



# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

**Registrar**

NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad  
Ph: +92-51-9206500, Fax: +92-51-2600026  
Web: www.nepra.org.pk, E-mail: registrar@nepra.org.pk

No. NEPRA/R/LAG-215/13652-56

September 14, 2015

Mr. Abdul Sattar Abdullah,  
Executive Director Finance,  
Gadoon Textile Mills Limited,  
6 A Muhammad Ali Housing Society,  
Abdul Aziz Haji Hashin Tabba Street,  
Karachi.

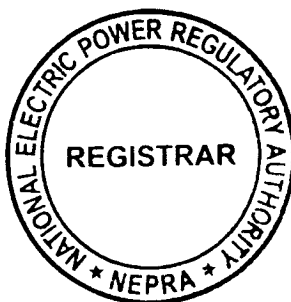
**Subject: Modification-I in Generation Licence No: SGC/91/2013  
Licence Application No. LAG-215  
Gadoon Textile Mills Limited (GTML)**

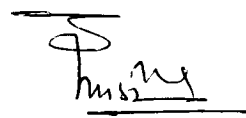
*Reference: Your application vide letter No. Nil, dated October 10, 2014.*

It is intimated that the Authority has approved "Licensee Proposed Modification" in Generation Licence No. SGC/91/2013 (issued on September 26, 2013) in respect of Gadoon Textile Mills Limited (GTML), pursuant to Regulation 10(11) of the NEPRA Licensing (Application and Modification Procedure) Regulations 1999.

2. Enclosed please find herewith determination of the Authority in the matter of Licensee Proposed Modification in the Generation Licence of GTML along with Modification-I in the Generation Licence No. SGC/91/2013, as approved by the Authority.

**Encl:/As above**



  
14.09.15  
(Syed Safeer Hussain)

Copy to:

1. Chief Executive Officer, NTDC, 414-WAPDA House, Lahore
2. Chief Operating Officer, CPPA-G, 107-WAPDA House, Lahore
3. Director General, Environment Protection Agency, Govt. of KPK, 3<sup>rd</sup> Floor, Old Courts Building, Khyber Road, Peshawar.
4. Chief Executive Officer, Peshawar Electric Supply Company Limited (PESCO), WAPDA House, Shami Road, Sakhi Chahsma, Peshawar

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

**Determination of Authority**  
**in the Matter of Licensee Proposed Modification of**  
**Gadoon Textile Mills Limited**

**September 07, 2015**  
**Case No. LAG-215**

**(A). Background**

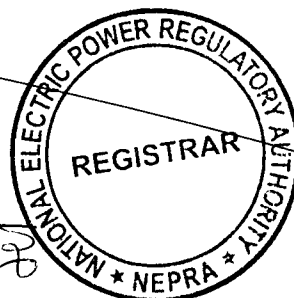
(i). The Authority granted a Generation Licence (No. SGC/91/2013 dated September 26, 2013) to Gadoon Textile Mills Limited (GDTML) in terms of Section-15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the NEPRA Act).

(ii). The above Generation Licence was granted to GDTML for its Generation Facility/Captive Power Plant-CPP with a total Installed Capacity of 46.57 MW, located at Gadoon Amazai Industrial Estate, in the Province of Khyber Pakhtunkhwa.

**(B). Submission of Modification**

(i). In accordance with Regulation-10 of the NEPRA Licensing (Application & Modification Procedure) Regulations, 1999 ("the Regulations"), GDTML communicated the Licensee Proposed Modification (LPM) in its above mentioned Generation Licence on October 16, 2014.

(ii). In the "Text of the Proposed Modification", GDTML submitted that it proposed to change its gross capacity from 46.57 MW to 56.47 MW by addition of (a). 2 x 3.04 MW (GE Jenbacher JGS620E); (b). 01 x 2.66 MW Steam Turbine (N3-19); (c). 02 x 1.06 MW (GE Jenbacher JGS320) and decommissioning/retiring of 1 x 0.965 MW (CAT3516). Regarding the



"Statement of the Reasons in Support of the Modification", GDTML stated that with the expansion at GDTML its power requirement has increased. Therefore, to fulfill this deficit of power requirement additional Gas Engines will be installed to utilize the allocated quota. In order to enhance the overall efficiency of the power plant Waste Heat Recovery Steam Generators (WHRSs) are being installed. Steam from these Boilers will be directed to Steam Turbine which will produce cheap & neat additional power. Further, one of the Gas Engines which has almost reached its maximum life and is no more economical to be used, will be replaced with latest Gas Engine.

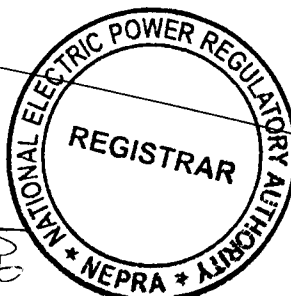
(iii). Regarding the statement of "the Impact on the Tariff", "Quality of Service (QoS)" and "the Performance by the Licensee of its obligation under the Licence", GDTML submitted that there will be no impact tariff as only idle Furnace Based gensets are dedicated for power export to national grid while gas based power is utilized for manufacturing of export oriented products. The overall QoS and Performance of the power plant will increase overall due to induction of latest technology.

### (C). Processing of LPM

(i). After completion of all the required information as stipulated under the Regulation-10 (2) and 10 (3) of the Regulations by GDTML, the Registrar accepted the LPM, for further processing under the Regulation-10 (4) of the Regulations.

(ii). The Registrar published the communicated LPM in one English and one Urdu daily Newspaper on March 29, 2015, informing the general public, interested/effected parties, and other stakeholders about the LPM. Further, the Registrar invited the said stakeholders for submitting their views/comments on the LPM.

(iii). Apart from the above, separate letters were also sent to



Government Ministries/their attached Departments, representative organizations and individual experts, inviting their views and comments for the assistance of the Authority.

