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## Position of MOE

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## The present targets for renewably energy sources (RES)

**The Treaty of Accession to the EU → Directive 2001/77/EC**

**The 8% share of RES in gross inland consumption in 2010**

**The Long Term target for RES till 2020**

**The share of RES in total consumption of primary energy sources: 8,9%**

**The 10% share of biofuels in petrol and diesel consumption for transport**

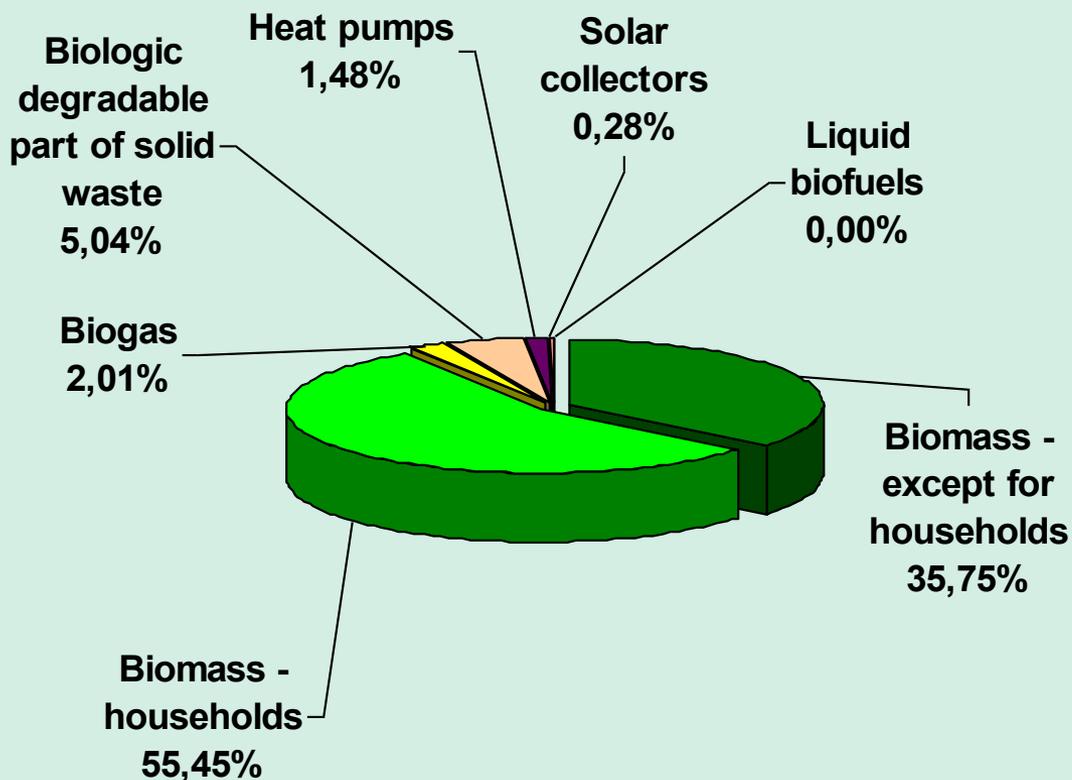
**Long term target of State Energy Policy:**

**Achieving the 15 - 16% share of RES on primary energy sources consumption structure**

|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | target<br>2010 | target<br>2030 |
|--|------|------|------|------|------|------|------|----------------|----------------|
| Fraction of RES<br>electricity %         | 3.9  | 4.3  | 4.9  | 2.8  | 4.0  | 4.5  | 4.9  | 8              | 16 – 17        |
| RES share of primary energy<br>sources % | 2.1  | 2.2  | 2.0  | 2.7  | 2.9  | 3.99 | 4.3  | 6              | 15 - 16        |

