



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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

Ph : 9206500, 9207200, Fax : 9210215

E-mail: registrar@nepra.org.pk

Registrar

No. NEPRA/R/LAG-128/2756-59

April 27, 2010

Mr. Pervaiz Khan
Authorized Representative
UCH-II Power (Pvt.) Ltd.
48 Khayaban-e-Iqbal
Main Margalla Road, F-7/2
Islamabad

Subject: **Generation Licence No. IGSP/L/25/2010**
Licence Application No. LAG-128
Uch-II Power (Private) Limited (UCH-II)

Reference: *Your application received vide letter no. 1.16.15/corresp/ar, dated 21.11.2008*

Enclosed please find herewith Generation Licence No. IGSP/L/25/2010 granted by National Electric Power Regulatory Authority (NEPRA) to Uch-II Power (Pvt.) Limited, pursuant to Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997). Further, the determination of the Authority in the subject matter is also attached.

2. Please quote above mentioned Generation Licence No. for future correspondence.

Enclosure: **Generation Licence**
(IGSP/L/25/2010)


(Syed Safer Hussain)

Copy to:

1. Chief Executive Officer, Quetta Electric Supply Company (QESCO), 14-A Zarghoon Road, Quetta
2. Chief Executive Officer, Hyderabad Electric Supply Company (HESCO), WAPDA Water Wing Complex, Hussainabad, Hyderabad
3. Director General, 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/25/2010

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:

UCH-II POWER (PRIVATE) LIMITED

Incorporated under the Companies Ordinance, 1984
Under Certificate of Incorporation

No. 0067792, dated October 8, 2008

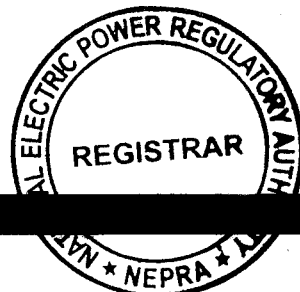
For its Plant located at Dera Murad Jamali, District Naseerabad, Balochistan

(Installed Capacity: 404.00 MW Gross ISO)

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

Given under my hand this 27th day of April, Two Thousand & Ten and expires on 30th day of December, Two Thousand & Thirty Six.


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 UCH-II Power (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.

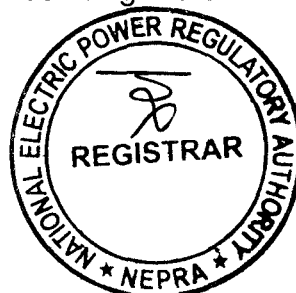
Article-2
Application of Rules

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.

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



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

Article-4
Term of Licence

4.1 The Licence is granted for a term of twenty five (25) years after the Commercial Operation Date.

4.2 Unless suspended or revoked earlier, the Licensee may within 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 as amended or replaced from time to time.

Article-5
Licence fee

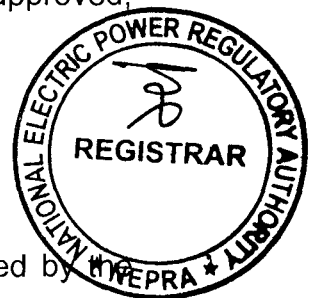
After the grant of the Generation Licence, the Licensee shall pay to the Authority the Licence fee in the amount and manner and at the time set out in National Electric Power Regulatory Authority (Fees) Rules, 2002.

Article-6
Tariff

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

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 NEPRA rules on Performance Standards as may be prescribed by the Authority from time to time.

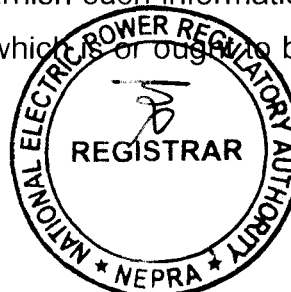
Article-10
Compliance with Environmental Standards

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

Article-11
Provision of Information

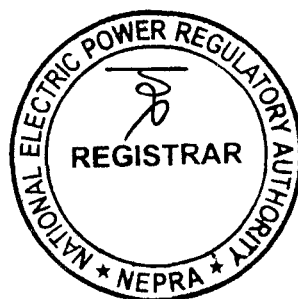
11.1 The obligation of the Licensee to provide information to the Authority shall be in accordance with Section 44 of the Act.

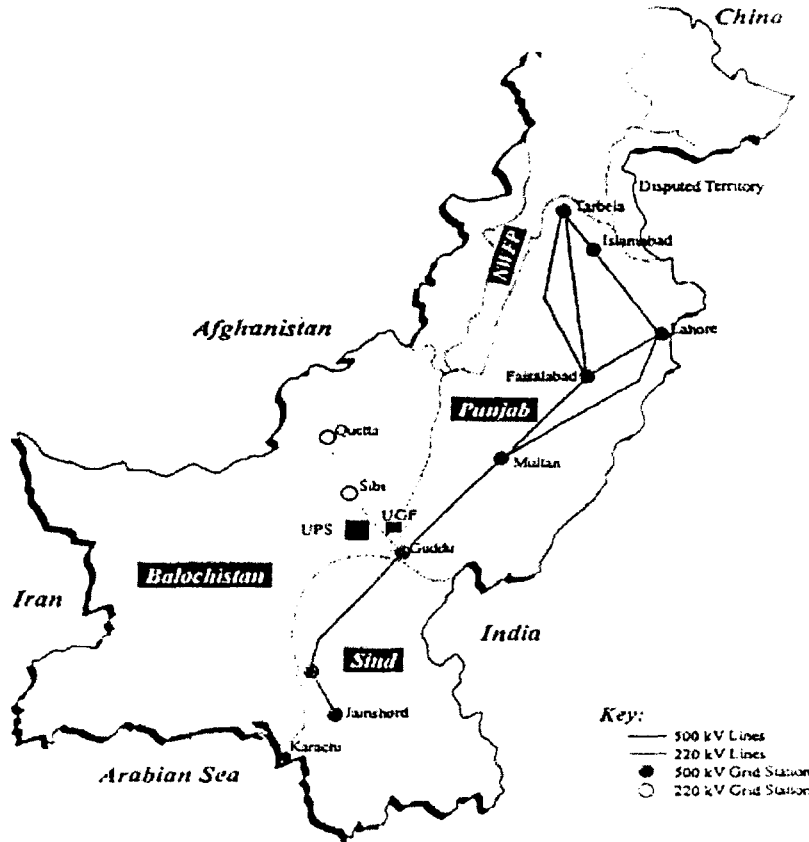
11.2 The Licensee shall be subject to such penalties as may be specified in the relevant rules made by the Authority for failure to furnish such information as may be required from time to time by the Authority and which or ought to be or have been in the control or possession of the Licensee.