**(D). Comments of Stakeholders**

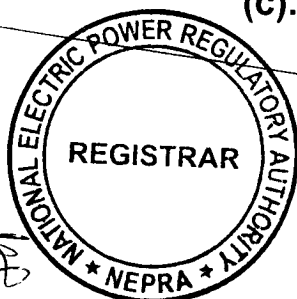
(i). In reply to the above, the Authority received comments from three (03) stakeholders. These included Central Power Purchasing Agency (CPPA) of National Transmission & Despatch Company Limited (NTDC), Sui Northern Gas Pipelines Limited (SNGPL) and Ministry of Petroleum and Natural Resources (MoP&NR).

(ii). The salient points of the comments offered by the above stakeholders are summarized in the following paragraphs: -

(a). CPPA remarked that it has no observation on modification in Generation Licence of GDTML subject to meeting with all the concerned conditions laid down in NEPRA Licensing (Generation) Rules, 2000 (the Rules) and consent of Peshawar Electric Supply Company Limited (PESCO);

(b). SNGPL submitted that gas connection has been provided to GDTML for self use only. NOC has not been issued in favor of GDTML for selling of surplus power to DISCOs. SNGPL understands that the Generation Licence pertains to power generation through Furnace Oil based engines. In such case, SNGPL has no objection to the modification in Generation Licence based on fuels other than natural gas; and

(c). MoP&NR endorsed the comments of SNGPL as



explained at Para D(ii)(b) above.

(iii). On the observations of SNGPL, the Licensee/GDTML confirmed that its current LPM pertains to retiring of old Gas Engines and Installing of WHRSG for utilizing of the exhaust heat, utilizing the same for additional electric power without any additional allocation of Natural Gas etc.

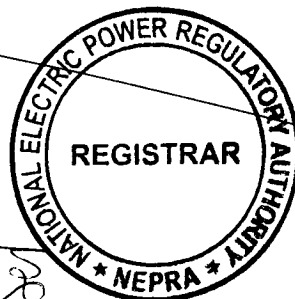
(iv). Although PESCO was sent a copy of the notice however, on the specific observations of CPPA, another letter was sent to PESCO for submitting its any observations if any, within seven (07) days. However, no comments/observations were received from PESCO.

(v). The Authority considered the above clarifications of the Licensee/GDTML on the comments of SNGPL and found the same sound. Accordingly, the Authority considered it appropriate to process the communicated LPM of the Licensee/GDTML as stipulated in the Regulations and the Rules.

**(E). Approval of LPM**

(i). The Authority has observed that it granted Generation Licence No. SGC/91/2013, dated September 26, 2013 to the Licensee/GDTML. The Authority has observed that through the current modification, the Licensee/GDTML plans to de-commission one old Gas Engine. At the same time, the Licensee/GDTML plans to install five new Gas Engines to utilize the allocated quota of Natural Gas. Further, in order to utilize the exhaust gases of the Gas Engines, the Licensee/GDTML also intends to install WHRGs increasing the Total Installed Capacity to 56.47 MW.

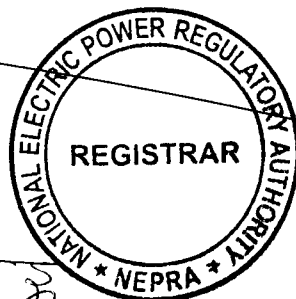
(ii). In this regard, it is clarified that the Authority is empowered in terms of the Section-26 of the NEPRA Act read with Regulation-10 of the Regulations to modify any licence. Further, Regulation-10(5) of the Regulations



outlines the criteria for modifying any licence subject to and in accordance with such further changes as the Authority may deem fit if, in the opinion of the Authority such modification (a). does not adversely affect the performance by the licensee of its obligations; (b). does not cause the Authority to act or acquiesce in any act or omission of the licensee in a manner contrary to the provisions of the NEPRA Act or the Rules or Regulations made pursuant to the NEPRA Act; (c). is or is likely to be beneficial to the consumers; (d). is reasonably necessary for the licensee to effectively and efficiently perform its obligations under the licence; and (e). is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.

(iii). The Authority considers that the current modification (a). does not adversely affect the performance of the Licensee/GDTML of its obligations. It has not caused the Authority to act or acquiesce in any act or omission of the licensee in a manner contrary to the provisions of the NEPRA Act or the rules or regulations made pursuant to the NEPRA Act. The Authority considers that the modification is likely to be beneficial to the Industrial Units of the Licensee/GDTML as uninterrupted electric power will available to the same. Actually, the modification is reasonably necessary for the licensee to effectively and efficiently perform its obligations under the licence. Further, the modification is reasonably necessary to ensure the continuous, safe and reliable supply of electric power to the consumers keeping in view the financial and technical viability of the licensee.

(iv). The Authority is satisfied that the Licensee/GDTML has complied with all the requirements of the Regulations pertaining to the LPM. Accordingly, the Authority in terms of Regulation-10(11)(a) of the Regulations approves the communicated LPM without any changes. Accordingly, the already granted Generation Licence (No. SGC/91/2013, dated September 26, 2013) in the name of the Licensee/GDTML is hereby modified. The changes in "Face Sheet", "Articles of the Generation Licence", "Schedule-I" and "Schedule-II" of the



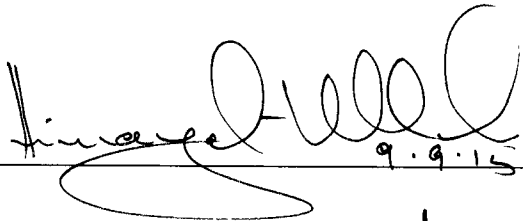
Generation Licence are attached as annexure to this determination. The grant of the LPM will be subject to the provisions contained in the NEPRA Act, relevant rules framed there under, terms & conditions of the Generation Licence and other applicable documents.

