

741-871

A 158 MW Power Plant in District Kohat, NWFP



InterGen Private Limited
No. 64, Ground Floor
Beverly Centre, Blue
Area, Islamabad
Pakistan

Tariff Petition

*Application for Tariff Determination Submitted to the
National Electric Power Regulatory Authority
(NEPRA) by InterGen (Pvt) Ltd.*

28 September, 2007

Registrar	26/9
Dy. No.	26/9
Dated	01-10-07

Application for Tariff Determination
For a Power Project of Approximately 157 MW

To
NATIONAL ELECTRIC POWER
REGULATORY AUTHORITY
(NEPRA)

By
INTERGEN (PVT) LIMITED
No. 64, Ground Floor, Beverly Centre, Blue Area, Islamabad
Phone: 51-2814174/5
Fax: 51-2279877

28 September, 2007

[ORIGINAL]

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PART II

- a. Letter of Support from NTDC
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- d. Letter of Interest (LOI) from PPIB



IGL-HO (001)/07/PD/

September 28, 2007

The Registrar
National Electric Power Regulatory Authority
OPF Building
Shahra-e-Jamhuriyat
G-5/2, Islamabad

Subject: Application for Tariff Determination for INTERGEN, a 157 MW Combined Cycle Power Plant at Lachi, District Kohat

Dear Sir,

It gives me great pleasure to submit to you an application for Tariff Determination on behalf of InterGen (Pvt) Ltd. The first project of its kind in the NWFP and the only power project in the southern districts of the province, InterGen is an HFO based combined cycle power plant located at Lachi, in Kohat District.

InterGen received a Letter of Interest (LOI) from the Private Power & Infrastructure Board under the Power Policy 2002 (letter No.1 (102) PPIB-1006/04/PRJ) on July 7, 2004. Following the issuance of the LOI, a comprehensive feasibility study was conducted by M/s Elektrowatt-Ekono of Finland and approved by PPIB in January 2006.

As a next step and in accordance with section 1.3 of the Guidelines for Determination of Tariff for IPPs (November, 2005) and the Tariff Standards & Procedure Rules (1998), we are filing a tariff petition to NEPRA along with all the relevant documents and prescribed fees. A pay order no. **HMB/PO 2286023** of the amount **PKR 2,694,500** (Pak Rupees two million six hundred and ninety four thousand five hundred) is included with this document as the tariff petition fee. We are also applying for a Generation License through a separate application and request that both applications are processed promptly in order to facilitate early completion of negotiations with NEPRA.

We look forward to the discussions with NEPRA and assure you of our full cooperation at all times.

Sincerely,

Malik Asad Khan
Chief Executive Officer
InterGen (Pvt) Ltd.

DG(F).

cc
1. A. Chairman.
2. M(T).

Pay order no. HMB/PO 2286023 (Rs. 2694500) is forwarded for n.a. Please confirm if correct amount is sent. 9/27/07 1-10-07.

Received one original also two copies of tariff petition
Registrar
By No. 2612
Dated 01-10-07

THIS PORTION TO BE DETACHED BY
THE PAYEE BEFORE PRESENTATION

Habib Metropolitan Bank Ltd.
(Formerly Metropolitan Bank Limited)

Haider Road Branch
9-Haider Road, Rawalpindi Cantt.

THIS PAY ORDER MUST IN ACCORDANCE WITH THE
TERMS BE PRESENTED THROUGH A BANK. IF
PRESENTED AT THIS BRANCH FOR CASH,
PROPER IDENTIFICATION WILL BE REQUIRED.

Payee's Account only



Habib Metropolitan Bank Ltd.

Haider Road Branch
9-Haider Road, Rawalpindi Cantt.

This payment order requires endorsement

Not Over PKR*****2,694,500.00

Date : 29 Sep 07

NEPRA COMSATS BUILDING
F-5 ISLAMABAD

PKR*****2,694,500.00

PAY NEPRA COMSATS BUILDING F-5 ISLAMABAD OR ORDER

PKR two million six hundred and ninty four thousand
five hundred only

For Habib Metropolitan Bank Lt

YASMIN KHALID

CHECKED

MANAGER

PKR *****2,694,500.00

HMB/PO2286023

002286023

Date : 29 Sep 07

HMB/PO2286023

002286023

ATTORNEY

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ATTORNEY

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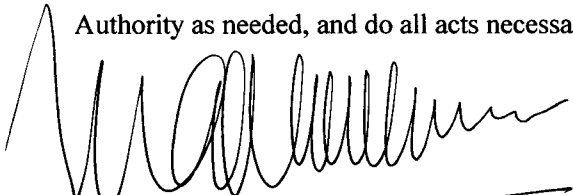
BOARD RESOLUTION

Resolution of the Board of Directors of InterGen (Private) Limited on 21 September, 2007.

At the aforesaid meeting, it was resolved that:

“IT IS UNANIMOUSLY RESOLVED that the Company files Tariff Petition with National Electric Power regulatory Authority (NEPRA).

Further Resolved that Mr. Malik Ahmad Khan and Mr. Mohsin Khalid are authorized to sign, individually or jointly the necessary documents, pay the necessary filling fees, appear before the Authority as needed, and do all acts necessary for completion and processing of the applications”.



