

The European Picture

How do Member States support renewable heating?

Workshop "Improving the Renewable Energy Policy
Framework in the Lithuanian Heating Sector"

Vilnius, 27 April 2011

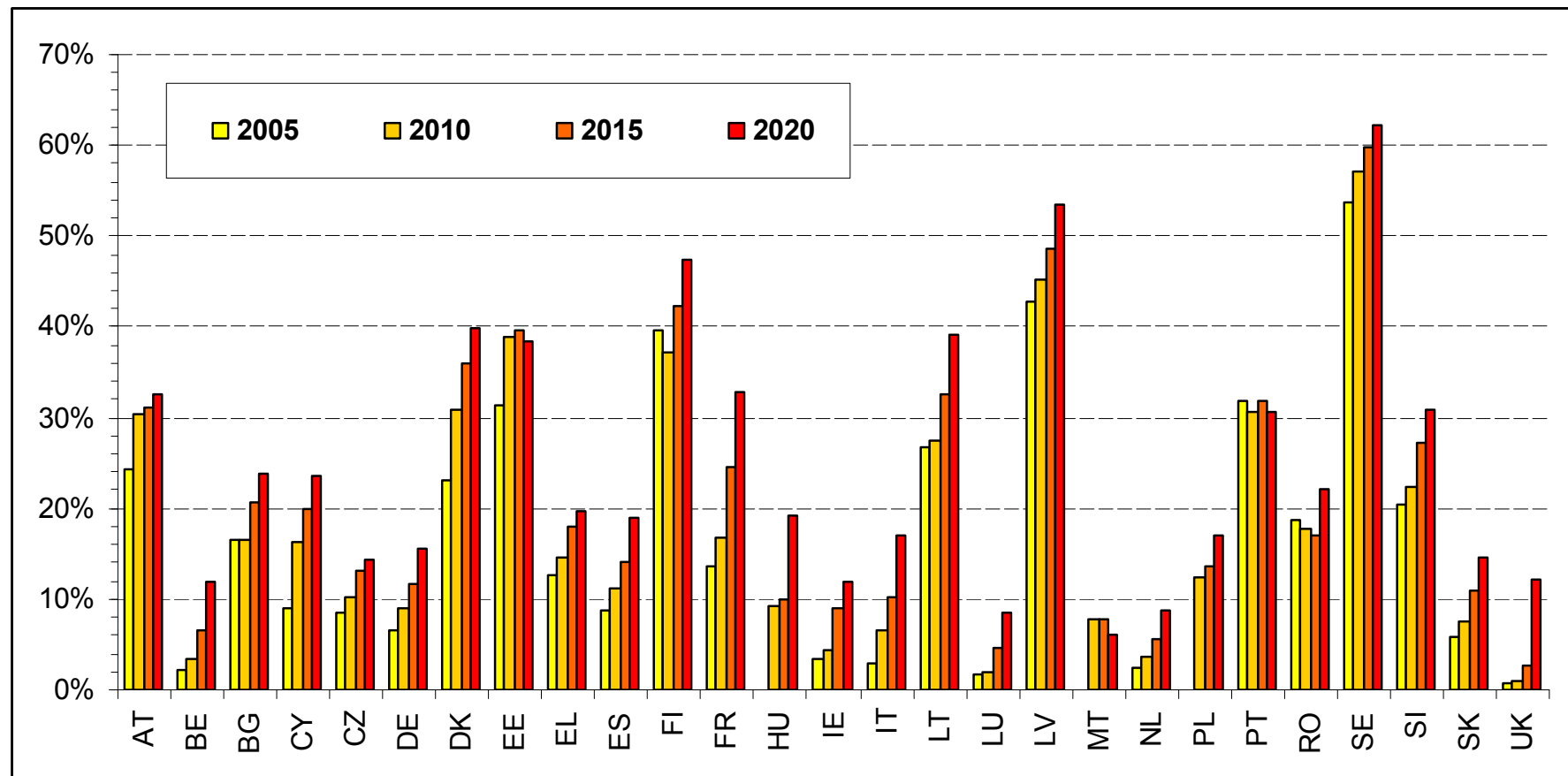
Veit Bürger, Öko-Institut e.V.