**Authority**

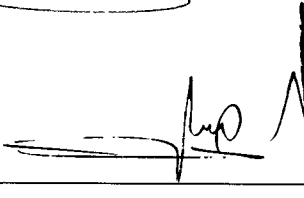
Syed Masood-ul-Hassan Naqvi  
(Member)

  
8/9/15

Himayat Ullah Khan  
(Member)

  
9.9.15

Khawaja Muhammad Naeem  
(Member)

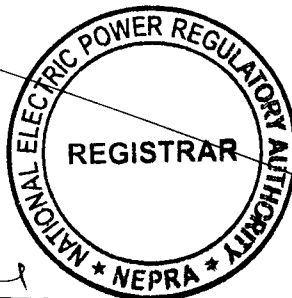
  
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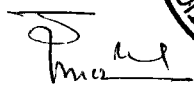
Maj. (R) Haroon Rashid  
(Member)/(Vice Chairman)

  
10/9/15

Brig. (R) Tariq Sadozai  
(Chairman)

  
11/9/15



  
14.09.15

**National Electric Power Regulatory Authority  
(NEPRA)  
Islamabad – Pakistan**

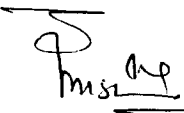
**GENERATION LICENCE**

**No. SGC/91/2013**

In exercise of the Powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section-26 of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997, the Authority hereby modifies the Generation Licence granted to **GADOON TEXTILE MILLS LIMITED** (issued on September 26, 2013 and expiring on September 25, 2036), to the extent of changes mentioned as here under:-

- (i). Installed Capacity mentioned in the Face Sheet of the Generation Licence may be read as **57.47 MW** instead of **46.57 MW**;
- (ii). The validity date of the Generation Licence will remain unchanged (i.e. on **September 25, 2036**);
- (iii). Changes in **Articles** of the Generation Licence attached as **Revised/Modified Articles** of the Generation Licence;
- (iv). Changes in **Schedule-I** attached as **Revised/Modified Schedule-I**; and
- (v). Changes in **Schedule-II** attached as **Revised/Modified Schedule-II**.

This **Modification-I** is given under my hand this 14<sup>th</sup> of **September**  
**Two Thousand & Fifteen**

  
\_\_\_\_\_  
Registrar





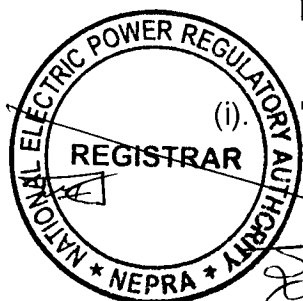




**Article-1**  
**Definitions**

1.1 In this Licence

- (a). "Act" means "the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997";
- (b). "Authority" means "the National Electric Power Regulatory Authority constituted under Section-3 of the Act";
- (c). "Bulk Power Consumer-BPC" means a consumer who purchases or receives electric power at one premises, in an amount of one megawatt or more;
- (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). "CPPA-G" means "Central Power Purchasing Agency (Guarantee) Limited" or any other entity created for the like purpose;
- (f). "Energy Purchase Agreement" means the energy purchase agreement, entered or to be entered into by and between the Power Purchaser and the Licensee, for the purchase and sale of electric energy generated by the generation facility, as may be amended by the parties thereto from time to time;
- (g). "Grid Code" means the grid code prepared by NTDC and approved by the Authority, as it may be revised from time to time by NTDC with any necessary approval by the Authority;
- (h). "Licensee" means **Gadoon Textile Mills Limited** and its successors or permitted assigns;



- (i). "NTDC" means National Transmission and Despatch Company Limited

and its successors or permitted assigns;

- (j). "PESCO" means Peshawar Electric Supply Company Limited and its successors or permitted assigns;
- (k). "Power Purchaser" means CPPA-G on behalf of XW-DISCOs, any XW-DISCO or any Bulk Power Consumer which purchases electricity from the Licensee, pursuant to an Energy Purchase Agreement for procurement of electricity;
- (l). "Regulation" means "the National Electric Power Regulatory Authority Licensing (Application & Modification Procedure) Regulations, 1999" as amended or replaced from time to time;
- (m). "Rules" mean "the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000";
- (n). "XW DISCO" means "an Ex-WAPDA distribution company engaged in the distribution of electric power"

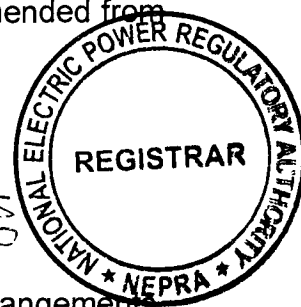
1.2 Words and expressions used but not defined herein bear the meaning given thereto in the Act or in the Rules.

## **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 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.

**Article-4**  
**Term of Licence**

4.1 This Licence is valid from the date of its issue (i.e. September 26, 2013) and will remain valid for a term of twenty three (23) years from the said date of its issuance.

4.2 Unless suspended or revoked earlier, the Licensee may apply for renewal of the Licence within ninety (90) days prior to the expiry of the term of the Licence, as stipulated in the Regulations.

**Article-5**  
**Annual Licence Fee**

After the grant of the Generation Licence, the Licensee shall pay to the Authority annual licence fee, in the amount, 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 any contract entered into between the Licensee and another party with the approval of the Authority.

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



shall be subject to mutual agreement of the parties thereto and such terms and conditions as may be approved by the Authority.

**Article-8**  
**Maintenance of Records**

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

**Article-9**  
**Compliance with Performance Standards**

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

**Article-10**  
**Compliance with Environmental & Safety Standards**

The Licensee shall comply with the environmental and safety standards as may be prescribed by the relevant competent authority from time to time.

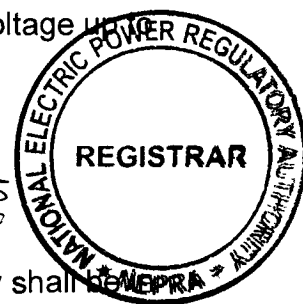
**Article-11**  
**Power off take Point and Voltage**

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

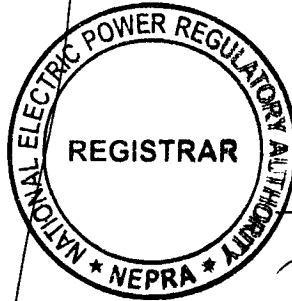
**Article-12**  
**Provision of Information**

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

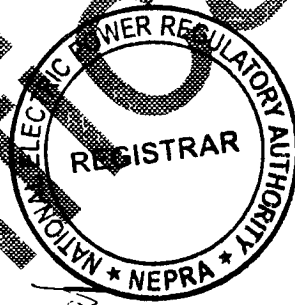


required from time to time by the Authority and which is or ought to be or has been in the control or possession of the Licensee.

