

BIOMASS RANKINE

Description	CERC	Assam	Bihar	Chhattisgarh	Gujarat*	Haryana	J & K	Karnataka*	Madhya Pradesh	Maharashtra*	Manipur	Meghalaya	Mizoram	Nagaland	Punjab*	Rajasthan	Sikkim	Tripura	Uttarakhand	JERC(For Gas & Union Territories)	Uttar Pradesh
Regulation	2017	2017	2017	(draft)2017	Order No.-1 of 2018	2017	2013	2018	2017	Generic Tariff Order	2010	2014	2010	2011	2017	2015	2012	2015	2018	2019	2019
Dated	17.04.2017	04.09.2018	24.10.2017	4.7.2017	na	24.07.2018	17.05.2013	14.05.2018	06.07.2017	30.04.2019	31.05.2010	11.11.2014	31.05.2010	30.08.2011	31.10.2017	07.05.2015	28.06.2012	16.10.2015	06.09.2018	24.07.2019	25.07.2019
Last Amendment	na	na	13.07.2018	na	na	27.08.2018	20.04.2016	na	na	na	08.08.201	na	08.08.201	na	na	March, 2019	na	28.09.2016	na	na	na
Tariff Period (Yrs)	20	20	20	13(COD after April 2012)&(COD before April 2012)	20	20	20		20		13	20	13	13	20	20	20	13	20	20	20
Control Period(yrs)	3	3	3	3		4	5		5		5	3	5	3	3	5	3	3	5	3	3
w.e.f.	2017-18	2017-18	2017-18	2017-18	2019-20	2017-18	2013-14	2018	2017	2019-20	2012-13	2014	2012-13	2011	2017-18	2015	2012	2015	2018-19	2019-20	2019-20
Financial Parametres																					
Debt Equity Ratio	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30	70.30
Loan Tenure(Yrs)	13	13	10	13	10	13	12	10	10	10	12	12	12	10	13	13	12	12	13	13	12
Interest rate on loan capital (SBI basis points)	200	200	200	200	11.40%	200	300	10.50%	det. by comm.	11.31%	300	150	300	150	200	200	150	300	300	200	300
Depreciation																					
(i)Starting Years	5.28%(13yrs)	5.28%(13yrs)	7%(10yrs)	5.28%(13yrs)	7%(10 Yrs)	5.38%(13yrs)	5.83%(12 Yrs)	5.28%(13yrs)	7%(10 Yrs)	5.83%(12 Yrs)	5.83%(12 Yrs)	5.83%(12 Yrs)	5.83%(12 Yrs)	7%(10 Yrs)	5.28%(13yrs)	5.28%(13 Yrs)	5.83%(12 Yrs)	5.83%(12 Yrs)	5.38%(13 Yrs)	5.83%(12 Yrs)	5.83%(12 Yrs)
(ii)Remaining years					2%(11-20 Yrs)					2.50 (8-Yrs)											
Salvage Value(%)	10%	10%	10%	10%	10%	10%	10%		10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Max Depreciation (% of capital cost)	90%	90%	90%	90%		90%	90%		90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Return on Equity																					
Value base of Cap. Cost	30%	30%	30%	30%		30%	30%		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
% Normative ROE	14%	14%	14%	14%	14%	14%		14%	20%	16%		16%			14%	14%			16%	14%	16%
For 10 yrs							18%			21.55%	20%		20%	19%				20%	20%	20%	12
After 10 yrs							22%			29.12%	24%		24%	24%				24%	24%	22%	12
Capital Cost (in Lakh/MW)									475	521.91		445		403			445		445		Petition filed by Project Developer
Water cooled condenser (other than rice straw & jujiflora/with rice straw & jujiflora)	559.03/610.80	559.03/610.80	559.03/610.80	det. by comm.	477	559	540/590	576			540/590		540/590		559.03/610.80	540		610.44	559.03/610.80		
Air cooled condenser (other than rice straw & jujiflora/with rice straw & jujiflora)	600.44/ 652.20	600.44/ 652.20	600.44/ 652.20		507	600	580/ 630	586			580/ 630		580/ 630		600.44/ 652.20	575			600.44/652.20		
O&M Expenses (Rs Lakh/MW)	40	40	40	40		40	40		4% of C.C.	30.38 lakh/MW	40	24	40	21.41	40		24		42.29		5% of C.C.
Water cooled condenser					5% of C.C.			5% of C.C.											35.64		44.71
Air cooled condenser					5% of C.C.			4% of C.C.											38		
