

CZ-AT Energy Expert Group

Biomass: Implementation and support schemes

(Austrian part)

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Objectives

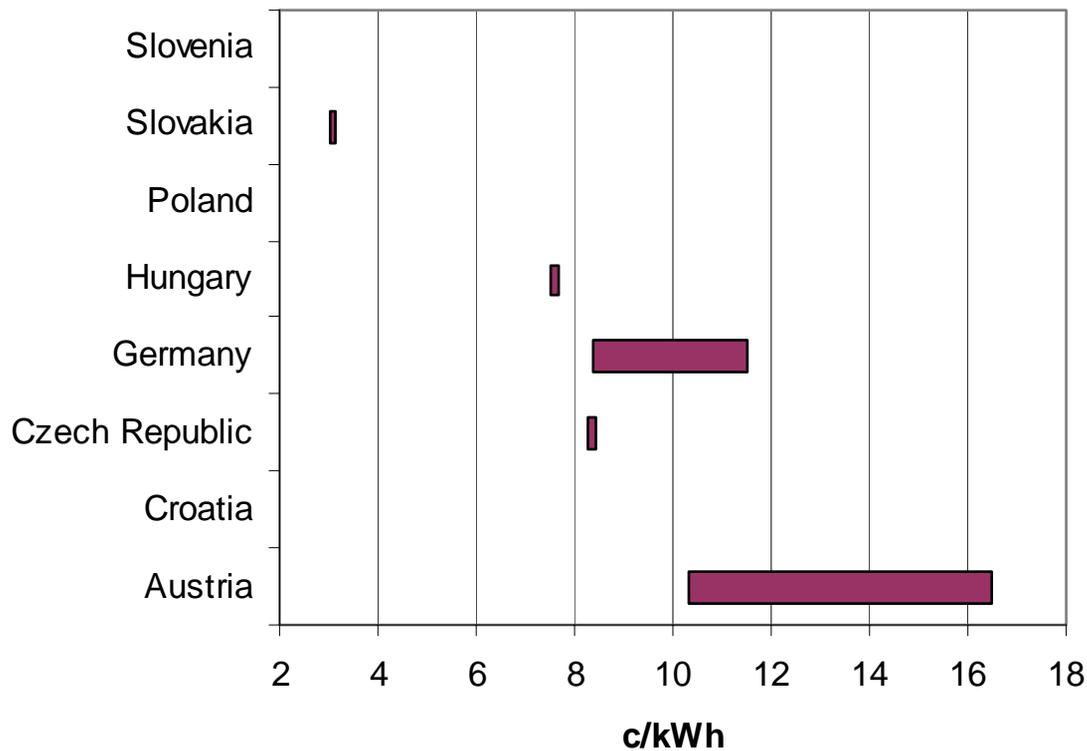
- **Investigation and documentation of current promotion framework for biomass in CZ, AT and other CEE countries**
 - **Evaluation of potentials and costs**
 - **Investigation of current market situation of biomass**
- ⇒ **Perspectives for the development of biomass markets**

Comparison of biomass promotion in CEE

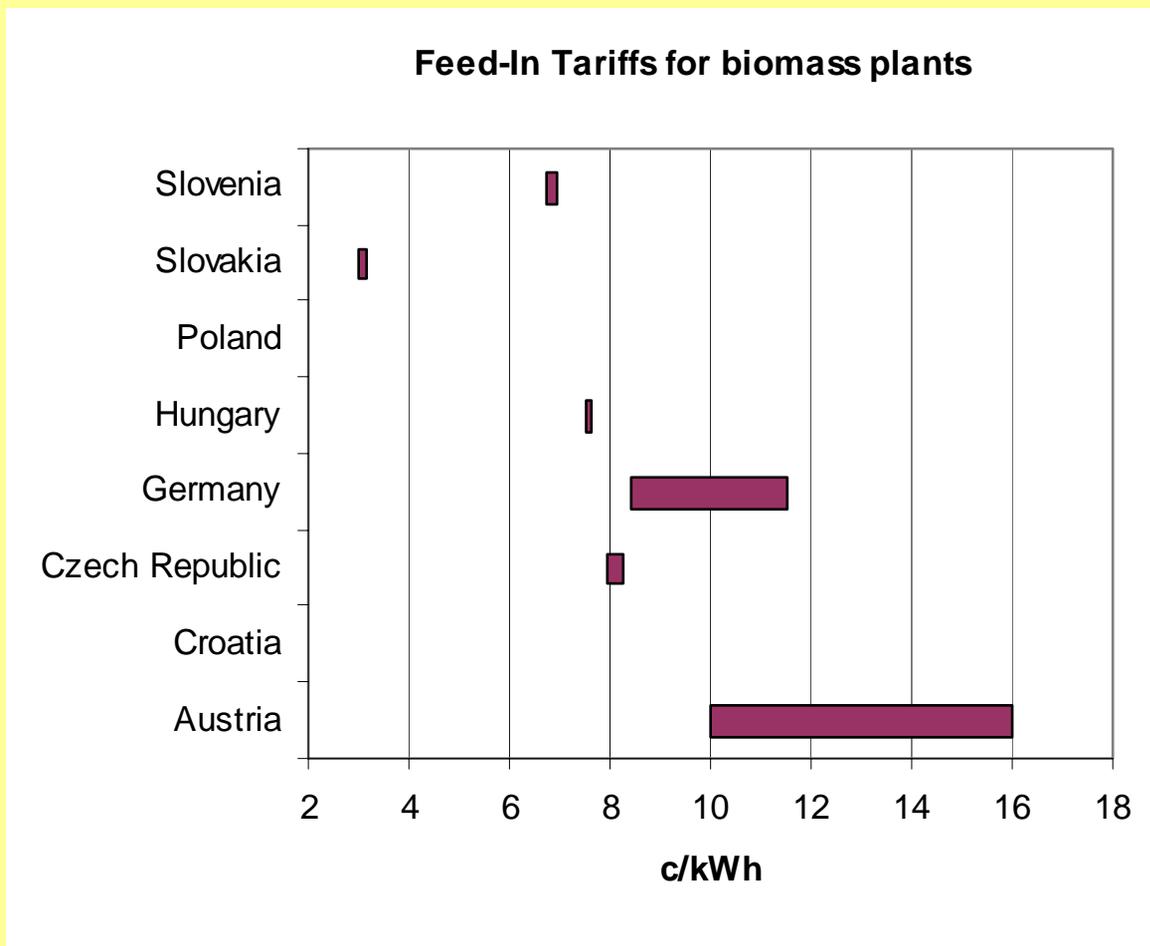
- **Electricity**
- **Heat**
- **Biofuels for transport**

