

### **Policy Background**

*A European energy policy must pursue the objective of a sustainable, competitive and secure supply of energy. If the EU continues on its present course, this key objective will not be attained. In January 2007, the European Commission adopted an energy policy for Europe. This was supported by several documents on different aspects of energy and included an action plan to meet the major energy challenges Europe faces. Each European citizen must be informed of these challenges and the role they should play in meeting them.*

*Renewable energies help combat climate change while increasing security of supply*

### **Key Issues**

The Czech Republic's legislative framework in relation to renewable energy sources has been strengthened by a new RES Act adopted in 2005 and a Government Order regulating the minimum amount of biofuels or other RES fuels that must be available for motor fuel purposes. Targets for increasing RES in total primary energy consumption have been set at national level. The use of biomass in particular is likely to increase as a result of the new legislation.

### **Current national RES target**

A 15-16% share of RES in total primary energy consumption by 2030 has been set as a target at national level. For RES-E, the target to be achieved is 8% in 2010. Between 2007 and 2012, the Czech Republic is aiming for a total volume of 4,200,000 tonnes biofuel to be available on the Czech market.

### **Progress towards meeting national targets**

The Czech Republic's RES percentage of total primary energy consumption is currently approximately 3%.

A very gradual increase can be observed in the RES-E share of gross electricity consumption (3.8% in 1997, 4.1% in 2004).

### **Main supporting policies**

In order to stimulate the growth of RES-E, the Czech Republic has decided on the following measures:

- *A feed-in system* for RES-E and cogeneration, which was established in 2000.
- *A new RES Act*, adopted in 2005, extending this system by offering a choice between a feed-in tariff (a guaranteed price) or a "green bonus" (an amount paid on top of the market price).

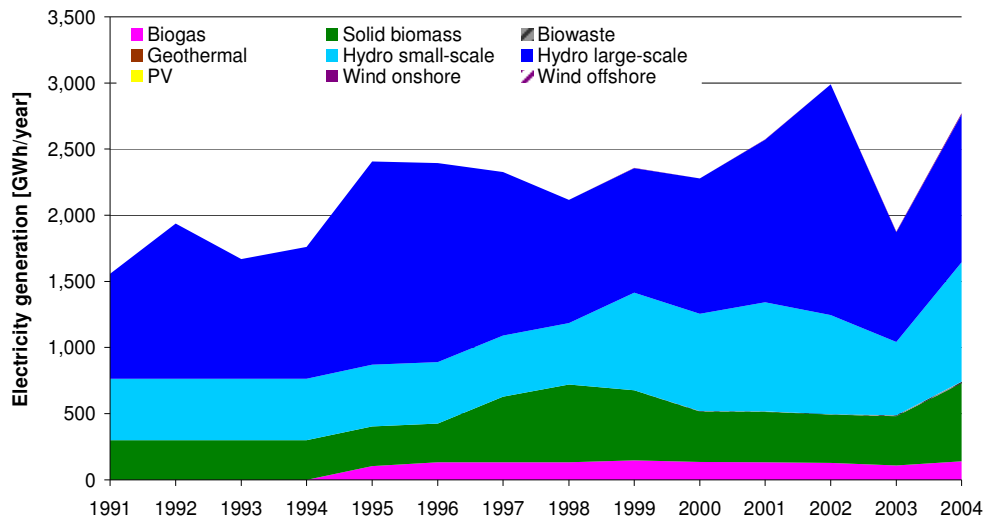
The use of biofuels is being encouraged through an air protection Act (2002), which requires that a minimum amount of biofuel (or other fuels produced from RES) are made available to the market. Between 2007 and 2012, this should amount to 4,200,000 tonnes.

Premiums to the electricity price are also foreseen for producers of electricity from combined heat and power plants. Besides this, investment support (from 30-80%) is available whenever the applicants are non-profit enterprises.

### **Key renewable energy statistics**

*Electricity from RES:* Historically, large scale hydro power plants have been significant and continue to be so with a capacity of around 750 MW in 2004. Small hydro power plants can generate 250 MWh. Another key RES for the generation of electricity in the Czech Republic is biomass. This source contributes approximately 27% to the total amount of RES-E, usually through the use of solid biomass (which contributed 593 GWh in 2004). The capacity of wind power, although still insignificant in 2004 (10 GWh), is set to increase due to the installation of a 320 MW wind park (Wind Park Chomutov) in 2006. Installed PV capacity has so far not exceeded 1 MWp.

