CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. SM/004/2015 (Suo-Motu)

Coram: 1. Shri Gireesh B. Pradhan Chairperson
2. Shri A. K. Singhal, Member
3. Shri A. S. Bakshi, Member

Date of Order: 03rd March 2015

IN THE MATTER OF

Determination of generic levellised generation tariff for the FY 2015-16 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012.

ORDER

1. The Commission has notified the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012, on 06.02.2012 (hereinafter referred to as "the RE Tariff Regulations"), which provide for terms and conditions and the procedure for determination of tariff of the following categories of Renewable Energy (RE) generating stations:

    (a) Wind Power Project;
    (b) Small Hydro Projects;
    (c) Biomass Power Projects with Rankine Cycle technology;
    (d) Non-fossil fuel-based co-generation Plants;
    (e) Solar Photo Voltaic (PV);
    (f) Solar Thermal Power Projects;
    (g) Biomass Gasifier based Power Projects; and
    (h) Biogas based Power Project.

2. The Commission, in the meanwhile, has notified the Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) (First Amendment) Regulations, 2014 (hereinafter referred to as "the RE Tariff (First Amendment) Regulations"), on 18.03.2014, wherein, various technical norms of Biomass Power Projects with Rankine Cycle technology have been amended. These norms are effective from the notification of the First Amendment Regulations.

3. The Regulations enjoin upon the Commission to determine the generic tariff on the basis of the *suo-motu* petition, for the RE technologies for which norms have been provided in the RE Tariff Regulations. Generic Tariff is different from the project specific tariff for which a project developer has to file petition before the Commission as per the format provided in the RE Tariff Regulations. Pertinently, project specific tariff has been envisaged for the new RE technologies and the technologies which are still at the nascent stage of development, and the Commission shall determine the project specific tariff for such technologies on a case to case basis.

4. Clause (1) of Regulation 8 of the RE Tariff Regulations provides that "the Commission shall determine the generic tariff on the basis of *suo-motu* petition at the beginning of each year of the Control period for renewable energy technologies for which norms have been specified under the Regulations". The Commission has notified the RE Tariff Regulations on 06.02.2012 and subsequently issued generic suo-motu tariff orders, which were applicable for the renewable energy projects to be commissioned during first, second and third year of the control period (i.e. FY2012-13, FY 2013-14 and FY 2014-15).

5. The Commission, in due discharge of the mandate under Regulation 8(1) of the RE Tariff Regulations propose to determine the generic tariff of the RE projects for the fourth year of control period (i.e. FY 2015-16) as per the proposal enclosed as **Annexure- I.**

6. Comments /suggestions of the stakeholders on the above proposal are invited by 18th March 2015.

-Sd/-	-Sd/-	-Sd/-
[A.S. BAKSHI]	[A.K.SINGHAL]	[GIREESH B. PRADHAN]
MEMBER	MEMBER	CHAIRPERSON

New Delhi

Dated the 03rd March 2015

ANNEXURE-I

THE PROPOSED GENERIC LEVELLISED GENERATION TARIFF FOR VARIOUS RENEWABLE ENERGY TECHNOLOGIES, FOR FY 2015-16

1. The proposed generic levellised generation tariffs for various renewable energy technologies, for FY 2015-16 are discussed below:

USEFUL LIFE

2. Clause (aa) of sub-Regulation (1) of Regulation 2 of the RE Tariff Regulations defines 'useful life' in relation to a unit of a generating station (including evacuation system) to mean the following duration from the date of commercial operation (COD) of such generation facility:

Renewable Energy Projects	**Years**
Wind energy	25
Small Hydro	35
Biomass power project with Rankine Cycle technology	20
Non-fossil fuel based co-generation	20
Solar PV	25
Solar Thermal	25
Biomass Gasifier	20
Biogas	20

CONTROL PERIOD

3. Regulation 5 of the RE Tariff Regulations provides that the control period for determination of tariff for renewable energy projects (RE projects) shall be of five years. The first year of the control period was from FY 2012-13. The Provision to the said regulation stipulates that the tariff determined for the RE projects commissioned during the control period shall continue to be applicable for the entire duration of the tariff period as specified in Regulation 6 of the RE Tariff Regulations.

TARIFF PERIOD

4. In terms of Regulation 6 of the RE Tariff Regulations, the tariff period in respect of the RE projects is as under:

Renewable Energy Projects	**Years**
Wind energy	13 *
Small Hydro below 5 MW	35
Small Hydro (5 MW -25 MW)	13*
Biomass	13*
Non-fossil fuel co-generation	13*
Solar PV and Solar Thermal	25
Biomass Gasifier and Biogas	20

* The RE Tariff Regulations provides for a minimum period of thirteen (13) years.

In terms of clauses (e) and (f) of the said regulation, the tariff period specified above shall be reckoned from the date of commercial operation of the RE projects and the tariff determined under the regulations shall be applicable for the duration of the tariff period.

TARIFF STRUCTURE

5. Clause (1) of Regulation 9 of the RE Regulations stipulates that the tariff for RE projects shall be single part tariff consisting of the following fixed cost components:

(a) Return on equity;
(b) Interest on loan capital;
(c) Depreciation;
(d) Interest on working capital;
(e) Operation and maintenance expenses;

For renewable energy technologies having fuel cost component, like biomass power projects and non-fossil fuel based cogeneration, single part tariff with two components, fixed cost component and fuel cost component, is to be determined.

TARIFF DESIGN

6. In terms of Regulation 10 of the RE Tariff Regulations, the tariff design for renewable energy generating stations is as under:

> *"(1) The generic tariff shall be determined on levellised basis for the Tariff Period.*
> *Provided that for renewable energy technologies having single part tariff with two components, tariff shall be determined on levellised basis considering the year of commissioning of the project for fixed cost component while the fuel cost component shall be specified on year of operation basis.*
>
> *(2) For the purpose of levellised tariff computation, the discount factor equivalent to Post Tax weighted average cost of capital shall be considered.*
>
> *(3) Levellisation shall be carried out for the 'useful life' of the Renewable Energy project while Tariff shall be specified for the period equivalent to Tariff Period."*

LEVELLISED TARIFF

7. Levellised Tariff is calculated by carrying out levellisation for 'useful life' of each technology considering the discount factor for time value of money.

DISCOUNT FACTOR

8. The discount factor considered for this purpose is equal to the Post Tax weighted average cost of the capital on the basis of normative debt: equity ratio (70:30) specified in the Regulations. Considering the normative debt equity ratio and weighted average of the post tax rates for interest and equity component, the discount factor is calculated. Interest Rate considered for the loan component (i.e.70 %) of Capital Cost is 13.00 % (as explained later). For equity component (i.e. 30 %) rate of Return on Equity (ROE) considered at Post Tax ROE of 16 % considered. The discount factor derived by this method for all technology is 10.81 % ((13.00 % × 0.70 × (1 – 33.99 %)) + (16.0% × 0.30)).

CAPITAL COST

9. Regulation 12 of the RE Tariff Regulations stipulates that the norms for the capital cost as specified in the technology specific chapter shall be inclusive of all capital works like plant and machinery, civil works, erection and commissioning, financing and interest during construction, and evacuation infrastructure up to inter-connection point. The Commission has specified the normative capital cost, applicable for the first year of control period i.e. FY 2012-13, for various RE technologies viz. Wind Energy, Small Hydro Power, Biomass Power, Non-Fossil Fuel based Cogeneration, Solar PV, Solar Thermal, Biomass Gasifier and Biogas based power projects.

10. In order to determine the normative capital cost for the remaining years of the control period, the regulations stipulate the indexation mechanism, Wind Energy, Small Hydro Power, Biomass Power, Non-Fossil Fuel based Cogeneration, Biomass Gasifier and Biogas based power projects. However, the Capital Cost norms for Solar PV and Solar Thermal Power Projects shall be reviewed on annual basis. The indexation mechanism shall take into account adjustments in capital cost with the changes in Wholesale Price Index of Steel and Wholesale Price Index of Electrical Machinery as per formulation stipulated under the RE Tariff Regulations, which is reproduced overleaf:

$CC_{(n)} = P\&M_{(n)} * (1+F_1+F_2+F_3)$

$P\&M_{(n)} = P\&M_{(0)} * (1+d_{(n)})$

$d_{(n)} = [a*\{(SI_{(n-1)}/SI_{(0)}) - 1\} + b*\{(EI_{(n-1)}/EI_{(0)}) - 1\}]/(a+b)$

Where,

$CC_{(n)}$ = Capital Cost for n^{th} year

$P\&M_{(n)}$ = Plant and Machinery Cost for n^{th} year

$P\&M_{(0)}$ = Plant and Machinery Cost for the base year

Note: P&M (0) is to be computed by dividing the base capital cost (for the first year of the control period) by (1+F1+F2+F3). *Factors F1, F2, F3 for each RE technology has been specified separately, as summarized in following table.*

$d_{(n)}$ = Capital Cost escalation factor for year (n) of Control Period

$SI_{(n-1)}$ = Average WPI Steel Index prevalent for calendar year (n-1) of the Control Period

$SI_{(0)}$ = Average WPI Steel Index prevalent for calendar year (0) at the beginning of the Control Period

$EI_{(n-1)}$ = Average WPI Electrical Machinery Index prevalent for calendar year (n-1) of the Control Period

$EI_{(0)}$ = Average WPI Electrical Machinery Index prevalent for calendar year (0) at the beginning of the Control Period

a = Constant to be determined by Commission from time to time, (for weightage to Steel Index)

b = Constant to be determined by Commission from time to time, (for weightage to Electrical Machinery Index)

F_1 = Factor for Land and Civil Works

F_2 = Factor for Erection and Commissioning

F_3 = Factor for IDC and Financing Cost

The default values of the factors for various RE technologies as stipulated under the said RE Regulations, is summarized in the table overleaf:

Parameters	Wind Energy	Small Hydro Projects	Biomass based Rankine cycle Power plant, Non-Fossil Fuel Based Cogeneration Biomass Gasifier and Biogas based projects
a	0.6	0.6	0.7
b	0.4	0.4	0.3
F1	0.08	0.16	0.10
F2	0.07	0.10	0.09
F3	0.10	0.14	0.14

The Commission has relied on the following sources for relevant information on various indices:

- Source for WPI (electrical & machinery and iron and steel), WPI (all commodities), WPI (Price of HSD): Office of Economic Advisor, Ministry of Commerce & Industry (www.eaindustry.nic.in)
- Source for IRC (Average Annual Inflation rate for indexed energy charge component in case of captive coal mine source): CERC (www.cercind.gov.in)

Technology specific capital cost of RE projects is discussed here in under:

Technology specific capital cost of RE projects is discussed herein under:

(A) Capital Cost of Wind Energy for FY 2015-16

11. Regulation 24 provides that the capital cost for wind energy project shall include wind turbine generator including its auxiliaries, land cost, site development charges and other civil works, transportation charges, evacuation cost up to inter-connection point, financing charges and IDC.
12. The Commission under Regulation 24 (2) has specified the normative capital cost for wind energy projects as ₹ 575 Lakh/MW for FY 2012-13 which shall be linked to the indexation mechanism specified under Regulation 25 of the RE Tariff Regulations. In accordance with the above referred Regulation, the Commission proposes to determine normative capital cost of the Wind energy Projects at ₹ 619.16 Lakh/MW for FY 2015-16. The detailed computations of the indexation mechanism and determination of the capital cost for FY 2015-16 thereof, has been enclosed as **Appendix-1** of this Order.

(B) Capital cost of Small Hydro Projects for FY 2015-16

13. Small Hydro Projects for the purpose of the RE Tariff Regulations cover those projects which are located at the sites approved by the State Nodal Agencies/State Governments using new plant and machinery and with installed power plant capacity lower than or equal to 25 MW.
14. The Commission under Regulation 28 (1) has specified the normative capital cost for small hydro projects for FY 2012-13 as under:

Region	**Project Size**	**Capital Cost (FY 2012-13) (₹ Lakh/ MW)**
Himachal Pradesh, Uttarakhand and North Eastern States	Below 5 MW 5 MW to 25 MW	770 700
Other States	Below 5 MW 5 MW to 25 MW	600 550

15. In line with the indexation mechanism, specified in Regulation 29 of the RE Tariff Regulations, the Commission proposes to determine normative capital cost for FY 2015-16 for Small Hydro Projects as under,

Region	**Project Size**	**Capital Cost (FY 2015-16)** (₹ Lakh/ MW)
Himachal Pradesh, Uttarakhand and North Eastern States	Below 5 MW 5 MW to 25 MW	829.621 754.201
Other States	Below 5 MW 5 MW to 25 MW	646.458 592.586

The detailed computations of the indexation mechanism and the determination of the capital cost for FY 2015-16 thereof, has been enclosed as **Appendix-2** of this Order.

(C) Capital Cost of Biomass based Power Projects for FY 2015-16

16. The Commission under Regulation 34 of the RE Tariff (First Amendment) Regulations has specified the normative capital cost for the biomass power projects based on Rankine cycle technology application for FY 2014-15 as under:

a. ₹ 540 lakh/MW for project [other than rice straw and juliflora (plantation) based project] with water cooled condenser;

b. ₹ 580 lakh/MW for Project [other than rice straw and Juliflora (plantation) based project] with air cooled condenser;

c. ₹ 590 lakh/MW for rice straw and juliflora (plantation) based project with water cooled condenser;

d. ₹ 630 lakh/MW for rice straw and juliflora (plantation) based project with air cooled condenser.

17. In line with the indexation mechanism, specified in Regulation 35 of the RE Tariff Regulations, the normative capital cost for FY 2015-16 for Biomass Projects determined considering capital cost specified in the RE Tariff (First Amendment) Regulations for FY 2013-14 as base year capital cost. Average WPI Steel Index and average Electrical Machinery Index prevalent for calendar year 2014 considered for $SI_{(n-1)}$ and $EI_{(n-1)}$ respectively. Average WPI Steel Index and average WPI Electrical Machinery Index prevalent for year 2012 for $SI_{(0)}$ and $EI_{(0)}$ respectively. Accordingly, the Commission proposes to determine normative capital cost for FY 2015-16 for Biomass Projects as under,

Biomass Rankine Cycle Projects	**Capital Cost (FY 2015-16)** (₹ Lakh/ MW)
Project [other than rice straw and juliflora (plantation) based project] with water cooled condenser	558.705
Project [other than rice straw and Juliflora(plantation) based project] with air cooled condenser	600.091
For rice straw and juliflora (plantation) based project with water cooled condenser	610.437
For rice straw and juliflora (plantation) based project with air cooled condenser	651.822

18. The detailed computations of the indexation mechanism and the determination of the capital cost for FY 2015-16 thereof, has been enclosed as **Appendix-3** of this Order.

(D) Capital Cost of Non-fossil fuel based Cogeneration Projects for FY 2015-16

19. Non-fossil based cogeneration has been defined as the process in which more than one form of energy is produced in a sequential manner by using biomass. As per Regulation 4(d) of the RE Tariff Regulations, a project to qualify as the non-fossil based co-generation project must be using new plant and machinery with topping cycle mode of operation which uses the non-fossil fuel input for power generation and utilizes the thermal energy generated for useful heat applications in other industrial activities simultaneously, and where the sum of useful power output and half of useful thermal output is greater than 45% of the plant's energy consumption during the season.

20. The Commission under Regulation 47 has specified the normative capital cost for the Non-Fossil Fuel Based Cogeneration Projects as ₹ 420 Lakh/MW for FY 2012-13 which shall be linked to the indexation mechanism specified under Regulation 48 of the RE Tariff Regulations. In accordance to the above referred Regulation, the Commission proposes to determine the normative capital cost of Non-Fossil Fuel based Cogeneration power projects at ₹ 452.479 Lakh/MW for FY 2015-16.The detailed computations of the indexation mechanism and determination of the capital cost for FY 2015-16 thereof, has been enclosed as **Appendix-4** of this Order.

(E) Capital Cost of Solar PV based Power Projects for FY 2015-16

21. Solar Photo Voltaic (PV) power projects which directly convert solar energy into electricity using the crystalline silicon or thin film technology or any other technology as approved by the Ministry of New and Renewable Energy and are connected to the grid, qualify for the purpose of tariff determination under the RE Tariff Regulations.

22. The Commission under Regulation 57 specified the normative capital cost for the Solar PV power projects as ₹ 1000 Lakh/MW for the FY 2012-13.

23. The Commission vides its *suo-motu* Order (Petition No. 242/SM/2012) dated 28th February, 2013, determined the normative capital cost for the Solar PV power projects as ₹ 800.00 Lakh/MW for the FY 2013-14.

24. The Commission vides its *suo-motu* Order (Petition No. SM/353/2014) dated 15/5/2014 determined the normative capital cost for the Solar PV power projects as ₹ 691 Lakh/MW for the FY 2014-15.

25. The Commission vides its *suo-motu* Order (Petition No. SM/005/2015) dated 03rd March 2015 proposes to determine the normative capital cost for the Solar PV power projects as ₹ 587.33Lakh/MW for the FY 2015-16.

(F) Capital Cost of Solar Thermal based Power Projects for FY 2015-16

26. In order to qualify for tariff determination under the RE Tariff Regulations, Solar Thermal Power Project shall be based on concentrated solar power technologies with line focusing or point focusing as may be approved by the Ministry of New and Renewable Energy and which uses direct sunlight to generate sufficient heat to operate a conventional power cycle to generate electricity.

27. The Commission under Regulation 61 has specified the normative capital cost for the Solar Thermal power projects as ₹ 1300 Lakh/MW for the FY 2012-13.

28. The Commission vides its *suo-motu* Order (Petition No. 242/SM/2012) dated 28th February, 2013, determined the normative capital cost for the Solar Thermal power projects as ₹ 1200.00 Lakh/MW for the FY 2013-14.

29. The Commission vides its *suo-motu* Order (Petition No. SM/353/2014) dated 15/5/2014 determined the normative capital cost for the Solar Thermal power projects as ₹ 1200 Lakh/MW for the FY 2014-15.

30. The Commission vides its *suo-motu* Order (Petition No. SM/005/2015) dated 03rd March 2015 proposes to determine the normative capital cost for the Solar Thermal power projects as ₹ 1200 Lakh/MW for the FY 2015-16.

(G) Capital Cost of Biomass Gasifier Power Projects for FY 2015-16

31. The Commission under Regulation 66 has specified the normative capital cost for the Biomass Gasifier power projects based on Rankine cycle shall be ₹ 550.00 Lakh/MW for the FY 2012-13 and after taking into account of capital subsidy of ₹ 150.00 Lakh/MW, net project cost shall be ₹ 400.00 Lakh/MW for the FY 2012-13 which shall be linked to the indexation mechanism specified under Regulation 67 of the RE Tariff Regulations. In accordance to the above referred Regulation, the Commission proposes to determine normative capital cost of Biomass gasifier power projects at ₹ 592.532 Lakh/MW for FY 2015-16. After taking into account of capital subsidy of ₹ 150.00 Lakh/MW, net project cost will be ₹ 442.532 Lakh/MW for the FY 2015-16. The detailed computations of the indexation mechanism and determination of the capital cost for FY 2015-16 thereof, has been enclosed as **Appendix-5** of this Order.

(H) Capital Cost of Biogas based Power Projects for FY 2015-16

32. In order to qualify for tariff determination under the RE Tariff Regulations, grid connected biogas based power projects that uses 100% Biogas fired engine, coupled with Biogas technology for co-digesting agriculture residues, manure and other bio waste as may be approved by the Ministry of New and Renewable Energy.

33. The Commission under Regulation 76 has specified the normative capital cost for the Biogas based power projects shall be ₹ 1100.00 Lakh/MW for the FY 2012-13 and after taking into account of capital subsidy of ₹ 300.00 Lakh/MW, net project cost shall be ₹ 800.00Lakh/MW for the FY 2012-13 which shall be linked to the indexation mechanism specified under Regulation 77 of the RE Tariff Regulations. In accordance to the above referred Regulation, the Commission proposes to determine the normative capital cost of Biogas based

power projects at ₹1185.064 Lakh/MW for FY 2015-16. After taking into account of capital subsidy of ₹ 300.00 Lakh/MW, net project cost will be ₹ 885.064 Lakh/MW for the FY 2015-16. The detailed computations of the indexation mechanism and determination of the capital cost for FY 2015-16 thereof, has been enclosed as **Appendix-6** of this Order.

34. The capital cost for the third year (i.e. FY 2015-16) of the control period in respect of the renewable energy power generating stations is summarized as under:

Renewable Energy Projects	**Capital Cost Norm for FY 2015-16 (₹ Lakh/MW)**
(1)Wind Energy Projects	619.522
(2)Small Hydro Projects	
(a) Himachal Pradesh, Uttarakhand and North Eastern States (less than 5 MW)	829.621
(b) Himachal Pradesh, Uttarakhand and North Eastern States (5MW to 25 MW)	754.201
(c) Other States (below 5 MW)	646.458
(d) Other States (5MW to 25 MW)	592.586
(3) Biomass Power Projects	
(a) project [other than rice straw and juliflora (plantation) based project] with water cooled condenser	558.705
(b) Project [other than rice straw and Juliflora (plantation) based project] with air cooled condenser	600.091
(c) Rice straw and juliflora (plantation) based project with water cooled condenser	610.437
(d) Rice straw and juliflora (plantation) based project with air cooled condenser	651.822
(4) Non-fossil fuel based co-generation Power Projects	452.479
(5) Solar PV Power Projects	587.33
(6) Solar Thermal Power Projects	1200.00

(7) Biomass Gasifier Power Projects	442.532
(8) Biogas Power Projects	885.064

DEBT-EQUITY RATIO

35. Sub-Regulation (1) of Regulation 13 of the RE Tariff Regulations provides that the debt-equity ratio of 70:30 is to be considered for determination of generic tariff based on *suo-motu* petition.

36. Based on the debt equity ratio of 70:30, the debt and equity components of the normative capital cost for determination of tariff for the RE projects have been worked out as under:

Renewable Energy Projects	**Debt (₹ Lakh)**	**Equity (₹ Lakh)**
(1) Wind Energy (for all zones)	433.665	185.857
(2) Small Hydro		
(a) Himachal Pradesh, Uttarakhand and North Eastern States (below 5 MW)	580.735	248.886
(b) Himachal Pradesh, Uttarakhand and North Eastern States (5 MW to 25 MW)	527.941	226.260
(c) Other States (below 5 MW)	452.521	193.937
(d) Other States (5MW to 25 MW)	414.810	177.776
(3) Biomass		
(a) project [other than rice straw and Juliflora (plantation) based project] with water cooled condenser	391.094	167.612
(b) Project [other than rice straw and Juliflora (plantation) based project] with air cooled condenser	420.064	180.027
(c) Rice straw and Juliflora (plantation) based project with water cooled condenser	427.306	183.131
(d) Rice straw and Juliflora (plantation) based project with air cooled condenser	456.275	195.547
(4) Non-fossil fuel co-generation	316.735	135.744
(5) Solar PV	411.131	176.199
(6) Solar Thermal	840.000	360.000
(7) Biomass Gasifier based Power Projects	309.772	132.760
(8) Biogas based Power Projects	619.545	265.519

RETURN ON EQUITY

37. Sub-Regulation (1) of Regulation 16 of the RE Tariff Regulations provides that the value base for the equity shall be 30% of the capital cost for generic tariff determination. Sub-Regulation (2) of the said Regulation stipulates the normative return on equity (ROE) as under:

(a) 20% per annum for the first 10 years, and

(b) 24% per annum from the 11th year onwards.

INTEREST ON LOAN

38. Sub-Regulation (1) of Regulation 14 of the RE Regulations provides that the loan tenure of 12 years is to be considered for the purpose of determination of tariff for RE projects. Sub-Regulation (2) of the said Regulation provides for computation of the rate of interest on loan as under:

"(a) The loans arrived at in the manner indicated in the Regulation 13 shall be considered as gross normative loan for calculation for interest on loan. The normative loan outstanding as on April 1st of every year shall be worked out by deducting the cumulative repayment up to March 31st of previous year from the gross normative loan.

(b) For the purpose of computation of tariff, the normative interest rate shall be considered as average State Bank of India (SBI) Base rate prevalent during the first six months of the previous year plus 300 basis points.

(c) Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed".

39. The weighted average State Bank of India (SBI) Base rate prevalent during the first six months has been considered for the determination of tariff, as shown in the table below:

Period from	Period to	Base rate
1/4/2014	30/9/2014	10.00%
Average Base rate for first six months of FY 14-15		**10.00%**

Source: State Bank of India (www.statebankofindia.com)

40. In terms of the above, the computations of interest on loan carried out for determination of tariff in respect of the RE projects treating the value base of loan as 70% of the capital cost and the weighted average of Base rate prevalent during the first six months of the (i.e. 10.00%) plus 300 basis points (equivalent to interest rate of 13.00%).

DEPRECIATION

41. Regulation 15 of the RE Tariff Regulations provides for computation of depreciation in the following manner:

"(1) The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset.

(2) Depreciation per annum shall be based on 'Differential Depreciation Approach' over loan period beyond loan tenure over useful life computed on 'Straight Line Method'. The depreciation rate for the first 12 years of the Tariff Period shall be 5.83% per annum and the remaining depreciation shall be spread over the remaining useful life of the project from 13th year onwards.

(3) Depreciation shall be chargeable from the first year of commercial operation. Provided that in case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis".

42. In accordance with the above, the rate of depreciation for the first 12 years has been considered as 5.83% and the rate of depreciation from the 13th year

onwards has been spread over the balance useful life of the RE project as under:

Details	Wind Energy	Small Hydro	Biomass	Non-fossil fuel co-generation	Solar PV	Solar Thermal	Biomass Gasifier	Biogas
Useful Life (in years)	25	35	20	20	25	25	20	20
Rate of depreciation for 12 years (%)	5.83	5.83	5.83	5.83	5.83	5.83	5.83	5.83
Rate of depreciation after first 12 years (%)	1.54	0.87	2.51	2.51	1.54	1.54	2.51	2.51

INTEREST ON WORKING CAPITAL

43. Regulation 17 of the RE Tariff Regulations provides for the working capital requirements of the RE projects as under:

"(1) The Working Capital requirement in respect of wind energy projects, Small Hydro Power, Solar PV and Solar thermal power projects shall be computed in accordance with the following:

<u>Wind Energy / Small Hydro Power /Solar PV / Solar thermal</u>

a) Operation & Maintenance expenses for one month;

b) Receivables equivalent to 2 (Two) months of energy charges for sale of electricity calculated on the normative CUF;

c) Maintenance spare @ 15% of operation and maintenance expenses

(2) The Working Capital requirement in respect of biomass power projects and non-fossil fuel based co-generation projects shall be computed in accordance with the following clause:

<u>Biomass(Rankine Cycle Technology), Biomass Gasifier, Biogas Power and Non-fossil fuel Co-generation</u>

a) Fuel costs for four months equivalent to normative PLF;

b) Operation & Maintenance expense for one month;

c) Receivables equivalent to 2 (Two) months of fixed and variable charges for sale of electricity calculated on the target PLF;

d) Maintenance spare @ 15% of operation and maintenance expenses

(3) Interest on Working Capital shall be at interest rate equivalent to the average State Bank of India Base Rate prevalent during the first six months of the previous year plus 350 basis points".

