

Feed-In-Tariff in the European Union and Switzerland

(Source PV Status Report 2007, JRC, EC)

<p>Austria</p>	<p>The amendment of the Austrian Eco Electricity Law (Ökostromgesetz) went into force on 1 July 2006. The feed-in tariffs were fixed in October and went into force retroactively from 1 October 2006 onward.</p> <p>Key elements of the Law are: Electricity from all renewable energy sources are supported with € 17 million per year. 10% are earmarked for PV, with the same amount added by the Federal States, because of their co-financing duty. The support will be constant for 10 years, with a degressive support for 3 more years and thereafter an obligation for the utilities to accept the electricity from a PV system for another 13 years.</p> <p>Start of operation: 2006: up to 5kW: 0.49 €/kWh, 5 – 10 kW: 0.42 €/kWh, > 10 kW: 0.32€/kWh 2007: up to 5kW: 0.46 €/kWh, 5 – 10 kW: 0.40 €/kWh, > 10 kW: 0.30€/kWh</p> <p>Some of the Federal States have investment support schemes.</p>
<p>Belgium [Ode 2006]</p>	<p>Green Certificates (with guaranteed minimum price): 0.15 €/kWh; Flanders from 1 January 2006: 0.45 €/kWh for 20 years.</p> <p>Additional support in Flanders depends on whether the PV installation is done privately, by an enterprise or a farmer.</p> <p>The support schemes used are investment subsidies, eco premiums, tax reductions and interest reduced mortgages.</p>
<p>Bulgaria</p>	<p>No specific PV programme, but RES are preferentially treated both towards the purchase electricity prices and towards the obligatory purchase of RES electricity by transmission and/or distribution companies. The Energy and Energy Efficiency Act sets following advantages towards RES:</p> <ul style="list-style-type: none"> • No license is required for the generation of electricity from RES with a capacity of up to 5 MW and for thermal energy production. • The energy distribution company is obliged to purchase electric energy generated from RES with a capacity up to 10 MW. • Preferential prices are set for electricity generated utilising RES (no set price for PV).
<p>Cyprus</p>	<p>Feed-in tariff: 0.224CYP€/kWh (0.391 €/kWh) for households and 0.196CYP€/kWh (0.342 €/kWh) for enterprises. If an investment grant is taken, the tariff is reduced to 0.012CYP€/kWh (0.21 €/kWh).</p> <p>Investment grants for households, other entities and organisations, not engaged in economic activities are limited to a maximum 55% of the eligible costs and the maximum grant is 16.5 k€ (CY€ 9.500). For enterprises, the grant is 40% of eligible costs and the maximum amount of the grant is 12 k€ (CY€ 7.000).</p>

Czech Republic	<p>New Law on the Promotion of Production of Electricity from Renewable Energy Sources went into effect on 1 August 2005. Producers of electricity can choose from two support schemes:</p> <ul style="list-style-type: none"> • Fixed feed- in tariff for 2007: Systems commissioned after 01/01/06: 13.46 CZK/kWh (0.479 €/kWh)¹⁰ Systems commissioned before 01/01/06: 6.41 CZK/kWh (0.228 €/kWh) • Market price + Green Bonus; Green Bonus for 2007 Systems commissioned after 01/01/06: 12.75 CZK/kWh (0.454 €/kWh) Systems commissioned before 01/01/06: 5.70 CZK/kWh (0.203 €/kWh) <p>From 2007 onwards the annual price decrease for new installations should be 5% maximum. In 2007 the tariff was slightly increased compared to 2006.</p>
Denmark	<p>No specific PV programme, but settlement price for green electricity 60 Øre/kWh (0.08 €/kWh) for 10 years, then 10 more years 40 Øre/kWh.</p>
Estonia	<p>No specific PV programme, but Renewable Portfolio Standard and tax relief. Feed-in tariff for electricity produced out of RES is 5.1 ct/kWh.</p>
Finland	<p>No PV programme, but investment subsidy up to 40% and tax/production subsidy for electricity from renewable energy sources (6.9 €/MWh).</p>