Promotion of biomass electricity generation

Feed-In Tariffs for biogas plants



Promotion of biomass electricity generation



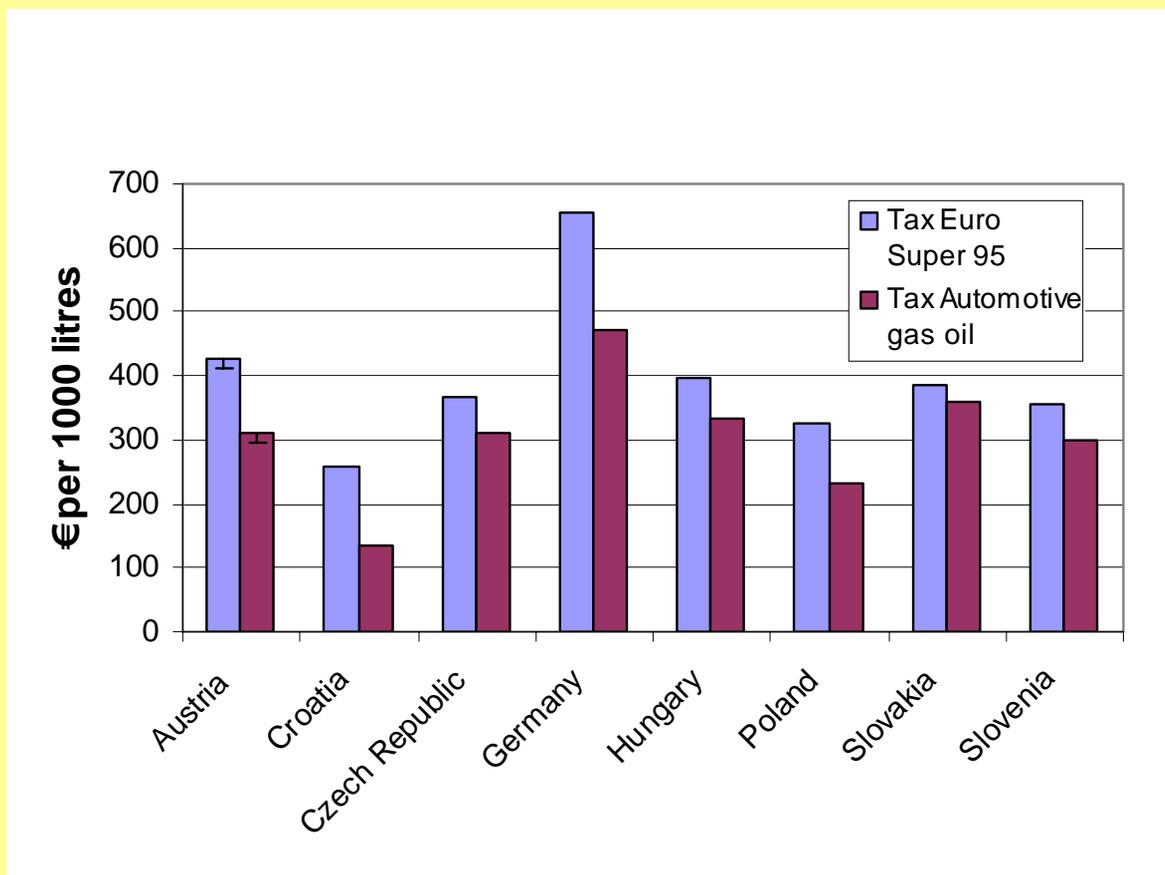
Promotion of bioheat

- **Main support instrument: Investment subsidies**
- **Partly accompanied by soft loans, tax incentives**
- **All countries (except Croatia, Slovakia) have implemented subsidies for biomass heating systems.**
- **Subsidies range from 20% up to 70%.**
- **A lot of additional requirements, restrictions => difficult to compare levels of support**

Promotion of biofuels for transport

- **Main support instrument: Tax incentives, quota (5.75% until 2010)**
- **Partly accompanied by additional subsidies on production plants.**
- **Higher taxation of fossil fuels in Germany than in other CEE countries.**

Fuel taxes on gasoline and diesel in CEE

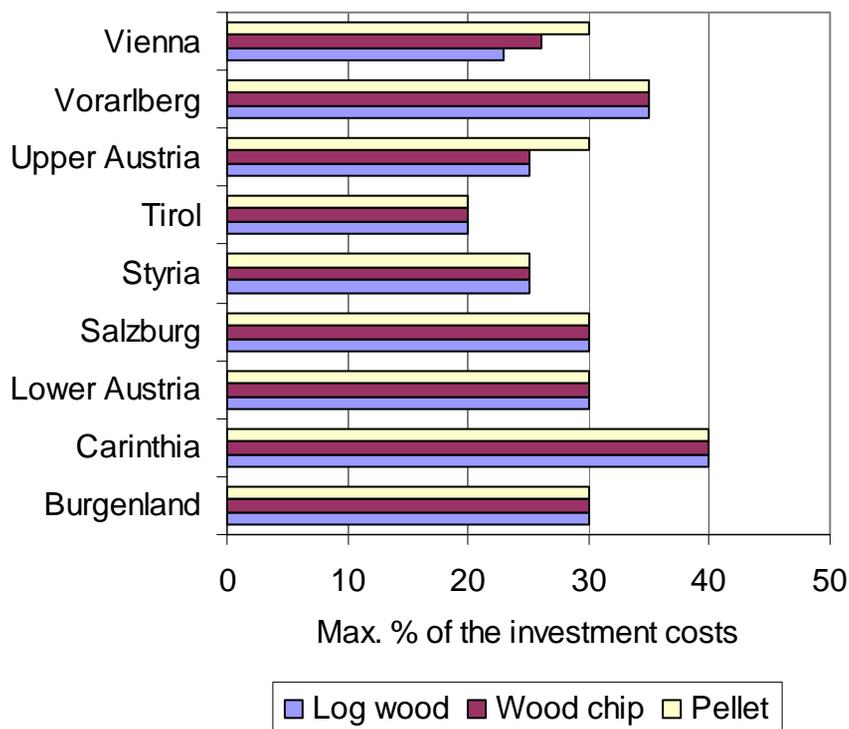


Biomass Promotion in Austria: Electricity

	Size of the plant (MW)	Value [c€/kWh]
Solid Biomass*	<2	16
	>2 and <5	15
	>5 and <10	13
	>10	10.2
Liquid Biomass	<0,2	13
	>0,2	10
Biogas	<0,1	16.5
	>0,1 and <0,5	14.5
	>0,5 and <1	12.5
	>1	10.3

(*) Reduced feed-in-tariffs for industrial residues (bark, saw dust etc) and cofiring (3 to 6.5c/kWh)

