



Registrar

# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

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No. NEPRA/R/LAG-72/963-64

July 22, 2005

Chief Executive  
Orient Power Company (Pvt.) Ltd.  
171 Shadman-II  
Lahore

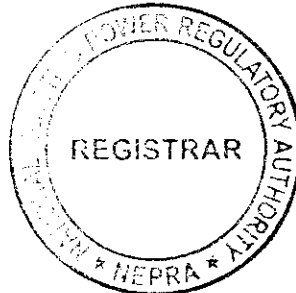
Subject: **Grant of Generation Licence IGSP/03/2005**  
**Licence Application No. LAG-72**  
**M/s. Orient Power Company (Pvt.) Ltd. (OPCL)**


Please refer to your application No. OPCL/2005/2/NB1 dated February 1, 2005 to NEPRA for a Generation Licence.

2. Enclosed here is Generation Licence No. IGSP/03/2005 granted by the Authority to M/s. Orient Power Company (Pvt.) 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. in your future correspondence with the Authority.

DA/as above.



  
22.07.05.  
(Mahjoob Ahmad Mirza)

Copy for information to Director General, Pakistan Environmental Protection Agency,  
44-E, Office Tower, Blue Area, Islamabad.

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

**GENERATION LICENCE**

No. IGSPL/03/2005

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:

**Orient Power Company (Pvt.) Limited**  
(Installed Capacity: 225 MW ISO Gross)

**For its Plant at Balloki, Punjab**

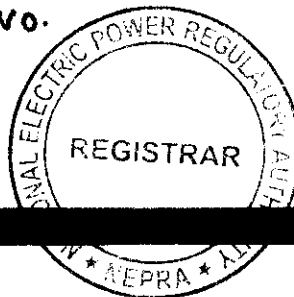
**Incorporated under the Companies Ordinance, 1984  
Under Certificate of Incorporation**

**No. 0000003347/20030601 Dated 16-6-2003**

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

Given under my hand this 22<sup>nd</sup> day of July, Two  
Thousand & Five, and expires on 31<sup>st</sup> day of August, Two  
Thousand & Thirty Two.

  
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Registrar



**Article 1**  
**Definitions**

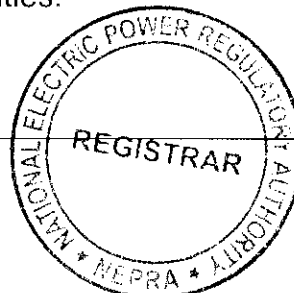
- (1) In this Licence:
- a. "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997);
  - b. "Authority" means the National Electric Power Regulatory Authority constituted under Section 3 of the Act;
  - c. "Licensee" means Orient Power Company (Private) Limited
  - d. "Rules" means the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000.
- (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**

- (1) The location, size, technology, interconnection arrangements, technical limits technical functional specifications and other details specific to the generation facilities of the Licensee are set out in Schedule I to this Licence.
- (2) The net capacity of the generation facilities is set out in Schedule II hereto.
- (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**

- (1) The Licence is granted for a term of Twenty Five (25) years after the commercial operation date.
- (2) Unless revoked earlier, the Licensee may, ninety (90) days prior to the expiry of the term of the licence, apply for renewal of the Licence under the Licensing (Application and Modification Procedure) Regulation, 1999.

#### **Article 5**

##### **Licence Fee**

The Licensee shall pay to the Authority the Licence fee in the amount and manner and at the time specified in the National Electric Power Regulatory Authority (Fee) Rules, 2002.

#### **Article 6**

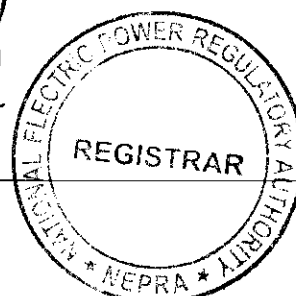
##### **Tariff**

The licensee shall charge from its consumers only such tariff which has been approved by the Authority.

#### **Article 7**

##### **Competitive Trading Arrangement**

- (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:



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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.

- (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**

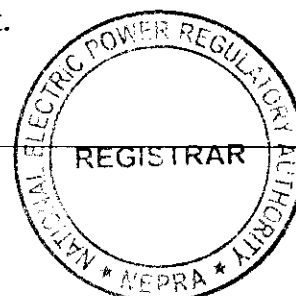
The licensee shall conform to the environmental standards as may be prescribed by the relevant competent authority from time to time.

### **Article 11 Provision of information**

- (1) The obligation of the licensee to provide information to the Authority shall be in accordance with Section 44 of the Act.

