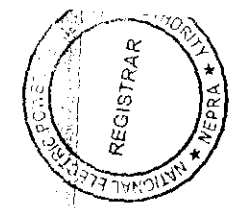
Shakarganj Mills Limited
 38 Km. Jhang-Layyah Road,
 Dargai Shah, Jhang



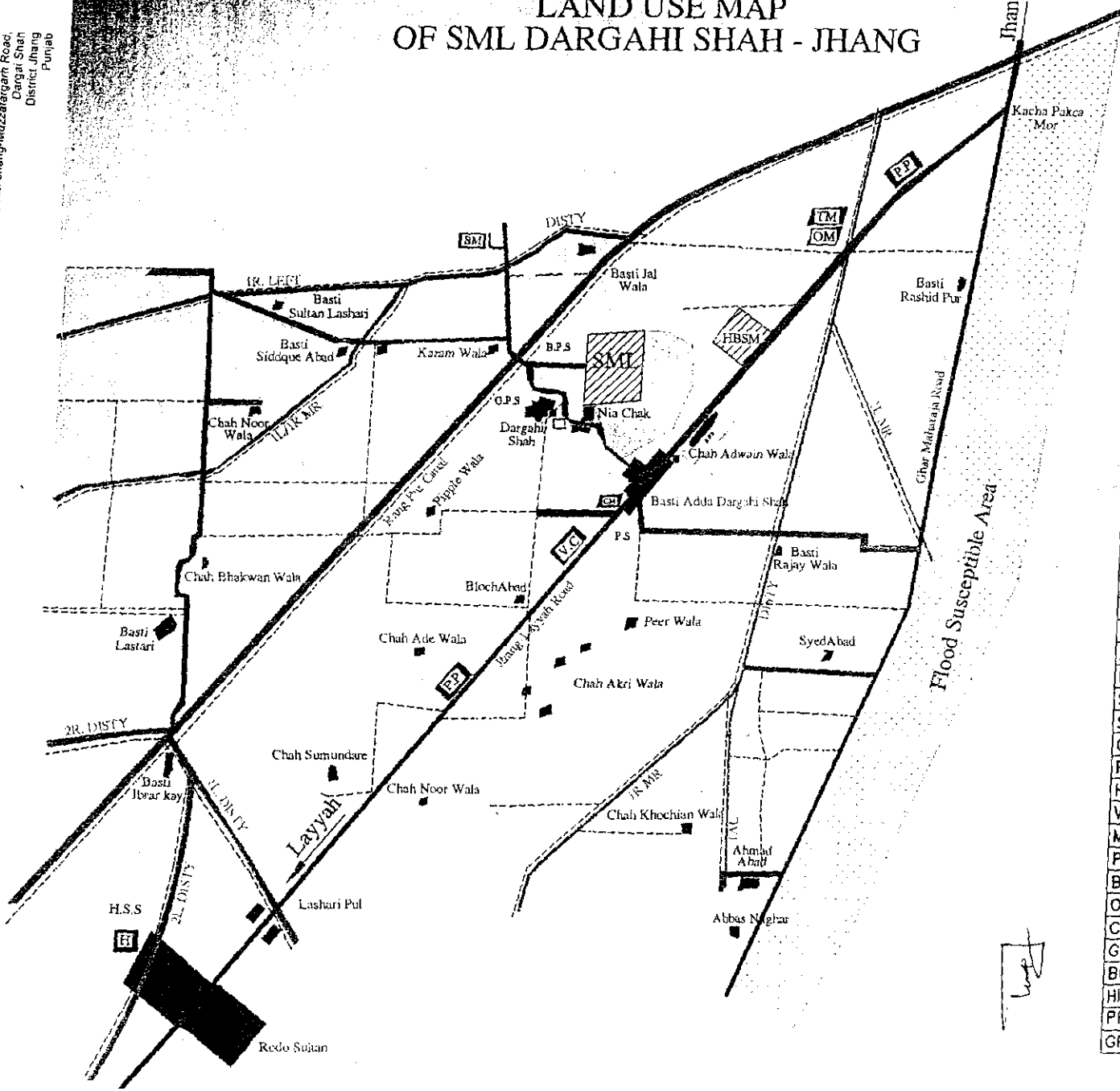
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LAND USE MAP OF SML DARGAHI SHAH - JHANG

