

TARIFF PETITION
TO
NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
(NEPRA)

BY
PAKISTAN SUGAR MILLS ASSOCIATION (PSMA)
FOR A CO-GENERATION POWER PROJECT OF 60 MW AND ABOVE

January 23, 2008

Submitted by:

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Glossary

PSMA	Pakistan Sugar Mills Association
CPI	Consumer Price Index
CPP	Capacity Purchase Price
CPPA	Central Power Purchasing Agency of NTDC
EPC	Engineering Procurement and Construction
EPR	Energy Purchase Risk
FSA	Fuel Supply Agreement
IA	Implementation Agreement
IMF	International Monetary Fund
IPP	Independent Power Producer
IRR	Internal Rate of Return
ISO	International Standards Organization
KIBOR	Karachi Inter Bank Offered Rate
KV	Kilovolt
kW	Kilowatt
kWh	Kilowatt Hour
L/C	Letter of Credit
LCV	Lower Calorific Value
LIBOR	London Inter Bank Offered Rate
LOS	Letter of Support
MW	Megawatt
MWh	Megawatt hour
NEPRA	National Electric Power Regulatory Authority
NTDC	National Transmission and Dispatch Company Limited
O&M	Operation and Maintenance
Pak. Rs.	Pakistani Rupees
PPA	Power Purchase Agreement
PPIB	The Private Power & Infrastructure Board
Project	Proposed co-generation power project of approximately 60MW and above capacity by Sugar Industry
ROE	Return on Equity
Ton	Metric Ton (1000 kg)
USD	United State Dollars
WAPDA	Water and Power Development Authority
WPPO	WAPDA Power Privatization Organization
CPPA	Central Power Purchase Agency

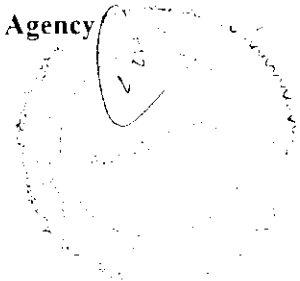
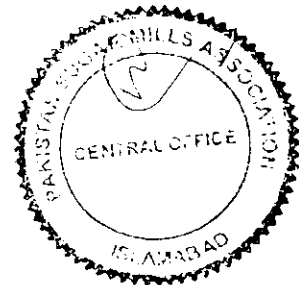


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1.0 Particulars of the Petitioner:

Name and Registered Office

Pakistan Sugar Mills Association
Rashid Plaza, Jinnah Avenue, Islamabad
Telephone: (051) 2270525-2823971
Facsimile: (051) 2274153

Through Authorized Representatives of PSMA

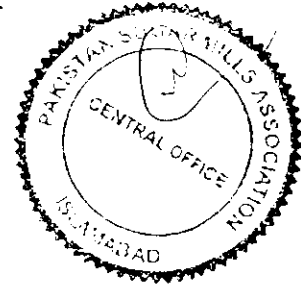
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2.0 Introduction / Background

This Tariff Petition is being filed before NEPRA pursuant to Rule 3 of the NEPRA Tariff Standards & Procedure Rules, 1998, the applicable provisions of the Policy for Power Generation Projects, 2002 and National Policy for Power Co-generation by Sugar Industry (2006) (the Co-generation Policy 2006)

Pursuant to the decision of the Economic Coordination Committee of the Cabinet (ECC) these projects will be on a fast track basis, thereby dispensing with the steps of pre-qualification, submission of feasibility studies and issuance of Letter of Interest by PPIB. Such power co-generation plants/units will not be treated as part of the sugar industry, but as a separate entity for tax purposes.

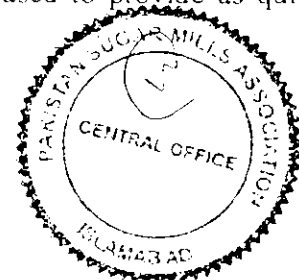
PSMA through its authorize representative along with the feasibility report, that has been conducted for 60MW single unit based on bagasse-coal as fuel, is submitting the tariff petition for delivery of electricity to the Central Power Purchasing Agency of NTDC for procurement on behalf of WAPDA Distribution Companies.

The tariff for 30 years approved by NEPRA as a result of the determination will be informed by PSMA to its members. Interested sugar mills who wish to opt the tariff shall apply for generation license to NEPRA for implementation of the co-generation power project accordingly.

