

Ministry of the Environment
of the Czech Republic –
MECR



Ministerstvo životního prostředí
České republiky

Renewable energy sources in the Czech Republic

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Ministerstvo životního prostředí
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Ministerstvo životního prostředí
Vršovická 65, 100 10 Praha 10
Česká republika

www.mzp.cz



Priorities of MECR in energy sector

- Energy conservation and energy performance -
- Development of renewable energy sources -

EU Goals for 2020 taken into account

- 20% decreasing of GHG emissions relative to 1990 level (30% when such an international agreement will be concluded)
- 20% ratio of RES relative to end use of energy (including 10% ratio of biofuels in transportation)
- 20% energy conservation relative to original forecast for 2020

National goals incorporated

- 13% ratio of energy from RES in total end-use of energy until 2020
- 9 % decreasing of average annual energy consumption in period 2008 – 2016 relative to the level observed in period 2002 to 2006 (71,43 PJ)



Operational program Environment 2007 - 2013

Priority path 3

– Sustainable utilization of energy sources

- subsidized by EU funds (administered by Czech institution State fund for the environment)
- predetermined to non-commercial subjects, such as
- schools, hospitals, municipality offices, homes offering health care for seniors or disabled etc.



Operational programme Environment 2007 - 2013

Supported field 3.1 Construction of new and refurbishing of existing equipments to increase utilisation of RES

- 3.1.1** Construction of new and refurbishing of existing **heat** sources – central and district boiler-houses utilizing RES
- **3.1.2** Construction of new and refurbishing of existing **power** sources /photovoltaic, wind, biomass fueled power station, geothermal/
- 3.1.3** Construction of new and refurbishing of existing **energy RES** sources
 - biogas, sludge gas, landfill gas
 - solid biomass – steam cycle, ORC, gasification
 - **Supported field 3.2** Energy conservation and utilization of waste heat in non-commercial subjects
 - insulation of carcasses of buildings and roofs, instalation of new insulated windows, heating and cooling systems with measuring and controlling elements, recuperation and heat exchangers to utilize waste heat
 - **this represents the most successful part of the programme**



Green to conservation subsidizing programme

Subsidized from revenues collected by selling units of AAU (about 20 000 million CZK)

- **total or partial insulation of residential or family houses**
- **construction of passive houses according to corresponding standards**
- beneficiaries - owners of residential and family houses (natural as well as juristic person)
- application may be submitted before as well as after investment
- subvention is fixed summ related to unit area (for insulation) or related to number of houses or flats (for passive houses)
- **support of upgrading of heat sources – instalation of low-emission boilers for biomass, instalation of solar heat collectors fo water heating and heat pump with desired parameters**
- possible bonus when more measures are combined + support of developmnet of the design documentations



MECR subvention programmes benefits

Expected benefits of the programmes implementation by 2013:

- contribution of energy production from RES will increase by 1 500 TJ annually
- installed output of energy production from RES will be increased by 600 MW
- annual amount of conserved energy will be 430 TJ

Expected benefits of the „Green light to energy conservation“ programm implementation by 2012:

- about 250 000 subsidized housholds will save 3 000 mio CZK on energy
- 30 000 job will be created or sustained, predominatntly in smal and medium size enterprises (SME) in the corresponding regions
- dust emissions will decrease by 2 200 tun (2.2 kt)
- about 6 370 TJ of heat for heating and hot water production will be saved

These two programmes can annully decrease CO₂ emissions by 1,5 to 2 Mt (it represents 1,5 % of total Czech CO₂ emissions).