Generation Licence
 Shakarganj Energy (Private) Limited
 38-KM Jhang-Muzaffargarh Road,
 Dargah Shah
 District Jhang
 Punjab

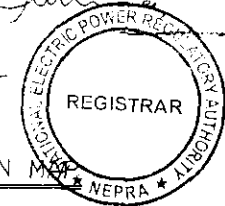
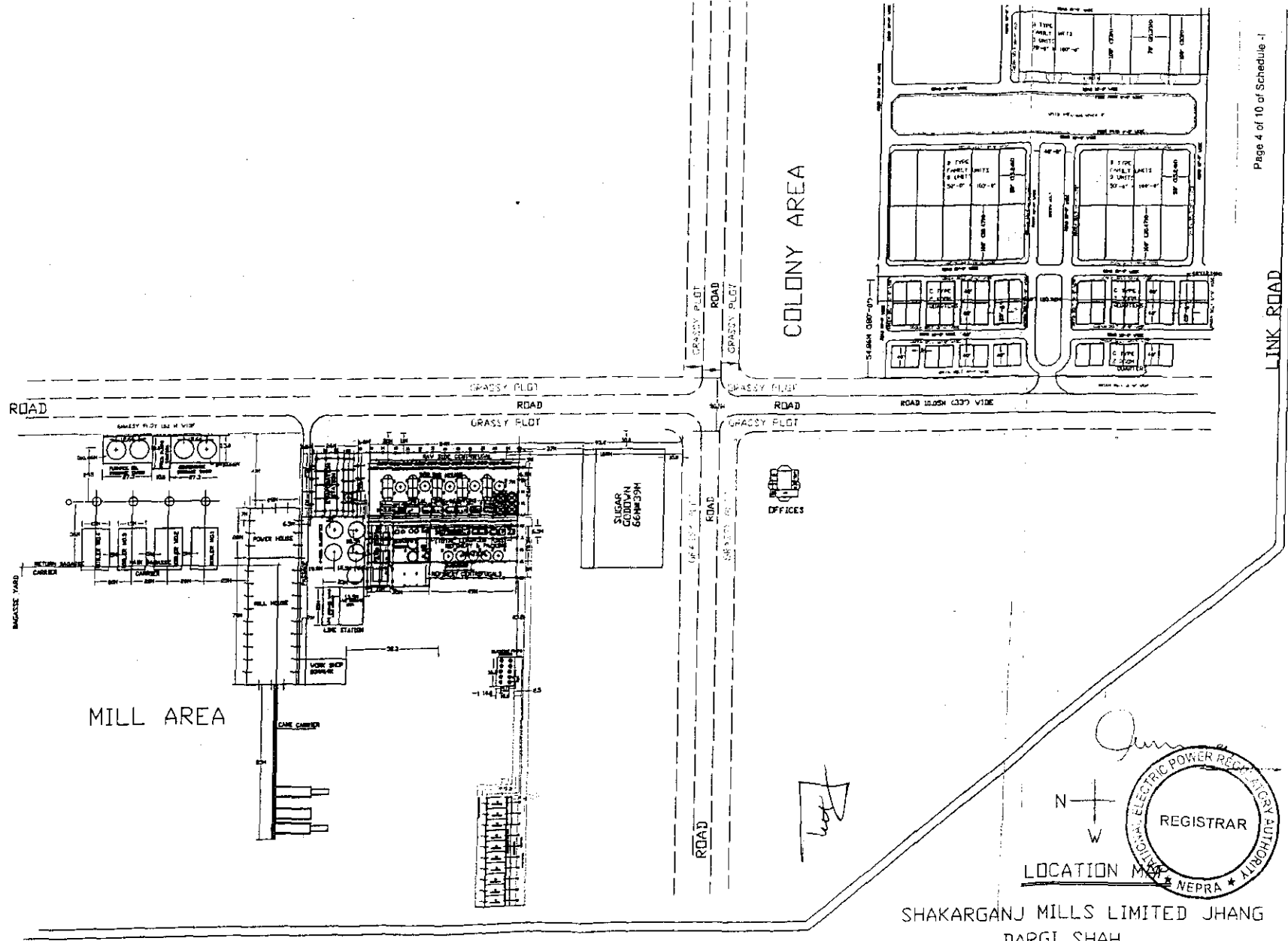


