

WHAT IS COGENERATION?

COGENERATION = SIMULTANEOUS PRODUCTION and USE of TWO DIFFERENT FORMS OF ENERGY

From ONE SINGLE ENERGY SOURCE and within THE SAME FACILITY.

Goal: use the 2nd form of energy generated as a by-product of producing the 1st, rather than waste it.

Example: electrical energy production generates a large amount of heat, which is often not used.

Using a heat recovery system, heat can be harnessed to raise the temperature of gas or water that can then be used to supply apartment and office buildings, hospitals and factories.

Disadvantages:

- Unavoidable energy loss during transportation

Production sites must therefore be close to the places of consumption despite the risk of making the efficiency of the installation less optimal.

Advantages:

- Less greenhouse gas.
- Lower production costs than separate generation systems.
- Possibility to produce energy from gas or fuel oil, but also from local energy sources: geothermal, biomass or municipal waste incineration.
- Significant improvement in the facility's energy efficiency:

Typical facility: energy efficiency: 35% + 65% lost in heat form.

Cogeneration: about half of the available heat is no longer lost.

Summary:

Cogeneration = simultaneous production and use of 2 energy forms from 1 source.

Disadvantages:

- Production sites and places of consumption must be close to one another to ensure optimal efficiency.

Advantages:

- less greenhouse gas,
- lower production costs,
- higher energy efficiency – 50% of heat produced is used.