



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad.

Tel : 9207200,9205225 Fax : 9210215

E-mail: office@nepra.org.pk

No. NEPRA/R/LAG-84 / 6600-01

06.09.2006

Mr. M. Adil Khattak
Chief Executive Officer
Attock Gen Limited
Refinery P.O. Morgah
Rawalpindi.

Subject: **Generation Licence IGSP/08/2006**
Licence Application No. LAG-84
Attock Gen Ltd. (AGL)

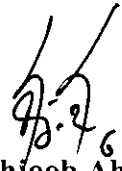
Please refer to your application No. AGL/po/5,310.99/060616(2) dated 16.06.2006.

2. Enclosed here is Generation Licence No. IGSP/08/2006 granted by the Authority to Attock Gen 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.

DA/as above.




(Mahjoob Ahmad Mirza)

Copy for information to Director General, Pakistan Environmental Protection Agency,
H. # 311, Main Margalla Road, F-11/3, Islamabad.

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

GENERATION LICENCE

No. IGSPL/08/2006

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:

Attock Gen Limited (AGL)

Incorporated under the Companies Ordinance, 1984
Under Certificate of Incorporation


No. 00000004979/20051201 Dated December 1, 2005

For its Plant at Morgah, Rawalpindi

(Installed Capacity: 165.285 MW Gross ISO)

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

Given under my hand this 1st day of SEPTEMBER Two
Thousand & Six, and expires on 28th day of FEBRUARY, Two
Thousand & THIRTY THREE.



Registrar



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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 (XL of 1997);
- (b) "Authority" means the National Electric Power Regulatory Authority constituted under section 3 of the Act;
- (c) "Licensee" means Attock Gen Limited (AGL)
- (d) "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.

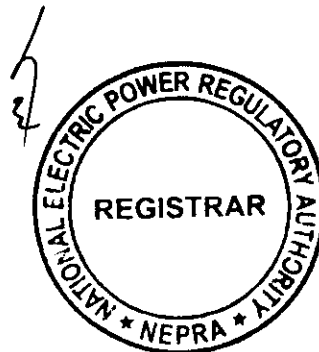
Article 2 Application of Rules

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.

[Handwritten signatures and initials]



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

4.1 The Licence is granted for a term of twenty five (25) 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

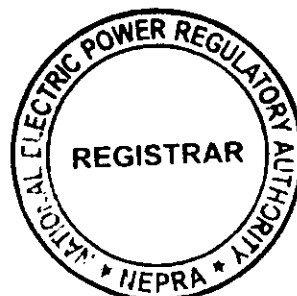
After the grant of the Generation Licence, the Licensee shall pay to the Authority the Licence fee, in the amount and manner and at the time set out in National Electric Power Regulatory Authority (Fees) Rules, 2002.

Article 6 Tariff

The Licensee shall charge only such tariff which has been approved or specified by the Authority.

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 standards 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.

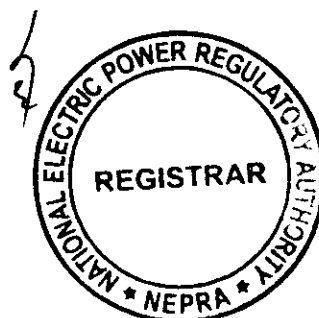
Article 10 Compliance with Environmental Standards

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

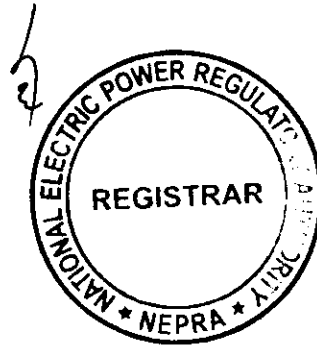
11.1 The obligation of the Licensee to provide information to the Authority shall be in accordance with Section 44 of the Act.

[Handwritten signatures and initials]



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 have been in the control or possession of the Licensee.

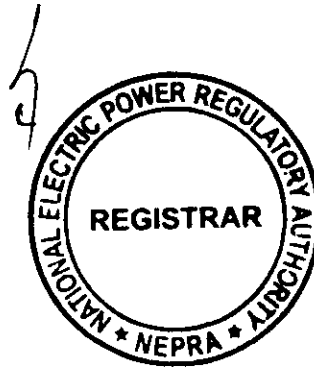
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SCHEDULE-I

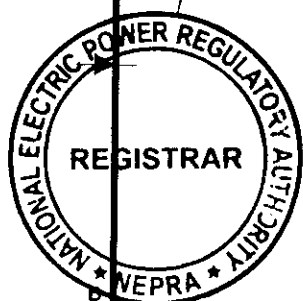
The location, size (capacity in MW) technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the Generation Facilities of the Licensee.

Handwritten signatures and initials:
1. A signature that appears to be "Jm".
2. A signature that appears to be "Hm".
3. The letter "b".
4. A checkmark "✓".