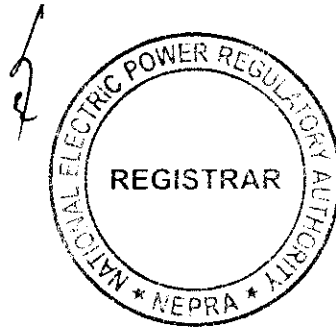
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- (2) The licensee shall be subject to such penalties as may be specified in the relevant rules made by the Authority for failure to furnish such information as may be required from time to time by the Authority and which is or ought to be or have been in the control or possession of the licensee.

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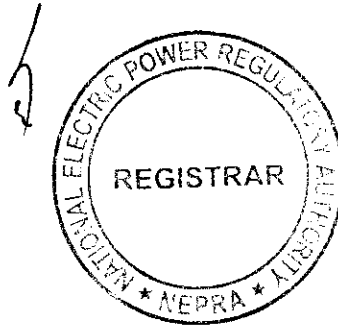


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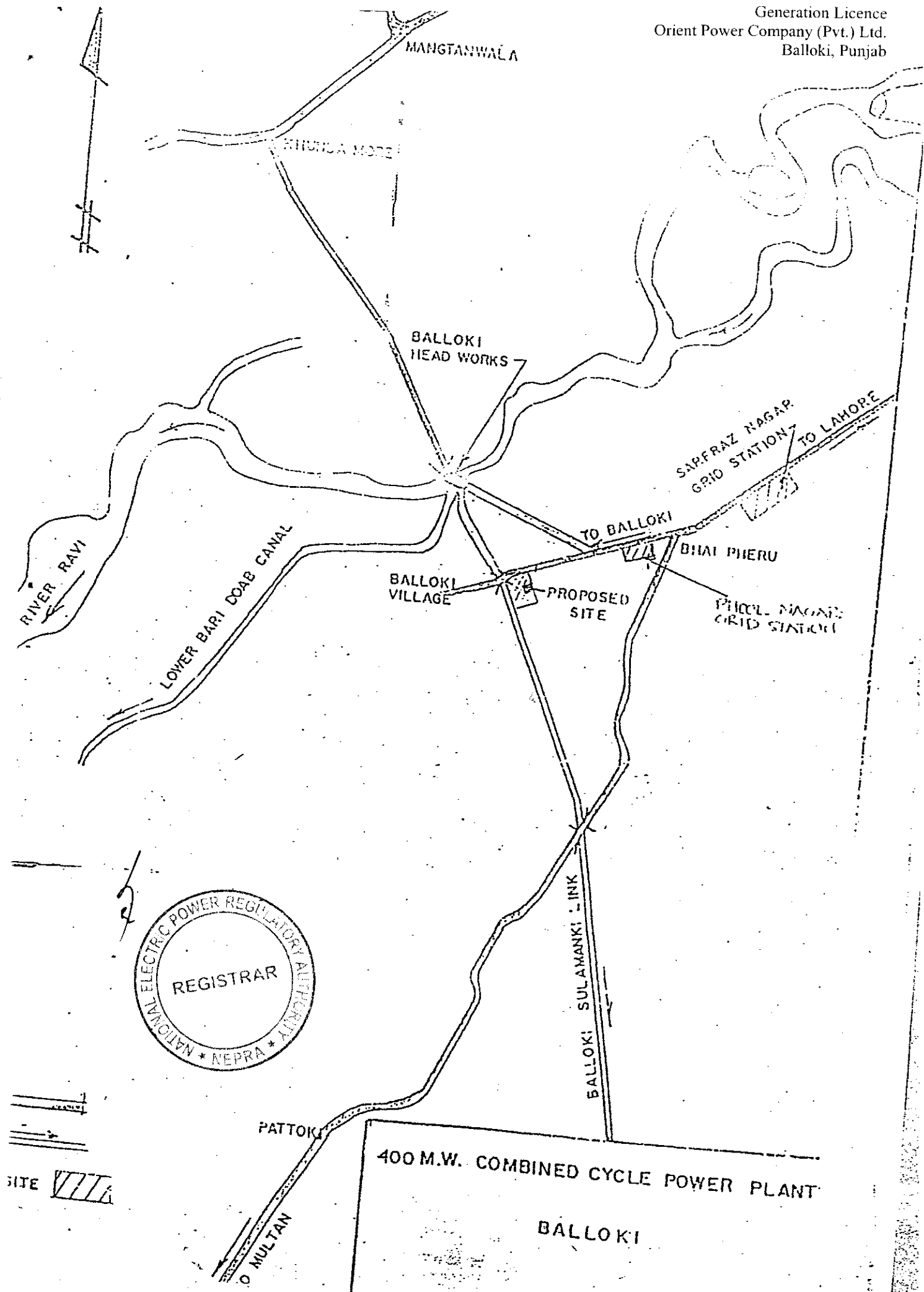
## SCHEDULE-I