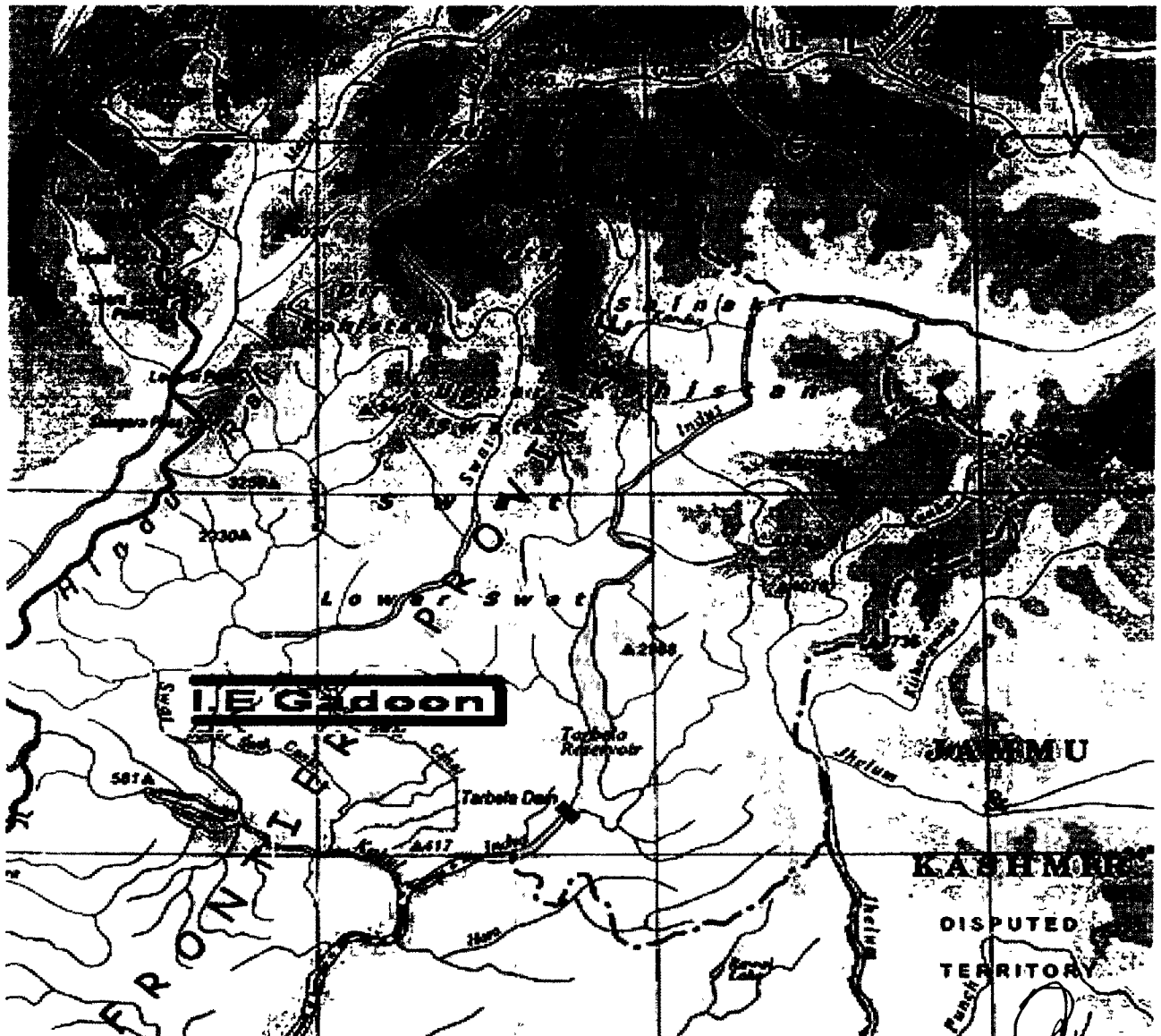


**SCHEDULE-I**  
**Revised/Modified**  
**Modification-I**

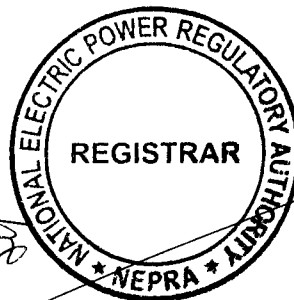
The Location, Size (i.e. Capacity in MW), Type of Technology, Interconnection Arrangements, Technical Limits, Technical/Functional, Specifications and other details specific to the Generation Facilities of the Licensee are described in this Schedule.