Support of RES in the Czech Republic

Current situation is given by

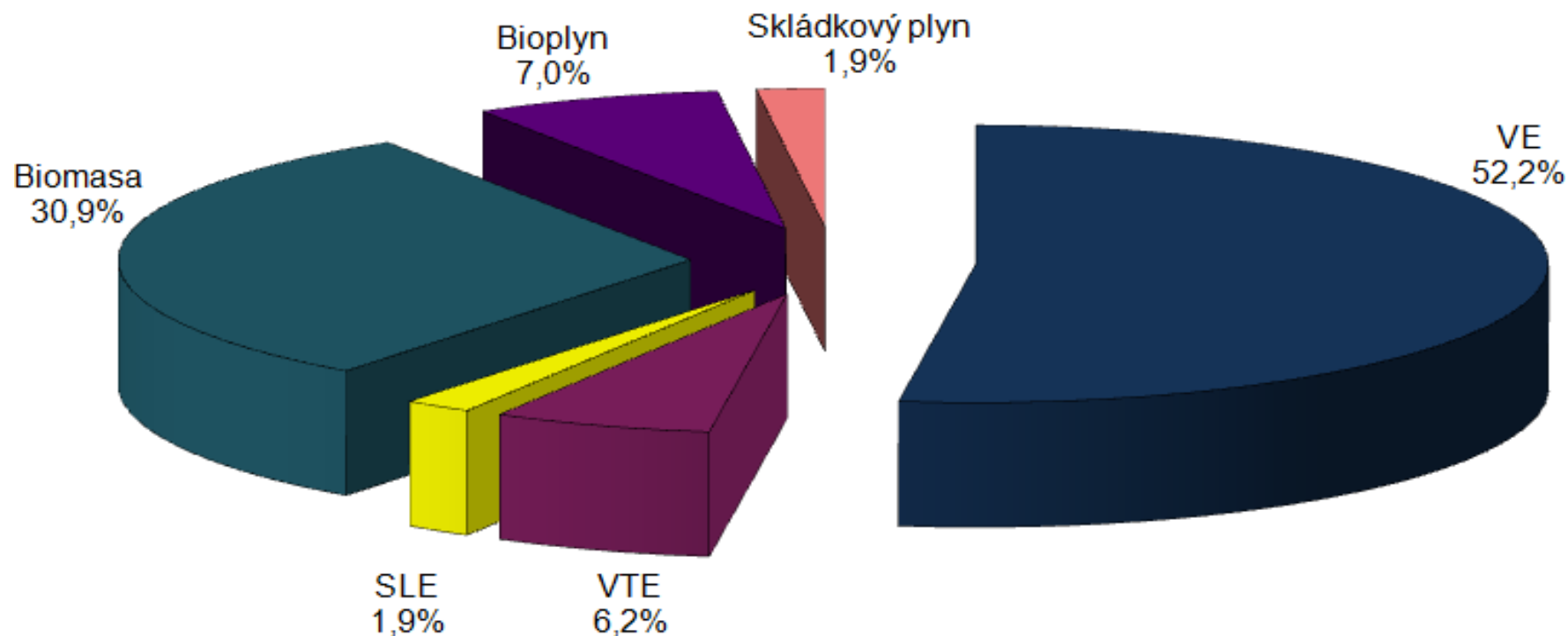
- **Act No. 180/2005 Sb., on support of electric power production from RES**
- **preferential connection to grid**
- **guaranteed purchasing of power produced from RES**
- **redemption price x green bonus = payback period equals 15 years**

The next amendment of the Act: Directive 2009/28/EC

- **National Action Plan (NAP)**
- **integration of supports for RES, sources diversification and CHP**
- **stop to large photovoltaic power stations on agricultural lands**
- **interconnection of support with goals of NAP**
- **new standards of energy performance of subsidized technologies will be stipulated**
- **recycling of photovoltaic panels after end of their life cycle will be made compulsory by amendment of waste act**