Chief Executive Officer

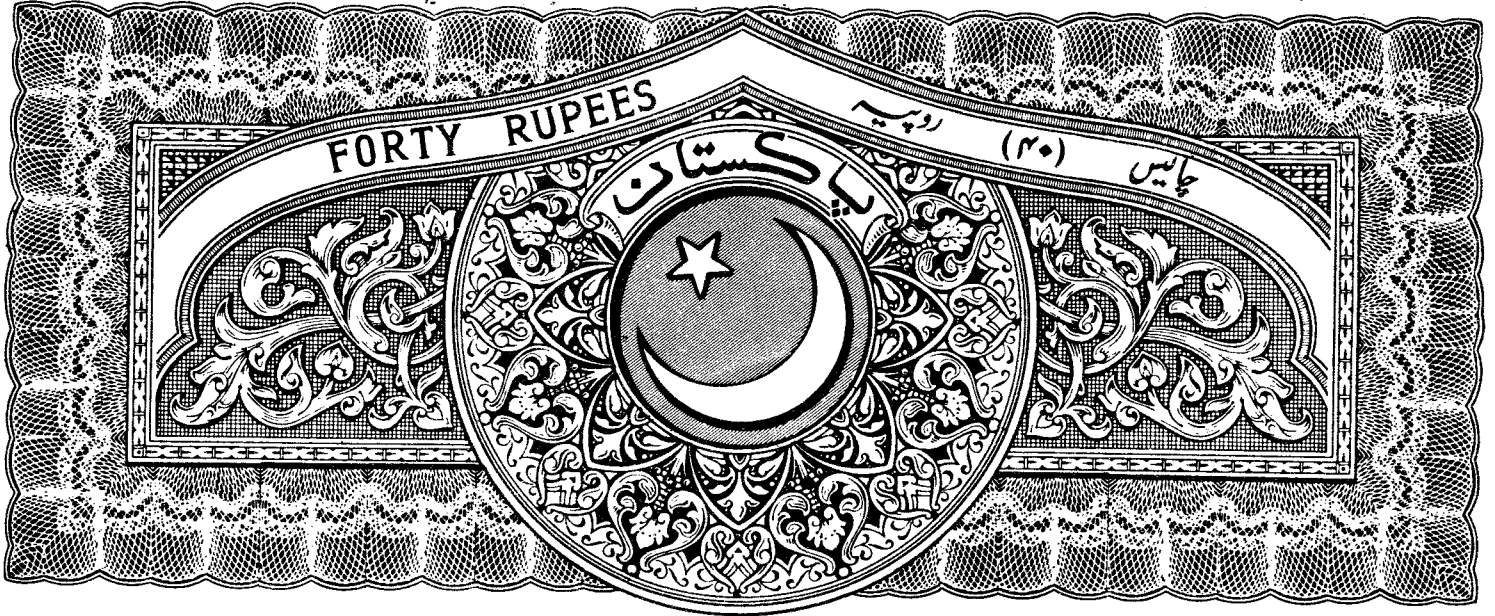


Director



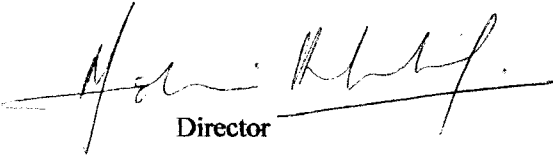
Director

Dated: September 21, 2007

AFFIDAVIT

I, Malik Muhammad Ahmad Khan S/O Malik Muhammad Asad Khan resident of New Colony, Kohat Cantt, Kohat and holding NIC No 61101-633 1763-1 being the duly appointed Attorney of Intergen (Pvt) Ltd. No. 64, Ground Floor, Beverly Centre, Blue Area, Islamabad, Pakistan, hereby solemnly affirm and declare that the contents of this Tariff Petition dated September 28, 2007, including all supporting documents are true and correct to the best of my knowledge and belief and that nothing has been concealed.

Verified on this 28th date of September, 2007


Director

Deponent


Malik Muhammad Ahmad Khan

Intergen (Pvt) Ltd.

1. INTRODUCTION

- 1.1. The Private Power & Infrastructure Board (PPIB) registered Intergroup under the Registration No. 1006 in August 2003 and issued Prequalification Documents (PQD) to the sponsors for submitting a proposal for a 100-150 MW power plant at Gurguri, District Karak.
- 1.2. The sponsors, to develop and implement the power project, established a Special Purpose Company called Intergen (Pvt) Ltd.
- 1.3. Based on preliminary research for the proposal and in consultation with PPIB, the location of the proposed plant was shifted from Gurguri to Lachi in District Kohat, and a detailed PQD for Intergen was submitted to PPIB in October, 2003. PPIB in turn issued notification of prequalification in April, 2004 (Letter No. 1(102) PPIB-1006/04/PRJ) and directed the sponsors to furnish the requisite Bank Guarantees.
- 1.4. The sponsors received a Letter of Interest (LOI) from PPIB in favor of Intergen in July, 2004 (see Appendix A).
- 1.5. The detailed feasibility study for the project was awarded to M/s Elektrowatt Ekono of Finland in September 2004.
- 1.6. The project sponsors had reservations regarding the availability of fuel for the project and work on the feasibility study was initially delayed until the fuel situation could be clarified by PPIB and the Ministry of Petroleum & Natural Resources. After several months of liaison with the relevant authorities, PPIB finally advised the sponsors to conduct the feasibility without any concrete indication of fuel availability. Due to the uncertainty of fuel availability, the PPIB's Panel of Experts (POE) also recommended conducting the feasibility for two fuel scenarios;
 - 12 month gas-based operation and
 - 9 month gas plus 3 months HFO-based operation.
- 1.7. Work on the feasibility report started in earnest in early 2005 and regular meetings were held with the POE to receive the panel's technical input. Monthly progress reports were also submitted to PPIB to apprise the panel of the development of the feasibility report including site selection and survey, plant conceptual design and configuration, environmental impact assessment, project costs and tariff calculations.
- 1.8. The draft feasibility study was submitted to PPIB in November, 2005 and a final report in December, 2005. PPIB approved the feasibility report in January, 2006 (see Appendix B).
- 1.9. Based on a decision notified by the Government of Pakistan in April 2006 confirming that no gas would be available for new IPPs, PPIB advised Intergen to pursue a tariff with NEPRA based solely on Heavy Fuel Oil (HFO). In view of this development, Intergen updated its technical feasibility and prepared a revised Initial Environmental Examination (IEE) Report for 12-month HFO operation.
- 1.10. Intergen is now filing a tariff petition directly with NEPRA without negotiating the tariff with the power purchaser, in accordance with the Guidelines for Determination of Tariff for IPPs (November, 2005),
- 1.11. The proposed plant concept is a net 156 MW combined cycle power plant with HFO as the main fuel. The main components of the plant are 9 x Wärtsilä (18V46) 16.56 MW engine generator (gross at site conditions) sets and 9 x heat recovery steam generators (HRSG) for feeding an 11.60 MW condensing steam turbine. The auxiliary power consumption of the plant is estimated at 4.6 MW while the overall total plant net output at site conditions is 156 MW when operating on HFO.

