

Sustainable Energy Visions

– to make sustainable developments possible

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International Network for Sustainable Energy

Bucharest, November 23, 2007





- ❖ A network of 70 NGOs including Earth Friends and Terra Milenul III
- ❖ Formed in 1992 together with global INFORSE
- ❖ Develop sustainable energy visions
- ❖ Follows EU energy and climate policies
- ❖ Sustainable energy education, training, and promotion

See
www.inforse.org/europe



Man-made Climate Change is our largest risk – and is mainly Caused by Energy

The world energy supply and use:

- ❖ Causes about 60% of man-made climate change
- ❖ Is beyond environmental limits of radioactivity, acidification, resource depletion, and others.
- ❖ Does not provide basic energy needs as light and healthy cooking facilities to 1/4 of the world's population

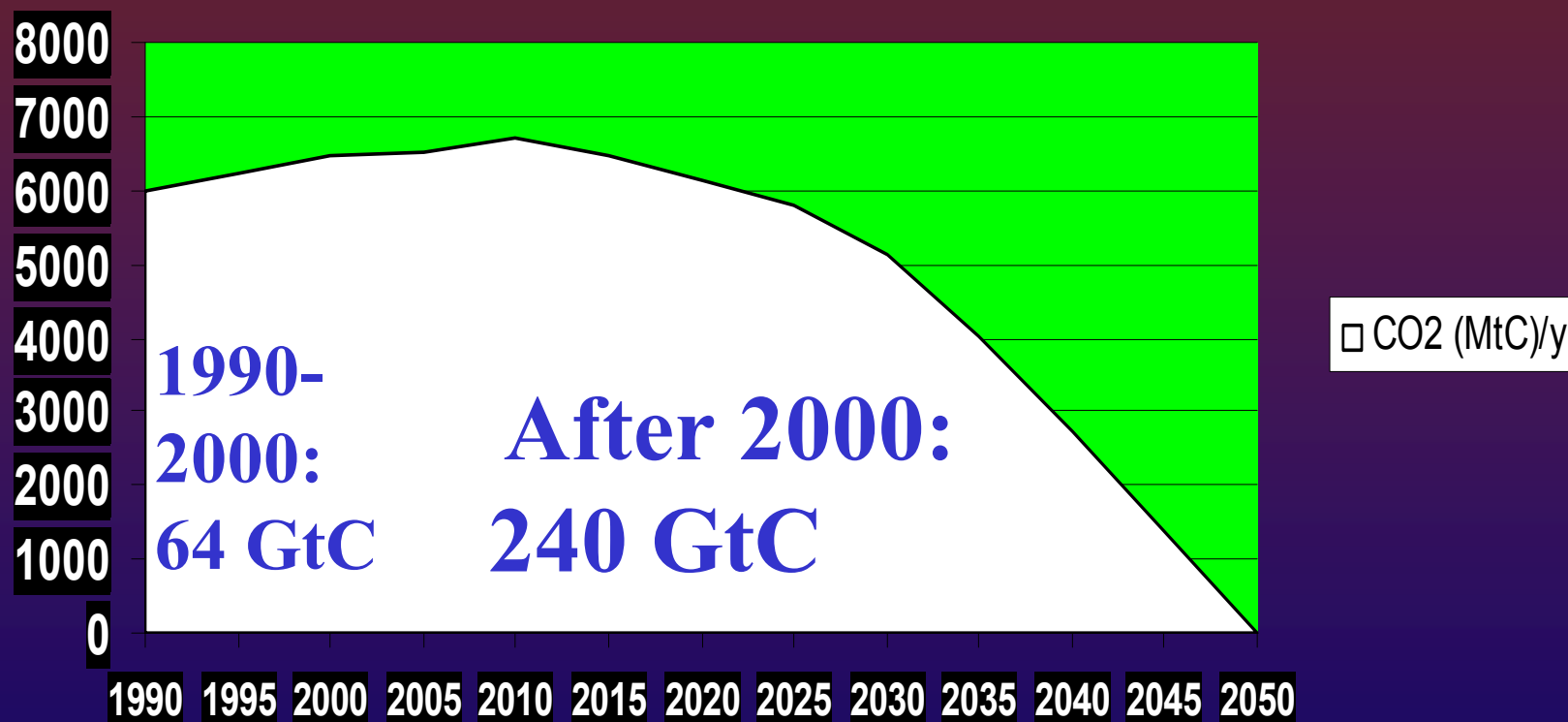
Global Warming Risks

The EU leaders has agreed that we must limit man-made global warming to 2°C above pre-industrial level

- ❖ Global warming above 1.5-2.5°C is likely to cause extinction of 20-30% of species and major changes in ecosystems (IPCC4, WG2, summary)
- ❖ Global warming will cause a warmer and dryer climate in large parts of Romania
- ❖ We must turn global emmissions in 2015 (IPCC)