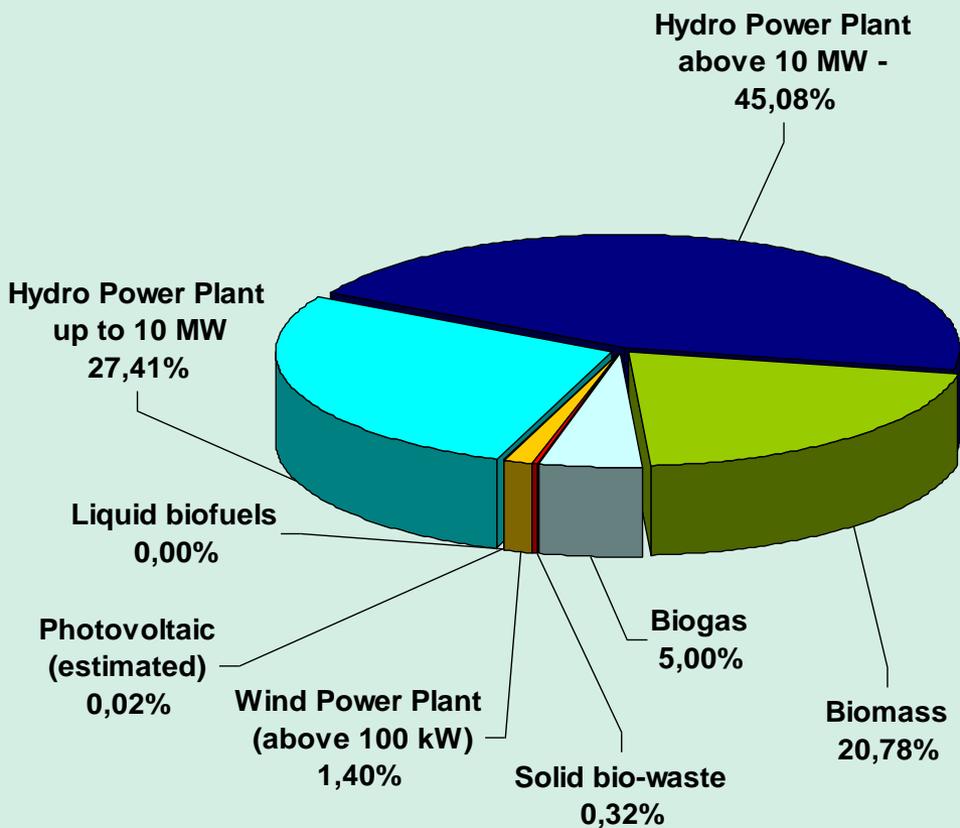


## Renewable heating mix (2006)



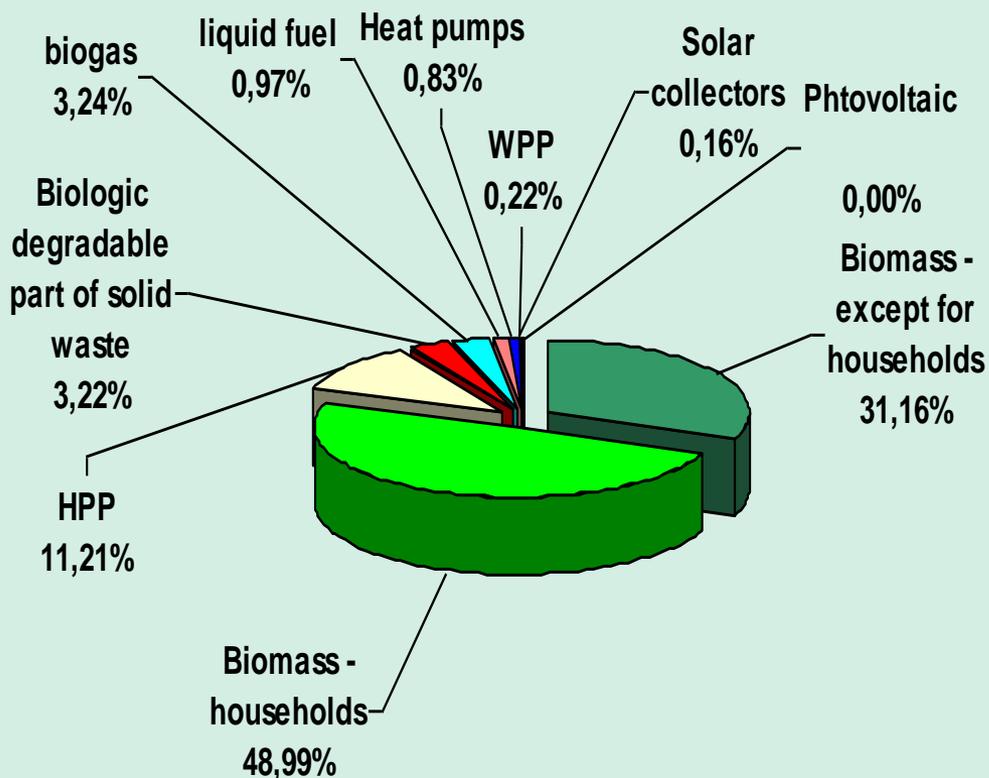
|   | Gross heating production (GJ) |
|---|-------------------------------|
| Biomass total                           | 41 759 667,80                 |
| Biomass except for households           | 16 369 797,10                 |
| Biomass households                      | 25 389 870,70                 |
| Biogas                                  | 918 510,60                    |
| Biologic degradable part of solid waste | 2 309 843,80                  |
| Heat pumps                              | 676 499,40                    |
| Solar collectors                        | 127 637,90                    |
| Liquid biofuels                         | 163,7                         |
| <b>TOTAL</b>                            | <b>45 792 323,30</b>          |