SCHEDULE-I

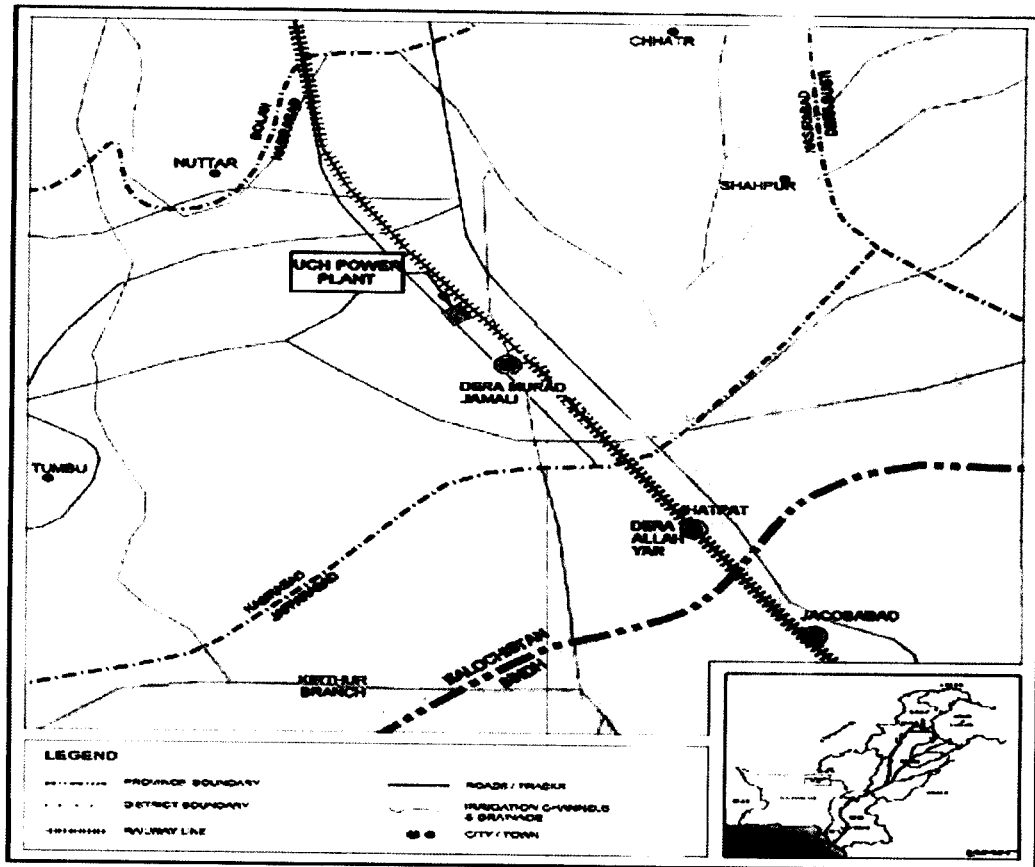
The location, size (capacity in MW) technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the Generation Facilities of the Licensee.





Note: Only Gwadu, Sibi and Quetta 220 kV lines shown

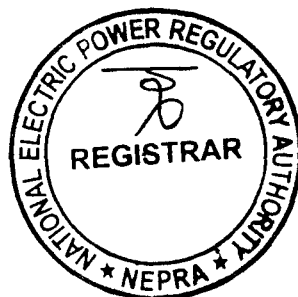
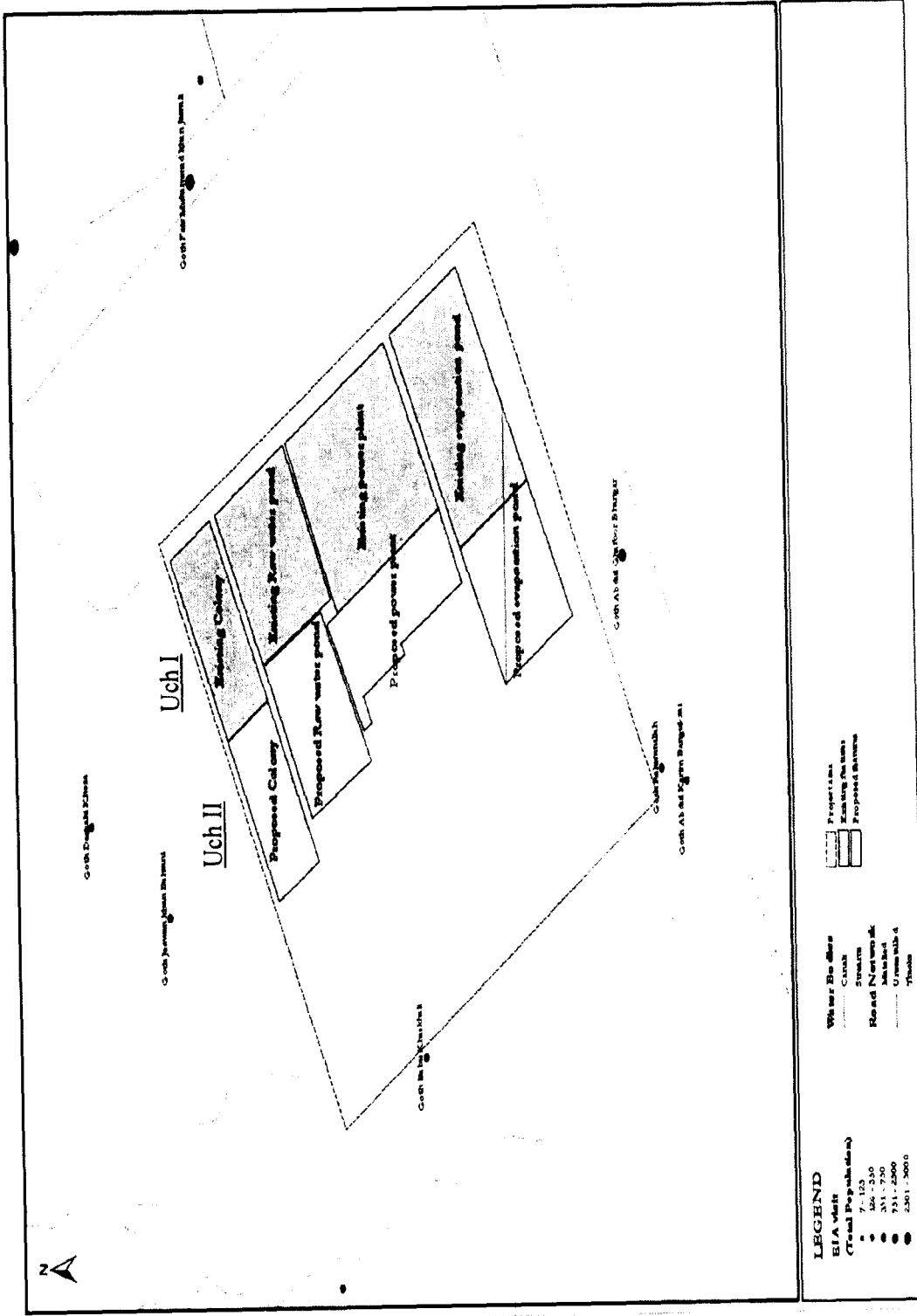


