UNFCCC Secretariat
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Att: CDM Executive Board

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Your ref.:	Our ref.:	Date:
CDM Ref 1541	MAVI/KCHA	21 April 2008

Response to request for review

"10MW Biomass Based Renewable Energy Generation for the Grid at Saradambika Power Plant Private Limited at Chandrapur District, Maharashtra "(Ref. no. 1541)

Dear Members of the CDM Executive Board,

We refer to the issues raised in the requests for review raised by three Board members concerning DNV's request for registration of project activity 1541 "10MW Biomass Based Renewable Energy Generation for the Grid at Saradambika Power Plant Private Limited at Chandrapur District, Maharashtra" and we would like to provide the following response to the issues raised by these requests for review.

Comment 1:

The DOE should describe how the method of calculation of the WACC has been validated, and should confirm how this method of calculation is considered to be appropriate in the context of international norms such as the Capital Asset Pricing Model.

DNV's response:

The project's additionality has been argued based on the investment barrier. The project developer has compared the project IRR with the benchmark of weighted average cost of capital (WACC). The assessment period has been considered to be equal to the lifetime of the project i.e. 20 years and hence the benchmark WACC has also been determined for a period of 20 years on the basis of relative weights of debt and equity over this period of time. DNV is of the opinion that a comparison of the project IRR with the benchmark of WACC of the first year would not be appropriate as after 10 years the whole investment will be in the form of equity. Hence, the method of calculating the WACC based on the relative weights of equity and debt over a period of 20 years (lifetime of project activity) is deemed appropriate.

The WACC benchmark calculation is based on the following components:
- Cost of debt and expected return on equity
- Weights assigned to debt and equity over a period equivalent to lifetime of the project.

The above mentioned components have been validated by DNV as follows:
The cost of debt has been verified against the detailed project report (DPR), ref. DPR, chapter XII page 2, annexure 1. The interest rate as mentioned in the DPR (ref. DPR, chapter XII page 3, annexure 2), has been considered as the cost of debt (ref. DPR, chapter XII page 2, annexure 1). The expected return on equity (ROE) has been sourced from the Maharashtra Electricity

Regulatory Commission (MERC) tariff order (ref. Case No.37 of 2003 dt.8th August, 2005) which has declared a post-tax rate of return on equity as the expected return on equity (ref. http://www.mercindia.org.in/Orders_2005.htm). Both the rates have been supported through documentary evidence. The appropriateness of using the ROE declared by MERC in their tariff order dated 8th August 2005, is explained in DNV's response to *Comment 2* (see below). DNV would also like to mention that since the project IRR has been computed on post-tax basis, the project developer has computed the benchmark return also on post tax basis. While the expected rate of return on equity, as assumed in the computation of WACC, is already on post tax basis, in computing the cost of debt the project developer has adjusted the cost of debt (interest rate) also to tax in order to bring cost of debt on par with the expected return on equity. Hence, the interest has been multiplied by (1-t), the universally accepted method of computing the post-tax cost of debt.
Furthermore, weights to debt and equity have been assigned on a yearly basis. DNV is of the opinion that in a project financed by debt and equity, the debt equity mix will never remain constant. Therefore, the concept of changing leverage by value line[1] has been chosen while computing WACC. It is DNV's opinion that the approach followed for the WACC calculations is appropriate and realistic.
The project developer has adopted a conservative approach, in that the equity component has been retained at the same level as in the first year, though in reality, the equity replaces the term loan, signifying a progressive increase in equity.

DNV would like to emphasize that the Cost Asset Pricing Model (CAPM) yields expected return on equity only. A project developer can rely on this model if the investment is only in the form of equity. However, if both components, debt and equity, forms the total investment in the project, the project developer would look at the expected minimum returns keeping in mind the risks associated with both components of the investment. WACC takes into account both the cost of debt and the expected return on equity and arrives at the weighted average cost by assigning appropriate weights to various components of capital either based on book value or market value. In the context of the proposed project, the project developer has used the regulatory authority recommended rate of return as the expected rate of return for equity, which together with the cost of debt has been used to arrive at the WACC.