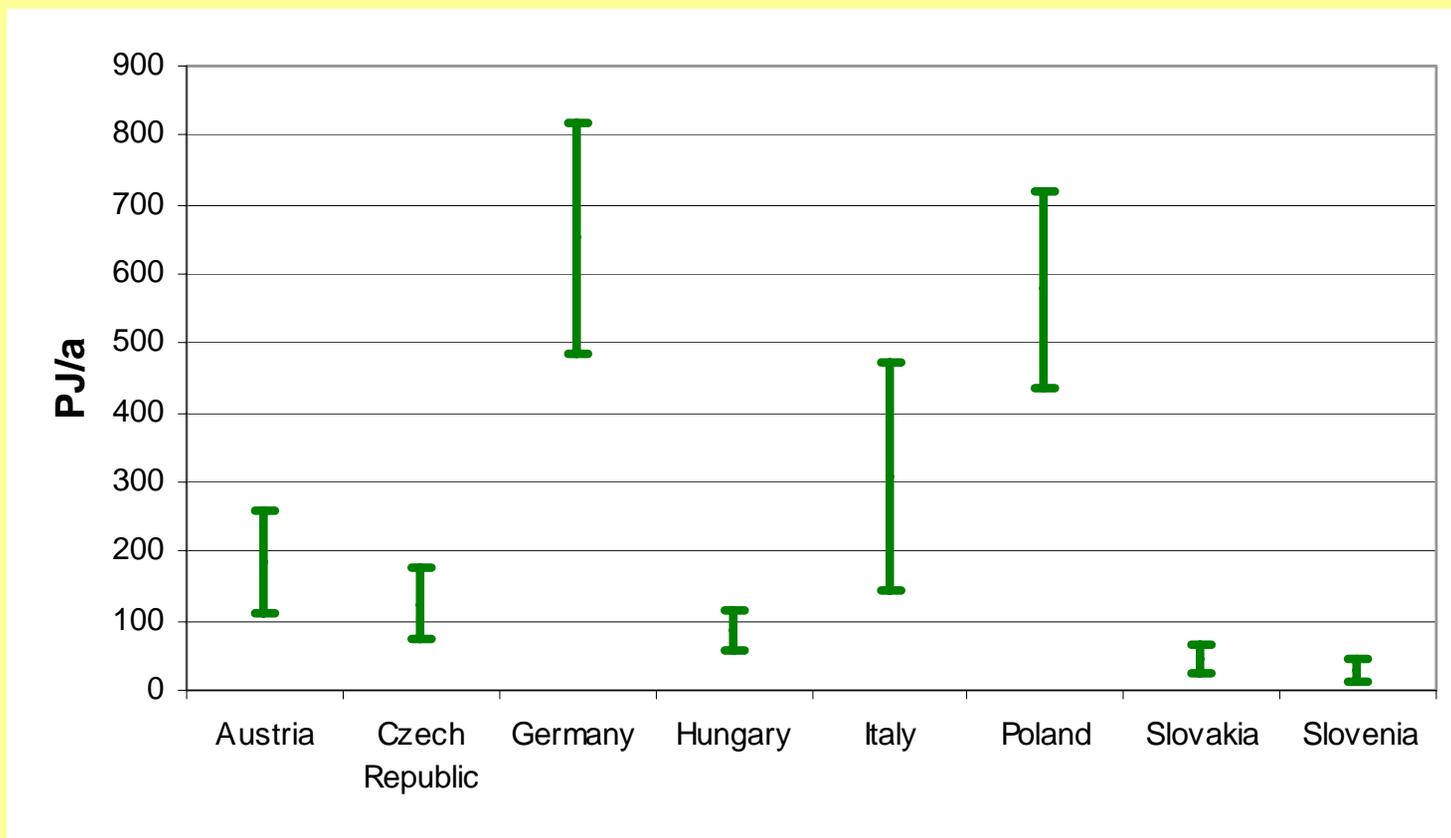
Biomass Promotion in Austria: Heat



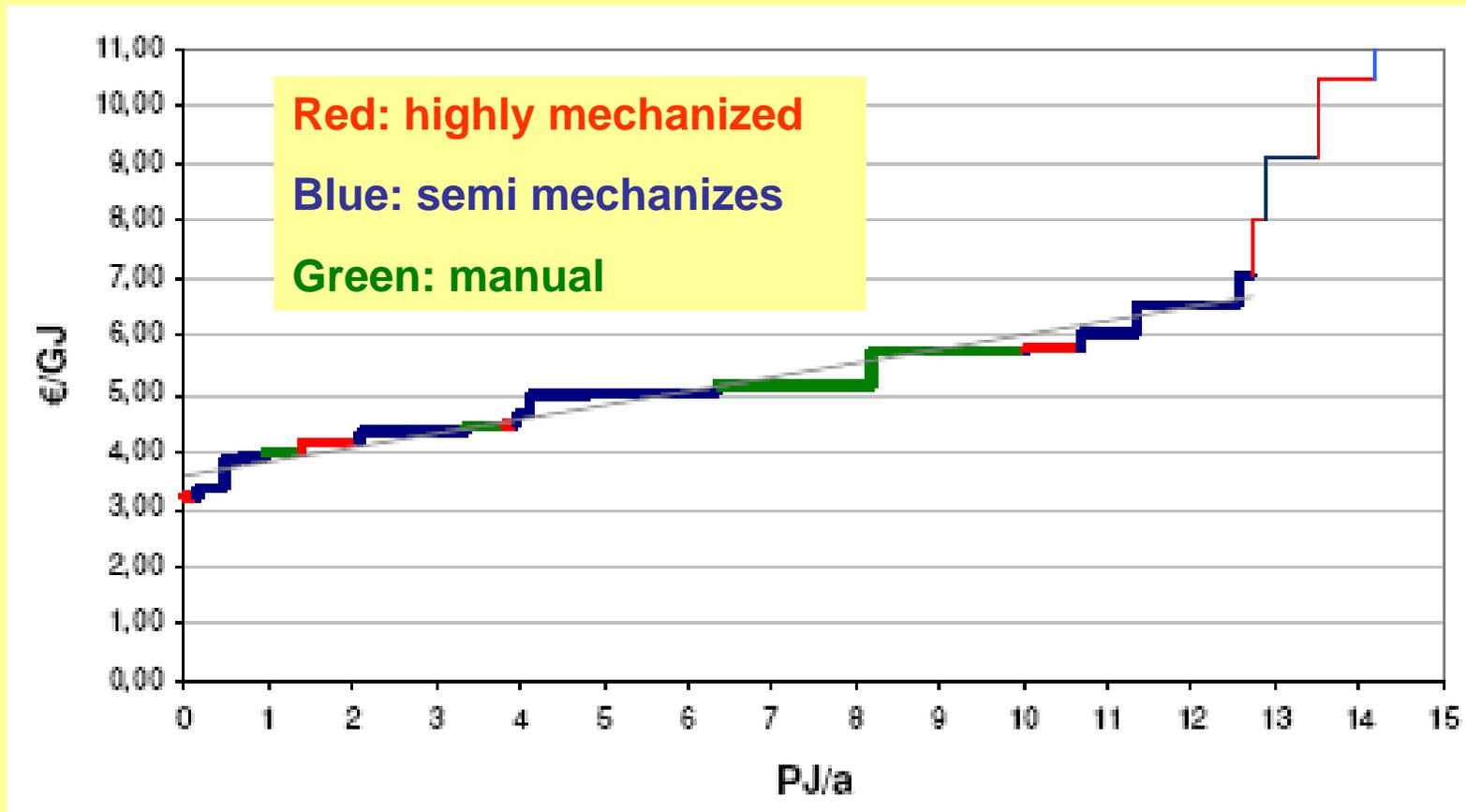
Biomass Promotion in Austria: Transport

- **Main support instrument up to 2005:
Tax incentives (complete tax exemption on biofuels and reduced tax on blended fuels)**
- **Quota:**
 - 2,5% from October 2005**
 - 4.3% from October 2007**
 - 5.75% from October 2008**

