

### SAIF POWER LIMITED

3rd Floor, Kulsum Plaza, 2020-Blue Area, Islamabad, Pakistan. Tel: +92-51-2823924, 2829415 Fax:+92-51-2278537, E-mail: saif@saifgroup.com

Date: July 6, 2007

Ref: SG/SPL/ Corp: Off/2007/ 140

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

Dear Sir,

Re: Petition under Sections 12(b) and 31 of the National Electric Power Regulatory Authority Act, 1997 read with Rule 3 of the NEPRA Tariff Standards and Procedures Rules, 1998 (the "Rules") for Revision/Modification of the Generation Tariff Determination dated 15 June 2006 of Saif Power Limited (the "Company")

This refers to (1) the National Electric Power Regulatory Authority's letter No.NEPRA/TRF-53/SPL-2006/5171 dated June 15, 2006 conveying the Authority's decision in respect of the Company's generation tariff (the "Tariff Determination") pursuant to the NEPRA Tariff Standards and Procedure Rules, 1998 (the "Rules") and (2) the Authority's decision dated August 11, 2006 on the Company's Motion for Recalculation dated June 26, 2006 under Rule 16(5) of the Rules.

The Company has executed EPC contract in respect of its Sahiwal Power Project and hereby submits this Patition under Rule 3 of the Rules for the revision/modification of the Tariff Determination on the facts, information and grounds as set out in detail in the Petition. Also, the relevant sources of information in respect of the factual submissions have been disclosed in the Petition. In total six (6) copies of the Petition are being submitted.

In accordance with Rule 3(9) of the Rules, the factual assertions in the petition are supported by an affidavit attached to the Petition.

The Company is pleased to submit this Petition for the kind consideration of and favourable approval by the Authority, and shall be pleased to assist the Authority in clarifying any aspect of the petition or its basis and provide any further information or evidence in support of the submissions in the petition as may be required. Before the finalization of Tariff, the Company would like to meet and discuss all aspects of the revised costs with the Panel of Experts of NEPRA.

Thanking you.

Yours sincerely,

Sohail H. Hydari

Chief Financial Officer

Enclosures:

(1) Petition

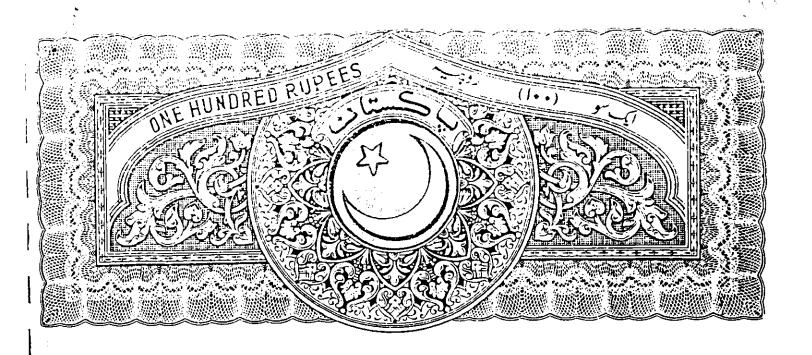
(2) Summary of Evidence

(3) Affidavit

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# REGULATORY AUTHORITY

I, Sohail H. Hydari, Chief Financial Officer, Saif Power Limited, being duly authorized representative *I* attorney of Saif Power Limited, hereby solemnly affirm and declare that the contents of the accompanying Revised Tariff Petition including all supporting documents are true and correct to the best of my knowledge and belief and that nothing has been concealed. I also affirm that all further documentation and information to be provided by me in connection with the accompanying petition shall be true to the best of my knowledge and belief.

Islamabad July 4, 2007 DEPONENT



0 4 JUL 2007



### SAIF POWER LIMITED

3rd Floor, Kulsum Plaza, 2020-Blue Area, Islamabad, Pakistan. Tel: +92-51-2823924, 2829415 Fax:+92-51-2278537, E-mail: saif@saifgroup.com

COPY OF RESOLUTION PASSED BY CIRCULATION BY THE BOARD OF DIRECTORS OF THE COMPANY UNDER ARTICLE 83 OF THE ARTICLES OF ASSOCIATION OF THE COMPANY

**RESOLVED THAT** the Company be and is hereby authorized to file revised Tariff Petition Under Rule 3(1) of Tariff Standard and Procedure Rules, 1998 with National Electric Power Regulatory Authority (NEPRA).

FURTHER RESOLVED THAT Mr. Sohail H. Hydari, Chief Financial Officer of the Company be and is hereby authorized for and on behalf of the Company to sign all necessary documents, pay necessary fee, appear before the Authority as needed and to do all such acts necessary for processing and completion of this Revise Petition.

Dated: July 02, 2007

Certified to be true copy
For SAIF POWER LIMITED

Scoretary

Chapter 1: FORMAT OF PETITION

#### **Revised Tariff Petition** SAIF POWER LIMITED

#### **PETITION** Rule 3

Petition under Sections 12(b) and 31 of the National Electric Power Regulatory Authority Act, 1997 read with Rule 3 of the NEPRA Tariff Standards and Procedures Rules, 1998 (the "Rules") for Revision/Modification of the Generation Tariff Determination dated 15 June 2006 of Saif Power Limited (the "Company/Petitioner").

Rules 3(2)(a):

PETITIONER'S NAME AND ADDRESS

Mr. Sohail H. Hydari Chief Financial Officer SAIF Power Limited

4<sup>th</sup> Floor, Kulsum Plaza, 2020 Blue Area, Jinnah Avenue,

Islamabad

Tel: +92 51 282 9415, 282 3924

Fax: +92 51 220 1110

Rules 3(2)(a):

**GENERATION LICENSE** 

Generation License No.: IGSPL / 04 / 2006

Dated:

21<sup>ST</sup>, June 2006

#### Rule 3(2)(b):GROUNDS

- a. EPC and Other Costs Associated Therewith
- b. Owners' Engineer Cost
- c. Tariff Petition and Generation License Cost
- d. Initial Spare Parts
- e. Financial Advisory Cost
- f. Currency Variation During Construction Period

Grounds forming the basis for Revised Petitions are elaborated in section 2 hereof.

Chapter 1: FORMAT OF PETITION

Rule 3(2)(c) RELIEF SOUGHT

Relief sought is mentioned in the section 3 of this Revised Tariff Petition

Rule 3(2)(e) COMPARATIVE SCHEDULE OF EXISTING TARIFF AND

**PROPOSED TARIFF:** 

Tariff tables are attached herewith in section 4 to the Tariff Petition

Rule 3(2)(f) Summary of Evidence (brief particulars of data, facts, evidence in support of Petition):

Attached herewith as ANNEXURES of the Tariff Petitions

Signed by or on behalf of the Petitioner

Attached:

(1) Affidavit in accordance with Rule 3(8)

- (2) Evidence in support of the submissions made in the Petition (sources of information to be disclosed).
- (3) Evidence of Fee
- (4) Board Resolution

04-Jul-2007

SLAMABAD BRANCH AZIA SHARIF PLAZA, BLOCK-02 JE AREA, ISLAMABAD-PAKISTAN

A/C PAYEE ONLY

P.O. NO.

0601 818174

AMOUNT

PRS\*\*\*\*\*\*2,627,500.00

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REGULATION AUTHORITY

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HUNDRED ONLY

For PICIC Commercial Bank Limited

PICIC COMMERCIAL BANK LIMITED

**ISLAMABAD** 

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PICIC Commercial Bank Limited

SAIF POWER LITUSTOMER

PO.NO 818174 DATE 4-Jul-2007

M/S NATIONAL ELECTRIC POWER

REGULATION AUTHORITY

ISB

0010601 By Debit To

A/C 0601-0053481-0010

PRS++++++2,627,500.00 PRS++++++2,627,500.00 PRS++++++2,627,500.00

Chapter 2: <u>GROUNDS</u>

### **CONTENTS**

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  - 6. CONTRACT FINALIZATION AND CURRENT PRICE
- II. OWNERS' ENGINEER COST
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- IV. <u>INITIAL SPARE PARTS</u>
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- VII. ALL OTHER ASSUMPTIONS NOT ADDRESSED IN THIS MODIFIED/REVISED PETITION

#### I: EPC PRICE

#### BACKGROUND

## (A) TRANSITION PHASE OF 2002 POWER POLICY, DEVELOPMENTS IN POWER GENERATION INDUSTRY AND CYCLICAL DEMAND

- i. The power generation industry world wide experiences cycles which range from static to highly intensive activities. There are a few years when generation capacity is added all around the world and then there are other years where very few such additions are made. The highly intensive cycle is based on world wide industrial development and power shortages accumulated during the period and, somehow, there is a uniformity in this cycle with respect to its timing all around the world.
- ii. For example, the existing cycle of addition in power generation initiated around the year 2002. From there onwards, many countries in all parts of the world started planning and acquiring addition to their existing generation capabilities.
- iii. Resultantly, the prices started to move up from the year 2005.
- iv. Unfortunately, Pakistan did not enter the market at the right time when both manufacturing capacity and EPC capacity was more easily available around the beginning to the end of 2004. Pakistan could have managed to obtain better prices and better times had the agreements with EPC contractors been concluded at that stage.