This is a high-contrast, black and white aerial photograph of the Attock area in Bangladesh. The map is oriented with North at the top. Key features include:

- Proposed AGL Site:** A large, rectangular area in the upper center, outlined with a dashed line and labeled "Proposed AGL Site".
- Attock Refinery Ltd:** A large industrial complex located just below the proposed site, labeled "Attock Refinery Ltd".
- Gas Pipeline:** A line labeled "Gas Pipeline" runs horizontally across the middle of the map, passing through the refinery area.
- Play Land:** A rectangular area labeled "Play Land" is located to the right of the refinery.
- Drainage Channel:** A prominent, winding dark feature labeled "DRAINAGE CHANNEL" runs diagonally from the bottom left towards the center.
- Surrounding Area:** The map shows a dense urban or industrial landscape with numerous buildings, roads, and smaller structures.
- Logos:**
 - A circular logo at the top center reads "REGULATORY AUTHORITY".
 - A circular logo at the bottom center reads "ATTOK GEN LIMITED" and "AGL POWER PROJECT".
- Text Labels:** Various other labels are scattered throughout, including "Attok", "Play Land", "Drainage Channel", and "DRAINAGE CHANNEL".



AREA:-

A-	32721 Sft	6.00	Main Power Plant +
C-B	36564 Sft	6.72	Control Room +
D-	120870 Sft	22.22	Workshop
E-	81955 Sft	15.06	Switch Yard

TOTAL = 50.00

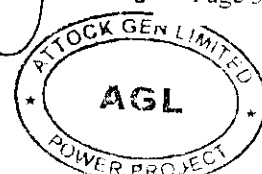
LEGEND:-

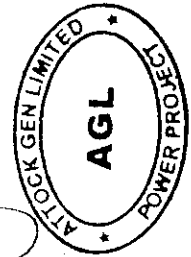
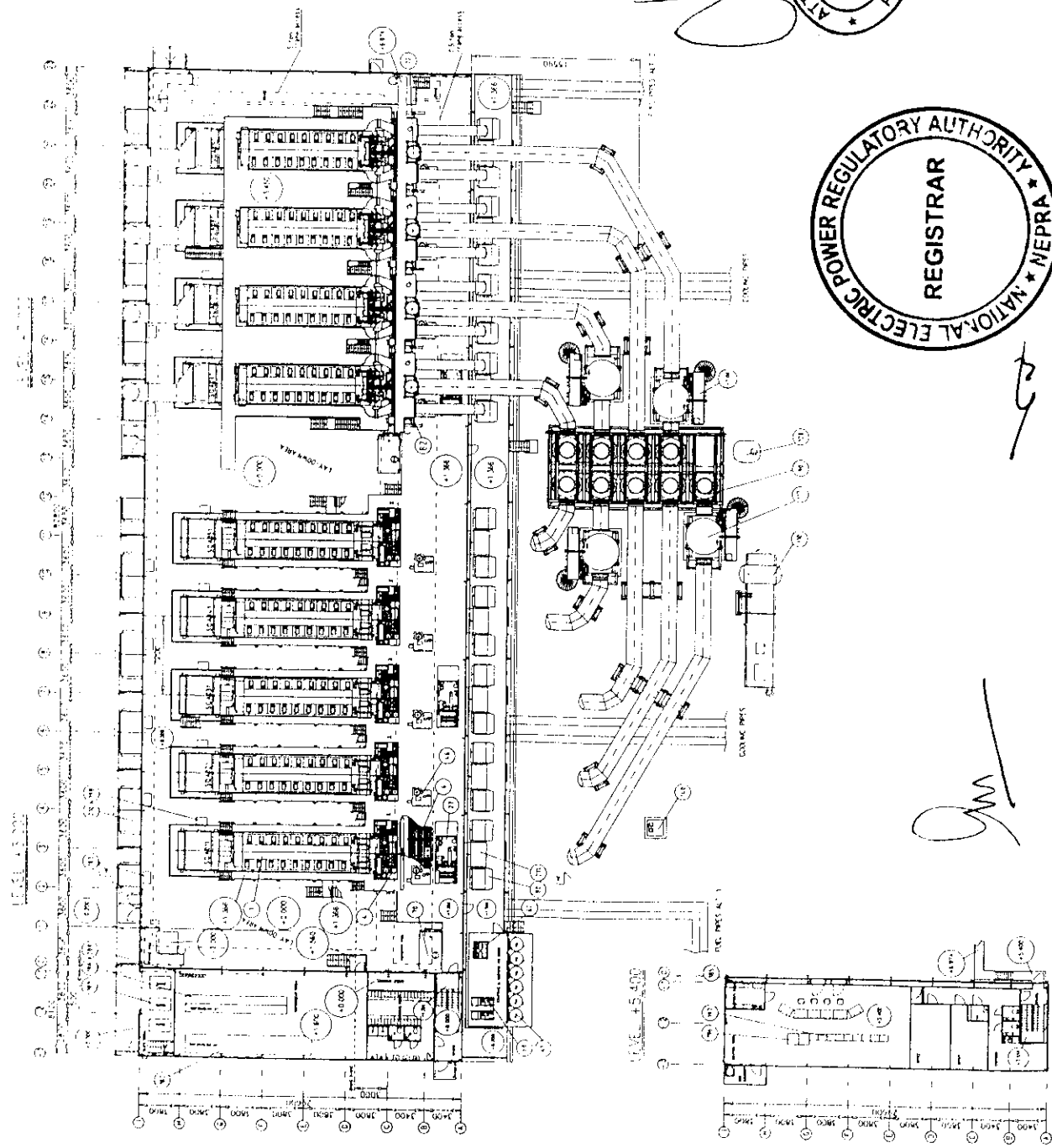