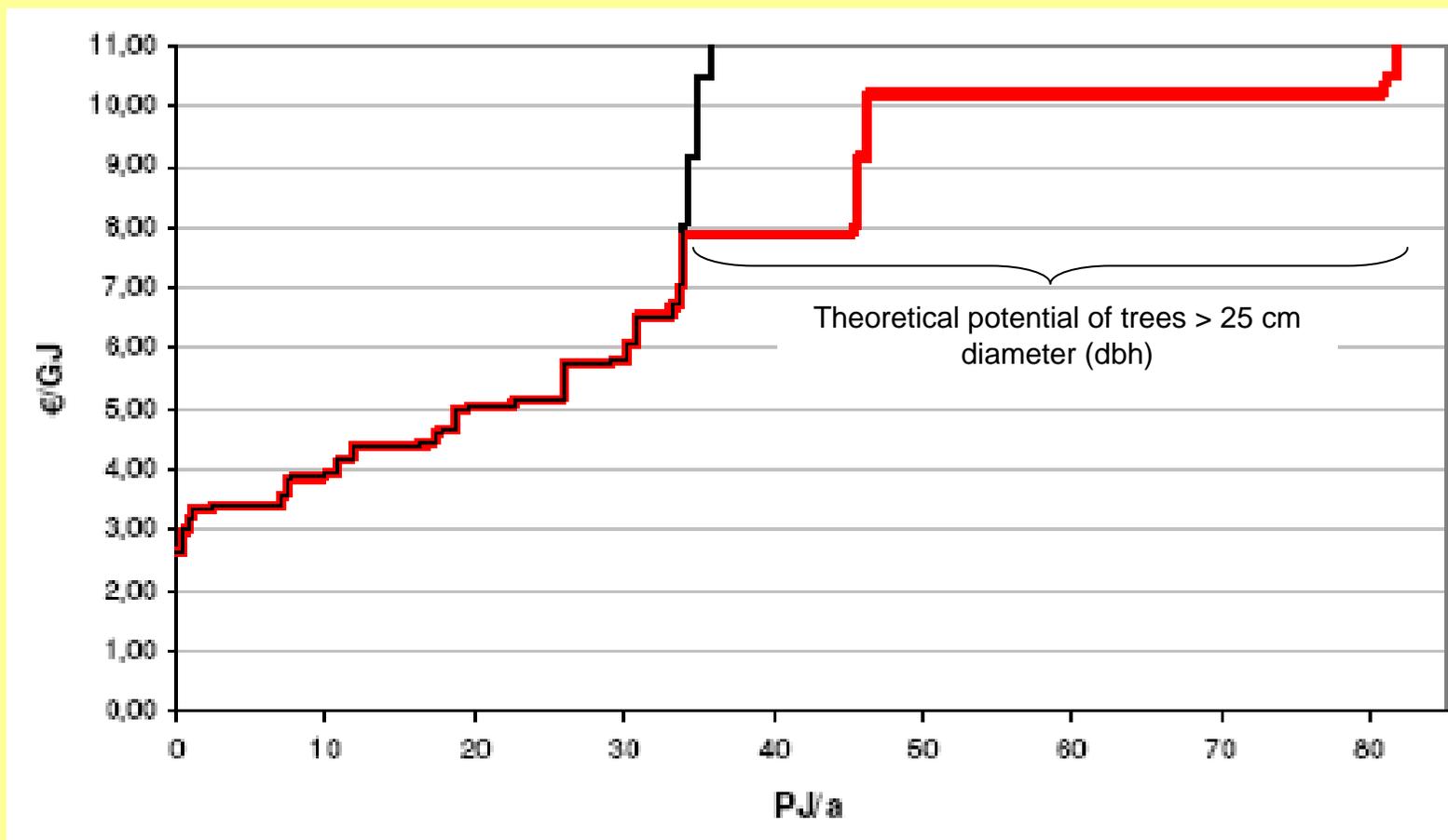
Biomass Potentials in selected CEE countries



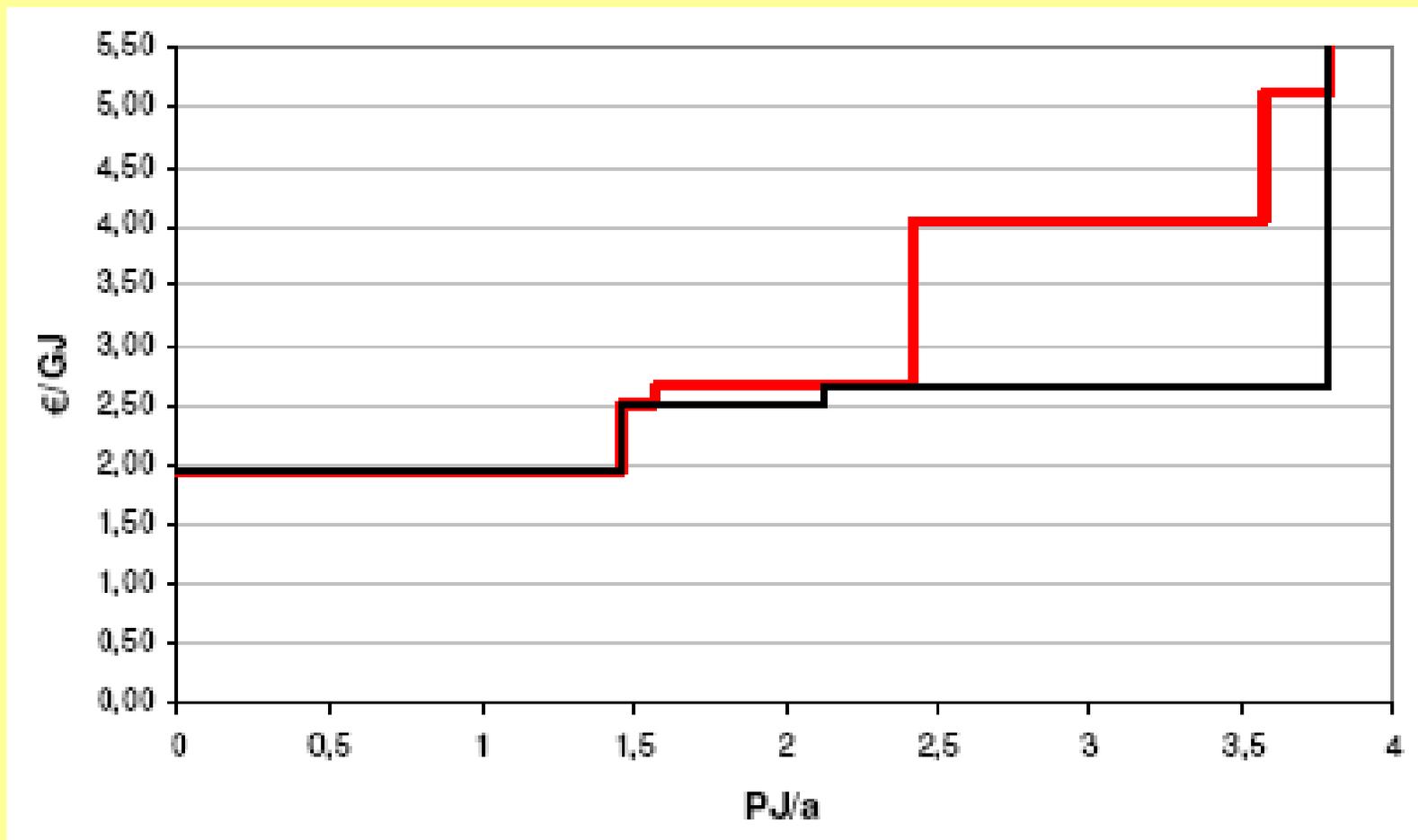
Biomass cost resource curves Austria: (additional) forestry wood chips from thinning



