

# Country updates on electricity and gas

## *Germany*

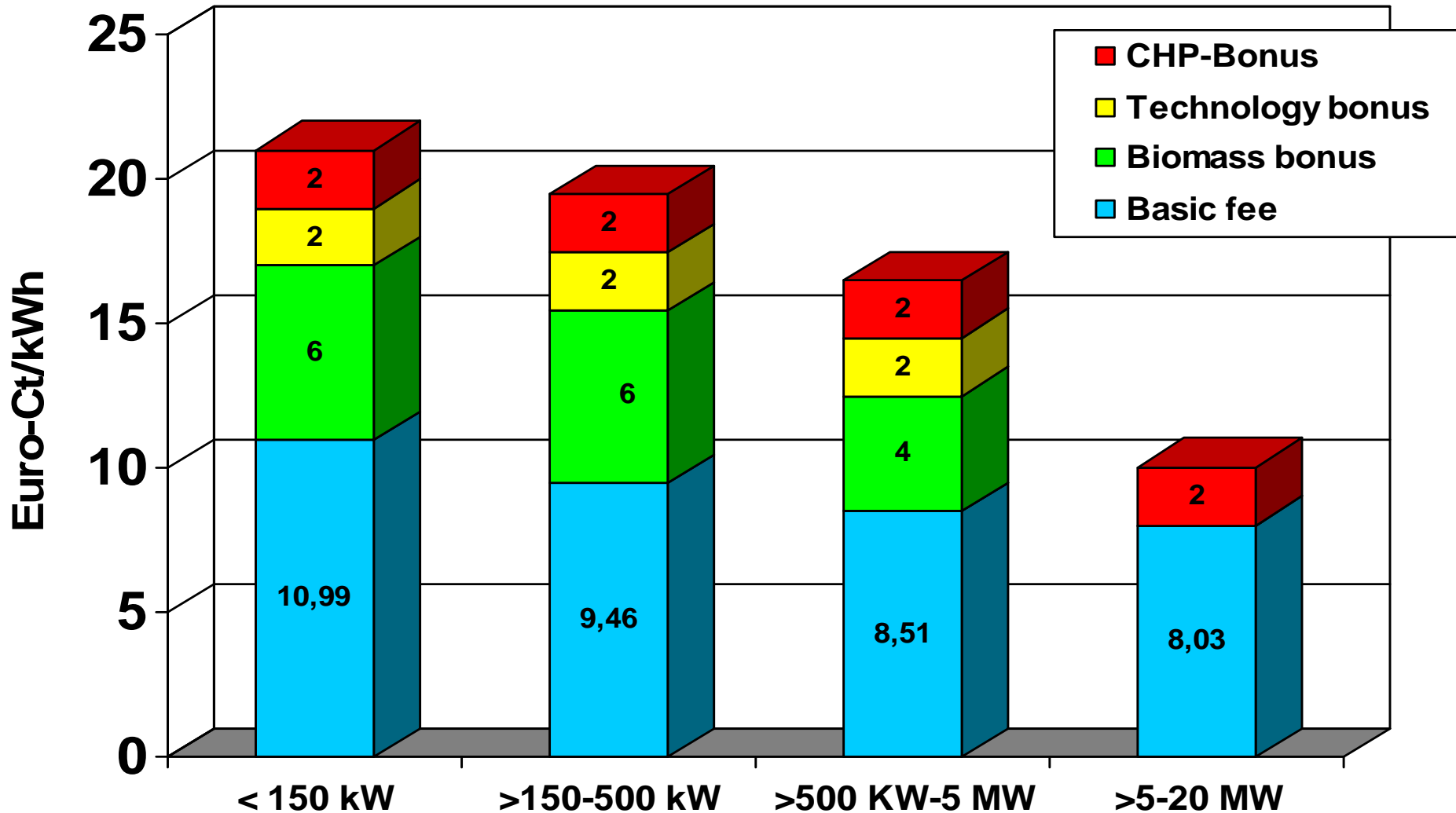
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- **Grid systems operators have to connect plants generating electricity from renewable sources to their grid (priority regulation).**
- **The grid system operator should allow the feeding most closely located to the biogas plant.**
- **The grid system operator has to upgrade its grid if the capacity is not high enough (at reasonable economic expense).**
- **The grid system operator has to pay fees for electricity in accordance with the EEG regulations.**

# Compensation for electricity 2007 (EEG)



- **The compensation is fixed for a period of 20 years.**
- **The basic fee is reduced for new biogas plants by 1,5 % every year.**
- **The biomass bonus is paid for 20 years if only energy crops, manure and stillage from agricultural alcohol plants are used.**
- **The CHP bonus is only paid for 20 years if heat is used outside the biogas plant.**
- **The technology bonus is paid if innovative technologies are applied (dry fermentation processes, fuel cells, stirling engines, ORC-processes, Kalina cycles, gas upgrading).**

***The first draft of the new EEG has been published on 9.10.2007 with the following messages:***

- **The new EEG will come into force on 1.1.2009.**
- **The fundamental compensation (11,7-7,79 Cent/kWh) and the period of compensation (20 a) and will not be changed; the cost-cutting per year is reduced to 1 %.**
- **The bonus for the utilization of renewable biomass is enhanced from 6 to 7,5 Cent/ kWh<sub>el</sub> for biogas plants with a capacity of  $\leq 500$  kW<sub>el</sub>.**
- **The compensation is enhanced by 1 Cent/kWh<sub>el</sub> for plants  $\leq 150$  kW<sub>el</sub> which use at least 30 vol-% manure.**

- A technology bonus of 2,0 Cent/kWh<sub>el</sub> is paid if innovative technologies (fuel cells, gas turbines, ORC-plants, Kalina-cycle-plants, stirling engines or gas upgrading plants) are used. Dry-fermentation processes are not mentioned.
- The methane losses of biogas upgrading plants must be  $\leq 0,5$  vol-% and the electricity consumption  $\leq 0,5$  kWh<sub>el</sub> per m<sup>3</sup> raw biogas.
- Renewable resources are defined in a positive list. Manure from horses is now accepted as renewable biomass.

- **There exist no regulations for :**
  - the compensation paid for biomethane which is injected into the public grid
  - the connection to the gas grid
  - the transportation of the gas in the grid
  - the management of the gas grid.
- **The gas quality for injection has to fulfill the technical regulations of DVGW (G 260).**
- **A compensation for the injected gas is only paid according the regulations of the EEG if the gas used in a CHP.**

- Only 3 biogas plants inject biogas into the public grid.
- 2 biogas plants with gas injection are in construction.
- The largest biogas upgrading plant of the world with gas injection will be built 2008 at the biogas park Güstrow. The plant has a capacity of 10,000 m<sup>3</sup> biogas per hour.
- 20 further biogas plants with gas injection are planned.
- In Braunschweig a first project has been realized which couples several biogas plants by a 20 km biogas pipeline. The heat is fed into a district heat grid which heats our Research Centre FAL and 1,000 households (36 Mill. kWh).



**After 60 years successful research in the field of agricultural and related sciences the name of our Federal Agricultural Research Centre (FAL) will be changed.**

**The new name starting from 1<sup>st</sup> January 2008:**

**Johann Heinrich von Thünen-Institut  
Bundesforschungsinstitut für Ländliche  
Räume, Wald und Fischerei**