44. Receivables equivalent to two months of actual fixed cost and variable cost, (as applicable for biomass power and non-fossil fuel based co-generation) have been considered. As mentioned in the Para No. 46, interest rate considered as weighted average of State Bank of India Base Rate prevalent during the first six months of the previous year plus 350 basis points (equivalent to interest rate of 13.50%). The interest on working capital has been worked out as specified below for determination of tariff of the RE projects:

Details	Wind Energy	Small Hydro	Biomass, Biomass Gasifier and Biogas	Non-fossil fuel co-generation	Solar PV	Solar Thermal
(A) For Fixed charges						
(i) O&M expenses (month)	1	1	1	1	1	1
(ii) Maintenance spares (%) of O&M expenses	15	15	15	15	15	15
(iii) Receivables (months)	2	2	2	2	2	2
(B) For Variable Charges						
Biomass/Bagasse stock (months)	-	-	4	4	-	-
(C) Interest On Working Capital (%)	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%

Source for SBI Base Rate: State Bank of India (www.statebankofindia.com)

OPERATION AND MAINTENANCE EXPENSES

45. Regulation 18 of the RE Tariff Regulations provides for Operation and Maintenance Expenses (O&M expenses) in respect of RE projects as under:

"Operation and Maintenance Expenses

(1) 'Operation and Maintenance or O&M expenses' shall comprise repair and maintenance (R&M), establishment including employee expenses and administrative & general expenses.

(2) Operation and maintenance expenses shall be determined for the Tariff Period based on normative O&M expenses specified by the Commission subsequently in these Regulations for the first Year of Control Period.

(3) Normative O&M expenses allowed during first year of the Control Period (i.e. FY 2012-13) under these Regulations shall be escalated at the rate of 5.72% per annum over the Tariff Period".

46. The normative O&M expenses for various RE technologies specified under the relevant provisions of the RE Tariff Regulations are as under:

(a) Wind Energy: Regulation 27 of RE Tariff Regulations provides that the normative O&M expenses for the first year of the control period (i.e. 2012-13) as ₹ 9 lakh per MW and shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, the Commission has considered O&M cost norm for wind energy as ₹ 10.63 Lakh/MW for FY 2015-16.

(b) Small Hydro: Regulation 32 of RE Regulations provided for the normative O& M expenses for small hydro projects for the year 2012-13 which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. The table below presents the normative

O&M Expenses considered by the Commission for small hydro power for FY 2012-13;

Region	Project Size	O&M expenses (₹ Lakh/MW)
Himachal Pradesh, Uttarakhand and North Eastern States	Below 5 MW	25
	5 MW to 25 MW	18
Other States	Below 5 MW	20
	5 MW to 25 MW	14

Accordingly, the table below presents the normative O&M Expenses considered by the Commission for small hydro power for FY 2015-16,

Region	Project Size	O&M expenses (₹ Lakh/MW)
Himachal Pradesh, Uttarakhand and North Eastern States	Below 5 MW	29.54
	5 MW to 25 MW	21.27
Other States	Below 5 MW	23.63
	5 MW to 25 MW	16.54

(c) Biomass: Regulation 39 of RE Tariff (First Amendment) Regulations provides that the normative O& M expenses for biomass based projects for the year 2013-14 shall be ₹ 40 Lakh per MW and which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, the Commission has considered O&M cost norm for biomass power as ₹ 44.71 Lakh/MW for FY 2015-16.

(d) Non-fossil fuel co-generation: As per Regulation 55 of RE Tariff Regulations, the normative O&M Expenses for non-fossil fuel co-generation projects for the year 2012-13 has been specified as ₹ 16 Lakh per MW which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, the Commission has considered O&M cost norm for non-fossil fuel based co-generation as ₹ 18.91 Lakh/MW for FY 2015-16.

(e) Solar PV: Regulation 59 of RE Tariff Regulations provides that the normative O&M expenses for solar PV projects for the year 2012-13 shall be ₹ 11 Lakh per MW which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, O&M expense norm for solar PV power project as ₹ 13.00 Lakh/MW for FY 2015-16 has been considered.

(f) Solar Thermal: Regulation 63 of the RE Tariff Regulations specified the normative O&M expenses for solar thermal power projects shall be ₹ 15 Lakh/MW for the first year of operation, which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, O&M expense norm for solar thermal power project as ₹ 17.72 Lakh/MW for FY 2015-16, has been considered.

(g) Biomass Gasifier: Regulation 71 of the RE Tariff Regulations specified the normative O&M expenses for solar thermal power projects shall be ₹ 40 Lakh/MW for the first year of operation, which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, the Commission has considered O&M cost norm for biomass gasifier based power plant as ₹ 47.26 Lakh/MW for FY 2015-16.

(h) Biogas: Regulation 80 of the RE Tariff Regulations specified the normative O&M expenses for solar thermal power projects shall be ₹ 40 Lakh/MW for the first year of operation, which shall be escalated at the rate of 5.72% per annum over the tariff period for determination of the levellised tariff. Accordingly, the Commission has considered O&M cost norm for biogas based power plant as ₹ 47.26 Lakh/MW for FY 2015-16.

47. The normative O&M expenses have been worked out as specified above for determination of tariff for the renewable energy generating stations.

CAPACITY UTILISATION FACTOR

48. Regulations 26, 30, 58 and 62 of the RE Tariff Regulations specify the norms for Capacity Utilization Factor (CUF)/Plant Load Factor (PLF) in respect of the Wind

Energy, Small Hydro, Solar PV and Solar Thermal based power generating stations as per the details given in the table below which has been considered for determination of tariff.

Renewable Energy Projects	CUF
(A) Wind Energy: Annual Mean Wind Power Density (W/m2)	
Wind zone - 1 (Upto 200)	20 %
Wind zone - 2 (201 - 250)	22 %
Wind zone - 3 (251 - 300)	25 %
Wind zone - 4 (301 - 400)	30 %
Wind zone - 5 (Above 400)	32 %
(B) Small Hydro	
(i) Himachal, Uttarakhand and North Eastern States	45 %
(ii) Other States	30 %
(C) Solar PV	19 %
(D) Solar Thermal	23 %

PLANT LOAD FACTOR (PLF)

49. Regulations 36, 68 and 78 of the RE Tariff Regulations specify the plant load factor for Biomass, Biomass Gasifier and Biogas based renewable energy generating stations as given in the table below which has been considered for determination of fixed charges component of tariff.

Renewable Energy Projects	PLF
(A) Biomass	
(a) During stabilization (6 months)	60 %
(b) During remaining period of the first year (after stabilization)	70 %
(c) Second year onwards	80 %
(B) Biomass Gasifier	85 %
(C) Biogas	90 %

50. Regulation 49 of the RE Tariff Regulations stipulates the plant load factor for Non-fossil Fuel based Co-generation projects as under, computed on the basis of plant availability for number of operating days considering the operations during crushing season and off-season and load factor of 92%. The number of

operating days for different States as specified in the Regulation 49(2) is as under:

States	Operating days	PLF
Uttar Pradesh and Andhra Pradesh	120 days (crushing)+ 60 days (off-season) = 180 days	45 %
Tamil Nadu and Maharashtra	180 days (crushing)+ 60 days (off-season) = 240 days	60 %
Other States	150 days (crushing) + 60 days (off-season) = 210 days	53 %

AUXILIARY POWER CONSUMPTION

51. Regulations 31, 37, 50, 64, 69 and 79 of the RE Tariff Regulations as amended from time to time, stipulate the auxiliary power consumption factor as under which has been considered for determination of tariff of the RE projects :

Renewable Energy Projects	Auxiliary Consumption Factor
Small Hydro	1 %
Biomass a) the project using water cooled condenser	i. During first year of operation: 11%; ii. From 2nd year onwards: 10%.
b) project using air cooled condenser	i. During first year of operation: 13%; ii. From 2nd year onwards: 12%.
Non-fossil fuel co-generation	8.5 %
Solar Thermal	10 %
Biomass Gasifier	10 %
Biogas	12 %

STATION HEAT RATE

52. The Station Heat Rates (SHR) specified under Regulations 38 and 51 of the RE Tariff Regulations as amended from time to time for biomass and non-fossil fuel based co-generation projects are as under:

Renewable Energy Projects	SHR (kCal / kWh)
Biomass	a. 4200 : for project using travelling grate boilers; b. 4125 : for project using AFBC boilers.
Non-fossil fuel co-generation (for power component)	3600

FUEL

(a) <u>Fuel Mix</u>

53. Sub-Regulation (1) of Regulation 40 of the RE Tariff Regulations stipulates that the Biomass based power generating stations are to be designed in a way that it uses different types of non-fossil fuels available within the vicinity of biomass power project such as crop residues, agro-industrial residues, forest residues etc. and other biomass fuels as may be approved by the Ministry of Non-Renewable Energy (MNRE). Sub-Regulation (2) of the said Regulations stipulates that the biomass power generating companies are to ensure fuel management plan to ensure adequate availability of fuel to meet the respective project requirements.
54. Regulation 70 of the RE Tariff Regulations stipulates that the normative specific fuel consumption shall be 1.25 kg per kWh for Biomass Gasifier based power generating stations.
55. Regulation 81 of the RE Tariff Regulations stipulates that the normative specific fuel consumption shall be 3 kg of substrate mix per kWh for Biogas based power generating stations.

(b) Calorific value

56. Regulation 43 of the RE Tariff (First Amendment) Regulations, provides the calorific value of biomass fuel used for determination of tariff shall be at 3100 kCal/kg.

57. Regulation 52 of the of the RE Tariff Regulations provides the gross calorific value for bagasse to be considered in case of non-fossil fuel co-generation projects is 2250 kCal/kg and for the use of biomass fuels other than bagasse, the calorific value as specified above shall be applicable.

(c) Fuel cost

58. The Commission, in terms of Regulation 44 of the RE Tariff Regulations, has specified the biomass fuel price applicable during the period 2012-13 and has specified fuel price indexation mechanism, in case developer wishes to opt, for the remaining years of the control period. The data for Pd and WPI, as per regulations, latest figures for April, 2014 and April, 2013 corresponding to n^{th} and $(n-1)^{th}$ year has been considered while calculating the fuel price indexation for biomass and also non-fossil fuel based co-generation power projects. The detailed computations of the fuel price indexation mechanism and the determination of the biomass fuel prices for FY 2015-16 thereof, has been enclosed as **Appendix-7** to this order. Accordingly, the biomass fuel price applicable for FY 2015-16 is as under:

State	Biomass price (₹/tonne)
Andhra Pradesh	2940.31
Haryana	3346.75
Maharashtra	3422.95
Punjab	3500.42
Rajasthan	2921.25
Tamil Nadu	2892.03
Uttar Pradesh	2991.10
Other States	3144.80

59. The Commission, in terms of Regulation 53 of the RE Tariff Regulations, has specified the price of bagasse applicable during the period 2012-13 and has specified fuel price indexation mechanism, in case developer wishes to opt, for the remaining years of the control period. The detailed computations of the fuel price indexation mechanism and the determination of the bagasse fuel prices for FY 2015-16 thereof, has been enclosed as **Appendix-8** of this Order. The price of bagasse (for non-fossil fuel based co-generation projects) applicable for FY 2015-16 shall be as in the table below;

State	Bagasse Price (₹/tonne)
Andhra Pradesh	1660.04
Haryana	2361.13
Maharashtra	2326.84
Punjab	2077.90
Tamil Nadu	1788.32
Uttar Pradesh	1851.82
Other States	2010.58

60. The Commission, in terms of Regulation 73 of the RE Tariff Regulations, has specified the biomass fuel price during first year of the Control Period (i.e. FY 2012-13) as per Regulation 44 and has specified fuel price indexation mechanism for the Biomass Gasifier project developer. Accordingly, the biomass fuel price for the Biomass gasifier based power project applicable for FY 2015-16 shall be the same as for the biomass based power project (Rankine cycle) as mentioned above. The detailed computations of the fuel price indexation mechanism and the determination of the biomass fuel prices for FY 2015-16 thereof, has been enclosed as **Appendix-9** of this Order.

61. The Commission, in terms of Regulation 82 of the RE Tariff Regulations, has specified the feed stock price during first year of the Control Period (i.e. FY 2012-13) at ₹ 990/MT(net of any cost recovery from digester effluent) and has

specified fuel price indexation mechanism for the Biogas project developer. The detailed computations of the fuel price indexation mechanism and the determination of the bagasse fuel prices for FY 2015-16 thereof, has been enclosed as **Appendix-10** of this Order. The price of fuel applicable for the biogas based power plant for FY 2015-16 shall be at ₹ 1257.41/MT (net of any cost recovery from digester effluent).

62. In case of Biomass Power Projects, non-fossil fuel based co-generation projects, Biomass Gasifier based power Projects and Biogas based power projects, variable component of tariff is calculated based on the fuel cost for FY 2015-16. This variable component will change each year based on whether a Renewable Energy Power Project developer opts for fuel price indexation or escalation factor of 5%. Hence, while calculating the total applicable tariff for Biomass Power Projects, non-fossil fuel based co-generation projects, Biomass Gasifier based power Projects and Biogas based power projects, levellisation of only fixed component is considered and the variable component for the first year of operation (i.e. 2015-16) is specified.

Subsidy or incentive by the Central / State Government

63. Regulation 22 of the RE Tariff Regulations provides as under:

"The Commission shall take into consideration any incentive or subsidy offered by the Central or State Government, including accelerated depreciation benefit if availed by the generating company, for the renewable energy power plants while determining the tariff under these Regulations.

Provided that the following principles shall be considered for ascertaining income tax benefit on account of accelerated depreciation, if availed, for the purpose of tariff determination:

i) Assessment of benefit shall be based on normative capital cost, accelerated depreciation rate as per relevant provisions under Income Tax Act and corporate income tax rate.

ii) Capitalization of RE projects during second half of the fiscal year. Per unit benefit shall be derived on levellised basis at discount factor equivalent to Post Tax weighted average cost of capital".

64. In terms of the above regulation, for the projects availing the benefit of accelerated depreciation as per applicable Income tax rate @ 33.99% (30% IT rate+ 10% surcharge +3% Education cess) has been considered. For the purpose of determining net depreciation benefits, depreciation @ 5.28% as per straight line method (Book depreciation as per Companies Act, 1956) has been compared with depreciation as per Income Tax rate i.e. 80% of the written down value method. Moreover, additional 20% depreciation in the initial year is proposed to be extended to new assets acquired by power generation companies vide amendment in the section 32, sub-section (1) clause (iia) of the Income Tax Act.

65. Depreciation for the first year has been calculated at the rate of 50% of accelerated depreciation 80% and 50% of additional depreciation 20% (as project is capitalized during the second half of the financial year as per proviso (ii) to Regulation 22). Income tax benefits of accelerated depreciation and additional depreciation, has been worked out as per normal tax rate on the net depreciation benefit. Per unit levellised accelerated depreciation benefit has been computed considering the post tax weighted average cost of capital as discount factor.

66. In the light of the discussion made in the preceding paragraphs, the generic tariffs of the following RE projects for the financial year 2015-16 have been determined as under:

Generic Tariff for RE Technologies for FY 2015-16

Particular	Levellised Total Tariff (FY 2015-16)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)
	(₹ / kWh)	(₹/kWh)	(₹/kWh)
Wind Energy			
Wind Zone -1 (CUF 20%)	6.58	0.71	5.87
Wind Zone -2 (CUF 22%)	5.98	0.64	5.34
Wind Zone -3 (CUF 25%)	5.27	0.57	4.70
Wind Zone -4 (CUF 30%)	4.39	0.47	3.92
Wind Zone -5 (CUF 32%)	4.11	0.44	3.67
Small Hydro Power Project			
HP, Uttarakhand and NE States (Below 5MW)	4.64	0.38	4.26
HP, Uttarakhand and NE States (5MW to 25 MW)	3.95	0.35	3.61
Other States (Below 5 MW)	5.47	0.44	5.02
Other States (5 MW to 25 MW)	4.65	0.41	4.24

State	Levellised Fixed Cost	Variable Cost (FY 2015-16)	Applicable Tariff Rate (FY 2015-16)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)
	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)
Biomass Power Projects [other than Rice Straw and Juliflora (plantation) based project] with Water Cooled Condenser and travelling grate boiler					
Andhra Pradesh	3.06	4.48	7.53	0.18	7.36
Haryana	3.12	5.09	8.21	0.18	8.03
Maharashtra	3.13	5.21	8.34	0.18	8.16
Punjab	3.14	5.33	8.47	0.18	8.29
Rajasthan	3.06	4.45	7.50	0.18	7.32
Tamil Nadu	3.05	4.40	7.45	0.18	7.27
Uttar Pradesh	3.07	4.55	7.62	0.18	7.44
Others	3.09	4.79	7.88	0.18	7.70

State	Levellised Fixed Cost	Variable Cost (FY 2015-16)	Applicable Tariff Rate (FY 2015-16)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)
	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)
Biomass Power Projects [other than Rice Straw and Juliflora (plantation) based project] with Air Cooled Condenser and travelling grate boiler					
Andhra Pradesh	3.24	4.58	7.82	0.20	7.62
Haryana	3.30	5.21	8.51	0.20	8.32
Maharashtra	3.31	5.33	8.64	0.20	8.45
Punjab	3.33	5.45	8.78	0.20	8.58
Rajasthan	3.24	4.55	7.79	0.20	7.59
Tamil Nadu	3.23	4.50	7.74	0.20	7.54
Uttar Pradesh	3.25	4.66	7.91	0.20	7.71
Others	3.27	4.90	8.17	0.20	7.97

State	Levellised Fixed Cost	Variable Cost (FY 2015-16)	Applicable Tariff Rate (FY 2015-16)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)
	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)
Biomass Power Projects [Rice Straw and Juliflora (plantation) based project] with Water Cooled Condenser and travelling grate boiler					
Andhra Pradesh	3.20	4.48	7.67	0.20	7.48
Haryana	3.26	5.09	8.35	0.20	8.16
Maharashtra	3.27	5.21	8.48	0.20	8.28
Punjab	3.28	5.33	8.61	0.20	8.41
Rajasthan	3.19	4.45	7.64	0.20	7.44
Tamil Nadu	3.19	4.40	7.59	0.20	7.39
Uttar Pradesh	3.20	4.55	7.76	0.20	7.56
Others	3.23	4.79	8.01	0.20	7.81

State	Levellised Fixed Cost	Variable Cost (FY 2015-16)	Applicable Tariff Rate (FY 2015-16)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)
	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)
Biomass Power Projects [other than Rice Straw and Juliflora (plantation) based project] with Air Cooled Condenser and travelling grate boiler					
Andhra Pradesh	3.38	4.58	7.96	0.21	7.75
Haryana	3.44	5.21	8.66	0.21	8.44
Maharashtra	3.46	5.33	8.79	0.21	8.58
Punjab	3.47	5.45	8.92	0.21	8.71
Rajasthan	3.38	4.55	7.93	0.21	7.72
Tamil Nadu	3.38	4.50	7.88	0.21	7.67
Uttar Pradesh	3.39	4.66	8.05	0.21	7.84
Others	3.41	4.90	8.31	0.21	8.10
Bagasse Based Co-generation Project					
Andhra Pradesh	3.15	2.90	6.05	0.25	5.80
Haryana	2.84	4.13	6.97	0.21	6.76
Maharashtra	2.55	4.07	6.62	0.18	6.43
Punjab	2.79	3.63	6.42	0.21	6.21
Tamil Nadu	2.46	3.13	5.59	0.18	5.41
Uttar Pradesh	3.18	3.24	6.42	0.25	6.17
Others	2.78	3.52	6.29	0.21	6.08

Solar PV and Solar Thermal			
Particular	**Levellised Total Tariff (FY 2015-16)**	**Benefit of Accelerated Depreciation (if availed)**	**Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)**
	(₹/kWh)	**(₹/kWh)**	**(₹/kWh)**
Solar PV	6.86	0.67	6.20
Solar Thermal	12.05	1.25	10.80

State	Levellised Fixed Cost	Variable Cost (FY 2015-16)	Applicable Tariff Rate (FY 2015-16)	Benefit of Accelerated Depreciation (if availed)	Net Levellised Tariff (upon adjusting for Accelerated Depreciation benefit) (if availed)
	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)	(₹/kWh)
Biomass Gasifier Power Project					
Andhra Pradesh	2.58	4.08	6.66	0.13	6.53
Haryana	2.64	4.65	7.28	0.13	7.15
Maharashtra	2.65	4.75	7.40	0.13	7.27
Punjab	2.66	4.86	7.52	0.13	7.39
Rajasthan	2.58	4.06	6.63	0.13	6.50
Tamil Nadu	2.57	4.02	6.59	0.13	6.46
Uttar Pradesh	2.59	4.15	6.74	0.13	6.61
Others	2.61	4.37	6.98	0.13	6.85
Biogas based Generation					
Biogas	3.57	4.29	7.86	0.26	7.60

1. The detailed computations for the generic tariff for various RE technologies have been enclosed to this Order as per the details given hereunder:

S.No	Renewable Energy Projects	Annexure
A	**Wind Power Projects**	
	Wind Zone-I	Annexure 1A
	Wind Zone-II	Annexure 1B
	Wind Zone III	Annexure 1C
	Wind Zone IV	Annexure 1D
	Wind Zone V	Annexure 1E
B	**Small Hydro Power Projects**	
	Projects Less than 5 MW for HP, Uttarakhand and NE States	Annexure 2A
	Projects between 5 MW and 25 MW for HP, Uttarakhand and NE States	Annexure 2B
	Projects less than 5 MW for other States	Annexure 2C
	Projects between 5 MW and 25 MW for other states	Annexure 2D

C.1	**Biomass Power Projects [other than Rice Straw and Juliflora (plantation) based project] with Water Cooled Condenser and using Travelling Grate boiler**	
	Andhra Pradesh	Annexure 3.1A
	Haryana	Annexure 3.1B
	Maharashtra	Annexure 3.1C
	Punjab	Annexure 3.1D
	Rajasthan	Annexure 3.1E
	Uttar Pradesh	Annexure 3.1F
	Tamil Nadu	Annexure 3.1G
	Others	Annexure 3.1H
C.2	**Biomass Power Projects [other than Rice Straw and Juliflora (plantation) based project] with Air Cooled Condenser and using Travelling Grate boiler**	
	Andhra Pradesh	Annexure 3.2A
	Haryana	Annexure 3.2B
	Maharashtra	Annexure 3.2C
	Punjab	Annexure 3.2D
	Rajasthan	Annexure 3.2E
	Uttar Pradesh	Annexure 3.2F
	Tamil Nadu	Annexure 3.2G
	Others	Annexure 3.2H
C.3	**Biomass Power Projects [Rice Straw and Juliflora (plantation) based project] with Water Cooled Condenser and using Travelling Grate boiler**	
	Andhra Pradesh	Annexure 3.3A
	Haryana	Annexure 3.3B
	Maharashtra	Annexure 3.3C
	Punjab	Annexure 3.3D
	Rajasthan	Annexure 3.3E
	Uttar Pradesh	Annexure 3.3F
	Tamil Nadu	Annexure 3.3G
	Others	Annexure 3.3H
C.4	**Biomass Power Projects [Rice Straw and Juliflora (plantation) based project] with Air Cooled Condenser and using Travelling Grate boiler**	
	Andhra Pradesh	Annexure 3.4A
	Haryana	Annexure 3.4B
	Maharashtra	Annexure 3.4C
	Punjab	Annexure 3.4D
	Rajasthan	Annexure 3.4E
	Uttar Pradesh	Annexure 3.4F
	Tamil Nadu	Annexure 3.4G
	Others	Annexure 3.4H
D	**Non-Fossil Fuel Based Cogeneration**	
	Andhra Pradesh	Annexure 4A

	Haryana	Annexure 4B
	Maharashtra	Annexure 4C
	Punjab	Annexure 4D
	Uttar Pradesh	Annexure 4E
	Tamil Nadu	Annexure 4F
	Others	Annexure 4G
E	**Solar Projects**	
	Solar PV Projects	Annexure 5A
	Solar Thermal Projects	Annexure 6A
F	**Biomass Gasifier Power Projects**	
	Andhra Pradesh	Annexure 7A
	Haryana	Annexure 7B
	Maharashtra	Annexure 7C
	Punjab	Annexure 7D
	Rajasthan	Annexure 7E
	Uttar Pradesh	Annexure 7F
	Tamil Nadu	Annexure 7G
	Others	Annexure 7H
G	**Biogas based Power Projects**	Annexure 8A

-Sd/-
(A.S. Bakshi)
Member

-Sd/-
(A. K. Singhal)
Member

-Sd/-
(Gireesh B. Pradhan)
Chairperson

New Delhi
Dated the 3rd March, 2015

Appendix 1

Capital cost of Indexation for Wind Power Projects (FY 2015-16)

Indexation Formulation

$CC_{(n)} = P\&M_{(n)} * [1 + F1 + F2 + F3]$

$d_{(n)} = (a * (SI_{(n-1)}/SI_{(0)})-1) + b* (EI_{(n-1)}/EI_{(0)})-1)) / (a+b)$

$P\&M_{(n)} = P\&M_{(0)}*(1+ d_{(n)})$

Variable	Description	Value
a	Weightage for Steel Index	0.60
b	Weightage for Electrical Machinery Index	0.40
F1	Factor for Land and Civil Work	0.08
F2	Factor for Erection and Commissioning	0.07
F3	Factor for IDC and Financing	0.10

	Electrical Machinery		Steel	
Month/Year	2014	2011	2014	2011
January	137.4	125.1	126.2	118.6
February	137.8	125.1	126.2	113
March	138.4	126.4	126.2	113
April	138.4	127.2	135.1	113
May	138.6	127.6	129.6	113
June	138.6	128	130.6	119.6
July	138.8	128.7	130.5	126.2
August	138.4	129.2	130.9	126.2
September	138.6	130.9	130.9	126.2
October	138.7	130.6	130.9	126.2
November	138.6	130.8	130.9	126.2
December	138.5	131	130.9	126.2
Average	138.400	128.383	129.908	120.617

Parameters	Description	Value
$CC_{(0)}$(₹ L/MW)	Capital Cost for the Base Year	575
$P\&M_{(0)}$ (₹ L/MW)	Plant & Machinery Cost for the Base Year	460
$d_{(n)}$	Capital Cost escalation Factor	7.743%
$P\&M_{(n)}$ (₹ L/MW)	Plant & Machinery Cost for the nth Year (FY 2015-16)	495.618
$CC_{(n)}$ (₹ L/MW)	Capital Cost for the nth Year (FY 2015-16)	619.522

Source of WPI (Steel and Electrical Machinery): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in)