AGL PROPOSED LOCATION

REVISED	---	STARIQ	11AUG2006
REVISED	---	STARIQ	30MAY2004
ISSUED FOR REVIEW	---	STARIQ	26APR2004
REV	DESCRIPTION	CHKD	APPD
APPD	STARIQ	---	SHAKEEL
SCALE	1:1	DATE	26APR2004

DEPARTMENT ENGINEERING		ARL Attock Refinery Limited	
NOTICE THIS DRAWING IS THE PROPERTY OF ATTOCK REFINERY LIMITED AND SHALL NOT BE REPR- -ODUCED, LOANED OR DISCLOSED WITHOUT THE PRIOR WRITTEN APPRO- -VAL OF ARL		JOB TITLE: PROPOSED 150 MW POWER PLANT	
		DWG. TITLE: SITE PLAN	
JOB NO 1/31	SHEET SIZE 1131-CL-001	DWG NO 1131-CL-001	REV. D

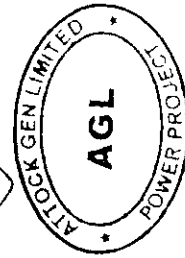
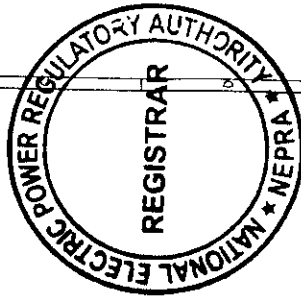




