



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-70/ 10290 - 92

November 03, 2011

Mr. Asif Qadir
Chief Executive/President
Engro Polymer & Chemicals Limited
1st Floor, Bharia Complex-I,
24 MT Khan Road,
Karachi-74000

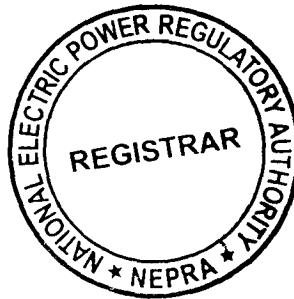
Subject: **Modification in Generation Licence No. SGC/026/2004, dated 11.11.2004, Engro Polymer & Chemicals Limited (EPCL)**

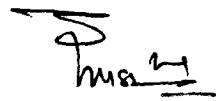
Reference: *Your letter No. nil dated April 05, 2010*

It is intimated that the Authority has approved "Licensee Proposed Modification" in Generation Licence No. SGC/026/2004 in respect of Engro Polymer & Chemicals Limited pursuant to Regulation 10(11) of the NEPRA Licensing (Application & Modification Procedure) Regulations, 1999.

2. Enclosed please find herewith Modification-II in the Generation Licence No. SGC/026/2004, as approved by the Authority. Further, the determination of the Authority in the matter is also attached.

Encl:/As above




(Syed Safeer Hussain)

Copy to:

1. Chief Executive Officer, Karachi Electric Supply Company (KESC), KESC House No 39-B, Sunset Boulevard Phase-II, Defence Housing Authority, Karachi
2. 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

SGC/026/2004

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 (XL of 1997), the Authority hereby modifies the Generation Licence granted to Engro Ploymer & Chemicals Limited (on November 11, 2004 and expiring on November 10, 2024), to the extent of changes mentioned as here under:-

- (i). Changes in **Schedule-I** attached as Modified Schedule-I; and
- (ii). Changes in **Schedule-II** attached as Modified Schedule-II.

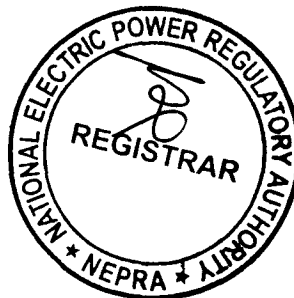
This **Modification-II** is given under my hand this 03rd of **November Two Thousand & Eleven**


Registrar



SCHEDULE-I
(Revised)
Modification-II

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.