A Global Sustainable Scenario

CO₂ (MtC)/y

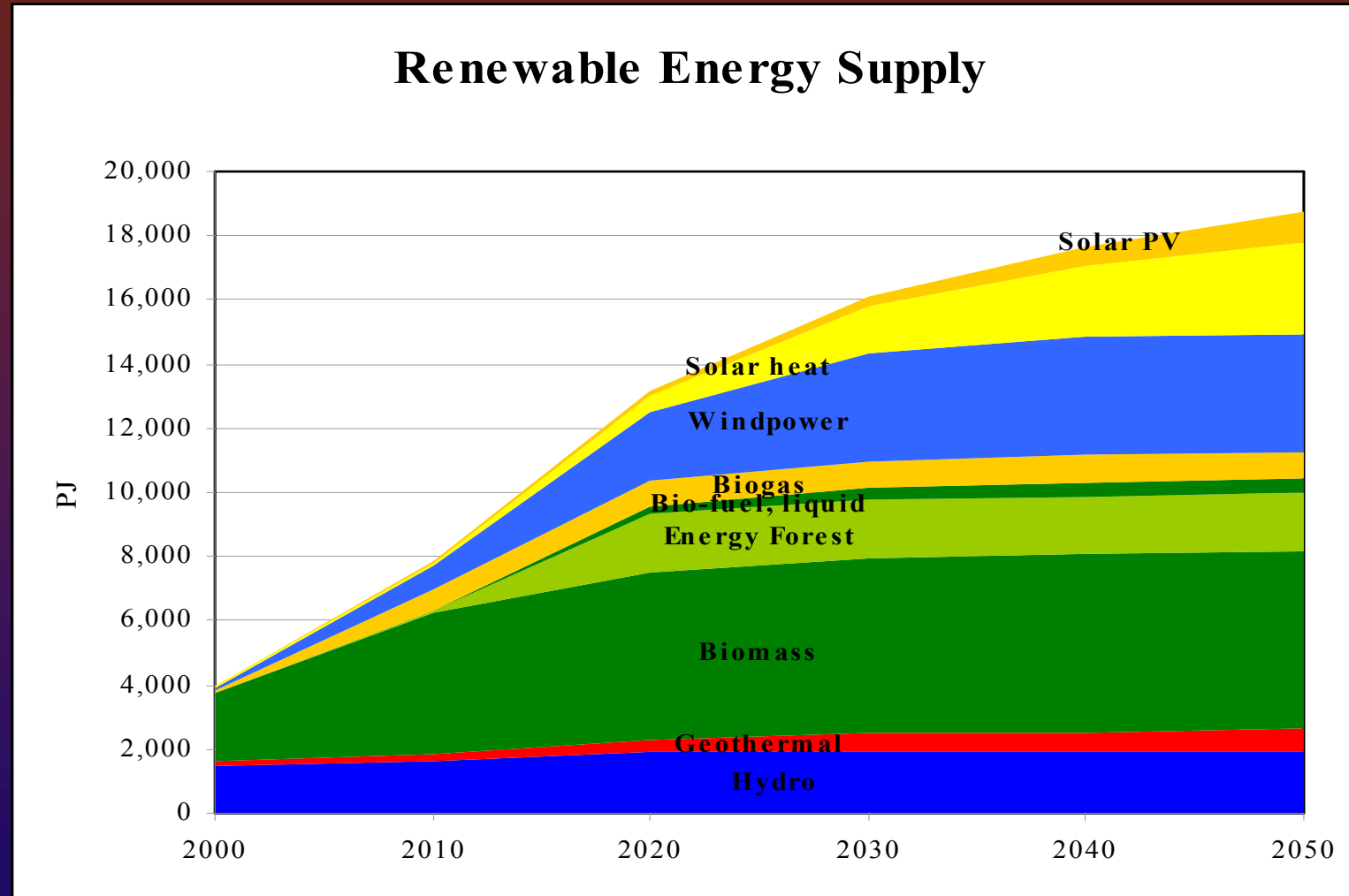


Fossil and nuclear limits

- ❖ Uranium relies on for 37% of storages, agreement to use Russian storages ends in 2013, record price in 2007
- ❖ Oil consumption is peaking and production is stable in spite of high demands and high prices, record price in 2007
- ❖ Gas will peak before 2030
- ❖ Coal can increase until around 2030 but will then also decrease
- ❖ Conclusions by the Energy Watch Group, Germany