[1] Bodie, Kane and Marcus, Investments (VII edition), P.632 scanned copy of the relevant page enclosed as Annexure 3

It has been verified by DNV that the use of CAPM would have increased the WACC substantially. Considering the return (in market) during a 3 year period, a risk free rate of 7.34% (being the 10 year yield to maturity of Government Securities) and beta of 0.5, the expected rate of return on equity would be around 29%. Hence, based on this consideration, the selection of 16%[2] return as benchmark for the proposed project is regarded conservative.

Comment 2:

The DOE should also confirm how the required rate of return of 16% has been validated to be appropriate, as this is a value used to determine the applicable tariff. If this value is to be considered a benchmark, while at the same time the tariff does not deliver a return of 16%, then all investments in all forms of energy generation in India would be additional.

DNV's response:

DNV would like to clarify that the project developer has taken WACC as a benchmark for the project activity. In the project activity the benchmark is estimated based on cost of equity as well as cost of debt. The required rate of return of 16% for the tariff is considered as benchmark only for estimating cost of equity. The same has been sourced from Maharashtra Electricity Regulatory Commission (MERC) tariff order. In DNV's opinion, the assumed WACC value is appropriate on the basis of some facts related to the proposed project (as mentioned below) and also the disparities between the proposed project and assumptions considered by MERC while arriving at 16% post tax return on equity, as follows:

(i) DNV would like to indicate that the rate of return on equity can be calculated in different ways. Investors and banks use IRR to arrive at the return generated by the investment. IRR is a discounting technique which provides for compound interest. In other words, streams of cash inflows are discounted at the rate yielded by the IRR or in other words, IRR incorporates time value of money.

(iii) Based on the above fact, DNV would also like to inform CDM Executive Board (EB) members that MERC has not considered the time value of money when fixing the tariff. If MERC had been used WACC as discounting factor[3] and determined the tariff, then the tariff in the first five years (for example) should have been as given below:

Year	Tariff as enshrined in the PPA	Tariff adjusted to Time value of money[4]
1	3.18	3.18
2	3.22	3.62
3	3.26	4.13
4	3.30	4.70
5	3.34	5.35

(IV) Furthermore, input values used for the calculation of project IRR and the one used by MERC are also different. The regulator MERC has used average values of a standard

[2] The CNX Nifty as on April 1, 2003 was 984.30 and on March 31, 2006 3402.55. The 10 year YTM of G-Sec as on 2006 was 7.34%. Assuming a beta of 0.5, the expected rate of return based on CAPM works out to29% (approx.), The CNX Nifty statistics are available in www.nseindia.com site and the YTM of G-Sec are available in the RBI Annual Report 2006 (http://rbidocs.rbi.org.in/rdocs/AnnualReport/PDFs/72295.pdf page 182)

[3] MERC had all the data required to arrive at the discounting factor as it had assumed a leverage of 30:70, term loan interest of 12% , ROE of 16% and tax rate of 8.4%

[4] Based on the leverage, interest on debt, ROE and tax rate assumed by MERC while fixing the tariff, the WACC works out to 12.49%, which is used as a discounting (rather compounding) factor to arrive at the tariff adjusted to time value of money.

project for calculating the tariff. In contrast, the project developer has used the actual input values encountered for this specific project. As a result, some of the input values used by the project developer are higher and some are lower than those used by MERC.

For example, the assumed fixed cost and variable cost of the project activity have been more conservative than what MERC has arrived at to determine the tariff as shown (for five years as an example) in the following table:

Cost	Yr. 1	Yr. 2	Yr. 3	Yr.4	Yr.5
Fixed Cost					
- MERC	1.70	1.67	1.63	1.59	1.54
-Project	1.71	1.55	1.52	1.49	1.46
Variable Cost					
- MERC	1.48	1.55	1.63	1.71	1.80
- Project	1.33	1.40	1.47	1.54	1.62

On the other hand, two important cost items which are higher in the case of project vis-à-vis MERC assumption are the investment cost and auxiliary consumption. Hence, the main reason for the project's inability to earn a ROE of 16% has to be found in the method adopted by MERC while fixing the tariff. While MERC has assumed a cost of Rs.40 million per MW, it works out to Rs.44 million per MW in the case of this project. The actual investment made by the project developer for completing the project has been certified at Rs.457 million. A Chartered Accountant's certificate evidencing the investment made in the project is enclosed in **Annexure 4**. In the case of auxiliary consumption, the inadequacy of auxiliary consumption (due to power consumption by coolers) were raised even during the MERC hearing and it was pointed out that the auxiliary consumption is anywhere between 10 to 14%. MERC, however, took into account 10% to the best of their knowledge. The relevant page (page no. 22 of 101 of MERC order), wherein this issue was discussed, is enclosed in **Annexure 5** as supporting evidence.
In conclusion, it is DNV's opinion that due to the actual facts related to the project and also the difference in the methodology followed by MERC and the project developer, the proposed project would not be able to get 16% return on equity even after considering the tariff declared by MERC.