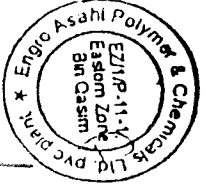
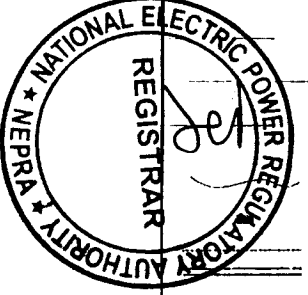
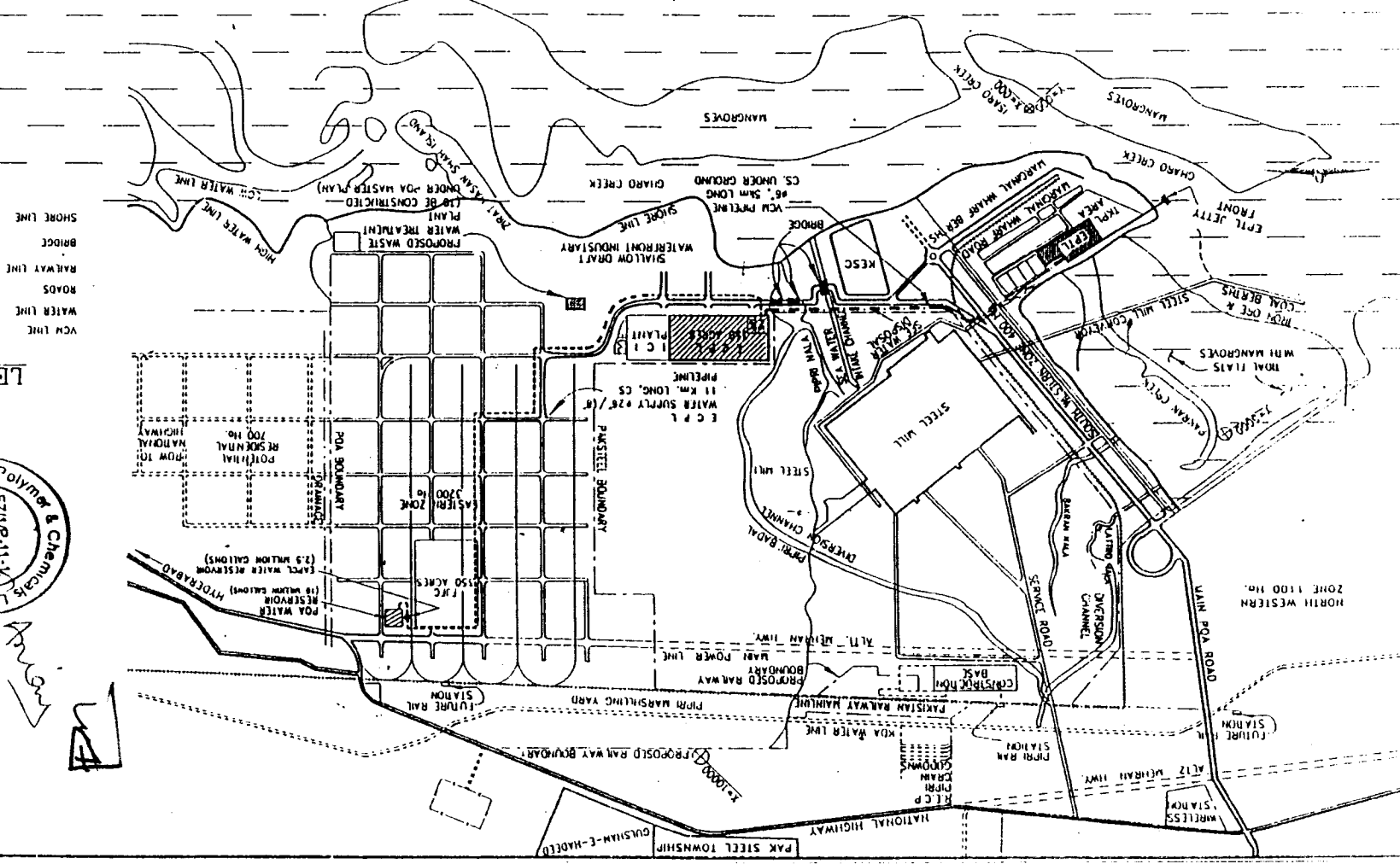