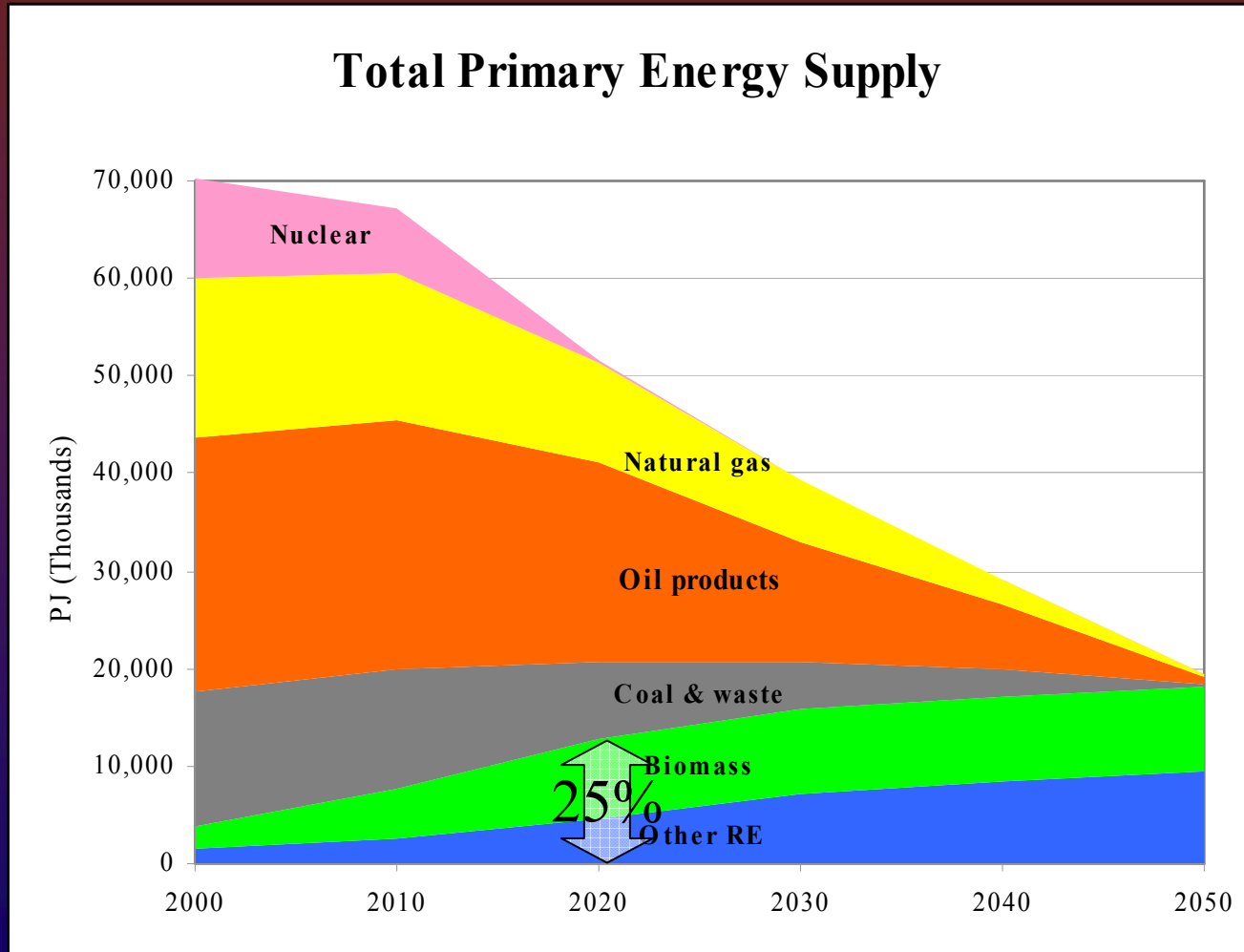
INFORSE's EU-27 Vision

Renewable Energy Supply