Capital cost of Indexation for Small Hydro Power Projects (FY 2015-16)
Indexation Formulation
$CC_{(n)} = P\&M_{(n)} * [1 + F1 + F2 + F3]$
$d_{(n)} = (a * (SI_{(n-1)}/SI_{(0)})-1) + b* (EI_{(n-1)}/EI_{(0)})-1)) / (a+b)$
$P\&M_{(n)} = P\&M_{(0)}*(1+ d_{(n)})$

Variable	Description	Value
a	Weightage for Steel Index	0.6
b	Weightage for Electrical Machinery Index	0.4
F1	Factor for Land and Civil Work	0.16
F2	Factor for Erection and Commissioning	0.1
F3	Factor for IDC and Financing	0.14

Month/Year	Electrical Machinery		Steel	
	2014	2011	2014	2011
January	137.4	125.1	126.2	118.6
February	137.8	125.1	126.2	113
March	138.4	126.4	126.2	113
April	138.4	127.2	135.1	113
May	138.6	127.6	129.6	113
June	138.6	128	130.6	119.6
July	138.8	128.7	130.5	126.2
August	138.4	129.2	130.9	126.2
September	138.6	130.9	130.9	126.2
October	138.4	130.6	130.9	126.2
November	138.6	130.8	130.9	126.2
December	138.5	131	130.9	126.2
Average	138.400	128.383	129.908	120.617

	Description	HP/Uttrakhand/NE		Other States	
Parameters		SHP <5 MW	5MW-25 MW	SHP<5 MW	5MW-25 MW
$CC_{(0)}$(₹ L/MW)	Capital Cost for the Base Year	770	700	600	550
$P\&M_{(0)}$ (₹ L/MW)	Plant & Machinery Cost for the Base Year	550	500	428.571	392.857
$d_{(n)}$	Capital Cost escalation Factor	7.743%	7.743%	7.743%	7.743%
$P\&M_{(n)}$ (₹ L/MW)	Plant & Machinery Cost for the nth Year (FY 15-16)	592.586	538.715	461.755	423.276
$CC_{(n)}$ (₹ L/MW)	Capital Cost for the nth Year (FY 2015-16)	829.621	754.201	646.458	592.586

Source of WPI (Steel and Electrical Machinery): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in)

Capital cost of Indexation for Biomass Power Projects (FY 2015-16)
Indexation Formulation
$CC_{(n)} = P\&M_{(n)} * [1 + F1 + F2 + F3]$
$d_{(n)} = (a * (SI_{(n-1)}/SI_{(0)})-1) + b* (EI_{(n-1)}/EI_{(0)})-1)) / (a+b)$
$P\&M_{(n)} = P\&M_{(0)}*(1+ d_{(n)})$

Variable	Description	Value
a	Weightage for Steel Index	0.7
b	Weightage for Electrical Machinery Index	0.3
F1	Factor for Land and Civil Work	0.1
F2	Factor for Erection and Commissioning	0.09
F3	Factor for IDC and Financing	0.14

	Electrical Machinery		Steel	
Month/Year	**2014**	**2012**	**2014**	**2012**
January	137.4	130.900	126.2	126.200
February	137.8	130.900	126.2	126.200
March	138.4	130.900	126.2	126.200
April	138.4	130.700	135.1	126.200
May	138.6	131.200	129.6	126.200
June	138.6	132.200	130.6	126.200
July	138.8	133.000	130.5	126.200
August	138.4	133.200	130.9	126.200
September	138.6	133.100	130.9	126.200
October	138.4	133.100	130.9	126.200
November	138.6	133.600	130.9	126.200
December	138.5	133.600	130.9	126.200
Average	138.400	132.200	129.908	126.200

Parameters	Description	Biomass Power Projects (Rankine Cycle)			
		a*	b*	c*	d*
$CC_{(0)}$ (` L/MW)	Capital Cost for the Base Year : (FY 13-14)	540	580	590	630
$P\&M_{(0)}$ (` L/MW)	Plant & Machinery Cost for the Base Year: (FY 13-14)	406.02	436.09	443.61	473.68
$d_{(n)}$	Capital Cost escalation Factor	3.464%	3.464%	3.464%	3.464%
$P\&M_{(n)}$ (` L/MW)	Plant & Machinery Cost for the nth Year (FY 15-16)	420.075	451.196	458.975	490.092
$CC_{(n)}$ (` L/MW)	Capital Cost for the nth Year (FY 2015-16)	558.705	600.091	610.437	651.822

Source of WPI (Steel and Electrical Machinery): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in)

* a. Project [other than rice straw and juliflora (plantation) based project] with water cooled condenser;

*b. Project [other than rice straw and Juliflora (plantation) based project] with air cooled condenser;

*c. For rice straw and juliflora (plantation) based project with water cooled condenser;

*d. For rice straw and juliflora (plantation) based project with air cooled condenser.

Appendix-4

Capital cost of Indexation for Non-fossil fuel based Cogeneration Power Projects (FY 15-16)

Indexation Formulation

$CC_{(n)} = P\&M_{(n)} * [1 + F1 + F2 + F3]$

$d_{(n)} = (a * (SI_{(n-1)}/SI_{(0)})-1) + b* (EI_{(n-1)}/EI_{(0)})-1)) / (a+b)$

$P\&M_{(n)} = P\&M_{(0)}*(1+ d_{(n)})$

Variable	Description	Value
a	Weightage for Steel Index	0.70
b	Weightage for Electrical Machinery Index	0.30
F1	Factor for Land and Civil Work	0.10
F2	Factor for Erection and Commissioning	0.09
F3	Factor for IDC and Financing	0.14

	Electrical Machinery		Steel	
Month/Year	2014	2011	2014	2011
January	137.400	125.100	126.200	118.600
February	137.800	125.100	126.200	113.000
March	138.400	126.400	126.200	113.000
April	138.400	127.200	135.100	113.000
May	138.600	127.600	129.600	113.000
June	138.600	128.000	130.600	119.600
July	138.800	128.700	130.500	126.200
August	138.400	129.200	130.900	126.200
September	138.600	130.900	130.900	126.200
October	138.700	130.600	130.900	126.200
November	138.600	130.800	130.900	126.200
December	138.500	131.000	130.900	126.200
Average	138.400	128.383	129.908	120.617

Parameters	Description	Value
$CC_{(0)}$(₹ L/MW)	Capital Cost for the Base Year	420.000
$P\&M_{(0)}$ (₹ L/MW)	Plant & Machinery Cost for the Base Year	315.789
$d_{(n)}$	Capital Cost escalation Factor	7.733%
$P\&M_{(n)}$ (₹ L/MW)	Plant & Machinery Cost for the nth Year (FY 2015-16)	340.210
$CC_{(n)}$ (₹ L/MW)	Capital Cost for the nth Year (FY2015-16)	452.479

Source of WPI (Steel and Electrical Machinery): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in)

Appendix-5

Capital cost of Indexation for Biomass Gasifier Power Projects (FY 2015-16)

Indexation Formulation

$CC_{(n)} = P\&M_{(n)} * [1 + F1 + F2 + F3]$

$d_{(n)} = (a * (SI_{(n-1)}/SI_{(0)})-1) + b* (EI_{(n-1)}/EI_{(0)})-1)) / (a+b)$

$P\&M_{(n)} = P\&M_{(0)}*(1+ d_{(n)})$

Variable	Description	Value
a	Weightage for Steel Index	0.70
b	Weightage for Electrical Machinery Index	0.30
F1	Factor for Land and Civil Work	0.10
F2	Factor for Erection and Commissioning	0.09
F3	Factor for IDC and Financing	0.14

	Electrical & Machinery		Iron & Steel	
Month/Year	2014	2011	2014	2011
January	137.400	125.100	126.200	118.600
February	137.800	125.100	126.200	113.000
March	138.400	126.400	126.200	113.000
April	138.400	127.200	135.100	113.000
May	138.600	127.600	129.600	113.000
June	138.600	128.000	130.600	119.600
July	138.800	128.700	130.500	126.200
August	138.400	129.200	130.900	126.200
September	138.600	130.900	130.900	126.200
October	138.700	130.600	130.900	126.200
November	138.600	130.800	130.900	126.200
December	138.500	131.000	130.900	126.200
Average	138.400	128.383	129.908	120.617

Parameters	Description	Value
$CC_{(0)}$(₹ L/MW)	Capital Cost for the Base Year	550.000
$P\&M_{(0)}$ (₹ L/MW)	Plant & Machinery Cost for the Base Year	413.534
$d_{(n)}$	Capital Cost escalation Factor	7.733%
$P\&M_{(n)}$ (₹ L/MW)	Plant & Machinery Cost for the nth Year (FY 2015-16)	445.513
$CC_{(n)}$ (₹ L/MW)	Capital Cost for the nth Year (FY2015-16)	592.532

Source of WPI (Steel and Electrical Machinery): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in)

Appendix-6

Capital cost of Indexation for Biogas based Power Projects (FY 2015-16)

Indexation Formulation

$CC_{(n)} = P\&M_{(n)} * [1 + F1 + F2 + F3]$

$d_{(n)} = (a * (SI_{(n-1)}/SI_{(0)})-1) + b* (EI_{(n-1)}/EI_{(0)})-1)) / (a+b)$

$P\&M_{(n)} = P\&M_{(0)}*(1+ d_{(n)})$

Variable	Description	Value
A	Weightage for Steel Index	0.70
B	Weightage for Electrical Machinery Index	0.30
F1	Factor for Land and Civil Work	0.10
F2	Factor for Erection and Commissioning	0.09
F3	Factor for IDC and Financing	0.14

	Electrical Machinery		Steel	
Month/Year	2014	2011	2014	2011
January	137.400	125.100	126.200	118.600
February	137.800	125.100	126.200	113.000
March	138.400	126.400	126.200	113.000
April	138.400	127.200	135.100	113.000
May	138.600	127.600	129.600	113.000
June	138.600	128.000	130.600	119.600
July	138.800	128.700	130.500	126.200
August	138.400	129.200	130.900	126.200
September	138.600	130.900	130.900	126.200
October	138.700	130.600	130.900	126.200
November	138.600	130.800	130.900	126.200
December	138.500	131.000	130.900	126.200
Average	138.400	128.383	129.908	120.617

Parameters	Description	Value
$CC_{(0)}$(₹ L/MW)	Capital Cost for the Base Year	1100.000
$P\&M_{(0)}$ ₹ /MW)	Plant & Machinery Cost for the Base Year	827.068
$d_{(n)}$	Capital Cost escalation Factor	7.733%
$P\&M_{(n)}$ (₹ L/MW)	Plant & Machinery Cost for the nth Year (FY 2015-16)	891.025
$CC_{(n)}$ (₹ L/MW)	Capital Cost for the nth Year (FY2015-16)	1185.064

Source of WPI (Steel and Electrical Machinery): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in)

Appendix-7

Biomass Fuel Price across States for FY 2015-16

As per fuel price Index Mechanism outlined under Regulation 45 and the availability of required information

Fuel Price indexation for Biomass Power Projects (FY2015-16)

Indexation Formulation $P_{(n)} = P_{(n-1)}*\{a*(WPI_{(n)}/WPI_{(n-1)})+b*(1+IRC_{(n-1)})+c*(Pd_{(n)}/Pd_{(n-1)})\}$	
Parameter	**Value**
WPI n-1	171.300
WPI n	180.800
IRC n-1	7.50%
Pd n-1	217.842
Pd n	231.622
A	0.20
B	0.60
C	0.20

State	**Biomass price (Rs/MT) (2014-15)**	**Biomass price (Rs/MT) 2015-16**
Andhra Pradesh	2751.20	2940.31
Haryana	3131.50	3346.75
Maharashtra	3202.80	3422.95
Punjab	3275.29	3500.42
Rajasthan	2733.37	2921.25
Tamil Nadu	2706.03	2892.03
Uttar Pradesh	2798.73	2991.10
Other States	2942.54	3144.80

Note:

1. The Calculation of WPI (n) and WPI (n-1) is based on the figures available on April 2014 and April 2013 respectively.

2. The Calculation of Pd (n) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2014 to December 2014.

3. The Calculation of Pd (n-1) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2013 to March 2014.

4. The Calculation of Pd (n) and Pd (n-1) are shown as under:

WPI (Price of HSD)

Month	**2014-15**	**2013-14**
Apr	230.1	202.300
May	232.3	203.400
Jun	235.2	207.000
Jul	238.8	212.000
Aug	240.4	215.400
Sep	242	219.800
Oct	239.2	220.400
Nov	215.8	222.400
Dec	210.80	225.000
Jan		226.600
Feb		228.600
Mar		231.200
Average	**231.622**	**217.842**

Source of WPI and WPI (Price of HSD): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in),

From	To	IRC	Days	Average IRC
01-04-2014	30-09-2014	10.67%	183	7.50%
01-10-2014	31-03-2015	4.31%	182	
		Total	365	

Source of IRC: CERC (www.cercind.gov.in)

Appendix-8

Bagasse Fuel Price across States for FY 2015-16

As per fuel price Index Mechanism outlined under Regulation 54 and the availability of required information

Fuel Price indexation for Bagasse Power Projects (FY2015-16)

Indexation Formulation

$$P_{(n)} = P_{(n-1)}*\{a*(WPI_{(n)}/WPI_{(n-1)}+b*(1+IRC_{(n-1)}+c*(Pd_{(n)}/Pd_{(n-1)})\}$$

Parameter	Value
$WPI_{(n-1)}$	171.300
$WPI_{(n)}$	180.800
$IRC_{(n-1)}$	7.50%
$Pd_{(n-1)}$	217.842
$Pd_{(n)}$	231.622
A	0.20
B	0.60
C	0.20

State	Bagasse price (Rs/MT) (2014-15)	Bagasse price (Rs/MT) 2015-16
Andhra Pradesh	1553.27	1660.04
Haryana	2209.27	2361.13
Maharashtra	2177.19	2326.84
Punjab	1944.26	2077.90
Tamil Nadu	1673.30	1788.32
Uttar Pradesh	1732.72	1851.82
Other States	1881.27	2010.58

Note:

1. The Calculation of WPI (n) and WPI (n-1) is based on the figures available on April 2014 and April 2013 respectively.

2. The Calculation of Pd (n) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2014 to December 2014.

3. The Calculation of Pd (n-1) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2013 to March 2014.

4. The Calculation of Pd (n) and Pd (n-1) are shown as under:

WPI (Price of HSD)

Month	**2014**	**2013**
Apr	230.1	202.300
May	232.3	203.400
Jun	235.2	207.000
Jul	238.8	212.000
Aug	240.4	215.400
Sep	242	219.800
Oct	239.2	220.400
Nov	215.8	222.400
Dec	210.8	225.000
Jan		226.600
Feb		228.600
Mar		231.200
Average	**231.622**	**217.842**

Source of WPI and WPI (Price of HSD): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in),

From	To	IRC	Days	Average IRC
01-04-2014	30-09-2014	10.67%	183	7.50%
01-10-2014	31-03-2015	4.31%	182	
		Total	365	

Source of IRC: CERC (www.cercind.gov.in)

Appendix-9

Biomass Gasifier Fuel Price across States for FY 2015-16

As per fuel price Index Mechanism outlined under Regulation 74 and the availability of required information

Fuel Price indexation for Biomass gasifier Power Projects (FY2015-16)

Indexation Formulation

$$P_{(n)} = P_{(n-1)}*\{a*(WPI_{(n)}/WPI_{(n-1)}+b*(1+IRC_{(n-1)}+c*(Pd_{(n)}/Pd_{(n-1)})\}$$

Parameter	Value
$WPI_{(n-1)}$	171.300
$WPI_{(n)}$	180.800
$IRC_{(n-1)}$	7.50%
$Pd_{(n-1)}$	217.842
$Pd_{(n)}$	231.622
A	0.20
B	0.60
C	0.20

State	Biomass price (₹ /MT) (2014-15)	Biomass price (₹ /MT) (2015-16)
Andhra Pradesh	2751.20	2940.31
Haryana	3131.50	3346.75
Maharashtra	3202.80	3422.95
Punjab	3275.29	3500.42
Rajasthan	2733.37	2521.25
Tamil Nadu	2706.03	2892.03
Uttar Pradesh	2798.73	2991.10
Other States	2942.54	3144.80

Note:

1. The Calculation of WPI (n) and WPI (n-1) is based on the figures available on April 2014 and April 2013 respectively.

2. The Calculation of Pd (n) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2014 to December 2014.

3. The Calculation of Pd (n-1) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2013 to March 2014.

4. The Calculation of Pd (n) and Pd (n-1) are shown as under:

WPI (Price of HSD)

Month	**2014-15**	**2013-14**
Apr	230.1	202.300
May	232.3	203.400
Jun	235.2	207.000
Jul	238.8	212.000
Aug	240.4	215.400
Sep	242	219.800
Oct	239.2	220.400
Nov	215.8	222.400
Dec	210.8	225.000
Jan		226.600
Feb		228.600
Mar		231.200
Average	**231.622**	**217.842**

Source of WPI and WPI (Price of HSD): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in),

From	To	IRC	Days	Average IRC
01-04-2014	30-09-2014	10.67%	183	7.50%
01-10-2014	31-03-2015	4.31%	182	
		Total	365	

Source of IRC: CERC (www.cercind.gov.in)

Fuel Price for Biogas based power plant for FY 2015-16

As per fuel price Index Mechanism outlined under Regulation 83 and the availability of required information

Fuel Price indexation for Biogas based power projects (FY2015-16)

Indexation Formulation

$$P_{(n)} = P_{(n-1)}*\{a*(WPI_{(n)}/WPI_{(n-1)}+b*(1+IRC_{(n-1)}+c*(Pd_{(n)}/Pd_{(n-1)})\}$$

Parameter	Value
$WPI_{(n-1)}$	**171.300**
$WPI_{(n)}$	**180.800**
$IRC_{(n-1)}$	**7.50%**
$Pd_{(n-1)}$	**217.842**
$Pd_{(n)}$	**231.622**
A	**0.2**
B	**0.6**
C	**0.2**

Fuel price (₹ /MT) (2014-15)	**Fuel price (₹ /MT) (2015-16)**
1176.54	1257.41

Note:

1. The Calculation of WPI (n) and WPI (n-1) is based on the figures available on April 2014 and April 2013 respectively.

2. The Calculation of Pd (n) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2014 to December 2014.

3. The Calculation of Pd (n-1) is based on the weighted average of the WPI (Price of HSD) figures available for the months from April 2013 to March 2014.

4. The Calculation of Pd (n) and Pd (n-1) are shown as under:

WPI (Price of HSD)

Month	2014	2013
Apr	230.1	202.300
May	232.3	203.400
Jun	235.2	207.000
Jul	238.8	212.000
Aug	240.4	215.400
Sep	242	219.800
Oct	239.2	220.400
Nov	215.8	222.400
Dec	210.8	225.000
Jan		226.600
Feb		228.600
Mar		231.200
Average	**231.622**	**217.842**

Source of WPI and WPI (Price of HSD): Office of Economic Advisor, Ministry of Commerce and Industry (www.eaindustry.nic.in),

From	To	IRC	Days	Average IRC
01-04-2014	30-09-2014	10.67%	183	7.50%
01-10-2014	31-03-2015	4.31%	182	
		Total	365	

Source of IRC: CERC (www.cercind.gov.in)

Assumptions: Wind Energy Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Wind Zone 1
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	20%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	619.522
3	**Sources of Fund**				
			Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	433.665
			Total Equity Amout	Rs Lacs	185.857
		Debt Component			
			Loan Amount	Rs Lacs	433.67
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	185.86
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.40%
			Discount Rate		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O &M (FY15-16)		Rs Lacs/MW	10.63
		Total O & M Expenses Escalation		%	5.72%
		O &M (FY12-13)		Rs Lacs/MW	9.00

Determination of Tariff

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross/Net Generation	MU		1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75

Fixed Cost	Unit	Year--->	1	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
O&M Expenses	Rs Lakh		10.63	11.24	11.89	12.57	13.28	14.04	14.85	15.70	16.59	17.54	18.55	19.61	20.73	21.92	23.17	24.49	25.90	27.38	28.94	30.60	32.35	34.20	36.16	38.22	40.41
Depreciation	Rs Lakh		36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55
Interest on term loan	Rs Lakh		54.03	49.33	44.63	39.93	35.24	30.54	25.84	21.14	16.44	11.75	7.05	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		3.52	3.44	3.37	3.30	3.23	3.17	3.10	3.04	2.98	2.93	3.04	3.00	2.39	2.46	2.53	2.60	2.68	2.76	2.85	2.94	3.03	3.14	3.24	3.36	3.48
Return on Equity	Rs Lakh		37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61
Total Fixed Cost	**Rs Lakh**		**141.47**	**137.31**	**133.18**	**129.09**	**125.04**	**121.04**	**117.08**	**113.17**	**109.31**	**105.51**	**109.36**	**105.68**	**77.28**	**78.53**	**79.85**	**81.25**	**82.73**	**84.29**	**85.94**	**87.69**	**89.54**	**91.49**	**93.55**	**95.74**	**98.04**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellise	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs/kWh	**0.97**	0.61	0.64	0.68	0.72	0.76	0.80	0.85	0.90	0.95	1.00	1.06	1.12	1.18	1.25	1.32	1.40	1.48	1.56	1.65	1.75	1.85	1.95	2.06	2.18	2.31
Depreciation	Rs/kWh	**1.71**	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Int. on term loan	Rs/kWh	**1.48**	3.08	2.82	2.55	2.28	2.01	1.74	1.47	1.21	0.94	0.67	0.40	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.18**	0.20	0.20	0.19	0.19	0.18	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18	0.19	0.19	0.20
RoE	Rs/kWh	**2.25**	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55
Total COG	**Rs/kWh**	**6.58**	**8.07**	**7.84**	**7.60**	**7.37**	**7.14**	**6.91**	**6.68**	**6.46**	**6.24**	**6.02**	**6.24**	**6.03**	**4.41**	**4.48**	**4.56**	**4.64**	**4.72**	**4.81**	**4.91**	**5.01**	**5.11**	**5.22**	**5.34**	**5.46**	**5.60**
COG excl. RoE			**5.95**	**5.72**	**5.48**	**5.25**	**5.02**	**4.79**	**4.56**	**4.34**	**4.12**	**3.90**	**3.70**	**3.49**	**1.86**	**1.94**	**2.01**	**2.09**	**2.18**	**2.27**	**2.36**	**2.46**	**2.56**	**2.68**	**2.79**	**2.92**	**3.05**

Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085
Levellised Tariff	**6.58**	Rs/Unit																									

Determination of Accelerated Depreciation for Wind Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	619.522

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.36	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	17.84	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50.00%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	309.76	278.78	24.78	4.96	0.99	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	293.41	246.07	-7.93	-27.75	-31.72	-32.51	-32.67	-32.70	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-17.84	0.00	0.00
Tax Benefit	Rs Lakh	99.73	83.64	-2.70	-9.43	-10.78	-11.05	-11.10	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-6.06	0.00	0.00
Energy generation	MU	0.88	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
Per unit benefit	Rs/Unit	11.38	4.77	-0.15	-0.54	-0.62	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.63	-0.35	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Tax Benefit Levellised	11.77		5.30																		
Electricity Generation (Levellised)	1.66																				
Levellised benefit	**0.71**	**Rs/Unit**																			

Assumptions: Wind Energy Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Wind Zone 2
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	22%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	619.522
3	**Sources of Fund**				
			Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	433.665
			Total Equity Amout	Rs Lacs	185.857
		Debt Component			
			Loan Amount	Rs Lacs	433.67
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	185.86
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.40%
			Discount Rate		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O &M (FY15-16)		Rs Lacs/MW	10.63
		Total O & M Expenses Escalation		%	5.72%
		O &M (FY12-13)		Rs Lacs/MW	9.00

Determination of Tariff

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross/Net Generation	MU		1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93

Fixed Cost	Unit	Year--->	1	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
O&M Expenses	Rs Lakh		10.63	11.24	11.89	12.57	13.28	14.04	14.85	15.70	16.59	17.54	18.55	19.61	20.73	21.92	23.17	24.49	25.90	27.38	28.94	30.60	32.35	34.20	36.16	38.22	40.41
Depreciation	Rs Lakh		36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55
Interest on term loan	Rs Lakh		54.03	49.33	44.63	39.93	35.24	30.54	25.84	21.14	16.44	11.75	7.05	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		3.52	3.44	3.37	3.30	3.23	3.17	3.10	3.04	2.98	2.93	3.04	3.00	2.39	2.46	2.53	2.60	2.68	2.76	2.85	2.94	3.03	3.14	3.24	3.36	3.48
Return on Equity	Rs Lakh		37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61
Total Fixed Cost	**Rs Lakh**		**141.47**	**137.31**	**133.18**	**129.09**	**125.04**	**121.04**	**117.08**	**113.17**	**109.31**	**105.51**	**109.36**	**105.68**	**77.28**	**78.53**	**79.85**	**81.25**	**82.73**	**84.29**	**85.94**	**87.69**	**89.54**	**91.49**	**93.55**	**95.74**	**98.04**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellise	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs/kWh	**0.88**	0.55	0.58	0.62	0.65	0.69	0.73	0.77	0.81	0.86	0.91	0.96	1.02	1.08	1.14	1.20	1.27	1.34	1.42	1.50	1.59	1.68	1.77	1.88	1.98	2.10
Depreciation	Rs/kWh	**1.55**	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Int. on term loan	Rs/kWh	**1.35**	2.80	2.56	2.32	2.07	1.83	1.58	1.34	1.10	0.85	0.61	0.37	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.16**	0.18	0.18	0.17	0.17	0.17	0.16	0.16	0.16	0.15	0.15	0.16	0.16	0.12	0.13	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.16	0.17	0.17	0.18
RoE	Rs/kWh	**2.05**	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31
Total COG	**Rs/kWh**	**5.98**	**7.34**	**7.12**	**6.91**	**6.70**	**6.49**	**6.28**	**6.08**	**5.87**	**5.67**	**5.47**	**5.67**	**5.48**	**4.01**	**4.07**	**4.14**	**4.22**	**4.29**	**4.37**	**4.46**	**4.55**	**4.65**	**4.75**	**4.85**	**4.97**	**5.09**
COG excl. RoE			**5.41**	**5.20**	**4.98**	**4.77**	**4.56**	**4.35**	**4.15**	**3.94**	**3.74**	**3.55**	**3.36**	**3.17**	**1.70**	**1.76**	**1.83**	**1.90**	**1.98**	**2.06**	**2.15**	**2.24**	**2.33**	**2.43**	**2.54**	**2.65**	**2.77**

Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085
Levellised Tariff	**5.98**	Rs/Unit																									

Determination of Accelerated Depreciation for Wind Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	619.522

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.36	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	17.84	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50.00%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	309.76	278.78	24.78	4.96	0.99	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	293.41	246.07	-7.93	-27.75	-31.72	-32.51	-32.67	-32.70	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-17.84	0.00	0.00
Tax Benefit	Rs Lakh	99.73	83.64	-2.70	-9.43	-10.78	-11.05	-11.10	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-6.06	0.00	0.00
Energy generation	MU	0.96	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93
Per unit benefit	Rs/Unit	10.35	4.34	-0.14	-0.49	-0.56	-0.57	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.31	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Tax Benefit Levellised	11.77		4.82																		
Electricity Generation (Levellised)	1.82																				
Levellised benefit	**0.65**	**Rs/Unit**																			