#### (B) <u>SUPPLIERS' MARKET; EXTRA ORDINARY HIGH DEMAND</u> <u>AGAINST LIMITED SUPPLY</u>

- v. The last 18 months or so have witnessed a serious boom in the Power generation industry in general and, the Suppliers, manufacturers/Vendors, the EPC contractors have all become extremely busy. The demand is far more than available supply of equipments and services all around the world.
- Reputed manufacturers of turbines like General Electric, Siemens, Alstom, Ansaldo are sold out at least for the next 2 years (please see Annexure 1).
- /vii; Lead times continue to increase substantially and manufacturers and EPC contractors are increasing their prices on monthly basis (charging demand premium) in order to give affordable timelines to their customers.
- viii. In fact, it has become very difficult to find a good EPC contractor in the last few months as all good contractors are already booked with plenty of projects on their plates.

# 2. THE CONCEPT OF DOWN PAYMENT, LETTER OF CREDIT VIS A VIZ SLOT BOOKING AND PRICE FINALIZATION

The understanding to this issue is the most vital part of this petition for the increase in EPC price

- i.) In a booming suppliers' market, the validity period of the terms/prices given to the Customers is very short. For example, in today's market, reputed manufacturers are giving around 45 days validity period to the EPC contractors who in turn keep a 10 day margin with them and give a 35 days validity period to their own customers.
- ii. By way of illustration, if a manufacturer quotes a price of \$100/- on June 1<sup>st</sup> 2007 and a delivery time of 18 months for the turbine, that price and delivery time will only remain valid till July 15<sup>th</sup> and if the contract is not executed, down payment is not paid and L/C is not opened by that time, the price and delivery time will be subject to change and to further increase.
- iii. The important thing to note here is that a down payment only ensures booking of time slot for the delivery but it does not ensure fixing of the price.
- iv. For example, if the customer makes a down payment of \$3m to its EPC Contractor who in turn transfers this amount to the turbine manufacturer, such down payment will ensure that the manufacturer has booked a slot number for that customer in its production line and which would mean that it would make actual delivery of the turbine after a certain period from the down payment date made for slot reservation. In case, the customer does not wish to pay this amount, this time slot would be lost by that customer. The manufacturer/supplier would then allocate this slot to another customer. The next slot may come 6 months later which would subsequently increase the time frame of the overall Project Schedule and such delay may or not be acceptable to the Power Purchaser and/or to the Government of Pakistan.
- v. However, until the L/C for the full amount is opened in favour of the manufacturer/supplier on or before the validity expiry date of the proposal, both the price and the delivery time remain exposed to change. The booking for time slot can be maintained by making another payment not so significant in value terms but the price unfortunately cannot be fixed. The price is open to changes in material rates, labour inflation, and currencies parity (e.g Euro/Dollar Parity).

- vi. The most important point to note here is that L/C for 100% amount can only be opened after Financial Close as the Project is on 80:20 debt equity ratio and the Sponsors do not have the financial muscle to open 100% L/C for EPC out of their own resources. This 75:25 or 80:20 scenario is general to all IPPs and not just specific to the Company.
- vii. Saif Power Limited is at this stage very near to its Financial Close and the Company is confident that it will be able to open its L/C by July 31, 2007 which is the validity expiry date currently for SPL.

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### 3. REASONS FOR PRICE INCREASE

- i. DEMAND PUSH AND SUPPLIERS' MARKET: The Power Generation industry in itself and the suppliers in general are enjoying a boom market for the last 18 months. The demand is tremendous and much higher as compared to available supply all around the world. This is creating a huge gap and disequilibrium in the demand/supply scenario (please see Annexure 1); lead times are increasing substantially and manufacturers and EPC contractors all around the world are raising their prices each month (commanding demand premium) in order to give affordable timelines to purchasers/customers.
- ii. METALS PRICE STEEL AND COPPER PRICE INCREASE: The prices of both <u>Steel</u> and <u>Copper have</u> significantly increased significantly last year by around 40%. The effect of this increase has been reflected into the EPC Prices since August 2006 before the Company officially received the first draft of the Security Documents (please see Annexure 2). The Company had applied to NEPRA for tariff determination in April 2006.
- iii. CURRENCY PARITY: Another important issue to understand is that although the EPC Contractor is giving a Dollar based price, his vendors/suppliers/manufacturers are giving prices in respective currencies of their country on benchmark parity basis. For example, when General Electric France gives a quotation to the EPC Contractor, they make a statement saying that "this price is based on a Euro/Dollar rate of X. This price will be adjusted at the time of contract execution and L/C opening by taking into account the change in the Euro/Dollar parity." To make an illustration, if GE quoted \$100 with Euro/Dollar parity as 1.25, and, if at the time of contract execution, the Euro/Dollar Parity is 1.30, this means that there is an increase of 4%, GE's quotation will now be revised to \$104. The reason is that when GE Europe receives its payment in Dollars, it has to pay to the banks 1.30 Dollars against each Euro instead of 1.25 Dollars in order to get its payment in Euro which is the base currency for GE France and all their accounting and cash flows are based in Euro terms.

The Euro Dollar Parity has changed substantially since April of last year when the IPPs had applied for their Tariff. Since that time, the movement in Euro/Dollar parity has been significant. In April 2006, the Euro/Dollar parity was 1.20 and as of this date such parity is 1.3450 which means an increase of 12.08%. This is to say (by way of illustration) that if the price of GE and Siemens in April 2006 was around 65m in equivalent US Dollars, today this price would be around

\$72.85m just due to the difference of Euro/Dollar Parity (the other escalation is separate). In the case of the Company, the other currency is Chinese Yuan and the Dollar/Yuan parity is also affecting the price as the appreciation of the Chinese Yuan against US Dollars is around 5% for this period (please see Annexure 3).

As a result of the above 3 situations, the EPC cost applied for and determined by Authority for the Company has become totally irrelevant and redundant.

# 4. WHY DID SAIF POWER LIMITED APPLY TO NEPRA FOR TARIFF DETERMINATION IN APRIL 2006?

- i. Generally speaking, the correct and appropriate route for an IPP is as follows: (a) Finalize the Feasibility Report of the Project and get approval from the Government; (b) Negotiate and initial the Security Documentation like PPA, IA, GSA to understand its risks, exposures and cut off points; (c) Finalize its EPC and O&M Contracts according to the Security Documentation; (d) Apply for Tariff to NEPRA. This is the normal sequence of the landmarks recommended for all IPPs universally.
- The reason that the Company was forced into applying prematurely for its Tariff was for its Gas Allocation purposes. It is general knowledge in the Government Circles as also evidenced by the newspaper reports that natural gas for IPPs was and is scarce. At that particular time, no gas had actually been allocated to the Company. During our talks with various officials, it was indicated that there were other projects in the pipeline as well and that a final decision had not been taken at that stage. The Company was seriously concerned with this issue as without allocation of gas, the follow up on other aspects of the Project did not carry any meaning. As per our talks with the Government and relevant agencies, we were advised that final decision and formal gas allocation would only happen once the Company applied for its Tariff Determination and the same was actually determined by the Authority and accepted by the Sponsors. The Company was also advised that whoever followed this procedure would be allocated gas on first come first served basis. Based on this advice, and out of the apprehension that gas may eventually not be allocated to the Company if it got late in this procedure, the Company decided to take the route of applying for its Tariff to be determined by NEPRA. relation to our various discussions with the GOP in this respect (before and after applying for Tariff Determination), such document is on record through a letter from PPIB dated June 10th 2006, where PPIB has categorically stated that it will issue the gas allocation letter for the Project subsequent to tariff determination, acceptance thereof by the Project Sponsors and, issuance of LOS by PPIB and acceptance thereof by the Project Sponsors (please see Annexure 4). In this same annexure, kindly also read GOP's list of power plants and expected gas allocation wherein gas allocation for Saif Power Limited has not been considered and it has been stated that gas is not available for the power plants in this particular list (the name of SPL is included in that list).

did not have a firm EPC Price in hand and, neither did it have a firm scope from an EPC contractor. The application was based on indications from consultants, market sources and it was a case of assumptions calculated to the maximum details as far as possible at that particular stage.

