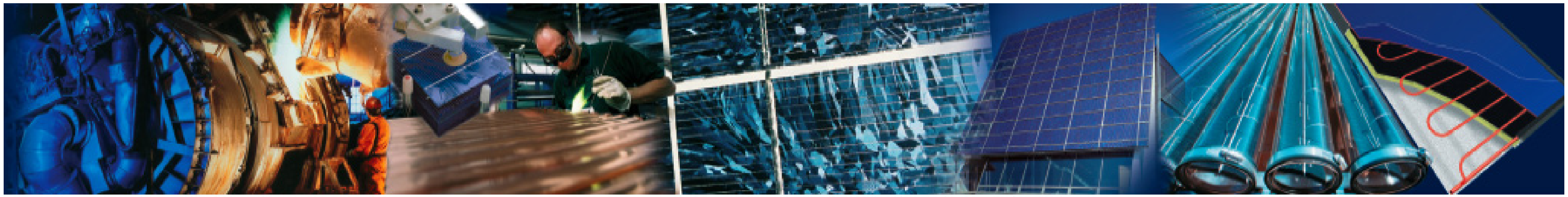
# EEG 2009

## Important Changes and Feed-in Tariffs for Photovoltaics

**June 2008**

Bundesverband Solarwirtschaft (BSW) e.V.





# EEG 2009 – Important Changes Regarding PV Support I

**Quicker Degression of PV feed-in tariffs as of 2009**

- Presently: 5% p.a. for rooftop systems. 6.5% p.a. for ground-mounted installations
- New: Tariffs <100 kW: 8% in 2009. 8% in 2010. 9% as of 2011
- New: Tariffs >100 kW: 10% in 2009. 10% in 2010. 9% as of 2011
- New: Ground-mounted systems: 10% in 2009. 10% in 2010. 9% as of 2011

**„Sliding Scale“ for degression when the growth corridor is left**

- If the growth of the PV market (new installations) in a year is stronger or weaker than the defined growth corridor. the degression in the following year will increase or decrease a percentage point respectively.
  - Growth Corridor 2009: 1.000 – 1.500 MW
  - Growth Corridor 2010: 1.100 – 1.700 MW
  - Growth Corridor 2011: 1.200 – 1.900 MW
- Based on the market growth of 2007 (1.100 MW of new installations) the top border of the growth corridor indicates 15% growth p.a. As soon as the growth exceeds this value. the sliding scale will correct the degression (earliest 2010).

# EEG 2009 - Important Changes Regarding PV Support II

**New remuneration category for rooftop installations >1.000 kW**

- Remuneration in 2009: 33.00 ct/kWh
- Same degression rate for systems >100 kW: 10% in 2010. 9% as of 2011

**„Facade Bonus“ cancelled**

- The previous supplemental added values bonus of 5 ct/kWh for facade integrated installations has been cancelled.

**Bonus for photovoltaic power for self-consumption (only for systems <30 kW)**

- Those who use PV electricity for personal consumption and do not feed it into the grid will receive a reduced feed-in tariff (in 2009: 25.01 ct/kWh) compared to the normal rate (in 2009: 43.01 ct/kWh).
- Because the amount of PV electricity that is self-consumed substitutes expensive electricity from the grid (in 2009 approx. 20 ct/kWh) self-consumers will receive a small bonus (in 2009 approx. 2 ct/kWh). As the price for conventional electricy keeps growing this bonus will likewise increase.

# EEG 2009 - Important Changes Regarding PV Support III

**Increased market transparency through system register**

- As of 01.01.2009 all installation operators must register with the German Federal Network Agency by declaring the location and capacity of the PV installation before they can gain network access.
- The federal government establishes a universal register of all installations which produce electricity from renewable sources.

**Implementation of a „feed-in management“ for installations >100 kW**

- All installations >100 kW must be capable of being remotely controlled by the network operator (for old installations there will be a concessional period until 01.01.2011).
- Network operators may regulate the output of PV systems when the network is at capacity **only** after the grid has been optimized and sufficiently expanded. Small installations (mostly private users) >100 kW may not be remotely controlled.
- For the electricity which could not be fed into the grid. system operators will be reimbursed by the grid operators.

