

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

September 04, 2006

No. NEPRA/R/LAG-85 16579-80

Managing Director Halmore Power Generation Company (Pvt.) Ltd. 3-B, ATS Center, 30 West, Fazal-e-Haq Road, Blue Area, Islamabad

Subject:

Grant of Generation Licence IGSPL/07/2006

Licence Application No. LAG-85

Halmore Power Generation Company (Pvt.) Ltd. (HPGCL)

Please refer to your application No. nil dated June 23, 2006 to NEPRA for a Generation Licence.

2. Enclosed here is Generation Licence No. IGSPL/07/2006 granted by the Authority to Halmore Power Generation Company (Pvt.) Ltd. (HPGCL). 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. in your future correspondence with the Authority.

DA/as above.

(Mahjoob Ahmad Mirza)

Copy for information to Director Generation, Pakistan Environmental Protection Agency, House No. 311, Main Margalla Road, F-11/3, Islamabad.



National Electric Power Regulatory Authority (NEPRA) Islamabad – Pakistan

GENERATION LICENCE

No. IGSPL/07/2006

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:

Halmore Power Generation Company (Private) Limited (HPGCL)

Incorporated under the Companies Ordinance, 1984 Under Certificate of Incorporation

No. 00000004323/20050301 Dated March 31, 2005

For its Plant at Bhikki, Sheikhupura

(Installed Capacity: 225 MW Gross ISO)

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

Given under my hand this 4th day of September, Two Thousand & Six, and expires on 27th day of February, Two

Thousand & Thirty Nine.

Registrar

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) "Licensee" means Halmore Power Generation Company (Private) Limited
- (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.

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- 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 thirty (30) 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

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Page 3 of 5

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.

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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.

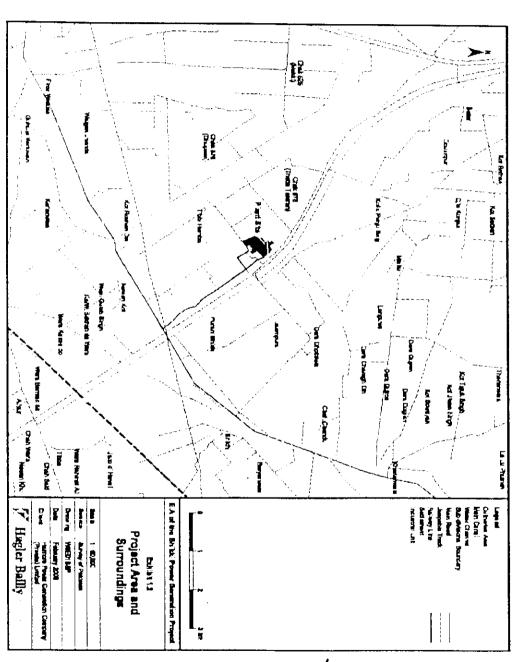


SCHEDULE-I

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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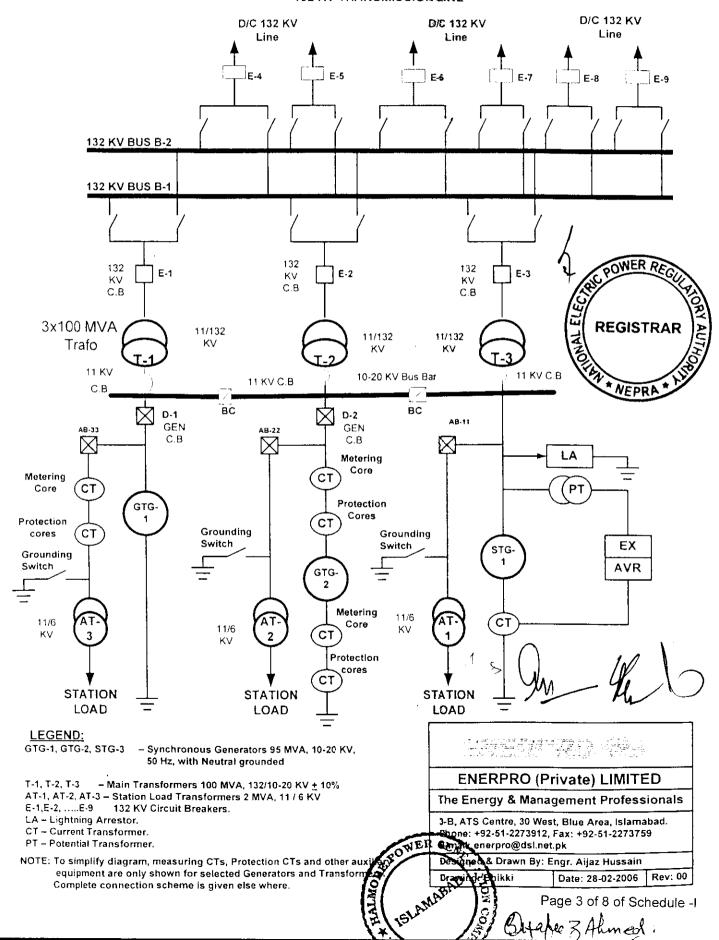