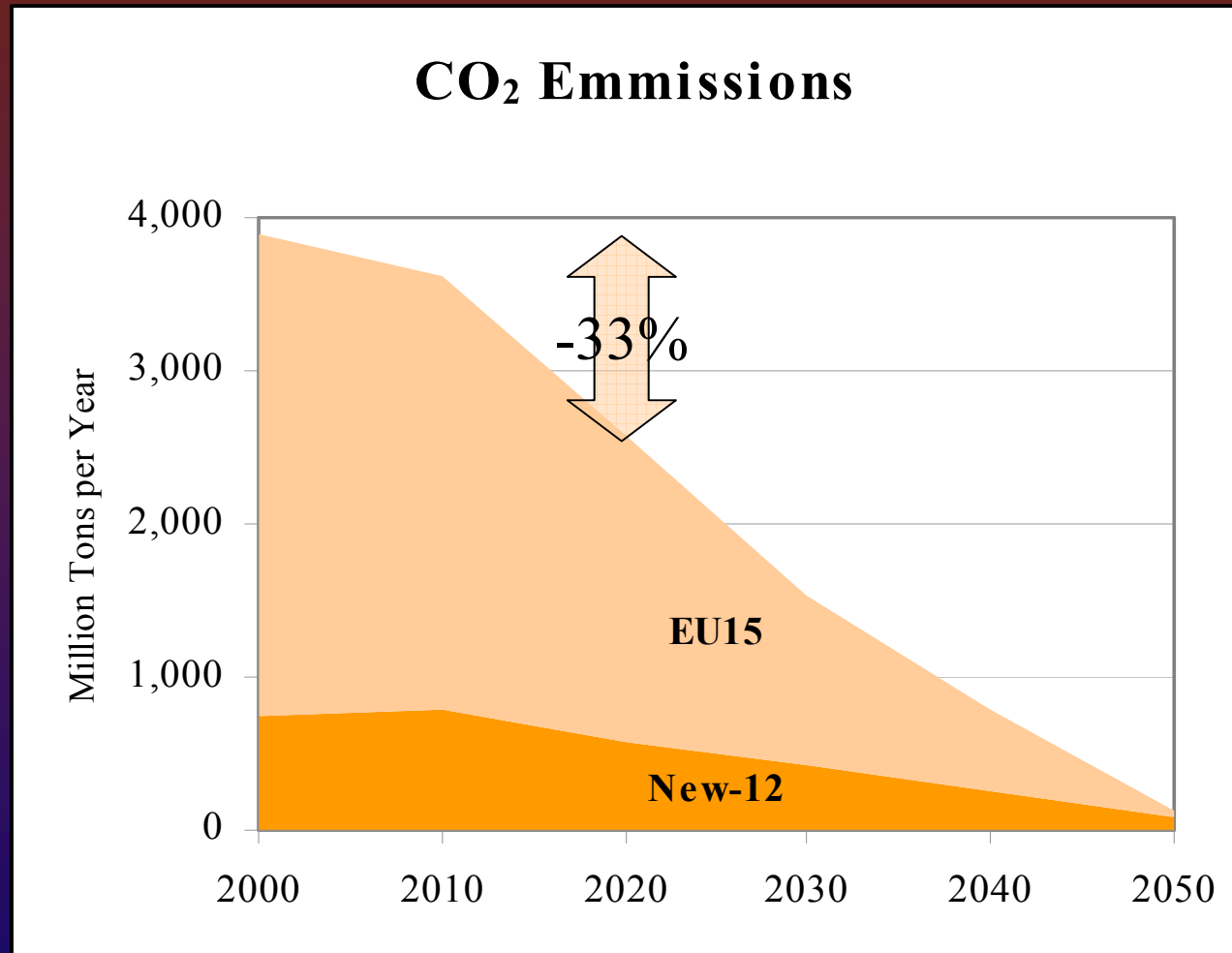
Preliminary version – March 2007

INFORSE's EU-27 Vision