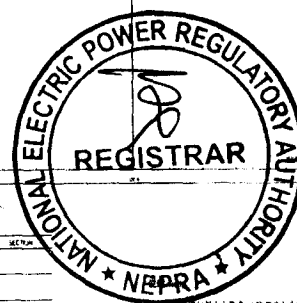
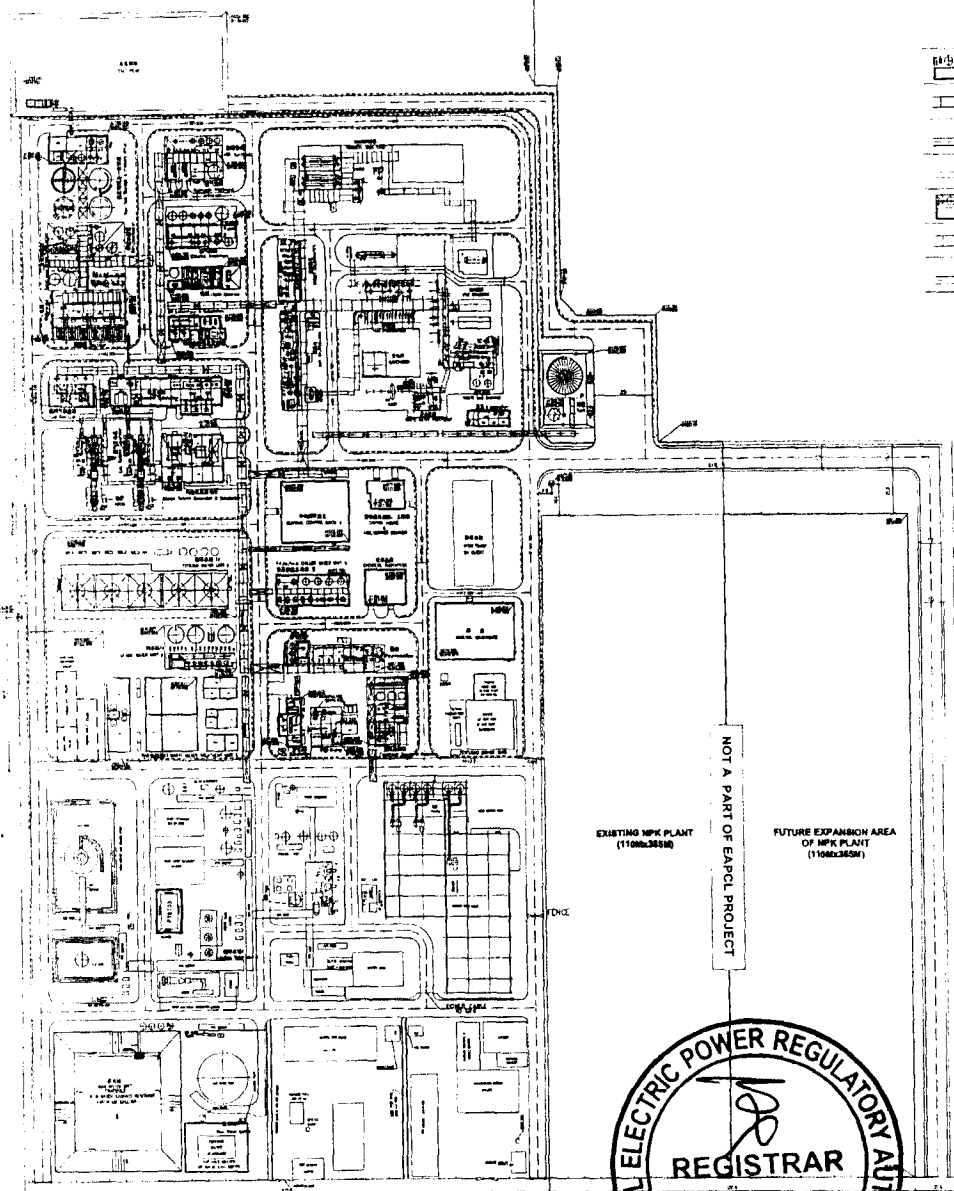
NUMBER		REFERENCE DRAWINGS		DWG. NO.		SCALE	JOB NO.	REV.	DATE
				7100-PI-005		1 OF 1	050-7100	0	
						NTS			
				SHEET 1 OF 1					
				CHECKED BY		DATE	DRAWN BY		DATE
				BY					
				REVISIONS					
Title		DATE		APPROVED BY		DATE			
				Said					
				Said					

VCN, WATER LINE ROUTE
AND AREA DRAWING
P.V.C. PROJECT

ENGRO

ENGRO CHEMICAL PAKISTAN LTD.



