

**Power Unit HAESBIO**

**Preliminary evaluation of capital costs:**

There was performed preliminary calculation of HAESBIO investment costs and sell prices of units with minimal electric efficiency at electric power 260kW and thermal power 1800kW in serial production.

Specific costs of complete unit are 110 000 - 130 000 Kč/kWe

Specific costs of part for electricity generation are 55 000 - 65 000 Kč/kWe.

On condition that price of marketed electricity 2,57 Kč/kWh (biomass category OZ3 ), price of marketed heat 430Kč/GJ, fuel price 75 Kč/GJ and utilization time min. 5000 hours the unit payoff coming out 5 - 6 years.

HAESBIO is compact energetic unit using thermal energy of flue gases from burning of biomass in combustion chamber. The outlet is electricity generated by turbogenerator and heat for next utilization mentioned above . The system is fully automatic based on PLC.

**The main areas of utilization:**

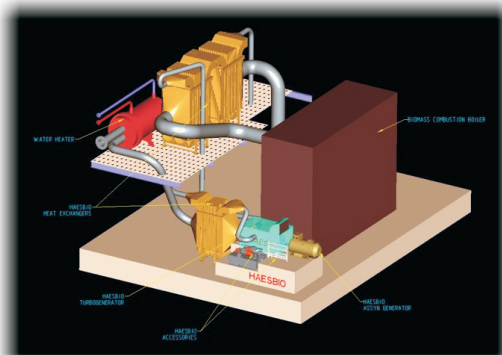
- Industrial premises*
- Bussines centre and offices*
- Schools*
- Hotels*
- Hospitals*
- Bureaus*

**The outlet energy is gained from:**

- Waste wood in form wodd chips*
- Pelets*
- Energy crops*

**Benefits and contribution:**

- Long lifetime*
- Reliability*
- Quick payoff*
- Availability of Services and Parts*
- Ecologically unexceptionable source (low emission)*



The pilot unit is designed for electric power , higher model series will be up to 1MWe. The systém is protected by utility design.

**Main technical data:**

Elektric power to the grid	250kW
Thermal power	1MW
Elektrical efficiency on generator terminals	> 20%
Output voltage	3ph. 400V/50Hz
Operation	Fully automatic, continuous