Biomass cost resource curves Austria: (additional) forestry wood chips



Biomass cost resource curves Austria: (additional) industrial residues, 2010

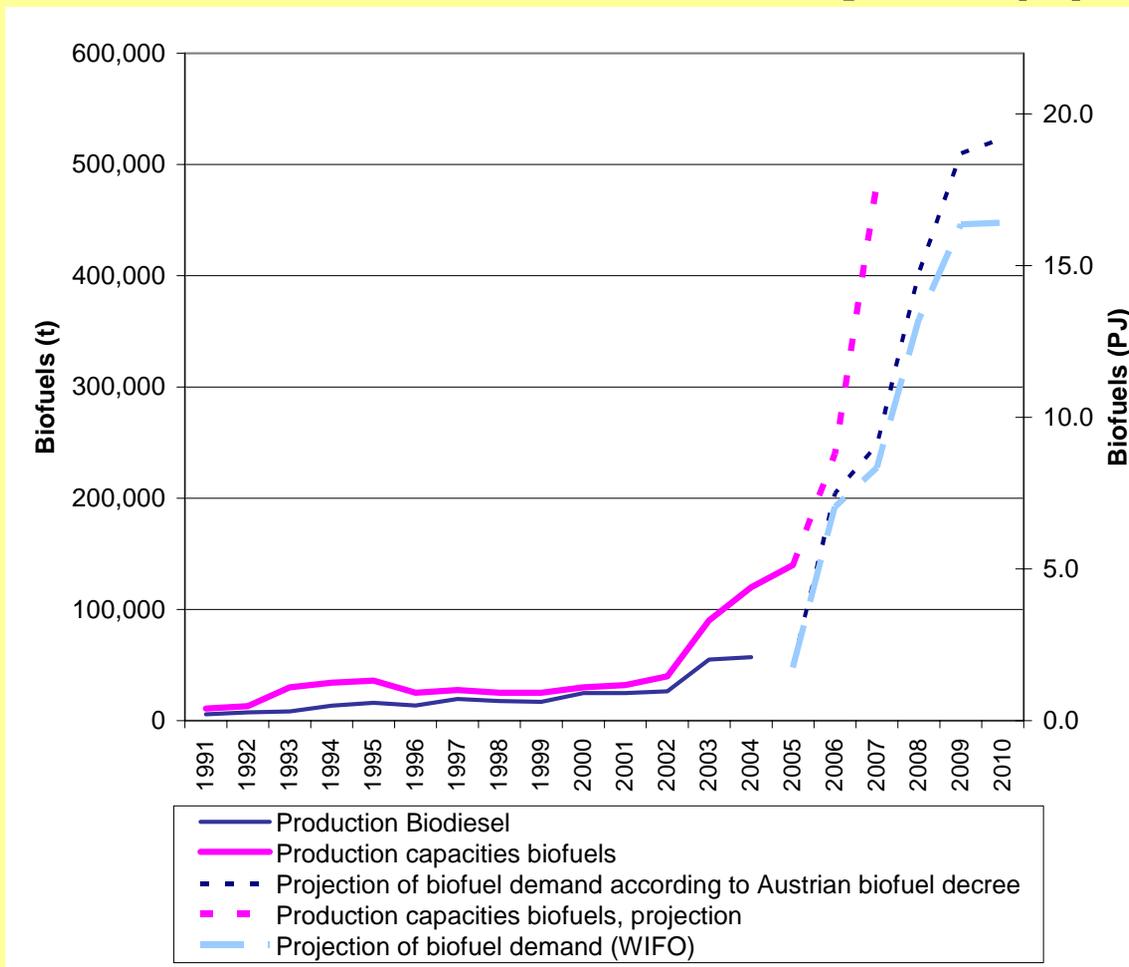


Development of biomass demand in Austria

