

RES support and electricity market - CZ news 2007

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RES legislation and logic of support

- ✦ Act 180/2005 on RES-E support – no update
- ✦ Logic of support remains the same
 - ◆ feed-in tariffs derived from regulated rate of return (WACC=7%)
- ✦ Changes in „sub legislation,,
 - ◆ Notice 150/2007 ERO (on regulation) – support is assured during „technical“ lifetime of technology
 - ◆ Update of ERO notice to Act 180/2005 on technical and economic parameters of RES-technologies

News in RES-E support

✦ Up-date of notice ERO 475/2005

- ◆ up-date and revision of feed-in tariffs for new plant after 1.1.2008
- ◆ expected changes
 - technical lifetime for PV from changed from 15 to 20 years
 - changes in investment cost for the plant – impact of cost curves for individual RES-E technologies (e.g. SH increase)
 - changes in assumptions for inputs to biogas stations – current tariffs derived from assumption of exclusive waste processing (intentionally planted biomass – price assumption for 2008 app. 25 EUR/t)

News in RES-E support 2

✦ EU Funds

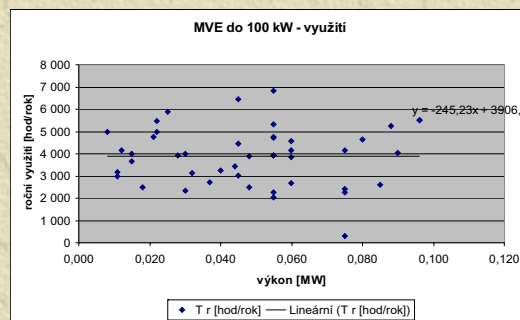
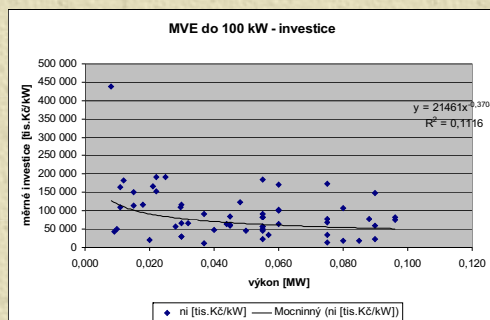
- ◆ Program EKOENERGIE – MPO
 - Submitted projects app. 12 bil. CZK
 - RES-E and energy savings as priorities
- ◆ Opened question if and how to include investment support into calculations

✦ Changes in macroeconomic environment

- ◆ tax reform: reduction of income tax from 24% to 15%
- ◆ income tax exemption for RES-E project (5+1 years) is expected to remain
- ◆ changes in depreciation scheme

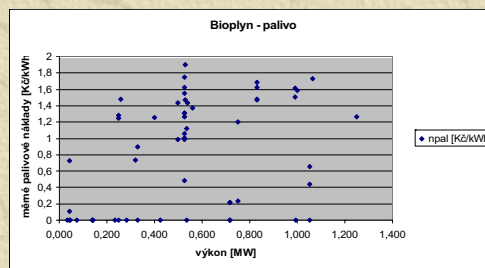
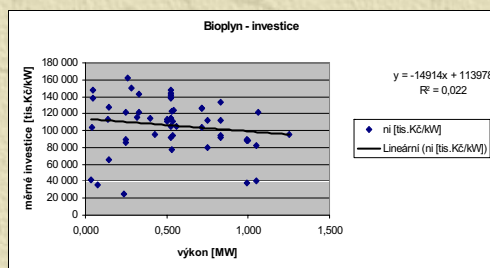
News in RES-E support 3

- ✦ update of technical and economic parameters based on statistical analysis supported (2004-2006) and prepared projects
 - ◆ e.g. new large SH: $N_i=6300$ EUR/kW, $T_m=5750$ hours