The proposed tariff (Reference Tariff) will be a two-part tariff, comprising capacity and energy charges. This tariff together with indexation will be integrated into the Power Purchase Agreement (the PPA) to be entered into between the sponsor of project and CPPA of NTDC, and shall be based on the format of the PPA proposed by the PPIB for co-generation power project by the sugar industry.

It is worth mentioning while exploiting all means to overcome the acute shortage of power faced by the country, power supply from co-generation power plants by sugar industry would be an attractive option to outstrip the demand gap to some extent. The proposed tariff to power purchaser will comparatively lower than RFO based power plants.

We respectfully request NEPRA to kindly ensure consistency between the adjustment formulae and indexations to be applied to the referenced tariff normally conveyed to the Petitioner in NEPRA's tariff determination Order since these formulae and indexation also form part of Schedule 1 to the PPA. In case NEPRA needs any clarification, explanation during its evaluation process PSMA would be pleased to provide as quickly as possible.



3.0 Financial Analysis

The financial calculations for the Project are based on the:

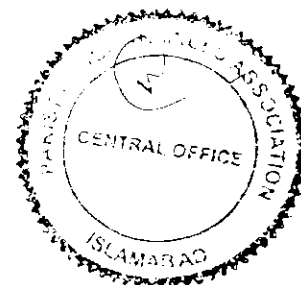
- a) Investment cost estimate.
- b) Power plant operating costs (including long-term O&M contract)
- c) Financing, taxation, depreciation and other obligations and terms regulated by the law or lending institutions.
- d) Proposed 30-year tariff, based on real life-time costs.
- e) PSMA co-generation power proposal is based upon the BOO (Build-Own-Operate) concept.
- f) Assumption that the Project will qualify for tax incentives as per the 2002 Power Policy, including an exemption from corporate income taxes as well as turnover and withholding tax on imports.

4.0 Co-Generation Plant

A Co-Generation power plant of conventional steam turbine technology having a nominal capacity of 60MW will be installed along side of sugar mills. The scheme is based on a dual fuel fired boiler and a turbo-generating set. The boiler shall be designed for generation of steam to meet the steam requirement during season and off-season operations, the boiler shall be capable to burn bagasse-coal mix during season, and 100% coal during off season. The bagasse will be supplied by sugar mills during season, and the coal used during season and off-season shall be imported/local.

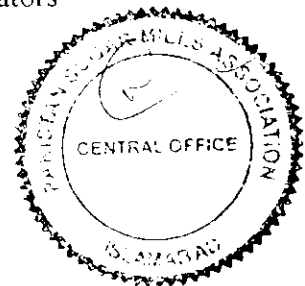
The steam turbine will be a condensing type non reheat with controlled/uncontrolled extraction for process steam and regenerative feed water heating system, steam from turbine will exhaust in the condenser at 0.1bar (a).

Power will be exported to NTDC electrical network via double circuit 132KV transmission lines.



The cogeneration power plant shall comprise the following :-

- One condensing type steam turbine with four steam extractions
- One bagasse-coal fired boiler, 270 t/hr steam generating capacity at 87barg, 535 deg C.
- One turbo generator, 2 pole type, 50 HZ, 11 KV, 0.8 power factor with a rated capacity of 75 MVA coupled with steam turbine.
- One step-up transformer of 11/132 KV with rated capacity of 75 MVA
- One main auxiliary transformer of 11/6.6 KV with rated capacity of 16 MVA
- 132 KV outdoor sub-station designed for single bus bar arrangement, 1 incoming bay, 2 outgoing bays, with all necessary protection and metering system
- Main cooling water system(Cooling Tower)
- Closed cooling water system
- Water treatment system
- Common control room
- Coal/bagasse handling and storage facility
- Coal preparation and feeding system
- Ash removing system, discharge and storage in the ash yard
- Boiler equipped with electro static precipitators
- RCC stack of 85 meter height



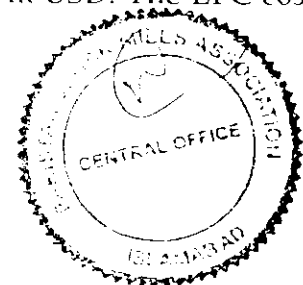
5.0 Capital Expenses

An estimate of the total cost of co-generation project for the entire scope of works based on current prices prevailing in the international market is estimated at US \$ 96.674 million.