Comment 3:

DOE should provide description of what references have been used to validate the input values to the IRR, particularly in context to the investment costs.

DNV's response:
The input values used in the calculation of the project IRR for the proposed project activity have been validated by DNV from the following sources:
a) The investment cost was estimated at Rs.446 million. However, the project was implemented at a total cost of Rs.457.2 million. This is evidenced by the Chartered Accountant's (equivalent to CPA of the USA) Certificate, which is enclosed as **Annexure 4**. The certificate has been issued by the Chartered Accountant after verifying all the invoices and payment made. As such, the certificate provides an authentic proof of investment made (cash outflow) in the project.
b) Net electricity generation has been computed taking into account a 75% plant load factor (PLF) in the first year and 80% PLF from the second year onwards, with 330 days working and 12% auxiliary consumption (ref. chapter XII page no.3 annexure 2). The operating days and hence the plant load factor for the first and subsequent years were verified from the DPR (ref. chapter I page no.2).

c) The tariff considered for the IRR calculations has been sourced from the energy purchase agreement (EPA) entered into by the project developer with the Utility on 25th September 2006, (ref. page no.67 of EPA, annexure 6)
d) The expenditures consist of fuel cost, O&M expenses, interest on long term loan, interest on working capital and depreciation:
- DNV would like to emphasize that the specific fuel consumption and cost assumed in the projections are lower than what has been assumed by MERC while fixing the tariff. The fuel cost has been verified from the actual invoices raised on various biomass suppliers. The invoices have been verified by DNV (ref. annuxure 7). The average cost of biomass considered for the IRR calculations is 1025 Rs/ton.
- Likewise, interest on term loan assumed is lower than what has been assumed by MERC (10.5% as against 12%). The interest on term loan has been verified from the DPR (DPR, chapter XII page 3).
The project developer has adopted MERC norms for O&M expenses computation and working capital interest computation.
- Depreciation assumption has little relevance as it is added back to arrive at the cash inflow; it is only required to calculate the income tax. However, the depreciation assumed for the income tax calculations was verified by DNV. Depreciation claimed on straight line basis for power projects under Rule (5) of The Income Tax Act, 1961. (Appendix 1A)[5].
- All tax computations are based on income tax rules applicable at the project preparation stage and the project developer has taken into account all the benefits allowed by the Income Tax Act, while computing the tax.
It may kindly be noted that for the sake of conservativeness, the following costs have not been accounted for:

(i) Statutory requirements for setting aside of reserves, and
(ii) Dividend distribution tax. As a result, the IRR calculation overestimates the net return accruing to the investors.

Comment 4:

The DOE should describe how the method of calculation of the tariff has been validated, particularly for period from 11th year onwards, and should confirm how this method of calculation is considered to be appropriate in the context of the underlying project activity.

DNV's response:
The tariff considered for the IRR calculations have been sourced from the power purchase agreement (PPA) dated 25th September 2006. The tariff, as decided in the agreement, is valid for a period of 11 years. Even the MERC tariff order states that the tariff is subject to revision at the end of the period or after the state achieving a capacity of 250MW (biomass based)[6].
DNV would like to mention that MERC determined the tariff based on a representative project (based on the information collected from 10 projects), wherein it had taken fixed cost per unit and variable cost per unit separately based on the profitability projections and added the costs to arrive at the tariff. Since the methodology adopted is transparent and there is no other better methodology to estimate the tariff, the project developer adopted the same procedure to arrive at the likely tariff from the 12th year onwards. This assumption itself is quite optimistic in that the general trend in India has been to lower the tariff progressively. Therefore any assumption on the

[5] http://law.incometaxindia.gov.in/TaxmannDit/DisplayPage/dpage2.aspx?md=24&typ=se&yr=2005&ch=

[6] The tariff order is valid for 13 years as per the tariff order. However, since 2 years have elapsed by the time the project under consideration came up, the remaining period is only 11 years. http://www.mercindia.org.in/Orders_2005.htm

tariff applicable from 12th year onwards is necessarily highly uncertain today and do not provide an objective reliable basis for making investment decisions.