France	<p>New feed-in tariff since 26 July 2006: (only valid for new installations) 0.30 €/kWh (0.40 €/kWh in Overseas Departments and Corsica) for 20 years. For building-integrated PV installations there is a supplement of 0.25 €/kWh (0.15 €/kWh in Overseas Departments and Corsica).</p> <p>50% of the investment costs are tax deductible. Lower VAT of 5.5% on system costs (without labour). Accelerated depreciation of PV systems for enterprises. Regional support still possible.</p> <p>The 5% tariff digression for new installations was cancelled. All tariffs (old and new) will be adjusted annually in accordance to the inflation during their duration.</p>
Germany	<p>Feed-in tariff for 20 years with built-in annual decrease of 5% from 2005 onward. For plants, neither on buildings nor sound barriers, the annual decrease is 6.5% from 2006 onward.</p> <p>Tariffs for new installations in 2007:</p> <p>Free standing systems: 0.3796 €/kWh Systems on buildings and sound barriers: 0.4921 €/kWh < 30 kWp, 0.4682 €/kWh > 30 kWp and 0.4630 €/kWh > 100 kWp. For façade integration there is an additional bonus of 0.05 €/kWh.</p>
Greece	<p>Feed-in tariff:</p> <p>0.45 €/kWh (0.50 €/kWh on islands) for systems < 100 KWp and 0.40 €/kWh (0.45 €/kWh on islands) for systems > 100 KWp guaranteed for 20 years.</p> <p>Commercial installations are eligible to grants (30 to 55% of total system costs), while small domestic systems are eligible for a 20% tax deduction capped at € 500 per system (€ 700 in 2007).</p> <p>For 2020 a target to reach at least 700 MWp (500 MWp mainland, 200 MWp islands) has been set.</p>
Hungary	<p>Feed-in tariffs for RES were set through the Electricity Act, which entered into force on 1 January 2003. According to Regulation No. 105/2003. (XII.29.) GKM, the Electricity Suppliers are obliged to purchase electricity from producers utilising RES, if their capacity is over 100 kW. However, in the case of smaller plants, individual arrangements are possible.</p> <p>The feed-in tariff for RES which depends on the weather (solar and wind) from 01/02/2007 onward is: 24.71 HUF/kWh (0,098 €¹¹)</p>
Ireland	<p>The Alternative Energy Requirement (AER) Tender Scheme was replaced by a new Renewable Energy Feed in Tariff (ReFIT) scheme in 2006. However, PV is not included.</p>

Italy	<p>New feed-in tariff (23 February 2007): guaranteed for 20 years. The tariffs for 2007 and 2008 are listed below, after that there is a 2% decrease for new systems each year. National target of 2,000 MW for 2015 was changed to 3,000 MW in 2016 [Gaz 2007].</p> <table border="1" data-bbox="438 346 1369 493"> <thead> <tr> <th>Nominal Power</th> <th>not integrated</th> <th>partly integrated</th> <th>building integrated</th> </tr> </thead> <tbody> <tr> <td>1 – 3 kWp</td> <td>0.40 €/kWh</td> <td>0.44 €/kWh</td> <td>0.49 €/kWh</td> </tr> <tr> <td>3 – 20 kWp</td> <td>0.38 €/kWh</td> <td>0.42 €/kWh</td> <td>0.46 €/kWh</td> </tr> <tr> <td>> 20 kWp</td> <td>0.36 €/kWh</td> <td>0.40 €/kWh</td> <td>0.44 €/kWh</td> </tr> </tbody> </table> <p>The following additions exist:</p> <ul style="list-style-type: none"> • 5% bonus if in the case of a non- integrated system 70% of the electricity is used by the producer. • 5% bonus for all systems on schools and public health buildings, as well as for all public buildings of communities with less than 5,000 inhabitants. • 5% bonus for integrated systems on farms and if cladding of asbestos cement is substituted. 	Nominal Power	not integrated	partly integrated	building integrated	1 – 3 kWp	0.40 €/kWh	0.44 €/kWh	0.49 €/kWh	3 – 20 kWp	0.38 €/kWh	0.42 €/kWh	0.46 €/kWh	> 20 kWp	0.36 €/kWh	0.40 €/kWh	0.44 €/kWh
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Latvia	<p>Feed-in tariff but not PV specific:</p> <p>Licensed before 01.06.2001: double the average sales price (~ 0.101 €/kWh) for eight years, then reduction to normal sales price.</p> <p>Licensed after 01.06.2001: Regulator sets the price</p> <p>A national investment programme for RES has been running since 2002.</p>																
Lithuania	<p>No specific PV support. National Control Commission for Prices and Energy approves long-term purchase prices for renewable electricity, and grid operators must give priority to its transport.</p>																
Luxembourg	<p>A support scheme was set with a "Règlement Grand Ducal" in September 2005. The Règlement has a cap of 3 MW by 2007.</p> <p>The new feed-in tariff is 0.56 €/kWh for 20 years, for 20 years (but due to the fact that this is a "Règlement" and not a Law it is not binding.).</p> <p>In addition, grants up to 15% are available, but limited to € 900 per each member of a household (only the head of the household can receive double that amount).</p>																
Malta	<p>Net metering for electricity from PV systems: 0.126 €/kWh</p> <p>Surplus exported to the grid: 0.063 €/kWh – but there is a one-off charge of € 46 for the extra metre.</p> <p>20%-grant for roof-top PV installations.</p>																
Netherlands	<p>Feed-in tariff: 0.097 €/kWh for 10 years and Net metering up to 3000 kWh/year for existing systems.</p> <p>On 25 August the Minister of Economy announced the immediate suspension of support for new electricity generation plants using renewable energy sources.</p>																
Poland	<p>Tax incentives: no customs duty on PV and reduced VAT (7%) for complete PV systems, but 22% for modules and components. Some soft loans and subsidies. A new law was passed in April 2004 that tariffs for all renewable energies have to be approved by the regulator (until now only for projects larger than 5 MW).</p>																