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

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### PLANT DETAILS

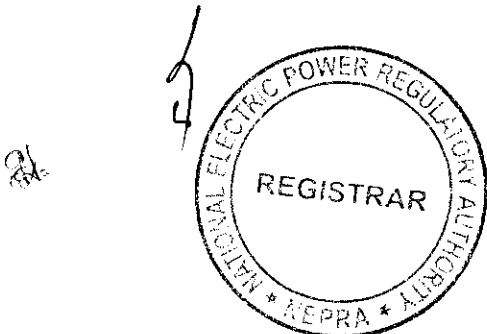
1. Name of Applicant Orient Power Company(Private) Limited
2. Registered Office 24 D, 1<sup>st</sup> Floor, Rashid Plaza, Blue Area, Islamabad.
3. Plant Location Eastern Bank of Balloki-Sulemanki Link-1 canal, 5 Km downstream from Balloki Headworks and on the Phoolnagar(a/ka/Bhai Pheru) Balloki road, approximately 12 Km off the national highway N-5.
4. Type of Facility Thermal (Combined Cycle)

### Plant Configuration

- 5.a Plant size 225 MW
- 5.b Type of Technology Combined Cycle Technology
- 5.c Number of Units/Size  
(i) Two Gas Turbines (75.5 MW each)  
(ii) One Steam Turbine (74 MW)
- 5.d Unit Make and Model  
**(i) Gas Turbines: General Electric 6 FA, Siemens V64.3 or Hitachi 6 F6F**  
**(ii) Steam Turbine: GE, Siemens, or Toshiba**
- 5.e Commissioning Date Anticipated in September 2007

### Fuel Use

- 6.a Fuel Type Natural Gas
- 6.b Fuel (imported/ indigenous) Indigenous
- 6.c Fuel Supplier SNGPL
- 6.d Supply Arrangement Delivery by pipeline off Phool Nagar-Kala Shah Kaku cross connection, currently under construction.



6.e	No. of Tanks	Two(HSD for back up purpose)
6.f	Storage Capacity/Tank	10,000 m <sup>3</sup>
6.g	Gross Storage	20,000 m <sup>3</sup>

**Emission Values**

7.a	SOx	0.053t/d
7.b	NOx	125 mg/Nm <sup>3</sup> ( for combustion turbine units – dry at 15% oxygen)
7.c	CO	Not Applicable
7.d.	PM <sub>10</sub>	50 mg/Nm <sup>3</sup> ( for combustion turbine units – dry at 15% oxygen)
8	Cooling Water Source	Ground Water from plant property
9	Installed Capacity	225 MW
10.	Derated Capacity	209 MW
11.	Expected Life of the Facility	25 years
12.	Operational Record	Not Applicable

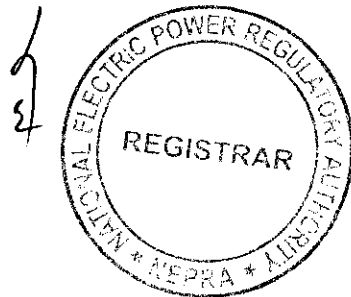
**Project Cost**

13.a	Equity	Rs. 2.55 billion
13.b	Debt	Rs. 7.65 billion
13.c	Total Project Cost	Rs. 10.2 billion

**Plant Characteristics**

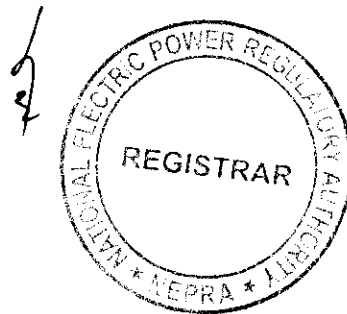
14.a	Generation Voltage	Connected at 132 kV to grid
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14.b	Frequency	50 Hz
14.c	Power Factor	0.8 - 0.9
14.d	Automatic Generation Control	To be discussed as part of PPA
14.e	Ramping Rate	To be discussed as part of PPA
14.f	Alternative Fuel	High Speed Diesel
14.g	Auxiliary Consumption	5 MW
14.h	Time Required to Synchronize to Grid	Preliminary Estimate:30 minutes