Comment 5:
Further clarification is required, from the DOE, on the appropriateness of the application of ±5% sensitivity on fuel price, considering ±50% variation in rice husk price in the region.

DNV's response:
The additionality tool (though not applicable to this project in view of its installed capacity) requires the project developer to "include a sensitivity analysis that shows whether the conclusion regarding the financial attractiveness is robust to "*reasonable variations* in the *critical assumptions*". One of the critical assumptions in this case is the fuel cost.
Based on the biomass assessment report and actual biomass supply agreement (ref. annexure 7), it has been observed that during the period from the project conceptualization till the submission of project for validation, the prices of rice husk have shown an upward trend from 700Rs to 1000Rs which is equivalent to a price increase of approx. 40%. It is worthwhile to mention that prices have shown the upward trend during the recent past mainly due to the implementation of biomass power plants in the state. Keeping in mind the general trend in increasing the prices of rice husk in the region, a decrease in rice husk price is unlikely. It is against this background that the project developer conducted a sensitivity analysis by varying the fuel cost ±5%. DNV has verified and confirmed the increase in the biomass price in the region in the recent past from biomass supply agreement signed with different suppliers (ref. annexture 8). Based on this, considering a decrease of biomass price by more than 5% would not be deemed realistic.

Yours faithfully
for DET NORSKE VERITAS CERTIFICATIONAS

Mari Viddal
Head of Section
International Climate Ch

C Kumaraswamy
Manager

PRE-OPERATIVE AND PRELIMINARY EXPENSES: Prelimlnary and Pre-operative expenses (Rs.359.95 lakhs) represent expenses to be incurred on incorporation, registration and filing fees and for consultancy charges for preparation of detailed project report, fuel study, expenses of establishment, traveling, interest and commitment charges, processing fees and start up expenses.

MARGIN FOR WORKING CAPITAL: Working capital margin is worked out based on the norms of commercial banks. The estimation is based on the following current asset requirements:

Raw material : 120 days
Receivables : 45 days
Expenses : 15 days

The total current assets worked out to Rs.392 lakhs in the first year and considering bank limits at the rate of 75%, the net margin for working capital is estimated at Rs. 294 Lakhs.

METHOD OF PROJECT EXECUTION

The project cost has been firmed up on the basis of quotation received on EPC basis. The company has received offer from two competent suppliers. There are two methods in project implementation. One is EPC contract and the other is implementation of the project on split package route. In the case of EPC contract, the EPC contractor will take up the project implementation including engineering on a turnkey basis including project commissioning. In such an event company will have an owners engineer to have a check on the project implementation by the EPC contractor. The other way of implementation of the project is on the basis of split package route where the company will have an engineering consultancy firm to design the power plant and advise on all technical matters. Though the project cost is based on EPC contract basis, company would like to explore after the financial closure, the advantages of implementing the project on split package route.

MEANS OF FINANCE

The cost of establishing a 10 MW biomass based power project is estimated at Rs.4460.95 lakhs and the same is envisaged to be financed in the following manner.

Share capital Rs. 1338.00 lakhs
Term loan Rs. 3122.95 lakhs

In the above financing pattern, the debt equity ratio works out to 2.33:1 and promoters would be bringing 30% of the project cost as share capital.

Annexure – 2

PROFITABILITY AND CASH FLOW ANALYSIS

The company is expected to commence the operation within 18 months from the date of financial closure. Profitability and cash flow statements have been worked out depicting the financials of the company for a period of 10 years. The financials have been worked out on the basis of certain assumptions, which are outlined below.

1. The project is expected to generate 792 lakh units of power every year based on 24 hours and 330 days working. However the plant load factor is assumed at 75% in the first year and 80% from second year onwards. The assumptions are conservative and can be certainly achieved.