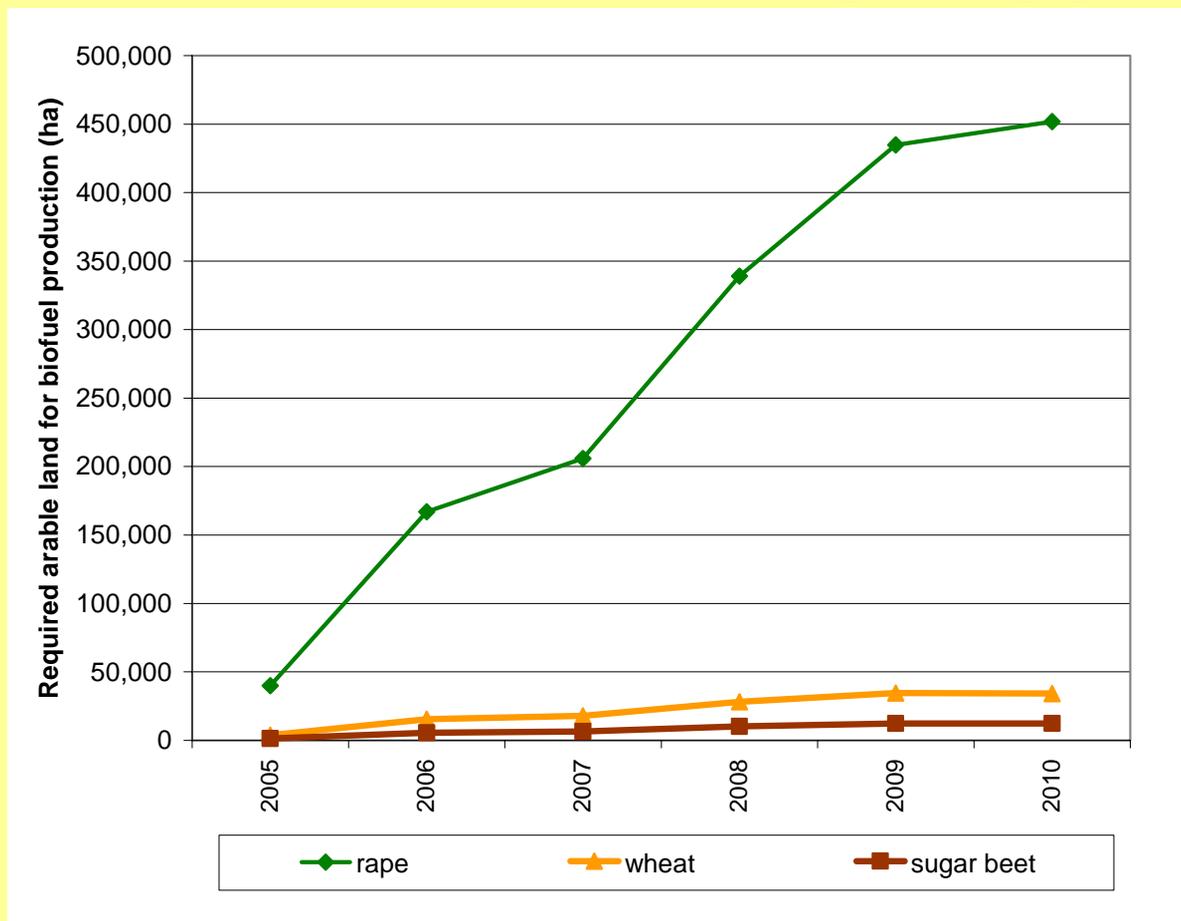
Strongest increase is expected in the fields of:

- **Biofuels**
- **Electricity Generation**
- **Heat: Pellets**

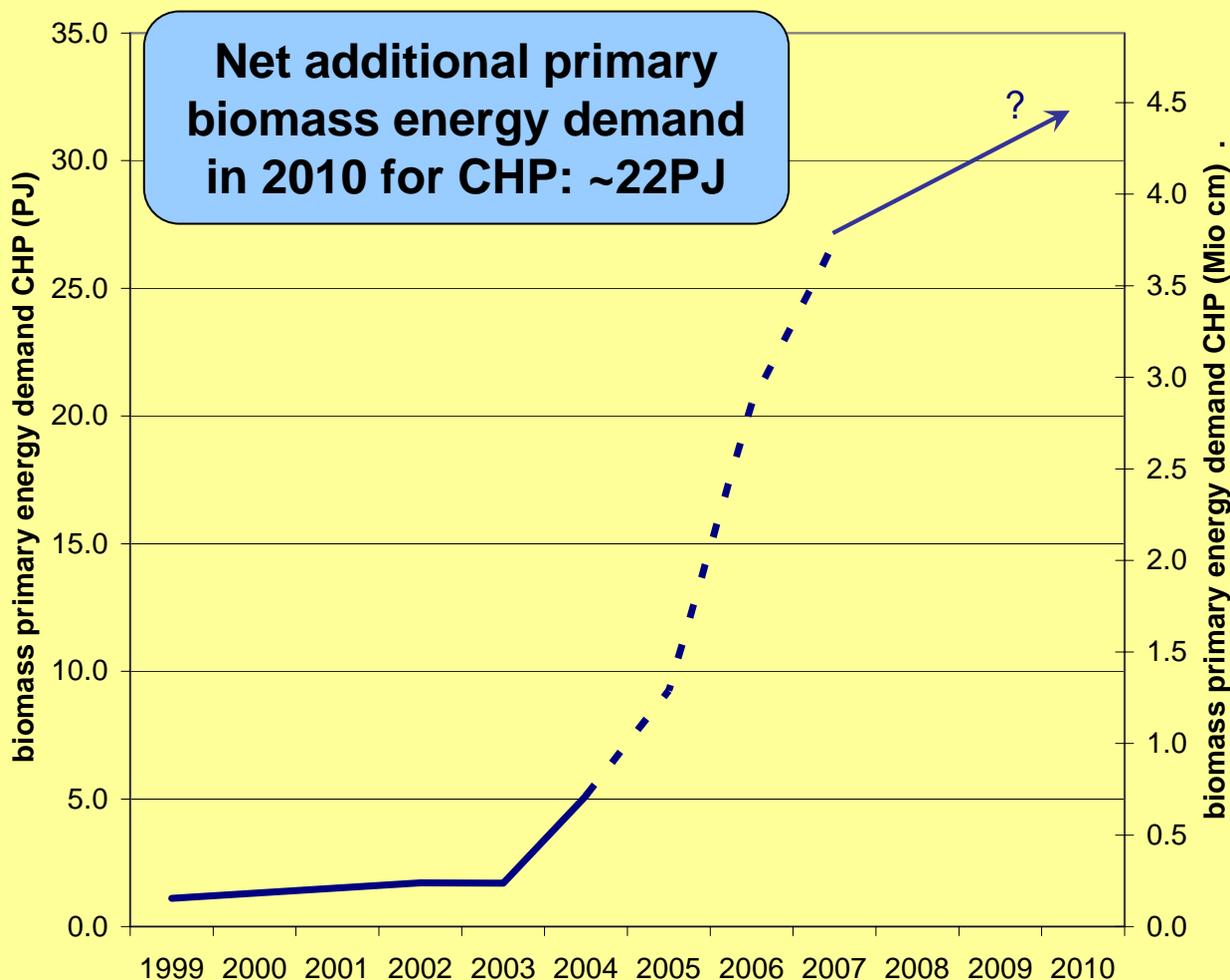
Development of biomass demand in Austria: Biofuels for transport (1)



