

Community-Scale Gasification

West Biofuels offers a community-scale modular biomass gasification combined heat and power (CHP) system designed to convert biomass residues to renewable electricity and heat.

West Biofuels has aggregated and refined proven commercial technologies to create a robust and scalable configuration that can meet energy needs ranging from 0.5MW and above.

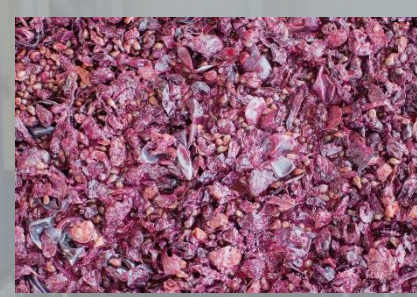
System components include:

- Modular CircleDraft® Gasifier
- Packaged Gas Generator (e.g., Cat, GE, Dresser Rand)
- BACT Air Emission Controls
- Skid-Mounted Gas Conditioning Systems
- Customizable Material Handling

System Specifications	
Optimal Size	0.5 MW _e – 5.0 MW _e
Scalable Increments	0.5 MW _e
Feedstock Specifications	
Heating Value	> 7,000 Btu/dry lb.
Moisture Content	15% - 35%
Nominal Feed Rate	~2,000 dry lb./hr/MW
System Production	
Gasifier Efficiency	65% - 80%
Generator Efficiency	28% - 36%
System CHP Efficiency	72% - 80%
Heat Availability	5.5 - 7.0 MMBtu/hr/MW
Biochar Production	200 – 300 dry lb./hr/MW
Syngas Heating Value	140 – 180 Btu/scf
Gas Composition	
H ₂	18% - 22%
CO	14% - 18%
CH ₄	1% - 5%
CO ₂	11% - 15%
N ₂	46% - 50%
H ₂ /CO	1.2 - 1.3
Tars	< 20 mg/Nm ³
Tar Dew Point	15°C



Feedstock Diversity



Business Inquiries: Matthew Hart – matt.hart@westbiofuels.com

Technical Inquiries: Dr. Matthew Summers – matt.summers@westbiofuels.com

14958 County Road 100B, Woodland, CA 95776, 530-207-5996