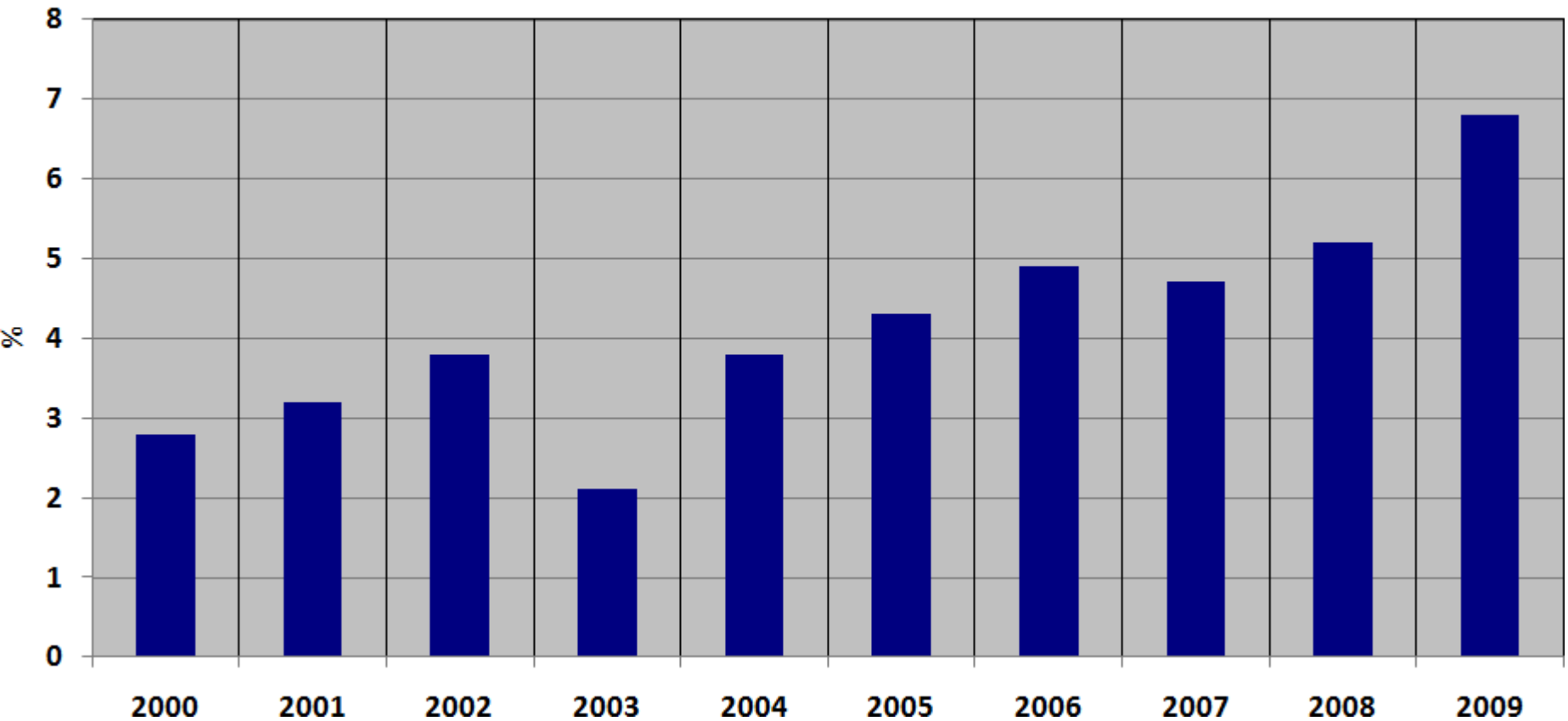
Výroba elektřiny z OZE za rok 2009



■ VE (bez PVE) ■ VTE ■ SLE ■ Biomasa ■ Bioplyn ■ Skládkový plyn



Podíl výroby elektřiny z OZE v ČR



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Podíl OZE na spotřebě elektřiny brutto v roce 2009