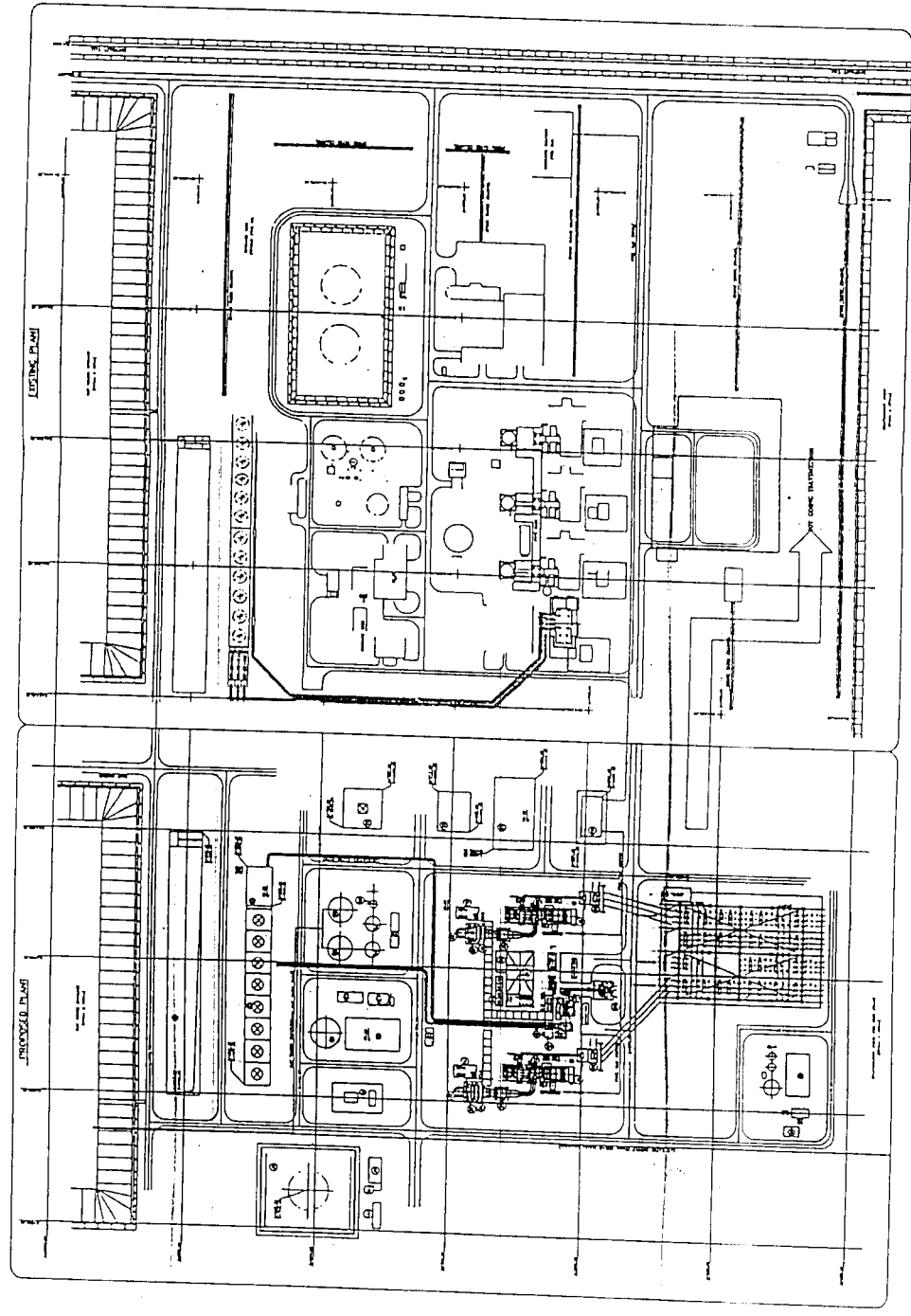


2/1



Uch Power Complex – Proposed General layout



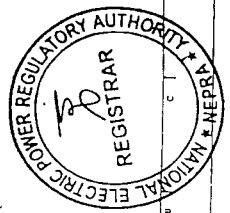


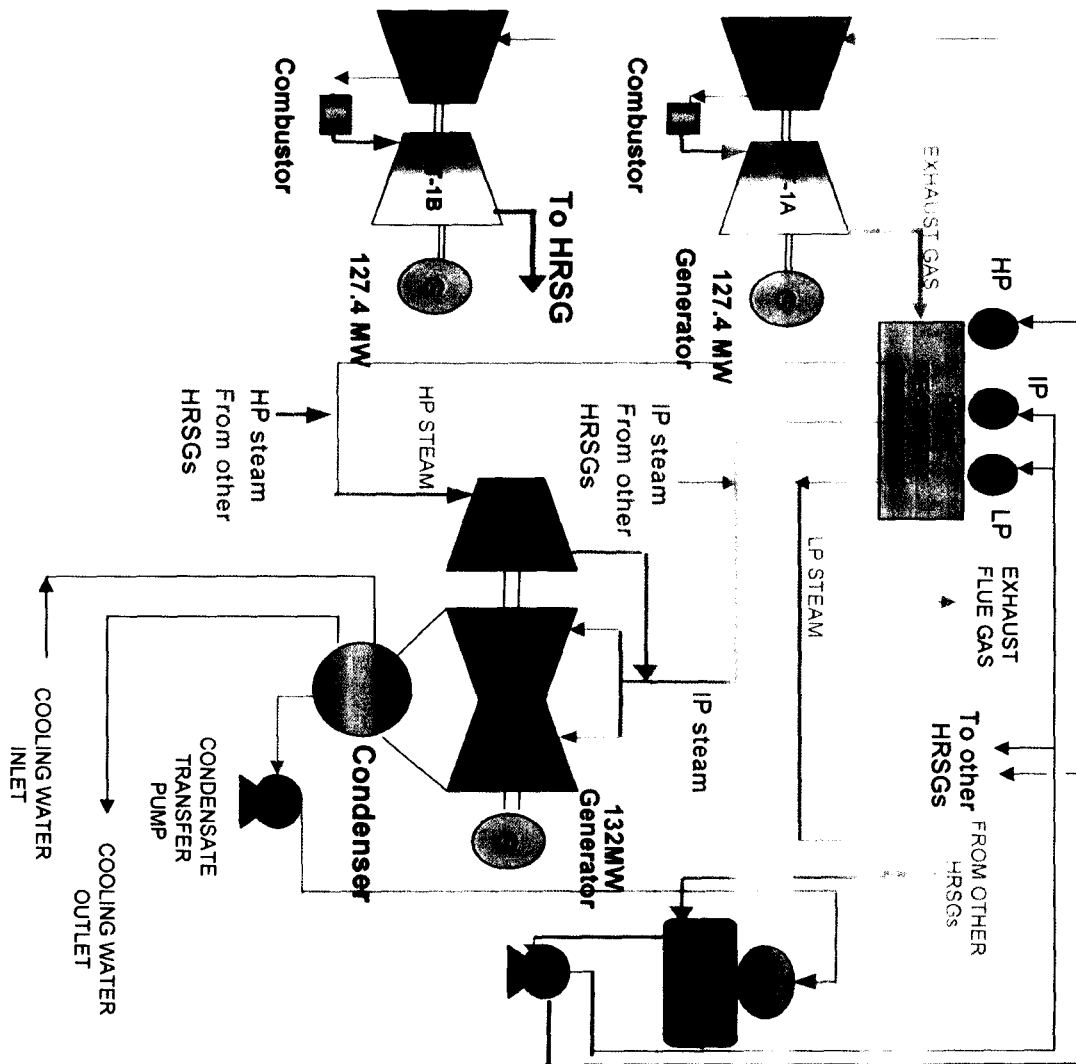
LIST OF BUILDING AND STRUCTURE

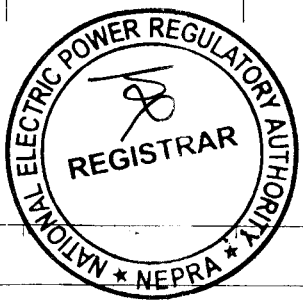
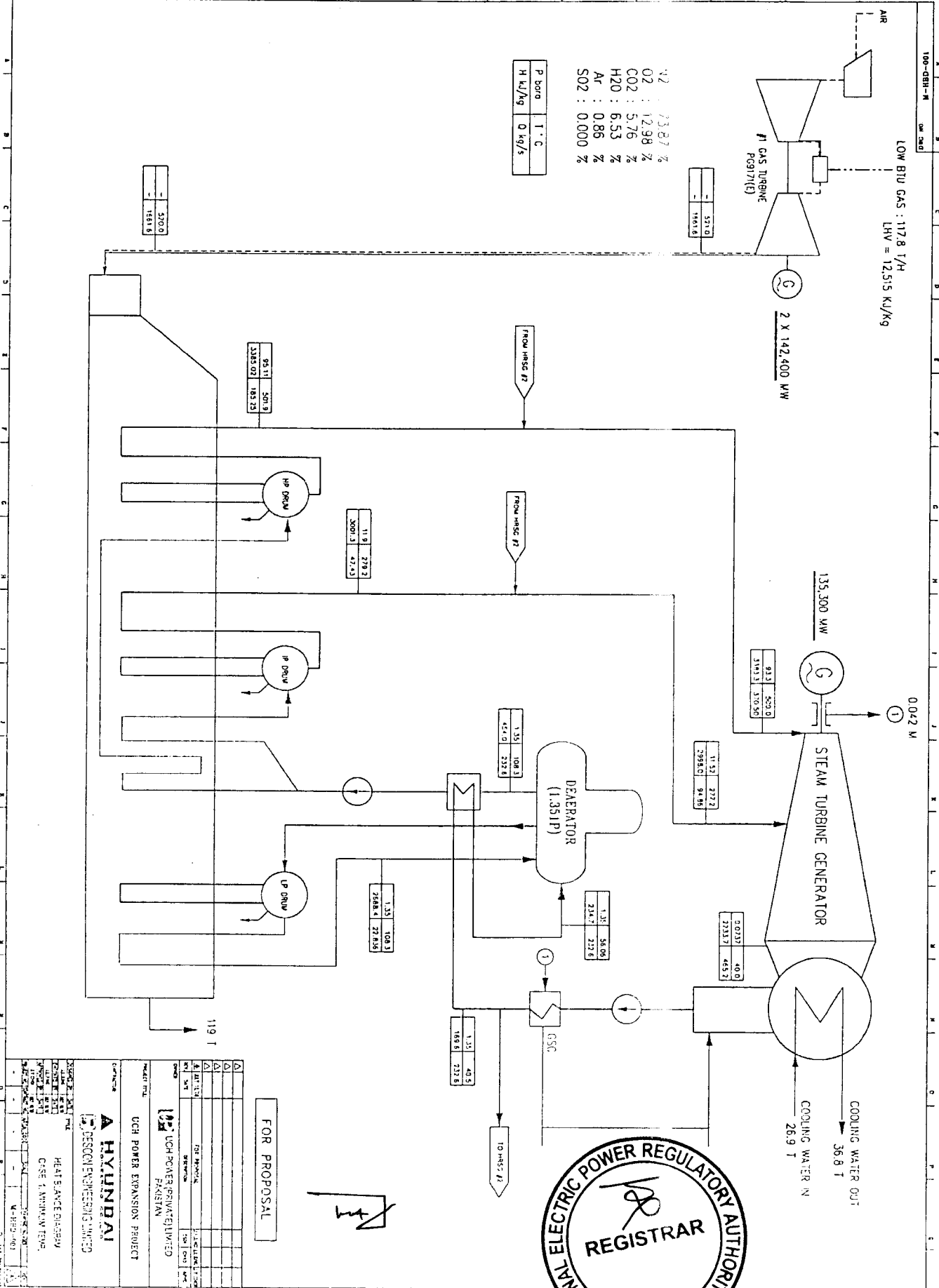
NO	NAME	NO	NAME
01	STEEL FRAME	01	STEEL FRAME
02	STEEL BEAM	02	STEEL BEAM
03	STEEL COLUMN	03	STEEL COLUMN
04	STEEL JOIST	04	STEEL JOIST
05	STEEL BRACE	05	STEEL BRACE
06	STEEL GIRDERS	06	STEEL GIRDERS
07	STEEL TRUSS	07	STEEL TRUSS
08	STEEL BRACKET	08	STEEL BRACKET
09	STEEL CONNECTION	09	STEEL CONNECTION
10	STEEL WELDING	10	STEEL WELDING
11	STEEL PAINTING	11	STEEL PAINTING
12	STEEL CUTTING	12	STEEL CUTTING
13	STEEL BENDING	13	STEEL BENDING
14	STEEL DRILLING	14	STEEL DRILLING
15	STEEL GRINDING	15	STEEL GRINDING
16	STEEL POLISHING	16	STEEL POLISHING
17	STEEL TREATMENT	17	STEEL TREATMENT
18	STEEL STORAGE	18	STEEL STORAGE
19	STEEL TRANSPORT	19	STEEL TRANSPORT
20	STEEL INSTALLATION	20	STEEL INSTALLATION
21	STEEL MAINTENANCE	21	STEEL MAINTENANCE
22	STEEL REPAIR	22	STEEL REPAIR
23	STEEL REPLACEMENT	23	STEEL REPLACEMENT
24	STEEL DEMOLITION	24	STEEL DEMOLITION
25	STEEL SCRAP	25	STEEL SCRAP
26	STEEL WASTE	26	STEEL WASTE
27	STEEL DISPOSAL	27	STEEL DISPOSAL
28	STEEL RECYCLING	28	STEEL RECYCLING
29	STEEL EXPORT	29	STEEL EXPORT
30	STEEL IMPORT	30	STEEL IMPORT