Assumptions: Wind Energy Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Wind Zone 3
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	25%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	619.522
3	**Sources of Fund**				
			Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	433.665
			Total Equity Amout	Rs Lacs	185.857
		Debt Component			
			Loan Amount	Rs Lacs	433.67
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	185.86
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.40%
			Discount Rate		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O &M (FY15-16)		Rs Lacs/MW	10.63
		Total O & M Expenses Escalation		%	5.72%
		O &M (FY12-13)		Rs Lacs/MW	9.00

Determination of Tariff

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross/Net Generation	MU		2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19

Fixed Cost	Unit	Year--->	1	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
O&M Expenses	Rs Lakh		10.63	11.24	11.89	12.57	13.28	14.04	14.85	15.70	16.59	17.54	18.55	19.61	20.73	21.92	23.17	24.49	25.90	27.38	28.94	30.60	32.35	34.20	36.16	38.22	40.41
Depreciation	Rs Lakh		36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55
Interest on term loan	Rs Lakh		54.03	49.33	44.63	39.93	35.24	30.54	25.84	21.14	16.44	11.75	7.05	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		3.52	3.44	3.37	3.30	3.23	3.17	3.10	3.04	2.98	2.93	3.04	3.00	2.39	2.46	2.53	2.60	2.68	2.76	2.85	2.94	3.03	3.14	3.24	3.36	3.48
Return on Equity	Rs Lakh		37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61
Total Fixed Cost	**Rs Lakh**		**141.47**	**137.31**	**133.18**	**129.09**	**125.04**	**121.04**	**117.08**	**113.17**	**109.31**	**105.51**	**109.36**	**105.68**	**77.28**	**78.53**	**79.85**	**81.25**	**82.73**	**84.29**	**85.94**	**87.69**	**89.54**	**91.49**	**93.55**	**95.74**	**98.04**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellise	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs/kWh	**0.77**	0.49	0.51	0.54	0.57	0.61	0.64	0.68	0.72	0.76	0.80	0.85	0.90	0.95	1.00	1.06	1.12	1.18	1.25	1.32	1.40	1.48	1.56	1.65	1.75	1.85
Depreciation	Rs/kWh	**1.37**	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Int. on term loan	Rs/kWh	**1.18**	2.47	2.25	2.04	1.82	1.61	1.39	1.18	0.97	0.75	0.54	0.32	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.14**	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13	0.14	0.14	0.11	0.11	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.15	0.15	0.16
RoE	Rs/kWh	**1.80**	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04
Total COG	**Rs/kWh**	**5.27**	**6.46**	**6.27**	**6.08**	**5.89**	**5.71**	**5.53**	**5.35**	**5.17**	**4.99**	**4.82**	**4.99**	**4.83**	**3.53**	**3.59**	**3.65**	**3.71**	**3.78**	**3.85**	**3.92**	**4.00**	**4.09**	**4.18**	**4.27**	**4.37**	**4.48**
COG excl. RoE			**4.76**	**4.57**	**4.38**	**4.20**	**4.01**	**3.83**	**3.65**	**3.47**	**3.29**	**3.12**	**2.96**	**2.79**	**1.49**	**1.55**	**1.61**	**1.67**	**1.74**	**1.81**	**1.89**	**1.97**	**2.05**	**2.14**	**2.24**	**2.33**	**2.44**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085
Levellised Tariff	**5.27**	Rs/Unit																									

Determination of Accelerated Depreciation for Wind Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	619.522

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.36	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	17.84	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50.00%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	309.76	278.78	24.78	4.96	0.99	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	293.41	246.07	-7.93	-27.75	-31.72	-32.51	-32.67	-32.70	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-17.84	0.00	0.00
Tax Benefit	Rs Lakh	99.73	83.64	-2.70	-9.43	-10.78	-11.05	-11.10	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-6.06	0.00	0.00
Energy generation	MU	1.10	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19
Per unit benefit	Rs/Unit	9.11	3.82	-0.12	-0.43	-0.49	-0.50	-0.51	-0.51	-0.51	-0.51	-0.51	-0.51	-0.51	-0.51	-0.51	-0.51	-0.51	-0.28	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Tax Benefit Levellised	11.77		4.24																		
Electricity Generation (Levellised)	2.07																				
Levellised benefit	**0.57**	**Rs/Unit**																			

Assumptions: Wind Energy Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Wind Zone 4
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	30%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	619.522
3	**Sources of Fund**				
			Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	433.665
			Total Equity Amout	Rs Lacs	185.857
		Debt Component			
			Loan Amount	Rs Lacs	433.67
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	185.86
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.40%
			Discount Rate		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O &M (FY15-16)		Rs Lacs/MW	10.63
		Total O & M Expenses Escalation		%	5.72%
		O &M (FY12-13)		Rs Lacs/MW	9.00

Determination of Tariff

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross/Net Generation	MU		2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63

Fixed Cost	Unit	Year--->	1	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
O&M Expenses	Rs Lakh		10.63	11.24	11.89	12.57	13.28	14.04	14.85	15.70	16.59	17.54	18.55	19.61	20.73	21.92	23.17	24.49	25.90	27.38	28.94	30.60	32.35	34.20	36.16	38.22	40.41
Depreciation	Rs Lakh		36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55
Interest on term loan	Rs Lakh		54.03	49.33	44.63	39.93	35.24	30.54	25.84	21.14	16.44	11.75	7.05	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		3.52	3.44	3.37	3.30	3.23	3.17	3.10	3.04	2.98	2.93	3.04	3.00	2.39	2.46	2.53	2.60	2.68	2.76	2.85	2.94	3.03	3.14	3.24	3.36	3.48
Return on Equity	Rs Lakh		37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61
Total Fixed Cost	**Rs Lakh**		**141.47**	**137.31**	**133.18**	**129.09**	**125.04**	**121.04**	**117.08**	**113.17**	**109.31**	**105.51**	**109.36**	**105.68**	**77.28**	**78.53**	**79.85**	**81.25**	**82.73**	**84.29**	**85.94**	**87.69**	**89.54**	**91.49**	**93.55**	**95.74**	**98.04**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellise	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs/kWh	**0.64**	0.40	0.43	0.45	0.48	0.51	0.53	0.56	0.60	0.63	0.67	0.71	0.75	0.79	0.83	0.88	0.93	0.99	1.04	1.10	1.16	1.23	1.30	1.38	1.45	1.54
Depreciation	Rs/kWh	**1.14**	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Int. on term loan	Rs/kWh	**0.99**	2.06	1.88	1.70	1.52	1.34	1.16	0.98	0.80	0.63	0.45	0.27	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.12**	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.12	0.11	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.12	0.12	0.12	0.13	0.13
RoE	Rs/kWh	**1.50**	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
Total COG	**Rs/kWh**	**4.39**	**5.38**	**5.22**	**5.07**	**4.91**	**4.76**	**4.61**	**4.46**	**4.31**	**4.16**	**4.01**	**4.16**	**4.02**	**2.94**	**2.99**	**3.04**	**3.09**	**3.15**	**3.21**	**3.27**	**3.34**	**3.41**	**3.48**	**3.56**	**3.64**	**3.73**
COG excl. RoE			**3.97**	**3.81**	**3.65**	**3.50**	**3.34**	**3.19**	**3.04**	**2.89**	**2.74**	**2.60**	**2.46**	**2.32**	**1.24**	**1.29**	**1.34**	**1.39**	**1.45**	**1.51**	**1.57**	**1.64**	**1.71**	**1.78**	**1.86**	**1.95**	**2.03**

Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085
Levellised Tariff	**4.39**	Rs/Unit																									

Determination of Accelerated Depreciation for Wind Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	619.522

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.36	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	17.84	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50.00%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	309.76	278.78	24.78	4.96	0.99	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	293.41	246.07	-7.93	-27.75	-31.72	-32.51	-32.67	-32.70	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-17.84	0.00	0.00
Tax Benefit	Rs Lakh	99.73	83.64	-2.70	-9.43	-10.78	-11.05	-11.10	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-6.06	0.00	0.00
Energy generation	MU	1.31	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63	2.63
Per unit benefit	Rs/Unit	7.59	3.18	-0.10	-0.36	-0.41	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.42	-0.23	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Tax Benefit Levellised	11.77		3.54																		
Electricity Generation (Levellised)	2.49																				
Levellised benefit	**0.47**	**Rs/Unit**																			

Assumptions: Wind Energy Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Wind Zone 5
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	32%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	619.522
3	**Sources of Fund**				
			Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	433.665
			Total Equity Amout	Rs Lacs	185.857
		Debt Component			
			Loan Amount	Rs Lacs	433.67
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	185.86
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.40%
			Discount Rate		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O &M (FY15-16)		Rs Lacs/MW	10.63
		Total O & M Expenses Escalation		%	5.72%
		O &M (FY12-13)		Rs Lacs/MW	9.00

Determination of Tariff

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross/Net Generation	MU		2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80

Fixed Cost	Unit	Year--->	1	2	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
O&M Expenses	Rs Lakh		10.63	11.24	11.89	12.57	13.28	14.04	14.85	15.70	16.59	17.54	18.55	19.61	20.73	21.92	23.17	24.49	25.90	27.38	28.94	30.60	32.35	34.20	36.16	38.22	40.41
Depreciation	Rs Lakh		36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	36.12	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55	9.55
Interest on term loan	Rs Lakh		54.03	49.33	44.63	39.93	35.24	30.54	25.84	21.14	16.44	11.75	7.05	2.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		3.52	3.44	3.37	3.30	3.23	3.17	3.10	3.04	2.98	2.93	3.04	3.00	2.39	2.46	2.53	2.60	2.68	2.76	2.85	2.94	3.03	3.14	3.24	3.36	3.48
Return on Equity	Rs Lakh		37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	37.17	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61	44.61
Total Fixed Cost	**Rs Lakh**		**141.47**	**137.31**	**133.18**	**129.09**	**125.04**	**121.04**	**117.08**	**113.17**	**109.31**	**105.51**	**109.36**	**105.68**	**77.28**	**78.53**	**79.85**	**81.25**	**82.73**	**84.29**	**85.94**	**87.69**	**89.54**	**91.49**	**93.55**	**95.74**	**98.04**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellise	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs/kWh	**0.60**	0.38	0.40	0.42	0.45	0.47	0.50	0.53	0.56	0.59	0.63	0.66	0.70	0.74	0.78	0.83	0.87	0.92	0.98	1.03	1.09	1.15	1.22	1.29	1.36	1.44
Depreciation	Rs/kWh	**1.07**	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Int. on term loan	Rs/kWh	**0.92**	1.93	1.76	1.59	1.42	1.26	1.09	0.92	0.75	0.59	0.42	0.25	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.11**	0.13	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.10	0.11	0.11	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.11	0.11	0.12	0.12	0.12
RoE	Rs/kWh	**1.41**	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59
Total COG	**Rs/kWh**	**4.11**	**5.05**	**4.90**	**4.75**	**4.61**	**4.46**	**4.32**	**4.18**	**4.04**	**3.90**	**3.76**	**3.90**	**3.77**	**2.76**	**2.80**	**2.85**	**2.90**	**2.95**	**3.01**	**3.07**	**3.13**	**3.19**	**3.26**	**3.34**	**3.42**	**3.50**
COG excl. RoE			**3.72**	**3.57**	**3.42**	**3.28**	**3.13**	**2.99**	**2.85**	**2.71**	**2.57**	**2.44**	**2.31**	**2.18**	**1.17**	**1.21**	**1.26**	**1.31**	**1.36**	**1.42**	**1.47**	**1.54**	**1.60**	**1.67**	**1.75**	**1.82**	**1.91**

Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085
Levellised Tariff	**4.11**	Rs/Unit																									

Determination of Accelerated Depreciation for Wind Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	619.522

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.36	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	32.71	17.84	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50.00%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	309.76	278.78	24.78	4.96	0.99	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	293.41	246.07	-7.93	-27.75	-31.72	-32.51	-32.67	-32.70	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-32.71	-17.84	0.00	0.00
Tax Benefit	Rs Lakh	99.73	83.64	-2.70	-9.43	-10.78	-11.05	-11.10	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-11.12	-6.06	0.00	0.00
Energy generation	MU	1.40	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
Per unit benefit	Rs/Unit	7.12	2.98	-0.10	-0.34	-0.38	-0.39	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.40	-0.22	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Tax Benefit Levellised	11.77		3.31																		
Electricity Generation (Levellised)	2.65																				
Levellised benefit	**0.44**	**Rs/Unit**																			

Small Hydro: Assumptions Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**HP, Uttarakhand, NE States**
					Less than 5 MW
1	**Power Generation**	Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	45%
			Auxiliary Consumption	%	1%
			Useful Life	Years	35
2	**Project Cost**	Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	829.621
3	**Sources of Fund**		Tariff Period	Years	35
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	580.734
			Total Equity Amout	Rs Lacs	248.886
		Debt Component			
			Loan Amount	Rs Lacs	580.73
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Intrest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	248.89
			Normative ROE (Post-tax)		16%
			Return on Equity for first 10 years	% p.a	20%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.86%
			Discount Rate		10.81%
4	**Financial Assumptions**		Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	0.87%
5	**Working Capital**	For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		Intrest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	29.54
		Total O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)			25.00

Determination of Tariff Component:

Units Generation	Unit	Year--->	1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M Expenses	Rs Lakh		29.54	31.23	33.02	34.90	36.90	39.01	41.24	43.60	46.10	48.73	51.52	54.47	57.58	60.88	64.36	68.04	71.93	76.05	80.40	85.00	89.86	95.00	100.43	106.18	112.25	118.67	125.46	132.63	140.22	148.24	156.72	165.69	175.16	185.18	195.77
Depreciation	Rs Lakh		48.37	48.37	48.37	48.37	48.37	48.37	48.37	48.37	48.37	48.37	48.37	48.37	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
Interest on term loan	Rs Lakh		72.35	66.06	59.77	53.48	47.18	40.89	34.60	28.31	22.02	15.73	9.44	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working C	Rs Lakh		5.56	5.50	5.46	5.42	5.38	5.36	5.33	5.32	5.31	5.31	5.55	5.57	4.72	4.90	5.10	5.30	5.52	5.74	5.98	6.24	6.51	6.79	7.09	7.41	7.74	8.10	8.47	8.87	9.29	9.73	10.20	10.69	11.22	11.77	12.36
Return on Equity	Rs Lakh		49.78	49.78	49.78	49.78	49.78	49.78	49.78	49.78	49.78	49.78	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73	59.73
Total Fixed Cost	**Rs Lakh**		**205.59**	**200.94**	**196.39**	**191.94**	**187.61**	**183.40**	**179.32**	**175.38**	**171.57**	**167.92**	**174.61**	**171.28**	**129.27**	**132.74**	**136.42**	**140.30**	**144.41**	**148.75**	**153.34**	**158.19**	**163.32**	**168.75**	**174.48**	**180.54**	**186.95**	**193.73**	**200.89**	**208.46**	**216.47**	**224.93**	**233.88**	**243.34**	**253.34**	**263.91**	**275.09**

Levallised tariff corresponding to Useful life

Per Unit Cost of Ger	Unit		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M expn	Rs/kWh	**1.33**	0.76	0.80	0.85	0.89	0.95	1.00	1.06	1.12	1.18	1.25	1.32	1.40	1.48	1.56	1.65	1.74	1.84	1.95	2.06	2.18	2.30	2.43	2.57	2.72	2.88	3.04	3.21	3.40	3.59	3.80	4.02	4.25	4.49	4.75	5.02
Depreciation	Rs/kWh	**0.95**	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19
Int. on term loan	Rs/kWh	**0.84**	1.85	1.69	1.53	1.37	1.21	1.05	0.89	0.73	0.56	0.40	0.24	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capita	Rs/kWh	**0.15**	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.12	0.13	0.13	0.14	0.14	0.15	0.15	0.16	0.17	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.29	0.30	0.32
RoE	Rs/kWh	**1.36**	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53	1.53
Total COG	**Rs/kWh**	**4.64**	**5.27**	**5.15**	**5.03**	**4.92**	**4.81**	**4.70**	**4.60**	**4.49**	**4.40**	**4.30**	**4.47**	**4.39**	**3.31**	**3.40**	**3.50**	**3.60**	**3.70**	**3.81**	**3.93**	**4.05**	**4.19**	**4.32**	**4.47**	**4.63**	**4.79**	**4.96**	**5.15**	**5.34**	**5.55**	**5.76**	**5.99**	**6.24**	**6.49**	**6.76**	**7.05**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085	0.077	0.069	0.063	0.057	0.051	0.046	0.042	0.037	0.034	0.031
Levellised Tariff	**4.64**	**Rs/Unit**																																			

Determination of Accelerated Depreciation

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates	33.99%
Capital Cost	829.6

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Years---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs Lakh	21.90	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	43.80	23.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																																				
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	414.81	373.33	33.18	6.64	1.33	0.27	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	392.91	329.53	-10.62	-37.17	-42.48	-43.54	-43.75	-43.79	-43.80	-43.80	-43.80	-43.80	-43.80	-43.80	-43.80	-43.80	-43.80	-23.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax Benefit	Rs Lakh	133.55	112.01	-3.61	-12.63	-14.44	-14.80	-14.87	-14.89	-14.89	-14.89	-14.89	-14.89	-14.89	-14.89	-14.89	-14.89	-14.89	-8.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy generation	MU	1.95	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90
Per unit benefit	Rs/Unit	6.84	2.87	-0.09	-0.32	-0.37	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.38	-0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03

Tax Benefit Levellised	14.12	
Electricity Generation (Leve	3.72	
Levellised benefit	**0.38**	**Rs/Unit**

Small Hydro: Assumptions Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**HP, Uttarakhand, NE States**
					5 MW to 25 MW
1	**Power Generation**	Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	45%
			Auxiliary Consumption	%	1%
			Useful Life	Years	35
2	**Project Cost**	Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	754.201
3	**Sources of Fund**		Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	527.940
			Total Equity Amout	Rs Lacs	226.260
		Debt Component			
			Loan Amount	Rs Lacs	527.94
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Intrest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	226.26
			Normative ROE (Post-tax)		16%
			Return on Equity for first 10 years	% p.a	20%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.86%
			Discount Rate		10.81%
4	**Financial Assumptions**		Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	0.87%
5	**Working Capital**	For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		Intrest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	21.27
		Total O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)			18.00

Determination of Tariff Component:

Units Generation	Unit	Year--->	1	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M Expenses	Rs Lakh		21.27	22.49	23.77	25.13	26.57	28.09	29.70	31.39	33.19	35.09	37.10	39.22	41.46	43.83	46.34	48.99	51.79	54.75	57.89	61.20	64.70	68.40	72.31	76.45	80.82	85.44	90.33	95.50	100.96	106.73	112.84	119.29	126.12	133.33	140.96
Depreciation	Rs Lakh		43.97	43.97	43.97	43.97	43.97	43.97	43.97	43.97	43.97	43.97	43.97	43.97	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57	6.57
Interest on term loan	Rs Lakh		65.77	60.05	54.33	48.61	42.90	37.18	31.46	25.74	20.02	14.30	8.58	2.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working C	Rs Lakh		4.74	4.68	4.62	4.56	4.51	4.46	4.42	4.38	4.35	4.32	4.51	4.49	3.69	3.82	3.96	4.11	4.26	4.43	4.60	4.78	4.98	5.18	5.40	5.62	5.87	6.12	6.39	6.68	6.98	7.30	7.63	7.99	8.37	8.77	9.19
Return on Equity	Rs Lakh		45.25	45.25	45.25	45.25	45.25	45.25	45.25	45.25	45.25	45.25	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30	54.30
Total Fixed Cost	**Rs Lakh**		**181.01**	**176.44**	**171.94**	**167.53**	**163.19**	**158.95**	**154.79**	**150.73**	**146.78**	**142.93**	**148.46**	**144.84**	**106.03**	**108.53**	**111.17**	**113.97**	**116.93**	**120.05**	**123.36**	**126.85**	**130.55**	**134.45**	**138.58**	**142.94**	**147.56**	**152.44**	**157.59**	**163.05**	**168.81**	**174.90**	**181.35**	**188.16**	**195.36**	**202.97**	**211.02**

Levallised tariff corresponding to Useful life

Per Unit Cost of Gen	Unit		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M expn	Rs/kWh	**0.96**	0.54	0.58	0.61	0.64	0.68	0.72	0.76	0.80	0.85	0.90	0.95	1.00	1.06	1.12	1.19	1.26	1.33	1.40	1.48	1.57	1.66	1.75	1.85	1.96	2.07	2.19	2.31	2.45	2.59	2.73	2.89	3.06	3.23	3.42	3.61
Depreciation	Rs/kWh	**0.87**	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.77**	1.69	1.54	1.39	1.25	1.10	0.95	0.81	0.66	0.51	0.37	0.22	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.12**	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.09	0.10	0.10	0.11	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.22	0.24
RoE	Rs/kWh	**1.24**	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
Total COG	**Rs/kWh**	**3.95**	**4.64**	**4.52**	**4.41**	**4.29**	**4.18**	**4.07**	**3.97**	**3.86**	**3.76**	**3.66**	**3.80**	**3.71**	**2.72**	**2.78**	**2.85**	**2.92**	**3.00**	**3.08**	**3.16**	**3.25**	**3.35**	**3.45**	**3.55**	**3.66**	**3.78**	**3.91**	**4.04**	**4.18**	**4.33**	**4.48**	**4.65**	**4.82**	**5.01**	**5.20**	**5.41**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085	0.077	0.069	0.063	0.057	0.051	0.046	0.042	0.037	0.034	0.031
Levellised Tariff	**3.95**	**Rs/Unit**																																			

Determination of Accelerated Depreciation

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates	33.99%
Capital Cost	754.2

2

Years---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs Lakh	19.91	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	39.82	21.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																																				
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	377.10	339.39	30.17	6.03	1.21	0.24	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	357.19	299.57	-9.65	-33.79	-38.62	-39.58	-39.77	-39.81	-39.82	-39.82	-39.82	-39.82	-39.82	-39.82	-39.82	-39.82	-39.82	-21.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax Benefit	Rs Lakh	121.41	101.82	-3.28	-11.48	-13.13	-13.45	-13.52	-13.53	-13.53	-13.54	-13.54	-13.54	-13.54	-13.54	-13.54	-13.54	-13.54	-7.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy generation	MU	1.95	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90
Per unit benefit	Rs/Unit	6.22	2.61	-0.08	-0.29	-0.34	-0.34	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.35	-0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03

Tax Benefit Levellised	12.84	
Electricity Generation (Leve	3.72	
Levellised benefit	**0.35**	**Rs/Unit**

Small Hydro: Assumptions Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Other States**
					Less than 5 MW
1	**Power Generation**	Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	30%
			Auxiliary Consumption	%	1%
			Useful Life	Years	35
2	**Project Cost**	Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	646.458
3	**Sources of Fund**		Tariff Period	Years	35
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	452.520
			Total Equity Amout	Rs Lacs	193.937
		Debt Component			
			Loan Amount	Rs Lacs	452.52
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Intrest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	193.94
			Normative ROE (Post-tax)		16%
			Return on Equity for first 10 years	% p.a	20%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.86%
			Discount Rate		10.81%
4	**Financial Assumptions**		Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	0.87%
5	**Working Capital**	For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		Intrest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	23.63
		Total O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)			20.00

Determination of Tariff Component:

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M Expenses	Rs Lakh		23.63	24.98	26.41	27.92	29.52	31.21	32.99	34.88	36.88	38.99	41.22	43.57	46.07	48.70	51.49	54.43	57.55	60.84	64.32	68.00	71.89	76.00	80.35	84.94	89.80	94.94	100.37	106.11	112.18	118.59	125.38	132.55	140.13	148.15	156.62
Depreciation	Rs Lakh		37.69	37.69	37.69	37.69	37.69	37.69	37.69	37.69	37.69	37.69	37.69	37.69	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63	5.63
Interest on term loan	Rs Lakh		56.38	51.47	46.57	41.67	36.77	31.86	26.96	22.06	17.16	12.26	7.35	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working C	Rs Lakh		4.36	4.33	4.29	4.26	4.24	4.22	4.20	4.20	4.19	4.20	4.39	4.40	3.75	3.89	4.05	4.21	4.38	4.56	4.75	4.96	5.17	5.40	5.64	5.89	6.16	6.45	6.75	7.06	7.40	7.75	8.13	8.52	8.94	9.38	9.85
Return on Equity	Rs Lakh		38.79	38.79	38.79	38.79	38.79	38.79	38.79	38.79	38.79	38.79	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54	46.54
Total Fixed Cost	**Rs Lakh**		**160.85**	**157.26**	**153.75**	**150.33**	**147.00**	**143.77**	**140.64**	**137.61**	**134.70**	**131.91**	**137.19**	**134.66**	**101.99**	**104.77**	**107.71**	**110.82**	**114.10**	**117.58**	**121.25**	**125.13**	**129.24**	**133.57**	**138.16**	**143.01**	**148.14**	**153.56**	**159.29**	**165.35**	**171.75**	**178.52**	**185.68**	**193.25**	**201.25**	**209.71**	**218.65**

Levallised tariff corresponding to Useful life

Per Unit Cost of Gen	Unit		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M expn	Rs/kWh	**1.60**	0.91	0.96	1.02	1.07	1.13	1.20	1.27	1.34	1.42	1.50	1.58	1.67	1.77	1.87	1.98	2.09	2.21	2.34	2.47	2.61	2.76	2.92	3.09	3.26	3.45	3.65	3.86	4.08	4.31	4.56	4.82	5.09	5.39	5.69	6.02
Depreciation	Rs/kWh	**1.11**	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.99**	2.17	1.98	1.79	1.60	1.41	1.22	1.04	0.85	0.66	0.47	0.28	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capita	Rs/kWh	**0.17**	0.17	0.17	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.17	0.14	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.38
RoE	Rs/kWh	**1.59**	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79	1.79
Total COG	**Rs/kWh**	**5.47**	**6.18**	**6.04**	**5.91**	**5.78**	**5.65**	**5.53**	**5.41**	**5.29**	**5.18**	**5.07**	**5.27**	**5.18**	**3.92**	**4.03**	**4.14**	**4.26**	**4.39**	**4.52**	**4.66**	**4.81**	**4.97**	**5.13**	**5.31**	**5.50**	**5.69**	**5.90**	**6.12**	**6.36**	**6.60**	**6.86**	**7.14**	**7.43**	**7.74**	**8.06**	**8.40**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085	0.077	0.069	0.063	0.057	0.051	0.046	0.042	0.037	0.034	0.031
Levellised Tariff	**5.47**	**Rs/Unit**																																			

Determination of Accelerated Depreciation

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates	33.99%
Capital Cost	646.5

