Canada has experienced an unprecedented push for renewable and alternative energy. Biomass energy is seen as a technology that is rather close to the market.

With the biomass energy sector emerging comes a need for consulting services and engineering that are practical and tested in real life examples. As a former supplier and project developer of biomass energy systems, CBER is familiar with the pitfalls that biomass energy projects can face and is in a prime position to provide proven concepts and realistic numbers and targets.

CBER has evolved from MAWERA (Canada) Ltd, a distributor and installer of biomass energy equipment. CBER does not sell equipment nor is it tied to any supplier, but provides objective information that has been gained from 5 years of experience of developing and implementing biomass heating, district heating and combined heat & power projects.

CBER assists communities, energy companies, governments and suppliers with the analysis, selection, development, design, and operation of biomass energy systems and technologies that make the transition to a sustainable energy future as smooth as possible.

CBER is an independent, high-tech oriented consulting & engineering firm in the biomass-energy-environment matrix. The company operates in three principal lines of business:

1. **Consulting**: from biomass resource studies to grant applications for biomass energy projects
2. **Engineering**: from chemical fuel analyses to mechanical design of an energy plant
3. **Project Development**: from finding project sites for innovative biomass technologies to construction management.
CBER — Areas of Expertise

District Heating & Community Energy
- determination of peak load, base load, load duration
- heating network layout & design
- pipeline technologies & building transfer stations
- metering & billing

Combustion & Gasification Technology & Equipment
- combustors & gasifier designs
- combustion temperature and oxygen control technologies
- solutions to clinker & fouling problems
- process controls & fire safety mechanisms

Biomass-fuelled Combined Heat & Power
- gasification with internal combustion engines
- steam turbines & Organic-Rankine Cycle (ORC)
- Sterling Engine / External Combustion Engine

Emission Control & Monitoring Systems
- primary & post-combustion emission controls
- online emission monitoring
- best management practises
- online emission monitoring systems

Thermal Treatment of Biomass
- pyrolysis
- torrefaction
- dryers
CBER — Services

CONSULTING
- biomass resource supply studies
- technical, site & economic feasibility studies
- market studies
- vendor & equipment assessment
- CAPEX and O&M cost estimates
- grant applications
- assistance with code & environmental compliance

ENGINEERING
- biomass resource supply studies
- technical, site & economic feasibility studies
- market studies
- vendor & equipment assessment
- CAPEX and O&M cost estimates
- grant applications
- assistance with code & environmental compliance

DEVELOPMENT
- concept development
- stakeholder consultation
- funding sources, grant writing & application
- vendor contact & procurement
- project management & construction site supervision
- pilot demonstration projects of innovative technologies

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