FOR PROPOSAL

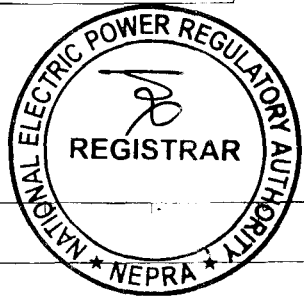
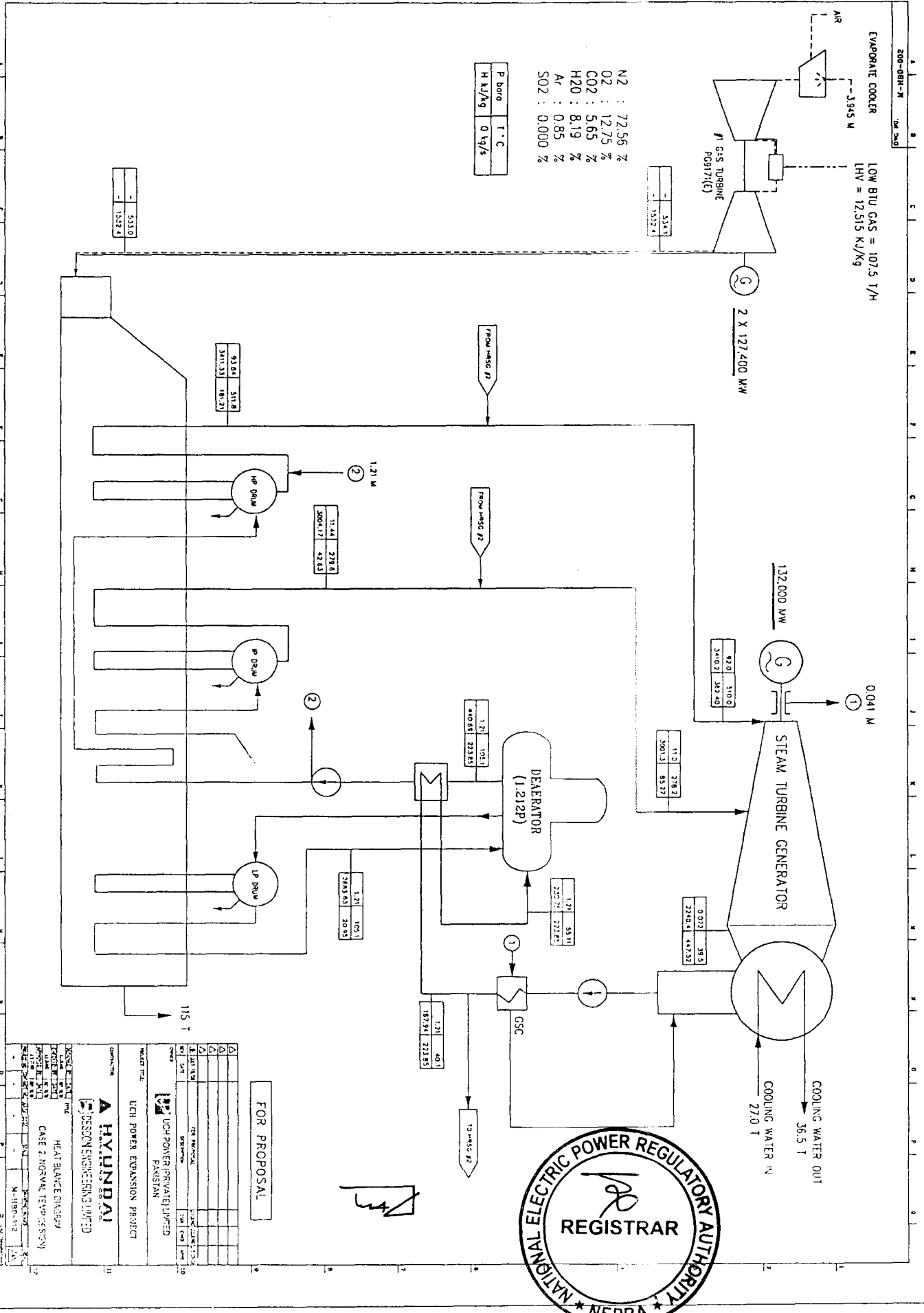
PROJECT NO.	UCH POWER (PRIVATE) LIMITED PAKISTAN
CLIENT	UCH POWER EXPANSION PROJECT
DESIGNER	HYUNDAI CORPORATION DESIGN ENGINEERING LIMITED
PROJECT NAME	UCH POWER EXPANSION PROJECT
CONTRACT NO.	
DATE	
SCALE	
PROJECT LOCATION	PLANT NAME (BASE) OUT DOOR STEAM TURBINE
PROJECT NO.	C-110-001