# Renewable electricity mix 2006



|                          | Gross production | Share on RES | Share of gross electricity consumption |
|--------------------------|------------------|--------------|--|
| Hydro PP up to 10 MW     | 964 400,00       | 27,40%       | 1,34%                                  |
| Hydro PP above 10 MW     | 1 586 300,00     | 45,08%       | 2,21%                                  |
| Biomass                  | 731 066,40       | 20,78%       | 1,02%                                  |
| Biogas                   | 175 837,20       | 5,00%        | 0,25%                                  |
| Solid bio-waste          | 11 264,40        | 0,32%        | 0,02%                                  |
| Wind PP (above 100 kW)   | 49 400,00        | 1,40%        | 0,07%                                  |
| Photovoltaic (estimated) | 540              | 0,02%        | 0,00%                                  |
| Liquid biofuels          | 22,3             | 0,00%        | 0,00%                                  |
| Total                    | 3 518 830,30     | 100,00%      | 4,91%                                  |

## RES share on PES (2006)



|   | Energy (GJ)          | RES on PES   |
|---|----------------------|--------------|
| Biomass (except for households)         | 25 529 896,16        | 1,34%        |
| Biomass (households)                    | 40 138 138,37        | 2,11%        |
| Hydro Power Plant                       | 9 182 520,00         | 0,48%        |
| Biologic degradable part of solid waste | 2 641 431,00         | 0,14%        |
| Biogas                                  | 2 655 572,05         | 0,14%        |
| liquid fuel                             | 798 606,00           | 0,04%        |
| Heat pumps                              | 676 499,36           | 0,04%        |
| Solar collectors                        | 127 637,91           | 0,01%        |
| Wind Power Plant                        | 176 400,00           | 0,01%        |
| Photovoltaic                            | 1 944,00             | 0,00%        |
| <b>TOTAL</b>                            | <b>81 928 644,85</b> | <b>4,31%</b> |



## The renewables Directive

- Sets mandatory national targets for renewable energy shares, including 10% bio fuels share, in 2020 (*Articles 3 and 5*)
- Requires national action plans (*Article 4*)
- Standardises “guarantees of origin” (certifying the renewable origin of electricity or heat) and enables the transfer of these to provide flexibility to Member States (*Articles 6, 7, 8, 9 and 10*)
- Requires reduction of administrative and regulatory barriers to the growth of renewable energy (*Article 12*), improvements in provision of information and training (*Article 13*) and improves renewables’ access to the electricity grid (*Article 14*)
- Creates a sustainability regime for bio fuels (*Articles 15-18*)