2. The internal consumption for the plant is estimated at 12% of gross generation.

3. The entire power generation after meeting the requirements of plant would be exported to Maharashtra State Electricity Board Grid / third parties

4. The selling price per kWh is assumed at Rs.3.18 during first year and as per MERC guidelines from second year onwards.

5. The requirement of fuel for the project i.e., cotton and red gram stalks / rice husk is estimated at 81472 tons per annum at installed capacity. The cost of fuel is estimated considering a price of Rs. 1000 per tonne for red-gram / cotton stalks and rice husk including processing cost, cost of transportation, loading and unloading.

6. Operation and Maintenance cost for the plant including administrative expenses is estimated at 4% of cost of fixed assets with a yearly increase of 5% every year to take care of escalations.

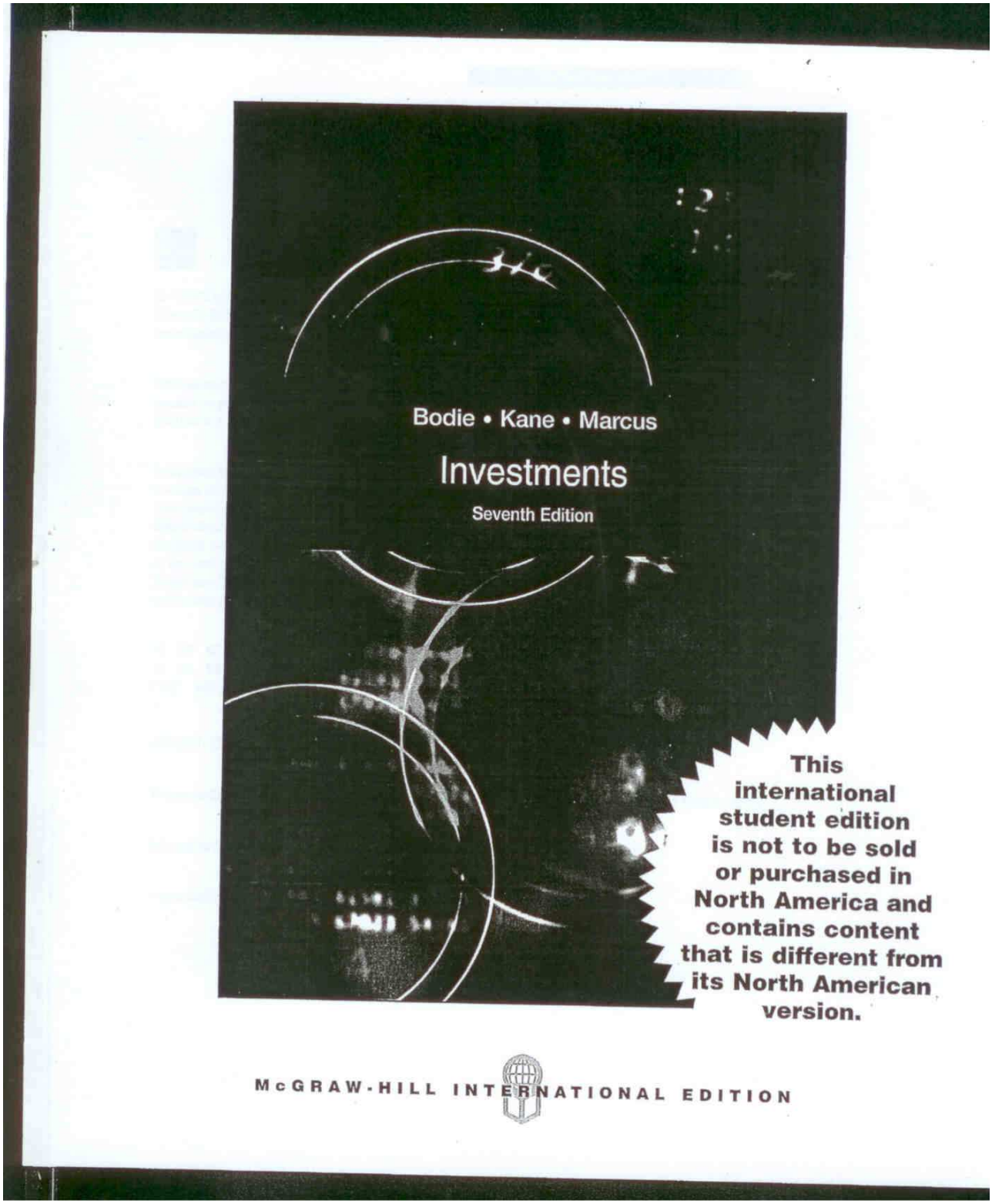
7. Interest on term loan is estimated at 10.50%. The tenure of the loan is considered 10 years and repayment starts after 3 years from date of power generation in 40 quarterly installments.