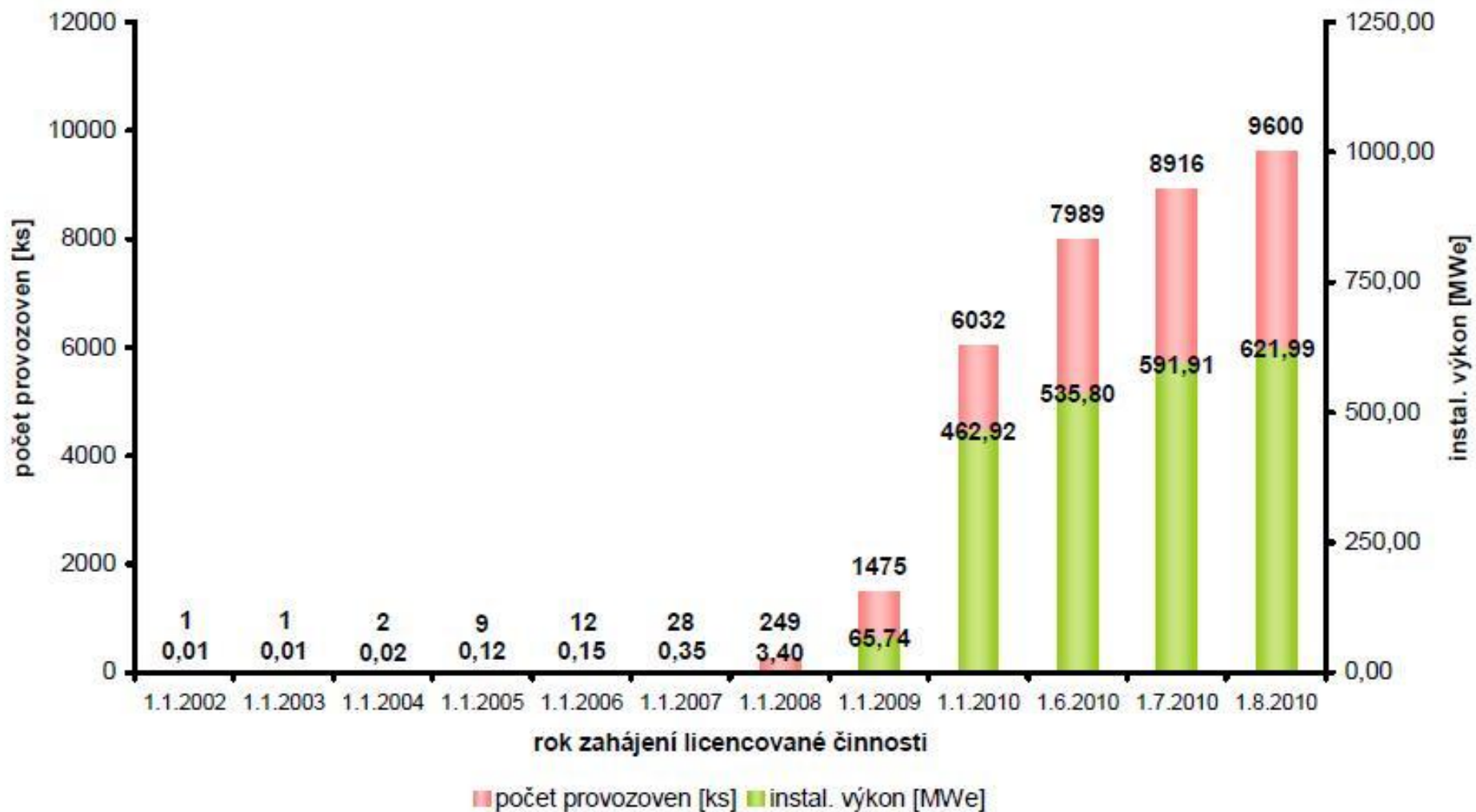
Tuzemská spotřeba elektřiny brutto ČR v roce 2009 = 68 606,2 GWh

Podíl OZE na tuzemské spotřebě brutto = 6,8 %