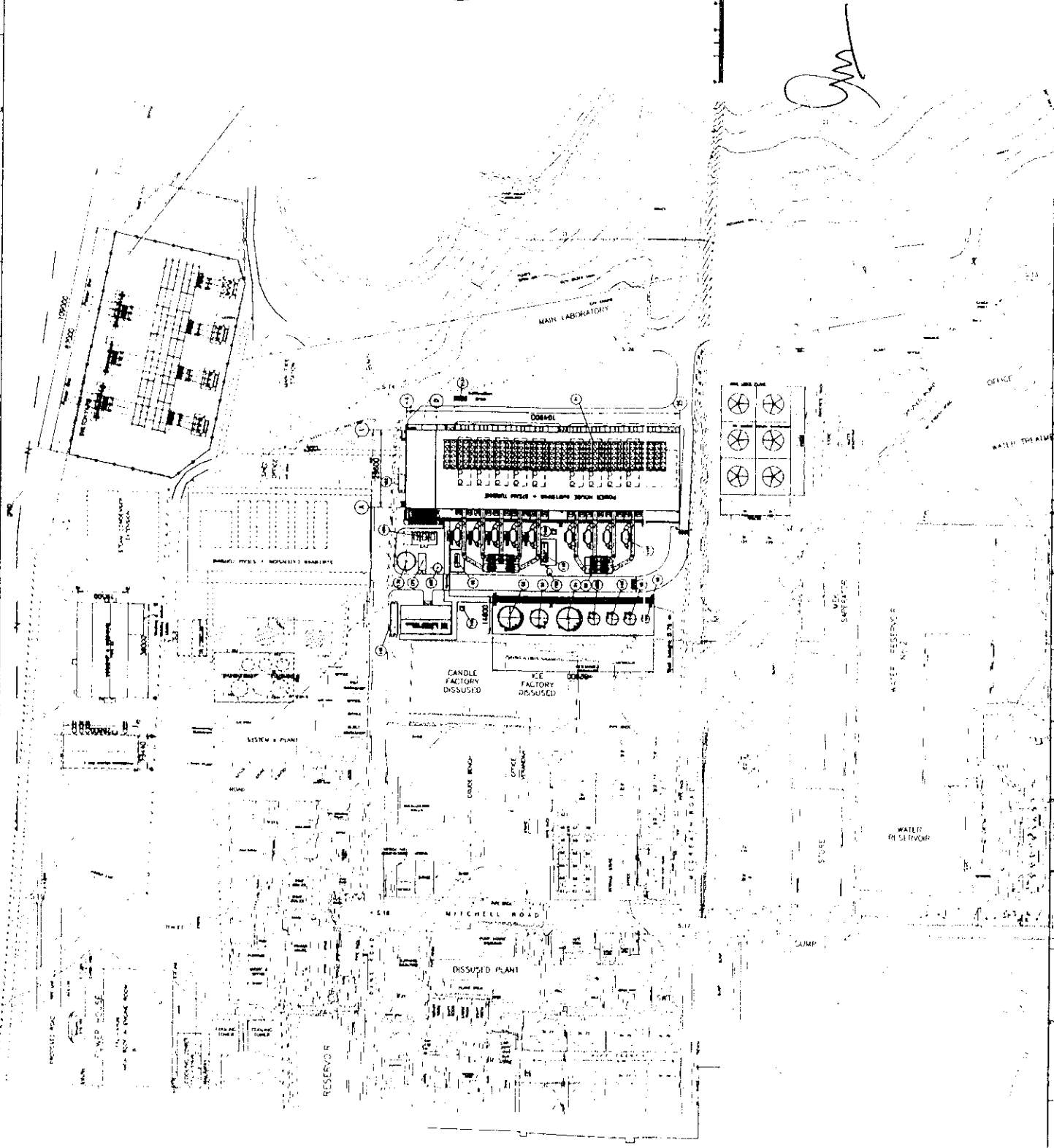
FOR TENDERING ONLY

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Sl. No.	Particulars	Amount	Remarks
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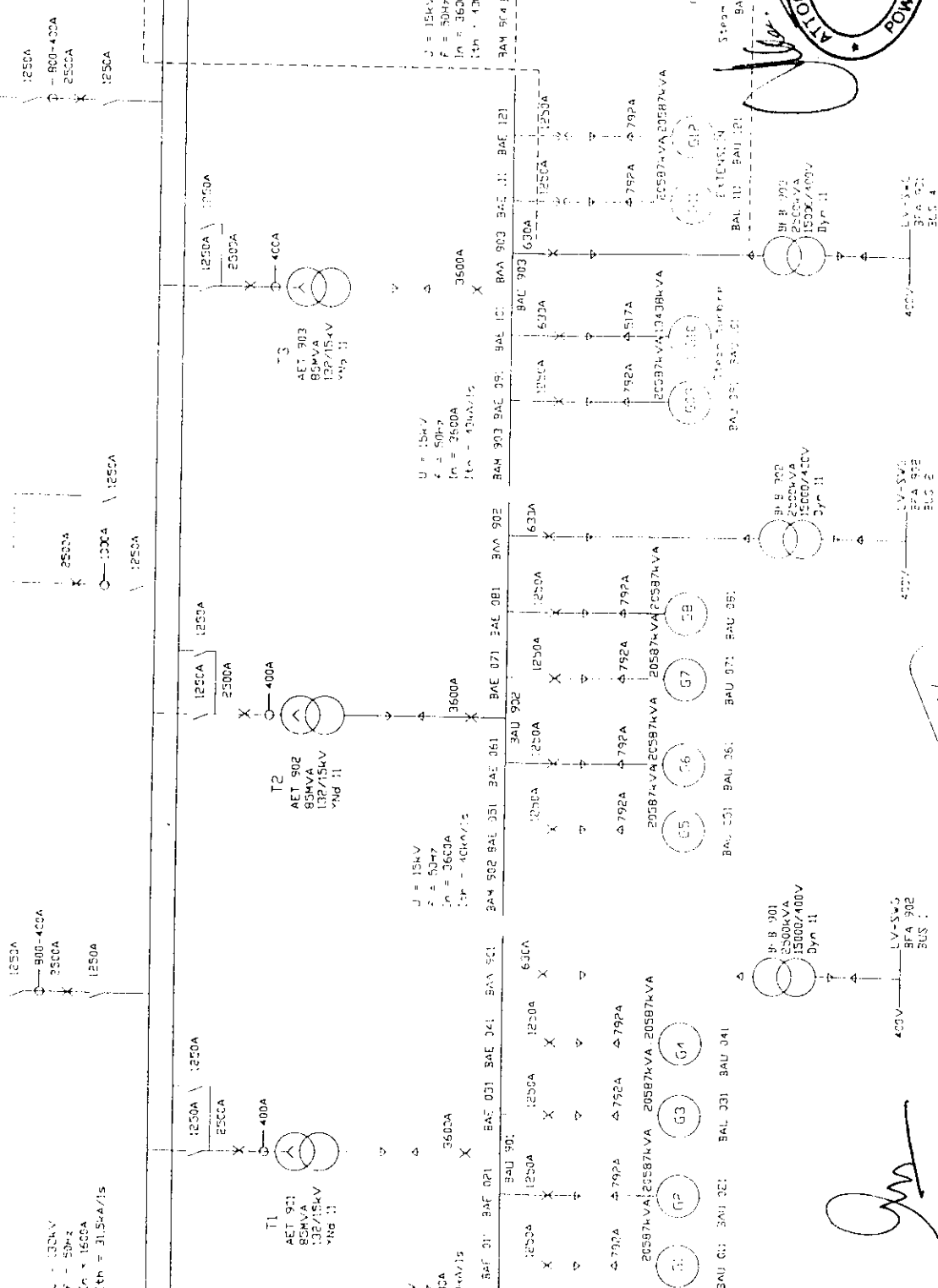


OUTGING :

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Client supply

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Plant Details

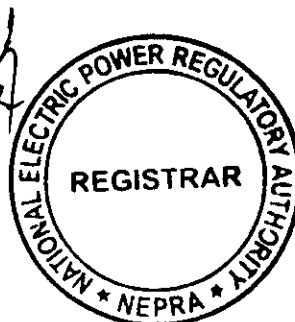
1. General Information

i.	Name of Applicant	Attock Gen Limited (AGL)
ii.	Registered Office	P.O. Morgah, Rawalpindi
iii.	Business Office	14-D, Morgah, Rawalpindi
iv.	Plant Location	Attock Refinery Limited (ARL)
v.	Type of Generation Facility	Thermal (Combined Cycle)