# 5. BRIEF BACKGROUND TO SPL'S EPC NEGOTIATING HISTORY

- In the first quarter of 2006, the Company invited potential EPC Contractors through newspaper advertisement and website advertisement to bid for the Project. Out of the pre-qualified contractors, only 4 parties bid for the Project. Two of them were Chinese, one was an Iranian Company and one was a Turkish Company. One of the Chinese Companies did not meet the requisite criteria in their bid documents. The Iranian Company's Technical offer was better than that of the Chinese company but due to the political environment surrounding the region with respect to USA-Iran conflict at that time and the possibility of bans/embargoes being put on Iranian companies, there was a serious question mark as to whether business should be done with the Iranians. The Company's Board of Directors convened a special meeting to discuss this issue and after a lot of deliberations the Board felt that although the Iranians were good on merit, such risk should not be taken and therefore decided against working with them. The Company was now only left with the Turkish party, GAMA, and the other Chinese Company, CMEC, with whom the negotiations were initiated. As the Company realized that it would be difficult to run parallel negotiations, it was decided to first negotiate with GAMA, which was considered comparatively more experienced.
- ii. Serious discussions with GAMA started in late June 2006. During the course of such discussions and as the time got consumed GAMA became aggressive (it must be realized that each EPC Contractor has his own way of performance and of meeting obligations with its vendors and customers and, no two deals can exactly be the same in terms of costs or other conditions of the Contract). In late August, GAMA advised the Company of the changed market environment where prices and conditions had both changed (at that time the Company had not officially received the Security Documents from the Government).
- iii. Secondly, in September 2006, GAMA demanded a payment of \$8m from the Company to book the time slots with their vendors. The Contractor was categorical in stating that this \$8m was non-refundable in case the Financial Close was not achieved and NTP notice was not issued in 75 days time. The Contractor also stated that in case Financial Close could not be achieved on the require date and if NTP was not issued, then another option was that the Company would have to pay \$20m on the next day out of its pocket to get another 30 days grace period. There was obviously no way that the Company could have accepted these conditions because the Company had no idea when the Financial

Close would take place and to accept such conditions was a very high risk from any corporate point of view.

- iv. Subsequently, the Board of Directors decided to start negotiations with the Chinese company, CMEC, as well as with Ansaldo, the Italian company, who showed their interest in our Project.
- In the meantime, SPL also contacted a significant number of EPC contractors to explore their interest in the Project but every one was already booked. The Company's shareholders and partners in this Project - M/S Fauji Foundation Ltd., recommended the name of Doosan, Korea as EPC contractors for our Project. The Fauji Project at Dharki is also being executed by Doosan. Doosan gave the Company an EPC Cost of \$200m (please see Annexure 5). Doosan advised that market price at the moment is more or less near to this cost. M/S Harbin of China was another Contractor who showed interest and quoted a price of \$168m based on GE's old price. With the new price, this cost would be around \$178m (please see Annexure 6). Siemens Pakistan in venture with Siemens Sweden also showed interest in the Project and quoted a price of \$175m with a net capacity of 190MW. Although, this was advised verbally and the Company has no record for this quotation, but if the Authority so pleases, it may ask Mr. Safdar Ibrahim of Siemens Pakistan to appear and testify to this statement.
- vi. The first quotation received from CMEC, China was of \$156m wherein the GE price for total scope was considered as \$40m (which is the price they had received 2006) and any increase in GE's price was to be a pass through. This \$40m amount included both the equipment scope and the technical services scope for installation and erection (please see Annexure 7).
- viii. As of today, the Company has signed the EPC contract with CMEC China at a value of \$93,068,800 + Euro 47,501,000 (Total equivalent Dollars = \$157m). The Euro portion relates to GE and Siemens who have this time refused to quote in US Dollars due to the extreme volatility and fluctuation in Euro/\$ Parity. In this particular EPC Contract, the scope of soil investigation, soil replacement and piling works is on the Company as CMEC China at the time of signing the EPC Contract were not aware of the soil conditions and were not ready to accept this work under their scope of contract (please see section 2.1 of page 30/101 of the Construction

from local companies for this particular work. The cost of such works is around \$2m. The total EPC price is now as follows:

- (a) Supply Contract with CMEC China = \$73,068,800 + Euro 47,501,000 (please see Annexure 9);
- (b) Construction Contract with China East Resource Import & Export Corporation = \$20,000,000 (please see Annexure 10);
- (c) Piling works = \$2,000,000/- (please see Annexure 11); and
- (d) Soil Investigation Report = \$120,000/- (please see Annexure 12).

Therefore, the total price of EPC Contract is \$73,068,800 + \$20,000,000 + 2,000,000 + 120,000 = \$95,188,000/- + Euro 47,501,000/-

The validity of this offer from CMEC is upto July 31, 2007 (based on GE's back to back quotation for their equipment and services).

ix. The Authority will appreciate that considering the market situation and considering the quotations of Doosan Korea (\$207m), Harbin China (\$178m), and Siemsens (\$175m with net 190MW), the Company has done a tremendous job in negotiating down the final price to around \$159m (total equivalent dollars) with CMEC.

The Authority would also appreciate that the Company has broken the monopoly of one single EPC Contractor for the combined cycle thermal plants and have brought in a new contractor who is the biggest EPC Contractor in China and is presently doing 40 Projects world wide. A copy of CMEC's brochure is also attached for reference purposes.

## 6. CONTRACT FINALIZATION AND CURRENT PRICE

i. As of today, the Company has signed the EPC contract with CMEC China at a value of:

\$ 93,068,800 Euro 47,501,000 Total \$ 157,000,000 (approx.)

The Euro portion relates to GE and Siemens who have this time refused to quote in US Dollars due to the extreme volatility and fluctuation in Euro/\$ Parity.

- ii. In this particular EPC Contract, the scope of soil investigation, soil replacement and piling works is on the Company as CMEC China at the time of signing the contract were not aware of the soil conditions and were not ready to accept this work under their scope of contract (please see section 2.1 of page 30/101 of Construction Contract). Subsequently, the Company invited quotations from local companies for this particular work. The cost of such works is around \$2m. The total EPC price is now as follows
  - (a) Supply Contract with CMEC China = \$73,068,800 + Euro 47,501,000 (please see Annexure 9).
  - (b) Construction Contract with China East Resource Import & Export Corporation = \$20,000,000 (please see Annexure 10).
  - (c) Piling works = \$2,000,000/- (please see Annexure 11).
  - (d) Soil Investigation Report = \$120,000/- (please see Annexure 12).

Therefore, the total price of EPC Contract is:

I. \$ 73,068,800 \$ 20,000,000 \$ 2,000,000 \$ 120,000 Total \$ 95,188,000

### II: OWNERS' ENGINEER COST

Three Engineering/Consultancy companies would be involved in the Project as follows:

- i. Lenders' Engineer: The Lenders to the Project appoint an engineering company which is involved from the documentation stage of PPA, IA, GSA, EPC, O&M, HSD up to the COD date and is responsible for analyzing the designs and works of the Project and for giving approval for each and every payment subsequent to which the lenders release the payment to the Contractors. In this particular case, Lenders have appointed Stone & Webster as their Technical Advisor and Consultants, the cost of which is being paid by the Company.
- ii. Independent Engineer: The Power Purchaser will appoint an Independent Engineer 270 days before COD which will look after the interests of the Power Purchaser up to Reliability Tests and COD. Again, such appointment is at the Company's cost.
- iii. Owners' Engineer: It is the Lenders' condition as per their term sheet (please see page 12) that the Company should also appoint a third party consultant company who will supervise the work beginning from Notice to Commence to the Contractor up to the COD stage. Such appointment is given the title of Owner's Engineer. Please see Annexure 13 relating to condition in the Lenders' Term Sheet.

While the Company in its original Petition to the Authority had applied for costs in relation to Lenders Engineer and Independent Engineer (please see Annexure 13(a)) details given to NEPRA through Company's letter dated May 30, 2006), it had erroneously not covered its cost for the Owners' Engineer, until the Company was reminded recently by the lenders that appointment of Owners' Engineer is a condition precedent to this transaction. The Owner's Engineer cost is \$1.65m including traveling, boarding and lodging expenses (please see Annexure 14).

## III: TARIFF PETITION COST, GENERATION LICENSE COST

i. In its Non EPC development cost, the Company erroneously omitted the Annual Generation License Fee payable under Part I to the Schedule of the National Electric Power Regulatory Authority (Fees) Rules, 2002 @ Rs. 6,200 per MW (Rs.1.432 million) subject to indexation for four years from 2006 to 2009 before COD.

We have already paid Rs.1,837,215 (please see Annexure 15) for first year. For remaining three years 2007, 2008 and 2009 estimated amount is Rs.6 million.

ii. The Authority may also consider allowing the fee for Revised Petition being paid herewith to NEPRA the amount of which is Rs.2,627,500 million (please see Annexure 16). It is equivalent to \$0.043 million.

Total cost Rs. Rs.2,627,500 + Rs.7,837,215 = Rs.10,464,715 and equivalent dollar amount is \$0.174 million.