Details of project cost are provided in the table:

	(US \$ IN THOUSAND)
Particulars	
Cost of Land & site development expenses	828
Plant Buildings, structures and all civil works including go downs/storage, tanks etc. and non-industrial buildings	11916
Plant and Machineries inclusive of freight, insurance, port handling, inland transportation, and erection & commissioning etc.	63762
Taxes and Duties	4477
Non EPC Construction Cost	2483
Admin and Utilities	414
Project Development Cost	1076
Legal, Lender's and Consultants Cost	750
Insurance (construction)	1022
Financing Charges and Fees	1548
IDC Expenses	8398
TOTAL	96674

The investment cost estimate of the plant is presented in USD. The EPC cost is fixed in US\$ with an exchange rate of 1.28USD/EUR.



6.0 Capital Structure

The proposed capital structure of the co-generation project is as follows:

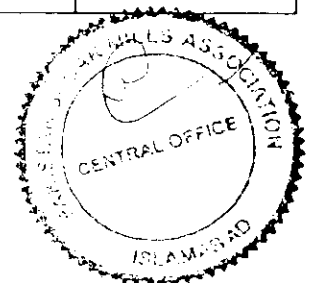
In USD'000	
Equity	19334.8
Total debt	77339.2
Total Project Cost	96674.0
Debt to Equity	4:1

7.0 Tariff Structure

PSMA is submitting a typical two part tariff structure with an energy charge for the energy actually dispatched and a capacity charge based on contract capacity or tested capacity for a period of 30 years. The following tariff for delivery of electricity to CPPA of NTDC shall be chargeable subject to determination by NEPRA.

REFERENCE TARIFF

Tariff Components	Year 1 to 10	Year 11 to 30
Capacity Charge (Rs./kWh)		
Fixed O&M	0.24	0.24
Insurance	0.194	0.194
Working Capital	0.136	0.136
Debt. Service	3.129	--
Return on Equity	0.664	0.664
ROE during construction	0.083	0.083
With holding tax (div)	0.060	0.060
Total Capacity Charge	4.506	1.377
Energy Charge (Rs./kWh)		
Fuel Cost Component	3.003	3.003
Variable O&M – Foreign	0.144	0.144
Variable O&M – local	0.216	0.216
Total Energy Charge	3.368	3.368



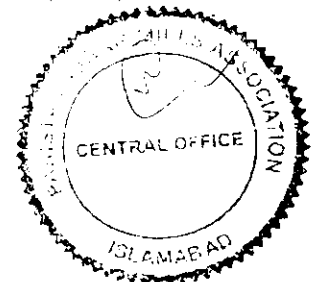
Note:

- i. Capacity Charge Rs./kWh is applicable to contract capacity at the delivery point.
- ii. Dispatch criterion will be the Energy Charge observing the min. loading of the plant.
- iii. The above tariff is applicable for a period of 30 years commencing from the date of the Commercial Operation.
- iv. Component wise tariff is indicated at Annex-I and Debt Service Schedule at Annex-II.

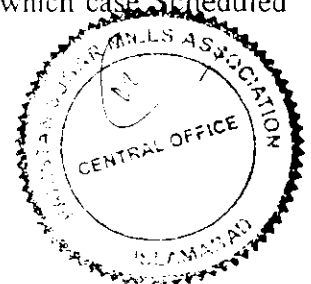
8.0 Assumptions

The following have been assumed for calculating the reference tariff. Charges in any of these assumptions will be reflected in the tariff.

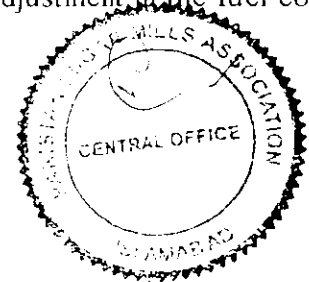
- Total Project cost:	US \$ 96.674 Million
- Project Life:	30 years
- Contract Capacity:	51.45 MW
- Plant factor:	60%
- GCV (coal):	25792 btu/kg
- LCV (coal):	24585 btu/kg
- Net Plant Efficiency:	28.0% (LCV)



- Custom duties on imported plant equipment are assumed to be 5% in accordance with the 2002 power policy. Custom duties on import of spare parts at 10% has been assumed after commercial operation.
- No provision for income tax and no min. turnover tax have been assumed.
- With holding tax at 6% on the local component of EPC contract has been assumed.
- Return on equity of 15% is assumed over 30 years.
- With holding tax of 7.5% on dividends has been assumed.
- No hedging cost has been assumed for exchange rate fluctuations during construction.
- NTDC is assumed to be responsible for financing and constructing the interconnection to the grid.
- Sale tax, excise duty or other charges payable on the generation, exportation or supply of electricity and capacity, and the purchase, importation, consumption or utilization of fuel shall be pass through.
- Payment to the workers welfare fund shall be pass through.
- Plant min. continuous loading during crushing season (100 days) is assumed at 90%, and during off-season (230 days) at 60%.
- Scheduled Outage periods shall be 35 days per unit in any year, except in any year in which a major overhaul is required, in which case Scheduled Outage shall be 60 days per unit.