2. Plant Configuration

i.	Plant Size Installed Capacity Gross ISO	165.285 MW
ii.	Type of Technology	Diesel Combined Cycle Technology
iii.	Number of Units/Size	9x 17.0305MW (Diesel Generating Sets)
		1x12.01 Mw (Steam Turbine)
iv.	Unit Make & Model	Wartsila/W18V46
		Steam Turbine
v.	De-rated Capacity at site conditions	159.834 MW
vi.	Auxiliary Consumption	3.696 MW
vii.	Commissioning and Commercial Operation date	February, 2008 (Anticipated)
viii.	Expected Life of the Facility from Commercial Operation Date	25 Years

[Handwritten signatures]



3. Fuel Details

i.	Primary Fuel	RFO
ii.	Alternative Fuel	LFO/HSD
iii.	Back-up Fuel	HSD
iv.	Fuel Source (Imported/Indigenous)	Indigenous
v.	Fuel Supplier	Attock Petroleum Limited (APL)
vi.	Supply Arrangement	Through pipeline.
vii.	No of Storage Tanks	5 storage tanks available with ARL. Tanks of adequate quantity to be leased for AGL.
viii.	Storage Capacity of each Tank	Total 33, 600 tons in 5 tanks of different sizes at ARL.
ix.	Gross Storage	33600 Tons at ARL.

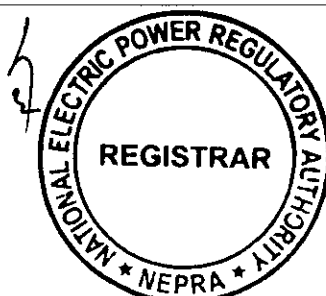
4. Emission Values

i.	SO _x	<table><tr><td>RFO</td><td>HSD</td></tr><tr><td>20 g/s</td><td>-</td></tr></table>	RFO	HSD	20 g/s	-
RFO	HSD					
20 g/s	-					
ii.	NO _x	<table><tr><td>67 g/s</td><td>-</td></tr></table>	67 g/s	-		
67 g/s	-					
iii.	PM ₁₀	<table><tr><td>1.7 g/s</td><td>-</td></tr></table>	1.7 g/s	-		
1.7 g/s	-					

5. Cooling System

i.	Cooling Water Source/Cycle	Attock Refinery Limited/Closed loop (Shared/Leased)
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[Handwritten signatures and marks]



6. Plant Characteristics

i.	Generation Voltage	15.0KV
ii.	Frequency	50 Hz
iii.	Power Factor	0.8
iv.	Automatic Generation Control	Yes
v.	Ramping Rate	60 Minutes cold/ 30 minutes hot/Steam Turbine Generator 2 hours after Diesel Generator Sets achieved full load
vi.	Time required to Synchronize to Grid and loading the complex to full load.	As per dispatch

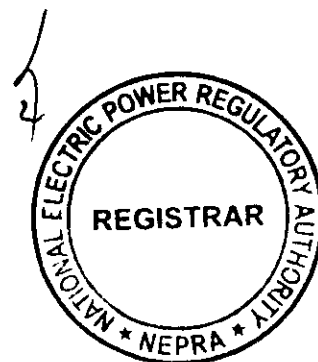
12/10/2012



SCHEDULE-II

The net capacity of the Licensee's Generation Facilities

1 →  b ✓



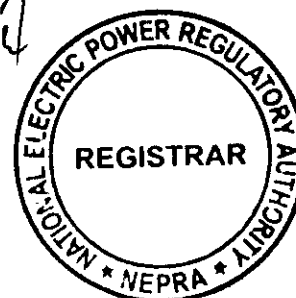
SCHEDULE-II*

1.	Installed Capacity Gross ISO	165.285 MW
2.	De-rated Capacity at Site Conditions	159.834 MW
3.	Auxiliary Consumption	3.696 MW
4.	Net Capacity of the Plant at Site Conditions	156.138 MW

Note

All the above figures are indicative as provided by the Licensee. The Net Capacity available to NTDC for dispatch and other purchasers will be determined through procedures contained in the Agreements or Grid Code.