Page 3 of 10 of Schedule - I



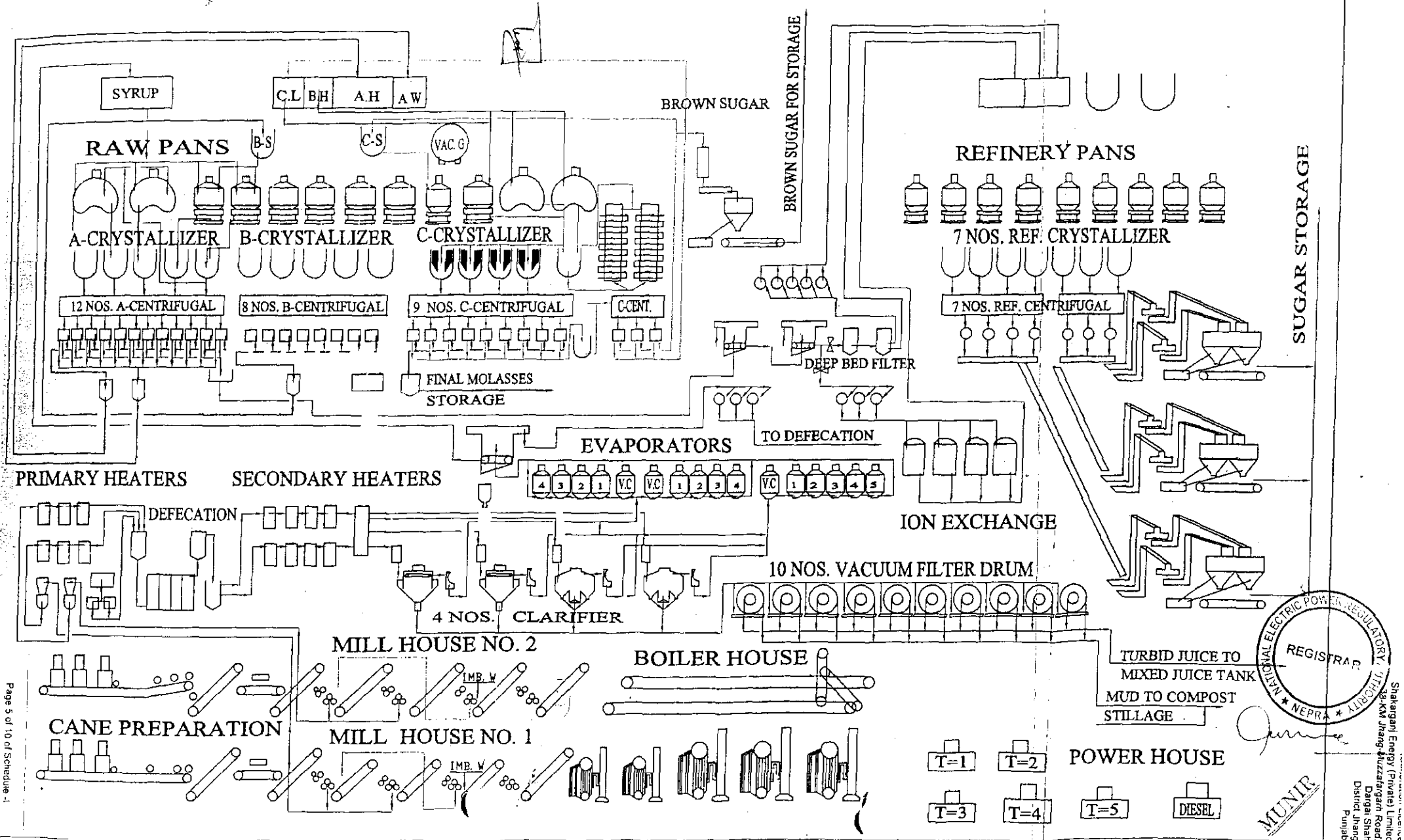
ITEM	SYMBOL
PROPOSED SITE FOR SHAKARGANJ MILLS	SML
PROPOSED SITE FOR HAQ BAHU SUGER MILLS	HBSM
METTALED ROAD	—————
KATCHA PATH	- - - - -
CANAL/DISTRIBUTARY/MINOR	—————
AGRICULTURE LAND	□
FLOOD ZONE	□
SETTLEMENTS	■
SAND DUNES	□
COMMERCIAL AREA	■
PETROL PUMP	PP
HOSPITAL	H
VETANERY CENTER	V.C
MOSQUE	■
PROPOSED TEXTILE MILL	TM
BOARD MILL	BM
OIL MILL	OM
COTTON MILL	CM
GIRLS PRIMARY SCHOOL	G.P.S
BOYS PRIMARY SCHOOL	B.P.S
HIGHER SECONDRY SCHOOL	H.S.S
PRIVATE SCHOOL	P.S
GRAVE YARD	□