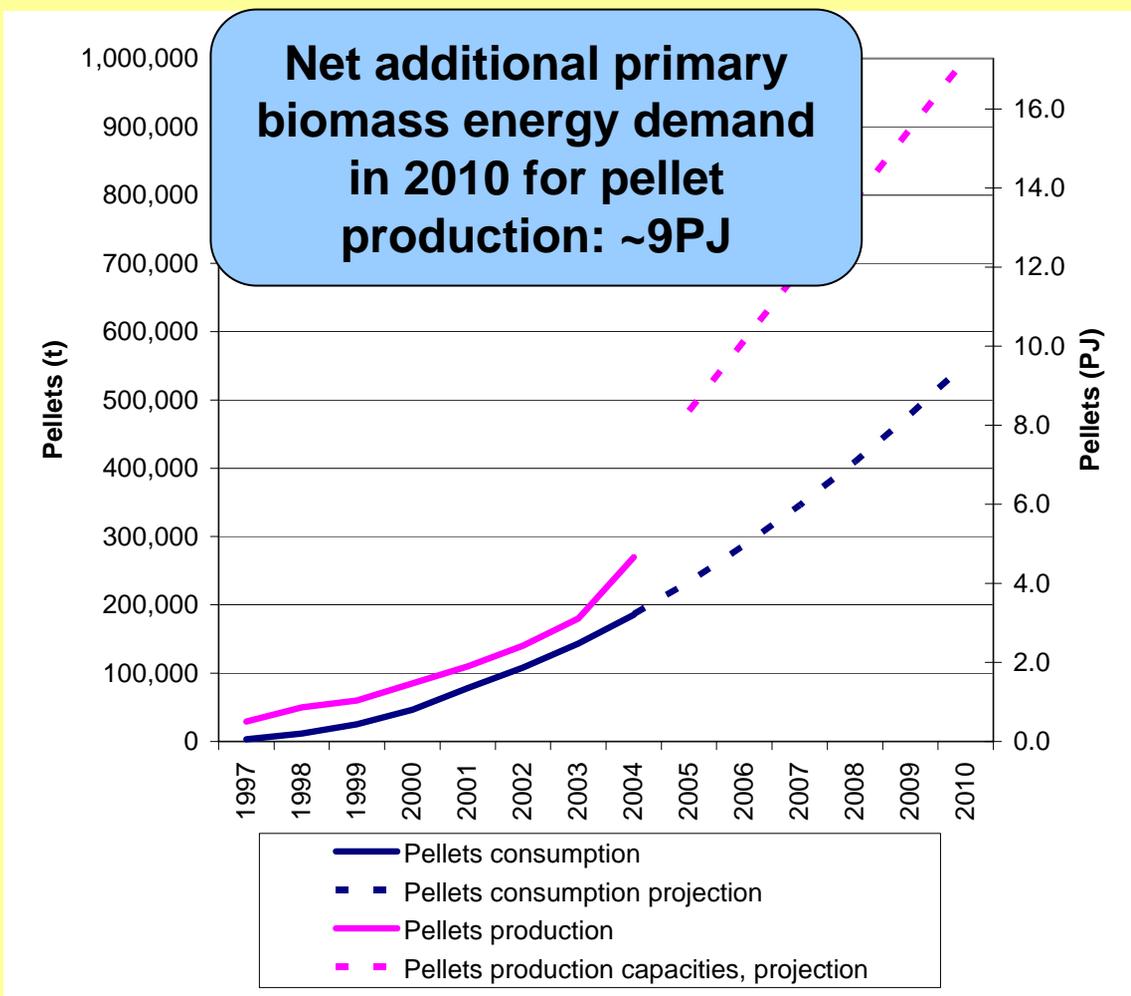
Development of biomass demand in Austria: Biofuels for transport (2)