bage 2 of 8 of Schedule-1

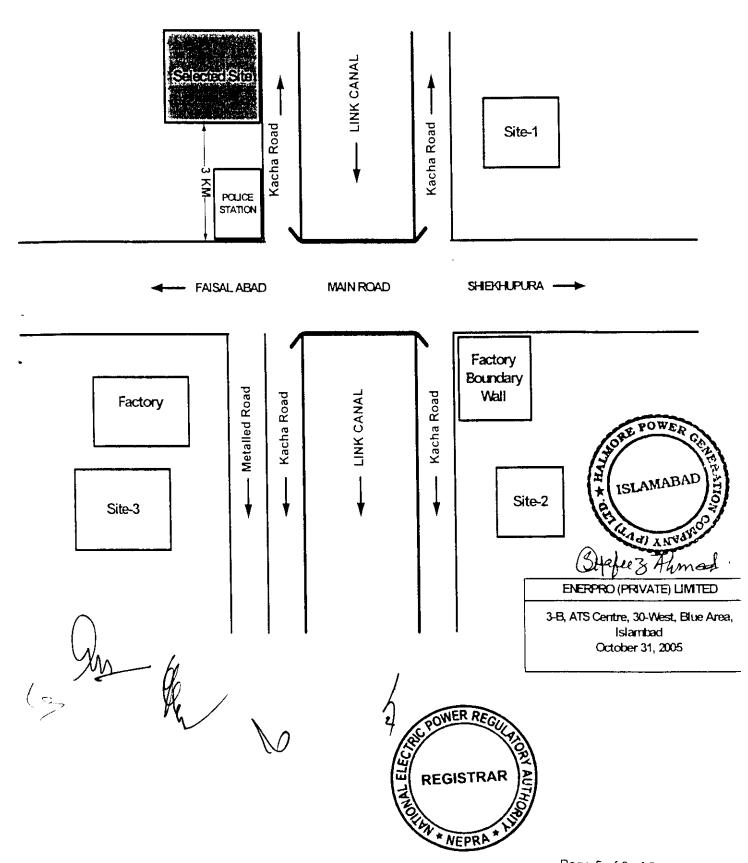
COMBINED CYCLE POWER PLANT BHIKKI, DISTRICT SHEIKUPURA

SINGLE LINE DIAGRAM - PROPOSED GENERATION SYSTEM

3 x DOUBLE CIRCUIT OUTGOING 132 KV TRANSMISSION LINE



SITE LOCATION - 225 IMW BHIKKI POWER PROJECT



Page 5 of 8 of Schedule -I

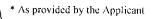
Plant Details*

1. General Information

i.	Name of Applicant	Halmore Power Generation Company (Private) Limited.	
ii.	Registered Office	3-B ATS Center, 30-West Fazal-e-Haq Road, Blue Area Islamabad.	
iii.	Business Office	-do-	
iv.	Plant Location	16 KM, Sheikupura-Faisalabad Road near Bhikki, District Sheikupura, Punjab.	
٧.	Type of Generation Facility	Thermal	

2. Plant Configuration

i.	Plant Size Installed Capacity Gross ISO	225 MW	
ii.	Type of Technology	Combined Cycle Technology	
iii.	Number of Units/Size	2x75 MW (Gas Turbines) 1x75 MW (Steam Turbine)	
iv.	Unit Make & Model	Gas Turbine/GE/PG6111 FA+ Steam Turbine/SKODA/MTD 40 CA	
V.	De-rated Capacity at site conditions	213 MW	
vi.	Auxiliary Consumption	4 MVV	
vii.	Commissioning and Commercial Operation date	January-February, 2009 (Anticipated)	
viii.	Expected Life of the Facility from Commercial Operation Date	30 Years	





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3. Fuel Details

		
i.	Primary Fuel	Natural Gas
 ii. 	Alternative Fuel	HSD
iii.	Back-up Fuel	HSD
iv.	Fuel Source (Imported/Indigenous)	Indigenous
V.	Fuel Supplier	Sui Northern Gas Pipeline Limited
vi.	Supply Arrangement	Through a 16" Ø pipeline to the site of the plant.
vii.	No of Storage Tanks	1
viii.	Storage Capacity of each Tank	12000 Tons
ix.	Gross Storage	Sufficient for 15 days plant operation at full load.