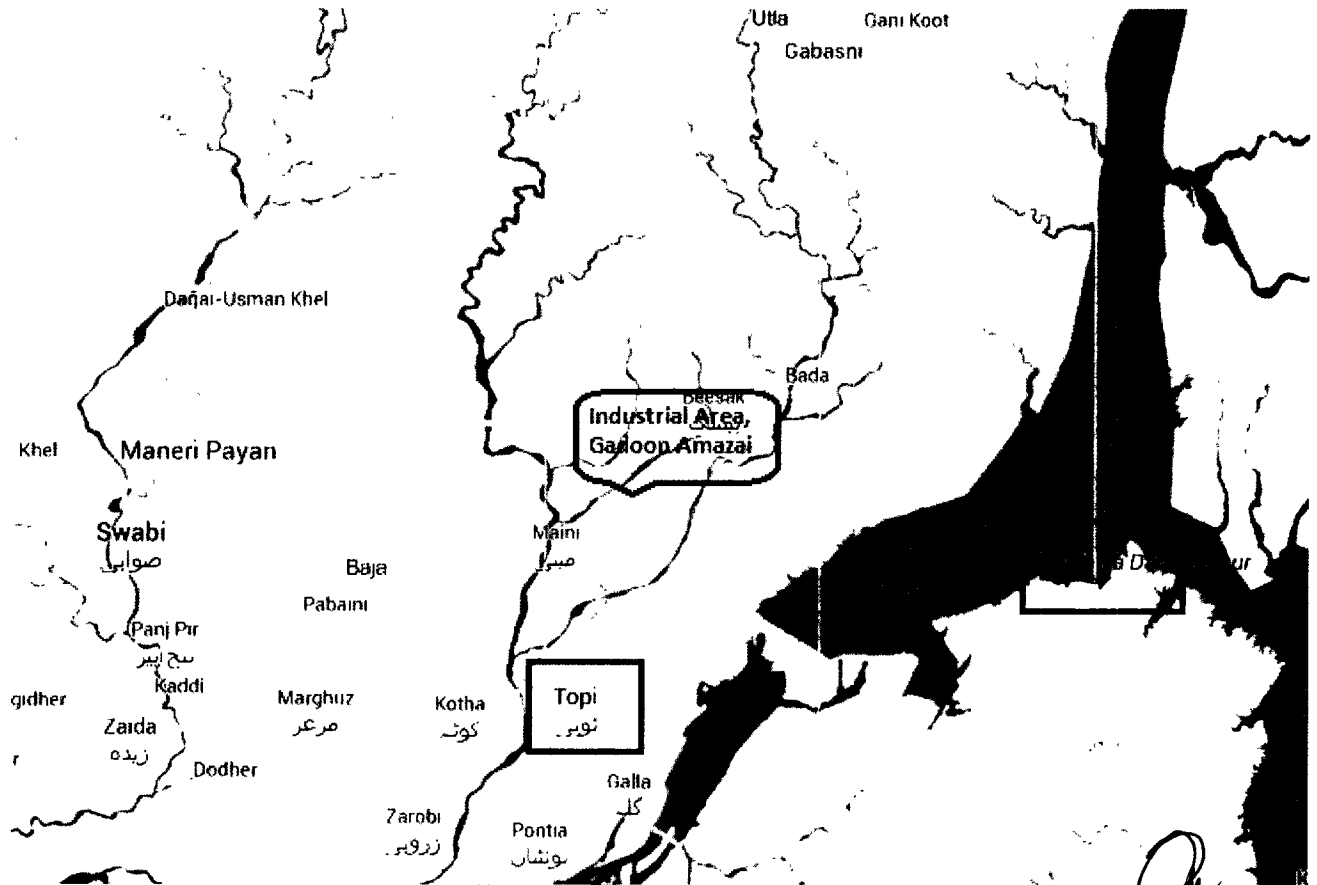
## Location of the Generation Facility of the Licensee



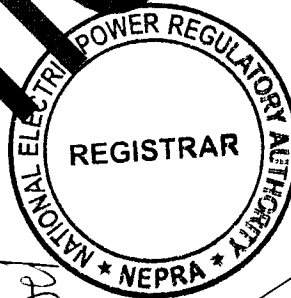
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## Location of the Generation Facility of the Licensee