69 Jan 10 2

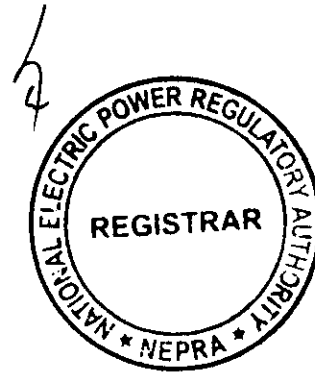


* As provided by the applicant

INTERCONNECTION SCHEME FOR THE POWER DISPERSAL OF THE PLANT

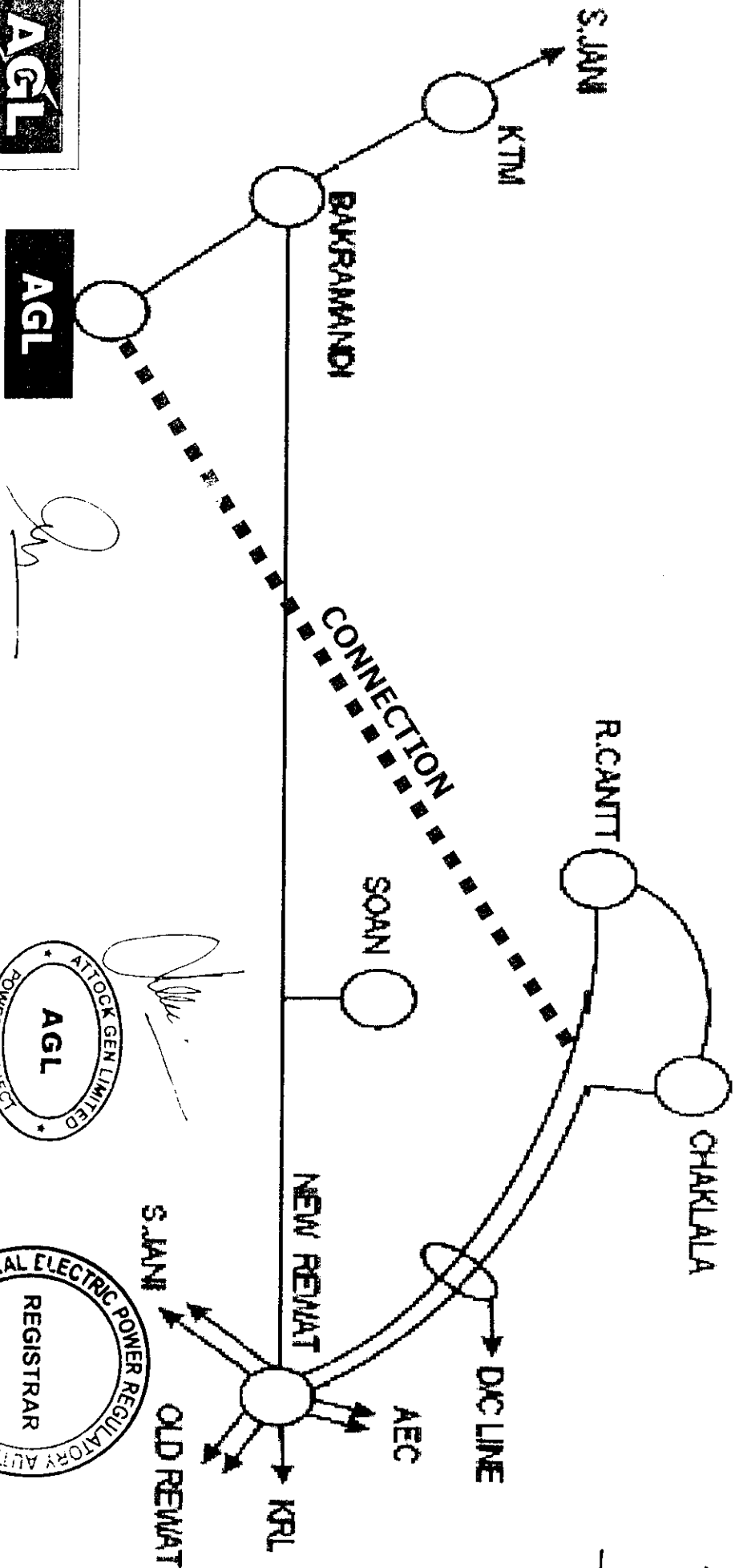
The power generated from the power plant shall be dispersed to the system directly within the load center of IESCO by constructing a new 132 KV Double Circuit Transmission Line having a length of 3 Kilometers (on AASC Greeley Conductor) for making In-Out arrangement of the existing 132 KV Rawalpindi Cantt-New Rewat transmission line at AGL grid station.