MUZAFAR GHAR ROAD



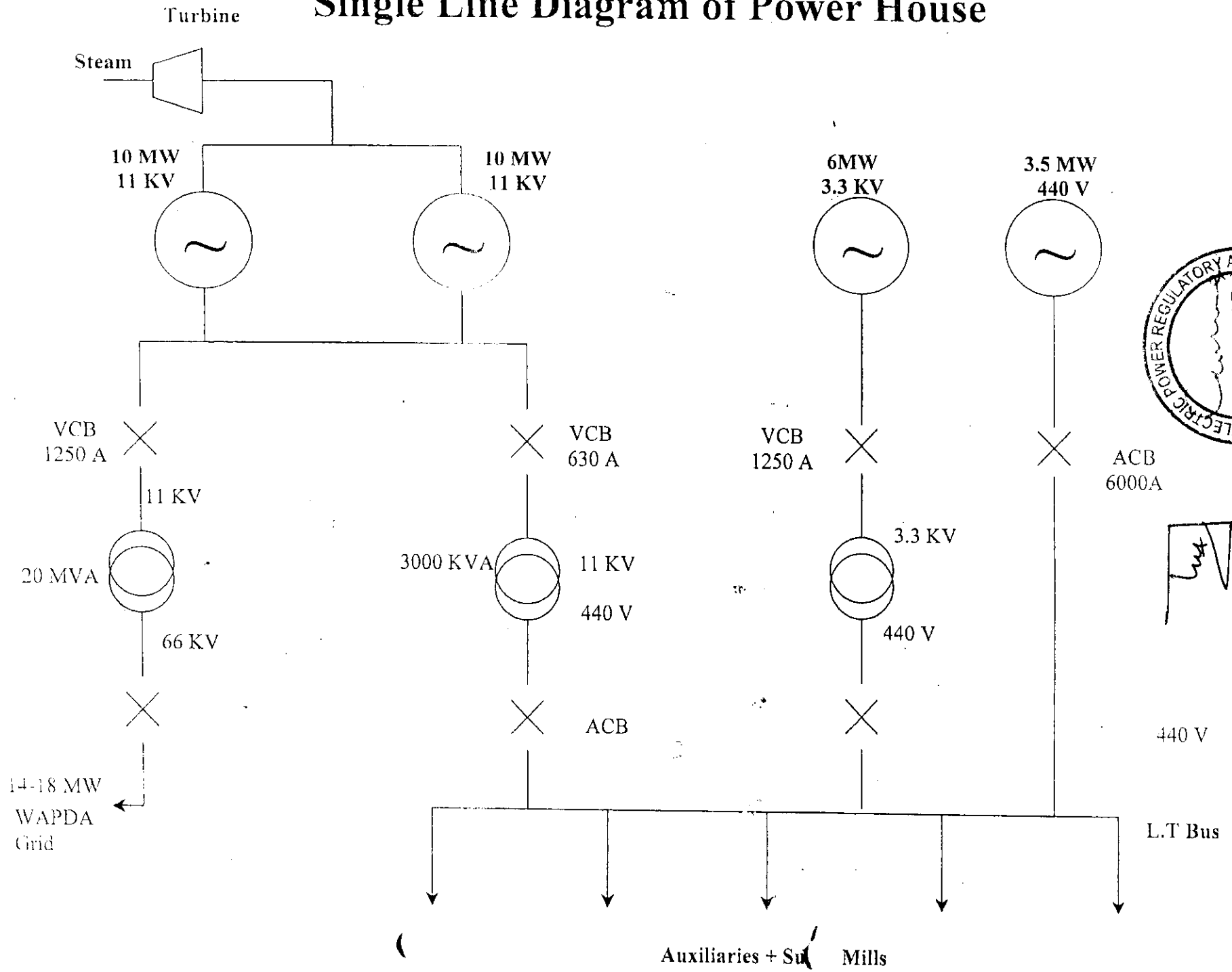
SHAKARGANJ MILLS LIMITED JHANG
 DARGI SHAH
 TEHSIL & DISTRICT JHANG

FLOW DIAGRAM



Single Line Diagram of Power House

Generation Licence
 Shakarganj Energy (Private) Limited
 38-KM Jhang-Muzaffargarh Road,
 Dargai Shah
 District Jhang
 Punjab



440 V
 L.T Bus

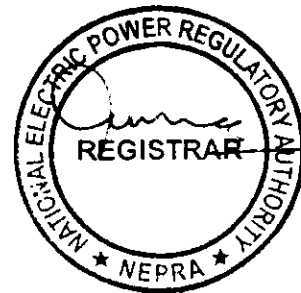
Auxiliaries + Su Mills

**INTERCONNECTION/TRANSMISSION
ARRANGEMENT FOR THE DISPERSAL OF
POWER FROM THE POWER PLANT**

The Power generated by Shakarganj Energy (Private) Limited (SEPL) from its Baggasse based Thermal Power Generation facility shall be dispersed to the Load Center of Faisalabad Electric Supply Company Limited (FESCO).

The Interconnection/Transmission Arrangement for the above mentioned facilities will be at 11 KV or higher voltage as given in the Agreements for Power Purchase (PPA) of August 19, 2008, signed between SEPL and FESCO.

