

# **Renewable Energies**

## **Financial assistance in Germany**

### **Per Seeliger**

# Support programmes for renewable energy sources

- ✚ Government supports renewable energies through research and development as well as various measures for market development
  - ✚ electricity: Mostly Renewable Energy Sources Act (EEG),
  - ✚ biofuels: tax exemption under the eco-tax reform

# Support programmes for renewable energy sources

- ✚ Market Incentive Programme for the support of measures for the utilization of renewable energy sources,
  - ✚ expansion of heat generation from biomass, solar power and geothermal energy
  - ✚ details in guidelines
- ✚ Residential sector:
  - ✚ focus on the promotion of solar thermal collector systems and biomass heaters (pellet systems and wood gasification boilers)

# Renewable Energy Sources Act (EEG)

- ✚ The core elements of the EEG are:
  - ✚ the priority connection of installations for the generation of electricity from renewable energies and from mine gas to the general electricity supply grid
  - ✚ the priority purchase and transmission of this electricity and
  - ✚ a consistent fee for this electricity paid by the grid operators, generally for a 20-year period, for commissioned installations. This payment is geared around the costs
  - ✚ the nationwide equalization of the electricity purchased and the corresponding fees paid.

# Renewable Energy Sources Act (EEG)

## ✚ Article 5 (1)

- ✚ The grid system operators shall pay fees for electricity generated in plants exclusively using renewable energy sources ...

## ✚ Article 7

- ✚ The fees paid for electricity from landfill gas, sewage treatment plant gas and mine gas shall be at least
  1. 7.67 cents per kilowatt-hour up to and including a capacity of 500 kilowatts and
  2. at least 6.65 cents per kilowatt-hour up to and including a capacity of 5 megawatts.

- ✚ Reduction 1.5 % yearly for new plants

# Support programmes for renewable energy sources

## Structure of electricity volumes paid for under the EEG

		2000 <sup>1)</sup>	2001	2002	2003	2004	2005 <sup>2)</sup>
<b>Total end consumption</b>	[GWh]	344,663	464,286	465,346	478,016	487,627	483,886
Privileged end consumption <sup>3)</sup>	[GWh]	-	-	-	6,552	36,865	60,633
<b>EEG electricity quantity Total</b>	[GWh]	10,391	18,145	24,970	28,496	38,511	43,690
Hydropower, gases	[GWh]	-	6,088	6,579	5,874	7,205	7,711
Gases <sup>5)</sup>	[GWh]						147
Biomass	[GWh]	-	1,472	2,442	3,469	5,241	8,330
Geothermal en.	[GWh]	-	-	-	-	0.2	0.2
Wind energy	[GWh]	-	10,509	15,786	18,859	25,509	26,500
Solar irradiation energy	[GWh]	-	76	162	294	557	1,002
<b>EEG quota<sup>4)</sup></b>	[%]	3.01	3.91	5.37	6.03	8.48	10.0
<b>Average fee</b>	[ct/kWh]	8.50	8.69	8.91	9.14	9.29	9.58
<b>Total fee</b>	[bill. EUR]	0.88	1.58	2.22	2.60	3.61	4.19

# Elements of the electricity price

	1998	1999	2000	2001	2002	2003	2004	2005*
<b>Electricity bill (EUR/month)</b>	<b>49,95</b>	<b>48,2</b>	<b>40,66</b>	<b>41,76</b>	<b>46,99</b>	<b>50,14</b>	<b>52,38</b>	<b>54,11</b>
Renewable Energy Sources Act	0,23	0,28	0,58	0,7	1,02	1,23	1,58	1,63
Heat-Power Cogeneration Act	0	0	0,38	0,58	0,76	0,90	0,85	0,93
Electricity tax (eco-tax)	0	2,25	3,73	4,46	5,22	5,97	5,97	5,97
Concession charge	5,22	5,22	5,22	5,22	5,22	5,22	5,22	5,22
Generation, transmission, marketing	37,6	33,8	25,15	25,05	28,29	29,9	31,52	32,90
Value-added tax	6,90	6,65	5,60	5,75	6,48	6,92	7,24	7,46
per kWh	0,171	0,165	0,139	0,143	0,161	0,172	0,180	0,186
Electricity bill in prices from 2000	50,97	48,88	40,66	40,94	45,44	47,98	49,32	49,97

# Elements of the electricity price