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Years---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.07	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	34.13	18.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																																				
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	323.23	290.91	25.86	5.17	1.03	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	306.16	256.77	-8.27	-28.96	-33.10	-33.93	-34.09	-34.12	-34.13	-34.13	-34.13	-34.13	-34.13	-34.13	-34.13	-34.13	-34.13	-18.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax Benefit	Rs Lakh	104.06	87.28	-2.81	-9.84	-11.25	-11.53	-11.59	-11.60	-11.60	-11.60	-11.60	-11.60	-11.60	-11.60	-11.60	-11.60	-11.60	-6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy generation	MU	1.30	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
Per unit benefit	Rs/Unit	8.00	3.35	-0.11	-0.38	-0.43	-0.44	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.45	-0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03

Tax Benefit Levellised	11.00	
Electricity Generation (Leve	2.48	
Levellised benefit	**0.44**	**Rs/Unit**

Small Hydro: Assumptions Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Other States**
					5 MW to 25 MW
1	**Power Generation**	Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	30%
			Auxiliary Consumption	%	1%
			Useful Life	Years	35
2	**Project Cost**	Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	592.586
3	**Sources of Fund**		Tariff Period	Years	13
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	414.810
			Total Equity Amout	Rs Lacs	177.776
		Debt Component			
			Loan Amount	Rs Lacs	414.81
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Intrest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	177.78
			Normative ROE (Post-tax)		16%
			Return on Equity for first 10 years	% p.a	20%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.86%
			Discount Rate		10.81%
4	**Financial Assumptions**		Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	0.87%
5	**Working Capital**	For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		Intrest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	16.54
		Total O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)			14.00

Determination of Tariff Component:

Units Generation	Unit	Year--->	1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M Expenses	Rs Lakh		16.54	17.49	18.49	19.55	20.66	21.85	23.10	24.42	25.81	27.29	28.85	30.50	32.25	34.09	36.04	38.10	40.28	42.59	45.02	47.60	50.32	53.20	56.24	59.46	62.86	66.46	70.26	74.28	78.52	83.02	87.76	92.78	98.09	103.70	109.63
Depreciation	Rs Lakh		34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	34.55	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Interest on term loan	Rs Lakh		51.68	47.18	42.69	38.20	33.70	29.21	24.72	20.22	15.73	11.23	6.74	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working C	Rs Lakh		3.72	3.67	3.62	3.57	3.53	3.49	3.46	3.43	3.40	3.38	3.53	3.51	2.88	2.98	3.09	3.21	3.33	3.45	3.59	3.73	3.88	4.04	4.21	4.39	4.57	4.77	4.98	5.20	5.44	5.69	5.95	6.23	6.52	6.83	7.16
Return on Equity	Rs Lakh		35.56	35.56	35.56	35.56	35.56	35.56	35.56	35.56	35.56	35.56	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67	42.67
Total Fixed Cost	**Rs Lakh**		**142.04**	**138.44**	**134.90**	**131.42**	**128.00**	**124.65**	**121.37**	**118.17**	**115.05**	**112.01**	**116.33**	**113.48**	**82.96**	**84.90**	**86.96**	**89.14**	**91.44**	**93.87**	**96.44**	**99.16**	**102.03**	**105.07**	**108.28**	**111.67**	**115.26**	**119.06**	**123.07**	**127.31**	**131.79**	**136.53**	**141.54**	**146.84**	**152.44**	**158.36**	**164.62**

Levallised tariff corresponding to Useful life

Per Unit Cost of Gen	Unit		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
O&M expn	Rs/kWh	**1.12**	0.64	0.67	0.71	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.39	1.46	1.55	1.64	1.73	1.83	1.93	2.04	2.16	2.29	2.42	2.55	2.70	2.85	3.02	3.19	3.37	3.57	3.77	3.99	4.21
Depreciation	Rs/kWh	**1.02**	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Int. on term loan	Rs/kWh	**0.90**	1.99	1.81	1.64	1.47	1.30	1.12	0.95	0.78	0.60	0.43	0.26	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capita	Rs/kWh	**0.14**	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.13	0.14	0.14	0.11	0.11	0.12	0.12	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.28
RoE	Rs/kWh	**1.46**	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64	1.64
Total COG	**Rs/kWh**	**4.65**	**5.46**	**5.32**	**5.19**	**5.05**	**4.92**	**4.79**	**4.67**	**4.54**	**4.42**	**4.31**	**4.47**	**4.36**	**3.19**	**3.26**	**3.34**	**3.43**	**3.51**	**3.61**	**3.71**	**3.81**	**3.92**	**4.04**	**4.16**	**4.29**	**4.43**	**4.58**	**4.73**	**4.89**	**5.07**	**5.25**	**5.44**	**5.64**	**5.86**	**6.09**	**6.33**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085	0.077	0.069	0.063	0.057	0.051	0.046	0.042	0.037	0.034	0.031
Levellised Tariff	**4.65**	**Rs/Unit**																																			

Determination of Accelerated Depreciation

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates	33.99%
Capital Cost	592.6

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Years---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.64	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	31.29	17.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																																				
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	296.29	266.66	23.70	4.74	0.95	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	280.65	235.38	-7.59	-26.55	-30.34	-31.10	-31.25	-31.28	-31.29	-31.29	-31.29	-31.29	-31.29	-31.29	-31.29	-31.29	-31.29	-17.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax Benefit	Rs Lakh	95.39	80.00	-2.58	-9.02	-10.31	-10.57	-10.62	-10.63	-10.63	-10.63	-10.63	-10.63	-10.63	-10.63	-10.63	-10.63	-10.63	-5.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy generation	MU	1.30	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60
Per unit benefit	Rs/Unit	7.33	3.08	-0.10	-0.35	-0.40	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.41	-0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.03

Tax Benefit Levellised	10.09	
Electricity Generation (Leve	2.48	
Levellised benefit	**0.41**	**Rs/Unit**

			Select State		AP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2940.31
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		226.83	293.13	307.79	323.18	339.34	356.30	374.12	392.83	412.47	433.09	454.74	477.48	501.36	526.42	552.74	580.38	609.40	639.87	671.86	705.46
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.78	25.40	26.46	27.59	28.77	30.02	31.34	32.73	34.20	35.75	37.53	39.25	40.68	42.69	44.80	47.01	49.34	51.79	54.36	57.07
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**180.30**	**183.24**	**182.77**	**182.52**	**182.49**	**182.70**	**183.16**	**183.88**	**184.89**	**186.19**	**194.66**	**196.60**	**182.05**	**189.05**	**196.42**	**204.21**	**212.43**	**221.11**	**230.26**	**239.93**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.24**	4.48	4.65	4.88	5.12	5.38	5.65	5.93	6.23	6.54	6.87	7.21	7.57	7.95	8.35	8.76	9.20	9.66	10.15	10.65	11.18
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.52**	0.41	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.60	0.62	0.65	0.68	0.71	0.75	0.78	0.82	0.86	0.90
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**9.30**	**8.03**	**7.55**	**7.78**	**8.02**	**8.27**	**8.55**	**8.84**	**9.14**	**9.47**	**9.82**	**10.30**	**10.69**	**10.84**	**11.34**	**11.88**	**12.44**	**13.03**	**13.65**	**14.30**	**14.99**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.48	Rs/Kwh
Levellised Tariff (Fixed)	3.06	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.53**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		Harayana
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3346.75
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		258.18	333.65	350.33	367.85	386.24	405.56	425.83	447.13	469.48	492.96	517.60	543.48	570.66	599.19	629.15	660.61	693.64	728.32	764.74	802.97

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		22.94	28.20	29.40	30.67	32.01	33.42	34.91	36.48	38.14	39.88	41.87	43.81	45.47	47.71	50.07	52.55	55.16	57.90	60.78	63.80
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**182.47**	**186.04**	**185.71**	**185.60**	**185.73**	**186.10**	**186.73**	**187.63**	**188.82**	**190.32**	**199.00**	**201.16**	**186.84**	**194.07**	**201.70**	**209.75**	**218.25**	**227.21**	**236.68**	**246.66**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**7.10**	5.09	5.29	5.55	5.83	6.12	6.43	6.75	7.09	7.44	7.82	8.21	8.62	9.05	9.50	9.98	10.47	11.00	11.55	12.12	12.73
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.58**	0.45	0.45	0.47	0.49	0.51	0.53	0.55	0.58	0.60	0.63	0.66	0.69	0.72	0.76	0.79	0.83	0.87	0.92	0.96	1.01
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**10.22**	**8.70**	**8.24**	**8.50**	**8.77**	**9.07**	**9.38**	**9.71**	**10.06**	**10.44**	**10.83**	**11.36**	**11.81**	**12.01**	**12.58**	**13.17**	**13.80**	**14.46**	**15.15**	**15.88**	**16.64**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.09	Rs/Kwh
Levellised Tariff (Fixed)	3.12	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.21**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		Maharashtra
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3422.95
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		264.06	341.25	358.31	376.23	395.04	414.79	435.53	457.31	480.17	504.18	529.39	555.86	583.65	612.83	643.48	675.65	709.43	744.90	782.15	821.26

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.35	28.72	29.95	31.25	32.62	34.06	35.58	37.18	38.87	40.66	42.69	44.66	46.37	48.66	51.06	53.59	56.25	59.04	61.98	65.07
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**182.87**	**186.57**	**186.26**	**186.18**	**186.34**	**186.74**	**187.40**	**188.33**	**189.56**	**191.10**	**199.81**	**202.01**	**187.74**	**195.01**	**202.69**	**210.79**	**219.34**	**228.36**	**237.88**	**247.92**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**7.26**	5.21	5.41	5.68	5.97	6.26	6.58	6.91	7.25	7.61	7.99	8.39	8.81	9.25	9.72	10.20	10.71	11.25	11.81	12.40	13.02
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.59**	0.46	0.46	0.47	0.50	0.52	0.54	0.56	0.59	0.62	0.64	0.68	0.71	0.74	0.77	0.81	0.85	0.89	0.94	0.98	1.03
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**10.39**	**8.82**	**8.37**	**8.63**	**8.92**	**9.22**	**9.54**	**9.88**	**10.24**	**10.62**	**11.02**	**11.56**	**12.02**	**12.23**	**12.81**	**13.42**	**14.05**	**14.73**	**15.43**	**16.17**	**16.95**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.21	Rs/Kwh
Levellised Tariff (Fixed)	3.13	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.34**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		Punjab
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3500.42
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		270.04	348.97	366.42	384.74	403.98	424.18	445.39	467.66	491.04	515.59	541.37	568.44	596.86	626.70	658.04	690.94	725.49	761.76	799.85	839.84
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.76	29.25	30.51	31.84	33.23	34.71	36.26	37.90	39.62	41.44	43.51	45.53	47.28	49.61	52.07	54.65	57.36	60.21	63.20	66.35
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**183.29**	**187.10**	**186.82**	**186.77**	**186.95**	**187.38**	**188.08**	**189.05**	**190.31**	**191.88**	**200.64**	**202.88**	**188.65**	**195.97**	**203.69**	**211.85**	**220.45**	**229.52**	**239.10**	**249.21**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**7.42**	5.33	5.53	5.81	6.10	6.41	6.73	7.06	7.41	7.79	8.17	8.58	9.01	9.46	9.94	10.43	10.95	11.50	12.08	12.68	13.32
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.61**	0.47	0.46	0.48	0.50	0.53	0.55	0.57	0.60	0.63	0.66	0.69	0.72	0.75	0.79	0.83	0.87	0.91	0.95	1.00	1.05
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**10.57**	**8.95**	**8.50**	**8.77**	**9.06**	**9.37**	**9.70**	**10.04**	**10.41**	**10.80**	**11.22**	**11.76**	**12.23**	**12.45**	**13.04**	**13.66**	**14.31**	**15.00**	**15.72**	**16.47**	**17.27**
Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.33	Rs/Kwh
Levellised Tariff (Fixed)	3.14	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.47**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		Rajasthan
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2921.25
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		225.36	291.23	305.79	321.08	337.14	353.99	371.69	390.28	409.79	430.28	451.80	474.39	498.11	523.01	549.16	576.62	605.45	635.72	667.51	700.89

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.67	25.27	26.32	27.44	28.62	29.86	31.17	32.56	34.01	35.55	37.33	39.04	40.46	42.45	44.55	46.75	49.07	51.51	54.06	56.75
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**180.20**	**183.11**	**182.64**	**182.37**	**182.34**	**182.54**	**182.99**	**183.71**	**184.70**	**185.99**	**194.46**	**196.39**	**181.83**	**188.81**	**196.18**	**203.95**	**212.16**	**220.82**	**229.96**	**239.61**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.20**	4.45	4.62	4.85	5.09	5.35	5.61	5.89	6.19	6.50	6.82	7.16	7.52	7.90	8.29	8.71	9.14	9.60	10.08	10.58	11.11
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.52**	0.41	0.40	0.42	0.44	0.45	0.47	0.49	0.52	0.54	0.56	0.59	0.62	0.64	0.67	0.71	0.74	0.78	0.82	0.86	0.90
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**9.25**	**8.00**	**7.52**	**7.74**	**7.98**	**8.24**	**8.51**	**8.79**	**9.10**	**9.43**	**9.77**	**10.25**	**10.64**	**10.78**	**11.29**	**11.82**	**12.38**	**12.96**	**13.58**	**14.23**	**14.91**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.45	Rs/Kwh
Levellised Tariff (Fixed)	3.06	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.50**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		TN
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2892.03
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		223.10	288.32	302.74	317.87	333.77	350.45	367.98	386.38	405.69	425.98	447.28	469.64	493.12	517.78	543.67	570.85	599.40	629.37	660.83	693.88

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.52	25.07	26.11	27.22	28.39	29.62	30.92	32.29	33.73	35.26	37.02	38.71	40.11	42.09	44.17	46.36	48.65	51.07	53.60	56.27
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**180.04**	**182.91**	**182.43**	**182.15**	**182.10**	**182.29**	**182.73**	**183.44**	**184.42**	**185.70**	**194.14**	**196.06**	**181.49**	**188.45**	**195.80**	**203.55**	**211.74**	**220.38**	**229.50**	**239.13**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.13**	4.40	4.57	4.80	5.04	5.29	5.56	5.83	6.13	6.43	6.75	7.09	7.45	7.82	8.21	8.62	9.05	9.50	9.98	10.48	11.00
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.52**	0.40	0.40	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.56	0.59	0.61	0.64	0.67	0.70	0.73	0.77	0.81	0.85	0.89
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**9.19**	**7.96**	**7.47**	**7.69**	**7.93**	**8.18**	**8.45**	**8.73**	**9.03**	**9.36**	**9.70**	**10.17**	**10.55**	**10.70**	**11.20**	**11.72**	**12.28**	**12.86**	**13.47**	**14.12**	**14.79**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.40	Rs/Kwh
Levellised Tariff (Fixed)	3.05	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.45**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		UP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2991.10
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		230.75	298.20	313.11	328.76	345.20	362.46	380.58	399.61	419.59	440.57	462.60	485.73	510.02	535.52	562.29	590.41	619.93	650.93	683.47	717.65
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.05	25.75	26.83	27.97	29.18	30.45	31.79	33.20	34.69	36.26	38.07	39.82	41.28	43.32	45.46	47.71	50.07	52.55	55.17	57.91
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**180.57**	**183.59**	**183.14**	**182.90**	**182.89**	**183.12**	**183.60**	**184.35**	**185.38**	**186.70**	**195.20**	**197.17**	**182.65**	**189.67**	**197.08**	**204.90**	**213.16**	**221.87**	**231.06**	**240.77**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.34**	4.55	4.73	4.96	5.21	5.47	5.75	6.03	6.34	6.65	6.99	7.33	7.70	8.09	8.49	8.92	9.36	9.83	10.32	10.84	11.38
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.53**	0.42	0.41	0.43	0.44	0.46	0.48	0.50	0.53	0.55	0.57	0.60	0.63	0.65	0.69	0.72	0.76	0.79	0.83	0.87	0.92
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**9.41**	**8.12**	**7.64**	**7.87**	**8.11**	**8.37**	**8.65**	**8.95**	**9.26**	**9.59**	**9.95**	**10.43**	**10.83**	**10.98**	**11.50**	**12.04**	**12.61**	**13.21**	**13.84**	**14.50**	**15.20**
Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.55	Rs/Kwh
Levellised Tariff (Fixed)	3.07	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.62**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		Others
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	558.705
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	391.093
			Total Equity Amout	Rs Lacs	167.611
		Debt Component			
			Loan Amount	Rs Lacs	391.093
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	167.611
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3144.80
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		242.60	313.52	329.19	345.65	362.94	381.08	400.14	420.15	441.15	463.21	486.37	510.69	536.22	563.03	591.19	620.75	651.78	684.37	718.59	754.52

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	32.57	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Interest on term loan	Rs Lakh		48.72	44.49	40.25	36.01	31.78	27.54	23.30	19.07	14.83	10.59	6.36	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.87	26.81	27.94	29.14	30.40	31.73	33.14	34.62	36.18	37.83	39.72	41.54	43.09	45.22	47.45	49.80	52.27	54.86	57.59	60.46
Return on Equity	Rs Lakh		33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	33.52	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23	40.23
Total Fixed Cost	**Rs Lakh**		**181.39**	**184.65**	**184.25**	**184.07**	**184.12**	**184.41**	**184.95**	**185.77**	**186.87**	**188.27**	**196.84**	**198.89**	**184.46**	**191.57**	**199.08**	**207.00**	**215.36**	**224.18**	**233.49**	**243.31**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.67**	4.79	4.97	5.22	5.48	5.75	6.04	6.34	6.66	6.99	7.34	7.71	8.10	8.50	8.93	9.37	9.84	10.33	10.85	11.39	11.96
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.48**	0.64	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Int. on term loan	Rs/kWh	**0.41**	0.96	0.71	0.64	0.57	0.50	0.44	0.37	0.30	0.24	0.17	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.55**	0.43	0.43	0.44	0.46	0.48	0.50	0.53	0.55	0.57	0.60	0.63	0.66	0.68	0.72	0.75	0.79	0.83	0.87	0.91	0.96
RoE	Rs/kWh	**0.57**	0.66	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Total COG	**Rs/kWh**	**9.76**	**8.37**	**7.90**	**8.14**	**8.40**	**8.67**	**8.97**	**9.28**	**9.61**	**9.96**	**10.33**	**10.83**	**11.25**	**11.43**	**11.96**	**12.53**	**13.12**	**13.75**	**14.40**	**15.10**	**15.82**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.79	Rs/Kwh
Levellised Tariff (Fixed)	3.09	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.88**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	558.705

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	14.75	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	16.09	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	279.35	251.42	22.35	4.47	0.89	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	264.60	221.92	-7.15	-25.03	-28.61	-29.32	-29.46	-29.49	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-29.50	-16.09	0.00	0.00
Tax Benefit	Rs Lakh	89.94	75.43	-2.43	-8.51	-9.72	-9.97	-10.01	-10.02	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-10.03	-5.47	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.55	1.20	-0.04	-0.13	-0.15	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		AP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2940.31
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		226.83	293.13	307.79	323.18	339.34	356.30	374.12	392.83	412.47	433.09	454.74	477.48	501.36	526.42	552.74	580.38	609.40	639.87	671.86	705.46

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.97	25.59	26.64	27.76	28.94	30.18	31.49	32.88	34.34	35.88	37.67	39.38	40.78	42.78	44.89	47.11	49.44	51.88	54.46	57.16
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**189.00**	**191.62**	**190.83**	**190.26**	**189.91**	**189.79**	**189.93**	**190.34**	**191.02**	**192.00**	**200.66**	**202.28**	**186.16**	**193.15**	**200.53**	**208.32**	**216.54**	**225.22**	**234.37**	**244.04**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.38**	4.58	4.75	4.99	5.24	5.50	5.78	6.07	6.37	6.69	7.02	7.37	7.74	8.13	8.54	8.96	9.41	9.88	10.38	10.89	11.44
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.54**	0.42	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.56	0.58	0.61	0.64	0.66	0.69	0.73	0.76	0.80	0.84	0.88	0.93
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.62**	**8.39**	**7.86**	**8.09**	**8.33**	**8.58**	**8.86**	**9.15**	**9.46**	**9.79**	**10.14**	**10.63**	**11.02**	**11.15**	**11.67**	**12.21**	**12.79**	**13.39**	**14.03**	**14.69**	**15.40**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.58	Rs/Kwh
Levellised Tariff (Fixed)	3.24	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.82**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Harayana
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3346.75
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		258.18	333.65	350.33	367.85	386.24	405.56	425.83	447.13	469.48	492.96	517.60	543.48	570.66	599.19	629.15	660.61	693.64	728.32	764.74	802.97

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.14	28.38	29.58	30.84	32.18	33.58	35.06	36.63	38.27	40.01	42.01	43.94	45.56	47.81	50.17	52.65	55.25	57.99	60.87	63.90
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**191.17**	**194.42**	**193.77**	**193.34**	**193.14**	**193.19**	**193.50**	**194.08**	**194.96**	**196.13**	**205.00**	**206.84**	**190.95**	**198.18**	**205.81**	**213.86**	**222.36**	**231.32**	**240.78**	**250.77**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.26**	5.21	5.41	5.68	5.96	6.26	6.58	6.90	7.25	7.61	7.99	8.39	8.81	9.25	9.72	10.20	10.71	11.25	11.81	12.40	13.02
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.60**	0.47	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.65	0.68	0.71	0.74	0.78	0.81	0.85	0.90	0.94	0.99	1.04
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.56**	**9.07**	**8.56**	**8.82**	**9.10**	**9.39**	**9.71**	**10.04**	**10.40**	**10.77**	**11.17**	**11.72**	**12.17**	**12.35**	**12.93**	**13.54**	**14.18**	**14.85**	**15.56**	**16.30**	**17.09**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.21	Rs/Kwh
Levellised Tariff (Fixed)	3.30	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.51**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Maharashtra
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3422.95
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		264.06	341.25	358.31	376.23	395.04	414.79	435.53	457.31	480.17	504.18	529.39	555.86	583.65	612.83	643.48	675.65	709.43	744.90	782.15	821.26

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.54	28.91	30.13	31.42	32.78	34.22	35.73	37.33	39.01	40.79	42.82	44.79	46.46	48.75	51.16	53.69	56.34	59.14	62.07	65.16
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**191.57**	**194.95**	**194.32**	**193.92**	**193.75**	**193.83**	**194.17**	**194.79**	**195.69**	**196.91**	**205.81**	**207.69**	**191.85**	**199.12**	**206.80**	**214.90**	**223.45**	**232.47**	**241.99**	**252.03**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.43**	5.33	5.53	5.81	6.10	6.41	6.73	7.06	7.42	7.79	8.18	8.58	9.01	9.46	9.94	10.43	10.96	11.50	12.08	12.68	13.32
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.61**	0.48	0.47	0.49	0.51	0.53	0.55	0.58	0.61	0.63	0.66	0.69	0.73	0.75	0.79	0.83	0.87	0.91	0.96	1.01	1.06
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.74**	**9.20**	**8.69**	**8.96**	**9.25**	**9.55**	**9.87**	**10.21**	**10.57**	**10.96**	**11.37**	**11.92**	**12.38**	**12.57**	**13.17**	**13.79**	**14.44**	**15.13**	**15.85**	**16.61**	**17.40**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.33	Rs/Kwh
Levellised Tariff (Fixed)	3.31	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.64**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Punjab
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3500.42
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		270.04	348.97	366.42	384.74	403.98	424.18	445.39	467.66	491.04	515.59	541.37	568.44	596.86	626.70	658.04	690.94	725.49	761.76	799.85	839.84

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.96	29.44	30.69	32.01	33.40	34.87	36.41	38.04	39.76	41.57	43.65	45.66	47.37	49.71	52.16	54.74	57.45	60.30	63.29	66.44
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**191.99**	**195.48**	**194.88**	**194.51**	**194.37**	**194.48**	**194.85**	**195.50**	**196.44**	**197.70**	**206.64**	**208.56**	**192.76**	**200.08**	**207.80**	**215.95**	**224.56**	**233.63**	**243.21**	**253.32**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.59**	5.45	5.66	5.94	6.24	6.55	6.88	7.22	7.58	7.96	8.36	8.78	9.22	9.68	10.16	10.67	11.20	11.76	12.35	12.97	13.62
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.62**	0.48	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.64	0.67	0.71	0.74	0.77	0.81	0.85	0.89	0.93	0.98	1.03	1.08
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.92**	**9.33**	**8.83**	**9.10**	**9.39**	**9.70**	**10.03**	**10.38**	**10.75**	**11.15**	**11.57**	**12.13**	**12.60**	**12.80**	**13.41**	**14.04**	**14.71**	**15.41**	**16.14**	**16.91**	**17.73**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.45	Rs/Kwh
Levellised Tariff (Fixed)	3.33	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.78**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Rajasthan
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2921.25
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		225.36	291.23	305.79	321.08	337.14	353.99	371.69	390.28	409.79	430.28	451.80	474.39	498.11	523.01	549.16	576.62	605.45	635.72	667.51	700.89

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.87	25.46	26.51	27.61	28.79	30.02	31.33	32.70	34.15	35.68	37.46	39.16	40.55	42.55	44.64	46.85	49.16	51.60	54.16	56.85
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**188.90**	**191.49**	**190.70**	**190.11**	**189.75**	**189.63**	**189.76**	**190.16**	**190.83**	**191.80**	**200.45**	**202.06**	**185.94**	**192.92**	**200.29**	**208.06**	**216.27**	**224.93**	**234.07**	**243.72**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.34**	4.55	4.72	4.96	5.21	5.47	5.74	6.03	6.33	6.64	6.98	7.33	7.69	8.08	8.48	8.90	9.35	9.82	10.31	10.82	11.37
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.54**	0.42	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.58	0.61	0.64	0.66	0.69	0.72	0.76	0.80	0.84	0.88	0.92
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.58**	**8.36**	**7.83**	**8.05**	**8.29**	**8.54**	**8.82**	**9.10**	**9.41**	**9.74**	**10.09**	**10.58**	**10.97**	**11.09**	**11.61**	**12.15**	**12.72**	**13.32**	**13.96**	**14.62**	**15.32**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.55	Rs/Kwh
Levellised Tariff (Fixed)	3.24	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.79**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		TN
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2892.03
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		223.10	288.32	302.74	317.87	333.77	350.45	367.98	386.38	405.69	425.98	447.28	469.64	493.12	517.78	543.67	570.85	599.40	629.37	660.83	693.88