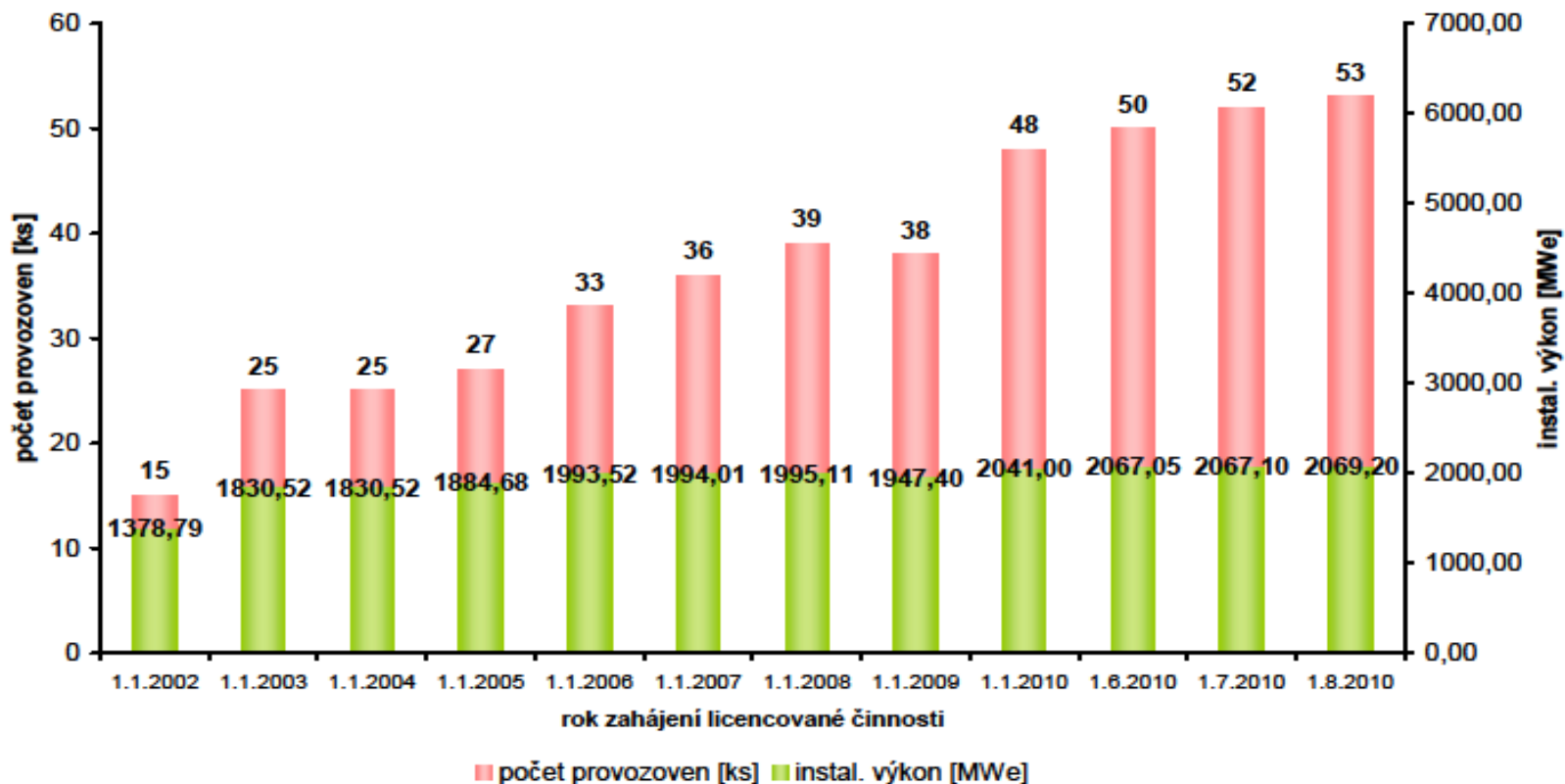
	[GWh]	[%]
VE (bez PVE)	2 429,6	52,2
VTE	288,1	6,2
SLE	88,8	1,9
Biomasa	1 436,8	30,9
Bioplyn	325,3	7,0
Skládkový plyn	89,0	1,9
Celkem	4 657,6	100,0