### IV: INITIAL SPARE PARTS

In it's Tariff Application to NEPRA dated April 19, 2006, the Company had requested for a working capital component for the purchase of Initial spare parts, which are not a part of the standard scope of EPC contract (please see Annexure 17). Similarly, such spare parts are also not covered in the standard scope of O&M Contract and the Company is required to pay a substantial amount of \$4.7m to acquire these parts. Whether these spare parts are brought through the EPC Contractor or through the O&M Contractor, in any event the Company has to pay for it. These are the emergency spare parts that the Company is required to keep at the Plant in case of machinery breakdown in phase of the operations after COD. Presently, General Electric has quoted a final figure (after negotiations) of \$4.7m for these spare parts (please see Annexure 18). This cost is not covered in the Tariff determination by the Authority previously.

## V: FINANCIAL ADVISORY COST

Revision in costs of EPC Contract, insurance, Owners' Engineer, spare parts, licencing and petitions, custom duties and IDC have taken up the project cost to US\$ 222.160 Million. This increase in project cost has eventually increased the size of the debt financing to US\$ 177.728 Million. As per the mandate given to three major banks for debt financing, 1.20% of the entire debt amount is payable as advisory and arrangement fee to these lenders. Due to increase in debt amount, the cost of advisory has also been increased to US\$ 2.133 Million. In the earlier tariff determination dated August 11, 2007, the Authority has allowed US\$ 1.760 Million to the company as financial advisory cost. Revision is hereby requested in the financial advisory cost payable to the Lenders. Please see page 4 of the term sheet providing terms and conditions for debt financing attached as Annexure 19.

# VI: CURRENCY VARIATION DURING CONSTRUCTION PERIOD

The Supply Contract signed with CMEC, China has both US Dollar Portion and Euro Portion. As per recent ECC decision, any variation in the Project cost during the construction phase on account of variation Dollar/Rupee parity and Euro/Rupee parity should be allowed through adjustment in the Project Cost. The Company will provide particulars of transaction/payments along with evidence of applicable rate for the purpose of such adjustment.

# VII: ALL OTHER ASSUMPTIONS NOT ADDRESSED IN THIS MODIFIED/REVISED PETITION

- i. COMPANY IS LOOKING AT THE POSSIBILITY OF INDUCTION OF BOTH FOREIGN EQUITY AND FOREIGN DEBT IN THIS PROJECT IN FUTURE TO LOWER COSTS. IN CASE, THIS IS MATERIALIZED, THE COMPANY WILL SUBMIT ITS STRUCTURE ACCORDINGLY. THE AUTHORITY MAY ALLOW THIS PROVISION IN ITS DETERMINATION.
- ii. All other original determination by the Authority for which no change has been requested in this particular revised Tariff may remain the same as per original determination.

Chapter 3: <u>RELIEF SOUGHT</u>

## APPEAL TO AUTHORITY

The Company would like to inform the Authority that due to the increase in the Project cost as set forth in the preceding chapter, the Company is facing the following direct negative impacts:

- (a) The Company's IRR is being reduced to around 10.5% which from the Company's perspective is in no way feasible for the implementation of this Project. The Company can only pursue the Project if a minimum 15% IRR is expected which again is on the minimum side as the IPPs in general have been asking for 18% IRR due to the interest rates prevalent in the market and due to the risks being undertaken in the PPA.
- (b) The Company's Consortium of Lenders has refused to structure the debt in case the Company is unable to get relief from the Authority; firstly, the Lenders' requirements of certain benchmark financial ratios is not being met with the existing cost structure in the financial model, and secondly, according to the Lenders' interpretation, in case of termination of the PPA on the Company's event of default, the GOP (as per the IA) will only reimburse the debt portion actually allowed and approved by the Authority.

Therefore, In view of the facts and evidences provided in this Petition, the Company appeals to the Authority to:

- 1. Determine the Company's EPC Cost as \$95.188 million and Euro 47.501 million.
- 2. The Custom duty amount may be changed accordingly by using the mechanism provided in earlier tariff determination by the Authority (5% of 70% of total EPC cost), while any increase on such amount should be a pass through to the Power Purchaser.
- 3. Determine the cost of services of owner's engineers to \$1.65 million.
- 4. Determine the cost of annual fee of generation license amounting to \$0.130 million and fee for revised tariff petition amounting \$0.043 million.
- 5. Determine the cost of initial spare parts at \$4.7 million.
- 6. The reference prices, reference exchange rate, reference KIBOR rate, reference WPI index, reference Calorific values for HSD may remain same as per earlier Tariff Determination by the Authority.

Parity between Euro and US Dollar may be determined as Euro 1 = \$ 1.3450 (June 25, 2007) and as such parity between Euro and Pak Rupee may be determined as Euro 1 = Rs.80.7.

- 7. All other original determination by the Authority for which no change has been requested in this particular revised Tariff may remain the same as per original determination.
- 8. Lastly, but not the least, due to the extraordinary circumstances in which the Company finds itself, the Company appeals to the Authority to make its determination within 15 days of receipt of this petition. The financing documents by the Lenders can only be processed when the prayed relief has been obtained from the Authority. Any delay in this regard would make the target date of opeing the L/C in favour of the EPC Contractor (i.e., 31 July 2007) slip, thus opening up the prices of main equipments. Delay of every passing day will delay the whole process resulting in the overall delay in the Financial Close and in achieving the COD which our country cannot afford.

At the end we would like to state that the Company's administrative costs have increased significantly due to the extension in time period to Financial Close as against the expected / anticipated period. Secondly, the Company's construction phase period has increased from 24 months to 28 months where again administrative costs are increasing. However, the Company is not claiming this increase from the Authority.

The Company's insurance cost during the construction period has also increased due to increase in EPC cost but again the Company is not claiming such increase from Authority.

Chapter 4: <u>Comparative Schedule of Existing Tariff</u> and Proposed Tariff

### **CONTENTS**

- I. COMPARATIVE SCHEDULE OF RELEVANT EXISTING TARIFF COSTS AND PROPOSED TARIFF COSTS
- II. COMPARATIVE SCHEDULE OF EXISTING INDEXATION AND PROPOSED INDEXATION
- III. COMPARISON OF LOAN PAYMENT SCHEDULE
- IV. COMPARATIVE SCHEDULE OF EXISTING TARIFF TABLE AND PROPOSED TARIFF TABLE

## 72,0

# I: COMPARATIVE SCHEDULE OF RELEVANT EXISTING TARIFF COSTS AND PROPOSED TARIFF COSTS

	EXISTING		PROPOSED		
1.	EPC Cost	\$143.900M	EPC COST	Euro	\$95.188M 47.501M
2.	Non-EPC Cost	\$16.525M	NON EPC COST		\$23.544M
			(Addition Of Owners' Engineer Cost; Tariff Petition Fee And Generation License Co Initial Spare Parts Cos Additional Financial Advisory Cost)	-	
3.	Development Cost	\$5.732M	Development Cost		\$5.732M
4.	Custom Duties	\$5.040M	Custom Duties		\$5.570M
	Cost Before IDC	\$171.197M	Cost Before IDC	•	\$193.966M
5.	IDC	\$16.840M	IDC		\$27.941M
7.	Cost Including IDC	\$188.037M	Cost Including IDC		\$221.907M

# II: COMPARATIVE SCHEDULE OF EXISTING INDEXATION AND PROPOSED INDEXATION

	Existing Indexation	Proposed Indexation
1. O&M Foreign	US\$/PKR	US\$/PKR + US CPI
2. O&M Local	WPI	WPI + US\$/PKR (Local portion also Priced in US Dollars In O&M Agreement)
<ol><li>Cost of Working Capital</li></ol>	KIBOR Adjustment	KIBOR Adjustment
4. Insurance	US\$/PKR	US\$/PKR
5. Debt Servicing	KIBOR Adjustment	KIBOR Adjustment
6. Return on Equity	Nil	US\$/PKR
7. ROE During Construction	Nil	US\$/PKR
8. Fuel Cost Component	Fuel Price	Fuel Price
9. Variable O&M	US\$/PKR	US\$/PKR + US CPI

The effective date for start of O&M Indexation should be April 7, 2006 (original Petition filing date).

The Reference fuel prices, Reference exchange rate, Reference KIBOR rate, Reference WPI index, Reference Calorific values for HSD may remain same as per earlier Tariff Determination by the Authority.

Parity between Euro and US Dollar may be determined as Euro 1 =\$ 1.3450 (June 25, 2007) and as such parity between Euro and Pak Rupee may be determined as Euro 1 =Rs.80.7.