Portugal	<p>Revision of feed-in tariff in 2005 with cap of 150 MW (2010). The tariff is guaranteed for the first 15 years or 21 GWh/MW (whatever is reached first). :</p> <ul style="list-style-type: none"> • 0.45 €/kWh < 5 kWp • 0.28 €/kWh > 5 kWp. <p>Reduction of VAT rate from 21 % to 12 % on renewable equipment, custom duties exemption and income tax reductions (up to € 730 for solar equipment).</p> <p>Grants up to 40 % of the total eligible cost (max. € 150,000 per application) are available under the PRIME programme (2000-2006).</p>						
Romania	<p>No specific programme for PV. For the promotion of the production of electricity from Renewable Energy Sources, a system of Green Certificates is in place. For the period 2005-2012, the annual maximum and minimum value for Green Certificates trading is 24 € per certificate, respective 42 € per certificate, calculated at the exchange rate established by the Romanian National Bank, for the last working day of December of the previous year.</p>						
Slovakia	<p>Feed-in tariff set by regulator each year.</p> <p>8.2 SKK/kWh (0.245 €/kWh¹²) for 2007.</p> <p>Tax deduction on income earned. RES feed-in tariff in 2005: ~ 3 ct/kWh</p>						
Slovenia	<p>Feed-in tariff: either fixed-price or electricity price (8 SIT/kWh) + premium</p> <p>The plant size limit was removed in June 2006.</p> <table> <tr> <td>Uniform annual price</td> <td>Uniform annual premium</td> </tr> <tr> <td>89.67 SIT/kWh</td> <td>81.67 SIT/kWh</td> </tr> <tr> <td>0.377 €/kWh¹³</td> <td>0.343 €/kWh</td> </tr> </table>	Uniform annual price	Uniform annual premium	89.67 SIT/kWh	81.67 SIT/kWh	0.377 €/kWh ¹³	0.343 €/kWh
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Spain	<p>Feed-in tariff with cap of 400 MW: Tariffs for 2007</p> <ul style="list-style-type: none"> • 0.44 €/kWh < 100 kWp for 25 years (575% of average electricity price). Then 0.3523€/kWh. • > 100 kWp < 10 MWp: 0.4145 €/kWh for 25 years then 0.332 €/kWh • 0.23 €/kWh > 10 MWp for 25 years (300% of average electricity price), after 25 years 240% of average electricity price. 						
Sweden	<p>70% tax deduction on investment and installation cost for systems on public buildings from May 2005 until end 2007, with a maximum limit per building of € 550,000 and covers both material and labour costs. Electricity certificates for wind, solar, biomass, geothermal and small hydro. Energy tax exemption.</p>						
Switzerland	<p>Net metering with feed-in tariff of min. 0.15 CHF/kWh (0.10 €/kWh); investment subsidies in some cantons; promotion of voluntary measures (solar stock exchanges, green power marketing).</p>						
United Kingdom	<p>Investment subsidies in the framework of a PV demonstration programme. Reduced VAT.</p>						

Exchange rate: 1 € = 250.95 HUF

Exchange rate: 1 € = 33.437 SKK

Exchange rate 1 € = 237.77 SIT; since 01.01.2007 Slovenia is a member of the Eurozone