12/9/2016

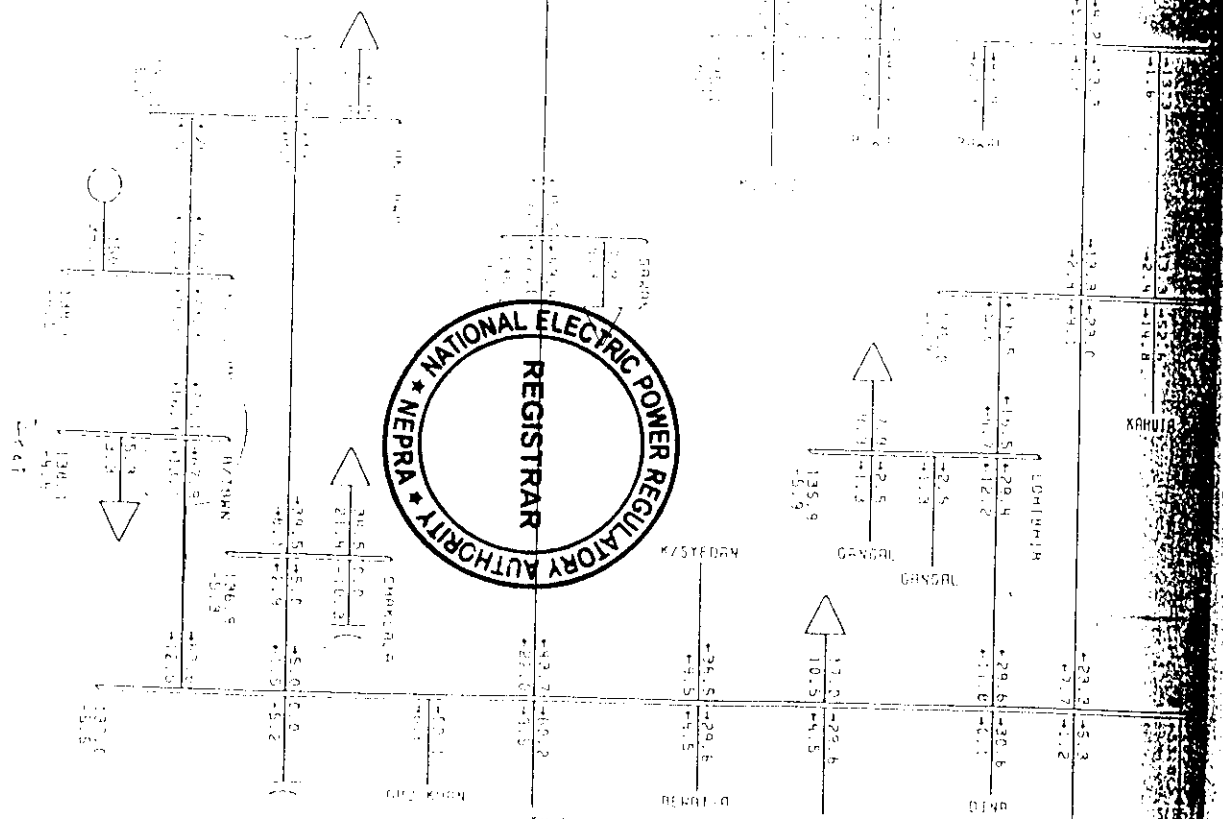
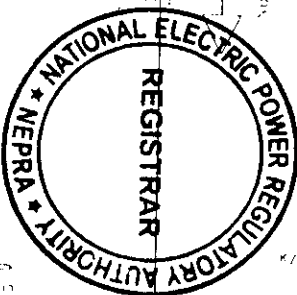
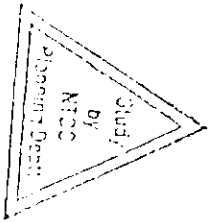


Interconnection at 132 Kv with New Rewat, Rawalpindi Cantt. Grid Stations.

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PEAK LOAD 900.7/SEP. 2007
STUDY FOR 150MW GCL POWER PLANT



STUDY FOR INTERCONNECTION OF 150MW GCL POWER PLANT
PEAK LOAD 900.7/SEP. 2007
DATE 02 MAR 2004 13:20

EXHIBIT # 1

National Electric Power Regulatory Authority
NEPRA

September 1, 2006


Application No. LAG-84

**Determination of the Authority in the Matter of Grant of
Generation Licence to Attock Gen Limited (AGL)**

Attock Refinery Limited (ARL) is a Private Limited Company for refining petroleum products near Morgah, Rawalpindi. In the process it is producing Residual Fuel Oil/Low Sulphur Fuel Oil (RFO/LSFO). ARL has established AGL, as a special purpose Company for setting up a 165.285 MW (Gross) ISO Reciprocating Engine Combined Cycle power plant at ARL, Morgah, Rawalpindi for use of its own production of LSFO.

2. AGL, in accordance with Section 15 of NEPRA Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997), submitted an application on June 20, 2006 for the grant of a licence for its proposed generation facility. The application was admitted by the Authority on July 19, 2006.

3. As per the application submitted by AGL, the feasibility report of the project was prepared by M/s Electrowatt-Ekono Oy of Finland in collaboration with Elan Partners and Research & Development Consultants of Pakistan. The project is scheduled to be commissioned by February, 2008. The electricity generated from the proposed power plant will be procured by National Transmission and Despatch Company (NTDC). The power of the plant is proposed to be dispatched through 132 kV, 3 km-double circuit transmission line, to be constructed by NTDC. The newly constructed transmission line will be made In-Out at the proposed power plant by connecting Rawalpindi Cantt. and New Rawat 132 kV grid stations.

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4. NTDC vide letter No.COO/CPPA/CE-II/1096 dated 01.02.2006 requested for permission of procurement of power from AGL to the extent of 160.06 MW, which was granted by the Authority vide its decision of February 24, 2006.

5. Pursuant to Regulation 8 of the NEPRA Licensing (Application and Modification Procedure) Regulation, 1999, the advertisement was published in daily news papers on July 21, 2006 soliciting comments from the interested/affected parties and general public. After considering the comments, the Authority held a hearing/conference on August 15, 2006 which was attended by the applicant, representatives of NTDC, IESCO and other experts/interested persons invited to participate in the hearing. No comments or view points were received in opposition to the grant of Generation Licence to AGL.