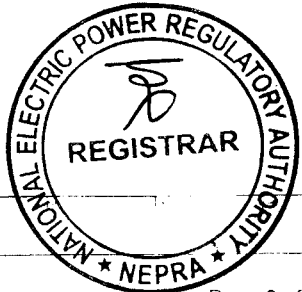
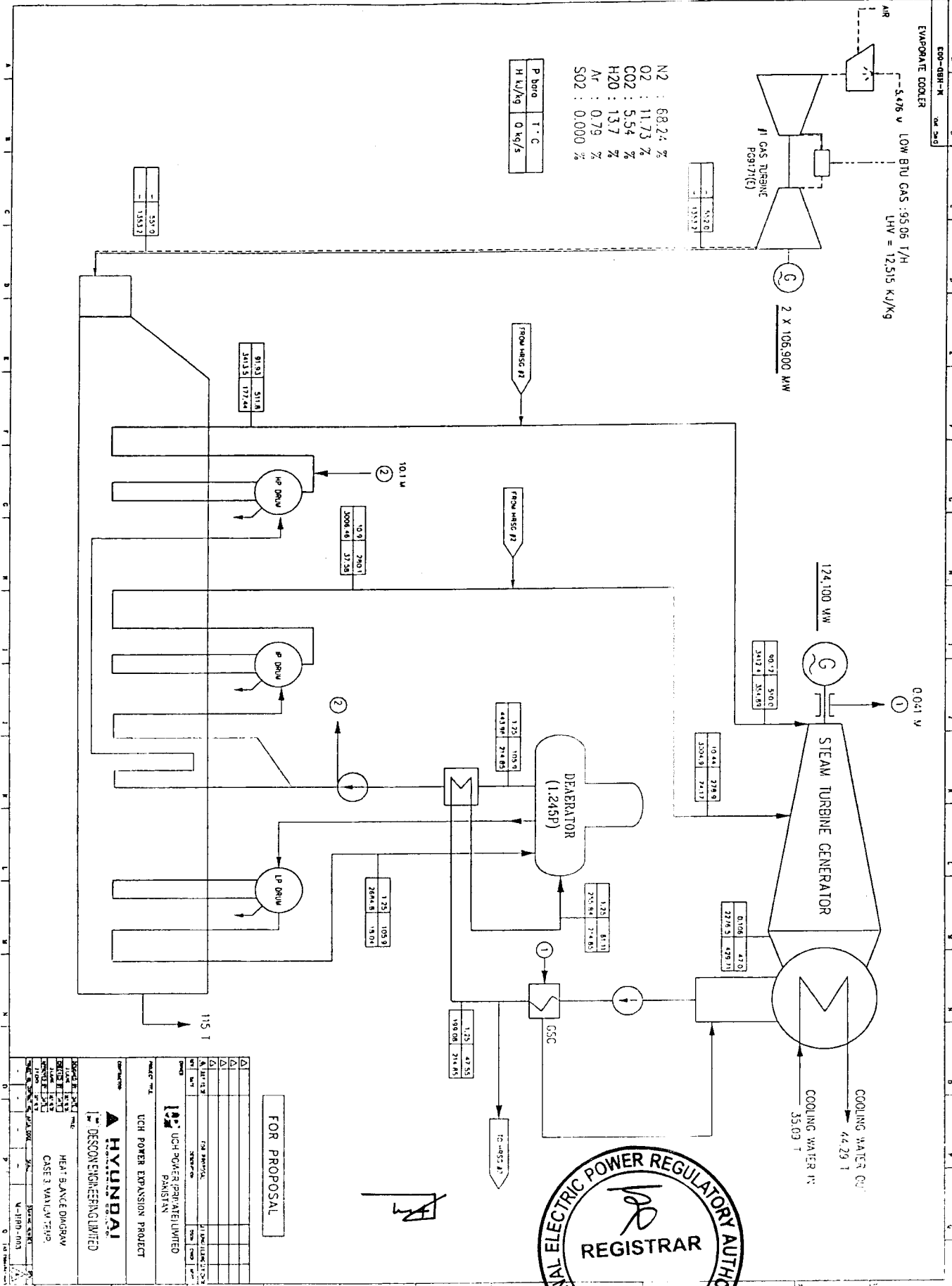
FOR PROPOSAL
DATE: 11/11/2011
BY: [Signature]
FOR: UCH POWER EXPANSION PROJECT
PROJECT NO: UCH-02
CLIENT: UCH POWER (PRIVATE) LIMITED
LOCATION: DERA MURAD JAMALI, DISTRICT NASEERABAD, BALUCHISTAN
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]
SCALE: AS SHOWN
PROJECT NO: UCH-02
CLIENT: UCH POWER (PRIVATE) LIMITED
LOCATION: DERA MURAD JAMALI, DISTRICT NASEERABAD, BALUCHISTAN
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]
SCALE: AS SHOWN



FOR PROPOSAL

HYUNDAI
 DESCON ENGINEERING LIMITED
 UCH POWER EXPANSION PROJECT
 HEAT BALANCE DIAGRAM
 CASE 2 (NORMAL TEMPERATURE DESIGN)
 M-188P-012

NO.	REV.	DATE	BY	CHKD	APP.