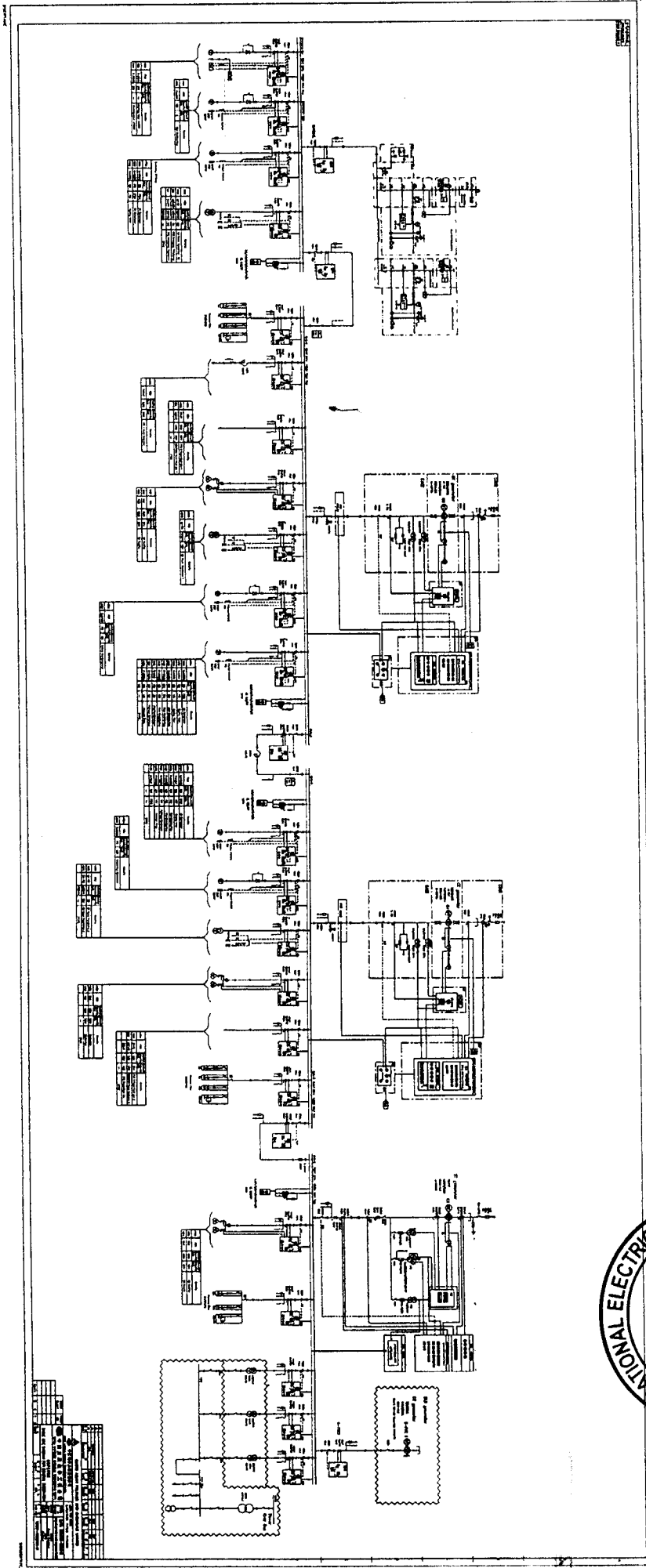


主楼一览表
MAIN BUILDING LIST

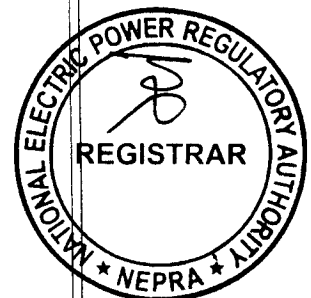
序号 NO.	主楼名称	主楼编号	主楼面积	主楼用途	序号 NO.	主楼名称	主楼编号	主楼面积	主楼用途	序号 NO.	主楼名称	主楼编号	主楼面积	主楼用途
1	控制楼	13	220	控制楼	25	4140	化验室	57	5700	26	4140	化验室	57	5700
2	主楼	14	200	主楼	26	4140	化验室	58	5710	27	4140	化验室	58	5710
3	主楼	15	1400	主楼	27	4140	化验室	59	5720	28	4140	化验室	59	5720
4	主楼	16	3640	主楼	28	4140	化验室	60	5730	29	4140	化验室	60	5730
5	主楼	17	3610	主楼	29	4140	化验室	61	5740	30	4140	化验室	61	5740
6	主楼	18	4100	主楼	30	4140	化验室	62	5750	31	4140	化验室	62	5750
7	主楼	19	4200	主楼	31	4140	化验室	63	5760	32	4140	化验室	63	5760
8	主楼	20	4300	主楼	32	4140	化验室	64	5770	33	4140	化验室	64	5770
9	主楼	21	4400	主楼	33	4140	化验室	65	5780	34	4140	化验室	65	5780
10	主楼	22	4500	主楼	34	4140	化验室	66	5790	35	4140	化验室	66	5790
11	主楼	23	4600	主楼	35	4140	化验室	67	5800	36	4140	化验室	67	5800
12	主楼	24	4700	主楼	36	4140	化验室	68	5810	37	4140	化验室	68	5810

1. 本图仅供参考，不作为工程设计的依据。
2. 本图仅供参考，不作为工程设计的依据。
3. 本图仅供参考，不作为工程设计的依据。

NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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**INTERCONNECTION/TRANSMISSION
ARRANGEMENT FOR THE DISPERSAL OF
POWER FROM THE POWER PLANT**

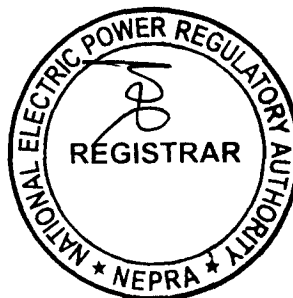
The surplus Power of Engro Polymer & Chemicals Limited (EP&CL) from its Thermal Power Generation facility, shall be dispersed to the Load Center of KESC.