The final Interconnection and Transmission Arrangement(s), for the dispersal of power, as agreed by SEPL and FESCO shall be communicated to NEPRA in due course of time.



Plant Details*

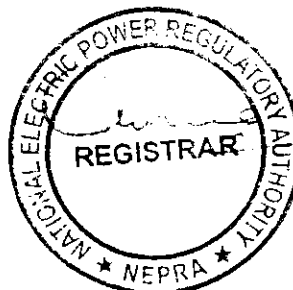
1. General Information

(i).	Name of Applicant	Shakarganj Energy (Private) Limited
(ii).	Registered Office	10 th Floor, 10-B, Block E-2, Main Boulevard, Gulberg-III, Lahore
(iii).	Business Office	Chak Jhumra Road, Nishatabad, Faisalabad
(iv).	Plant Location	38-Km, Jhang-Muzzafargarh Road, Dargai Shah, District Jhang, Punjab
(v).	Type of Generation Facility	Bagasse Fired Thermal Generation

2. Plant Configuration

(i).	Plant Size Installed Capacity (Gross ISO)	20.00 MW
(ii).	Type of Technology	Steam Turbine
(iii).	Number of Units/Size (MW)	1 x 20.00 MW
(iv).	Unit Make & Model	STAL-LAVL Sweden
(v).	De-rated Capacity at Mean Site Conditions	18.00 MW
(vi).	Auxiliary Consumption	0.50 MW
(vii).	Commissioning/ Commercial Operation date	November 01, 2009
(viii).	Expected Life of the Facility from Commercial Operation Date	20 Years