Development of biomass demand in Austria: CHP

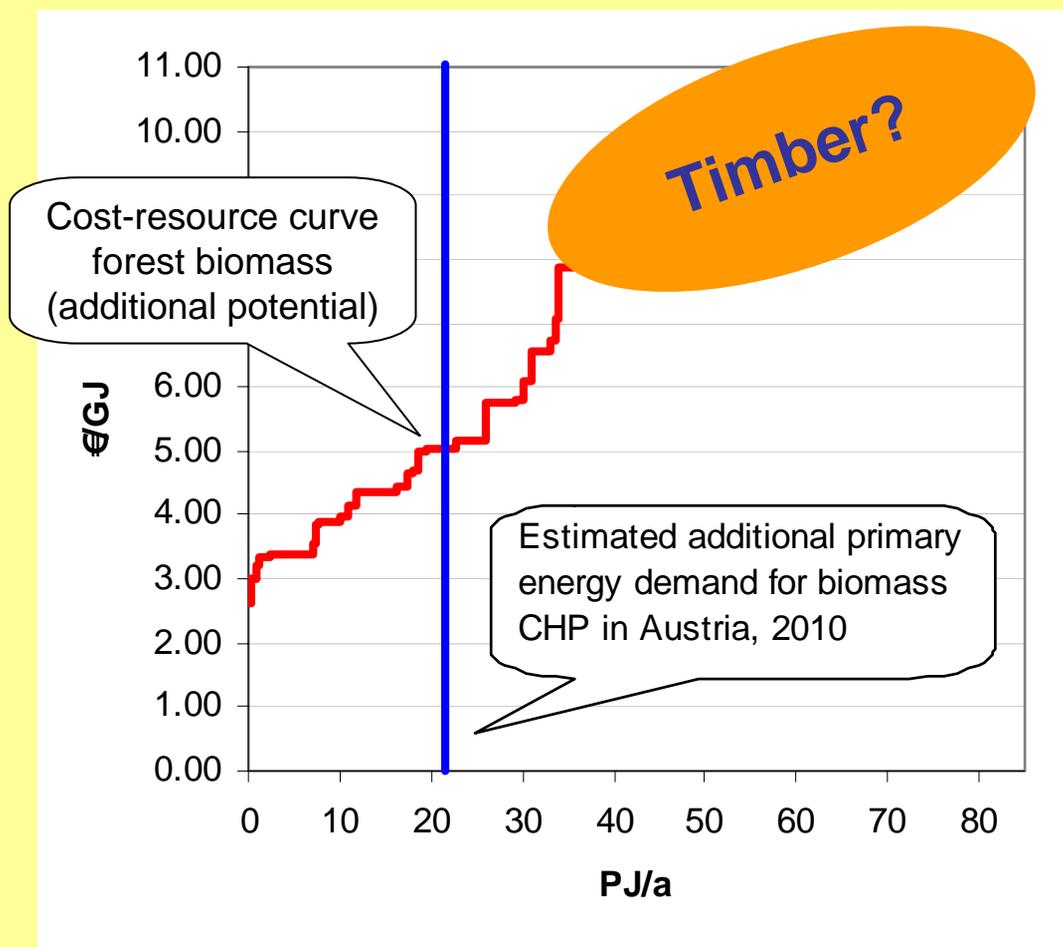


Development of biomass demand in Austria: Pellets



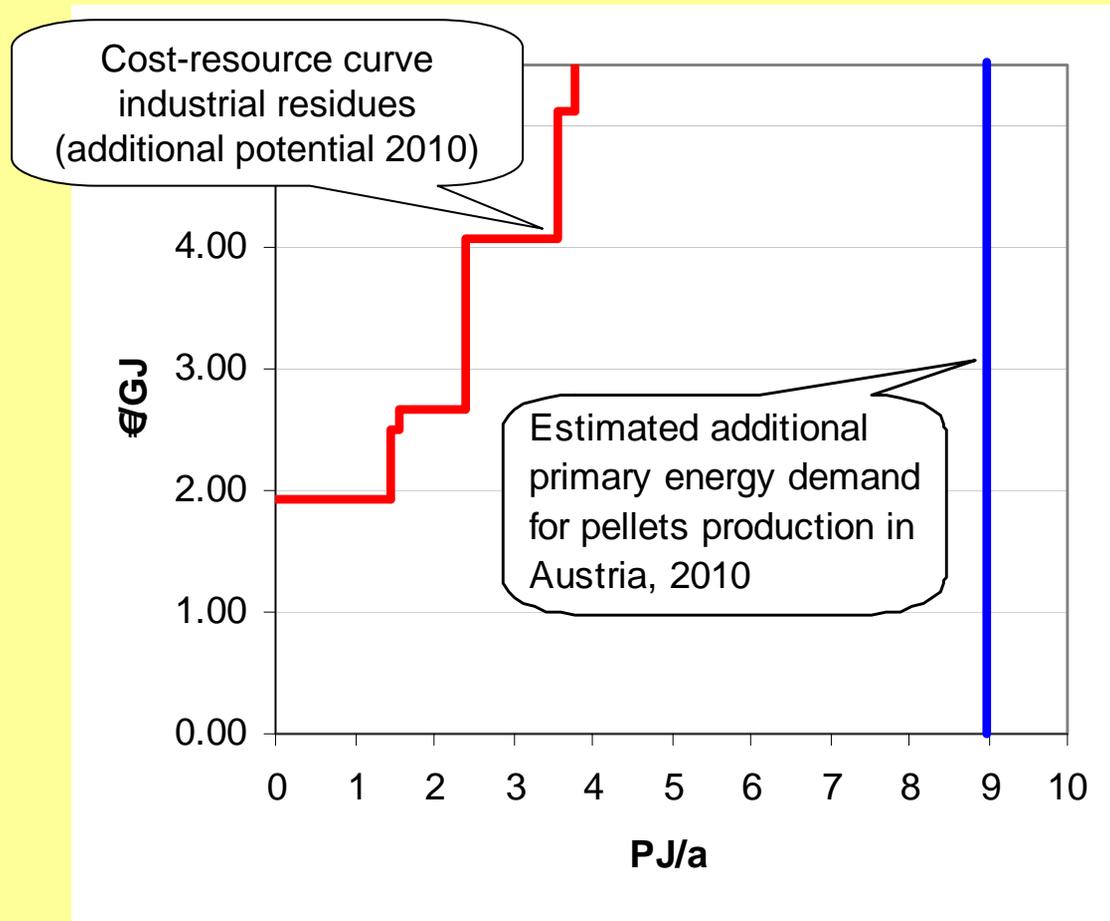
Prospect of biomass availability and prices:

Forest wood chips and demand from CHP



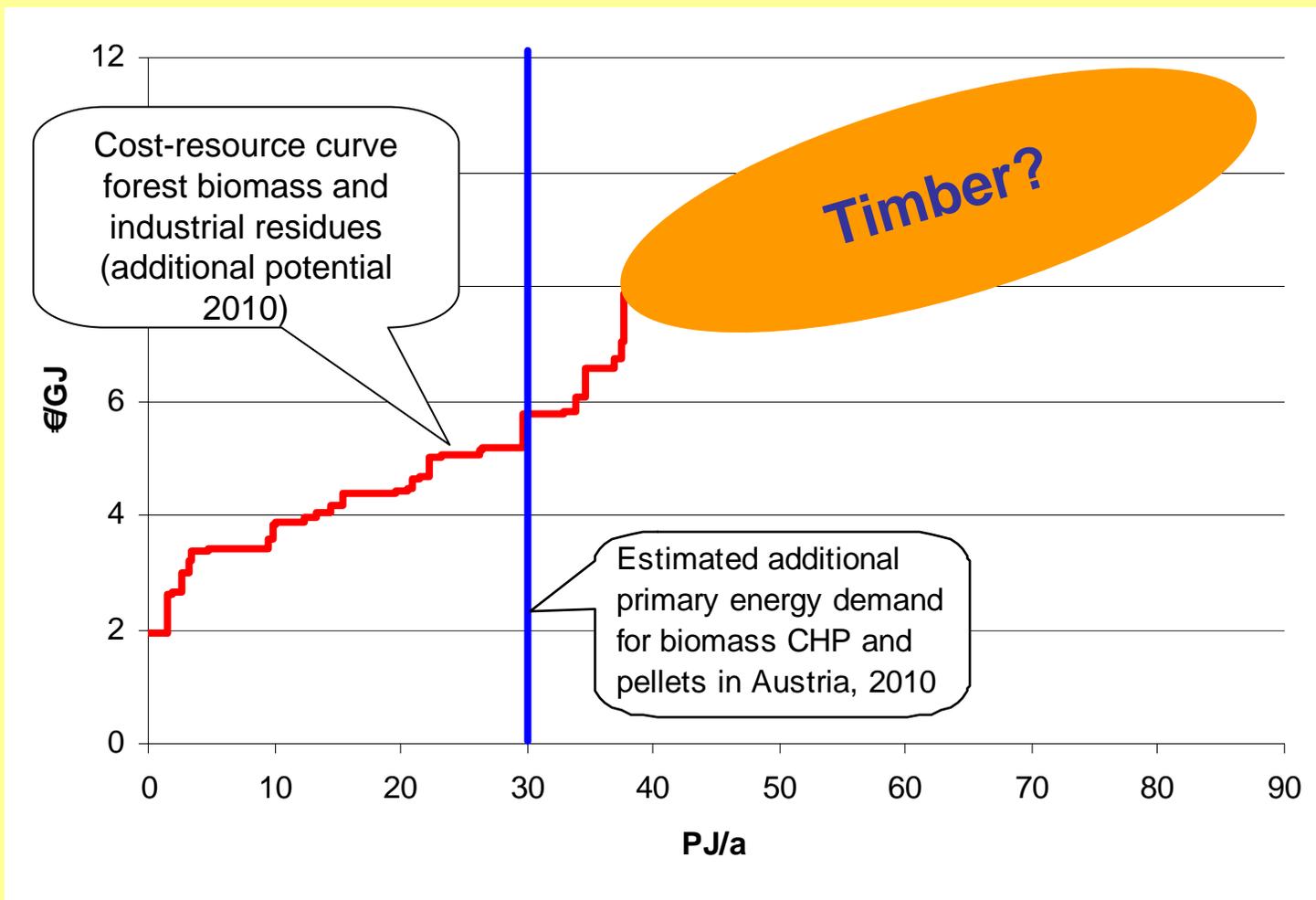
Prospect of biomass availability and prices:

Industrial residues and demand for pellets



Prospect of biomass availability and prices:

Industrial residues and forest biomass



Conclusions

- The increasing demand for biofuel production in Austria will at least partly be satisfied by imports. (In case that no sharp reduction in transport energy consumption occurs.)
- Trade of biofuels (or related primary resources) from CZ to AT?
- The share of industrial byproducts being pelletized will increase from 7% (2004) to 30-40% in 2010.
- This will result in consequences for the paper, pulp and fibre board industry (or for the biomass fractions available for pellet production).
- The exploitation of forest and industrial biomass resources will strongly increase until 2010. This could lead to a price increase up to the range of about 6€/GJ (upper range of current prices).