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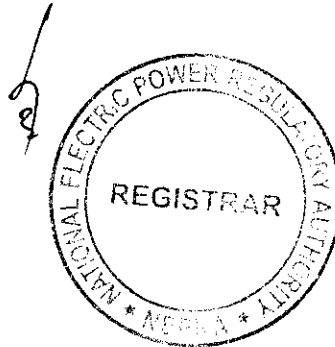


## **INTERCONNECTION SCHEME FOR THE POWER DISPERSAL OF THE PLANT**

The power of the power plant shall be dispersed to system directly within LESCO load center at 132 kv voltage level as follows

“A direct 132 kv double circuit transmission line, 70 km long, on ‘Rail’ conductor from Balloki power plant to 220 kv Bund Road grid station. In-and-out arrangement at Balloki of the existing WAPDA Town - Chung 132 Kv single circuit transmission line, 50 km long, on ‘Rail’ conductor.”

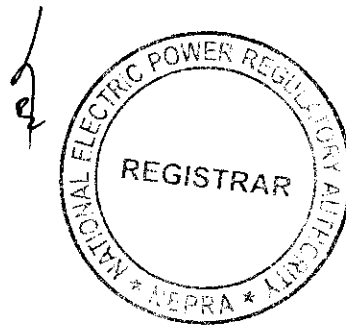
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## SCHEDULE –II

- The net capacity of the licensee's generation facilities

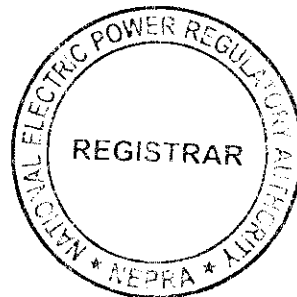
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**SCHEDULE II**

1.	GROSS INSTALLED CAPACITY (MW)	=	225 MW
2.	DERATED CAPACITY (MW)	=	214 MW
3.	AUXILIARY CONSUMPTION (MW)	=	5.0 MW
4.	NET CAPACITY OF THE PLANT (MW)	=	209 MW

**Note: Net Capacity - These are indicative figures only 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.**



**NATIONAL ELECTRIC POWER REGULATORY AUTHORITY  
(NEPRA)**

Subject: **MINUTES OF THE AUTHORITY REGULATORY MEETING 05-135  
HELD ON JULY 22, 2005 REGARDING GRANT OF GENERATION  
LICENCE TO ORIENT POWER COMPANY Ltd.(OPCL)**

A meeting of the Authority was held on July 22, 2005. Following participated.

Lt.Gen® Saeed-uz-Zafar, HI(M)	Chairman
Mr. Fazalullah Qureshi	ViceChairman/Member(Tariff)
Mr. Abdul Rahim Khan	Member(Privatization)
Mr.Nasiruddin Ahmed	Member(Licensing)
Mr. Abdur Rashid Kakar	Senior Adviser(Licensing)
Mr. Mahjoob Ahmad Mirza	Registrar
Mr. Husnain Zaigham Alivi	Director(Licensing)
Mr. Amer Zia	Director(CAD Corod)
Ms. Sibah Farooq	Assistant Legal Adviser
Ms. Noor Fatima	Asst.Dir.(Coord)

Director (Licensing) presented the "Case Officer report" as working paper to the Authority and explained that all major issues, mentioned in the report were addressed during the hearing. He further informed that each issue was discussed at length, the participants submitted their comments proffered arguments supporting their stand. Accordingly the comments received and Authority decision on each of the issue is included in the report.

The Authority discussed the working paper (Case Officer Report) submitted by the Case Officer and various aspects in detail and decided:

To grant Generation License to Orient Power Company Limited is attached to this decision as Annexure

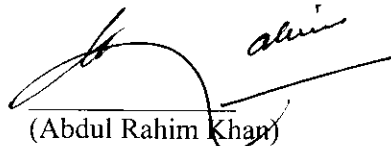
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Dated July 22 , 2005


**DECISION OF THE AUTHORITY REGULATORY MEETING 05-135 HELD ON  
JULY 22, 2005 REGARDING GRANT OF GENERATION LICENCE TO ORIENT  
POWER COMPANY Ltd.(OPCL)**


The Authority considered the working paper (Case Officer Report) submitted by the Case Officer and decided:

To grant Generation License to Orient Power Company Limited as attached to this decision as Annexure.

  
(Abdul Rahim Khan)  
Member

  
(Nasiruddin Ahmed)  
Member

  
(Fazlullah Qureshi)  
Member/Vice Chairman

  
(Lt.Gen® Saeed-uz-Zafar)  
Chairman