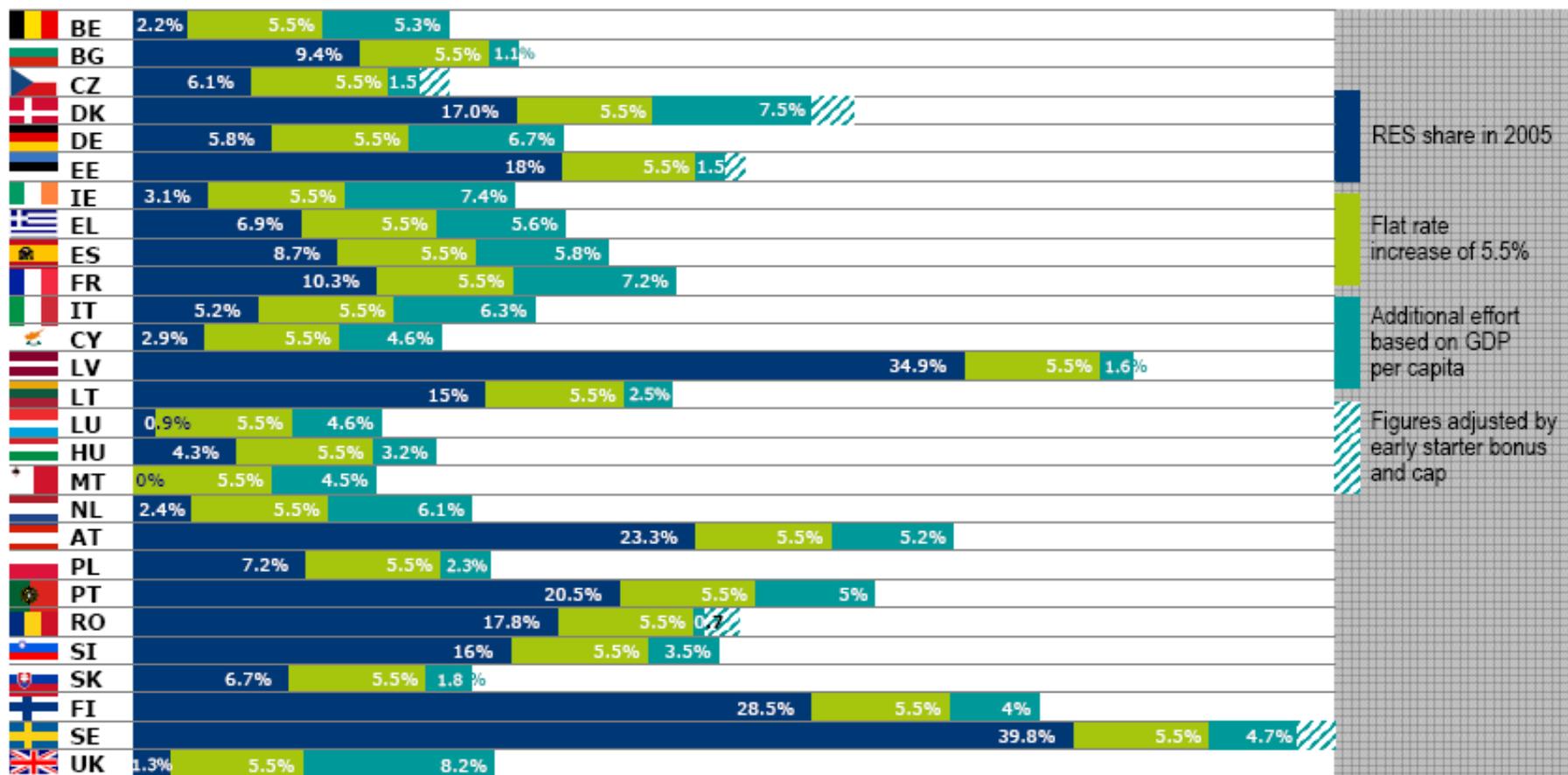
## Target setting methodology

- **Sharing the 11.5% increase between Member States:**
- **2005 is the base year for the whole energy package**
  - 2005 share is modulated to reflect national starting points: a third of national growth between 2001 and 2005 is deducted from the 2005 actual share for those Member States whose growth over the period exceeded 2%
- **5.5% is added to the modulated 2005 share of renewable energy for every Member State**
- **The remaining effort is weighted by a GDP/capita index, to reflect different levels of wealth across Member States, and multiplied by each Member State's population**
- **These two elements are added together to derive the full renewable energy share of total final energy consumption in 2020.**
- **A cap is imposed to ensure that no Member State faces a target of 50% or more.**