The Interconnection/Transmission Arrangement for the above mentioned facilities will be at 11 KV voltage as given in the Agreement for Power Purchase (PPA) of March 14, 2009 signed between EP&CL and KESC.

Any change in the final Interconnection and Transmission Arrangement(s), for the dispersal of power other than the above, as agreed by EP&CL and KESC shall be communicated to NEPRA in due course of time.

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Plant Details*

(A). General Information

(i).	Name of Applicant	Engro Polymer and Chemicals Limited.
(ii).	Registered Office	1st Floor, Bhria Complex, Maulvi Tamizuddine Khan Road, Karachi, Sindh.
(iii).	Business Office	-do-
(iv).	Plant Location	Port Bin Qasim, Karachi, Sindh.
(v).	Type of Generation Facility	Thermal Generation

(B). Plant Configuration

(i).	Plant Size Installed Capacity (Gross ISO)	79.02 MW			
(ii).	Type of Technology	Gas Turbine (G.T.) + Steam Turbine (S.T.)			
(iii).	Number of Units/Size (MW)	G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
		6.50 MW	29.06 MW	29.06 MW	14.40 MW
(iv).	Unit Make & Model	G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
		Alstom Tornado FGT200	Hitachi H25	Hitachi H25	Hangzhou (C-15-3.43/1.1)

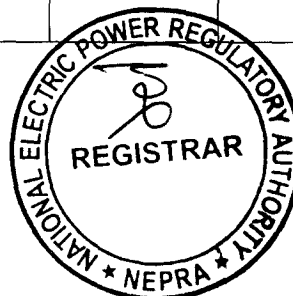
* As provided by the Applicant



(v).	Date of Commissioning /Operation	G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
		1999	2009	2009	2009
(vi).	Expected Life of the Units of Facility from Commercial Operation/ Commissioning Date (based on the commissioning of the Oldest Unit)	20 Years			
(vii).	Minimum Expected Remaining useful Life of the Units of the Facility (based on the commissioning of the Oldest Unit)	14 Years			

(C). Fuel Details

(i).	Main Fuel	G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
		Natural Gas	Natural Gas	Natural Gas	No fuel required as it is operated utilizing exhaust of the Unit No. 2 & 3



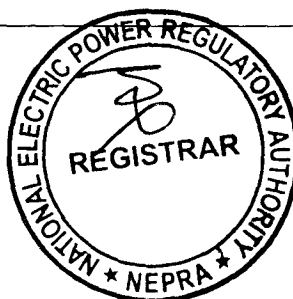
(ii)	Alternative Fuel	G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
		Diesel Oil	Not Applicable		
(iii).	Fuel Source (Imported/ Indigenous)	G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
		Indigenous			
(iv).	Main Fuel Supplier	Sui Southern Gas Company (SSGC)			
(v).	Alternative Fuel Supplier	Pakistan State Oil (PSO)			
(v).	Supply Arrangement for Main Fuel	Through Pipeline			
(vi)	Supply Arrangement for Alternative Fuel	Through Tankers			

(D). Emission Values

		G.T. No.1 (Unit No.1)	G.T. No.2 & 3 (Unit No.2 & 3)
(i).	SO _x	19.98 ppm	NIL
(ii).	NO _x	32 ppm	NIL
(iii).	CO _x	Not applicable	3 mg/Nm ³
(iv).	PM ₁₀	Nil	-