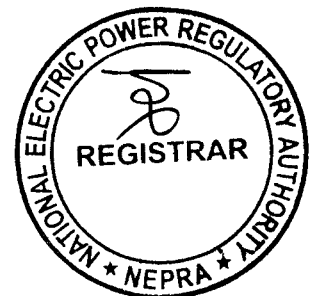


INTERCONNECTION SCHEME FOR THE POWER DISPERSAL OF THE PLANT*

The Power of the Power Plant shall be dispersed to system directly within QESCO and HESCO load centers at 500KV/220KV voltage levels as follows:-

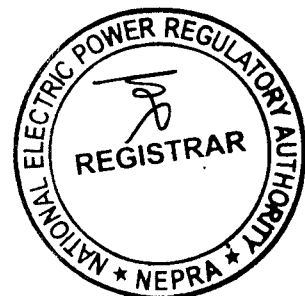
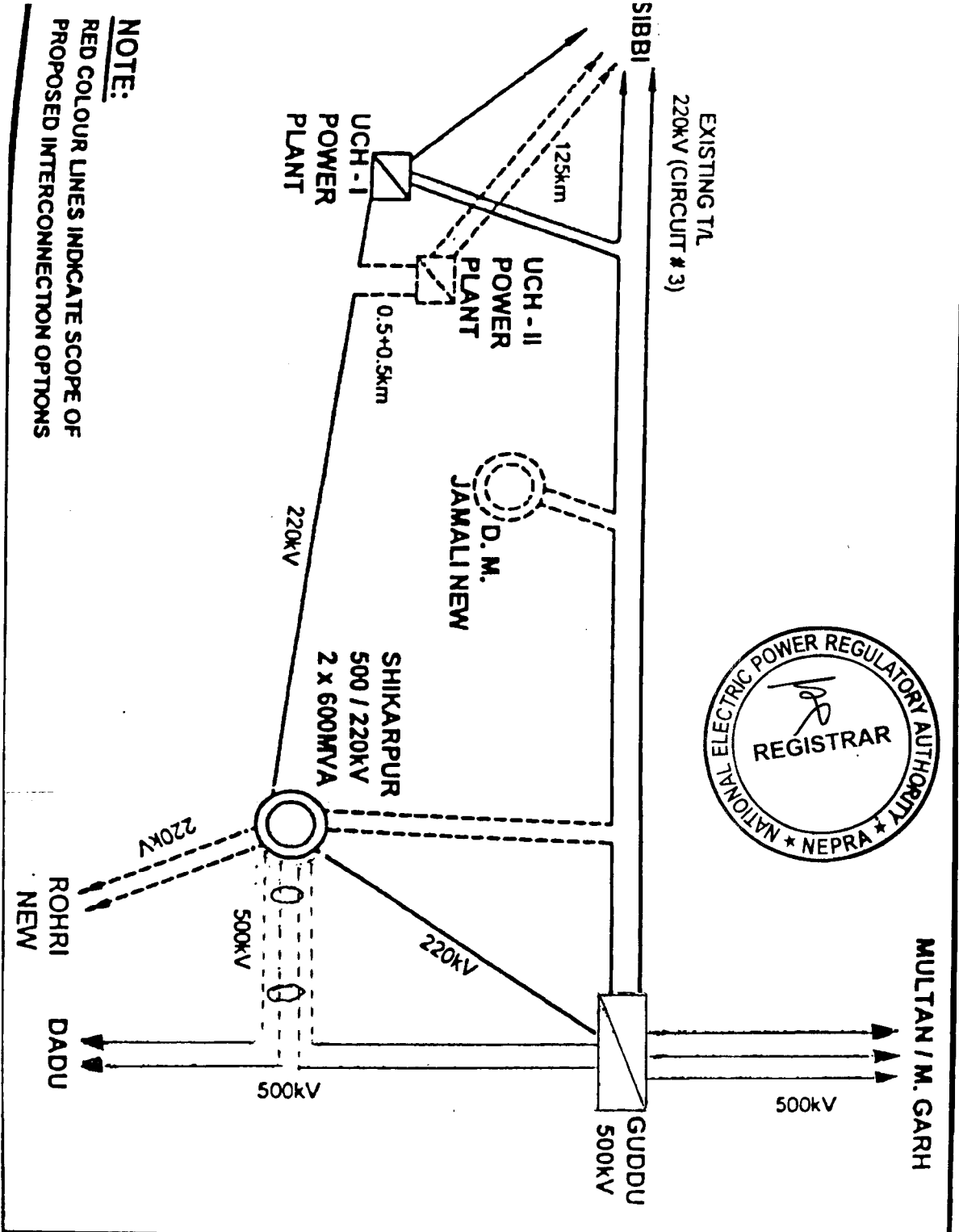
- (i). A 220 KV Double Circuit (D/C) Transmission Line (T/L), approximately 125 KM long on Twin Bundle (T/B) ACSR Rail Conductor from UCH-II to Sibbi;
- (ii). A 220 KV D/C T/L Approximately 0.5 KM long on T/B ACSR Rail conductor, for making In-Out of existing UCH-I Power Plant-Shikarpur (New 220 KV) T/L at UCH-II Power Plant;
- (iii). Re-Conductoring of 220 KV T/L section approximately, 1-KM long between UCH-I Power Plant and UCH-II Power Plant from Single ACSR Rail Conductor to T/B ACSR Rail Conductor.

2. Up gradation of existing 220 KV Shikarpur New Substation to 500 KV will also be made for reliable dispersal of power from proposed UCH-II Power Plant.



* As provided in the Interconnection Study (of January 2010) for Power Dispersal of UCH-II carried out by Planning (Power) Department of NTDC

Interconnection Arrangements for Dispersal of Power
 from the UCH-II



NOTE:
 RED COLOUR LINES INDICATE SCOPE OF
 PROPOSED INTERCONNECTION OPTIONS

Plant Details[†]

(A). General Information

(i).	Name of Applicant	UCH-II Power (Private) Limited
(ii).	Registered/ Business Office	11 - Shahid Plaza, Blue Area, F-6 Islamabad
(iii).	Plant Location	Dera Murad Jamali, District Naseerabad, Balochistan
(iv).	Type of Generation Facility	Thermal (Combined Cycle)

(B). Plant Configuration

(i).	Plant Size Installed Capacity (Gross ISO)	404.00 MW	
(ii).	Type of Technology	Combined Cycle Power Plant (CCPP)	
(iii).	Number of Units/Size (MW)	Gas Turbine	2 x 133.77 MW
		Steam Turbine	1 x 136.46 MW
(iv).	Unit Make & Model	Gas Turbine	GE 9171E
		Steam Turbine	General Electric (GE) USA
(v).	De-rated Capacity (at Mean Site Conditions)	386.20 MW	
(vi).	Auxiliary Consumption	11.00 MW	
(vii).	Commissioning and Commercial Operation date	December 31, 2011	
(viii).	Expected Life of the Facility from Commercial Operation Date	25 Years	