8. Depreciation is provided as per the rates provided in the companies Act.

9. Income tax provision is made as per IT Act 1961.

Based on the above assumptions, profitability and cash flow statements have been prepared.

Annexure - 3


Bodie • Kane • Marcus
Investments
Seventh Edition
This international student edition is not to be sold or purchased in North America and contains content that is different from its North American version.
McGRAW-HILL INTERNATIONAL EDITION

	A	B	C	D	E	F	G	H	I	J	K	L
1		2004	2005	2006	2007	2008	2009					
2	**A. Value Line data**											
3	P/E				16.05	17.03						
4	Cap spending/shr				1.03	1.07						
5	LT Debt				2780	2490						
6	Shares				2700	2600						
7	EPS				2.00	2.30						
8	Working Capital				13948	14612						
9												
10	**B. Cash flow calculations**											
11	Profits (after tax)				5490.0	6120.0						
12	Interest (after tax)		94.3	85.9	77.5	69.2	60.9	= 2005 Interest x (1-tax) x [Debt(year t) /Debt(2005)]				
13	Chg Working Cap			1411.0	663.3	663.3	663.3					
14	Depreciation			2625.0	2880.0	3135.0	3390.0					
15	Cap Spending			2800.0	2783.3	2766.7	2750.0					
16								Terminal value				
17	FCFF			3359.9	5000.9	5894.2	6787.5	81637.1				
18	FCFE			2972.0	4623.3	5525.0	6426.7	75729.5				
19												
20	**C. Discount rate calculations**											
21	Current beta								from Value Line			
22	Unlevered beta	1.355							current beta /[1 + (1-tax)*debt/equity)]			
23	terminal growth											
24	tax_rate											
25	r_debt								Interest in 2005 divided by LT debt			
26	risk-free rate											
27	market risk prem											
28	MV equity		66383	73265	88115	104193	121500		Row 3 x Row 11			
29	Debt/Value			0.04	0.03	0.02	0.02		Row 5 / (Row 5 + Row 28)			
30	Levered beta			1.392	1.383	1.376	1.371		unlevered beta x [1 + (1-tax)*debt/equity]			
31	k_equity			0.140	0.140	0.139	0.139	0.139	from CAPM and levered beta			
32	WACC			0.136	0.137	0.137	0.137	0.137	(1-t)*r_debt*D/V + k_equity*(1-D/V)			
33	PV factor for FCFF		1.000	0.880	0.774	0.681	0.599	0.599	Discount each year at WACC			
34	PV factor for FCFE		1.000	0.877	0.769	0.675	0.593	0.593	Discount each year at k_equity			
35												
36	**D. Present values**								Intrinsic val	Equity val	Intrin/share	
37	PV(FCFF)			2957	3872	4013	4064	48874	63779	60387	21.19	
38	PV(FCFE)			2606	3556	3730	3809	44880	58581	58581	20.55	

SPREADSHEET 18.2

Free cash flow valuation of Hewlett-Packard

eXcel

Please visit us at www.mhhe.com/bkm

To find the present value of these cash flows, we will discount at WACC, which is calculated in panel C. WACC is the weighted average of the after-tax cost of debt and the cost of equity in each year. When computing WACC, we must account for the change in leverage forecast by Value Line. To compute the cost of equity, we will use the CAPM as in our earlier (dividend discount model) valuation exercise, but accounting for the fact that equity beta will decline each year as the firm reduces leverage.[10]