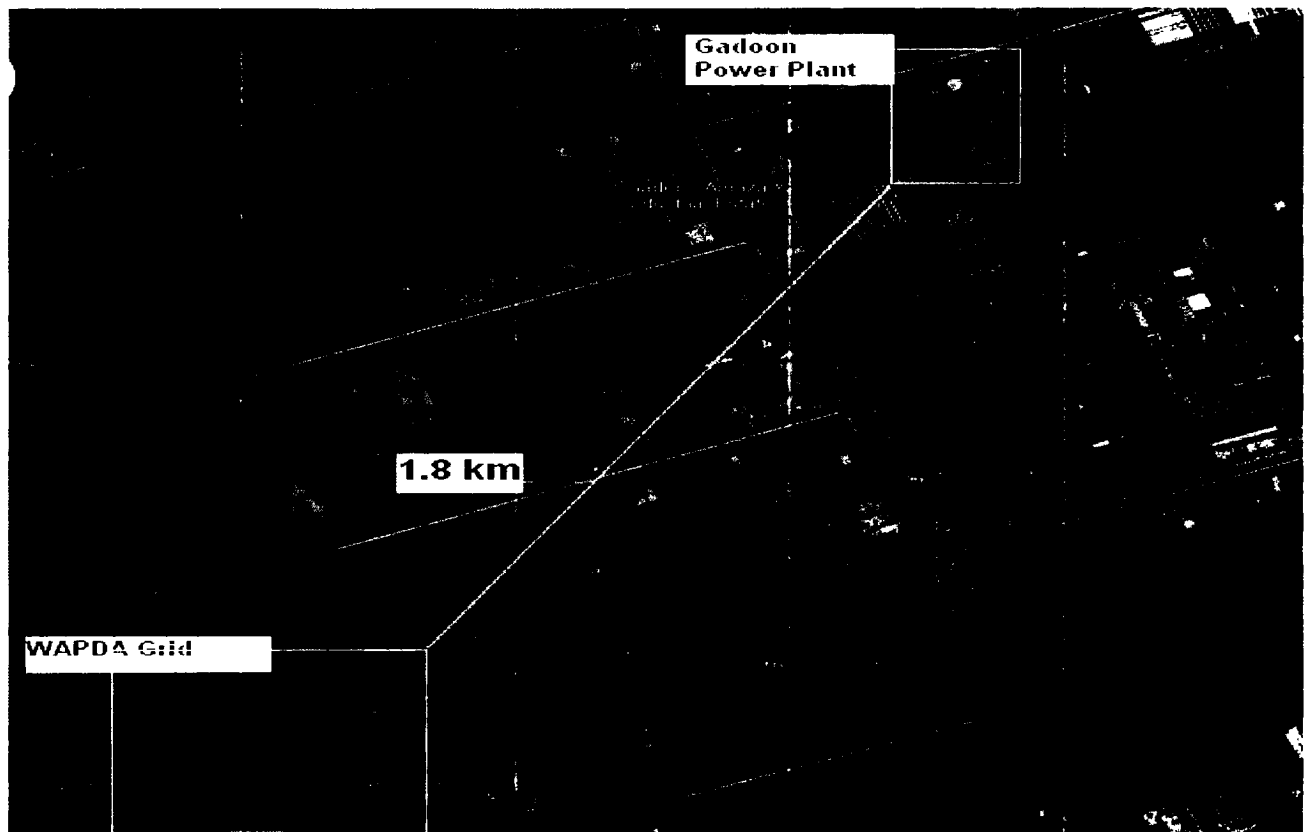


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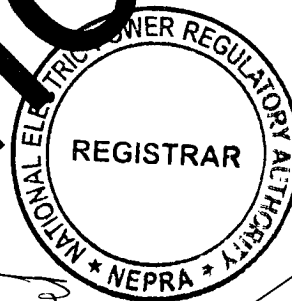




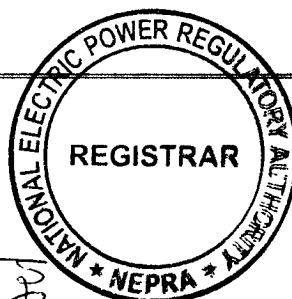
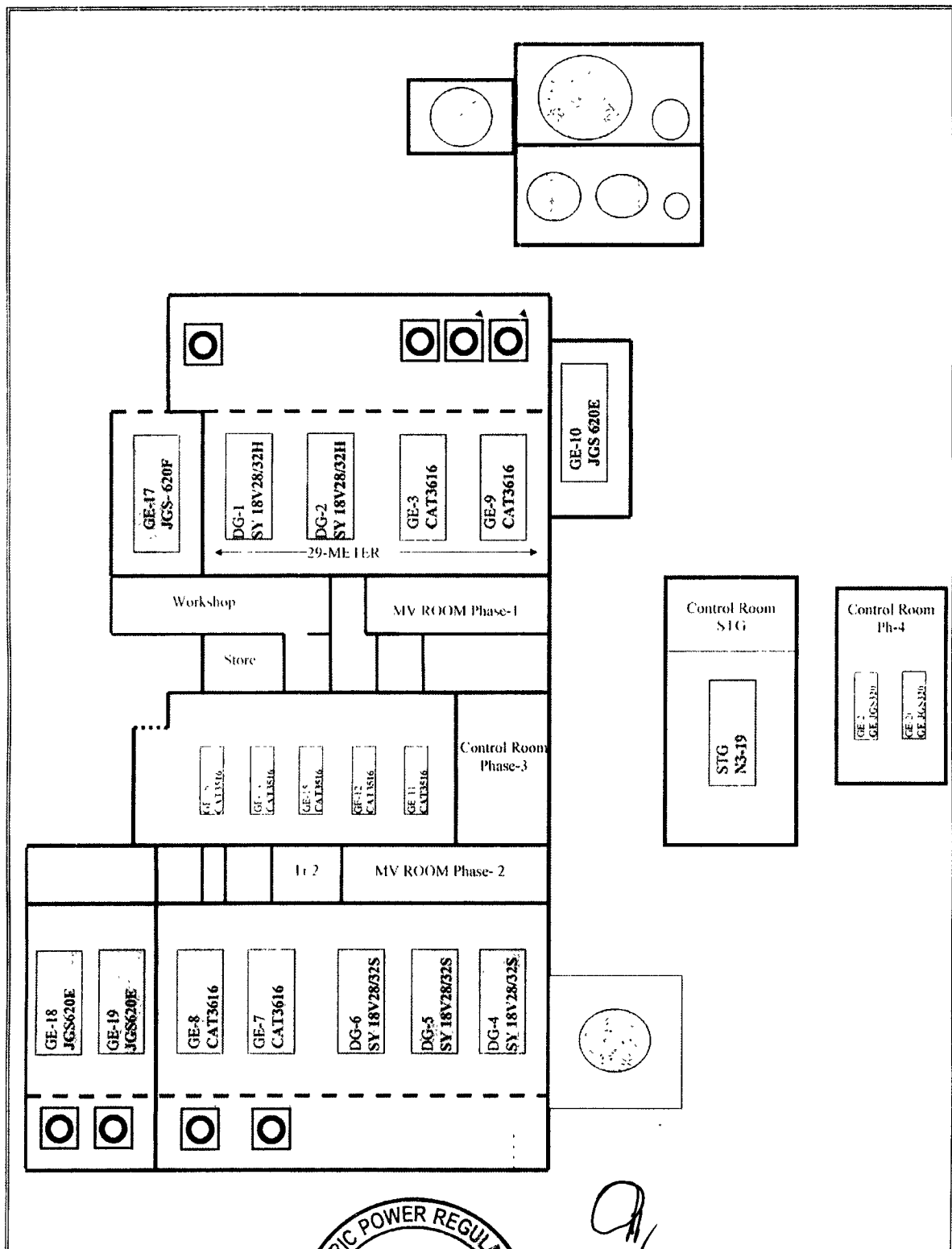
## Location of Generation Facility of the Licensee