2. PROJECT COST:

The project cost estimate of the Project is presented below in US dollars (“USD”). The Engineering, Procurement and Construction (“EPC”) price is fixed at Euros 122.83 million (764.61 Euros/kW) and, converted at the reference exchange rate of 1.20 USD/Euro, this price will be USD 147.39 million (917.53 USD/kW). At this time we have assumed total EPC cost in foreign exchange.

The following is a break-up of the Capital cost:

Description	Amount
EPC Cost	147.39
Taxes & Duties	6.63
Emergency spare parts	2.21
Mobilization Costs	3.00
Land purchase, fees and infrastructure	2.00
Development Cost	3.00
Insurance costs	1.99
Testing Fuel	1.00
Administrative Cost	1.00
Non EPC Construction & Other Capex	4.00
Financing Fees & Charges	4.20
Total Project Cost before Interest During Construction (IDC)	176.43
Interest During Construction (IDC)	19.05
Total Project Cost after Interest During Construction (IDC)	195.47

Itemized Explanation of Investment

- EPC Cost covers power generation sets together with all the necessary auxiliary machinery, equipment and systems including the erection and commissioning of the equipment and construction of the power house. The EPC cost also includes the cost of fuel storage tanks; three tanks of 10,000 m³ for HFO and one tank of 2,000 m³ for HSD, along with fuel loading/unloading pumping system with all heating and piping as well as a fire containment area of about 7200 m³.
- Taxes & Duties covers all import taxes and duties as per the 2002 Power Policy said to be 5% of EPC cost. 88% of the EPC has been assumed in foreign currency. Taxes & Duties will be charged at actual.
- Emergency spare parts covers the costs of standard lot of spare parts aimed to reduce as much as possible the stop times for maintenance of the plant, *i.e.* instead of taking a component out and testing it, exchanging and replacing the component so that the removed component is tested and used as a spare the next time. These are estimated at 1.5% of EPC costs.
- Mobilization Costs covers the expenses of Interger and O&M Contractor personnel, *i.e.* hiring local personnel for operation and maintenance, skill training at manufacturer's factory on diesel engines and auxiliaries, selection of an expatriate to carry out the operation and management, travel costs and cost of professional courses,
- Land purchase, fees and infrastructure covers the purchase of land together with stamp duty and registration fees, the fees of brokers and lawyers as well as the cost of fill to levelize the site, construction of an access road from the main highway to the site, and construction of a drainage system and boundary wall as stipulated by the Soil investigation study.

- Development Costs include the Sponsors Development Costs, cost of the Feasibility Study, Environmental study, Geological and Hydrological studies and load flow and short circuit assessments, fees of engineering consultants, lawyers in Pakistan and abroad and technical consultants, the guarantees furnished to PPIB and fees paid to NEPRA.
- Insurance Costs covers the costs during construction of insurance of assets incurred prior to the Commercial Operations Date (the **COD**). This is estimated at 1.35% of EPC costs. Any additional charges payable on account of terrorism cover will be pass through.
- Administrative Cost includes annual staff salaries, utilities during construction and other administrative expenses.
- Non EPC Construction & Other Capex covers the cost of items which have been excluded by the EPC contractor and have to be borne by the Project Sponsors; administration & office Buildings, residential colony and associated facilities, the procurement of a telecommunication system, electricity and water connections, SCADA, weather Station, security system and all office supplies and electric equipments.
- Financing Fees & Charges includes the up-front fee, commitment fee, lenders consultants fee, L/C charges etc. It is assumed that local funding would be available for the project, in case of foreign funding additional financing cost will be considered as pass through.
- Interest during Construction is calculated on the basis of anticipated interest rates, equity injections, and the construction payment schedule. It may be noted that Interger's COD is based on a period of 24 months corresponding to a COD of December 31, 2010.

Capital Structure

The capital structure of the Project is as follows:

Description		Amount	
	Equity	US\$MM	48.87
	Debt	US\$MM	146.61
Total Project Cost		US\$MM	195.47
Debt Equity Ratio			75:25

3. TARIFF SUMMARY

A detailed financial analysis was conducted by Electrowatt-Ekono as part of the Feasibility Study. The tariff was originally proposed for dual fuel engines operating on Gas and HFO but was later recalculated for single fuel operation on HFO (as explained in 1.11 above)

The revised HFO tariff is summarized below:

	Capacity Charge R/capacity	Energy Charge R/capacity	Total tariff R/capacity	Total tariff R/capacity
Levelized Tariff	3.948	8.861	12.809	7.685
Average Tariff	3.042	8.861	11.903	7.142

The levelized tariff is calculated using a real discount rate of 10% and a notional plant capacity factor of 60%. Further details of the tariff are described below:

REFERENCE TARIFF TABLE

Year	Energy Purchase Price					Capacity Purchase Price							Total Tariff	
	Rupees/kWh					Rupees/kWh								
	Fuel Component HFO	Fuel Component HFO-Freight	Variable O&M	Total EPP	Return on Equity	Allowance for ROE during Construction	Fixed O&M	Insurance	Financing Cost on Working Capital	Withholding Tax @7.5%	Debt Repayment	Interest Charges		Total
1	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	0.565	1.397	3.002	8.319
2	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	0.642	1.320	3.002	8.319
3	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	0.729	1.233	3.002	8.319
4	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	0.829	1.133	3.002	8.319
5	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	0.942	1.020	3.002	8.319
6	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	1.070	0.892	3.002	8.319
7	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	1.216	0.746	3.002	8.319
8	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	1.382	0.580	3.002	8.319
9	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	1.570	0.392	3.002	8.319
10	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	1.784	0.178	3.002	8.319
11	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
12	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
13	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
14	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
15	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
16	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
17	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
18	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
19	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
20	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
21	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
22	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
23	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
24	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
25	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050			1.040	6.357
Levelized Tariff -Rs./kWh	4.362	0.453	0.501	5.317	0.572	0.097	0.154	0.087	0.080	0.050	0.658	0.671	2.369	7.685
Levelized Tariff - c/kWh	7.271	0.755	0.835	8.861	0.954	0.162	0.256	0.146	0.133	0.084	1.096	1.118	3.948	12.809

3.1 ENERGY COMPONENT

The tariff has a typical two-part structure with an energy component for the energy actually dispatched and a capacity component based on the available capacity. The energy component is based on the actual kWh off-take, and consists of the fuel component and the variable O&M component.

The generation sets being proposed for the Project are advanced technology machines providing high thermal efficiencies. After factoring the impact of fuel cleaning, average plant aging, and a notional 60% plant load factor, this translates to approximately 45% net site efficiency at 100% Load, running on HFO.

The Energy Component consists of the following:

- Fuel Cost Component
- Variable O&M Cost Component

3.1.1 FUEL COST COMPONENT

The Fuel Cost Component represents the fuel consumption at the guaranteed efficiency level of the plant based on a notional 60% plant load factor. Consequently, this tariff subsumes the efficiency risk being borne by InterGen.

It has been calculated based on the following main assumptions:

Parameter	Unit	Value
Technical Parameters for HFO – Cost		
Thermal Efficiency	%	45% at site conditions
Output	GWH	820 at 60% with 2.89% auxiliary load (Net at site conditions)
Net Heat Rate (LHV)	BTU/kWh	7,584
Heating Value	BTU/kg	38,493
Reference Price - HFO(LHV)	Rs/kg	22.140
Technical Parameters for HFO – Freight		
Net Heat Rate (LHV)	BTU/kWh	7,584
Heating Value	BTU/kg	38,493
Net Heat Rate (LHV)	Rs/kg	2.30 (delivery Lahore) (Additional charges may be incurred for transportation to project site)

3.1.2 VARIABLE O&M COST COMPONENT

3.1.2.1 Local variable O&M

The Variable O&M Cost component will be allocated to local and foreign currency components and will be a part of the Energy Component. The local variable O&M represents the cost for lube oil consumption, which is directly related to the actual electricity generation. The rate will be indexed to the prevailing Pakistan Wholesale Price Index (“WPI”)

3.1.2.2 Foreign variable O&M

The foreign variable O&M represents consumption of imported spare parts and chemicals as well as necessary foreign technical services during normal scheduled maintenance, unscheduled

maintenance and major overhauls. The generation sets and associated equipment have manufacturer-recommended overhauling schedules that are based on actual running hours. The consumption of spare parts and the intervals between major overhauls are also directly related to the plant dispatch and electricity production of the plant. The labor for the Variable O&M is on Fixed O&M.

Escalation	Unit	Tariff
Variable O&M - Local	Rs/KWH	0.100
Variable O&M – Foreign	Rs/KWH	0.401

3.2 CAPACITY COMPONENT

The key assumptions factored in the capacity charge are the total capital cost of the Project, the debt-equity ratio, the cost of funding and currency thereof, together with the exchange rate.

The Capacity Component represents all the fixed expenses for InterGen and shall be payable based on the tested plant net capacity at the Commercial Operations Date. The Capacity Component consists of an Escalable Component and a Non-Escalable Component that are calculated on a PKR/kWh basis. This calculation is based on a notional 60% plant capacity factor.

The key assumptions that affect the Capacity Component are the project cost, debt-equity ratio, currency, cost and source of funding, exchange rates, and taxation.

At the time of Commercial Operations, the tariff numbers shall be updated for the various base numbers (e.g. fuel price, EPC, O&M and Insurance prices) adjusted by actual exchange rates compared to the Reference Exchange Rates (as defined in Section 4 - Escalation and Indexation) and Interest During Construction adjusted by actual prevailing KIBOR rates.

Any modifications or additions required by the power purchaser that are not considered in the project shall be treated as pass-through item. The Capacity Component is further broken down into the following components:

The component represents all the fixed costs of the plant and the return on equity. Since there is no recovery of the original equity capital invested, the plant remains the property of InterGen after the 25 year contract period and may operate as a merchant plant.

- Fixed O&M Charge
- Insurance Charge
- Return on Equity
- Working Capital

Fixed O&M: The fixed O&M charge consists of O&M Fee, remuneration of staff and executives of plant operations, administration expenses including rent, utilities, local taxes, security, transportation, tax and legal fees, audit, environmental monitoring and company overheads.