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.71	25.25	26.29	27.39	28.55	29.78	31.07	32.43	33.87	35.39	37.15	38.84	40.21	42.18	44.26	46.45	48.75	51.16	53.70	56.36
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**188.75**	**191.29**	**190.48**	**189.89**	**189.52**	**189.39**	**189.51**	**189.89**	**190.55**	**191.51**	**200.14**	**201.74**	**185.59**	**192.56**	**199.91**	**207.66**	**215.85**	**224.49**	**233.61**	**243.24**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.27**	4.50	4.68	4.91	5.15	5.41	5.68	5.97	6.27	6.58	6.91	7.25	7.62	8.00	8.40	8.82	9.26	9.72	10.21	10.72	11.25
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.53**	0.42	0.41	0.43	0.44	0.46	0.48	0.50	0.53	0.55	0.57	0.60	0.63	0.65	0.68	0.72	0.75	0.79	0.83	0.87	0.91
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.51**	**8.31**	**7.78**	**8.00**	**8.23**	**8.49**	**8.75**	**9.04**	**9.34**	**9.67**	**10.01**	**10.50**	**10.89**	**11.01**	**11.52**	**12.06**	**12.62**	**13.22**	**13.85**	**14.50**	**15.20**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.50	Rs/Kwh
Levellised Tariff (Fixed)	3.23	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.74**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		UP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2991.10
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		230.75	298.20	313.11	328.76	345.20	362.46	380.58	399.61	419.59	440.57	462.60	485.73	510.02	535.52	562.29	590.41	619.93	650.93	683.47	717.65

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.24	25.94	27.01	28.14	29.34	30.61	31.94	33.35	34.83	36.39	38.21	39.95	41.37	43.41	45.55	47.80	50.16	52.65	55.26	58.00
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**189.27**	**191.97**	**191.20**	**190.64**	**190.31**	**190.22**	**190.38**	**190.80**	**191.51**	**192.52**	**201.20**	**202.85**	**186.76**	**193.78**	**201.19**	**209.01**	**217.27**	**225.98**	**235.17**	**244.88**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.49**	4.66	4.84	5.08	5.33	5.60	5.88	6.17	6.48	6.80	7.14	7.50	7.88	8.27	8.68	9.12	9.57	10.05	10.55	11.08	11.64
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.55**	0.43	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.59	0.62	0.65	0.67	0.70	0.74	0.78	0.81	0.85	0.90	0.94
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.74**	**8.48**	**7.95**	**8.18**	**8.42**	**8.68**	**8.96**	**9.26**	**9.57**	**9.91**	**10.27**	**10.76**	**11.17**	**11.30**	**11.83**	**12.38**	**12.96**	**13.58**	**14.22**	**14.90**	**15.61**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.66	Rs/Kwh
Levellised Tariff (Fixed)	3.25	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.91**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Others
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	600.091
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	420.063
			Total Equity Amout	Rs Lacs	180.027
		Debt Component			
			Loan Amount	Rs Lacs	420.063
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	180.027
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3144.80
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		242.60	313.52	329.19	345.65	362.94	381.08	400.14	420.15	441.15	463.21	486.37	510.69	536.22	563.03	591.19	620.75	651.78	684.37	718.59	754.52

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	34.99	15.03	15.03	15.03	15.03	15.03	15.03	15.03	15.03
Interest on term loan	Rs Lakh		52.33	47.78	43.23	38.68	34.13	29.58	25.03	20.48	15.93	11.38	6.83	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		22.06	26.99	28.12	29.31	30.57	31.89	33.29	34.76	36.32	37.96	39.85	41.67	43.18	45.31	47.55	49.89	52.36	54.96	57.68	60.55
Return on Equity	Rs Lakh		36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	36.01	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21	43.21
Total Fixed Cost	**Rs Lakh**		**190.09**	**193.03**	**192.31**	**191.81**	**191.54**	**191.50**	**191.73**	**192.22**	**193.00**	**194.08**	**202.84**	**204.57**	**188.57**	**195.68**	**203.19**	**211.11**	**219.47**	**228.29**	**237.60**	**247.42**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.82**	4.90	5.08	5.34	5.60	5.89	6.18	6.49	6.81	7.15	7.51	7.89	8.28	8.69	9.13	9.59	10.07	10.57	11.10	11.65	12.23
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.52**	0.71	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.06	0.77	0.70	0.63	0.55	0.48	0.41	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.57**	0.45	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.59	0.62	0.65	0.68	0.70	0.73	0.77	0.81	0.85	0.89	0.94	0.98
RoE	Rs/kWh	**0.63**	0.73	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.09**	**8.73**	**8.21**	**8.46**	**8.72**	**8.99**	**9.28**	**9.60**	**9.93**	**10.28**	**10.66**	**11.18**	**11.60**	**11.75**	**12.30**	**12.88**	**13.49**	**14.13**	**14.80**	**15.50**	**16.25**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.90	Rs/Kwh
Levellised Tariff (Fixed)	3.27	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.17**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	600.091

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.84	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	31.68	17.28	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	300.05	270.04	24.00	4.80	0.96	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	284.20	238.36	-7.68	-26.88	-30.72	-31.49	-31.65	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-31.68	-17.28	0.00	0.00
Tax Benefit	Rs Lakh	96.60	81.02	-2.61	-9.14	-10.44	-10.70	-10.76	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-10.77	-5.87	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	3.90	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		AP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2940.31
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		226.83	293.13	307.79	323.18	339.34	356.30	374.12	392.83	412.47	433.09	454.74	477.48	501.36	526.42	552.74	580.38	609.40	639.87	671.86	705.46

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.02	25.63	26.69	27.80	28.98	30.22	31.53	32.91	34.37	35.91	37.70	39.41	40.80	42.80	44.91	47.13	49.46	51.91	54.48	57.18
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**191.18**	**193.72**	**192.85**	**192.19**	**191.76**	**191.57**	**191.62**	**191.95**	**192.55**	**193.45**	**202.16**	**203.70**	**187.19**	**194.18**	**201.56**	**209.35**	**217.57**	**226.24**	**235.40**	**245.06**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.24**	4.48	4.65	4.88	5.12	5.38	5.65	5.93	6.23	6.54	6.87	7.21	7.57	7.95	8.35	8.76	9.20	9.66	10.15	10.65	11.18
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.53**	0.41	0.41	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.60	0.62	0.65	0.68	0.71	0.75	0.78	0.82	0.86	0.91
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.43**	**8.25**	**7.72**	**7.94**	**8.17**	**8.42**	**8.69**	**8.97**	**9.27**	**9.59**	**9.93**	**10.42**	**10.80**	**10.92**	**11.43**	**11.96**	**12.52**	**13.11**	**13.73**	**14.38**	**15.07**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.48	Rs/Kwh
Levellised Tariff (Fixed)	3.20	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.67**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Harayana
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3346.75
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		258.18	333.65	350.33	367.85	386.24	405.56	425.83	447.13	469.48	492.96	517.60	543.48	570.66	599.19	629.15	660.61	693.64	728.32	764.74	802.97

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.19	28.43	29.63	30.89	32.22	33.62	35.10	36.66	38.31	40.04	42.04	43.97	45.58	47.83	50.19	52.67	55.28	58.01	60.89	63.92
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**193.34**	**196.52**	**195.79**	**195.28**	**195.00**	**194.97**	**195.20**	**195.70**	**196.49**	**197.59**	**206.50**	**208.26**	**191.98**	**199.21**	**206.84**	**214.89**	**223.38**	**232.35**	**241.81**	**251.80**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.10**	5.09	5.29	5.55	5.83	6.12	6.43	6.75	7.09	7.44	7.82	8.21	8.62	9.05	9.50	9.98	10.47	11.00	11.55	12.12	12.73
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.59**	0.46	0.45	0.47	0.49	0.51	0.53	0.56	0.58	0.61	0.63	0.67	0.70	0.72	0.76	0.80	0.84	0.88	0.92	0.97	1.01
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.36**	**8.91**	**8.41**	**8.66**	**8.93**	**9.22**	**9.52**	**9.85**	**10.19**	**10.56**	**10.95**	**11.48**	**11.92**	**12.09**	**12.66**	**13.25**	**13.88**	**14.54**	**15.23**	**15.96**	**16.72**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.09	Rs/Kwh
Levellised Tariff (Fixed)	3.26	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.35**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Maharashtra
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3422.95
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		264.06	341.25	358.31	376.23	395.04	414.79	435.53	457.31	480.17	504.18	529.39	555.86	583.65	612.83	643.48	675.65	709.43	744.90	782.15	821.26

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.59	28.96	30.18	31.47	32.83	34.26	35.77	37.37	39.05	40.82	42.85	44.82	46.48	48.77	51.18	53.71	56.37	59.16	62.10	65.18
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**193.75**	**197.04**	**196.34**	**195.85**	**195.61**	**195.61**	**195.87**	**196.40**	**197.23**	**198.36**	**207.31**	**209.11**	**192.87**	**200.15**	**207.83**	**215.93**	**224.47**	**233.50**	**243.01**	**253.06**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.26**	5.21	5.41	5.68	5.97	6.26	6.58	6.91	7.25	7.61	7.99	8.39	8.81	9.25	9.72	10.20	10.71	11.25	11.81	12.40	13.02
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.60**	0.47	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.65	0.68	0.71	0.74	0.77	0.81	0.85	0.89	0.94	0.98	1.03
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.53**	**9.03**	**8.53**	**8.79**	**9.07**	**9.36**	**9.68**	**10.01**	**10.36**	**10.74**	**11.14**	**11.68**	**12.13**	**12.31**	**12.89**	**13.50**	**14.14**	**14.81**	**15.51**	**16.25**	**17.03**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.21	Rs/Kwh
Levellised Tariff (Fixed)	3.27	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.48**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Punjab
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3500.42
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		270.04	348.97	366.42	384.74	403.98	424.18	445.39	467.66	491.04	515.59	541.37	568.44	596.86	626.70	658.04	690.94	725.49	761.76	799.85	839.84

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		24.00	29.49	30.74	32.05	33.44	34.91	36.45	38.08	39.80	41.61	43.68	45.69	47.39	49.73	52.18	54.76	57.48	60.32	63.32	66.46
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**194.16**	**197.57**	**196.90**	**196.44**	**196.22**	**196.25**	**196.55**	**197.12**	**197.98**	**199.15**	**208.14**	**209.98**	**193.78**	**201.11**	**208.83**	**216.98**	**225.58**	**234.66**	**244.24**	**254.34**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.42**	5.33	5.53	5.81	6.10	6.41	6.73	7.06	7.41	7.79	8.17	8.58	9.01	9.46	9.94	10.43	10.95	11.50	12.08	12.68	13.32
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.61**	0.47	0.47	0.49	0.51	0.53	0.55	0.58	0.60	0.63	0.66	0.69	0.72	0.75	0.79	0.83	0.87	0.91	0.96	1.00	1.05
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**10.70**	**9.16**	**8.67**	**8.93**	**9.21**	**9.52**	**9.84**	**10.18**	**10.54**	**10.92**	**11.33**	**11.88**	**12.34**	**12.54**	**13.12**	**13.74**	**14.40**	**15.08**	**15.80**	**16.55**	**17.35**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.33	Rs/Kwh
Levellised Tariff (Fixed)	3.28	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.61**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Rajasthan
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2921.25
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		225.36	291.23	305.79	321.08	337.14	353.99	371.69	390.28	409.79	430.28	451.80	474.39	498.11	523.01	549.16	576.62	605.45	635.72	667.51	700.89

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.92	25.50	26.55	27.66	28.83	30.06	31.36	32.74	34.19	35.72	37.50	39.20	40.57	42.57	44.67	46.87	49.19	51.62	54.18	56.87
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**191.08**	**193.59**	**192.71**	**192.05**	**191.61**	**191.41**	**191.46**	**191.77**	**192.37**	**193.26**	**201.95**	**203.48**	**186.97**	**193.95**	**201.31**	**209.09**	**217.29**	**225.96**	**235.10**	**244.75**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.20**	4.45	4.62	4.85	5.09	5.35	5.61	5.89	6.19	6.50	6.82	7.16	7.52	7.90	8.29	8.71	9.14	9.60	10.08	10.58	11.11
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.52**	0.41	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.64	0.67	0.71	0.74	0.78	0.82	0.86	0.90
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.39**	**8.22**	**7.69**	**7.90**	**8.14**	**8.38**	**8.65**	**8.93**	**9.23**	**9.55**	**9.89**	**10.37**	**10.75**	**10.86**	**11.37**	**11.90**	**12.46**	**13.04**	**13.66**	**14.31**	**14.99**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.45	Rs/Kwh
Levellised Tariff (Fixed)	3.19	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.64**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		TN
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2892.03
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		223.10	288.32	302.74	317.87	333.77	350.45	367.98	386.38	405.69	425.98	447.28	469.64	493.12	517.78	543.67	570.85	599.40	629.37	660.83	693.88

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.76	25.30	26.34	27.44	28.59	29.82	31.11	32.47	33.90	35.42	37.18	38.87	40.23	42.21	44.29	46.47	48.77	51.18	53.72	56.38
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**190.92**	**193.39**	**192.50**	**191.82**	**191.38**	**191.16**	**191.20**	**191.50**	**192.08**	**192.96**	**201.64**	**203.16**	**186.62**	**193.58**	**200.93**	**208.69**	**216.88**	**225.52**	**234.64**	**244.26**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.13**	4.40	4.57	4.80	5.04	5.29	5.56	5.83	6.13	6.43	6.75	7.09	7.45	7.82	8.21	8.62	9.05	9.50	9.98	10.48	11.00
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.52**	0.41	0.40	0.42	0.44	0.45	0.47	0.49	0.51	0.54	0.56	0.59	0.62	0.64	0.67	0.70	0.74	0.77	0.81	0.85	0.89
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.32**	**8.17**	**7.64**	**7.85**	**8.08**	**8.33**	**8.59**	**8.87**	**9.16**	**9.48**	**9.81**	**10.29**	**10.67**	**10.78**	**11.28**	**11.81**	**12.36**	**12.94**	**13.55**	**14.20**	**14.87**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.40	Rs/Kwh
Levellised Tariff (Fixed)	3.19	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.59**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		UP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2991.10
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		230.75	298.20	313.11	328.76	345.20	362.46	380.58	399.61	419.59	440.57	462.60	485.73	510.02	535.52	562.29	590.41	619.93	650.93	683.47	717.65

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.29	25.98	27.06	28.19	29.38	30.65	31.98	33.38	34.86	36.43	38.24	39.98	41.40	43.43	45.57	47.82	50.19	52.67	55.28	58.03
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**191.45**	**194.07**	**193.22**	**192.58**	**192.16**	**191.99**	**192.07**	**192.42**	**193.04**	**193.97**	**202.70**	**204.27**	**187.79**	**194.81**	**202.22**	**210.04**	**218.29**	**227.01**	**236.20**	**245.90**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.34**	4.55	4.73	4.96	5.21	5.47	5.75	6.03	6.34	6.65	6.99	7.33	7.70	8.09	8.49	8.92	9.36	9.83	10.32	10.84	11.38
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.53**	0.42	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.58	0.61	0.63	0.66	0.69	0.72	0.76	0.80	0.84	0.88	0.92
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.55**	**8.33**	**7.80**	**8.03**	**8.27**	**8.52**	**8.79**	**9.08**	**9.39**	**9.71**	**10.06**	**10.55**	**10.94**	**11.06**	**11.58**	**12.12**	**12.69**	**13.29**	**13.92**	**14.58**	**15.28**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.55	Rs/Kwh
Levellised Tariff (Fixed)	3.20	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.76**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		Others
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	11%
			Auxillary Consumption after stabi	%	10%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	610.437
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	427.306
			Total Equity Amout	Rs Lacs	183.131
		Debt Component			
			Loan Amount	Rs Lacs	427.306
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	183.131
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3144.80
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.63	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Net Generation	MU		5.07	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		242.60	313.52	329.19	345.65	362.94	381.08	400.14	420.15	441.15	463.21	486.37	510.69	536.22	563.03	591.19	620.75	651.78	684.37	718.59	754.52

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	35.59	15.29	15.29	15.29	15.29	15.29	15.29	15.29	15.29
Interest on term loan	Rs Lakh		53.24	48.61	43.98	39.35	34.72	30.09	25.46	20.83	16.20	11.57	6.94	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		22.11	27.04	28.17	29.35	30.61	31.93	33.33	34.80	36.35	37.99	39.88	41.70	43.21	45.33	47.57	49.92	52.39	54.98	57.71	60.57
Return on Equity	Rs Lakh		36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95	43.95
Total Fixed Cost	**Rs Lakh**		**192.27**	**195.13**	**194.33**	**193.74**	**193.39**	**193.28**	**193.42**	**193.84**	**194.53**	**195.53**	**204.34**	**205.99**	**189.60**	**196.71**	**204.21**	**212.13**	**220.49**	**229.32**	**238.63**	**248.45**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.67**	4.79	4.97	5.22	5.48	5.75	6.04	6.34	6.66	6.99	7.34	7.71	8.10	8.50	8.93	9.37	9.84	10.33	10.85	11.39	11.96
O&M expn	Rs/kWh	**1.07**	0.88	0.75	0.79	0.84	0.89	0.94	0.99	1.05	1.11	1.17	1.24	1.31	1.38	1.46	1.54	1.63	1.73	1.82	1.93	2.04
Depreciation	Rs/kWh	**0.52**	0.70	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.45**	1.05	0.77	0.70	0.62	0.55	0.48	0.40	0.33	0.26	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.56**	0.44	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.58	0.60	0.63	0.66	0.69	0.72	0.75	0.79	0.83	0.87	0.91	0.96
RoE	Rs/kWh	**0.63**	0.72	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Total COG	**Rs/kWh**	**9.90**	**8.58**	**8.06**	**8.30**	**8.55**	**8.82**	**9.11**	**9.41**	**9.73**	**10.08**	**10.44**	**10.95**	**11.36**	**11.51**	**12.05**	**12.61**	**13.21**	**13.83**	**14.49**	**15.18**	**15.90**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.79	Rs/Kwh
Levellised Tariff (Fixed)	3.23	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.01**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	610.437

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	16.12	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	32.23	17.58	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	305.22	274.70	24.42	4.88	0.98	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	289.10	242.47	-7.81	-27.35	-31.25	-32.04	-32.19	-32.22	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-32.23	-17.58	0.00	0.00
Tax Benefit	Rs Lakh	98.27	82.41	-2.66	-9.30	-10.62	-10.89	-10.94	-10.95	-10.95	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-10.96	-5.98	0.00	0.00
Net Energy generation	MU	2.53	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31	6.31
Per unit benefit	Rs/Unit	3.88	1.31	-0.04	-0.15	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.20**	**(Rs/kWh)**

			Select State		AP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2940.31
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		226.83	293.13	307.79	323.18	339.34	356.30	374.12	392.83	412.47	433.09	454.74	477.48	501.36	526.42	552.74	580.38	609.40	639.87	671.86	705.46

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.22	25.82	26.87	27.98	29.15	30.38	31.68	33.06	34.51	36.04	37.83	39.54	40.89	42.90	45.01	47.22	49.55	52.00	54.57	57.28
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**199.88**	**202.10**	**200.91**	**199.93**	**199.18**	**198.66**	**198.40**	**198.40**	**198.68**	**199.26**	**208.16**	**209.37**	**191.30**	**198.29**	**205.67**	**213.46**	**221.68**	**230.35**	**239.51**	**249.17**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.38**	4.58	4.75	4.99	5.24	5.50	5.78	6.07	6.37	6.69	7.02	7.37	7.74	8.13	8.54	8.96	9.41	9.88	10.38	10.89	11.44
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.54**	0.43	0.42	0.44	0.45	0.47	0.49	0.51	0.54	0.56	0.58	0.61	0.64	0.66	0.70	0.73	0.77	0.80	0.84	0.88	0.93
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**9.76**	**8.61**	**8.03**	**8.25**	**8.48**	**8.73**	**9.00**	**9.28**	**9.59**	**9.91**	**10.25**	**10.75**	**11.14**	**11.23**	**11.75**	**12.30**	**12.87**	**13.48**	**14.11**	**14.78**	**15.48**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.58	Rs/Kwh
Levellised Tariff (Fixed)	3.38	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.96**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		Harayana
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3346.75
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		258.18	333.65	350.33	367.85	386.24	405.56	425.83	447.13	469.48	492.96	517.60	543.48	570.66	599.19	629.15	660.61	693.64	728.32	764.74	802.97

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.38	28.62	29.81	31.06	32.39	33.78	35.25	36.81	38.45	40.17	42.18	44.10	45.68	47.92	50.28	52.76	55.37	58.11	60.99	64.01
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**202.04**	**204.90**	**203.84**	**203.01**	**202.42**	**202.06**	**201.97**	**202.15**	**202.62**	**203.40**	**212.50**	**213.93**	**196.08**	**203.32**	**210.94**	**219.00**	**227.49**	**236.46**	**245.92**	**255.91**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.26**	5.21	5.41	5.68	5.96	6.26	6.58	6.90	7.25	7.61	7.99	8.39	8.81	9.25	9.72	10.20	10.71	11.25	11.81	12.40	13.02
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.60**	0.47	0.46	0.48	0.50	0.53	0.55	0.57	0.60	0.62	0.65	0.68	0.72	0.74	0.78	0.82	0.86	0.90	0.94	0.99	1.04
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**10.70**	**9.29**	**8.73**	**8.99**	**9.26**	**9.55**	**9.85**	**10.18**	**10.53**	**10.90**	**11.29**	**11.84**	**12.28**	**12.43**	**13.01**	**13.62**	**14.26**	**14.94**	**15.64**	**16.39**	**17.17**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.21	Rs/Kwh
Levellised Tariff (Fixed)	3.44	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.66**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		Maharashtra
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3422.95
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		264.06	341.25	358.31	376.23	395.04	414.79	435.53	457.31	480.17	504.18	529.39	555.86	583.65	612.83	643.48	675.65	709.43	744.90	782.15	821.26

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.79	29.15	30.36	31.64	32.99	34.42	35.92	37.51	39.18	40.95	42.99	44.95	46.57	48.86	51.27	53.80	56.46	59.25	62.19	65.27
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**202.45**	**205.42**	**204.40**	**203.59**	**203.02**	**202.70**	**202.64**	**202.85**	**203.36**	**204.17**	**213.31**	**214.79**	**196.98**	**204.26**	**211.93**	**220.04**	**228.58**	**237.60**	**247.12**	**257.17**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**7.43**	5.33	5.53	5.81	6.10	6.41	6.73	7.06	7.42	7.79	8.18	8.58	9.01	9.46	9.94	10.43	10.96	11.50	12.08	12.68	13.32
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.61**	0.48	0.47	0.49	0.51	0.53	0.56	0.58	0.61	0.64	0.66	0.70	0.73	0.76	0.79	0.83	0.87	0.92	0.96	1.01	1.06
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**10.88**	**9.42**	**8.86**	**9.12**	**9.40**	**9.70**	**10.01**	**10.35**	**10.70**	**11.08**	**11.49**	**12.04**	**12.50**	**12.66**	**13.25**	**13.87**	**14.52**	**15.21**	**15.93**	**16.69**	**17.49**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.33	Rs/Kwh
Levellised Tariff (Fixed)	3.46	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.79**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		Punjab
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3500.42
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		270.04	348.97	366.42	384.74	403.98	424.18	445.39	467.66	491.04	515.59	541.37	568.44	596.86	626.70	658.04	690.94	725.49	761.76	799.85	839.84

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		24.20	29.68	30.92	32.23	33.61	35.07	36.60	38.23	39.94	41.74	43.82	45.82	47.49	49.82	52.28	54.86	57.57	60.42	63.41	66.56
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**202.86**	**205.95**	**204.96**	**204.18**	**203.64**	**203.35**	**203.32**	**203.57**	**204.11**	**204.96**	**214.14**	**215.66**	**197.89**	**205.21**	**212.94**	**221.09**	**229.69**	**238.77**	**248.35**	**258.45**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**7.59**	5.45	5.66	5.94	6.24	6.55	6.88	7.22	7.58	7.96	8.36	8.78	9.22	9.68	10.16	10.67	11.20	11.76	12.35	12.97	13.62
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.63**	0.49	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.65	0.68	0.71	0.74	0.77	0.81	0.85	0.89	0.93	0.98	1.03	1.08
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**11.06**	**9.55**	**9.00**	**9.27**	**9.55**	**9.85**	**10.18**	**10.52**	**10.88**	**11.27**	**11.68**	**12.25**	**12.71**	**12.89**	**13.49**	**14.12**	**14.79**	**15.49**	**16.22**	**17.00**	**17.81**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	5.45	Rs/Kwh
Levellised Tariff (Fixed)	3.47	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.92**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		Rajasthan
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2921.25
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		225.36	291.23	305.79	321.08	337.14	353.99	371.69	390.28	409.79	430.28	451.80	474.39	498.11	523.01	549.16	576.62	605.45	635.72	667.51	700.89

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.11	25.69	26.73	27.83	28.99	30.22	31.52	32.88	34.32	35.85	37.63	39.32	40.67	42.66	44.76	46.96	49.28	51.71	54.27	56.96
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**199.78**	**201.97**	**200.77**	**199.78**	**199.02**	**198.50**	**198.23**	**198.23**	**198.50**	**199.07**	**207.95**	**209.16**	**191.07**	**198.05**	**205.42**	**213.20**	**221.40**	**230.06**	**239.21**	**248.86**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.34**	4.55	4.72	4.96	5.21	5.47	5.74	6.03	6.33	6.64	6.98	7.33	7.69	8.08	8.48	8.90	9.35	9.82	10.31	10.82	11.37
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.54**	0.43	0.42	0.43	0.45	0.47	0.49	0.51	0.53	0.56	0.58	0.61	0.64	0.66	0.69	0.73	0.76	0.80	0.84	0.88	0.92
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**9.72**	**8.58**	**8.00**	**8.21**	**8.45**	**8.69**	**8.96**	**9.24**	**9.54**	**9.86**	**10.21**	**10.70**	**11.08**	**11.18**	**11.69**	**12.24**	**12.81**	**13.41**	**14.04**	**14.70**	**15.40**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.55	Rs/Kwh
Levellised Tariff (Fixed)	3.38	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.93**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		TN
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2892.03
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		223.10	288.32	302.74	317.87	333.77	350.45	367.98	386.38	405.69	425.98	447.28	469.64	493.12	517.78	543.67	570.85	599.40	629.37	660.83	693.88

Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		20.96	25.49	26.52	27.61	28.76	29.98	31.26	32.61	34.04	35.55	37.32	39.00	40.32	42.30	44.38	46.56	48.86	51.27	53.81	56.48
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**199.62**	**201.77**	**200.56**	**199.56**	**198.79**	**198.26**	**197.98**	**197.96**	**198.22**	**198.77**	**207.64**	**208.83**	**190.73**	**197.69**	**205.04**	**212.80**	**220.99**	**229.63**	**238.75**	**248.37**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.27**	4.50	4.68	4.91	5.15	5.41	5.68	5.97	6.27	6.58	6.91	7.25	7.62	8.00	8.40	8.82	9.26	9.72	10.21	10.72	11.25
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.53**	0.42	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.55	0.58	0.61	0.63	0.65	0.69	0.72	0.76	0.79	0.83	0.87	0.92
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**9.65**	**8.53**	**7.95**	**8.16**	**8.39**	**8.64**	**8.90**	**9.18**	**9.48**	**9.79**	**10.13**	**10.62**	**11.00**	**11.09**	**11.60**	**12.14**	**12.71**	**13.30**	**13.93**	**14.59**	**15.28**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.50	Rs/Kwh
Levellised Tariff (Fixed)	3.38	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.88**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		UP
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	2991.10
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		230.75	298.20	313.11	328.76	345.20	362.46	380.58	399.61	419.59	440.57	462.60	485.73	510.02	535.52	562.29	590.41	619.93	650.93	683.47	717.65