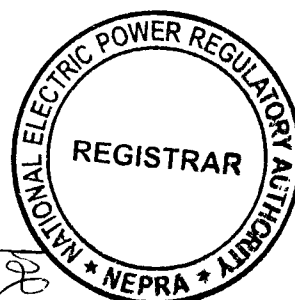
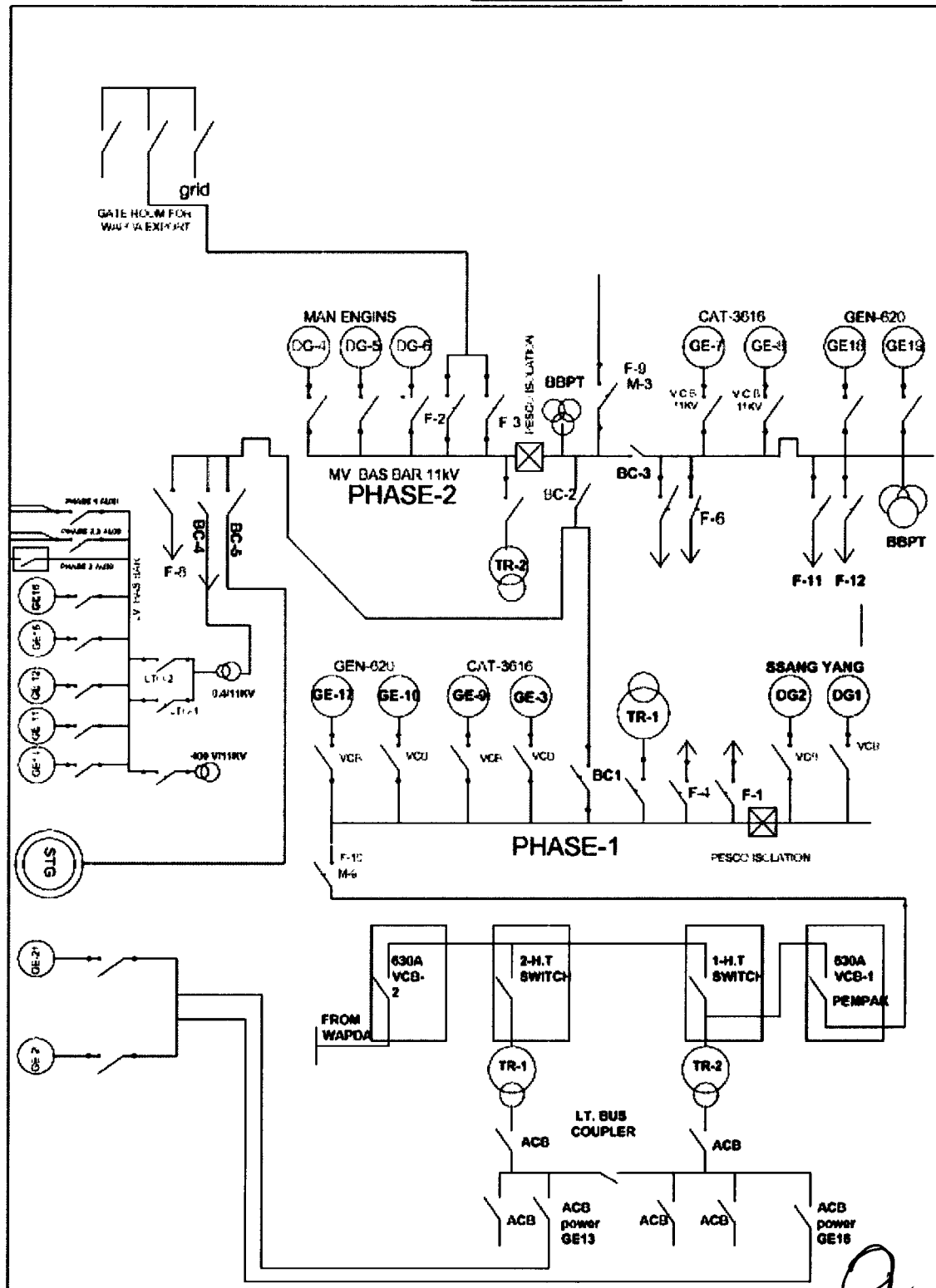
**Modified**



## Layout of the Generation Facility of the Licensee



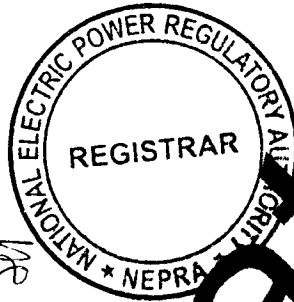
## Single Line Diagram (Electrical) of Generation Facility of the Licensee



**Interconnection/Transmission**  
**Scheme for Dispersal of Power from Gadoon Textile Mills Limited**  
**(GDTML)**

GDTML will finalize the interconnection arrangement in consultation with the Power Purchaser (either any XW-DISCO or Bulk Power Consumer).

The agreed Interconnection between GDTML and the Power Purchaser will be submitted for the information/approval of the Authority before the start of supply.



Modification

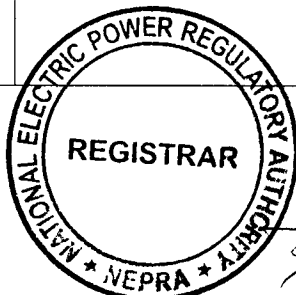
**Details of  
the Generation Facility/  
Power Plant**

**(A). General Information**

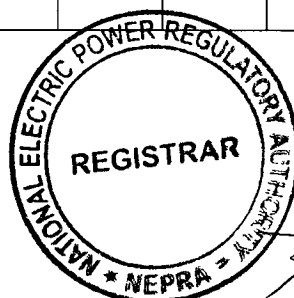
(i).	Name of the Company/Licensee	Gadoon Textile Mills Limited
(ii).	Registered/ Business Office	7-A, Muhammad Ali Housing Society, Abdul Aziz Hashmi Street, Karachi
(iii).	Location of the Generation Facility	Gadoon Amazai Industrial Estate, District Swabi in the Province of Khyber Pakhtunkhwa
(iv).	Type of Generation Facility	Thermal Generation Facility.