## III: COMPARISON OF LOAN PAYMENT SCHEDULE

Debt Equity Ratio

80:20

12

Equity Debt \$ 37.607 M \$ 150.430 M

\$ 44.382 M \$ 177.525 M

**PROPOSED** 

\$ 188.037M

\$ 221.907M

(Please see next pages)

SAIF POWER LIMITED
LOAN REPAYMENT SCHEDULE

	<del></del>			REPAYMENT S	CHEDULE			
Charle of	<u> </u>	<del></del>	Local Debt		·	Annual Principa	Annual Interes	t Annual Debt
Period	Principal	Repayment	Mark up	Balance	Debt Service	Repayment	Repayment	Repayment
	Million US\$	Million US\$	Million US\$	Million US\$	Million US\$	Rs./Kw/Hour	Rs. / Kw / Hour	ļ
1st Quarter		ļ			<u> </u>			
2nd Quarter	150.43	1.99	<del> </del>		4 6.5	2		
	148.44	2.05	<del>                                     </del>	146.3	9 6.5	2		
3rd Quarter	146.39	2.11	4.41	144.28	6.5	2		
4th Quarter	144.28	2.17						
Year 1	150.43	SEA 1-1-8.32	A 30 T-17.76	Seas. 142.1	1 表现表现的 26.00	0.2729		130 4.5 0.855
1st Quarter	142.11	2.24	4.28	139.67	6.52	2		
2nd Quarter	139.87	2.31	4.21	137.56	6.53	2		1
3rd Quarter	137.56	2.38	4.14	135.18	6.52	2		1
4th Quarter	135,18	2.45	4.07					<del>                                     </del>
Year 2	142.11	9.38	16.70	132.73	P 44 26.00	0.3072	0.5477	2 0.855€
1st Quarter	132.73	2.52	4.00	130.21	6.52			
2nd Quarter	130.21	2.60	3.92	127.61	6.52	!	<del></del>	
3rd Quarter	127.61	2.68	3.64	124.93	6.52	1	<del></del>	1
4th Quarter	124.93	2.76	3.76	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				<del> </del> -
Year 3	<del></del>	- 野女 (多)	Test = 14-915.52	Apr 122.47	₩ × 26.08	~××××× 0.3460	~ 0.6090	
1st Quarter	122.17	2.84	3.68	119.33				1
and Quarter	119.33	2.93	3.59	116.40	6.52			<del></del>
3rd Quarter	115.40	3.01	3.51	113.39	6.52			
4th Quarter	113.39	3.11	3,42	110.29	6.52			
Year 4	Apr. 122.17	gram #15, <b>11.89</b>	35 (4.19)	1110,29	26.08	3-3-5-0.3896	60000 an 4854	1200 € n 0.8550
1st Quarter	110.29	3.20	3.32	107.09	6.52	<del></del>		
2nd Quarter	107.09	3.29	3.23	103,80	6.52	<del>                                     </del>		
3rd Quarter	103.80	3.39	3,13	100.41	6.52	<del>   </del>		
4th Quarter	100.41	3.50	3.02	96.90	6.52	<del> </del>		
Year 5	110.29	13.38	13.5 43.75 12.70	96.91	ATT 8 No 26.08	0.4387	15.7 Fat 0.4163	0.8550
1st Quarter	96.90	3.60	2.92	93.30	6.52		54.4.4.4.4	* * 7 , 1 ; 1 .
2nd Quarter	93.30	3.71	2.81	89.60	6.52			
3rd Quarter	69.60	3.82	2,70	85.78	6.52			
th Quarter	85.78	3.94	2.58	81.84	6.52	<del>                                     </del>	<del></del>	<del></del>
Year 6 1987 3 miles	F 1547- 96.90	· 2 - 3 - 1-15.07	2000 Sec. 11.01	81.84		0.4940	70 Valido 2040	9 7 7 0.8550
1st Quarter	61.84	4.06	2.47	77.76	8.52		10.3010	3°47,7₹ 7°0.8550
2nd Quarter	77.78	4.18	2.34	73.60	6.52		<del></del>	
and Quarter	73.60	4.30	2.22	69.30	6.52			<del></del>
Ith Quarter	69.30	4.43	2.09	64.87	6.52			·····
fear 7	V. 4, 52, <b>61.84</b>	과 및 Mare 2016.97	9.12	5 64.87	26.08	か。例 <b>の5563</b> 7	E£325.20.2987	alor desco
st Quarter	64.67	4.57	1.95	60,30	6.52	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		FN 54575.0.6330
Ind Quarter	60.30	4.70	1.82	55.60	6.52		<del></del>	
ord Quarter	55.60	4.85	1.67	50.75	6.52		<del></del>	
th Quarter	50.75	4.99	1.53	45.76	6.52		<del></del>	
four 8	64.87	4-4-4-4-4-19.11	6.97	45.78	28.08	₩. 2 m. 0.6264	12 1 22 5 0 2286 L	a nestition agent
Isl Quarter	45.76	5.14	1.38	40.52	6.52		2.7.2.75.200	g::4:=4:0.6330
Ind Quarter	40.62	5.30	1.22	35.32	6.52		<del></del>	
ird Quarter	35.32	5.46	1.06	29.86	6.52		<del></del>	<del></del> ;
th Quarter	29.86	5.62	0.90	24.24	6.52	<del></del>	<del></del>	
ear 9	45.76	21.52	4.56		25 6 7 - 26.08	6.1202.0 7054	0.1496	39 - 3.50 - 7.5 - 5.50
st Quarter	24.24	5.79	0.73	18.45	6.52	- Attainment 034 19	(F.) 3 (F. m. U.) 496 3	0.8550
Ind Quarter	18.45	5.97	0.56	12.48	6.52		<del></del>	
rd Quarter	12.48	6.15	0.38	6.33	6.52		<del></del>	
th Quarter	6.33	6.33	0.19	(0.00)	6.52		<del></del>	
ear 10	24.24	24.23	41 of 1,300 to 44 dec.		1 -5.00	<i>≣∾⊡≱</i> 0.7943 ₹		

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SAIF POWER LIMITED
LOAN REPAYMENT SCHEDULE

	<del></del>		LUAN	REPAYMENT S	SCHEDULE			
Period	<del> </del>	<del></del>	Local Debt			Annual Princh	oal Annual Intere	
	Principal	Repayment	Mark up	Balance	Debt Service		I _	
	Million USS	Million US\$	Million US\$	Million US\$	Million US:			Repaymen
1st Quarter	177.53	<del> </del>	<u> </u>				NS: 7 KVV I HOL	r Rs. / kW / Ho
2nd Quarter	177.53	2 35		5 175	8 7	70	<del></del>	<del>-  </del>
3rd Quarter	175.18	2.42	<del></del>	8 172.7	7.	70	<del></del>	<del></del>
4th Quarter	172 76	2 49		0 170.2	7.	69	<del> </del>	<del></del>
Year 1	170.27	2.57	5.1.	3 167.7	0 7.	70	<del></del>	<del></del>
1st Quarter	177.53	9.83	20.9	6 9 6 4 2 167.7	0 (it ∧ i l' > ≓30.	79 0.322	0.687	1
2nd Quarter	167.70	2.64	5,0	5 165.0	6 7.		0.087	0
3rd Quarter	165.06	2.72	4.97	7 162.3	4 7.0	59	<del> </del>	<del></del>
4th Quarter	162.34	2.81	4.89	159.5			<del></del>	<del></del>
	159.53	2.89	4.81	156.6			<del></del>	<del></del>
<del></del> _	167.70	11.06	A 19.72	3.65			1 325 11 30 0 10	<u> </u>
1st Quarter	156.64	2.98	4.72				V 100 0.6464	1.009
2nd Quarter	153.66	3.07	4.63	150.5	<del> </del>		<del></del>	<del></del>
3rd Quarter	150.59	3.16	4.54	147.4			<del></del> -	<del> </del>
4th Quarter	147.43	3.25	4.44	<del></del>			<del> </del>	<u> </u>
Year 3	156.64	12.46	9 15 18.33	350 51144.18			<del>                                     </del>	
st Quarter	144.18	3,35	4.34	140.83			#E## #0.6007	1.009
Ind Quarter	140.83	3.45	4.24	137.36	<del></del>		<u> </u>	
Ird Quarter	137.38	3.56	4,14	133.82	1.0	<del></del>	<u> </u>	<u> </u>
IIh Quarter	133.82	3.66	4.03	130.16	<del>                                     </del>	<del></del>		
fear 4	144.18	14.02	16.75	96/20/95 - 130.16	, ,,,,			
st Quarter	130,16	3.77	3.92	126.39			0.5492	- 1.009
nd Quarter	126.39	3.89	3.81	122.50				
rd Quarter	122.50	4.01	3.69	118.49				
Ih Quarter	118.49	4.13	3.57	114.36	<del>                                     </del>	<del></del>		
ear S	130.16	15.60	1234 2 2214.99	114.36	7.70	<del></del>		
st Quarter	114.36	4.25	3 45	110.11			770 mm 9 0.4913	5 25y 25 451.0090
nd Quarter	110.11	4.38	3.32	105.73	7.70	<del></del>		
rd Quarter	105.73	4.51	3.19	101.22	7.70	<del></del>		
th Quarter	101.22	4.65	3.05	96.57	7.70	<del> </del>		
ear6	: 114.36	- 17.79	13.01	12:15:27-15:96.57	7.70	<del>[</del> _		
st Quarter	96.57	4.79	2.91	91.78		0.5830	0.4260	1.0090
nd Quarter	91.78	4.93	2.77	86.85	7.70	<del>                                      </del>		
d Quarter	86.85	5.08	2.62	81,77	7.70	<del>   </del>		
h Quarter	81.77	5.23	2.46	76.54	7.70	<del></del>		
ear 7	96.57	20.03		76.54	7.69	<del></del>		
t Quarter	76.54	5.39	2.31	71.15	30.79	0.6565		1.0090
d Quarter	71.15	5.55	2.14	65.60	7.70			
d Quarter	65.60	5.72	1.98	59.88	7.69	<u>-</u>		
1 Quarter	59.88	5.89	1.80	53.99	7.70	<u> </u>		
ar 8	76.54	22.55 k			7.69			
Quarter	53.99	6.07	1.63	47.92		0.7392	0.2698	1.0090
d Quarter	47.92	6.25	1.44	41.67	7.70			
1 Quarter	41.67	6.44	1.26		7.69			
Quarter	35.23	6.63	1.06	35,23	7.70			
ar 9	53.99			28.60	7.69			
Quarter	28.60	6.83	0.86	28.60	(제25)(4-30.78	0.8324	-54-≠070.1766 ·	1.0090
Quarter	21.77	7.04	0.66	21.77	7.69			
Quarter	14.73	7.25	0.44	14.73	7.70			
Quarter	7.48	7,47	0.23	7.48	7.70			
er 10	28.60			0.01 Selection 0.01	7.70			