Insurance: Insurance charges include all risk insurance except terrorism, reinsurance for the project as well as insurance coverage for business interruptions, which is anticipated to be a requirement by the senior lenders of InterGen. The insurance industry in Pakistan does not have sufficient capacity; the risk therefore is re-insured overseas and hence the cost of insurance is in USD. Any additional premium payable on account of terrorism cover shall be over this amount and will be pass through.

Return on Equity: ROE includes an annual return on the sponsors' invested equity at a rate which gives a 25 year internal rate of return of 16% net of with-holding taxes (7.5%). Given the

risks associated with project development at the site a return higher than the benchmark offered to other projects has been assumed.

Working Capital: The Working Capital component includes the cost impact of a working capital loan facility, which is anticipated to be covering the net account receivables of InterGen.

Debt Component: The component is based on the annual debt profile of the project with total annual debt payment on PKR/kWh basis. The following parameters have been assumed for the Non-Escalable component of tariff:

	Unit	Value
Amount of Debt	US\$MM	146.61 (75% of the Project Cost)
Term of Loan	Years	10 (24 months construction period + 10 years of semi-annual equal principal repayment after COD)
IDC Term	Months	24
Interest Rate		
KIBOR	%	10.19 (6 monthly)
Margin	%	3.00
Currency of Debt		PKR
Indexation		Funding of PKR: Interest component would be indexed on 6 month KIBOR rate

If 100% local financing cannot be arranged and foreign currency loan has to be obtained then Interest During Construction (IDC) as well as the Debt Component shall be adjusted according to the prevailing relevant interest rates (plus spread/margin) and foreign currency exchange rates.

Debt repayment schedule:

Period	Beginning Principal	Principal	Interest	Installment	Ending Principal
	PKR MM				
1	8,796.31	224.24	580.12	804.36	8,572.07
2	8,572.07	239.03	565.33	804.36	8,333.04
3	8,333.04	254.79	549.56	804.36	8,078.25
4	8,078.25	271.60	532.76	804.36	7,806.65
5	7,806.65	289.51	514.85	804.36	7,517.15
6	7,517.15	308.60	495.76	804.36	7,208.55
7	7,208.55	328.95	475.40	804.36	6,879.59
8	6,879.59	350.65	453.71	804.36	6,528.95
9	6,528.95	373.77	430.58	804.36	6,155.18
10	6,155.18	398.42	405.93	804.36	5,756.76
11	5,756.76	424.70	379.66	804.36	5,332.06
12	5,332.06	452.71	351.65	804.36	4,879.35
13	4,879.35	482.56	321.79	804.36	4,396.79
14	4,396.79	514.39	289.97	804.36	3,882.40
15	3,882.40	548.31	256.04	804.36	3,334.09
16	3,334.09	584.47	219.88	804.36	2,749.62
17	2,749.62	623.02	181.34	804.36	2,126.60
18	2,126.60	664.11	140.25	804.36	1,462.49
19	1,462.49	707.90	96.45	804.36	754.59
20	754.59	754.59	49.77	804.36	-

4. ESCALATIONS AND INDEXATIONS

The different components of the tariff described above shall be escalated and indexed. All foreign related costs (Insurance, EPC, O&M costs, etc.) have been calculated by using the Reference Exchange Rates, which are PKR/USD = 60.00; PKR/EUR = 72.00; and USD/EUR = 1.20.

For the purpose of cost adjustment due to inflation, the Reference Date applicable to the indices described below shall be August 31, 2007.

The details for indexation of the tariff are described below:

4.1 INFLATION FACTORS

The following tariff components shall be subject to inflation factors:

S.No	Component	Factor
1.	Variable O&M-Local	Wholesale Price Index (WPI)
2.	Variable O&M-Foreign	US CPI
3.	Fixed O&M	50% US CPI and US Dollar remaining 50% Pakistan WPI
4.	Insurance	U.S. CPI

4.2 CURRENCY INDEXATION

The following tariff components shall be subject to currency indexation:

S.No	Component	Factor
1.	Variable O&M-Foreign	PKR/US Dollar
2.	Fixed O&M	50% US Dollar (along with 50% US CPI)
3.	Insurance	US Dollar
4.	ROE	US Dollar

4.3 INTEREST RATE INDEXATION

The loans shall be subject to interest rate indexation as follows:

- i) Interest (Local) KIBOR rate (6-months)
- ii) Working Capital KIBOR rate (6 months) & Changes in Fuel Price

4.4 FUEL PRICE VARIATIONS

The Fuel Cost Component and its freight component shall be indexed to the actual fuel prices on the basis of the reference fuel prices described in Section 3.1. The adjustment for the Fuel Cost Component shall be made while maintaining the guaranteed heat rate as described in Section 3.1.

The Fuel Cost Component shall also be adjusted for partial load operations according to the manufacturer's recommended partial load adjustment curves in case plant load is below 40%.

4.5 ADJUSTMENTS AT COMMERCIAL OPERATIONS DATE

The Project Cost shall be updated on the Commercial Operation Date as following:

- The Debt Component shall be adjusted by the actual Interest During Construction at the prevailing KIBOR and PKR/EUR exchange rate for the foreign component of project cost.
- Impact of actual variations in PKR/USD and PKR/EUR exchange rates during construction period.

4.6 PASS-THROUGH ITEMS

All new taxes and levies or changes in assumptions of taxes and levies shall be treated as a pass-through in the Power Purchase Agreement.

