

Canadian Biomass Energy Research (CBER) Ltd



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.



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CBER – AREAS OF EXPERTISE



District Heating & Community Energy

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



Combustion & Gasification Technology & Equipment

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



Biomass-fuelled Combined Heat & Power

- o gasification with internal combustion engines
- o steam turbines & Organic-Rankine Cycle (ORC)
- o Sterling Engine / External Combustion Engine



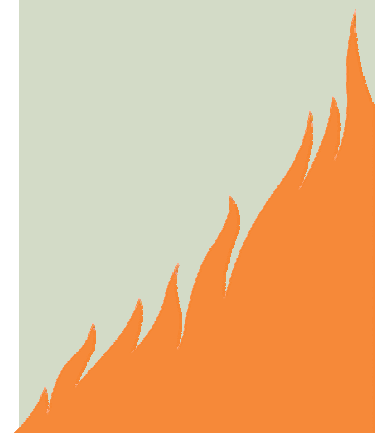
Emission Control & Monitoring Systems

- o primary & post-combustion emission controls
- o online emission monitoring
- o best management practises
- o online emission monitoring systems

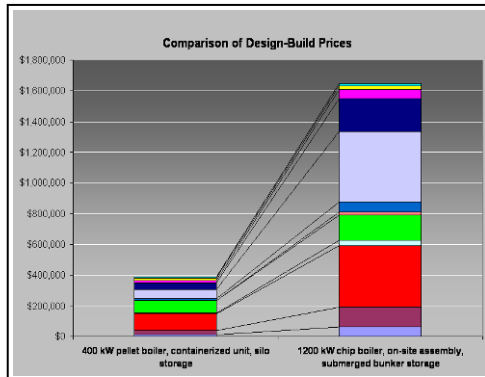


Thermal Treatment of Biomass

- o pyrolysis
- o torrefaction
- o dryers

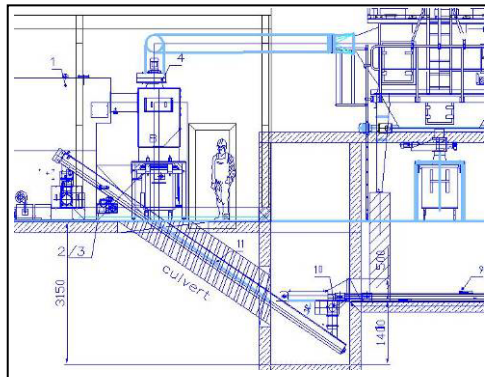


CBER – SERVICES



CONSULTING

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



ENGINEERING

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



DEVELOPMENT

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



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