# IV: COMPARATIVE SCHEDULE OF EXISTING TARIFF TABLE AND PROPOSED TARIFF TABLE

(Please see next pages)

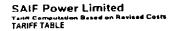
## SAIF Power Limited Tartiff Computation Based on Revised Costs TARIFF TABLE

#### PLANT OPERATIONS ON GAS

Tear	Ener	gy Charge (fts. I	AYYO)				·	Capacity Ch	arge (Rs. / kWh)					_	
	Fuel	Variable (O & M)	Total	Escalable (Flued Q & M) Foreign	Escalable (Fixed O & M) Local	Financing Cost on Working Capital	Escalable (Insurance)	Return on Equity	Return on Equity for Construction Period	Withholding Tax @ 7,5%	Losn Repayment	Interest Charge	Total	Fixed Cost at 50% Plant Facto Rs. / kWh	
1	1,7767	0.1746	1,9533	0.0669						<del></del>				PLE, / KPVII	
2	1.7767	0.1746	1,9531	0 0669	0.0446	0.0164	0.0639	0.2182	0 0287	0 0 1 8 5	0.3220				
3	1.7787	0.1746	1.9533	0.0669	0.0446	0 0164	0 0639	0.2182	0 0287	0 0 185	0.3626	0.6670	1.4662	4.3969	S. 7.
4	1,7787	0 1746	1.9513		0.0446	0.0154	0 0639	0 2182	0 0287	0 0185		0 6464	1.4662	4,3963	
5	1 7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.D185	0.4083	0.6007	1.4662	4.3163	
6	1,7787	0.1746	1,9533	0.0669 0.0669	0.0446	0.0164	0 0639	0.2182	0.0287	0.0185	0.4598 0.5177	0.5492	1.4662	- 17 ( 166 4.3969	
7	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0185		0.4913	1.4662		2.00
8	1,7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0185	0.5830 0.6565	0.4260	1.4662	3.73 A.3949	75.55
9	1.7787	0.1746	1,9533	0.0669	0 0446	0.0164	0 0639	0 2182	0.0287	0.0185		0.3525	1,4662	4,3969	
10	1 7767	0.1745	1.9533	0.0669	0.0446	0.0164	0 0639	0 2182	0.0287	0.0165	0.7392 0.8324	0.2698	1.4662	4.3969	ري. 172 مري
11	1.7787	0 1746	1,9533		0.0446	0.0164	0.0639	0 2182	0.0287	0.0165	0.9373	0.1766	1.4662	41714 43969	7
12	1,7787	0.1746	1,9533	0 0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0185	0,93/3	0.0716	1.4662		1200
13	1,7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0185	- 1	-	9.4572	27163	
14	1,7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0185	•	- 1	0.4572	4 3 12.7163	
15	1.7707	0 1746	1,9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287		- 1	- 1	0.4572		
16	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0185	- 1	- 1	0.4572	THE PERSON NAMED IN	15
17	1.7787	0.1746	1.9533	0 D669 D.0669	0.0446	0.0164	0.0639	0 2182	0.0287	0.0165	٠,١	• [	V.43/2 )	- "La : E: 2 7161	4.5
18	1.7787	0.1746	1.9533	0.0069	0 0446	0.0164	0.0639	0.2162	0 0287	0.0185	•	• 1	0.4672 [	The state of	
19	1.7787	0.1746	1,9533	0.0669	0 0446	0 0164	0.0639	0.2182	0.0287	0.0185	- 1	-	0.4672 i	7.3.34 to	4.5
20	1.7767	0.1746	1.9523	0.0669	0,0446	0.0164	0.0639	0.2182	0.0287	0.0185	• 1	•	0.4572	27.21.2 27.22.2 27.22.2 27.22.2	4.5
21	1.7787	0.1746	1.9533		0.0446	0.0164	0 0639	0.2182	0.0287	0.0185	- 1	•	0.4572	Z7182	4.5
22	1,7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0267		•	-	0.4572	201152713	4.5
23	1,7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0287	0.0165	- 1	- 1	0.4572	The Party of the P	4.5
24	1,7787	0.1746	1,9533	0.0669	0.0445	0.0164	0.0639	0.2182	0.0287	0.0185	• 1		0.4672	******	
25	1.7787	0 1746	1.9533	0.0669	0.0446	0.0164	0.0639	0.2162	0.0287	0.0185	•	•	0.4672	2710 2710	4.5
26	1,7787	0 1746	1.9533	0 0669	0 0446	9.0164	0.0639	0.2182	0.0267	0.0185	• 1	• 1	0.4572	20 27141	4.5
27	1.7787	0.1746	1.9533	0.0669	0.0446	9.0164	0.0639	0.2182	0.0287	0.0185 0.0185	•	٠ ,	8.4572	7276	4.5
28	1.7767	0 1746	1.9523	0.0669 0.0689	0.0446	0.0164	0.0639	0.2182	0.0287		•	. [	0.4572	2710	4.5
29	1.7787	0.1746	1.9533		0 0446	0.0164	0.0639	0.2182	0.0267	0.0185 0.0185	•	•			4.57
30	1.7767	0.1746	1.9533	0.0669	0 0446	0.0164	0.0639	0.2182	0.0287		• 1	•	0.4572	27163	4.5
evelized ·	1.7787	0.1746	1,1533	0.0669	0.0446	0.0164	0.0639	0.2182	0.0267	0.0185	- 1	-	0.4572	27163	4.5
		2.61.48	1,1311	0.0469	0.0446	0.0164 .	0.0639	0.2182		0.0185	<u> </u>			2.7163	
									0.0287	0.0185	F 8.3468	0,3119	1 1 1140	2.114	

AVERAGE TARIFF	EPP Rs. / kWh Cents / kWh	CPP	Total		
1-30 Years 1-10 Years 11-30 Years	1.9533 3.2554 1.9533 3.2554 1.9533 3.2554	Rs. / kWh Cente / kWh 0,7936 1,3226 1,4662 2,4437 0,4572 0,7620	Rs. / kWh Cents / kV 3.2758 6,459 4.3969 7.326		
LEVELIZEO TARIFF	EPP Rs. / kWh Cents / kWh	CPP	2.7153 4 525 Total		
1-30 Years 1-10 Years 11-30 Years	1.9533 3.2554 1.9533 3.2554 1.9533 3.2554	Rs. / kWh 1.1149 1.8582 1.4662 2.4437 0.4572 0.7620	Rs. / kWh Cents / kW 3,6114 6,352 4,3969 7,328; 2,7153 4,525		

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#### PLANT OPERATIONS ON HSD