**(B). Plant Configuration**

(i).	Size/Installed Capacity of the Generation Facility (Gross ISO)	56.47 MW								
(ii).	Type of Technology	Residual Furnace Oil and Natural Gas Operated Reciprocating Engines								
(iii).	Number of Units /Size (MW)	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		2	3	4	1	6	1	2	2	1
		x	x	x	x	x	x	x	x	x
		3.75	4.10	3.65	3.04	0.965	3.34	3.04	1.067	2.66
(iv).	Unit Make/ Model/ Year Manufacture	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
	of	Ssang Yong/ 18V28/ 32H 1998	MAN B&W/ 18V28/ 32S/ 2003	Caterpillar/ CAT 36 16G/ 2002-2004	GE Jenbacher 620E 01/ 2005	Caterpillar/ CAT 35 16/ 1993-94	GE Jenbacher /JG-6 20F 101/ 2011	GE Jenbacher 620E 101/ 2013	GE Jenbacher 320 /2014	HTC N3-19/ 2014



(v).	Commissioning / Commercial Operation date (of each Unit of the Generation Facility)	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		1999	2003	2003-2005	2005	2006	2011	Nov 2014	Dec 2014	Sep 2015
(vi).	Minimum Expected Life of Each Unit of the Generation Facility from Commercial Operation/ Commissioning Date.	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		25 Years	25 Years	25 Years	25 Years	25 Years	25 Years	25 Years	25 Years	20 Years
(vii).	Remaining Expected Useful Life of Each Unit of the Generation Facility/Power Plant at the time of Grant of Original Generation Licence (No. SGC/91/2013 dated September 26, 2013).	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		11 Years	15 Years	15-17 Years	17 Years	18 Years	23 Years	N.A	N.A.	N.A.
(viii).	Remaining Expected Useful Life of the Facility of Each Unit at the time of issuance of this Modification-I Dated September 14 <sup>th</sup> 2015.	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		09 Years	13 Years	13-15 Years	15 Years	16 Years	21 Years	25 Years	25 Years	20 Years

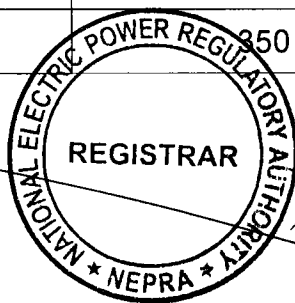


(C). Fuel Details

(i).	Primary Fuel	Heavy Furnace Oil (HFO) + Natural Gas		
(ii).	Alternate Fuel	Diesel Oil (DO) for HFO Engines + Not Applicable for Gas Engines		
(iii).	Start Up Fuel	Same as for alternative Fuel		
(iv).	Fuel Source for each of the above (i.e. Imported/Indigenous)	HFO	Natural Gas	DO
		Indigenous + Imported	Indigenous	Indigenous + Imported
(v).	Fuel Supplier for each of the above	HFO	Natural Gas	DO
		PSO/Shell/Caltex/Total/any other OMC	Sui Northern Gas Pipeline Limited (SNGPL)	PSO/Shell/Caltex/Total/any other OMC
(vi).	Supply Arrangement for each of the above	HFO	Natural Gas	DO
		Tankers through Road Transportation	Pipe Line	Tankers through Road Transportation
(vii).	No of Storage Tanks	HFO	Natural Gas	DO
		2	-	1
(viii).	Storage Capacity of each Tank	HFO	Natural Gas	DO
		800 Tons + 2000 Tons	-	650 M <sup>3</sup>
(ix).	Gross Storage	HFO	Natural Gas	DO
		2800 Tons	-	650 M <sup>3</sup>

(D). Emission Values

	HFO	Natural Gas
(i). SOx	350 p.p.m	N/A



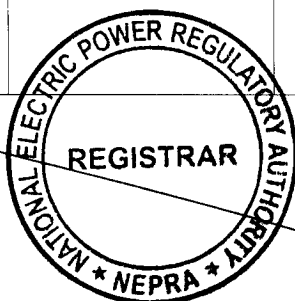
(ii).	NOx	900 p.p.m	<650 mg/Nm3
(iii).	CO	70 p.p.m.	<986 mg/Nm3
(iv).	PM10	-	N/A

**(E). Cooling System**

(i).	Cooling Water Source/Cycle	Through Tube-Well installed at Site/Closed Loop
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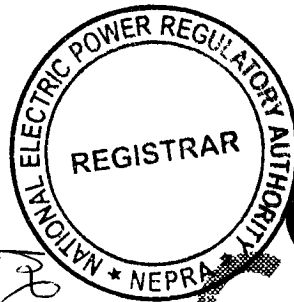
**(F). Plant Characteristics**

(i).	Generation Voltage	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12,14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		11 KV	11 KV	0.4 KV	11 KV	11 KV	11 KV	11 KV	0.4 KV	11 KV
(ii).	Frequency	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12,14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
(iii).	Power Factor	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12,14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing	0.8 Lagg-ing
(iv).	Automatic Generation Control (AGC)	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12,14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes





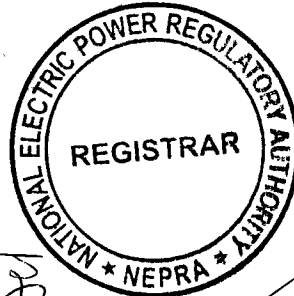
(v).	Ramping Rate	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		40% /min	40% /min	20% /min	18% /min	20% /min	18% /min	18% /min	20% /min	Will be provided later
(vi).	Time required to Synchronize to Grid and loading the complex to full Load.	Unit No. 1-2	Unit No. 3-5	Unit No. 6-9	Unit No. 10	Unit No. 11-12, 14-16	Unit No. 17	Unit No. 18-19	Unit No. 20-21	Unit No. 22
		5~10 min	5~ 10 min	N/A	N/A	N/A	N/A	N/A	N/A	N/A



**Modification-I**

**SCHEDULE-II**  
**Revised/Modified**  
**Modification-I**

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 Licensee is given in this Schedule



## **SCHEDULE-II**

(1).	Gross Installed Capacity of the Generation Facility	56.47 MW
(2).	Gross De-rated Capacity of the Generation Facility at Mean Site Conditions	55.0 MW
(3).	Auxiliary Consumption of the Generation Facility	2.0 MW
(4).	Net Capacity of the Generation Facility at Mean Site Conditions	53.0 MW

**Note:-**

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