6. During the hearing AGL presented salient points of the project explaining that the proposed plant will be Reciprocating Engine Combined Cycle Power Plant with an installed capacity of 165.285 MW (gross) at ISO conditions. The power plant will comprise of 09 Reciprocating Engine generating sets (9x17.0305 MW), 09 Heat Recovery Steam Generators (HRSGs), and a Steam Turbine with an installed capacity of 12.01 MW. AGL further explained that the de-rated capacity of the plant will be 159.834 MW (gross) at mean site conditions (MSC) and net generating capacity of the plant will be 156.138 MW at MSC after taking in to account the auxiliary consumption of 3.696 MW.

7. The following points were explained during the hearing by AGL and commented on by other participants:

- Selection of Reciprocating Engines instead of Gas/Steam Turbines
- Term of Licence
- Availability/Reliability of Plant Operation.



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- Provision of primary and back up fuel storage
- Financing of Interconnection and Transmission Facilities (IF/TF)

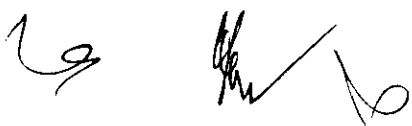
8. The applicant, interested persons and NTDC were heard and the issues were discussed during the hearing. The Participants proffered their comments and submitted arguments supporting their stance.

9. The Authority observes that the proposed technology will utilize indigenous LSFO produced at the refinery as primary fuel which will not only result in savings of foreign exchange but also increase Energy Security by effective utilization of indigenous fuel. It is also expected that the project will be able to achieve completion earlier than the technologies being considered to meet the immediate demand gap. In view of un-assured gas supply in the future and the imminent shortage of Generating Capacity with respect to Peak Demand, it would be in the interest of the consumers as well as the general public to utilize LSFO produced within the country for electricity generation.

10. The plant is located at Morgah, Rawalpindi, and it is expected to supply the load of IESCO at the load center. It will thus be compensating for the shortage of Hydel Power in winter months when Hydel Power in the north is unable to meet the winter demand of PESCO and IESCO.

11. Regarding term of licence, the Authority considers that a reasonable expectation of life of the equipment that is proposed to be installed is 25 years. Therefore, the term of the Licence is being granted for 25 years.

12. The Authority considers that the overall power system reliability of the area will improve with the addition of the proposed thermal power plant in the system generally served by a fluctuating Hydel generation. The quality of supply is also expected to be improved through increased reactive support and generation near load requirement.

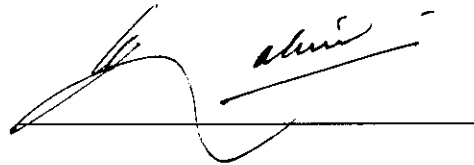
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13. Regarding provision of primary and backup fuel; the parent Company ARL has assured that sufficient resources are available to produce, store and supply LSFO to adjacent AGL plant.

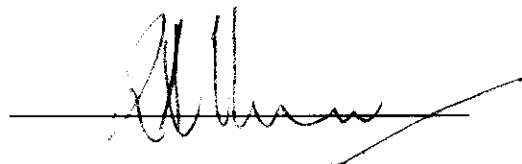
WITH THIS, the Authority hereby approves the grant of Generation Licence to M/s Attock Gen Limited in the terms and form as annexed to this determination. The grant of such a Licence would be subject to the provisions contained in the NEPRA Act and the relevant Rules framed thereunder.

Authority

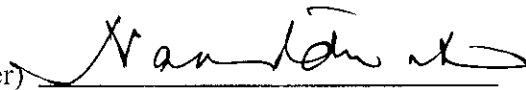
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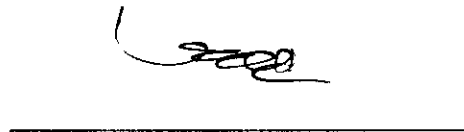
Zafar Ali Khan (Member)

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Nasiruddin Ahmed (Vice Chairman/Member)

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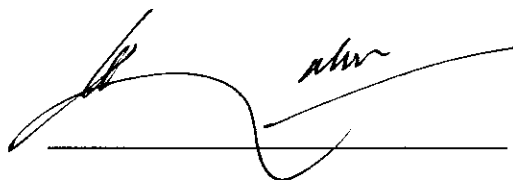
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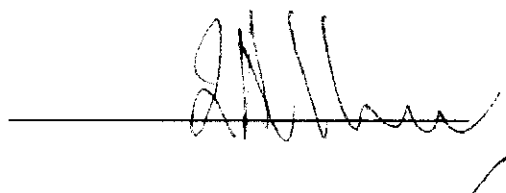
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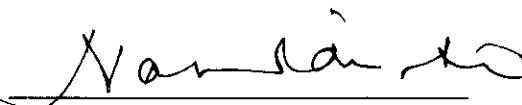
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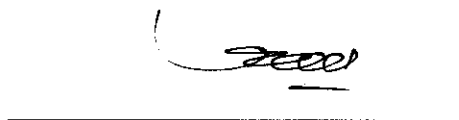
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