_			y Charge (Rs. /	-wai	Г		<del></del>		Capacity Cha	rge (Rs. / kWh)						
	Year	Fuel	Variable (O & M)	Total	Escalable (Fixed O & M) Foreign	Escalable (Fixed O & M) Local	Financing Cost on Working Capital	Escalable (insurance)	Return on Equity	Return on Equity for Construction Period	Withholding Tax @ 7.6%	Loan Rapayment	Interest Charge	Тоші	60% Plant Factor Ra, / kWh	e/kw
$\vdash$	<del></del>				0.0669	0.0446	0,0351	0 0639	0 2182	0.0287	0.0185	0.3220	0.6870	1,4843	3.4421	15.7340
	1	5.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0639	0.2182	0.0287	0,0185	0.3626	0 6464	1,4843	5,4421	-2-22-18 TOBS
	2	6.7153	0.2520	6.9673		0.0446	0.0351	0.0639	0 2162	0.0287	0.0185	0.4063	0.6007	1,4843	8,4421	THE STREET
1	3	6,7153	0.2520	6.9673	0 0669	0.0446	0.0351	0.0639	0.2182	0.0287	0.0185	0.4598	0.5492	1,4543	3.4421	METAGO
	4 ]	6.7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0639	0 2182	0.0287	0.0185	0.5177	0.4913	1,4849	1.4421	** 4E.7368
1	5	6,7153	0.2520	6,9673	0 0669		0.0351	0.0639	0.2182	0.0287	0,0185	0.5830	0.4260	1,4849	9.4421	16,7368
1	6	6.7153	0.2520	6.9673	0.0669	0.0446 0.0446	0.0351	0.0639	0.2162	0 0287	0.0185	0.6565	0.3525	1.4449	1.34. 9.4421	CHAPTER TORR
	7	6.7153	0.2520	6,9673	0.0669		0.0351	0.0639	0.2162	0.0287	0.0165	0,7392	0.2698	1.4849	B.4421	- ST 11-15.7368
ŀ	8	6.7153	0.2520	6,9673	0.0669	0.0446		0.0639	0.2182	0.0267	0.0165	0.6324	0 1766	1,4849	9,4421	TS - 1111E7388
	9	6.7153	0.2520	6.9673	0 0669	0 0446	0.0351 0.0351	0.0639	0.2182	0.0267	0.0185	0.9373	0.0716	1,4849	7 <sup>2</sup> 9,4421	
	10	6.7153	0.2520	6.9673	0 0669	0.0446	0.0351	0.0639	0.2162	0.0287	0.0185		-	0.4759	7,7605	Fre 11.0341
	- 11	6.7153	0.2520	6.9673	0.0669	0.0446 0.0446	0.0351	0.0639	0.2162	0.0267	0.0185	_		0.4759	7.7606	
	12	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0639	0.2162	0.0267	0 0185			0.4753	7.7808	12,9341
ŀ	13	6 7153	0.2520	6,9673 6,9673	0.0669	0.0446	0.0351	0.0639	0.2162	0.0287	0,0185	l .		0.4753	7.7006	12,8341
II.	14	6.7153	0.2520	6,9673 6,9673	0.0669	0.0446	0,0351	0.0639	0 2182	0.0267	0.0185			0,4759	7.7601	12,9341
	15	6.7153	0.2520 0.2520	6.9673	0.0669	0.0446	0.0351	0.0639	0.2182	0 0287	0.0165	· .	-	0.4759	7,7006	. 12.9341
ì	16	6.7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0639	0.2162	0.0287	0.0185		-	0,4759	7.7606	.12.9341
1	17	6,7153 6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0,0639	0.2182	0.0247	0.0185			0,4759	7.7606	12,9341
	18	6.7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0639	0.2182	0.0287	0.0185		•	0,4759	7.7105	12,9141
ł	20	6,7153	0.2520	6,9673	0 0669	0.0446	0.0351	0.0639	0.2182	0.0287	0.0165			6.4759	7.7004	12.0341
1	21	6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0639	0.2182	0.0287	0.0185		<b>-</b> '	0.4759	7.700	12.9341
	22	6.7153	0 2520	6,9673	0.0669	0.0446	0.0351	0,0639	0.2152	0.0287	0.0185	-	•	0.4753	7.7906	12,9341
ı	23	6,7153	0.2520	6,9673	0,0669	0,0446	0.0351	0.0639	0 2152	0.0287	0,0185	-	•	0.4759	7.7606	129341
1	24	6,7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0639	0.2162	0.0287	0.0185		-	0.4757	\$ \$1.7.760S	.12.9341
1	25	6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0639	0.2182	0.6267	0.0185	•	-	0.4759	7.7606	
1	26	6,7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0639	0.2182	0.0267	0.0185		-	0.4759	2 7,7605	12.9341
	27	6.7153	0,2520	6,9673	0.0669	0.0446	0.0351	0.0639	0.2182	C.0287	0.0185	•	-	0.4759	7.7606	12.9341
	26	6,7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0639	0.2182	0.0287	0.0185		•	0,4753	7.7605	12.9341
	29	6,7153	0.2520	6.9673	0 0669	0.0446	0.0351	0.0639	0 2182	0.0287	0.0185	· •	-	0.4759	7.7605	
ł	30	6.7153	0.2520		0.0669	0.0446	0.0351	0.0639	0 2182	0.0267	0 0185		•	0.4763	7,7605	
$\vdash$	evelized ·	6,7153		6.9673	0.0469	0.0444	0.0351	0.0639	0.2182	0.0287	0.0186	0.3468	0.3118	1.1336	8,4566	14.7601

	EPI	•	CPI	•	Total		
AVERAGE TARIFF	Rs./kWh	Cents / kWh	Rs./kWh	Conta / kWh	Rs. / kWh	Cents / kWh	
1-30 Years	6.9673	11.6121	0.8123	1.3536	8.3210	13.8683	
1-10 Years	6.9673	11.6121	1,4849	2.4748	9 4421	15 7368	
11-30 Years	6.9673	11.6121	0.4759	0.7932	7.7605	12.9341	
	EPI	<b>.</b>	CPI	•	Tot	al .	
LEVELIZED TARIFF	Rs. / kWh	Cents / kWh	Rs. / kWh	Cents / kWh	Rs. / kWh	Cents / kWh	
1-30 Years	6,9673	11.6121	1,1336	1.8893	8.8566	14,7509	
1-10 Years	6.9673	11.6121	1.4849	2.4748	9.4421	15.7368	
11-30 Years	6.9673	11.6121	0.4759	0.7932	7.7605	12.9341	

*(*)



#### PLANT OPERATIONS ON GAS

Year	Ener	gy Charge (As.	(AWh)	ļ				Capacity Ch	arge (Rs. / kWh)						
	Fuel	Variable (O &	Total	Escalable (Fixed O & M) Foreign	Escalable (Fixed O & M) Local	Financing Cost on Working Capital	Escalable (Insurance)	Return on Equity	Return on Equity for Construction Period	Withholding Tax @ 7.6%	Loan Repayment	Interest Charge	Total	Fixed Cost at 50% Plant Facto Rs.7 kWh	Car. A.
,	1.7787	0.1746	1,9533	0.0669	0 0446	0.0164						<del> </del>	<del> </del>	<u> </u>	<b>AND TO SERVICE</b>
2	1,7787	0.1746	1.9533	0.0669	0 0446	0.0164	0.0637	0 1877	0.0152	0 0152	0.2729	0.5821	1,2647	SS \$ 3 4.0015	J-12
3	1.7787	0.1745	1.9533	0.0669	0.0446	0.0164	0.0637 0.0637	0.1877	0.0152	0.0152	8.3072	0.5477	1.2647	4.0611	Segr
4	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164		0.1877	0.0152	0 0152	9.3460	0,5090	1,2647	4.0611	
5	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0 0637	0.1877	0.0152	0.0152	9.3896	0.4654	1,2647	4.0611	200
6	1,7787	0.1746	1.9531	0.0669	0.0446	0.0164	0.0637	Q.1877	0.0152	0.0152	0.4387	0.4163	1,2647	34.0611	
7	1,7787	0,1745	1,9533	0.0669	0.0446		0.0637	0.1677	0 0152	0.0152	0.4940	0.3610	1,2647		
	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0.1877	0.0152	0 0152	0.5563	0.2987	1,2647		
9	1,7787	0.1746	1,9533	0.0669	-	0.0164	0.0637	0.1877	0.0152	0.0152	0.6264	0,2286	1,2647	4.0611	
10	1.7767	0.1746	1.9533	0.0669	0 0446	0.0164	0.0637	0.1877	0.0152	0.0152	0.7054	0.1496		4.0611	
31	1,7787	0.1746	1.9533	0.0669	0.0446	0.0164	0 0637	0.1877	0 0152	0.0152	0.7943	0.0607	1.2647	4.0611	
12	1,7787	0.1746	1.3533	0.0669	0.0446	0.0164	0 0637	0.1877	0 0 1 5 2	0.0152			1.2647	學 50 40611	John Of 🗷
13	1.7787	0.1746	1,9533	0.0669	0.0446	0.0164	0 0637	0.1877	0.0152	0.0152		•	0.4097	× 1 Ka+21341	
14	1,7787	0.1746	1,9533	0.0669	0.0446	0.0164	0 0637	0 1877	0.0152	0.0152		•	0.4097	2.031	22 (1985)
15	1,7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0.1677	0.0152	0.0152		•	0.4097	2.6361	
16	1,7787	0.1746	1.9533	0.0669	0.0446	0.0164	0 0637	0.1877	0.0152	0.0152		- 1		2011	4
17	1.7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0637	0.1877	0.0152	0.0152		•	0.4097	2.831	192
18	1.7767	0.1746	1,9533	0.0569	0.0446	0.0164	0.0637	O.1877	0.0152	0.0152	I	• ]		20361	4
19	1.7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0637	0.1877	0.0152	0.0152	1	• 1		2836 (2836)	4
20	1,7787	0.1746	1,9533	0.0669	0.0446	0.0164	0.0637	Q 1877	0.0152	0.0152		-	0.4037	S. S. C. CO.	4.
21	1.7767	0.1746	1.9533	0.0669	0.0446	0.0164	9.0637	0.1877	0 0152	0.0152		• 1	0.4097		4.
22	1.7787	0.1746	1,9633	0.0669	0.0446 0.0446	0.0164	0.0637	9.1877	0.0152	0 0152	: 1	. 1	0.4097	-5:2:2434	
23	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0.1877	0.0152	0.0152	<u> </u>	: 1	0.4097	2.134	4.
24	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0.1877	0.0152	0.0152		:	U.4037 L	1 1 . 2 6361	1 1 4
25	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0.1877	0 0152	0.0152		: 1	0.4097	10 K 28361	4.
26	1.7787	0.1746	1.9533	0.0669	0.0446	0 0164	0 0637	0.1877	0.0152	0.0152	. !	: 1	0.4037	2.6361	4.
27	1.7787	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0 1677	0.0152	D.0152	_	: 1	8.4097	2.0361	
26	1.7787	0,1746	1,9522	0.0669	0.0446	0 0164	0.0637	0.1877	0.0152	0.0152		: ]			4
29	1.7787	0.1746	1,9533	0.0669		0.0164	0.0637	0.1877	0.0152	0.0152	: 1	· I	0.4097	XX(23.5) Z.1301	
30	1.7767	0.1746	1.9533	0.0669	0.0446	0.0164	0.0637	0.1877	0.0152	0.0152		- 1		हैं <sup>क</sup> ि के 21311	4
olized -	1.7767	0.1748	1,9531		0.0446	0 0164	0.0637	0.1877	0.0152	0.0152	•	• 1		2.6361	
		7,11,79	1,3334	0.0669	0.0444	0.0164	0,0637	- via 0.1877		0.0152	0.2930	1	0.4097	2,8361	