* As provided by the Applicant

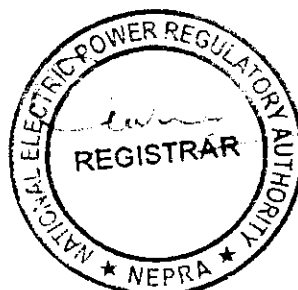


3. Fuel/Raw Material Details

(i).	Primary Fuel	Bagasse	
(ii).	Alternate/Start-Up Fuel	Furnace Oil (FO)	
(iii).	Fuel Source (Imported/Indigenous)	Primary Fuel	Alternative Fuel
		Indigenous	To purchase from PSO/Shell
(iv).	Fuel Supplier	Primary Fuel	Alternative Fuel
		Shakarganj Mills Dargai Shah, Jhang	PSO/Shell
(v).	Supply Arrangement	Primary Fuel	Alternative Fuel
		Through Conveyor Belts/Loading Trucks/Tractor Trolleys etc	Oil Tanker
(vi).	Sugarcane Crushing Capacity	8000 Tons/Day	
(vii).	Bagasse Generation Capacity	2400 Tons/Day	
(viii).	Bagasse Storage Capacity (if any)	40,000 Tons (approximately)	
(ix).	No of Storage Tanks	Bagasse	FO
		Bulk Storage	02
(x).	Storage Capacity of each Tank	Bagasse	FO
		Bulk Storage	200 M ³
(xi).	Gross Storage	Bagasse	FO
		Bulk Storage	400 M ³

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4. Emission Values

(i).	SO _x (mg/Nm ³)	Bagasse	FO
		0.0197 p.p.m.	To be provided later on
(ii).	NO _x (mg/Nm ³)	Bagasse	FO
		0.0573 p.p.m.	To be provided later on
(iii).	CO	Bagasse	FO
		0.2~0.5	To be provided later on
(iv).	PM ₁₀	Bagasse	FO
		To be provided later on	To be provided later on

5. Cooling System

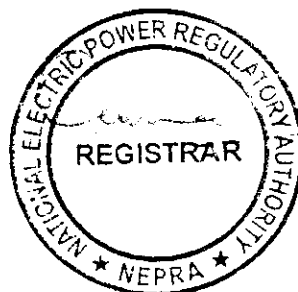
(i).	Cooling Water Source/Cycle	Tube wells/Closed Loop
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6. Plant Characteristics

(i).	Generation Voltage	11 KV
(ii).	Frequency	50 Hz
(iii).	Power Factor	0.9
(iv).	Automatic Generation Control (AGC)	Yes
(v).	Ramping Rate	1 MW/min
(vi).	Time required to Synchronize to Grid and loading the complex to full load.	20 Minutes

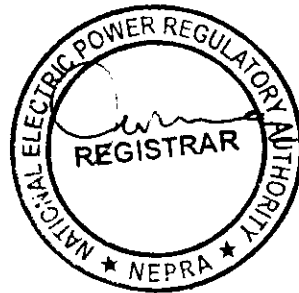
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SCHEDULE-II

The Installed, De-Rated, Auxiliary and Net Capacity of the Licensee's
Generation Facilities

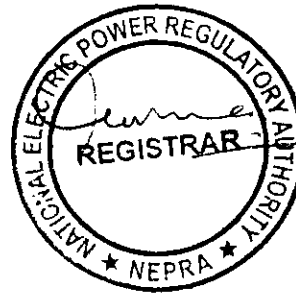


SCHEDULE-II*

1.	Installed Capacity Gross ISO	20.00 MW
2.	De-rated Capacity at Mean Site Conditions	18.00 MW
3.	Auxiliary Consumption	0.50 MW
4.	Net Capacity of the Plant at Mean Site Conditions	17.50 MW

Note

All the above figures are indicative as provided by the Licensee. The Net Capacity available to FESCO for dispatch will be determined through procedure(s) contained in the Bi-lateral Agreement(s), Grid Code or any other applicable document(s).