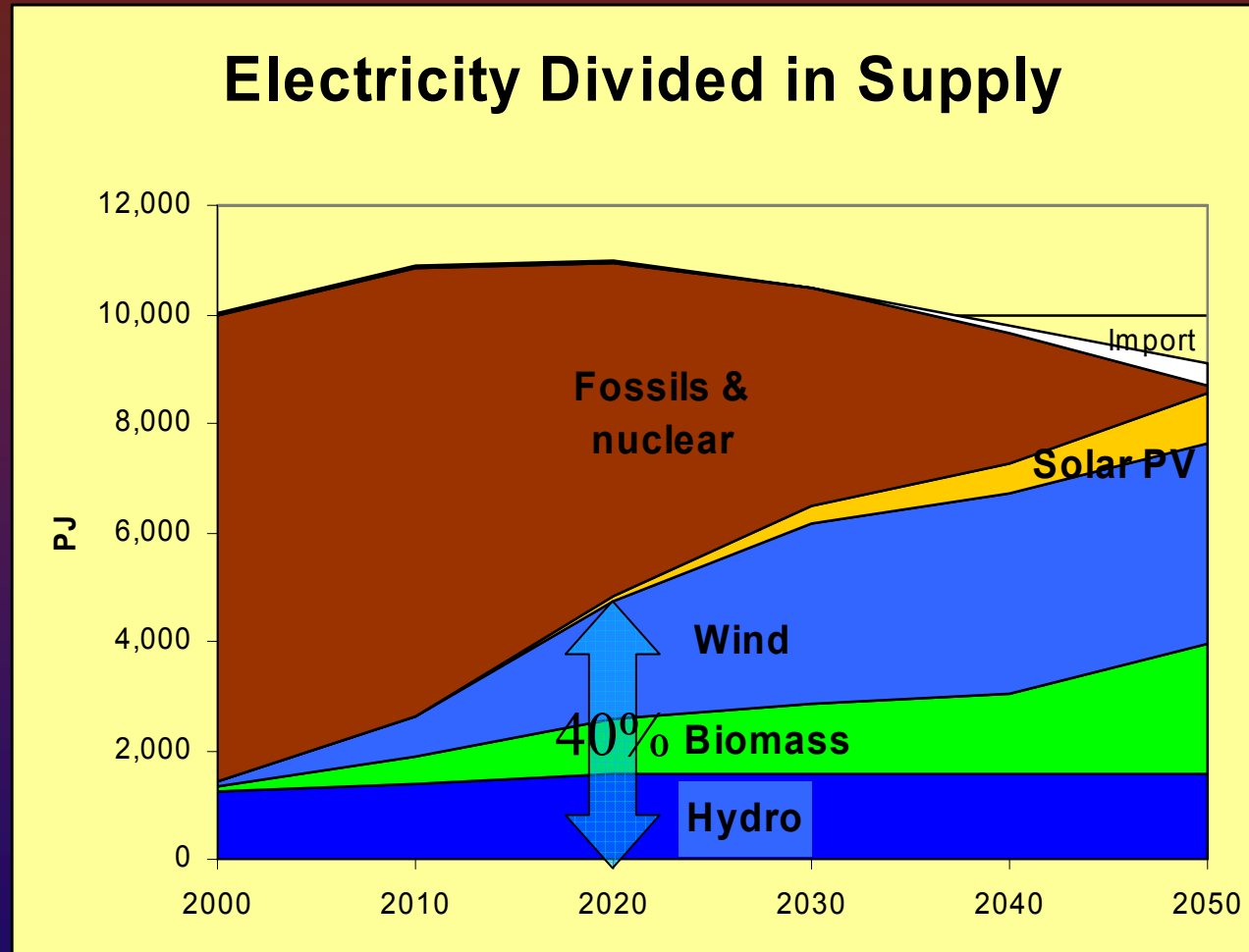
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Energy Demand