AVERAGE TARIFF	EP Rs. / kWh	P Cents / kWh	СРР	Total		
1-30 Years 1-10 Years 11-30 Years	1.9533 1.9533 1.9533	3.2656 3.2555 3.2555	Rs. / AWh Cents / 6Wh 6.6347 1,1572 1.2647 2,1078 0.4097 0.6828	Rs. / kWh Cents / kWh 3.1111 6,1852 4.0611 6,7665 2.6361 4,3936		
LEVELIZED TARIFF	EPI Rs. / kWh	Cents / kWh	CPP	Total		
1-30 Years 1-10 Years 11-30 Years	1.9533 1.9533 1.9533	3.2555 3.2555 3.2555	Ra. f hWh Cents / hWh 9.3679 1.6116 1.2647 2.1078 0.4097 0.6628	Rs. / kWh Cents / kWh 3.9649		



#### PLANT OPERATIONS ON HSD

Year	Ener	gy Charge (Rs. f	kWn)					Capacity Ch	arge (Rs. / kWh)					To To	tal .
	Fuel	Variable (O & M)	Total	Escalable (Fixed O & M) Foreign	Escalable (Fixed O & M) Local	Financing Cost on Working Capital	Escalable (insurance)	Return on Equity	Return on Equity for Construction Period	Withholding Tax @ 7.5%	Loan Repayment	interest Charge	Total	Fixed Cost at 60% Plant Factor Rs. / kWh	e i kw
	6.7153	0.2520	6,9673	0.0669	0.0446	0 0351	0.0637	0 1877	0.0152	0.0152	0.2729	0.5821	1,2634	9.1043	*18.1771
١ ;	6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0637	0.1677	0.0152	0 0 1 5 2	0.3072	0.5477	1,2834	9,1063	161771 161771 161771
1 5	6,7153	0.2520	6,9673	0,0669	0.0446	0.0351	0 0637	0.1877	0.0152	0 0152	0.3460	0.5090	1.2834	9.1063	
1 4	6,7153	0.2520	6,9673	0 0669	8 0446	0.0351	0.0637	0.1877	0 0152	0.0152	0.3896	0.4654		3 1043	24 PM 1
5	6,7153	0.2520	6.9673	0.0669	0 0446	0.0351	0.0637	0.1877	0.0152	0 0152	0.4387	0.4163	1.2834	201721- 9.1043	CONTRACTOR
6	6,7153	0.2520	6.9673	0.0669	0.0446	0.0351	0 0637	0.1877	0 0152	0.0152	0.4940	0.3610	1,2834	9.1063	314.177
1 7	6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0 0637	0.1877	0.0152	0.0152	0,5563	0.2987	1,2834	9.1063	18.1771
ė	6,7153	0.2520	6.9673	0.0669	0 0446	0.0351	0 0637	0.1677	0.0152	0 0152	0.6264	0.2286	1,2634	0.1063	
9	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0 0152	0 0152	0.7054	0.1496	1,2834	\$ 1067	15.1771
10	6,7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0 0152	0 0152	0.7943	0.0607	1,2834	w	312.177
11	6.7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0637	0.1877	0.0152	0.0152			0.4284	7.6813	
12	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0.0152	0.0152			0.4284	7.4413	12.8022
13	6.7153	0.2520	4.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0.0152	0.0152	. [			7,0013	12.8022
14	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1677	0.0152	0.0152		. !	0.4284	VA. V	12.6022
15	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0 0152	0.0152		. i	0.4284	7,4413	12.8022
16	6.7153	0.2520	6.9673	0.0669	0.0446	0,0351	0.0637	0.1877	0.0152	0,0152		. 1		3 7.H11	12.8022
17	6.7153	0.2520	6,9673	0 0669	0.0446	0.0351	0.0637	0.1877	0.0152	0.0152				7 411	12.8022
18	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1677	0.0152	0.0152			0.4284	7.411	12.6022
19	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0.0152	0.0152	_		0.4254	7,613	12.8022
20	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0 0152	0.0152			0.4264	2 7.H13	12.6022
21	6.7153	0.2520	6.9673	0.0669	0.0446	0 0351	0.0637	0.1877	0.0152	0.0152		_ !		1.0013	12.8022
22	6.7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0637	0.1877	0 0152	0.0152	_		9,4284	7 441	12,8022
23	6.7153	0.2520	6.9673	0.0669	0.0446	0.0351	0 0637	0.1877	0 0152	0.0152			0.4204	7,6413 7,6413 7,6613	12.8022
24	6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0637	0.1877	0.0152	0.0157		- 1	0.4264	3 7.0613	12.8022
25	6.7153	0.2520	6,9673	0.0669	0.0446	0.0351	0 0637	0.1877	0.0152	0.0152		.	0.4284	7.8413 3.7.8813	12,6022
26	6.7153	0.2520	6.9673	0 0669	0.0446	0.0351	0.0637	0.1677	0.0152	0.0152		.	0.4284	7.6812	12.8022
27	6,7153	0.2520	6,9673	0.0669	0.0446	0.0351	0.0537	0.1877	0.0152	0.0152	!	- 1	8.4284	7.4413	12.8022
26	6.7153	0.2520	8.9673	0.0669	0.0446	0.0351	0.0637	0.1877	0.0152	0 0152		-	0.4264	7.M13	12.8022
29	6.7153	0.2520	6,9673	0,0669	0.0446	0.0351	0.0637	Q. 1877	0.0152	0.0152		. }	0.4284	7.017	12.8022
30	6.7153	0.2520	6.9673	0.0669	0 0446	0 0351	0.0637	0.1877	0.0152	0 0152			0.4254	7.4013	12.8022
Levelized	6.7183	0.2520	6.9673	0.0669	J 8.0446	0.0361	0.0637	- 0.1877	0.0162	0.0182	0.2930	0.2643	0.9857	8.6101	144.5502

	€P	•	CPI		Total		
AVERAGE TARIFF	Rs. / kWh	Cents / kWh	Rs, / kWh	Cente / kWh	Rs. / kWh	Cents / kWh	
1-30 Years	6.9673	11.6122	8.7134	1.1890	8,1563	13,5934	
1-10 Years	6.9673	11.6122	1.2834	2.1390	9,1063	15.1771	
11-30 Years	6.9673	11.6122	0,4284	0.7140	7.6813	12.8022	
	EP	•	CPI	•	Tet	.1	
LEVELIZED TARIFF	Rs. / kWh	Cents / kWh	Rs./kWh	Cents / NWh	Rs. / kWh	Cents / kWh	
1-30 Years	6.9673	11.6122	0.9857	1.6428	8.6101	14,3502	
1-10 Years	6.9673	11.6122	1,2034	2,1390	9.1063	15,1771	
11-30 Years	6.9673	11.6122	0.4284	0.7140	7.6813	12.6022	

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