* As provided by the applicant

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National Electric Power Regulatory Authority
(NEPRA)

Determination of the Authority
In the Matter of Grant of Generation Licence to
Shakarganj Energy (Private) Limited

April 21, 2009
Application No. LAG-121

Background

Shakarganj Energy (Private) Limited (SEPL), a subsidiary of Shakarganj Sugar Mills (SML) is maintaining a 20.00 MW bagasse based thermal power generation facility near Jhang in the province of Punjab.

2. SEPL entered into a bi-lateral agreement with Faisalabad Electric Supply Company Limited (FESCO), for supplying 18.00 MW of surplus electricity from this facility on take and pay basis.

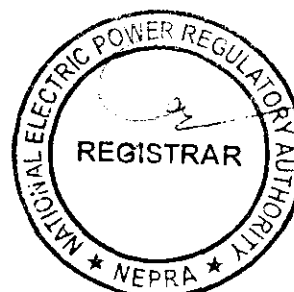
3. According to the Regulation of Generation, Transmission and Distribution of Electric Power Act XL of 1997 (hereafter called the NEPRA Act) SEPL is required to have a Generation Licence for selling/supplying power to FESCO.

Filing of Application

4. SEPL in accordance with Section 15 of the NEPRA Act filed an application on September 01, 2008, requesting for grant of a Generation Licence. During the initial scrutiny, it was found that SEPL had not

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submitted the requisite information pursuant to Regulation 3(5) of the NEPRA Licensing Application & Modification Procedure Regulation, 1999 (the Regulations). SEPL finally submitted the requisite information on February 13, 2009. The Authority admitted the application of SEPL for the consideration of the Generation Licence on February 19, 2009.

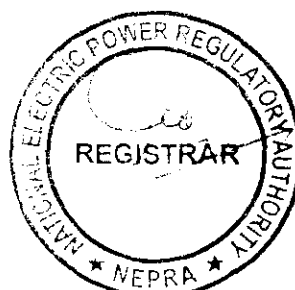
5. Pursuant to Regulation-8 of the Regulations, a Notice of Admission (NOA) along with the brief of the prospectus and other salient features of application, were advertised in daily newspapers of February 21, 2009, for seeking comments from the general public and other interested/affected parties.

Comments of Stakeholders

6. In reply to the NOA, given in the press, NEPRA received comments of Central Power Purchasing Agency (CPPA) of National Transmission and Dispatch Company (NTDC), Alternative Energy Development Board (AEDB) and FESCO.

7. The salient points of the comments offered by the above mentioned stakeholders are summarized in the following paragraphs.

- (a). CPPA, while offering its comments in the matter stated "SEPL has entered into a bilateral agreement with FESCO for sale of power from its generation facility. The agreement signed between the parties is on take and pay basis. The term of the agreement is twenty years effective from August 19, 2008. We

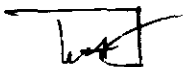


therefore, support SEPL application for the grant of Generation Licence.”

(b). AEDB remarked that “Government of Pakistan has established Alternative Energy Development Board to promote, develop and facilitate alternative/renewable energy technologies by acting as one window facility for establishing RE projects with special emphasis to biomass, bagasse/waste to energy projects. It is to inform you that Shakarganj Energy Private Limited (SEPL) should apply to AEDB for LOI since bagasse based projects are in the domain of AEDB. SEPL should also submit the proposal of generating power from bagasse to AEDB before putting up its case to NEPRA for the consideration of grant of Generation License so that AEDB may evaluate the subject project and furnish its comments.”

(c). FESCO in its comments stated “FESCO endorses the comments offered by CPPA.”

8. As explained above, CPPA and FESCO supported the grant of the Generation Licence whereas AEDB urged the applicant to apply for the LOI before getting its application processed. However, the Authority observed that the requirement of obtaining the LOI under the Policy for Development of Renewable Energy Policy for Power Generation Year-2006 (hereafter called the Policy) was meant for those private entities which were interested in availing concessions admissible under the Policy. Whereas SEPL signed a bi-lateral contract with FESCO on take and pay basis without availing any concessions under the Policy. The position of



the Authority in the particular case of SEPL was communicated to AEDB and the comments of AEDB were not considered any further in the processing of the case.