**Electricity generation from renewable energy sources by type (GWh)**



Source: European Commission

[http://ec.europa.eu/energy/res/legislation/share\\_res\\_eu\\_en.htm](http://ec.europa.eu/energy/res/legislation/share_res_eu_en.htm)

**Biofuels:** The Czech Republic currently ranks 6<sup>th</sup> highest among the EU25 in terms of biodiesel production capacity. With a capacity of 203 ktoe per year in 2006, it clearly surpasses the production capacity of bioethanol (1.1 ktoe in 2005).

**Heating and cooling:** Heat from renewable energy sources is produced mainly through the use of biomass (793 ktoe in 2004). Steady growth has been registered in this area. Other significant increases in production have been registered for solar thermal and geothermal heat.

	Penetration 1997 (ktoe)	Penetration 2004 (ktoe)	Cumulative Av. Annual growth [%]
Biomass heat	311	793	14%
Solar thermal heat	3	17	30%
Geothermal heat incl. heat pumps	1	9	43%

Source: European Commission

[http://ec.europa.eu/energy/res/legislation/share\\_res\\_eu\\_en.htm](http://ec.europa.eu/energy/res/legislation/share_res_eu_en.htm)

**Good example: Project "ENERGY IN MINDS in Zlin" (513479 TREN FP6-2004)**

Zlin, in the Czech Republic, is a largely industrial city with a population of around 76 000. Louky, it's a suburb in Zlin with around 1 600 inhabitants, is the principal focus area of CONCERTO measures. CONCERTO is an EU initiative, that supports local communities, in developing and demonstrating concrete strategies and actions that are both sustainable and highly energy efficient. The project integrates two different components:

Implementation of renewable energy sources, including:

- The installation of 900 m<sup>2</sup> of solar thermal systems for combined heating and Domestic Hot Water (DHW) for 50 single-family houses and 300 m<sup>2</sup> large-scale solar thermal systems for multi-family houses, or communal baths.
- 40 small-scale Photo Voltaic (PV) systems in private family houses (2 kWp each) and two large-scale PV systems (100 kWp each).
- A co-generation plant using bio-gas generated at the communal waste depot.

In order to meet the energy efficiency targets of the programme, the project initially involved energy checks of all private, office and industry buildings in the demonstration area of Zlin-

Louky, including the identification of the 20% least energy efficient buildings. Additional actions to improve energy efficiency in the community involve the retrofitting of 40 single family houses 80 apartments in multi-family houses, two public, and three office buildings with the goal to reduce the energy demand for space heating by 60 % compared to the status before the retrofitting and 30 % below the current national standards.

### **For further information**

To find out more about renewables, go to: [http://ec.europa.eu/energy/res/index\\_en.htm](http://ec.europa.eu/energy/res/index_en.htm)  
[http://ec.europa.eu/energy/intelligent/index\\_en.html](http://ec.europa.eu/energy/intelligent/index_en.html)

To find out more about the current situation of renewables in the Member States, go to [http://ec.europa.eu/energy/res/legislation/electricity\\_member\\_states\\_en.htm](http://ec.europa.eu/energy/res/legislation/electricity_member_states_en.htm)  
[http://ec.europa.eu/energy/res/legislation/share\\_res\\_eu\\_en.htm](http://ec.europa.eu/energy/res/legislation/share_res_eu_en.htm)

To find out more about support measures, go to [http://ec.europa.eu/energy/res/legislation/support\\_electricity\\_en.htm](http://ec.europa.eu/energy/res/legislation/support_electricity_en.htm)

To find out about a project or contact an energy agency in your region, go to <http://www.managenergy.net/emap/maphome.html>

Further fact sheets on Czech Republic and other Member States can be found on: [http://ec.europa.eu/energy/energy\\_policy/facts\\_en.htm](http://ec.europa.eu/energy/energy_policy/facts_en.htm)

### **What is meant by.....?**

*RES*: Renewable energy sources

*RES-E*: Electricity production from renewable energy sources

*RES-H*: Production of heat and cold from renewable energy sources

*Biofuels*: Mainly includes biodiesel and bioethanol

*Biomass*: Includes solid biomass, biowaste and biogas

*CHP*: Combined Heat and Power

*GWh*: gigawatthour

*ktoe*: Thousand tonnes of oil equivalent

*kWp*: peak kilowatt

*MW*: megawatt

*MWp*: peak megawatt

*PV*: Photo-voltaic – technology for the production of electricity from solar energy

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