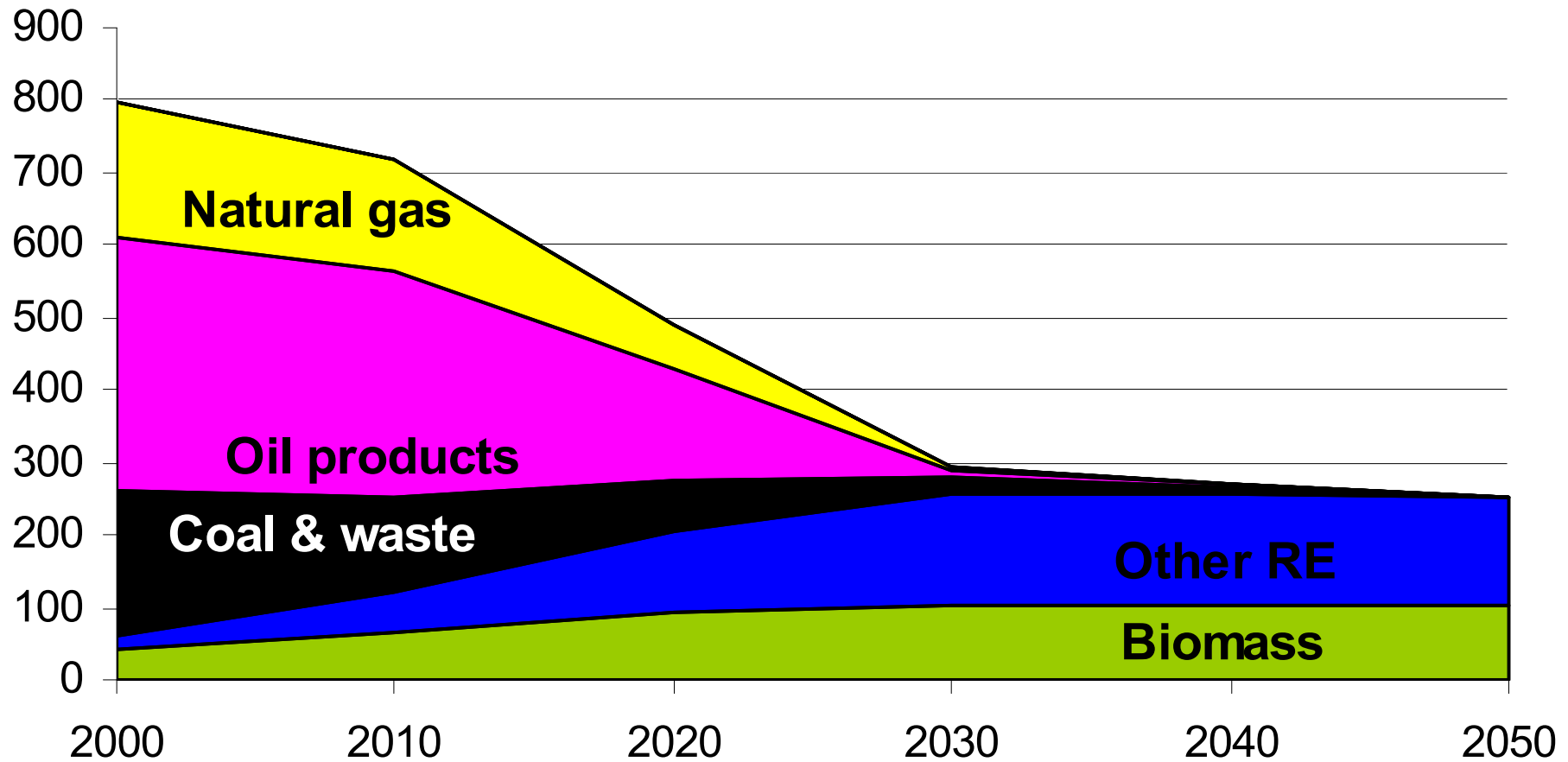
- ❖ Most energy consuming equipment will be replaced many times before 2050: new generations of equipment should maximize efficiency. Technology learning drives prices down.
- ❖ One exception is houses. In EU houses could use only 1/7 of today's heat demand in 2050. For the vision is proposed 1.7%p.a. specific reduction leading to 57% reduction 2000 – 2050.
- ❖ For transport is expected increase in conversion efficiency from today's 15-20% to 50%, and re-gain of “break energy”: factor 4 efficiency increase
- ❖ Energy service demand will increase, 0-100%
- ❖ -33% in car use in EU-15, but + 100% in Lithuania