Escalation (%) p.a	5.72%	5.72%	5.72%	5.72%	5.72%	5.72%	5.72%	5.72%	5.72%		5.72%	5.72%	5.72%	5.72%	5.72%	5.85%	5.72%	5.72%	5.72%		average inflation factor/previous 3 Yrs considering 60% weightage
Interest rate on working capital SBI basis points)	300	30000%	300	300	11.40%	200	350	11.50%	det. By comm.	11.81%	350	100	350	150	300	300	350	300	350	350	350
Normative Parameters																					
PLF/CFUF(%)				80% (for water cooled condenser)				75%(for both water & air cooled)													
During stabilisation (6 month)	60%	60%	60%				60%			60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
During remaining period of 1st Yr	70%	70%	70%		70% (during 1st yr)	65%(during 1st)	70%		65%(during 1st yr)	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%(during 1st yr)
2nd Yr onwards	80%	80%	80%		80%	80%	80%		80%	80%	80%	80%	80%	80%	80%	75%	80%	80%	80%	80%	80%
Aux. Consumption (%)				10%	10%				10%	10%		10%		10%				10%			10%
Water cooled condenser	11%(1st yr), 13%(>2yr)	11%(1st yr), 13%(>2yr)	11%(1st yr), 10%(>2yr)			10%	1st Yr-11%, 2nd Yr on.-10%	10%			1st Yr-11%, 2nd Yr on.-10%		1st Yr-11%, 2nd Yr on.-10%		11%(1st yr), 13%(>2yr)	DS-10.5%, AS-10%		DS-11%, AS-10%	1st Yr-11%, 2nd Yr on.-10%	1st Yr-11%, 2nd Yr on.-10%	
Air cooled condenser	13%(1st yr), 12%(>2yr)	13%(1st yr), 12%(>2yr)	13%(1st yr), 12%(>2yr)			12%	1st Yr-13%, 2nd Yr on.-12%	10%			1st Yr-13%, 2nd Yr on.-12%		1st Yr-13%, 2nd Yr on.-12%		13%(1st yr), 12%(>2yr)	DS-12.5%, AS-12%			1st Yr-13%, 2nd Yr on.-12%	1st Yr-13%, 2nd Yr on.-12%	
Station Heat Rate(kCal/kWh)				4000(for both water and air cooled)	water cooled-3800, air cooled-3950				3800(for both water and air cooled)	4200(for both water and air cooled)		4000		3800(for both water and air cooled)			4000(for both water and air cooled)	4200(for both water and air cooled)	4000(for both water and air cooled)	4200	
Grate Boilers	4200	4200	4200			4126	4126				4200		4200		4200	DS-4300, AS-4200			4200	4200	
AFBC Boilers	4125	4125	4125			4063	4063				4125		4125		4125	DS-4540, AS-4440			4125	4125	
Specific Fuel consumption(kg/kWh)																					
Water cooled condenser								1.21													
Air cooled condenser								1.18													
Calorific Value(kCal/kg)	3100	3100	3174	3100	4423 (for both air cooled&water cooled)	3100	3174		3600	3611	3100	3467	3100	3467	3100	3400	3300	3144.8	3100		
Fuel Cost(Rs./MT)	2873.22(A.P), 3270.30(haryana), 3344.85(Maharashtra), 3420.56(Punjab), 2854.60(Rajasthan), 2826.05(Tamil Nadu), 2922.86(UP), 3073.05 (Other States)	3073.05	3073.05	det. by Comm.	3764 (for both air cooled&water cooled)	3270	2500	2500(for both water and air cooled)	25	4295.57/MT	2476	2018	2476	1855	3420.56	2550	2476			2355 (with 5% escalation factor)	
Rebate Through LoC (%)	2%	2%	2%	2%		2%	2%		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
other than LoC within one month (%)	1%	1%	1%	1%		1%	1%		1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Late Payment Surcharge(%) Beyond 60 days	1.25%	1.25%	1.25%	1.25%		1.25%	1.25%		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%

Biomass Existing (rice husk based) Projects Commissioned during FY 2014-15 to 2018-19; Total Tariff for FY 2018-19 year of Commissioning , FY 2014-15: 7.14, FY 2015-16: 7.23, FY 2016-17: 7.33, FY 2017-18: 7.45, FY 2018-19: 7.54

Remark: "" Notified Tariff Order 20