4. Emission Values

i. SO _x	Natural Gas	HSD
	4.4 mg/Nm ³	8.8 tons per day
ii. NO _x	125.0 mg/Nm ³	103.2 ng/J
iii. PM ₁₀	50.0 mg/Nm ³	9.0 mg/Nm ³

5. Cooling System

Cooling Water
Source/Cycle

Qadirabad-Balloki Link Canal and Deep water
wells /Open Loop

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6. Plant Characteristics

i.	Generation Voltage	11KV ± 10%		
ii.	Frequency	50 Hz		
iii	. Power Factor	0.8		
iv	Automatic Generation Control	Yes		
٧	Ramping Rate	As per manufacturer's commitment		
Vi	Time required to Synchronize to Grid and loading the complex to full load.	Depends on the length of the time the combustion turbine remained shut down Hot start 5 hrs for 2 GTs and 6 hrs for		
Vi.		Cold start complex 6 hrs for 2 GTs and 8 hrs for complex		

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SCHEDULE-II

The net capacity of the Licensee's Generation Facilities



SCHEDULE-II*

1.	Installed Capacity Gross ISO	225 MW
2.	De-rated Capacity at Site Conditions	213 MW
3.	Auxiliary Consumption	4 MW
4.	Net Capacity of the Plant at Site Conditions	209 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.





^{*} As provided by the Applicant

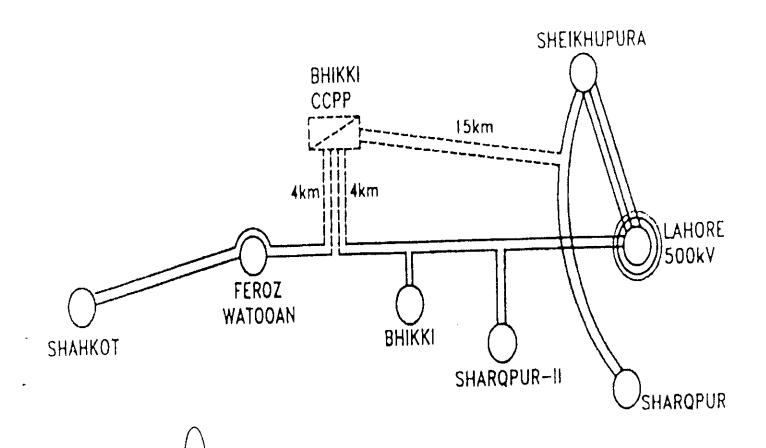
INTERCONNECTION SCHEME FOR THE POWER DISPERSAL OF THE PLANT

The power generated from the power plant shall be dispersed to system directly within LESCO/GEPCO/FESCO load center with the following arrangements:-

- 1. Two 132 KV Double Circuit (D/C) Transmission Lines (on Lynx Conductor) having a total length of 8 Kilometer for making double In-Out of existing 132 KV D/C Lahore/Bhikki-Shahkot/Feroze watwan Transmission Line at Bhikki Combined Cycle Power Plant.
- 2. A 132 KV D/C Transmission Line (on Lynx Conductor) having a length of 15 kilometer for making single In-Out of existing 132 KV D/C Sheikupura-Sharqpur Transmission Line at Bhikki Combined Cycle Power Plant.







NOTE:

DOTTED LINES INDICATE SCOPE OF PROPOSED INTERCONNECTION OPTIONS



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National Electric Power Regulatory Authority (NEPRA)

04.09.2006

Application No.LAG-85

<u>Determination of the Authority in the Matter of Grant of Generation Licence to</u> <u>Halmore Power Generation Company (Private) Limited (HPGCL)</u>

Halmore Power Generation Company (Private) Limited (HPGCL) intends to set up a 225 MW (Gross ISO) Combined Cycle Power Plant near Bhikki on Sheikhupura-Faisalabad Road, District Sheikhupura, Punjab; using standard quality BTU indigenous gas as primary fuel.

- 2. HPGCL submitted an application to National Electric Power Regulatory Authority (NEPRA) on June 26, 2006 for grant of a Generation Licence, in accordance with Section 15 of the NEPRA Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997). The application was admitted for consideration by the Authority on July 19, 2006.
- 3. The applicant submitted along with the application a feasibility report (FR) of the project prepared by M/s Enerpro (Pvt.) Ltd. Islamabad. As per the FR the project is scheduled to be commissioned by February, 2009. The electricity generated from the proposed power plant will be procured by the National Transmission and Despatch Company (NTDC). Power generated at the plant is proposed to be despatched at 132 kV voltage through (a) Two nos. 132 KV Double Circuit (D/C) Transmission Lines (length of approximately 8 Kilometer) interconnecting existing 132 KV D/C Lahore/Bhikki-Shahkot / Ferozewatwan Transmission Lines and (b) one 132 KV D/C Transmission Line (length of approximately 15 kilometer) for interconnection with existing 132 KV D/C Sheikupura-Sharqpur Transmission Line.
- 4. NTDC vide letter no. COO/CPPA/CE-II/7557-58 dated 8-7-2006 has indicated that the proposed generation is in accordance with the expansion and procurement plan. NTDC has requested for permission of procurement of power from HPGCL to the extent of 225 MW. Permission to procure power from HPGCL was granted to NTDC by the