5. ASSUMPTIONS FOR THE REFERENCE TARIFF CALCULATIONS

- 5.1 Condition of the Equipment:** The equipment is brand new and clean. The machine is assumed to operate at full load under mean site conditions.
- 5.2 Plant configuration:** 9 x 18V46 + 9 x heat recovery steam generators (HRSG) + 1 x Steam Turbine. The plant configuration takes into account the local site conditions; air cooled condensers instead of cooling towers are therefore included in the plant design to minimize plant water requirements.
- 5.3 Site Conditions:** The anticipated average site conditions used to calculate the net output and heat rate include; an altitude of 460 m above sea level, ambient temperature of 30 C, charge air coolant temperature of 40 C and 60% relative humidity.
- 5.4 Transmission line and Interconnection charges:** Transmission line and Interconnection charges are the responsibility of the power purchaser (NTDC) as per clause 1.12 of the "Guidelines for Determination of Tariff for IPPs".
- 5.5 Internal Consumption:** Internal consumption (including air-cooled condenser) has been assumed to be approximately 4.6 MW.
- 5.6 Minimum Load Factor:** Complex minimum continuous loading is assumed at 40% of the Dependable Capacity, below which part load adjustments shall apply.
- 5.7 Starts/Stops of the Complex:** The maximum number of starts/stops of the Complex is assumed to be 220 per annum.
- 5.8 Exchange rate:** The exchange rate of PKR/USD is based on 60.00:1.00 and PKR/EUR is based on 72.00:1.00 and USD/EUR is based on 1.20:1.00. Final local debt amount at COD shall be based on exchange rates prevailing on the date of payment. Exchange gain or loss due to exchange rate fluctuations during construction and EPC payment is assumed to be passed through. Foreign Currency hedging costs have not been considered in the project cost.
- 5.9 Project Cost:** The Project Cost including Interest During Construction (IDC) is 195.47 Million USD.
- 5.10 Taxation and Duties:** A 5% Custom duty on import of Plant & Equipment is included in the project cost. No corporate income tax and no minimum turnover tax have been assumed. Withholding tax of 7.5% on dividends has been assumed.
- 5.11 Project Financing:** Debt (75% of project cost) is assumed to be in local currency. Equity is assumed to be in USD. Debt tenure is assumed to be 24 months (construction) + 10 years quarterly repayment.
- 5.12 Interest Rate:** The interest rate for local loans is based on 6 months KIBOR (10.19%) with a margin of 300 basis points over KIBOR.
- 5.13 Calculation of Capacity Payments:** The plant net output is 156.0 MW and capacity payments have been calculated based on this output.
- 5.14 LCs and Advances to Fuel supplier:** No standby LC or advance payment to the fuel supplier has been considered during tariff computation
- 5.15 Performance degradation:** The fuel component is calculated including sludge, plant average ageing, and an average plant load of 60. Efficiency decrease due to partial loading below

40% shall be compensated for by the relevant partial load adjustment curves from the engine manufacturer.

- 5.16 Hedging Cost:** No hedging cost has been assumed for exchange rate fluctuations during construction.
- 5.17 Plant Load Factor:** The tariff is calculated on the basis of a notional 60% plant load factor.
- 5.18 LHV:** HFO price has been assumed on LHV basis
- 5.19 Fuel Price:** The price of HFO is assumed to be 22,140 PKR/ton.
- 5.20 Tolerance:** Tolerance of +/-3% in Dispatch is assumed.
- 5.21 Working Capital:** Working capital impact of net accounts receivable has been financed by a separate working capital loan, and is not included in the Project cost.
- 5.22 Plant Testing:** Fuel during plant testing is assumed to be paid for by the power purchaser.
- 5.23 Insurance:** Calculation of tariff of Insurance component does not include premium payable for the coverage of events covered under terrorism. Insurance premium payable for coverage of events of terrorism shall be considered as pass through item, under the relevant clause of Power Purchase Agreement, in case it is made mandatory by lenders.
- 5.24** The tariff table shall be updated at financial closing as well as COD of the Project, in order to correct the tariff according to the prevailing KIBOR and exchange rates (PKR/USD and PKR/EUR).

PART II – COPIES OF OFFICIAL CORRESPONDENCE



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad.
Ph: 9207200, 9206500 Fax : 9210215
E-mail: office@nepra.org.pk

No. NEPRA/R/PAR-08/CPPA-2006/4062-64

24.05.2006


Chief Operating Officer
Central Power Purchasing Agency
325-WAPDA House
Shahrah-e-Quaid-e-Azam
Lahore

Subject: **Request of Central Power Purchasing Agency (CPPA) for Acquiring Power from M/s. InterGen Power (IGP)**

The Authority in its Regulatory Meeting 06-132 held on May 11, 2006 considered the power acquisition request of CPPA of National Transmission and Despatch Company Ltd. (NTDC).

2. The Authority has admitted the application and granted permission to CPPA to procure power from M/s. InterGen Power to the extent of 161.5 MW. A copy of the Authority decision is attached herewith.

DA/as above.


24.05.06.
(Mahjoob Ahmad Mirza)

cc:

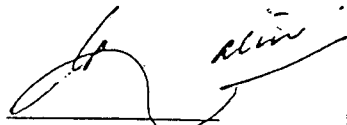
1. Chief Executive Officer, NTDC, 414 WAPDA House, Shaharah-e-Quaid-e-Azam, Lahore.
- ✓ 2. Mr. Ermeena Asad Malik, Director, InterGen Power Plant, 2-A, Khayaban-e-Iqbal, Parbat Road, F-7/3, Islamabad

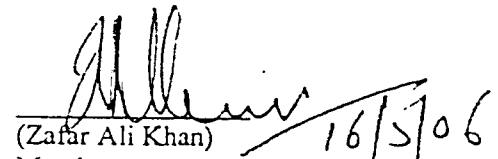
Dated May 11, 2006

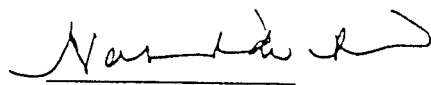
DECISION OF THE AUTHORITY REGULATORY MEETING 06-132 HELD ON MAY 11, 2006 REGARDING CENTRAL POWER PURCHASING AGENCY REQUEST TO ACQUIRE POWER FROM M/S INTERGEN POWER

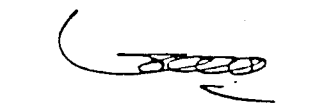
The Authority considered all relevant aspects of the case and decided to:

Admit the application and grant permission to M/s Central Power Purchasing Agency (CPPA) of NTDC to procure power from M/s InterGen Power (IGP) to the extent of 161.5 MW. M/s IGP, M/s CPPA and NTDC may be informed accordingly.


