

GUJARAT ELECTRICITY REGULATORY COMMISSION

Determination of Tariff for Procurement of Power by Distribution Licensees and others from Biomass based Power Projects and Bagasse based Co-generation Projects Order No. 4 of 2013 dated 1st August, 2013 and Corrigendum

Order dated 8.8.2013

Sl. No.	Description	Summary of Regulations
1.	Title	GERC Order No.4 of 2013 dated 1st August, 2013 for Determination of Tariff for procurement of power by distribution licensees and others from Biomass based Power Projects and Bagasse based Co-generation Projects and Corrigendum Order dated 8.8.2013
2.	Applicability	<ul style="list-style-type: none"> • To come into force w.e.f 1.8.2013 • Applicable to all Biomass and bagasse based co-generation projects commissioned on or after 1.8.2013 • GUVNL/DISCOM to revise PPA already signed with developers who commission their projects on or after 1.8.2013
3.	Control Period	1 st August, 2013 to 31 st March, 2016
4.	Type of Tariff	Two part Tariff
5.	Useful Life of Project	20 Years
6.	Eligibility Criteria	Projects commissioned during the control period are eligible: <ul style="list-style-type: none"> • Biomass projects based on rankine cycle and gasification technology. • Bagasse projects using new turbine generators and auxiliaries. For qualifying details may refer Regulations.
7.	Scheduling of Power	As per GERC Terms and conditions of Intra State Open Access Regulations, 2011 and GERC ABT orders. Biomass projects upto 4MW exempted from scheduling
8.	Merit Dispatch Principles	'MUST RUN ' power plants not subjected to Merit Dispatch Principles

Operational and Financial Parameters

Parameters	Biomass projects with Water cooled condensers	Biomass projects with Air cooled condensers
Capital Cost (Rs.Lakh/MW) [Land+Plant & Machinery+ Erection Cost]	468	498
Normative O&M cost for first year	5% of project cost	5% of project cost
Escalation on O&M (Per annum from 2nd year)	5.72%	5.72%
CUF	70% for 1st year and 80% from 2nd year onwards	70% for 1st year and 80% from 2nd year onwards
Auxiliary Consumption	10%	10%
Project Life	20 years	20 years
Station Heat Rate (SHR) (kcal/kwh)	3800	3950
Gross Calorific Value (kcal/kg)	Biomass -3400 and Coal -3632	
Cost of Fuel with 5% cost escalation	Rs.2726/MT for BIOMASS and Rs.2912/MT for coal	
Debt – Equity ratio	70:30	
Loan Tenure	10 years	
Interest on term loan	12.86%	
Interest on working capital	12.86%	
Depreciation	6% (upto 10 years and 3% (11 to 20 years)	
Minimum Alternative Tax	20.008%	
Corporate Income Tax	32.45%	
Return on Equity	14%	

TARIFF	Without AD Benefit	
	Levelised fixed component-Rs.1.77 kWh for 20 years water cooled	Levelised fixed component-Rs.1.89 kWh for 20 years air cooled
	Variable component FY 2013-14-Rs.3.39/kWh FY 2014-15-Rs.3.55/kWh FY 2015-16-Rs.3.73/kWh	Variable component FY 2013-14-Rs.3.52/kWh FY 2014-15-Rs.3.69/kWh FY 2015-16-Rs.3.88/kWh
	With AD Benefit	
	Levelised fixed component-Rs.1.49 kWh for 20 years	Levelised fixed component-Rs.1.58 kWh for 20 years
	Variable component FY 2013-14-Rs.3.39/kWh FY 2014-15-Rs.3.55/kWh FY 2015-16-Rs.3.73/kWh	Variable component FY 2013-14-Rs.3.52/kWh FY 2014-15-Rs.3.69/kWh FY 2015-16-Rs.3.88/kWh

Benchmark Parameters for Tariff Computation of Bagasse Based Co-generation Projects

Parameters	Bagasse Based Co-generation Projects
Capital Cost (Rs.Lakh/MW)	
[Land+Plant & Machinery+ Erection Cost]	457
Normative O&M cost for first year (Rs.Lakh/MW)	3% of project cost
Escalation on O&M(PA from 2nd year)	5.72%
CUF	60%
Auxiliary Consumption	8.5%
Project Life	20 years
Station Heat Rate (SHR) (kcal/kwh)	3600
Gross Calorific Value (kcal/kg)	2250
Cost of Fuel with 5% cost escalation	Rs.1804/MT for bagasse and Rs.2912/MT for coal
Debt – Equity ratio	70:30
Loan Tenure	10 years
Interest on term loan	12.86%
Interest on working capital	12.86%
Depreciation	6% (upto 10 years and 3%(11 to 20 years)
Minimum Alternative Tax	20.008%
Corporate Income Tax	32.45%
Return on Equity	14%