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Page 1 of 4

Authority vide its decision of July 19, 2006 and has agreed to the configuration proposed for interconnection, evacuation of power and delivery at 132 KV.

- 5. Pursuant to Regulation 8 of the NEPRA Licensing (Application and Modification Procedure) Regulations, 1999; an advertisement was published in daily newspapers on July 21, 2006 soliciting comments from the interested/affected parties and general public. No Comments or view points were received in opposition to the grant of Generation Licence to HPGCL. After considering the comments, the Authority held a hearing / conference on 16th August, 2006 which was attended by the applicant and representatives of NTDC, Ministry of Water and Power and Private Power and Infrastructure Board (PPIB).
- 6. During the hearing, HPGCL presented salient features of the project reconfirming that the proposed plant will be Combined Cycle Power Plant with an installed capacity of 225 MW (gross) at ISO conditions. The power plant will comprise of two Gas Turbine Generators (2 x 75 MW each), two Heat Recovery Steam Generators (HRSG), and one Steam Turbine with an installed capacity of 75 MW. HPGCL further explained that the de-rated capacity of the plant will be 213 MW (gross) at Mean Site Conditions (MSC) and net generating capacity of the plant will be 209 MW at MSC after taking into account the auxiliary consumption of 4 MW.
- 7. The following points were explained during the hearing by HPGCL and commented upon by NTDC and other participants:
 - Availability of fuel
 - Availability/ Reliability of plant
 - Requirement of water for the power plant
 - Compliance with NPERA Act/Rules, Performance and Environmental Standards:

8. Availability of Fuel:

The Authority observes that the supply of gas beyond 2010/2011 is not assured in view of PPIB gas allocation to the Company. This has been a cause of concern by most of the stakeholders. However the Federal Government has recently made a policy decision in the matter (ECC decision in case no. ECC-122/8/2006 dated 15.07.2006 regarding "Paving the Way for IPP Projects") approving, interalia, the following:





(c) GSA Term (period) must match the term of the PPA. However, the impact of the cost of alternate fuel, in case adequate gas is not available after 2011, should not be borne by the gas company. GoP has already adequately covered the risk through appropriate clauses in the Implementation Agreement.

The consequences for short supply of gas below the committed level be borne by the company concerned, i.e. cost differential of alternative fuel (HSD) should be borne by the gas company. Commitments to IPP must be honored.

(d) The consequences for short supply of gas below the committed level i.e. the cost differential of alternative fuel (HSD) shall be borne to the extent of 50% each by the gas company and the Government of Pakistan".

The Authority considers that through the above decision the Government of Pakistan has shifted the risk of non availability of gas (in the shape of difference of cost between generation through gas and generation through alternate primary fuel) to the extent of 50% on the gas supply company and remaining 50% on itself. Therefore the issue of non availability of gas having any adverse impact on either the purchaser or the generating company stands settled.

9. Availability/Reliability of Plant:

The Authority considers that the optimum availability of the plant will be ensured by the NTDC in accordance with proposed master PPA to be finalized in consultation with all stakeholders.

10. Water Availability:

In the presence of sufficient availability of ground water in the area, HPGCL does not foresee any water problem for the proposed power plant. Responsibility of satisfactory performance of the plant lies with HPGCL and water availability as a key element of performance will have to be ensured if agreed level of performance is to be delivered.



11. Compliance with NEPRA Act/Rules:

During the hearing the Company has assured compliance with NEPRA Act/Rules. The Company further assured compliance with National and International Standards, therefore, there was no disagreement to comply with the proposed Article of the Licence relating to environmental standards.

12. The Authority considers that the induction of additional 209MW of power is required to fill the shortage of power generation capacity with respect to Peak Demand expected in 2009 and beyond and in term of location of the proposed power plant is appropriately placed near the load demand.

WITH THIS, the Authority hereby approves the grant of Generation Licence to Halemore Power Generation Company (Private) 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

Abdul Rahim Khan (Member)

Nasiruddin Ahmed (Member)

Lt Gen (R) Saeed-uz-Zafar (Chairman)

Naulih to

National Electric Power Regulatory Authority (NEPRA)

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