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		21.49	26.17	27.24	28.36	29.55	30.81	32.13	33.53	35.00	36.56	38.38	40.11	41.49	43.53	45.67	47.91	50.28	52.76	55.37	58.12
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**200.15**	**202.45**	**201.27**	**200.31**	**199.58**	**199.09**	**198.85**	**198.87**	**199.18**	**199.78**	**208.70**	**209.94**	**191.90**	**198.92**	**206.33**	**214.15**	**222.40**	**231.11**	**240.31**	**250.01**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.49**	4.66	4.84	5.08	5.33	5.60	5.88	6.17	6.48	6.80	7.14	7.50	7.88	8.27	8.68	9.12	9.57	10.05	10.55	11.08	11.64
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.55**	0.43	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.65	0.67	0.71	0.74	0.78	0.82	0.86	0.90	0.94
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**9.88**	**8.70**	**8.12**	**8.34**	**8.58**	**8.83**	**9.11**	**9.40**	**9.70**	**10.03**	**10.38**	**10.89**	**11.28**	**11.38**	**11.91**	**12.46**	**13.05**	**13.66**	**14.30**	**14.98**	**15.69**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.66	Rs/Kwh
Levellised Tariff (Fixed)	3.39	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.05**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		Others
Assumption for Biomass Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capa	MW	1
			Auxillary Consumption during sta	%	13%
			Auxillary Consumption after stabi	%	12%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stabliz	%	70%
			PLF(second year onwards)	%	80%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/M	651.822
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	456.276
			Total Equity Amout	Rs Lacs	195.547
		Debt Component			
			Loan Amount	Rs Lacs	456.276
			Moratorium Period	years	0
			Repayment Period(incld Moratori	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	195.547
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.830%
			Depreciation Rate 13th year onw	%	2.505%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	4200
			During Stablization Period	Kcal/kwh	4200
		Biomass			
			Base Price	Rs/T	3144.80
			GCV - Biomass	Kcal/kg	3100
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	44.71
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2013-14)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.69	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01	7.01
Auxiliary Consumption	MU		0.74	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Net Generation	MU		4.95	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		242.60	313.52	329.19	345.65	362.94	381.08	400.14	420.15	441.15	463.21	486.37	510.69	536.22	563.03	591.19	620.75	651.78	684.37	718.59	754.52

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		44.71	47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64
Depreciation	Rs Lakh		38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	16.33	16.33	16.33	16.33	16.33	16.33	16.33	16.33
Interest on term loan	Rs Lakh		56.84	51.90	46.96	42.02	37.07	32.13	27.19	22.24	17.30	12.36	7.41	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		22.31	27.23	28.35	29.53	30.78	32.09	33.48	34.94	36.49	38.12	40.02	41.83	43.30	45.43	47.66	50.01	52.48	55.07	57.80	60.66
Return on Equity	Rs Lakh		39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	39.11	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93	46.93
Total Fixed Cost	**Rs Lakh**		**200.97**	**203.51**	**202.38**	**201.48**	**200.81**	**200.37**	**200.20**	**200.29**	**200.67**	**201.34**	**210.34**	**211.67**	**193.71**	**200.82**	**208.32**	**216.24**	**224.60**	**233.42**	**242.73**	**252.56**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**6.82**	4.90	5.08	5.34	5.60	5.89	6.18	6.49	6.81	7.15	7.51	7.89	8.28	8.69	9.13	9.59	10.07	10.57	11.10	11.65	12.23
O&M expn	Rs/kWh	**1.10**	0.90	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13	1.20	1.26	1.34	1.41	1.49	1.58	1.67	1.77	1.87	1.97	2.09
Depreciation	Rs/kWh	**0.57**	0.77	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Int. on term loan	Rs/kWh	**0.49**	1.15	0.84	0.76	0.68	0.60	0.52	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.57**	0.45	0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.59	0.62	0.65	0.68	0.70	0.74	0.77	0.81	0.85	0.89	0.94	0.98
RoE	Rs/kWh	**0.69**	0.79	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Total COG	**Rs/kWh**	**10.24**	**8.95**	**8.38**	**8.62**	**8.87**	**9.14**	**9.43**	**9.73**	**10.06**	**10.41**	**10.78**	**11.30**	**11.71**	**11.84**	**12.39**	**12.96**	**13.57**	**14.21**	**14.88**	**15.59**	**16.33**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.90	Rs/Kwh
Levellised Tariff (Fixed)	3.41	Rs/Kwh
Applicable Tariff (FY2015-16)	**8.31**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biomass Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.99%
Capital Cost	651.822

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	17.21	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	34.42	18.77	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	325.91	293.32	26.07	5.21	1.04	0.21	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	308.70	258.90	-8.34	-29.20	-33.37	-34.21	-34.37	-34.41	-34.41	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-34.42	-18.77	0.00	0.00
Tax Benefit	Rs Lakh	104.93	88.00	-2.84	-9.93	-11.34	-11.63	-11.68	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-11.70	-6.38	0.00	0.00
Net Energy generation	MU	2.48	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17	6.17
Per unit benefit	Rs/Unit	4.24	1.43	-0.05	-0.16	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

		Select State			AP
Non Fossil Fuel based co-generation Projects					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**73**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	45%
			PLF(during first year after Stablization)	%	45%
			PLF(second year onwards)	%	45%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	1660.04
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
Auxiliary Consumption	MU		0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Net Generation	MU		3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		10.41	10.76	11.12	11.51	11.92	12.35	12.81	13.30	13.82	14.37	15.07	15.69	16.03	16.80	17.60	18.45	19.34	20.27	21.25	22.29
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**122.31**	**120.30**	**118.38**	**116.54**	**114.80**	**113.15**	**111.61**	**110.18**	**108.86**	**107.66**	**112.15**	**111.22**	**96.80**	**99.67**	**102.70**	**105.91**	**109.29**	**112.85**	**116.62**	**120.60**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**4.09**	2.90	3.05	3.20	3.36	3.53	3.70	3.89	4.08	4.29	4.50	4.73	4.96	5.21	5.47	5.75	6.03	6.34	6.65	6.99	7.34
O&M expn	Rs/kWh	**0.78**	0.52	0.55	0.59	0.62	0.65	0.69	0.73	0.77	0.82	0.86	0.91	0.97	1.02	1.08	1.14	1.21	1.28	1.35	1.43	1.51
Depreciation	Rs/kWh	**0.65**	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Int. on term loan	Rs/kWh	**0.56**	1.09	1.00	0.90	0.81	0.71	0.62	0.52	0.43	0.33	0.24	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.37**	0.29	0.30	0.31	0.32	0.33	0.34	0.36	0.37	0.38	0.40	0.42	0.43	0.44	0.47	0.49	0.51	0.54	0.56	0.59	0.62
RoE	Rs/kWh	**0.79**	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Total COG	**Rs/kWh**	**7.24**	**6.29**	**6.38**	**6.48**	**6.59**	**6.71**	**6.84**	**6.98**	**7.14**	**7.31**	**7.49**	**7.84**	**8.05**	**7.90**	**8.24**	**8.59**	**8.97**	**9.37**	**9.78**	**10.22**	**10.68**
Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	2.90	Rs/Kwh
Levellised Tariff (Fixed)	3.15	Rs/Kwh
Applicable Tariff (FY2015-16)	**6.05**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	1.80	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61
Per unit benefit	Rs/Unit	3.93	1.65	-0.05	-0.19	-0.21	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.12	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.25**	**(Rs/kWh)**

		Select State			Harayana

Non Fossil Fuel based co-generation Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	73	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	53%
			PLF(during first year after Stablization)	%	53%
			PLF(second year onwards)	%	53%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	2361.13
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64
Auxiliary Consumption	MU		0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Net Generation	MU		4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Fixed Cost	**Unit**	**Year---->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		15.30	15.88	16.50	17.16	17.85	18.58	19.36	20.17	21.03	21.94	23.03	24.04	24.80	26.00	27.27	28.60	29.99	31.46	33.00	34.62
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**127.19**	**125.43**	**123.76**	**122.19**	**120.73**	**119.38**	**118.15**	**117.05**	**116.07**	**115.24**	**120.10**	**119.57**	**105.56**	**108.88**	**112.37**	**116.05**	**119.94**	**124.04**	**128.37**	**132.93**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**5.81**	4.13	4.34	4.55	4.78	5.02	5.27	5.53	5.81	6.10	6.41	6.73	7.06	7.41	7.79	8.17	8.58	9.01	9.46	9.94	10.43
O&M expn	Rs/kWh	**0.66**	0.45	0.47	0.50	0.53	0.56	0.59	0.62	0.66	0.69	0.73	0.78	0.82	0.87	0.92	0.97	1.03	1.08	1.15	1.21	1.28
Depreciation	Rs/kWh	**0.55**	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Int. on term loan	Rs/kWh	**0.47**	0.93	0.85	0.77	0.69	0.61	0.53	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.48**	0.36	0.37	0.39	0.40	0.42	0.44	0.46	0.47	0.50	0.52	0.54	0.57	0.58	0.61	0.64	0.67	0.71	0.74	0.78	0.81
RoE	Rs/kWh	**0.67**	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Total COG	**Rs/kWh**	**8.65**	**7.12**	**7.29**	**7.47**	**7.66**	**7.86**	**8.08**	**8.31**	**8.56**	**8.83**	**9.12**	**9.55**	**9.88**	**9.90**	**10.35**	**10.82**	**11.32**	**11.84**	**12.38**	**12.96**	**13.56**
Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.13	Rs/Kwh
Levellised Tariff (Fixed)	2.84	Rs/Kwh
Applicable Tariff (FY2015-16)	**6.97**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	2.12	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Per unit benefit	Rs/Unit	3.34	1.40	-0.05	-0.16	-0.18	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

		Select State			Maharashtra

Non Fossil Fuel based co-generation Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	73	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stablization)	%	60%
			PLF(second year onwards)	%	60%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	2326.84
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26
Auxiliary Consumption	MU		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Net Generation	MU		4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		16.70	17.35	18.05	18.78	19.55	20.37	21.23	22.14	23.10	24.11	25.31	26.43	27.31	28.64	30.04	31.51	33.05	34.67	36.37	38.16
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**128.59**	**126.90**	**125.30**	**123.81**	**122.43**	**121.17**	**120.03**	**119.02**	**118.14**	**117.41**	**122.39**	**121.97**	**108.08**	**111.52**	**115.14**	**118.97**	**123.00**	**127.25**	**131.74**	**136.47**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**5.73**	4.07	4.27	4.49	4.71	4.95	5.19	5.45	5.73	6.01	6.31	6.63	6.96	7.31	7.67	8.06	8.46	8.88	9.33	9.79	10.28
O&M expn	Rs/kWh	**0.58**	0.39	0.42	0.44	0.46	0.49	0.52	0.55	0.58	0.61	0.65	0.69	0.72	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13
Depreciation	Rs/kWh	**0.49**	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.42**	0.82	0.75	0.68	0.61	0.54	0.46	0.39	0.32	0.25	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.46**	0.35	0.36	0.38	0.39	0.41	0.42	0.44	0.46	0.48	0.50	0.53	0.55	0.57	0.60	0.62	0.66	0.69	0.72	0.76	0.79
RoE	Rs/kWh	**0.59**	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Total COG	**Rs/kWh**	**8.27**	**6.74**	**6.91**	**7.09**	**7.28**	**7.49**	**7.71**	**7.95**	**8.20**	**8.47**	**8.75**	**9.17**	**9.50**	**9.55**	**9.99**	**10.45**	**10.93**	**11.44**	**11.97**	**12.53**	**13.12**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.07	Rs/Kwh
Levellised Tariff (Fixed)	2.55	Rs/Kwh
Applicable Tariff (FY2015-16)	**6.62**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	2.40	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81
Per unit benefit	Rs/Unit	2.95	1.24	-0.04	-0.14	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

		Select State			Punjab

Non Fossil Fuel based co-generation Projects

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	73	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	53%
			PLF(during first year after Stablization)	%	53%
			PLF(second year onwards)	%	53%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	2077.90
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64
Auxiliary Consumption	MU		0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Net Generation	MU		4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		13.84	14.36	14.90	15.48	16.09	16.73	17.41	18.13	18.89	19.69	20.66	21.55	22.19	23.26	24.39	25.58	26.82	28.13	29.51	30.95
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**125.74**	**123.90**	**122.16**	**120.51**	**118.96**	**117.53**	**116.20**	**115.00**	**113.93**	**112.98**	**117.74**	**117.09**	**102.95**	**106.14**	**109.49**	**113.03**	**116.77**	**120.71**	**124.87**	**129.26**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**5.11**	3.63	3.82	4.01	4.21	4.42	4.64	4.87	5.11	5.37	5.64	5.92	6.21	6.53	6.85	7.19	7.55	7.93	8.33	8.74	9.18
O&M expn	Rs/kWh	**0.66**	0.45	0.47	0.50	0.53	0.56	0.59	0.62	0.66	0.69	0.73	0.78	0.82	0.87	0.92	0.97	1.03	1.08	1.15	1.21	1.28
Depreciation	Rs/kWh	**0.55**	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Int. on term loan	Rs/kWh	**0.47**	0.93	0.85	0.77	0.69	0.61	0.53	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.43**	0.33	0.34	0.35	0.36	0.38	0.39	0.41	0.43	0.44	0.46	0.49	0.51	0.52	0.55	0.57	0.60	0.63	0.66	0.69	0.73
RoE	Rs/kWh	**0.67**	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Total COG	**Rs/kWh**	**7.90**	**6.59**	**6.73**	**6.88**	**7.04**	**7.22**	**7.40**	**7.60**	**7.82**	**8.05**	**8.30**	**8.69**	**8.97**	**8.95**	**9.35**	**9.77**	**10.21**	**10.68**	**11.17**	**11.68**	**12.22**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	3.63	Rs/Kwh
Levellised Tariff (Fixed)	2.79	Rs/Kwh
Applicable Tariff (FY2015-16)	**6.42**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	2.12	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Per unit benefit	Rs/Unit	3.34	1.40	-0.05	-0.16	-0.18	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

			Select State		TN
Non Fossil Fuel based co-generation Projects					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**73**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	60%
			PLF(during first year after Stablization)	%	60%
			PLF(second year onwards)	%	60%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	1788.32
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26	5.26
Auxiliary Consumption	MU		0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Net Generation	MU		4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		13.57	14.07	14.60	15.16	15.75	16.38	17.04	17.74	18.48	19.26	20.21	21.08	21.70	22.75	23.85	25.01	26.22	27.50	28.85	30.26
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**125.46**	**123.61**	**121.86**	**120.19**	**118.63**	**117.18**	**115.84**	**114.62**	**113.52**	**112.56**	**117.29**	**116.62**	**102.46**	**105.62**	**108.95**	**112.47**	**116.17**	**120.09**	**124.21**	**128.57**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**4.40**	3.13	3.28	3.45	3.62	3.80	3.99	4.19	4.40	4.62	4.85	5.09	5.35	5.62	5.90	6.19	6.50	6.83	7.17	7.53	7.90
O&M expn	Rs/kWh	**0.58**	0.39	0.42	0.44	0.46	0.49	0.52	0.55	0.58	0.61	0.65	0.69	0.72	0.77	0.81	0.86	0.91	0.96	1.01	1.07	1.13
Depreciation	Rs/kWh	**0.49**	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Int. on term loan	Rs/kWh	**0.42**	0.82	0.75	0.68	0.61	0.54	0.46	0.39	0.32	0.25	0.18	0.11	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.37**	0.28	0.29	0.30	0.32	0.33	0.34	0.35	0.37	0.38	0.40	0.42	0.44	0.45	0.47	0.50	0.52	0.55	0.57	0.60	0.63
RoE	Rs/kWh	**0.59**	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Total COG	**Rs/kWh**	**6.86**	**5.74**	**5.85**	**5.98**	**6.12**	**6.27**	**6.43**	**6.60**	**6.78**	**6.98**	**7.19**	**7.53**	**7.77**	**7.75**	**8.09**	**8.46**	**8.84**	**9.24**	**9.66**	**10.11**	**10.58**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	3.13	Rs/Kwh
Levellised Tariff (Fixed)	2.46	Rs/Kwh
Applicable Tariff (FY2015-16)	**5.58**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	2.40	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81	4.81
Per unit benefit	Rs/Unit	2.95	1.24	-0.04	-0.14	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.09	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.18**	**(Rs/kWh)**

			Select State		UP
Non Fossil Fuel based co-generation Projects					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**73**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	45%
			PLF(during first year after Stablization)	%	45%
			PLF(second year onwards)	%	45%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	1851.82
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
Auxiliary Consumption	MU		0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Net Generation	MU		3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		11.25	11.63	12.04	12.47	12.93	13.42	13.93	14.48	15.05	15.66	16.43	17.12	17.53	18.37	19.26	20.18	21.16	22.19	23.26	24.40
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**123.14**	**121.18**	**119.30**	**117.51**	**115.81**	**114.22**	**112.73**	**111.35**	**110.09**	**108.96**	**113.51**	**112.65**	**98.30**	**101.25**	**104.36**	**107.64**	**111.11**	**114.77**	**118.63**	**122.71**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**4.56**	3.24	3.40	3.57	3.75	3.94	4.13	4.34	4.56	4.78	5.02	5.27	5.54	5.82	6.11	6.41	6.73	7.07	7.42	7.79	8.18
O&M expn	Rs/kWh	**0.78**	0.52	0.55	0.59	0.62	0.65	0.69	0.73	0.77	0.82	0.86	0.91	0.97	1.02	1.08	1.14	1.21	1.28	1.35	1.43	1.51
Depreciation	Rs/kWh	**0.65**	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Int. on term loan	Rs/kWh	**0.56**	1.09	1.00	0.90	0.81	0.71	0.62	0.52	0.43	0.33	0.24	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.40**	0.31	0.32	0.33	0.35	0.36	0.37	0.39	0.40	0.42	0.43	0.46	0.47	0.49	0.51	0.53	0.56	0.59	0.62	0.64	0.68
RoE	Rs/kWh	**0.79**	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Total COG	**Rs/kWh**	**7.74**	**6.65**	**6.76**	**6.88**	**7.01**	**7.15**	**7.30**	**7.46**	**7.64**	**7.84**	**8.04**	**8.42**	**8.66**	**8.54**	**8.91**	**9.30**	**9.72**	**10.15**	**10.60**	**11.08**	**11.58**
Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	3.24	Rs/Kwh
Levellised Tariff (Fixed)	3.18	Rs/Kwh
Applicable Tariff (FY2015-16)	**6.42**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	1.80	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61
Per unit benefit	Rs/Unit	3.93	1.65	-0.05	-0.19	-0.21	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22	-0.12	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.25**	**(Rs/kWh)**

			Select State		Others
Non Fossil Fuel based co-generation Projects					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**73**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	8.50%
			Auxillary Consumption after stabilisatio	%	8.50%
			PLF(Stablization for 6 months)	%	53%
			PLF(during first year after Stablization)	%	53%
			PLF(second year onwards)	%	53%
			Useful Life	Years	20
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	452.479
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	316.735
			Total Equity Amout	Rs Lacs	135.744
		Debt Component			
			Loan Amount	Rs Lacs	316.74
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	135.74
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Heat Rate	After Stabilisation period	Kcal/kwh	3600
			During Stablization Period	Kcal/kwh	3600
		Biomass			
			Bagasse Price	Rs/T	2010.58
			GCV - Bagasse	Kcal/kg	2250
			Bagasse Price Escalation Factor		5.00%
	Operation & Maintenance				
		O&M Expenses (2015-16)		Rs. Lacs	18.91
		O & M Expenses Escalation		%	5.72%
7		O&M Expenses (2012-13)		Rs. Lacs	16.00

Determination of Tariff for non-fossil fuel basd co-generation Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64
Auxiliary Consumption	MU		0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Net Generation	MU		4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		18.91	19.99	21.13	22.34	23.62	24.97	26.40	27.91	29.50	31.19	32.97	34.86	36.85	38.96	41.19	43.55	46.04	48.67	51.45	54.40
Depreciation	Rs Lakh		26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	26.38	11.33	11.33	11.33	11.33	11.33	11.33	11.33	11.33
Interest on term loan	Rs Lakh		39.46	36.03	32.60	29.17	25.73	22.30	18.87	15.44	12.01	8.58	5.15	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		13.50	13.99	14.52	15.08	15.67	16.29	16.95	17.64	18.38	19.15	20.10	20.96	21.57	22.61	23.71	24.86	26.07	27.34	28.67	30.08
Return on Equity	Rs Lakh		27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	27.15	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58	32.58
Total Fixed Cost	**Rs Lakh**		**125.39**	**123.54**	**121.78**	**120.11**	**118.55**	**117.09**	**115.74**	**114.52**	**113.42**	**112.45**	**117.18**	**116.50**	**102.33**	**105.49**	**108.81**	**112.32**	**116.02**	**119.92**	**124.04**	**128.39**

Levallised tariff corresponding to Useful life

Per Unit Cost of Generation	Unit	Levellised	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Variable COG	Rs/kWh	**4.95**	3.52	3.69	3.88	4.07	4.27	4.49	4.71	4.95	5.19	5.45	5.73	6.01	6.31	6.63	6.96	7.31	7.67	8.06	8.46	8.88
O&M expn	Rs/kWh	**0.66**	0.45	0.47	0.50	0.53	0.56	0.59	0.62	0.66	0.69	0.73	0.78	0.82	0.87	0.92	0.97	1.03	1.08	1.15	1.21	1.28
Depreciation	Rs/kWh	**0.55**	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Int. on term loan	Rs/kWh	**0.47**	0.93	0.85	0.77	0.69	0.61	0.53	0.44	0.36	0.28	0.20	0.12	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.42**	0.32	0.33	0.34	0.35	0.37	0.38	0.40	0.42	0.43	0.45	0.47	0.49	0.51	0.53	0.56	0.59	0.61	0.64	0.67	0.71
RoE	Rs/kWh	**0.67**	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Total COG	**Rs/kWh**	**7.73**	**6.47**	**6.60**	**6.74**	**6.90**	**7.06**	**7.24**	**7.44**	**7.64**	**7.86**	**8.10**	**8.49**	**8.76**	**8.72**	**9.11**	**9.52**	**9.95**	**10.41**	**10.88**	**11.38**	**11.91**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	3.52	Rs/Kwh
Levellised Tariff (Fixed)	2.78	Rs/Kwh
Applicable Tariff (FY2015-16)	**6.29**	**Rs/Kwh**

Determination of Accelerated Depreciation for non-fossil fuel based co-generation project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost Rs. Lakh	440.243

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.62	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	23.24	12.68	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	220.12	198.11	17.61	3.52	0.70	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	208.50	174.86	-5.64	-19.72	-22.54	-23.10	-23.22	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-23.24	-12.68	0.00	0.00
Tax Benefit	Rs Lakh	70.87	59.44	-1.92	-6.70	-7.66	-7.85	-7.89	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-7.90	-4.31	0.00	0.00
Net Energy generation	MU	2.12	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Per unit benefit	Rs/Unit	3.34	1.40	-0.05	-0.16	-0.18	-0.18	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.19	-0.10	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15

Levellised benefit	**0.21**	**(Rs/kWh)**

Annexure 5A

Assumpion for Solar PV Power Projects Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Asumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxiliary Consumption	%	0.00%
			Capacity Utilization Factor	%	19.0%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	587.33
3	**Financial Assumptions**				
			Tariff Period	Years	25
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	411.13
			Total Equity Amout	Rs Lacs	176.20
		Debt Component			
			Loan Amount	Rs Lacs	411.13
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	176.20
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE		22.40%
			Discount Rate		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)	%	15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs. Lacs	13.00
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)		Rs. Lacs	11.00

Determination of Tariff for Solar PV

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		1.664	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Auxiliary Consumption	MU		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Net Generation			1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664	1.664
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
O&M Expenses	Rs Lakh		13.00	13.74	14.53	15.36	16.24	17.17	18.15	19.19	20.28	21.44	22.67	23.97	25.34	26.79	28.32	29.94	31.65	33.46	35.37	37.40	39.54	41.80	44.19	46.72	49.39
Depreciation	Rs Lakh		34.24	34.24	34.24	34.24	34.24	34.24	34.24	34.24	34.24	34.24	34.24	34.24	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05
Interest on term loan	Rs Lakh		51.22	46.77	42.31	37.86	33.40	28.95	24.50	20.04	15.59	11.13	6.68	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capit	Rs Lakh		3.50	3.43	3.38	3.32	3.27	3.21	3.17	3.12	3.08	3.04	3.17	3.14	2.58	2.66	2.75	2.84	2.93	3.03	3.14	3.25	3.37	3.49	3.62	3.76	3.91
Return on Equity	Rs Lakh		35.24	35.24	35.24	35.24	35.24	35.24	35.24	35.24	35.24	35.24	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29	42.29
Total Fixed Cost	**Rs Lakh**		**137.20**	**133.42**	**129.70**	**126.02**	**122.39**	**118.81**	**115.29**	**111.83**	**108.43**	**105.10**	**109.05**	**105.86**	**79.26**	**80.79**	**82.41**	**84.12**	**85.92**	**87.83**	**89.85**	**91.99**	**94.24**	**96.63**	**99.15**	**101.82**	**104.64**
Levellised COG																											
Per Unit Cost of Generati	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**
O&M expn	Rs/kWh	**1.24**	0.78	0.83	0.87	0.92	0.98	1.03	1.09	1.15	1.22	1.29	1.36	1.44	1.52	1.61	1.70	1.80	1.90	2.01	2.13	2.25	2.38	2.51	2.65	2.81	2.97
Depreciation	Rs/kWh	**1.70**	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Int. on term loan	Rs/kWh	**1.48**	3.08	2.81	2.54	2.27	2.01	1.74	1.47	1.20	0.94	0.67	0.40	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.19**	0.21	0.21	0.20	0.20	0.20	0.19	0.19	0.19	0.18	0.18	0.19	0.19	0.16	0.16	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.22	0.23	0.23
RoE	Rs/kWh	**2.25**	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.12	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54	2.54
Total COG	**Rs/kWh**		**8.24**	**8.02**	**7.79**	**7.57**	**7.35**	**7.14**	**6.93**	**6.72**	**6.51**	**6.31**	**6.55**	**6.36**	**4.76**	**4.85**	**4.95**	**5.05**	**5.16**	**5.28**	**5.40**	**5.53**	**5.66**	**5.81**	**5.96**	**6.12**	**6.29**
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142	0.128	0.116	0.105	0.094	0.085
Levellised Tariff	**6.86**	**Rs/Unit**																									

Determination of Accelerated Depreciation Benefit for Solar PV Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	587.3

