



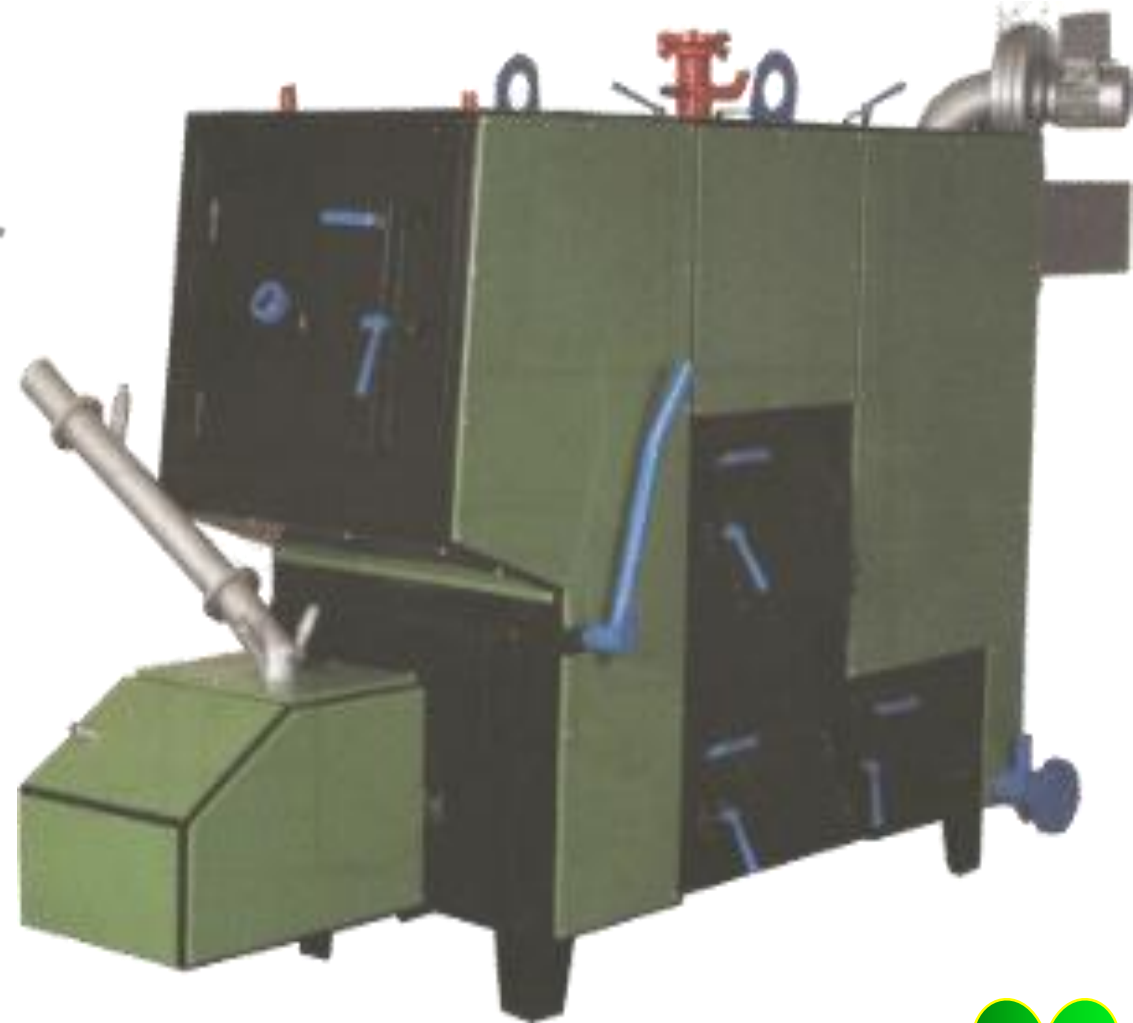
Biomass as renewable energy resource





Harvest of biomass energy

- **Northern Plains Region: Tiszaföldvár**
- **Natural gas-based central heating**
- **Without modern isolation**
- **Main activity: agriculture**
- **Key question: automatization**





Waste wood

- Pellet feed
- Trimming waste, that is „compact” chip, which burns with slow combustion





Main information:

- **The price of natural gas has significantly risen**
- **Annual heat energy demand: 10 000 kW/h**
- **Annual heating cost: 650 €**
- **Cost of energy production: 0,01 € /MJ**
- **Manager size: 25–50 l/kW**
- **Additional price component = cost of the furnace**
- **Cost of installment: 350 €**





Further information



- **Energy content of fuel: 19 MJ/kg**
- **The price of waste wood: 0,3 €/kg**
- **Financial support systems of the European Union**

❖ Biomass:

- **Coal-based**
- **An ecological concept**





The advantages of biomass

- **Renewable energy resource, that is available, sustainable**
- **New plants can be planted to the places of the fired ones**
- **Its usage is beneficial**
- **Creates market for the agricultural products**
- **During its combustion exactly as much carbon-dioxide gets back into the air as plants bind in the course of their growth**





Economic aspects

- Heating totals up 35-50 percent of the annual energy bills

□ Pellet furnace:

- It is more difficult to operate
- It is rarely disposable
- Eco-friendly
- Economic







Thank you for your attention!