BSW
Bundesverband Solarwirtschaft

# EEG 2009 – New Degression Rates for Solar Electricity

| **Year**<br>Degression/Market | **Degression of tariffs for systems**<br>**<100 kW**<br>(% p.a) | | | **Degression of tariffs for systems**<br>**>100 kW**<br>**(incl. ground-mounted systems)**<br>(% p.a.) | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| **Degression 2009** | **8** | | | **10** | | |
| | | | | | | |
| Market 2009 (MW) | <1.000 | 1.000-1.500 | >1.500 | >1.000 | 1.000-1.500 | <1.500 |
| **Degression 2010** | 7 | **8** | 9 | 9 | **10** | 11 |
| | | | | | | |
| Market 2010 (MW) | <1.100 | 1.100-1.700 | >1.700 | <1.100 | 1.100-1.700 | >1.700 |
| **Degression 2011** | 8 | **9** | 10 | 8 | **9** | 10 |
| | | | | | | |
| Market 2011 (MW) | <1.200 | 1.200-1.900 | >1.900 | <1.200 | 1.200-1.900 | >1.900 |
| **Degression 2012** | 8 | **9** | 10 | 8 | **9** | 10 |

# PV Feed-in Tariffs of the New EEG 2009 – Rooftop Systems

## (without adjustments to the sliding scale)

| | Rooftop Installations | | | |
|---|---|---|---|---|
| Year of commissioning | **≤ 30 kW (ct/kWh)** | **from 30 kW (ct/kWh)** | **from 100 kW (ct/kWh)** | **from 1.000 kW (ct/kWh)** |
| | 8% p.a. in 2009/2010 9% as of 2011 | 8% p.a. in 2009/2010 9% as of 2011 | 10% p.a. in 2009/2010 9% as of 2011 | 25% in 2009. 10% in 2010. 9% from 2011* |
| 2008 | 46.75 | 44.48 | 43.99 | 43.99* |
| **2009** | **43.01** | **40.91** | **39.58** | **33.00** |
| 2010 | 39.57 | 37.64 | 35.62 | 29.70 |
| 2011 | 36.01 | 34.25 | 32.42 | 27.03 |
| 2012 | 32.77 | 31.17 | 29.50 | 24.59 |
| 2013 | 29.82 | 28.36 | 26.84 | 22.38 |
| 2014 | 27.13 | 25.81 | 24.43 | 20.37 |
| 2015 | 24.69 | 23.49 | 22.23 | 18.53 |

* New category introduced (until now tariffs >1000 kW were considered the same as >100kW, hence the largest degression leap in 2009)

# PV Feed-in Tariffs of the New EEG 2009 – Ground-mounted Installations (without adjustments to the sliding scale)

| | Ground-mounted installations |
|---|---|
| Year of commissioning | 10% p.a. in 2009 and 2010. 9% p.a. as of 2011 |
| 2008 | 35.49 |
| **2009** | **31.94** |
| 2010 | 28.75 |
| 2011 | 26.16 |
| 2012 | 23.81 |
| 2013 | 21.66 |
| 2014 | 19.71 |
| 2015 | 17.94 |

*All information is without guarantee and subject to passage of the Bundesrat after which it enters into force.*

## Amendments to the EEG as of 2009, decision of the German Parliament from 6th June 2008

- **Increased annual degression rates as of 2009**
- **No more bonus for facade integrated systems**