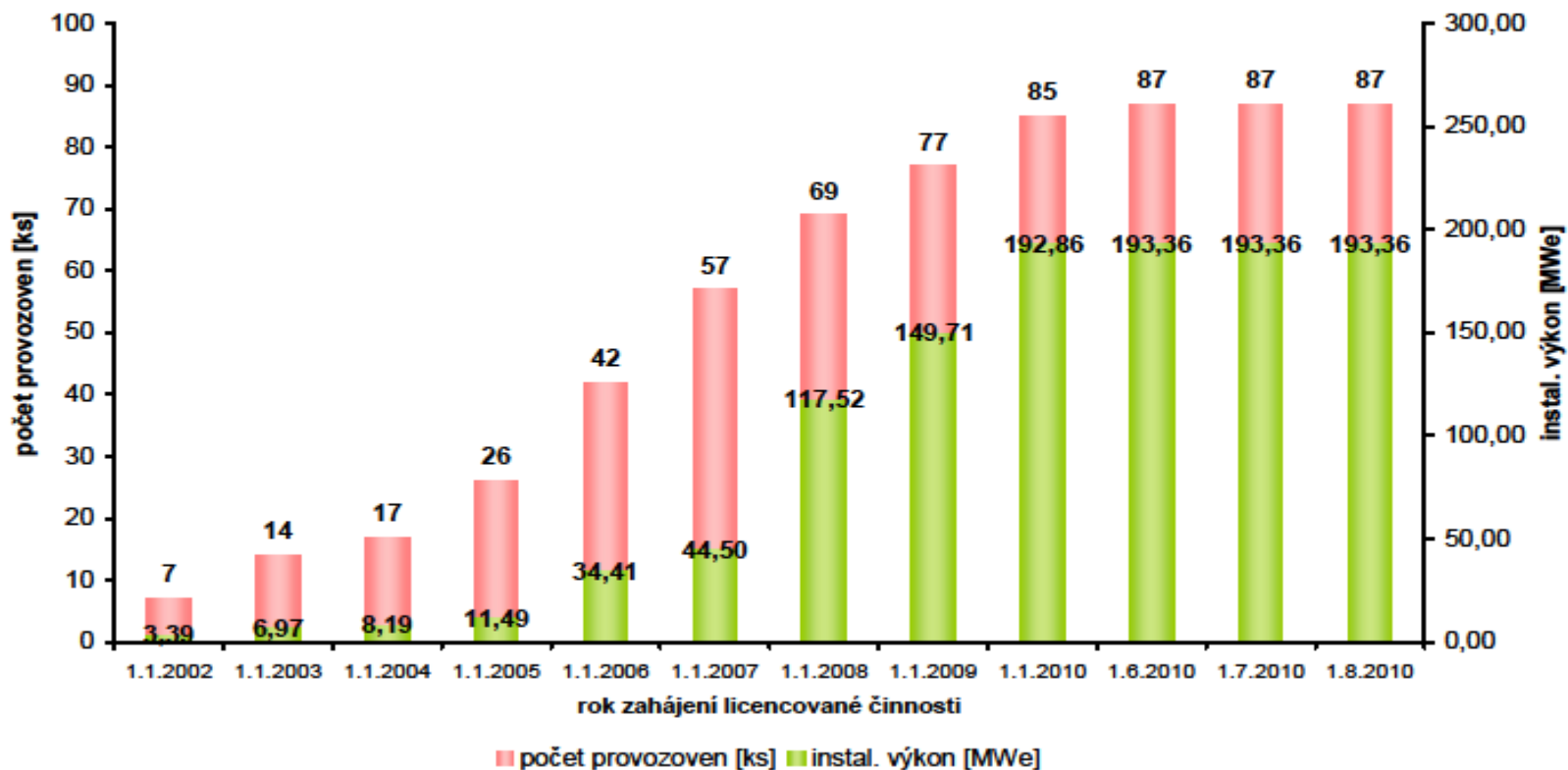
Sluneční elektrárny, stav k 1.8.2010



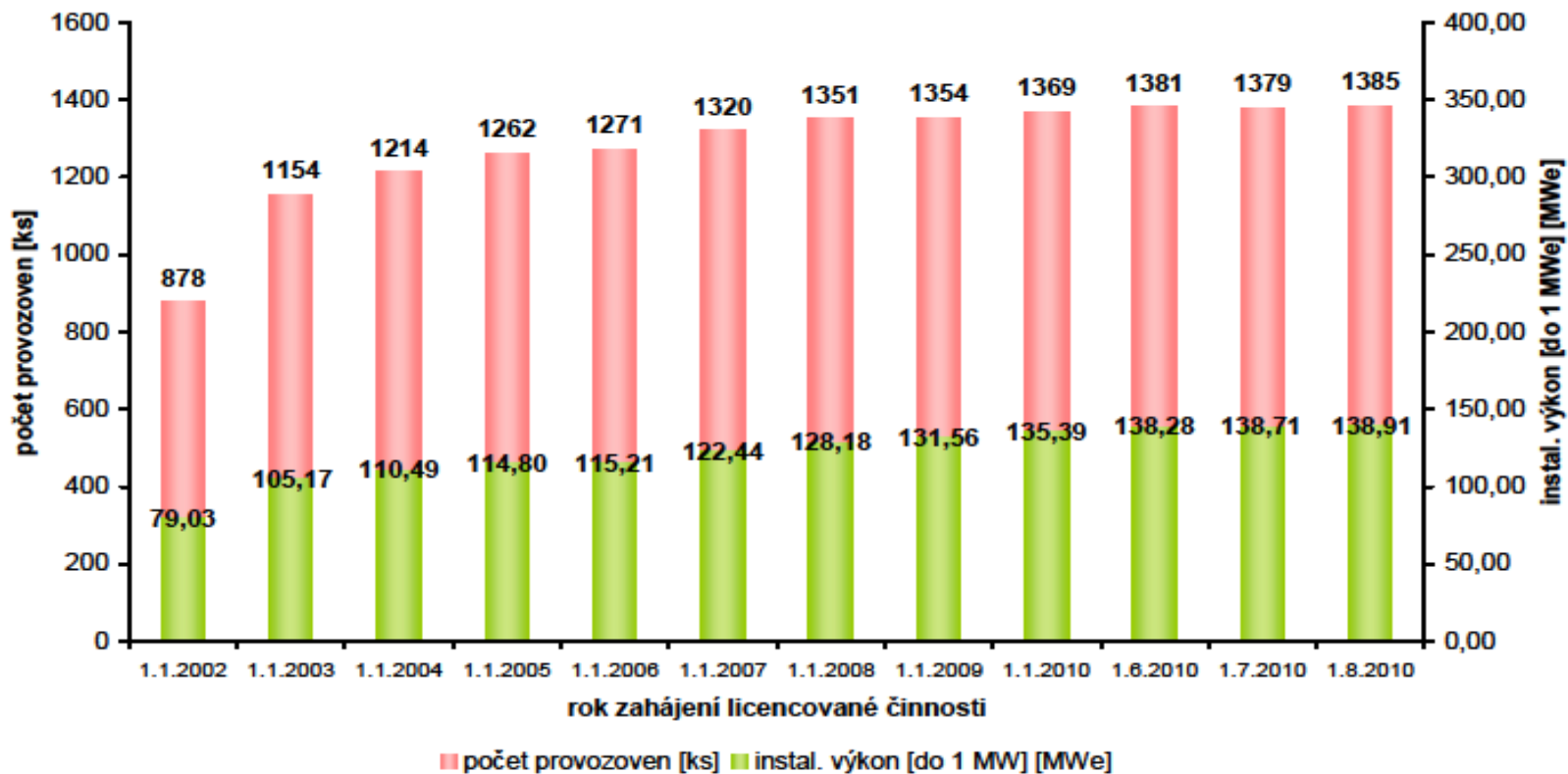
Podíl biomasy, stav k 1.8.2010



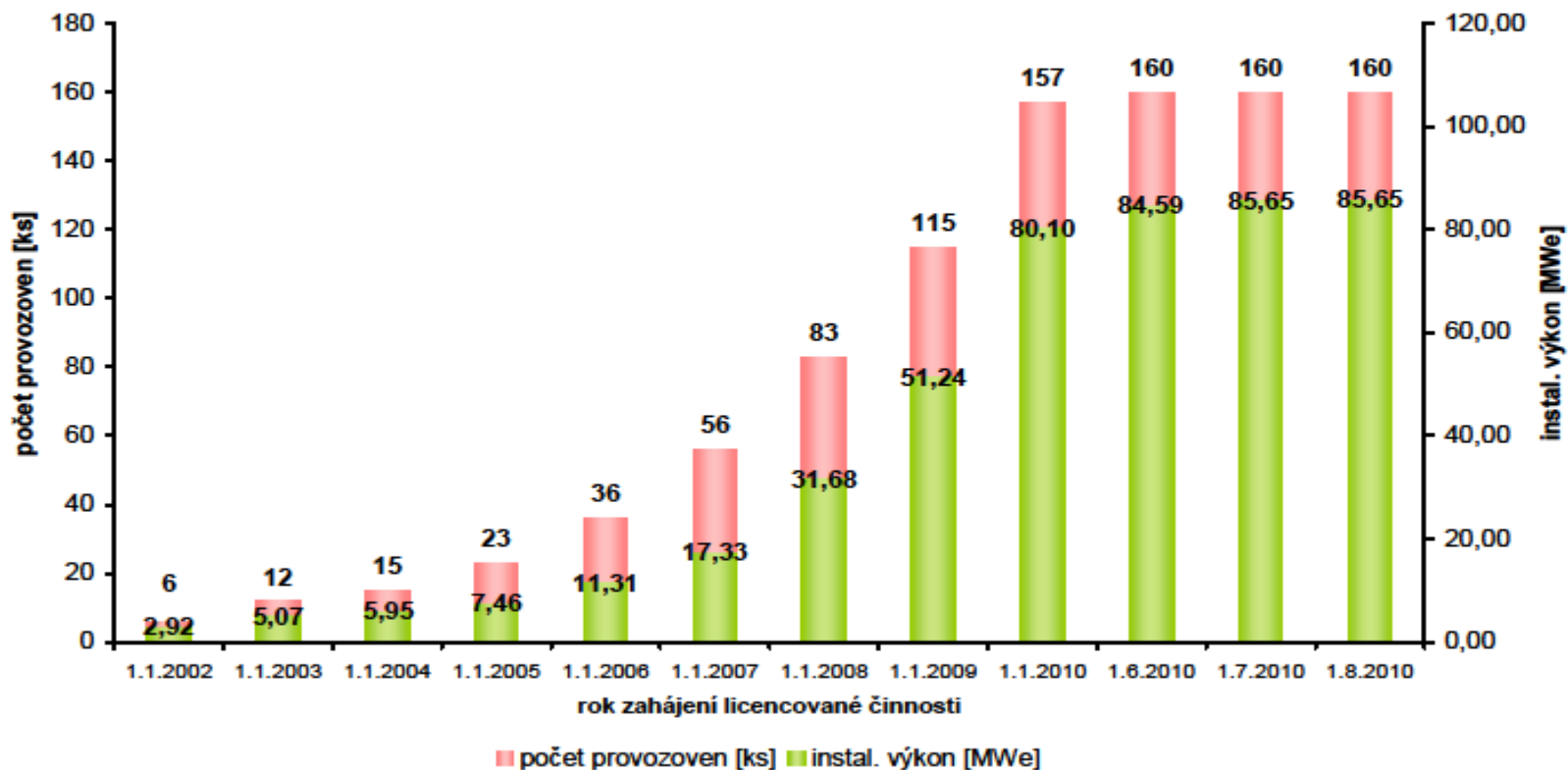