- Annual Unscheduled Outage (MWh) up to 500 hours x Tested Capacity (MW) shall be without any liquidated damages.
- The exchange rate has been assumed to be 61.00:1 for PKR/USD, and USD/EUR 1.28:1.
- The cost of fuel and consumables during plant testing is assumed to be paid for by the power purchaser.
- Interest During Construction (IDC) shall be adjusted at actual in the tariff on COD.
- Interest rate for loans is assumed at 12.9% (KIBOR+3%), changes in the interest rate due to variation of KIBOR shall be adjusted
- Debt: Equity ratio is assumed to be 80:20.
- Debt tenure is assumed to be 24 months (construction) +10 years quarterly repayment.
- The max. number of starts/stops of the plant are assumed at 10 per annum.
- The base price of coal is assumed to be 99.3 \$per ton at port of Karachi, cost of inland transportation, clearing, handling, etc for fuel at site will be added in the base price of coal at actual.
- Heat Rate (recoverable and non recoverable) degradation factor as per manufacturer curve or table shall be allowed for adjustment in the fuel cost component of tariff.



- Partial load Heat Rate adjustment as per manufacturer curve or table shall be allowed for adjustment in the fuel cost component of tariff.

9.0 Indexation

The following indexation shall be applicable to reference tariff.

Indexation applicable to O&M

In future the 50% of Fixed O&M part of Capacity Charge will be adjusted on account of local inflation (WPI) and 50% on account of variation in US CPI and dollar/Rupee exchange rate. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st July, October, 1st January and 1st April based on the latest available information with respect to WPI notified by the Federal Bureau of Statistics (FBS), US CPI issued by US Bureau of Labor Statistics and revised TT & OD selling rate of US dollar notified by the National Bank of Pakistan.

Adjustment for KIBOR variation

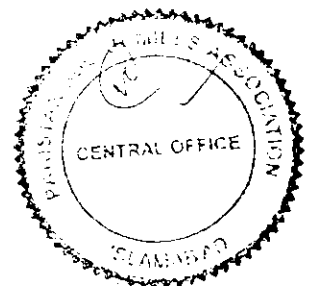
The interest part of fixed charge component will remain unchanged throughout the term except for the quarterly adjustment due to variations in interest rate as a result of variation in quarterly KIBOR according to the formula as envisaged to other IPP's.

Fuel Price Variation

The variable charge part of the tariff relating to the fuel cost shall be adjusted on account of the coal price variations as and when coal import price and other cost are changed. The basis of future price for indexation will be linked to 50% global coal NEWC pricing system on monthly/ quarterly/ half yearly/yearly basis adjusted for the GCV of 6500 kcal/kg, and 50% TFS AP14 pricing system on monthly/ quarterly/ half yearly/yearly basis adjusted for the GCV of 6500 kcal/kg. Sea freight and marine insurance will be adjusted at actual.

Working Capital

Stock of coal will be maintained to ensure reliable supply for generation of electrical power in accordance with the requirement of Power Purchase Agreement(PPA). Any change in coal price will significantly increase the working capital requirement during the term of the PPA, as such working capital component of fixed charge shall be indexed with respect to change in coal price.



Any Pass-through Item and adjustment on tariff component not expressly mentioned above shall be allowed similar to the IPP's on account of local inflation, foreign inflation, foreign exchange rate variation, and KIBOR variation.

10.0 Notes on the components of tariff

Fuel Component

Fuel component of the reference tariff has been calculated on coal and indexation of fuel component shall be on the basis of change in price of coal. Lower Calorific Value of coal has been taken as 6196 kcal/kg using a conversion factor of 1.049, which would be reflected in the calculation of fuel component at net efficiency of 28% (12189 Btu/kWh Heat Rate on LCV)

O&M Variable Component

This consists of the service fees of the O&M operator on a kWh basis for the overall management of the plant. It also includes replacement of consumable parts and any other parts on account of premature failure. It also includes the cost of lubricants, grease, chemicals, water usages and fuel oil etc.