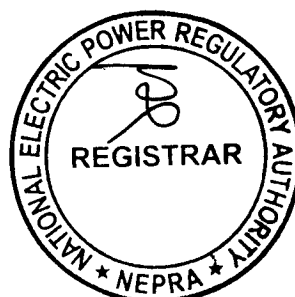
(E). Cooling System

(i).	Cooling Water Source/Cycle	Canal Water after necessary treatment/Closed Loop
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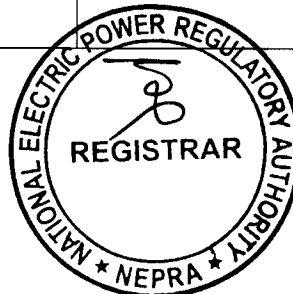
(F). Plant Characteristics

		G.T. No.1 (Unit No.1)	G.T. No.2 (Unit No.2)	G.T. No.3 (Unit No.3)	S.T. No.1 (Unit No.4)
(i).	Generation Voltage	6.6 KV	6.6 KV		
(ii).	Frequency	50 Hz	50 Hz		
(iii).	Power Factor	0.8	0.89		
(iv).	Automatic Generation Control (AGC)	-	Yes		
(v).	Ramping Rate	20 Min	14 Min		
(vi).	Time required to Synchronize to Grid and loading the complex to full load.	-	-		



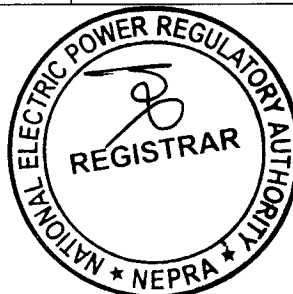
**Information Pertaining to the
Bulk Power Consumer-BPC (in the Name of Engro Fertilizers Limited) of the
Licensee [i.e.Engro Polymer and Chemicals Limited]**

A.	No. of Consumers	One (01)
B.	Location of consumer (distance and/or identity of premises)	Engro Fertilizers Limited (EFL), Bin Qasim, Karachi
C.	Contracted Capacity and Load Factor for consumer	1.60 MW, Load Factor 0.75
D.	Specify Whether	
	(i) The consumer is an Associate undertaking of the EP&CL- If yes, specify percentage ownership of equity;	No
	(ii) There are common directorships:	No
	(iii) Either can exercise influence or control over the other.	No
E.	Specify nature of contractual Relationship	
	(i) Between consumer and EP&CL.	Bi-lateral agreement between consumer and EP&CL
	(ii) Consumer and KESC.	No
F.	Capacity originally sanctioned by Provincial Government- If subsequently enhanced, evidence of permission for enhancement.	N/A
G.	Tariff Arrangement and particulars with WAPDA/Provincial Government	N/A
H.	Any other network information deemed relevant for disclosure to or consideration by NEPRA.	N/A



**Information Regarding Distribution Network for
Supply of Power to Bulk Power Consumer (in the Name of Engro Fertilizers
Limited) of the Licensee [i.e.Engro Polymer and Chemicals Limited]**

A.	No. of Feeders	One (01)
B.	Length of Feeder	150 Meter
C.	Length of Feeder to Consumer	150 Meter
D.	In respect of all the Feeders, describe the property (streets, farms, Agri land, etc.) through, under or over which they pass right up to the premises of customer, whether they cross-over or pass near the DISCO lines.	Feeder passes through Engro Polymer and Chemicals Limited (EP&CL) area only. Does not pass DISCO lines. Power through underground cables.
E.	Whether owned by EP&CL, Consumer or KESC -(deal with each Feeder Separately)	
	- If owned by KESC, please furnish particulars of contractual arrangement	Owned by the consumer (i.e. Engro Fertilizers Limited)
	- Operation and maintenance responsibility for each feeder	Maintenance responsibility of the feeder lies with the consumer
F.	Whether connection with network of KESC exists (whether active or not)- If yes, provide details of connection arrangements (both technical and contractual)	No
G.	Any other network information deemed relevant for disclosure to or consideration by NEPRA.	-



SCHEDULE-II
(Revised)
Modification-II

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.	Installed Capacity Gross ISO (1 x 6.5 MW G.T + 2 x 29.06 MW G.T. + 1 x 14.40 MW S.T)	79.02 MW
2.	De-rated Capacity at Mean Site Conditions (1 x 5.2 MW G.T. + 2 x 24.78 MW G.T + 1 x 14.40 MW S.T.)	69.16 MW
3.	Auxiliary Consumption	02.15 MW
4.	Net Capacity of the Plant at Mean Site Conditions	67.01 MW

Note

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

* As provided by the applicant