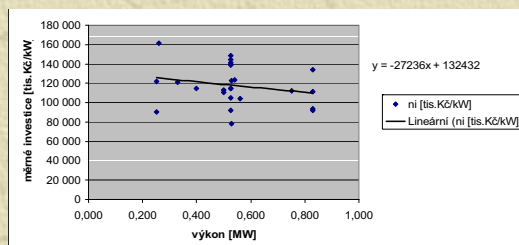


Examples of technical and economic parameters

- ✦ Biogas – existing projects, $T_m=7500$ hours, $N_{pal}=1,2$ CZK/kWh

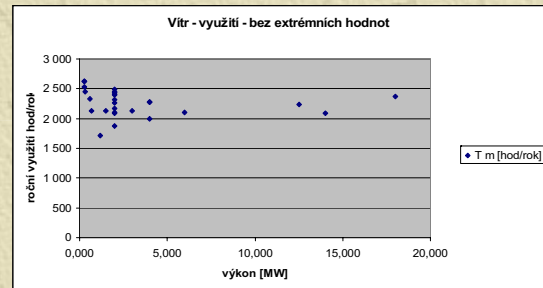
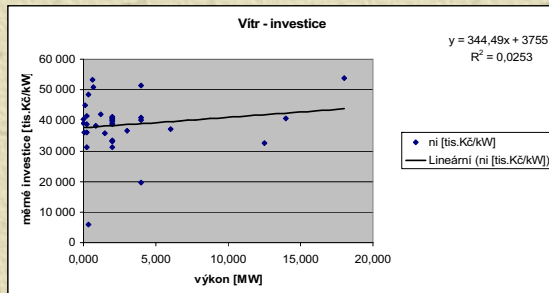


- ✦ Biogas – new projects, $N_{pal}=1,5-1,5$ CZK/kWh



Examples of technical and economic parameters 2

✦ Wind



✦ PV: boom of projects

✦ expected Ni: app. 135 th. CZK/kW (4,96 th. EUR/kW)

✦ expected Tm: in range 908-980 hours (will be decided)

Biomass

✦ Biomass

✦ cannibal effect:

- biofuels
- RES-E, heat
- other

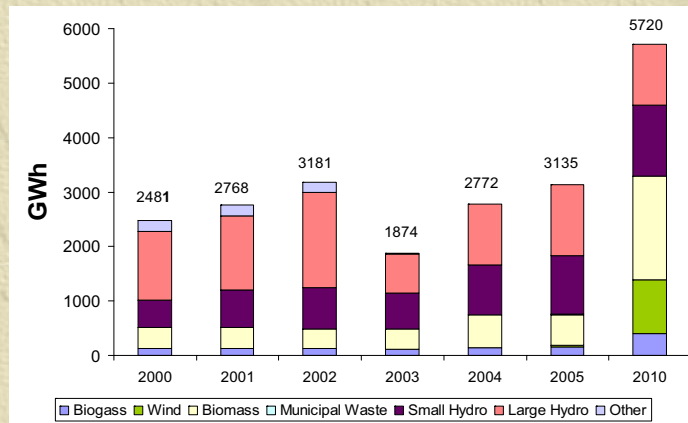
✦ introduction of ecological taxes (coal, electricity, etc.)

✦ general increase of prices (straw, planted biomass)

✦ big projects for co-firing still only moderate progress

✦ Unclear support for SRC plantations

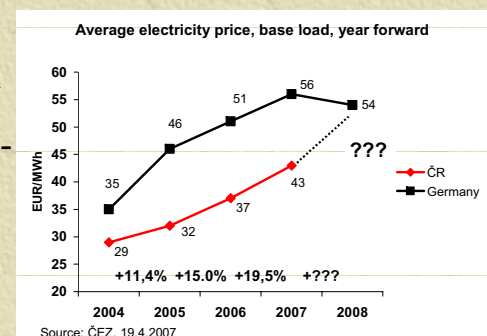
RES-E development



- ✦ Identification of barriers (non economic barriers seems more important than we expected (regional planning, EIA, environmental protection, etc.))
- ✦ Wind power and PV projects, biomass slower than expected

Electricity market

- ✦ Electricity exchange in Prague founded in 2007
- ✦ Auctions of CEZ virtual power block canceled, all electricity traded via exchange
- ✦ August 27, 2007: end of first trade period – electricity for 2008 and 2009
 - ◆ electricity traded in lots (2008+2009), 2008 with fixed price 50,42 EUR/MWh (~+14% increase), 2009: traded price 57 EUR/MWh
 - ◆ from September 2007 electricity will be traded for 2008 and 2009 independently and without fixation



Electricity generation in CR - future

- ✦ Majority of coal fired power plants is on the end of life (2012-2015)
- ✦ Coal limits will not broken – shortage of coal (not all existing capacity will be rebuilt)
- ✦ Quick continuous increase of domestic electricity consumption (current economic growth 6-7%)