(Abdul Rahim Khan)
Member


(Zafar Ali Khan)
Member 16/5/06


(Nasiruddin Ahmed)
Member


(Lt. Gen® Saeed uz Zafar)
Chairman



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad.
Ph: 9207200, 9206500 Fax : 9210215
E-mail: office@nepra.org.pk

No. NEPRA/R/PAR-08/CPPA-2006/4066-67

24.5. 2006

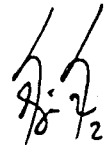
Mr. Ermeena Asad Malik
Director
InterGen Power Plant
2-A, Khayaban-e-Iqbal,
Parbat Road,
F-7/3,
Islamabad

Subject: **Request of Central Power Purchasing Agency (CPPA) for Acquiring Power from M/s. InterGen Power (IGP)**

The application submitted by the Central Power Purchasing Agency (CPPA) of NTDC regarding Power Acquisition from your generation facility has been considered by the Authority. A copy of the Authority decision is attached herewith.

2. You are also advised to submit Generation Licence Application pursuant to Section 15 of NEPRA Act and in accordance with NEPRA Licensing (Application & Modification Procedure) Regulations, 1999 (copy enclosed) and to file a tariff application under Rule 6 of NEPRA Licensing (Generation) Rules, 2000 (copy enclosed). A copy of NEPRA (Tariff Standards and Procedure) Rules, 1998 is also enclosed for ready reference please.

DA/as above.


24.05.06.
(Mahjoob Ahmad Mirza)

cc:

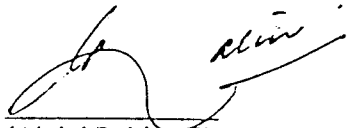
1. Chief Operating Officer, Central Power Purchasing Agency, 325-WAPDA House Shahrah-e-Quaid-e-Azam, Lahore.

Dated May 11, 2006

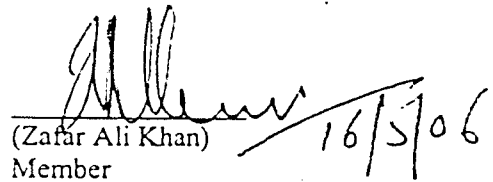
DECISION OF THE AUTHORITY REGULATORY MEETING 06-132 HELD ON MAY 11, 2006 REGARDING CENTRAL POWER PURCHASING AGENCY REQUEST TO ACQUIRE POWER FROM M/S INTERGEN POWER

The Authority considered all relevant aspects of the case and decided to:

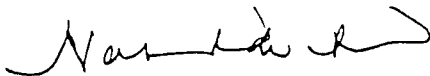
Admit the application and grant permission to M/s Central Power Purchasing Agency (CPPA) of NTDC to procure power from M/s InterGen Power (IGP) to the extent of 161.5 MW. M/s IGP, M/s CPPA and NTDC may be informed accordingly.



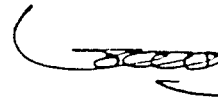
(Abdul Rahim Khan)
Member



(Zafar Ali Khan)
Member



(Nasiruddin Ahmed)
Member



(Lt. Gen® Saeed uz Zafar)
Chairman



NATIONAL TRANSMISSION & DESPATCH COMPANY LIMITED

Telephone No. 9202111/2325
Fax No. 9202578

Office of the
GENERAL MANAGER
WAPDA Power Privatization Organization
325-WAPDA House Lahore

No. GM/WPPO/CE-II/ 3907-09

Dated: 15/12/2006

M/s Inter Construct (Pvt) Limited
2A, Khayabane Iqbal,
F-7/3, PO Box 2376,
Islamabad.


Fax-051-2880021

Sub: 150 MW GAS FIRED POWER PLANT AT LACHI, KOHAT DISTRICT –
PPA (POWER PURCHASE AGREEMENT)

This is with reference to your letter No. ICL-HO(001)/05/PD/127 dated 04.03.2006, vide which, the Company has requested for a tentative letter of comfort from NTDC.

In this regard it is intimated that according to NEPRA's Interim Power Procurement (Procedures and Standards) Regulations 2005, a firm commitment to receive x quantum of power for meeting load demand of particular DISCO is required, accordingly PESCO was requested for the same vide this office letter dated 23.07.2005. PESCO's response is still awaited.

You are therefore requested to approach PESCO for the said comfort letter.


(FAZAL AHMAD KHAN)
General Manager (WPPO)

CC:

1. Technical Director NTDC, WAPDA House, Lahore.
2. Chief Executive Officer PESCO, with the request to provide the commitment already request vide our letter No.GM/WPPO/CE-II/D(Tech-VII)/8419 dated 23.07.2005.



GOVERNMENT OF PAKISTAN
MINISTRY OF WATER & POWER
PRIVATE POWER & INFRASTRUCTURE BOARD

MANAGING DIRECTOR

No. 1(102) PPIB-1006/06/PRJ

2nd May 2006/29/

Subject: FUEL AVAILABILITY

Reference: 150 MW InterGen Power Project at Lachi, District Kohat

Dear Ms

The Government has recently approved a "Fuel Strategy for Power Sector", under which no further gas allocation is currently possible for power sector according to which new additions and expansions will have to be based on fuel oil.