Fixed O&M

This component includes the salary & wages to the O&M staff, administrative cost including remuneration to Executive Directors and staff, rents, utilities, local taxes, NEPRA annual fees, bank's yearly commission upon opening of Letter of Guarantee in favor of CPPA/NTDC, audit fees, legal retainer ship and consultancy fees, environmental monitoring and reporting fees, etc.

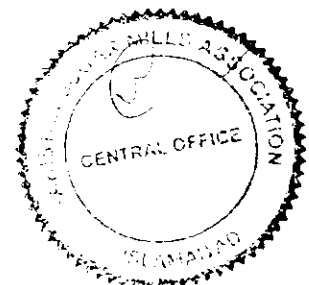
Further this component is divided into 50% local and 50% foreign. The foreign component includes the cost of major over hauling of the plant equipments as per manufacturer's recommendations which would require the replacement of parts and services of specialist from OEM.

Insurance Cost

Machinery breakdown, natural calamities (like earth quake), sabotage and consequential business interruption are the biggest threat to the life of the plant. So, it is imperative that all aspects of risk are cover adequately and no compromise is made in this respect.

Return on Equity

The figures in the Return on Equity are the function of 15% IRR which has been used as benchmark on the basis of maximum dividends payouts possible to the shareholders during each particular year and for the whole of the 30 year period.



Working Capital

Working capital requirements shall be recalculated at the time of COD based on the prevailing prices at that time and the component shall be adjusted accordingly. However it is now based on fuel storage of 30 days and spares at 1.5% of EPC cost, financial charges on receivable etc . This will be retained throughout the tenor of the Contract.

EPC Cost

It will cover bagasse-coal fired boiler and turbo generating set together with all auxiliary, machinery, equipment and systems including detailed engineering, erection, commissioning and testing of the equipment, construction of all civil works including main turbine building.

It will also includes the cost of bagasse/coal storage facility, preparation and feeding system , ash disposal facility, 85 meter high stack (RCC Construction), cooling tower, water storage facility, water treatment system etc etc.

Duties and taxes

Custom duties on imported plant and equipment are assumed to be 5% in accordance with the Power Policy 2002.

Spare parts

It covers the costs of spares inventory to be available during operation as per the recommendation of Equipment Manufacturer.

Mobilization

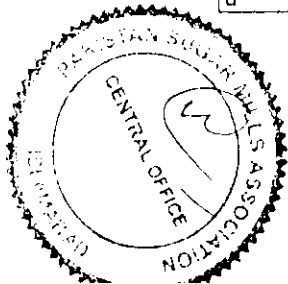
It covers the expenses of the O&M Contractor personnel mobilization at site much in advance prior to commissioning and testing of the plant, *i.e.* hiring personnel , training and preparation of O&M manual, and other services etc



REFERENCE TARRIF

Net Capacity: 51.45 MW
 Plant Factor: 60%
 Energy @ 60 % plant factor: 270421.2 MWh

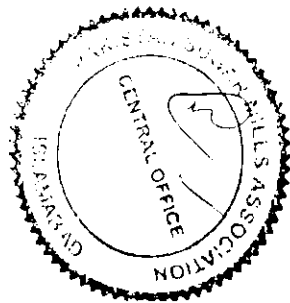
Year	Variable Charge (Rs./kWh)			Capacity Charge (Rs./kWh)									Total Tariff		
	Fuel	Variable	Total	Fixed O&M Foreign	Fixed O&M Local	Financing Cost on Working Capital	Insurance	Return on Equity	Return on Equity for Construction Period	Withholding Tax @ 7.5%	Loan Repayment (P+I)	Total Capacity Charge	Total Rs./kWh	Total c/kWh	
1	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
2	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
3	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
4	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
5	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
6	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
7	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
8	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
9	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
10	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	3.129	4.506	7.869	12.9	
11	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
12	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
13	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
14	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
15	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
16	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
17	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
18	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
19	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
20	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
21	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
22	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
23	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
24	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
25	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
26	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
27	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
28	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
29	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
30	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	-	1.377	4.74	7.77	
average	3.003	0.36	3.363	0.12	0.12	0.136	0.194	0.664	0.083	0.06	2.04	3.417	6.78	11.115	