[10]Call β_L the firm's equity beta at the initial level of leverage as provided by Value Line. Equity betas reflect both business risk and financial risk. When a firm changes its capital structure (debt/equity mix), it changes financial risk, and therefore equity beta changes. How should we recognize the change in financial risk? As you may remember from an introductory corporate finance class, you must first unleverage beta. This leaves us with business risk. We use the following formula to find unleveraged beta, β_U (where D/E is the firm's current debt-equity ratio):

$$\beta_U = \frac{\beta_L}{1+(D/E)(1-t_c)}$$

Then, we re-leverage beta in any particular year using the forecast capital structure for that year (which reintroduces the financial risk associated with that year's capital structure):

$$\beta_L = \beta_U[1 + (D/E)(1 - t_c)]$$

Annexure - 4

SUNKARI & CO.,
Chartered Accountants

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New Colony, **SRIKAKULAM**
08942 - **225105**
Res. : Dr. No. 3-7-144
Kathere Veedhi
SRIKAKULAM

Ref. No _____ Date _____

CERTIFICATE

This is to certify that M/s. Saradambika Power Plant Pvt. Ltd. having its Registered Office at D. No. 6-3-570/1, F.No. 502 Emerald Block, Lumbini Rock Dale, Somajiguda, Hyderabad – 500 082 has incurred an expenditure/ investment of Rs. 407.61 million as on 31.03.2008 and is yet to release the payment of Rs.49.59 million towards setting up of 10 MW of Bio-mass Power Project at MIDC, Chimur Village, Chandrapur District, State of Maharashtra.

Rupees in millions

Particulars	Incurred as on 31.03.2008	Yet to be Incurred (based on invoices)	Total
Land and Site Development	1.56	1.94	3.50
Buildings and Civil Works	60.10	3.70	63.80
Plant & Machinery	288.10	32.90	321.00
Misc. Fixed Assets	2.80	2.20	5.00
Preliminary & Pre-Operative Expenses	24.20	0.80	25.00
Interest during construction	19.20	5.30	24.50
Engineering Consultancy	2.15	0.75	2.90
Margin Money for Working Capital	9.50	0	9.50
Margin Money for BG	-	2.00	2.00
GRAND TOTAL	**407.61**	**49.59**	**457.20**

Place: Hyderabad
Date: 14.04.2008

SUNKARI & CO. M. No: 211226 CHARTERED ACCOUNTANT

SURESH KUMAR
Chartered Accountant
M. No. 211226

ERC ruling on Auxiliary Consumption **Annexure – 5**

Commission's Ruling

The Commission notes that the capital cost of the Projects is dependent on several factors such as plant configuration, technology (boiler type and pressure levels), etc. and would also vary depending on the capital costs related to fuel handling storage, crushing equipment, and the plant and machinery associated with environmental management, which in turn would depend on the type and mix of biomass fuels being considered for plant operation.

The Commission also notes that the capital cost of the various Project cases under consideration (as per DPR information) varies between Rs 3.29 Cr/MW to Rs 4.09 Cr/MW.

Further, the Commission finds that, while MBEDA has cited the use of air-cooled condensers, perusal of various Project schematics and plant descriptions in the DPRs indicates that all the present Project cases envisage the use of water-cooled and not air-cooled condensers. MBEDA has also argued for additional Operation and Maintenance (O&M) expenses on account of significant costs in terms of water charges levied by MIDC, which also indicates the use of water-cooled rather than air-cooled condensers. Moreover, the quotation from GEA Cooling Towers furnished by MBEDA pertains to air-cooled condenser in respect of a biomass power project in Andhra Pradesh. Thus, the additional cost of air-cooled condensers may not be considered as an element in the capital cost of a Representative Case. Accordingly, for the purpose of determining the COG for the Representative Case, the Commission has considered a normative capital cost of Rs 4.0 Cr/MW as at Clause 5.7.

2.7 Auxiliary Power Consumption

Shri Shiralkar submitted, on the basis of their experience of decentralised power sector and other ongoing projects, that auxiliary power consumption in the Representative Case should be considered as 8.5%.

At the Public Hearing, MBEDA argued in favour of an auxiliary consumption factor of at least 11% on account of use of air-cooled condensers and due to the nature of the process for fuel handing and heat treatment, depending on the type of biomass fuel.

Commission's Ruling

The Commission notes that the auxiliary consumption factor is one of the key performance parameters for thermal power plants, and is dependent on the size of plant and plant configuration. The auxiliary consumption factor in respect of various Project cases under consideration (as per DPR information) varies from 10% to 14%, with most Projects indicating auxiliary consumption requirement to the extent of 12%.