[†] As provided by the Applicant



(C). Fuel Details

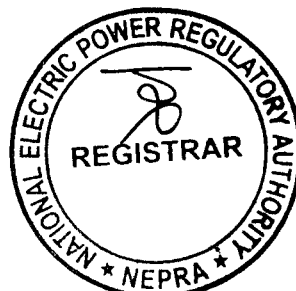
(i).	Primary Fuel	Low BTU Gas of Uch Gas Field	
(ii).	Alternative/ Back-up Fuel	None – HSD for Starting/Shutting Purposes	
(iii).	Fuel Source (Imported/Indigenous)	Primary Fuel	Alternate/Back-up Fuel
		Low Btu UCH Gas Field	Not yet decided – HSD for Starting/Shutting Purposes
(iv).	Fuel Supplier	Primary Fuel	Alternate/Back-up Fuel
		Oil and Gas Development Corporation Limited (OGDCL)	Not yet decided
(v).	Supply Arrangement	Primary Fuel	Alternate/Back-up Fuel
		Trough Pipeline from Low Btu UCH Gas field to Power plant	Through Oil Tankers
(vi).	No of Storage Tanks	Primary Fuel	Alternate/Back-up Fuel
		N.A	One
(vii).	Storage Capacity of each Tank	Primary Fuel	Alternate/Back-up Fuel
		N.A	12,000 M ³
(viii).	Total Gross Storage	Primary Fuel	Alternate/Back-up Fuel
		N.A	12,000 M ³

(D). Emission Values

(i).	SO _x	Primary Fuel	Alternate/Back-up Fuel
		3.10 mg/Nm ³	N.A
(ii).	NO _x @ 15% O ₂	Primary Fuel	Alternate/Back-up Fuel
		77mg/Nm ³	N.A
(iii).	CO	Primary Fuel	Alternate/Back-up Fuel
		30 mg/Nm ³	NA
(iv).	PM ₁₀	Primary Fuel	Alternate/Back-up Fuel
		50 mg/Nm ³	NA

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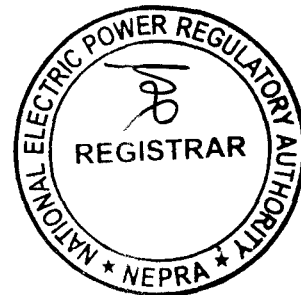
(E). Cooling System

(i).	Cooling Water Source/Cycle	Canal Water (Raw Water from Pat Feeder Water Canal)/Closed Cycle
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(F). Plant Characteristics

(i).	Generation Voltage	14.50KV (Gas Turbine)/ 15.0KV (Steam Turbine)
(ii).	Frequency	50 Hz
(iii).	Power Factor (p.f.) [‡]	0.8 Lagging to 0.9 Leading
(iv).	Automatic Generation Control	Yes
(v).	Ramping Rate	To be submitted later after detailed study of Technical Specifications.
(vi).	Time required to Synchronize to Grid and loading the complex to full load.	To be submitted later after detailed study of Technical Specifications.

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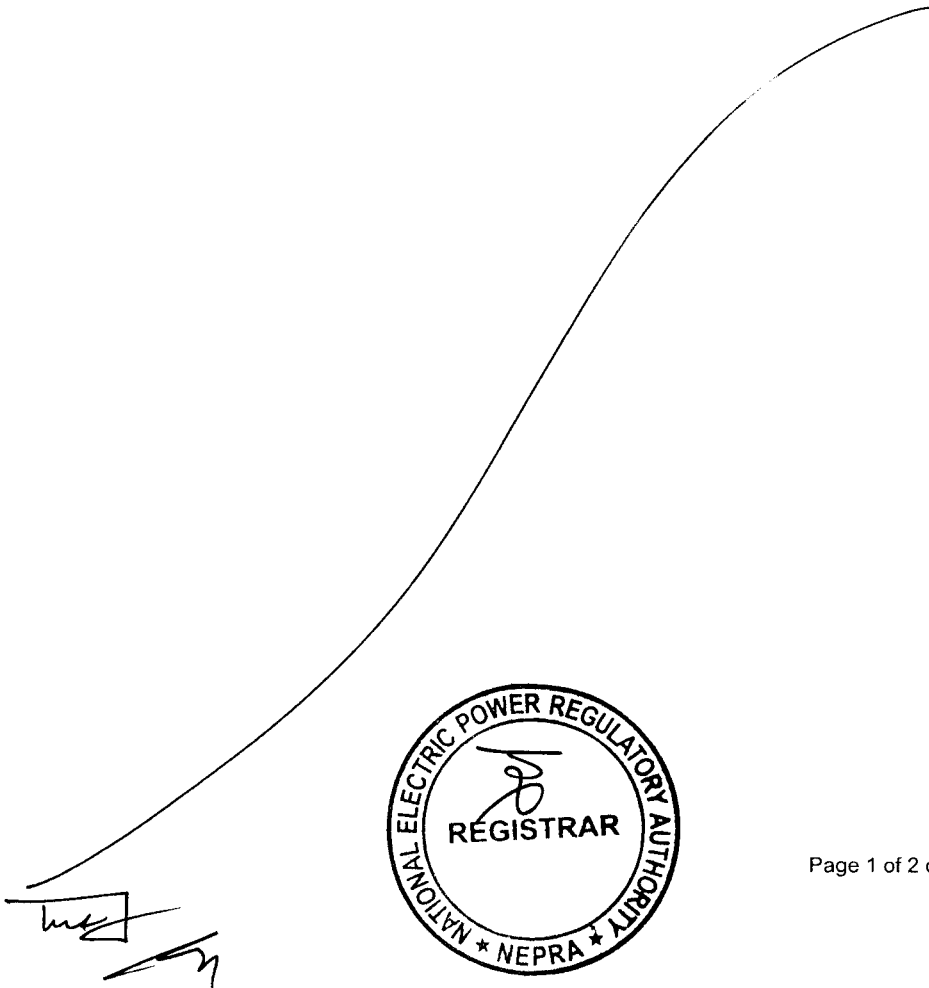


[‡] The applicant had submitted that the p. f. would be in the range of 0.8 lagging to 0.95 leading. However, the provisions of the Grid Code requires the p.f. range to be within 0.8 lagging to 0.9 leading. Therefore, the provisions of the range of p.f. has accordingly been amended to comply with the conditions of the Grid Code.

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SCHEDULE-II

The net capacity of the Licensee's Generation Facilities



SCHEDULE-II*

1.	Installed Capacity Gross ISO	404.00 MW
2.	De-rated Capacity at Mean Site Conditions	386.20 MW
3.	Auxiliary Consumption	11.00 MW
4.	Net Capacity of the Plant at Mean Site Conditions	375.20 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