**NEW**

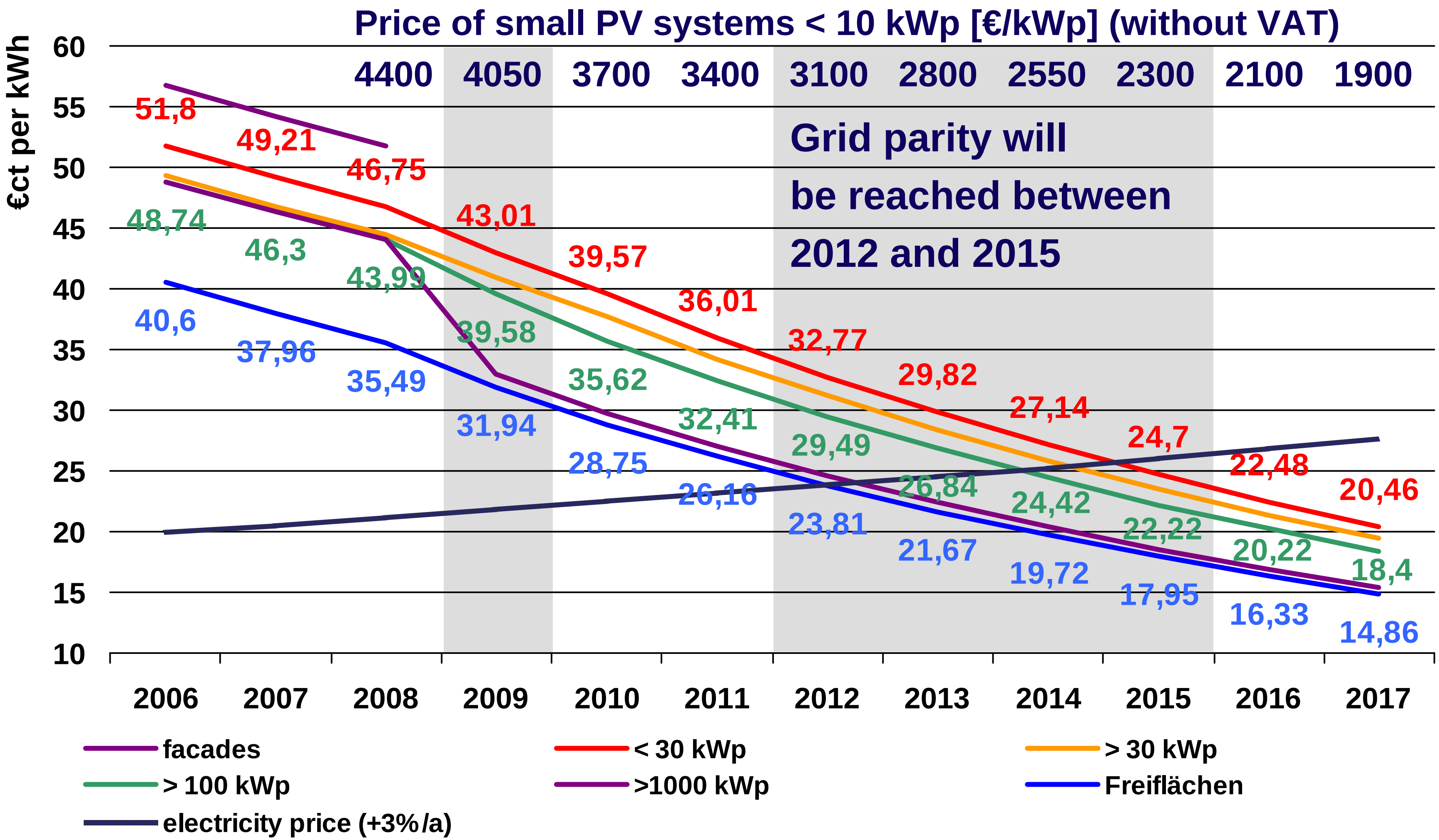
- **„Sliding Scale“ for degression when a growth corridor is left**
- If the growth of the PV market (new installations) in a year is stronger or weaker than the defined growth corridor, the degression in the following year will increase or decrease a percentage point respectively.

| | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Roof top < 100 kWp | 5% | 8% | 8% | 9% |
| Roof top > 100 kWp | 5% | 10% | 10% | 9% |
| Ground mounted | 6.5% | 10% | 10% | 9% |

| | Degres sion | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| Upper limit in MWp | above: +1% | 1500 | 1700 | 1900 |
| Lower limit in MWp | below: -1% | 1000 | 1100 | 1200 |

# Feed-in Tariffs for PV within the German EEG

Based on higher degression rates as of 2009, decided on June 6th, 2008



# German PV Market up to 2008 and Feed-in Tariffs as of 2009