Větrné elektrárny, stav k 1.8.2010



Vodní elektrárny (instal. výkon do 1 [MWe]), stav k 1.8.2010



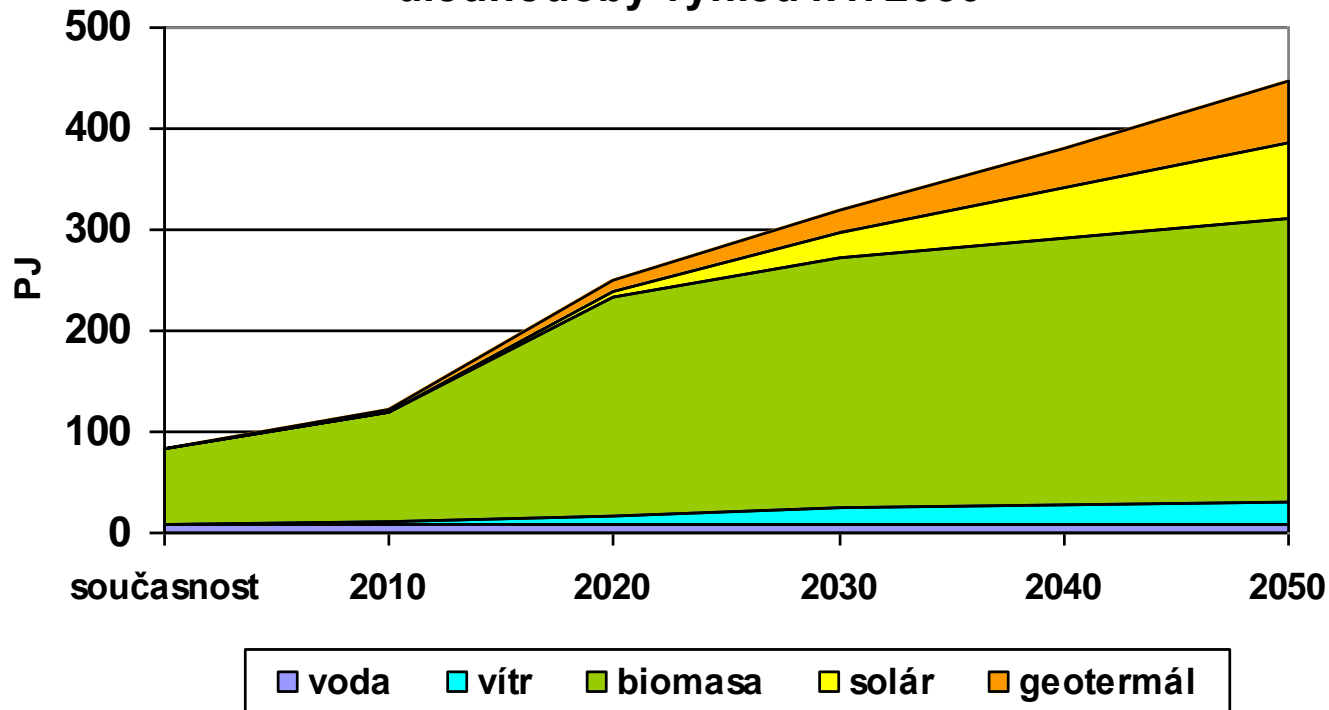
Podíl bioplynu, stav k 1.8.2010



Renewable energy sources

Total potential of RES as part of major energy sources equals 448 PJ

Primární energie z obnovitelných zdrojů
dlouhodobý výhled k r. 2050



Thanks for your attention

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