Vision for Denmark (OVE'05)

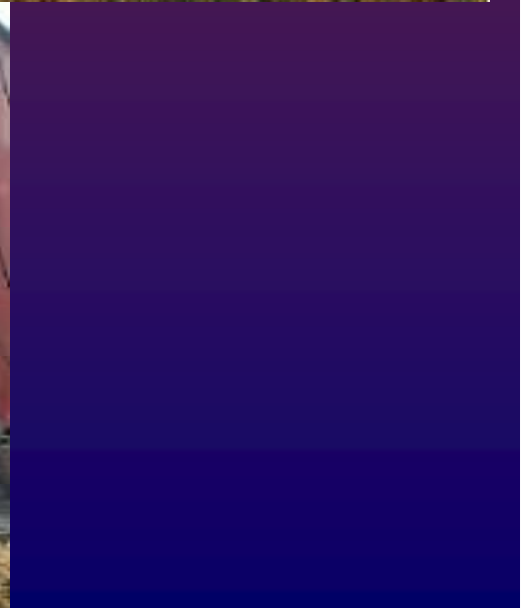
- ❖ Strong growth in windpower until 2030
- ❖ Half specific building consumption 2005-2025
- ❖ Flexible electricity use: heat pumps and hydrogen
- ❖ Sustainable transport system by 2030 (33% reduction in car use)
- ❖ el-storages from 2030



Primary Net Energy Supply, Denmark (PJ)



Thank you



Biomass, sustainably in EU (PJ)

