

Czech Republic position to the last working documents on possible Ecodesign and Labelling of Water heaters and Hot water storage tanks

(Version June 2010)

We invite the possibility to contribute to the discussion on Ecodesign and Labelling requirements on water heaters and hot water storage tanks.

The preparation sanitary hot water in Czech Republic under the scope of WD is mainly provided in electric storage water heaters - ESWH (up to 160 litres, 2 kW) using electricity during night and partly day demand valleys with large effect in power system, load balance, implying energy, CO₂ emissions saving, besides essential end consumer economical savings due to low tariff price (cca 33 % of high tariff). The power take-off is driven by means of Block remote control system (BRC), provided by distribution companies, so that power consumption is technically blocked for low tariff hour only (minimally 8 hours total daily, 6 hours of it in the night).

The low tariff use cca 90 % residential and small-scale consumers for preparing sanitary hot water (cca 1 300 000 consumers). The distribution companies, even consumers don't suppose to leave off this profitable control of power consumption in the future. In this view ESWH are simple and significant regulation component in power system, lowering peak demand. Production of 180 000 ESWH is put on the market yearly, 65% is used for replacement. Similar situation is in other member states.

In the view above written and other provision used in WDs, we see next main issues:

- 1) Replacement ESWH for instantaneous WH increases power peak demand with negative impact in power production and distribution (higher load reserve, energy consumption, emissions)
- 2) Smart control (SC) assessed with bonus 7% for computation energy efficiency will shift power demand to peak times with negative impact described above. SC effect will be hardly delivered in cooperation with, in Czech Republic used, block remote control driving low tariff off - peak consumption ESWH, where take-off is technically blocked during other day hours. Otherwise comparison of cost between BRC and SC (optimistic bonus 20%, 200 l volume ESWH, current prices for residential consumer) shows, that BRC is 2,5 times more advantageous.
- 3) ESWH is needed to be evaluated with bonus cca 20-25% respecting capability to use off-peak power resulting in energy and emission savings – major intention of energy policy. It isn't taken into account in current WDs. We recommend to consider also separate label.
- 4) Phasing out ESWH without will bring great difficulties in current replacement in existing houses, when adequate product isn't available. Using heat pumps brings space and noise difficulties, apart from multiply price (low income community). The concept based on

heat pump, solar and other possible renewable energy sources is suitable in new houses with possibility to think ahead with it during design a construction of the house. Therefore we ask and recommend to assess ESWH so that this product category will remain real alternative in the future. Besides it is foreseen that heat storage is framework for volatile solar and wind energy use.

- 5) Separate labelling according to energy used is needed to set to avoid market confusion and allow end consumer to choose suitable product respecting specific conditions (energy, space, price, installation etc)

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