Further, the Commission notes that CERC, in its Terms and Conditions of Tariff Regulations (2004 to 2009) in respect of coal based thermal power stations, has specified

Annexure - 6

26 EXHIBIT C

(1) Contract price tariff

The Tariff Rate and structure for the project shall be as under:

Year of Operation	Per Unit Fixed Charge component of Tariff@ (Fixed Charge) Rs/kWh	Per Unit Variable Charge component of Tariff* (Variable Charge) Rs/kWh	Per Unit Tariff Rate Rs/kWh
Year 1	1.70	1.34	3.04
Year 2	1.67	1.41	3.08
Year 3	1.63	1.48	3.11
Year 4	1.59	1.55	3.14
Year 5	1.54	1.63	3.17
Year 6	1.49	1.71	3.20
Year 7	1.43	1.80	3.23
Year 8	1.37	1.89	3.26
Year 9	1.32	1.98	3.30
Year 10	1.25	2.08	3.33
Year 11	1.18	2.18	3.36
Year 12	1.11	2.29	3.40
Year 13	1.02	2.41	3.43

@ - linked to year of operation, commencing from date of commissioning of plant

* - linked to financial year, with Year-1 being 2005-06.

Annexure - 7

CHAPTER IX

COST OF RESIDUE

Surplus identified residues available in the region are crop residues and rice husk. Presently except for rice husk there is no commercial transactions for crop residues. As per the survey, price of rice husk at source is ranging between Rs. 600 to 700 per tonne, depending upon demand of husk and milling season. The maximum price reached in the district so far is Rs. 800 per tonne.

In respect of crop residues, presently there is no price. However, as per interactions with farmers, if asked to sell, the price will be equivalent to cost of labour for collection of residue from the field. Normally, a tone of crop residue collection from field requires 3 to 4 man-days. The cost of man-day is around Rs. 100. Hence, the cost works out between Rs. 300 to 400 per tonne. Though the farmers are not expecting any consideration apart from labour cost at present, in actual terms they might demand additional amount. Based on observation in the field, the estimated price will be around Rs.500 per tone for all the field level crop residues apart from handling charges.

COST OF RESIDUE

Rs./tonne

Particulars	Crop Residues	Rice Husk
Labour charges for collection, piling and bundling	500	-
Remuneration to farmers/ Rice mills / commission to agents	100	700
Loading and Unloading	100	100
Transportation cost (Within 50 Kms)	300	200
TOTAL COST	**1000**	**1000**

Annexure – 8

प्रती,
जनरल मॅनेजर साहेब
सारडाअँबीका पावर प्लँट
प्रायव्हेट लिमीटेड, चिमूर,
चंद्रपूर.

विषय – धानाचा भूसा देण्याबाबत

महोदय,

मी मनोज रामदास वासाडे आहे.
माझ्या शेतातील धानाचा भूसा .२ वर्षाकरीत
सारडाअँबीका पावर प्लँट प्रा. लीमी. चीमूर,
चंद्रपूर ला देत आहे.

मालाचे नाव – धानाचा भूसा.
किंमत —— रु. १९५० प्रती टन
समय —— २ वर्षाकरीता
सूचना – वरील किंमती कंपनीच्या संबंधीत
अधीकाऱ्यांशी बोलून कमी-जास्त करता येतात.

ता:- १५ मार्च 2006

प्रेषक
मनोज रामदास वासाडे
सिंदेवाही जिल्हा चंद्रपूर

प्रती,
जनरल मॅनेजर साहेब
मे. सारडा अंबीका पावर प्लॅंट
प्रा. लीमीटेड चिमूर चंद्रपूर

विषय – कापसाचे टरफल व देठ केपनीला देण्याबाबत

महोदय,
मी अरुण लक्ष्मणराव हरणे अहे. माझ्या शेतातील कापसाची टरफल व त्यांचे देठ हा संपूर्ण माल ५ वर्षा करीता सारडा अंबीका पावर प्लॅंट प्राय. लीमीटेड चिमूर चंद्रपूर ला देत आहे.

मालाचे नाव – कापसाचे टरफल व देठ
किंमत – रु २०००
समय – ५ वर्षा करीता

दि. २५ मार्च २००७

प्रेषक
अरुण लक्ष्मणराव हरणे
पोस्ट ता. वरोरा
जिल्हा चंद्रपूर