## Schéma výpočtu podílu

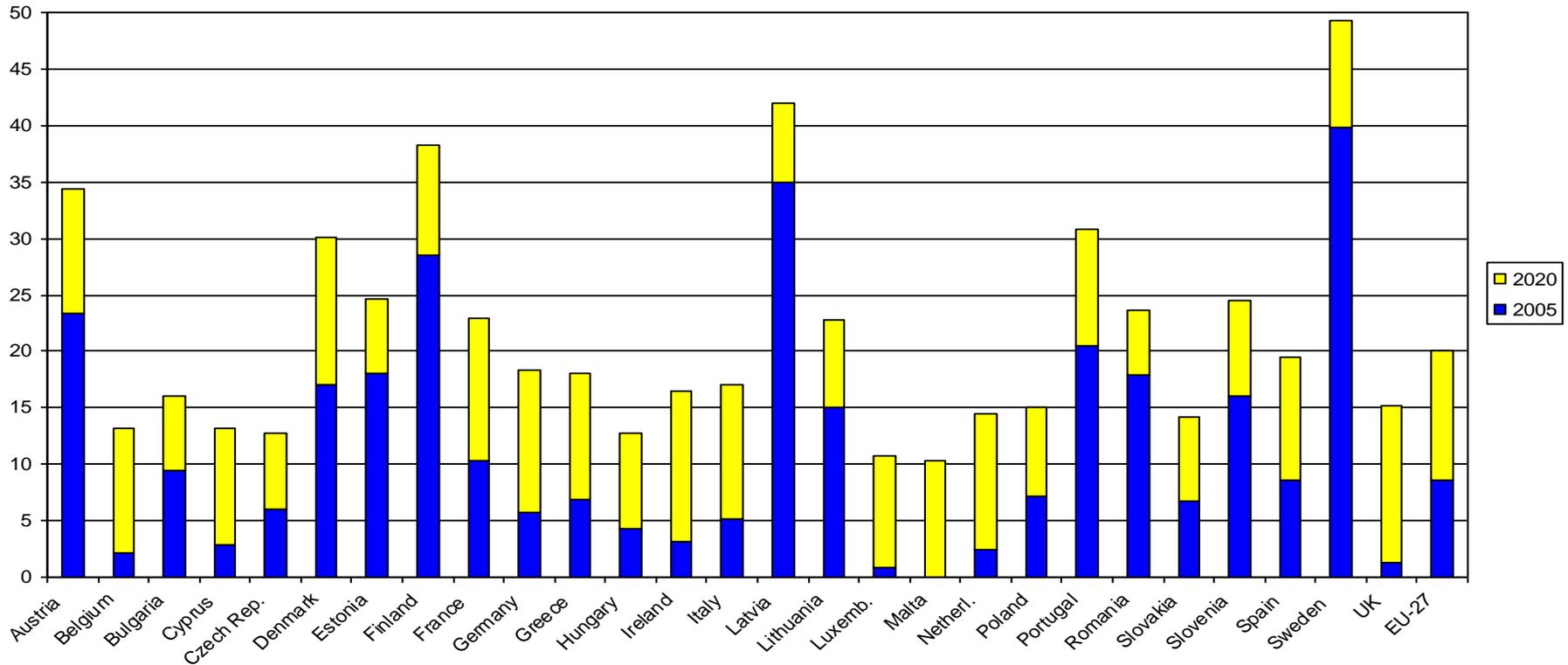
„Konečné spotřeby energie z OZE na konečné spotřebě energie“





# National renewables targets

## Shares of renewable energy, 2005 and 2020





## National action plans

- Sectoral targets now set by Member States
- Measures adequate to achieve the targets including planned development of biomass resources
- Provides policy stability for investment



## Guarantees of origin

### The proposed flexibility mechanism:

- Builds on the framework created by 2001/77/EC
- Member States meeting their trajectory may transfer extra GOs to other Member States
- GOs from new installations may be transferred by companies (“persons”)
- Member States may create a system to require prior government approval of such transfers.



