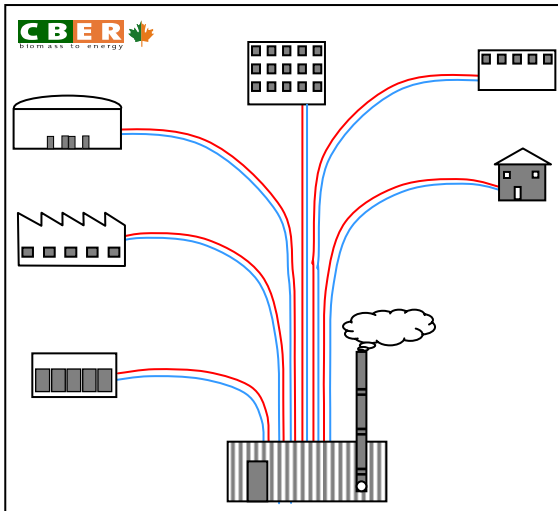


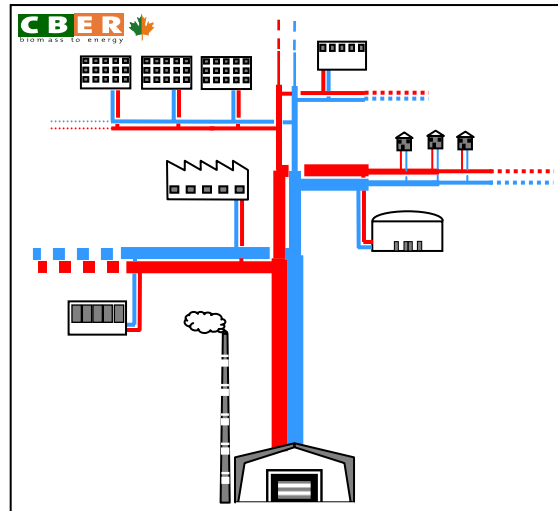
Basic District Heating Configurations

District Heating refers to a wide range of heat supply solutions, from small micro-grids with up to 10 consumers to medium-sized networks supplying tens or hundreds of buildings to large utility-scale heating networks with multiple heat generators. For biomass-fuelled applications micro-grids and small-to medium sized networks are most common.



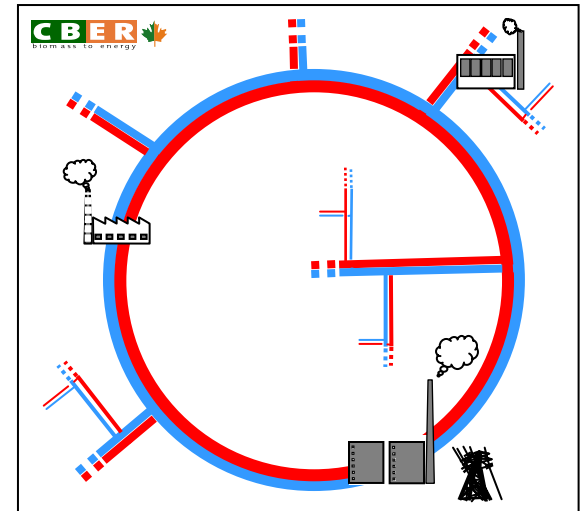
Micro-Grid

- 2 to 10 consumers
- ,grass"-like pipeline structure
- meter can be located in boiler house
- often direct connection to building
- common for single ownership
- example: Baldy Hughes, BC



Medium-Size Network

- typically more than 10 consumers
- ,tree"-like structure with branches
- requires building substation / heat exchanger
- metering at consumer only
- application: communities & smaller cities
- example: Revelstoke, BC



Utility-Size Network

- large urban centers / cities
- several heat producers incl. power plants
- ,ring"-like structure with branches
- example: Almaty, Kazakhstan (population of 1.2 million, 80% supplied with district heat)