

Country updates on electricity and gas

Germany

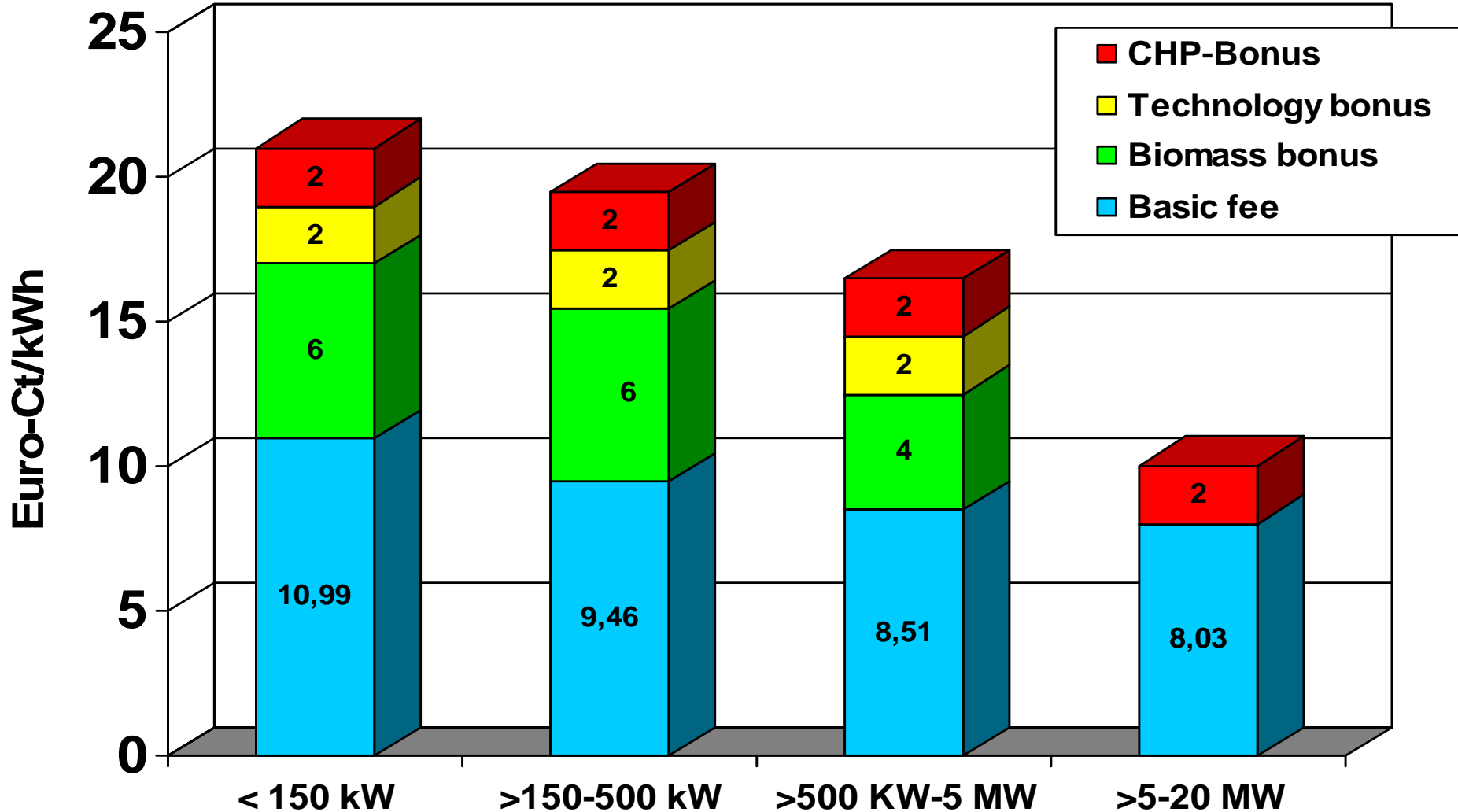
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- **Grid systems operators have to connect plants generating electricity from renewable sources to their grid (priority regulation).**
- **The grid system operator should allow the feeding most closely located to the biogas plant.**
- **The grid system 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_{el} for biogas plants with a capacity of ≤ 500 kW_{el}.**
- **The compensation is enhanced by 1 Cent/kWh_{el} for plants ≤ 150 kW_{el} which use at least 30 vol-% manure.**

- A technology bonus of 2,0 Cent/kWh_{el} 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_{el} per m³ 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 m³ 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 1st January 2008:

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