## Administrative reforms

**Reforms, or requires reforms of administrative and regulatory barriers to the growth of renewable energy:**

- simplification and streamlined procedures
- planning authorities to consider renewable energy and district heating and cooling systems
- minimum levels of renewable energy in building codes for new or refurbished buildings
- promotion of energy efficient renewable energy
- certification regimes for installers; mutual recognition



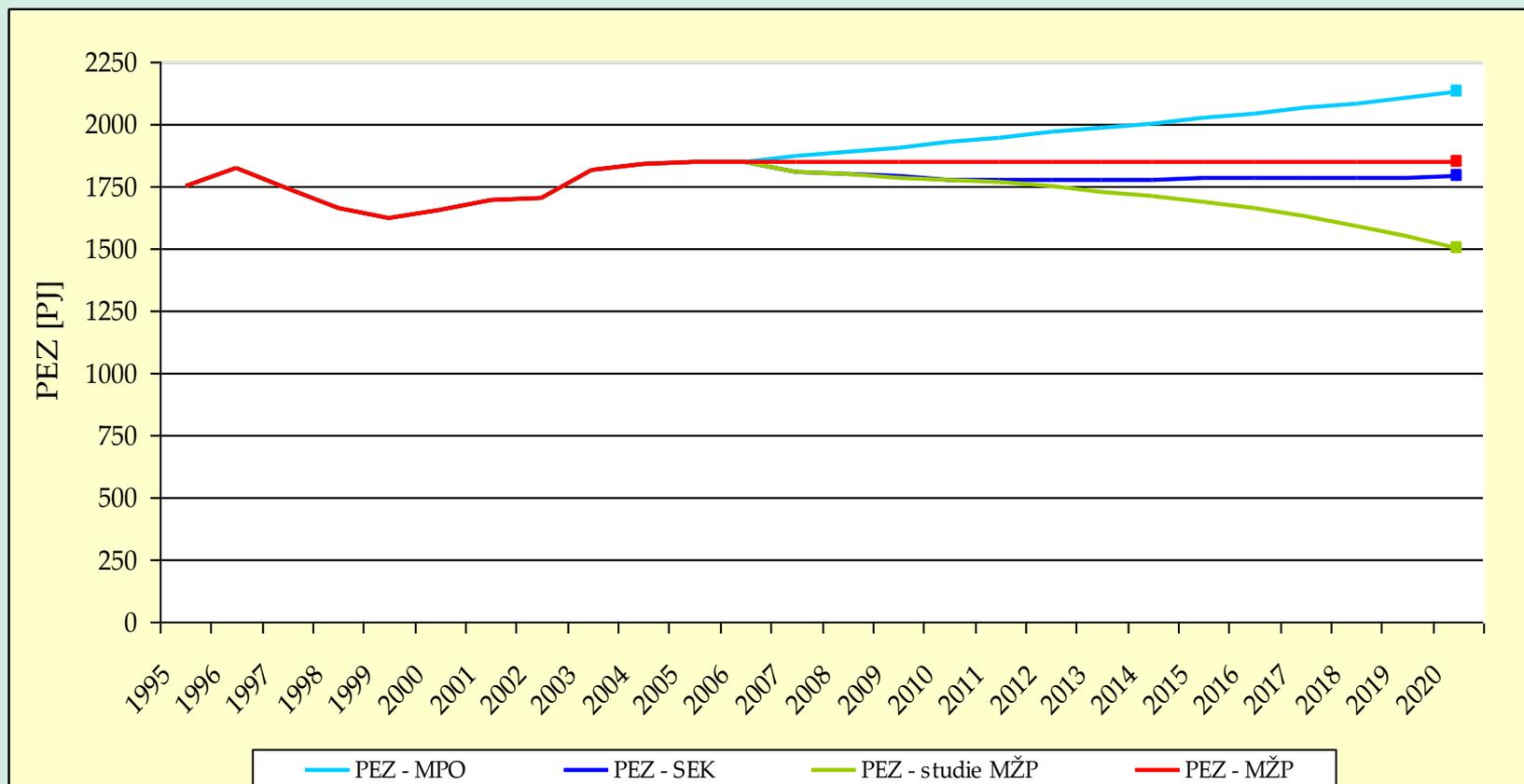
## Promotion of bio fuels

### Sustainability criteria for bio fuels :

- GHG savings – minimum of 35%
- No raw material from undisturbed forests, bio diverse grassland, nature protection areas (unless taken harmlessly)
- No conversion of wetlands and continuously forested areas for bio fuel production (to protect carbon stocks)
- All EU bio fuels must meet “cross compliance” environmental rules