Debt Servicing Schedule

Period Year	Principle opening (Rs)	Principle Installment(Rs)	Interest Installment(Rs)	Total Installment (Rs)	Outstanding Balance	Annual Principle Repayment (Rs)	Annual Interest (Rs)	Principle Repayment Rs./Kw/month	Interest Rs./KW/month
1	4,717,691,200	59,442,193	152,145,541	211,587,735	4,658,249,007				
2	4,658,249,007	61,359,204	150,228,530	211,587,735	4,596,889,802				
3	4,596,889,802	63,338,039	148,249,696	211,587,735	4,533,551,764				
4	4,533,551,764	65,380,690	146,207,044	211,587,735	4,468,171,073	249,520,127	596,830,812	404.1466	966.684
5	4,468,171,073	67,489,218	144,098,517	211,587,735	4,400,681,856				
6	4,400,681,856	69,665,745	141,921,990	211,587,735	4,331,016,111				
7	4,331,016,111	71,912,465	139,675,270	211,587,735	4,259,103,646				
8	4,259,103,646	74,231,642	137,365,093	211,587,735	4,184,872,004	283,299,070	563,051,869	458.858	911.972
9	4,184,872,004	76,625,613	134,962,122	211,587,735	4,108,246,391				
10	4,108,246,391	79,096,789	132,490,946	211,587,735	4,029,149,603				
11	4,029,149,603	81,647,660	129,940,075	211,587,735	3,947,501,943				
12	3,947,501,943	84,280,797	127,306,938	211,587,735	3,863,221,146	321,650,858	524,700,081	520.976	849.854
13	3,863,221,146	86,998,853	124,588,882	211,587,735	3,776,222,293				
14	3,776,222,293	89,804,566	121,783,169	211,587,735	3,686,417,727				
15	3,686,417,727	92,700,763	118,886,972	211,587,735	3,593,716,964				
16	3,593,716,964	95,690,363	115,897,372	211,587,735	3,498,026,601	365,194,544	481,156,395	591.500	779.327
17	3,498,026,601	98,776,377	112,811,358	211,587,735	3,399,250,225				
18	3,399,250,225	101,961,915	109,625,820	211,587,735	3,297,288,310				
19	3,297,288,310	105,250,187	106,337,548	211,587,735	3,192,038,123				
20	3,192,038,123	108,644,505	102,943,229	211,587,735	3,083,393,618	414,632,984	431,717,955	671.579	699.252

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Debt Servicing Schedule

Period Year	Principle opening (Rs)	Principle Installment(Rs)	Interest Installment(Rs)	Total Installment (Rs)	Outstanding Balance	Annual Principle Repayment	Annual Interest	Principle Repayment Rs./Kw/month	Interest Rs./KW/month
21	3,083,393,618	112,148,291	99,439,444	211,587,735	2,971,245,327				
22	2,971,245,327	115,765,073	95,822,662	211,587,735	2,855,480,254				
23	2,855,480,254	119,498,496	92,089,238	211,587,735	2,735,981,758				
24	2,735,981,758	123,352,323	88,235,412	211,587,735	2,612,629,435	470,764,183	375,586,756	762.494	608.336
25	2,612,629,435	127,330,435	84,257,299	211,587,735	2,485,298,999				
26	2,485,298,999	131,436,842	80,150,893	211,587,735	2,353,862,158				
27	2,353,862,158	135,675,680	75,912,055	211,587,735	2,218,186,477				
28	2,218,186,477	140,051,221	71,536,514	211,587,735	2,078,135,257	534,494,178	311,856,760	865.718	505.113
29	2,078,135,257	144,567,873	67,019,862	211,587,735	1,933,567,384				
30	1,933,567,384	149,230,187	62,357,548	211,587,735	1,784,337,197				
31	1,784,337,197	154,042,860	57,544,875	211,587,735	1,630,294,337				
32	1,630,294,337	159,010,742	52,576,992	211,587,735	1,471,283,395	606,851,662	239,499,277	982.915	387.916
33	1,471,283,395	164,138,839	47,448,896	211,587,735	1,307,144,756				
34	1,307,144,756	169,432,316	42,155,418	211,587,735	1,137,712,440				
35	1,137,712,440	174,896,509	36,691,226	211,587,735	962,815,931				
36	962,815,931	180,536,921	31,050,814	211,587,735	782,279,011	689,004,584	157,346,354	1115.977	254.853
37	782,279,011	186,359,237	25,228,498	211,587,735	595,919,774				
38	595,919,774	192,369,322	19,218,413	211,587,735	403,550,452				
39	403,550,452	198,573,233	13,014,502	211,587,735	204,977,219				
40	204,977,219	204,977,219	6,610,515	211,587,735	0	782,279,011	64,071,928	1267.054	103.777