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Book Depreciation		2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs Lakh	15.51	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	31.01	16.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																										
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0%	0%	0%	0%	0%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50%	5%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	293.67	264.30	23.49	4.70	0.94	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	278.16	233.29	-7.52	-26.31	-30.07	-30.82	-30.97	-31.00	-31.01	-31.01	-31.01	-31.01	-31.01	-31.01	-31.01	-31.01	-31.01	-16.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax Benefit	Rs Lakh	94.55	79.29	-2.56	-8.94	-10.22	-10.48	-10.53	-10.54	-10.54	-10.54	-10.54	-10.54	-10.54	-10.54	-10.54	-10.54	-10.54	-5.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy generation	MU	0.83	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09
Levellised benefit	**0.67**	**Rs/Unit**																								

Annexure-6A

Assumptions for Solar Thermal Power Projects Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Capacity Utilization Factor	%	23.0%
			Auxiliary Consumption Factor	%	10.0%
			Useful Life	Years	25
2	**Project Cost**				
		Capital Cost/MW	Power Plant Cost	Rs Lacs/MW	1200.00
3	**Sources of Fund**				
			Tariff Period	Years	25
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	840
			Total Equity Amout	Rs Lacs	360
		Debt Component			
			Loan Amount	Rs Lacs	840.00
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	360.00
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity 11th year onwards	% p.a	24.00%
			Weighted average of ROE	%	22.40%
			Discount Rate	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate for first 12 years	%	5.83%
			Depreciation Rate 13th year onwards	%	1.54%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)	%	15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Interest On Working Capital		%	13.50%
6	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	17.72
		O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)		Rs Lacs	15.00

Determination of Tariff Component - (Solar Thermal)

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Net Generation	MU		1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M Expenses	Rs Lakh		17.72	18.74	19.81	20.94	22.14	23.41	24.75	26.16	27.66	29.24	30.91	32.68	34.55	36.53	38.62	40.82	43.16	45.63	48.24	51.00	53.91	57.00	60.26	63.71	67.35
Depreciation	Rs Lakh		69.96	69.96	69.96	69.96	69.96	69.96	69.96	69.96	69.96	69.96	69.96	69.96	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
Interest on term loan	Rs Lakh		104.65	95.55	86.45	77.35	68.25	59.15	50.05	40.95	31.85	22.75	13.65	4.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		6.66	6.50	6.35	6.20	6.06	5.92	5.79	5.66	5.53	5.41	5.62	5.51	4.32	4.43	4.55	4.67	4.80	4.94	5.08	5.23	5.39	5.56	5.74	5.93	6.14
Return on Equity	Rs Lakh		72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	72.00	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40	86.40
Total Fixed Cost	**Rs Lakh**		**270.99**	**262.75**	**254.57**	**246.46**	**238.41**	**230.44**	**222.54**	**214.73**	**207.00**	**199.36**	**206.54**	**199.10**	**143.77**	**145.86**	**148.06**	**150.39**	**152.86**	**155.46**	**158.22**	**161.13**	**164.21**	**167.46**	**170.90**	**174.54**	**178.38**

Levellised COG

Per Unit Cost of Generation	Unit		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
O&M expn	Rs/kWh	**1.55**	0.98	1.03	1.09	1.15	1.22	1.29	1.36	1.44	1.53	1.61	1.70	1.80	1.91	2.01	2.13	2.25	2.38	2.52	2.66	2.81	2.97	3.14	3.32	3.51	3.71
Depreciation	Rs/kWh	**3.20**	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	3.86	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Int. on term loan	Rs/kWh	**2.77**	5.77	5.27	4.77	4.27	3.76	3.26	2.76	2.26	1.76	1.25	0.75	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.32**	0.37	0.36	0.35	0.34	0.33	0.33	0.32	0.31	0.30	0.30	0.31	0.30	0.24	0.24	0.25	0.26	0.26	0.27	0.28	0.29	0.30	0.31	0.32	0.33	0.34
RoE	Rs/kWh	**4.21**	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	3.97	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76	4.76
Total COG	**Rs/kWh**	**12.05**	**14.94**	**14.49**	**14.04**	**13.59**	**13.15**	**12.71**	**12.27**	**11.84**	**11.42**	**10.99**	**11.39**	**10.98**	**7.93**	**8.04**	**8.17**	**8.29**	**8.43**	**8.57**	**8.73**	**8.89**	**9.06**	**9.24**	**9.42**	**9.63**	**9.84**

Levellised Tariff	**12.05**	**Rs/Unit**

Determination of Accelerated Depreciation Benefit for Solar Thermal Power Projects

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	1200.0

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Book Depreciation	Rs Lakh	31.68	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	63.36	34.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Accelerated Depreciation																										
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.002%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50.00%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.001%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.000%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	600.00	540.00	48.00	9.60	1.92	0.38	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	568.32	476.64	-15.36	-53.76	-61.44	-62.98	-63.28	-63.34	-63.36	-63.36	-63.36	-63.36	-63.36	-63.36	-63.36	-63.36	-63.36	-34.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax Benefit	Rs Lakh	193.17	162.01	-5.22	-18.27	-20.88	-21.41	-21.51	-21.53	-21.54	-21.54	-21.54	-21.54	-21.54	-21.54	-21.54	-21.54	-21.54	-11.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy generation	MU	0.91	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81	1.81
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15	0.14	0.12	0.11	0.10	0.09

Levellised benefit	**1.25**	Rs/Unit

Select State	AP

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	2940.31
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		273.67	287.35	301.72	316.81	332.65	349.28	366.74	385.08	404.33	424.55	445.78	468.07	491.47	516.04	541.85	568.94	597.39	627.25	658.62	691.55
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.60	24.62	25.69	26.82	28.02	29.27	30.60	32.00	33.47	35.02	36.78	38.50	40.02	42.00	44.09	46.29	48.60	51.02	53.57	56.26
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**161.81**	**162.17**	**162.75**	**163.55**	**164.58**	**165.86**	**167.40**	**169.21**	**171.32**	**173.74**	**181.91**	**184.99**	**175.10**	**182.36**	**190.02**	**198.10**	**206.64**	**215.65**	**225.16**	**235.20**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**5.75**	4.08	4.29	4.50	4.73	4.96	5.21	5.47	5.75	6.03	6.34	6.65	6.98	7.33	7.70	8.09	8.49	8.91	9.36	9.83	10.32
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.48**	0.35	0.37	0.38	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.55	0.57	0.60	0.63	0.66	0.69	0.73	0.76	0.80	0.84
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**8.33**	**6.50**	**6.71**	**6.93**	**7.17**	**7.42**	**7.69**	**7.97**	**8.27**	**8.59**	**8.93**	**9.37**	**9.75**	**9.95**	**10.42**	**10.92**	**11.45**	**12.00**	**12.58**	**13.19**	**13.83**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.08	Rs/Kwh																				
Levellised Tariff (Fixed)	2.58	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**6.66**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State	Harayana

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	3346.75
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		311.50	327.07	343.43	360.60	378.63	397.56	417.44	438.31	460.23	483.24	507.40	532.77	559.41	587.38	616.75	647.58	679.96	713.96	749.66	787.14
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		26.21	27.36	28.57	29.85	31.19	32.61	34.10	35.67	37.33	39.07	41.03	42.97	44.71	46.93	49.27	51.72	54.30	57.01	59.86	62.86
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**164.42**	**164.92**	**165.63**	**166.57**	**167.75**	**169.19**	**170.90**	**172.89**	**175.18**	**177.79**	**186.16**	**189.46**	**179.79**	**187.28**	**195.19**	**203.53**	**212.34**	**221.64**	**231.44**	**241.80**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.54**	4.65	4.88	5.12	5.38	5.65	5.93	6.23	6.54	6.87	7.21	7.57	7.95	8.35	8.76	9.20	9.66	10.15	10.65	11.19	11.75
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.53**	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.53	0.56	0.58	0.61	0.64	0.67	0.70	0.74	0.77	0.81	0.85	0.89	0.94
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**9.18**	**7.10**	**7.34**	**7.60**	**7.87**	**8.15**	**8.46**	**8.78**	**9.12**	**9.48**	**9.86**	**10.35**	**10.78**	**11.03**	**11.56**	**12.12**	**12.70**	**13.32**	**13.96**	**14.64**	**15.35**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.65	Rs/Kwh																				
Levellised Tariff (Fixed)	2.64	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**7.28**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State	Maharashtra

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	3422.95
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		318.59	334.52	351.25	368.81	387.25	406.61	426.94	448.29	470.70	494.24	518.95	544.90	572.14	600.75	630.79	662.33	695.44	730.22	766.73	805.06
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		26.70	27.88	29.11	30.41	31.79	33.23	34.76	36.36	38.05	39.83	41.83	43.81	45.59	47.85	50.24	52.74	55.37	58.13	61.04	64.09
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**164.91**	**165.43**	**166.17**	**167.14**	**168.35**	**169.82**	**171.56**	**173.58**	**175.91**	**178.55**	**186.96**	**190.30**	**180.67**	**188.20**	**196.16**	**204.55**	**213.41**	**222.76**	**232.62**	**243.03**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.69**	4.75	4.99	5.24	5.50	5.78	6.07	6.37	6.69	7.02	7.38	7.74	8.13	8.54	8.96	9.41	9.88	10.38	10.90	11.44	12.01
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.54**	0.40	0.42	0.43	0.45	0.47	0.50	0.52	0.54	0.57	0.59	0.62	0.65	0.68	0.71	0.75	0.79	0.83	0.87	0.91	0.96
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**9.34**	**7.21**	**7.46**	**7.72**	**8.00**	**8.29**	**8.60**	**8.93**	**9.28**	**9.65**	**10.04**	**10.53**	**10.97**	**11.23**	**11.77**	**12.34**	**12.94**	**13.56**	**14.22**	**14.91**	**15.64**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.75	Rs/Kwh																				
Levellised Tariff (Fixed)	2.65	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**7.40**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State	Punjab

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	3500.42
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		325.80	342.09	359.20	377.16	396.01	415.81	436.61	458.44	481.36	505.43	530.70	557.23	585.09	614.35	645.06	677.32	711.18	746.74	784.08	823.28
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		27.20	28.40	29.66	30.99	32.39	33.87	35.42	37.06	38.79	40.61	42.64	44.66	46.48	48.79	51.22	53.77	56.46	59.28	62.24	65.35
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**165.41**	**165.95**	**166.72**	**167.71**	**168.95**	**170.45**	**172.22**	**174.28**	**176.64**	**179.32**	**187.77**	**191.15**	**181.56**	**189.14**	**197.14**	**205.59**	**214.50**	**223.90**	**233.82**	**244.29**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.84**	4.86	5.10	5.36	5.63	5.91	6.20	6.52	6.84	7.18	7.54	7.92	8.32	8.73	9.17	9.63	10.11	10.61	11.14	11.70	12.29
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.55**	0.41	0.42	0.44	0.46	0.48	0.51	0.53	0.55	0.58	0.61	0.64	0.67	0.69	0.73	0.76	0.80	0.84	0.88	0.93	0.98
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**9.50**	**7.33**	**7.58**	**7.85**	**8.13**	**8.43**	**8.75**	**9.09**	**9.44**	**9.82**	**10.22**	**10.72**	**11.17**	**11.44**	**11.99**	**12.57**	**13.17**	**13.81**	**14.48**	**15.19**	**15.93**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.86	Rs/Kwh																				
Levellised Tariff (Fixed)	2.66	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**7.52**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State	Rajasthan

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	2921.25
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		271.90	285.49	299.76	314.75	330.49	347.02	364.37	382.58	401.71	421.80	442.89	465.03	488.29	512.70	538.33	565.25	593.51	623.19	654.35	687.07
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.48	24.49	25.56	26.68	27.87	29.12	30.44	31.83	33.29	34.83	36.58	38.29	39.80	41.77	43.85	46.04	48.33	50.74	53.28	55.95
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**161.69**	**162.05**	**162.61**	**163.41**	**164.43**	**165.70**	**167.23**	**169.04**	**171.14**	**173.55**	**181.71**	**184.78**	**174.88**	**182.12**	**189.77**	**197.85**	**206.37**	**215.37**	**224.86**	**234.89**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**5.71**	4.06	4.26	4.47	4.70	4.93	5.18	5.44	5.71	5.99	6.29	6.61	6.94	7.29	7.65	8.03	8.43	8.86	9.30	9.76	10.25
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.48**	0.35	0.37	0.38	0.40	0.42	0.43	0.45	0.47	0.50	0.52	0.55	0.57	0.59	0.62	0.65	0.69	0.72	0.76	0.80	0.83
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**8.29**	**6.47**	**6.68**	**6.90**	**7.14**	**7.39**	**7.65**	**7.93**	**8.23**	**8.55**	**8.88**	**9.32**	**9.70**	**9.90**	**10.37**	**10.87**	**11.39**	**11.94**	**12.51**	**13.12**	**13.76**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.06	Rs/Kwh																				
Levellised Tariff (Fixed)	2.58	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**6.63**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State	TN

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	2892.03
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		269.18	282.63	296.77	311.60	327.18	343.54	360.72	378.76	397.70	417.58	438.46	460.38	483.40	507.57	532.95	559.60	587.58	616.96	647.80	680.19
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.29	24.29	25.35	26.46	27.64	28.88	30.18	31.56	33.01	34.54	36.27	37.97	39.46	41.42	43.48	45.64	47.92	50.31	52.83	55.47
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**161.50**	**161.85**	**162.41**	**163.19**	**164.20**	**165.46**	**166.98**	**168.78**	**170.86**	**173.26**	**181.40**	**184.46**	**174.54**	**181.77**	**189.40**	**197.46**	**205.96**	**214.94**	**224.41**	**234.41**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**5.65**	4.02	4.22	4.43	4.65	4.88	5.13	5.38	5.65	5.93	6.23	6.54	6.87	7.21	7.57	7.95	8.35	8.77	9.21	9.67	10.15
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.47**	0.35	0.36	0.38	0.39	0.41	0.43	0.45	0.47	0.49	0.52	0.54	0.57	0.59	0.62	0.65	0.68	0.72	0.75	0.79	0.83
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**8.23**	**6.43**	**6.63**	**6.85**	**7.08**	**7.33**	**7.60**	**7.87**	**8.17**	**8.48**	**8.82**	**9.25**	**9.62**	**9.82**	**10.29**	**10.78**	**11.30**	**11.84**	**12.41**	**13.02**	**13.65**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.02	Rs/Kwh																				
Levellised Tariff (Fixed)	2.57	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**6.59**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State				UP	

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	2991.10
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		278.40	292.32	306.93	322.28	338.39	355.31	373.08	391.73	411.32	431.88	453.48	476.15	499.96	524.96	551.21	578.77	607.71	638.09	670.00	703.50
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		23.93	24.96	26.05	27.20	28.41	29.69	31.04	32.46	33.95	35.53	37.31	39.06	40.60	42.62	44.74	46.97	49.31	51.77	54.36	57.08
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**162.14**	**162.52**	**163.11**	**163.93**	**164.98**	**166.27**	**167.84**	**169.67**	**171.80**	**174.24**	**182.44**	**185.55**	**175.68**	**182.97**	**190.66**	**198.78**	**207.35**	**216.40**	**225.94**	**236.02**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**5.85**	4.15	4.36	4.58	4.81	5.05	5.30	5.57	5.85	6.14	6.44	6.77	7.11	7.46	7.83	8.23	8.64	9.07	9.52	10.00	10.50
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.49**	0.36	0.37	0.39	0.41	0.42	0.44	0.46	0.48	0.51	0.53	0.56	0.58	0.61	0.64	0.67	0.70	0.74	0.77	0.81	0.85
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**8.43**	**6.57**	**6.79**	**7.01**	**7.26**	**7.51**	**7.78**	**8.07**	**8.38**	**8.70**	**9.04**	**9.49**	**9.87**	**10.08**	**10.56**	**11.07**	**11.60**	**12.16**	**12.75**	**13.37**	**14.02**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.15	Rs/Kwh																				
Levellised Tariff (Fixed)	2.59	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**6.74**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Select State	Others

Assumption for Biomass Gasifier Power Project Parameters

S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	Assumptions
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	10%
			Auxillary Consumption after stabilisatio	%	10%
			PLF(Stablization for 6 months)	%	85%
			PLF(during first year after Stablization)	%	85%
			PLF(second year onwards)	%	85%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)		592.532
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	442.532
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	309.772
			Total Equity Amout	Rs Lacs	132.760
		Debt Component			
			Loan Amount	Rs Lacs	309.77
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	132.76
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years		24.00%
			Weighted average of ROE		22.00%
			Discount Rate (equiv. to WACC)		10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
			Specific Fuel Consumption	kg/kWh	1.25
		Biomass			
			Base Price	Rs/T	3144.80
			Biomass Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O& M Expemses (2015-16)		Rs Lacs	47.26
		O & M Expenses Escalation		%	5.72%
		O& M Expemses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biomass Gasifier Power Projects

Units Generation	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45	7.45
Auxiliary Consumption	MU		0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Net Generation	MU		6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Vaiable Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Biomass Cost	Rs Lakh		292.70	307.34	322.70	338.84	355.78	373.57	392.25	411.86	432.45	454.08	476.78	500.62	525.65	551.93	579.53	608.51	638.93	670.88	704.42	739.64
Fixed Cost	**Unit**	**Year--->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	25.80	11.09	11.09	11.09	11.09	11.09	11.09	11.09	11.09
Interest on term loan	Rs Lakh		38.59	35.24	31.88	28.52	25.17	21.81	18.46	15.10	11.75	8.39	5.03	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		24.92	26.00	27.14	28.34	29.61	30.95	32.36	33.85	35.41	37.06	38.92	40.75	42.38	44.48	46.70	49.02	51.47	54.04	56.74	59.58
Return on Equity	Rs Lakh		26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	26.55	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86	31.86
Total Fixed Cost	**Rs Lakh**		**163.12**	**163.55**	**164.20**	**165.07**	**166.18**	**167.54**	**169.16**	**171.06**	**173.26**	**175.78**	**184.05**	**187.24**	**177.46**	**184.83**	**192.62**	**200.84**	**209.51**	**218.66**	**228.32**	**238.52**
Levallised tariff corresponding to Useful life																						
Per Unit Cost of Generation	**Unit**	**Levellised**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Variable COG	Rs/kWh	**6.15**	4.37	4.59	4.82	5.06	5.31	5.57	5.85	6.15	6.45	6.78	7.11	7.47	7.84	8.24	8.65	9.08	9.53	10.01	10.51	11.04
O&M expn	Rs/kWh	**1.05**	0.71	0.75	0.79	0.83	0.88	0.93	0.98	1.04	1.10	1.16	1.23	1.30	1.37	1.45	1.54	1.62	1.72	1.82	1.92	2.03
Depreciation	Rs/kWh	**0.34**	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Int. on term loan	Rs/kWh	**0.29**	0.58	0.53	0.48	0.43	0.38	0.33	0.28	0.23	0.18	0.13	0.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh	**0.51**	0.37	0.39	0.41	0.42	0.44	0.46	0.48	0.51	0.53	0.55	0.58	0.61	0.63	0.66	0.70	0.73	0.77	0.81	0.85	0.89
RoE	Rs/kWh	**0.42**	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
Total COG	**Rs/kWh**	**8.76**	**6.80**	**7.03**	**7.27**	**7.52**	**7.79**	**8.07**	**8.38**	**8.70**	**9.04**	**9.40**	**9.86**	**10.26**	**10.49**	**10.99**	**11.52**	**12.08**	**12.66**	**13.27**	**13.92**	**14.60**

Levellised Tariff	**Unit**	**Year -->**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Discount Factor			1	0.90	0.81	0.74	0.66	0.60	0.54	0.49	0.44	0.40	0.36	0.32	0.29	0.26	0.24	0.21	0.19	0.17	0.16	0.14
Variable Cost (FY 2015-16)	4.37	Rs/Kwh																				
Levellised Tariff (Fixed)	2.61	Rs/Kwh																				
Applicable Tariff (FY2015-16)	**6.98**	**Rs/Kwh**																				

Determination of Accelerated Depreciation for Biomass Gasifier Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional Depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	442.532

Years ----------->	**Unit**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	11.68	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	23.37	12.74	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	221.27	199.14	17.70	3.54	0.71	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	209.58	175.77	-5.66	-19.83	-22.66	-23.22	-23.34	-23.36	-23.36	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-23.37	-12.74	0.00	0.00
Tax Benefit	Rs Lakh	71.24	59.75	-1.93	-6.74	-7.70	-7.89	-7.93	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-7.94	-4.33	0.00	0.00
Net Energy generation	MU	3.35	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
Per unit benefit	Rs/Unit	2.13	0.89	-0.03	-0.10	-0.11	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.06	0.00	0.00
Discounting Factor		1.00	0.95	0.86	0.77	0.70	0.63	0.57	0.51	0.46	0.42	0.38	0.34	0.31	0.28	0.25	0.23	0.20	0.18	0.17	0.15
Levellised benefit	**0.13**	**(Rs/kWh)**																			

Assumption for Biogas Based Power Project Parameters					
S. No.	**Assumption Head**	**Sub-Head**	**Sub-Head (2)**	**Unit**	**Assumptions**
1	**Power Generation**				
		Capacity			
			Installed Power Generation Capacity	MW	1
			Auxillary Consumption during stablisati	%	12%
			PLF	%	90%
			Useful Life	Years	20
2	**Project Cost**		Power Plant Cost (before subsidy)	Rs Lacs/MW	1185.064
		Capital Cost/MW	Power Plant Cost (after subsidy)	Rs Lacs/MW	885.064
3	**Financial Assumptions**				
		Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	619.545
			Total Equity Amout	Rs Lacs	265.519
		Debt Component			
			Loan Amount	Rs Lacs	619.54
			Moratorium Period	years	0
			Repayment Period(incld Moratorium)	years	12
			Interest Rate	%	13.00%
		Equity Component			
			Equity amount	Rs Lacs	265.52
			Return on Equity for first 10 years	% p.a	20.00%
			Return on Equity after 10 years	%	24.00%
			Weighted average of ROE	%	22.00%
			Discount Rate (equiv. to WACC)	%	10.81%
4	**Financial Assumptions**				
		Fiscal Assumptions			
			Income Tax	%	33.990%
		Depreciation			
			Depreciation Rate(power plant)	%	5.83%
			Depreciation Rate 13th year onwards	%	2.51%
5	**Working Capital**				
		For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		For Variable Charges			
		Biomass Stock		Months	4
		Interest On Working Capital		%	13.50%
6	**Fuel Related Assumptions**				
		Biomass			
			Fuel Price	Rs/T	1257.41
			Specific Fuel Consumption	kg/kWh	3
			Substrates Price Escalation Factor		5.00%
7	**Operation & Maintenance**				
		O&M Expenses (2015-16)		Rs Lacs	47.26
		Total O & M Expenses Escalation		%	5.72%
		O&M Expenses (2012-13)		Rs Lacs	40.00

Determination of Tariff Component: Biogas Based Power Projects

Units Generation	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Installed Capacity	MW		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gross Generation	MU		7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88	7.88
Auxiliary Consumption	MU		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Net Generation	MU		6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94

Vaiable Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Biomass Cost	Rs Lakh		297.40	312.27	327.89	344.28	361.49	379.57	398.55	418.48	439.40	461.37	484.44	508.66	534.09	560.80	588.84	618.28	649.19	681.65	715.74	751.52

Fixed Cost	Unit	Year--->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
O&M Expenses	Rs Lakh		47.26	49.97	52.83	55.85	59.04	62.42	65.99	69.76	73.75	77.97	82.43	87.15	92.13	97.40	102.97	108.87	115.09	121.68	128.64	135.99
Depreciation	Rs Lakh		51.60	51.60	51.60	51.60	51.60	51.60	51.60	51.60	51.60	51.60	51.60	51.60	22.17	22.17	22.17	22.17	22.17	22.17	22.17	22.17
Interest on term loan	Rs Lakh		77.18	70.47	63.76	57.05	50.34	43.63	36.91	30.20	23.49	16.78	10.07	3.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working Capital	Rs Lakh		27.33	28.36	29.44	30.58	31.79	33.07	34.43	35.86	37.37	38.96	40.89	42.67	43.95	46.08	48.33	50.69	53.16	55.77	58.51	61.39
Return on Equity	Rs Lakh		53.10	53.10	53.10	53.10	53.10	53.10	53.10	53.10	53.10	53.10	63.72	63.72	63.72	63.72	63.72	63.72	63.72	63.72	63.72	63.72
Total Fixed Cost	**Rs Lakh**		**256.49**	**253.50**	**250.73**	**248.18**	**245.88**	**243.82**	**242.03**	**240.53**	**239.32**	**238.42**	**248.72**	**248.50**	**221.98**	**229.38**	**237.20**	**245.45**	**254.15**	**263.34**	**273.04**	**283.27**

Levellised Tariff	Unit	Year -->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Discount Factor			1	0.902	0.814	0.735	0.663	0.599	0.540	0.488	0.440	0.397	0.358	0.323	0.292	0.263	0.238	0.215	0.194	0.175	0.158	0.142

Variable Cost (FY2015-16)	4.29	Rs/Kwh
Levellised Tariff (Fixed)	3.57	Rs/Kwh
Applicable Tariff (FY2015-16)	**7.85**	**Rs/Kwh**

Determination of Accelerated Depreciation for Biogas based Power Project

Depreciation amount	90%
Book Depreciation rate	5.28%
Tax Depreciation rate	80%
Additional depriciation	20.00%
Income Tax (Normal Rates)	33.990%
Capital Cost	885.064

Years ---------->	Unit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Book Depreciation	%	2.64%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	5.28%	2.88%	0.00%	0.00%
Book Depreciation	Rs Lakh	23.37	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	46.73	25.49	0.00	0.00
Accelerated Depreciation																					
Opening	%	100.00%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Allowed during the year	%	50%	45.00%	4.00%	0.80%	0.16%	0.03%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Closing	%	50.00%	5.00%	1.00%	0.20%	0.04%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Accelrated Deprn.	Rs Lakh	442.53	398.28	35.40	7.08	1.42	0.28	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Depreciation Benefit	Rs Lakh	419.17	351.55	-11.33	-39.65	-45.32	-46.45	-46.67	-46.72	-46.73	-46.73	-46.73	-46.73	-46.73	-46.73	-46.73	-46.73	-46.73	-25.49	0.00	0.00
Tax Benefit	Rs Lakh	142.47	119.49	-3.85	-13.48	-15.40	-15.79	-15.86	-15.88	-15.88	-15.88	-15.88	-15.88	-15.88	-15.88	-15.88	-15.88	-15.88	-8.66	0.00	0.00
Net Energy generation	MU	3.47	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94	6.94
Per unit benefit	Rs/Unit	4.11	1.72	-0.06	-0.19	-0.22	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.23	-0.12	0.00	0.00
Discounting Factor		3.60	3.42	3.08	2.78	2.51	2.26	2.04	1.83	1.65	1.49	1.34	1.21	1.09	0.98	0.89	0.80	0.72	0.65	0.59	0.53
Levellised benefit	**0.26**	**(Rs/kWh)**																			