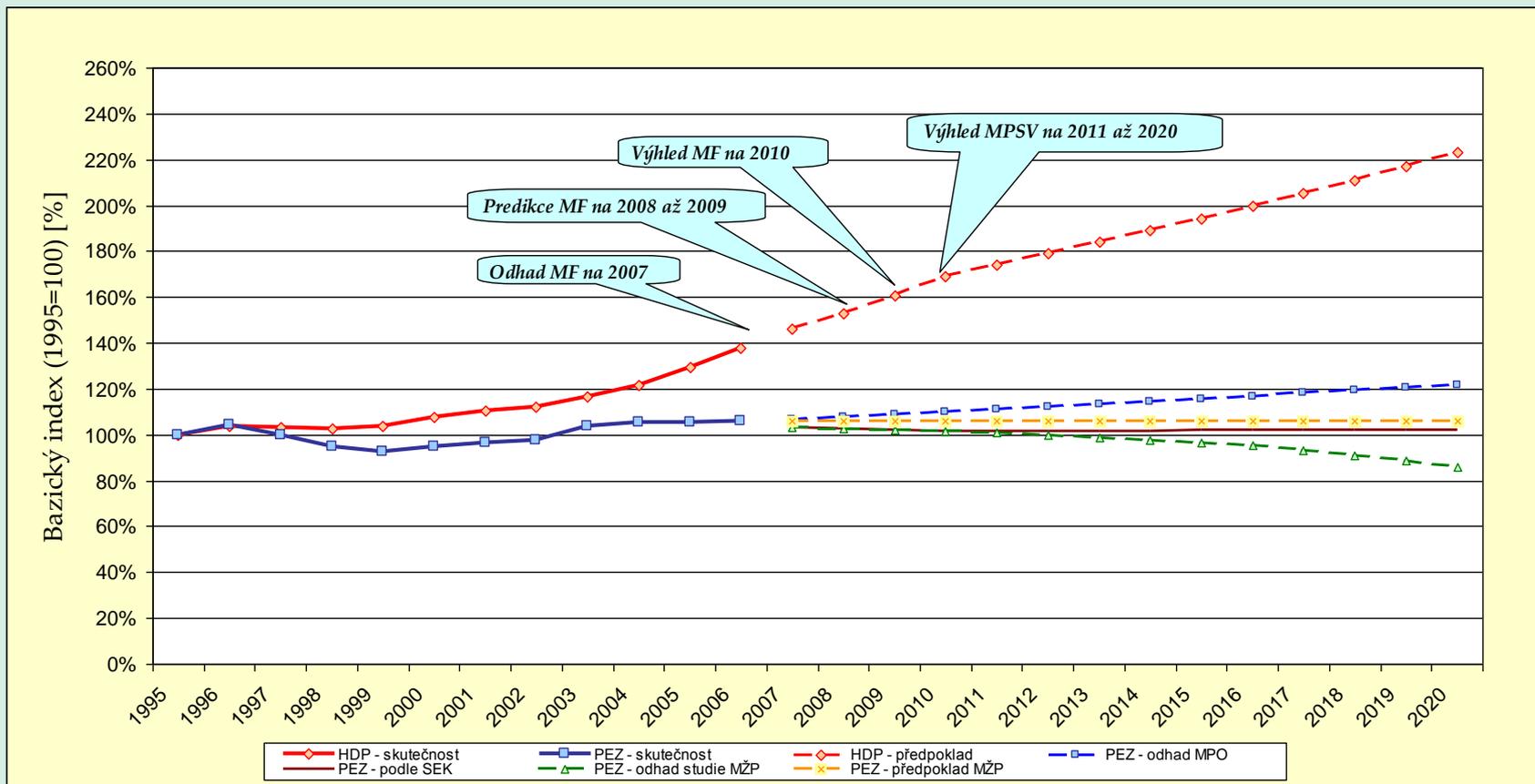


## Odhad vývoje PEZ - jednotlivé scénáře





## Srovnání růstu HDP a PEZ v ČR





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