2. In the light of above your project will have to be based on fuel oil. You are therefore requested to proceed with your project accordingly.

3. Please do not hesitate to contact us if you require any clarification.

With best regards,

Yours sincerely,

Khalid I. Rahman

Ms. Ermeena Asad Malik
Director
InterConstruct (Pvt.) Ltd.
Islamabad





GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
(PRIVATE POWER & INFRASTRUCTURE BOARD)

No. 1(102) PPIB-1006/06/PRJ

29th March 2006

Ms. Ermeena Asad Malik
Director
InterConstruct (Pvt.) Ltd.
Islamabad

Subject: Feasibility Study Report of 150 MW InterGen Power Project at Lachi, District Kohat

- Reference: i) Letter of Interest dated 7th July 2004, issued by PPIB to InterConstruct Pvt. Ltd. for setting up of approximately 100-150 MW gas based private power project, to be located at Lachi, Kohat.
- ii) Your letter no. ICL-HO(001)/06/PD/176 dated 27th March 2006, whereby the feasibility study approval letter is requested.

Dear Ms,

We are pleased to communicate that the following decision of the Panel of Experts (POE) that monitored the conduct of feasibility study of the subject project:

"The feasibility study for 100-150 MW InterGen Power Project at Lachi, Kohat by InterConstruct (Pvt.) Ltd. & Wartsila was approved by the POE with the following notes:

- a. *Selection of technology will be finalized during tariff determination by NEPRA/Power Purchaser.*
- b. *As the Project is a raw site project, availability of gas is the responsibility of the Sponsors and failure of the Sponsors to arrange gas would not raise any obligation/liability whatsoever on the part of POE, PPIB, Government of Pakistan and/or any of its entities."*

Best regards,

Yours sincerely,

178- C, A
30-03-06.

(N. A. Zuberi)
Director Projects



GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
(PRIVATE POWER & INFRASTRUCTURE BOARD)

No. 1 (102) PPIB-1006/04/PRJ

115
7 July 2004

Ms. Ermeena Asad Malik
Director
Interconstruct (Pvt.) Limited
2A, Khayaban-e-Iqbal, F-7/3
Islamabad

Subject: LETTER OF INTEREST (LOI) FOR APPROXIMATELY
100-150 MW INTERGEN POWER PROJECT AT LACHI, DISTRICT KOHAT

- References:
- Your Proposal No. nil dated 25th October 2003
 - Our letter of even number dated 17th April 2004.
 - Your letter No. nil dated 17th May 2004.
 - Your Bank Guarantee No. 04040015 of US \$150,000 issued by Askari Commercial Bank Limited, Peshawar Cantt.

Dear Madam,

In terms of the provisions of the Policy for Power Generation Projects, 2002 (the "Policy"), the Government of Pakistan (GOP) hereby confirms its interest in your proposal for conducting a feasibility study (the "Feasibility Study") for setting up of an approximately 100-150 MW private power project to be located at Lachi, District Kohat. As per the Policy, you are required to complete your Feasibility Study for the Subject Project, **at no risk and cost to, and without any obligation on the part of, the GOP and its agencies**, within twelve (12) months from the date of this LOI.

- You are required to carry out the Feasibility Study, complete, at internationally acceptable standards and in accordance with the terms and conditions stipulated in the Policy. The Feasibility Study must include an Environmental Impact Assessment Study, detailed design of power house, load flow and stability studies, design of interconnection / transmission lines, details pertaining to infrastructure, project cost, financing plan, tariff and economic/financial analysis. You are advised to liaise with WAPDA while determining your plant size and site, project layout, transmission line arrangements etc.
- You will carry out the Feasibility Study according to the specific milestones appended herewith at **Annex-A**, and submit monthly progress reports showing progress against these milestones.
- PPIB will appoint a Panel of Experts to monitor the conduct of the Feasibility Study and its progress, to verify attainment of the aforesaid milestones and to ensure implementation of the Subject Project consistent with national and provincial needs.

RECEIVED

Date...0.8.....1...4 Sent an E. mail to Ermeena Bibi

5. The Main Sponsor will be liable for all obligations and liabilities of and on behalf of other Sponsors. Further processing of the Feasibility Study is subject to GOP acceptance according to the Policy.

6. The validity of this LOI is twelve (12) Months from the date of its issuance, whereafter it will automatically lapse immediately. **Issuance of this LOI or the lapsing of its validity, or your conducting a Feasibility Study thereunder, cannot form the basis of any claim for compensation or damages by the Sponsors or the project company or any party claiming through them against PPIB/GOP or any of its agencies on any grounds whatsoever, during or after the expiration of its validity.**

7. You are, therefore, required to complete the Feasibility Study for the Subject Project within the validity of this LOI. In case there is a delay in completion of the Feasibility Study within the validity of this LOI, a one-time extension may be granted upto a maximum period of 180 days, provided the Panel of Experts is satisfied that the Feasibility Study is being conducted in a satisfactory manner and is likely to be completed shortly. Furthermore, extension in validity of the LOI will only be provided upon submission of a bank guarantee in double the original amount and valid beyond six months of the extended LOI period.

8. **In the event that you fail to meet the relevant milestone/standards, PPIB will terminate this LOI and encash the Bank Guarantee.**

9. This LOI has been issued in duplicate and, for the purpose of coming into effect, this LOI shall not be deemed to have been issued until one copy hereof is received by PPIB after having been duly countersigned by you.

With kind regards,

Yours sincerely,


(Zafar Ali Khan)
Managing Director

Encl: as above

cc: Chairman, WAPDA.

Copy for information please:

Secretary, Ministry of Water and Power, Islamabad.