TARIFF	Without AD Benefit	
	Levelised fixed component-Rs.1.86 kWh for 20years	
	Variable component	
	FY 2013-14-Rs.3.15/kWh	
	FY 2014-15-Rs.3.31/kWh	
	FY 2015-16-Rs.3.48/kWh	
	With AD Benefit	
	Levelised fixed component-Rs.1.54 kWh for 20years	
	Variable component	
	FY 2013-14-Rs.3.15/kWh	
	FY 2014-15-Rs.3.31/kWh	
FY 2015-16-Rs.3.48/kWh		

9.	Transmission & Wheeling Charges	<p>(a) Wheeling of Power to consumption site at 66kv and above Power wheeled to the desired locations within the state shall be allowed on payment of transmission charges and transmission losses applicable to normal open Access consumer.</p> <p>(b) Wheeling of Power to consumption site below 66kv voltage level.</p> <p>(i) Power wheeled to desired location(s) within the state allowed on payment of transmission charges, applicable to normal open access consumers and transmission & wheeling loss @ 10% of the energy fed to the grid. The loss is to be shared between the transmission and distribution licenses in the ratio of 4:6.</p> <p>(ii) Power wheeled by units below 4MW in the state, allowed on payment of transmission charges applicable to normal open access consumer, and transmission and wheeling losses @ 7% of the energy fed to the grid. Loss to be shared between transmission and distribution licensee in the ratio of 4:3.</p> <p>(iii) Generators who desire to wheel electricity to more than two locations in addition to transmission charges and losses have to pay 5 paisa per unit on energy fed in the grid to distribution company.</p> <p>(c) Injection at 11kV and drawl at 11kV and below voltage level When the point of injection and drawl at 11kV or below lies within the same distribution area, the user to bear wheeling loss at 6% and pay wheeling charges at 5 paisa per unit.</p>
10.	Power Evacuation System	GETCO/DISCOM to erect transmission line from the interconnection point to the nearest GETCO/DISCOM sub-stn at its own cost for the projects commissioned during the control period.
11.	REC Mechanism	Projects availing open access for captive use/third party sale and willing to register under REC mechanism to be governed by CERC REC Regulations
12.	Cross subsidy surcharge	Exempted from cross subsidy surcharge on OA transactions selling to third party/captive use not availing REC benefit. To be applicable in case of third party sale availing REC benefit
13.	Energy Metering	Developers to install ABT compliant meters at the point of metering and Remote Transmitting Unit (RTU) for transferring the real time data to SLDC.
14.	Pricing of Reactive Power	10 paisa /kVarh- for drawl of reactive energy at 10% or less of the net energy exported. 25 paisa/kVarh- for drawl of reactive energy at more than 10% of the net active energy exported.
15.	Start up and Stand by power	Projects selling power to GUVNL/DISCOM as per Commissions tariff, energy charges for Start up and Stand by power to be at par with that applicable to HT industrial consumer of similar load/category Projects exempted from demand charges
16.	Sharing of clean Development Mechanism (CSD) Benefits.	Proceeds of carbon credit to be shared between generating company and concerned beneficiaries as follows: <ul style="list-style-type: none"> • 100% by project developer in the first year after the date of commercial operation of the generating station. • 2nd year – share of beneficiaries @ 10% to progressively increase by 10% every year up to 50% where after to be shared in equal proportion, by the generating company and the beneficiaries
17.	Banking of Surplus Energy	Not Allowed
18.	Purchase of surplus Power from Projects opting for Captive use and third party sale under open Access	Surplus over and above the settlement as per the schedule for third party sale from projects of 4MW and above to be treated as per the provisions of intra-state ABT orders

19.	Renewable Energy Certificates for Third-party sale and captive use of Energy	Eligibility of projects for registering in REC mechanism to be governed by CERC REC Regulations.
20.	Security Deposit	Project Developer to furnish Bank Guarantee of Rs 5 lakh/MW to GETCO but no additional security deposit by the distribution licensee.
21.	Monitoring Mechanism for the use of Fossil and non-fossil fuel	Project developers to provide the data to GEDA (NODAL AGENCY) For Details refer Regulations