9. In view of the positive response of the relevant stakeholders for the grant of the Generation Licence and to encourage the small generating facilities to make their power available on urgent basis, the Authority considered it appropriate not to hold any Public Hearing in the matter.

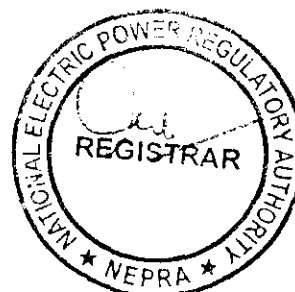

Comments of Applicant on Draft Generation Licence.

10. Draft of the proposed Generation Licence, to be granted to SEPL was sent to the applicant, for review and comments. SEPL confirmed that it did not have any objection with respect to the Terms and Conditions of the Articles of the proposed Draft Generation Licence.

Grant of Generation Licence.

11. The country is facing an acute shortage of power and efforts should be made to acquire all the dormant capacity available with the Textile/Chemical Units or Sugar Mills, on a short term basis. The Authority is of the view that the initiative of the FESCO to acquire Power from the SEPL is a step in the right direction and is supported as it will help FESCO to reduce the demand supply gap in its area of service.

12. The Authority considers that the continuous increasing trend in fossil fuel prices and country's dependence on oil imports for meeting energy needs, it is imperative for the sustainable development that all



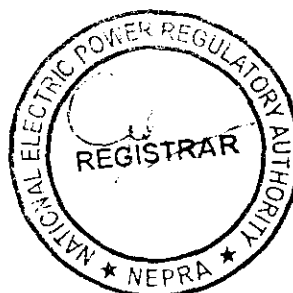
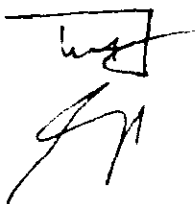
alternative energy resources including wind, solar, small hydro and Biomass etc. should be explored and their development is encouraged.

13. The case under consideration is the first instance in which a Sugar Mill has set up a dedicated Bagasee based generation facility in the country, under a separate legal entity which will be providing sizeable amount of power to a DISCO. The Authority considers that being located close to the load center of the city of Jhang in the territory of FESCO, the initiative is not only expected to be beneficial to the consumers in providing electricity at a relatively lower cost but will also help FESCO in overcoming the shortfall being experienced these days in this area.

14. The Authority regards such initiative of the SML to be important because it will stimulate other over seventy (70) sugar mills of the country to venture into power generation business by using indigenous Biomass, available with them in abundance, to bring much needed power generation through renewable source at a reasonable cost without depending on imported Fuels, thereby increasing energy security.

15. The Authority is also of the view that the Biomass Power generation is also expected to promote a cleaner environment and improve air quality by displacing Oil and Coal based electricity generation. Therefore, the Authority considers it reasonable to allow installation of Bagasse based electricity generation facilities in the country especially in those areas which are in proximity of Sugar Mills as the raw material for the generation can be obtained conveniently.

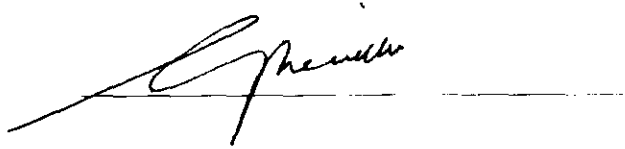
16. In view of above, the Authority hereby decides to approve the grant of Generation Licence to Shakarganj Energy (Private) Limited in the



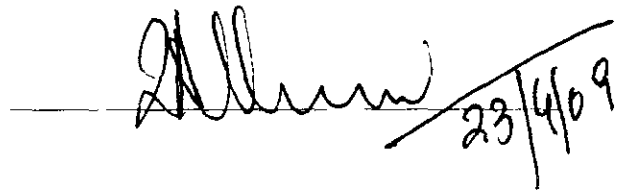
terms set out in the attached Licence as annexed to this determination. The grant of such a licence would be subject to the provisions contained in the NEPRA Act and relevant rules framed there under.

Authority

Ghiasuddin Ahmed
Member



Zafar Ali Khan
Member/



Maqbool Ahmad Khawaja
Member/Vice Chairman



Khalid Saeed
Chairman