Overview

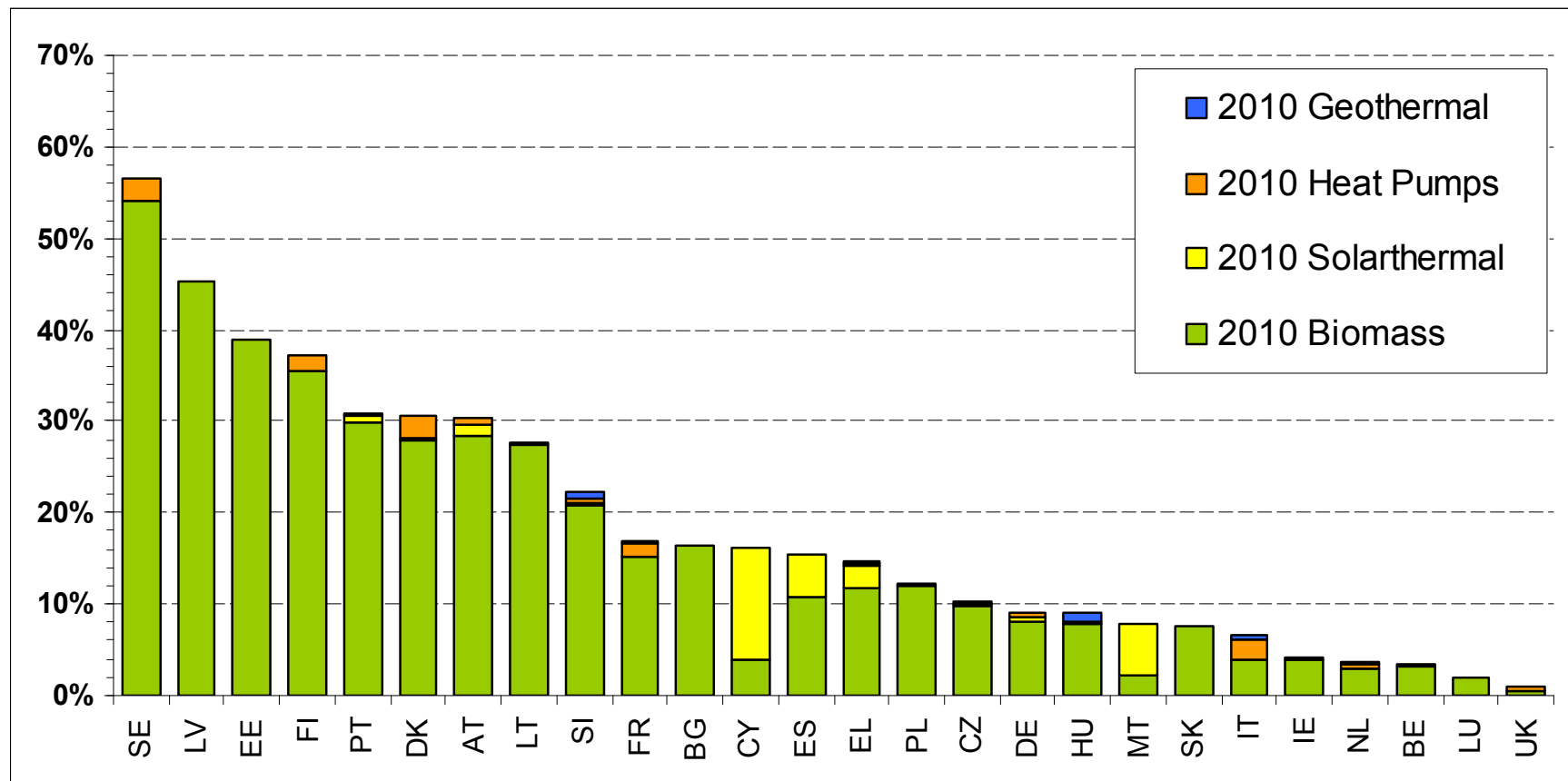
- RES-H/C targets of the EU-27 and projections of the RES-H/C technology split in 2010 and 2020
- Overview of the current policy support framework for RES-H/C in the EU-27
- NREAPs: Reported support schemes for RES-H/C in order to achieve the indicative RES-H/C trajectories until 2020
- Selection of ambitious policy cases: UK and Germany
- Conclusions

Indicative RES-H/C targets of the EU-27



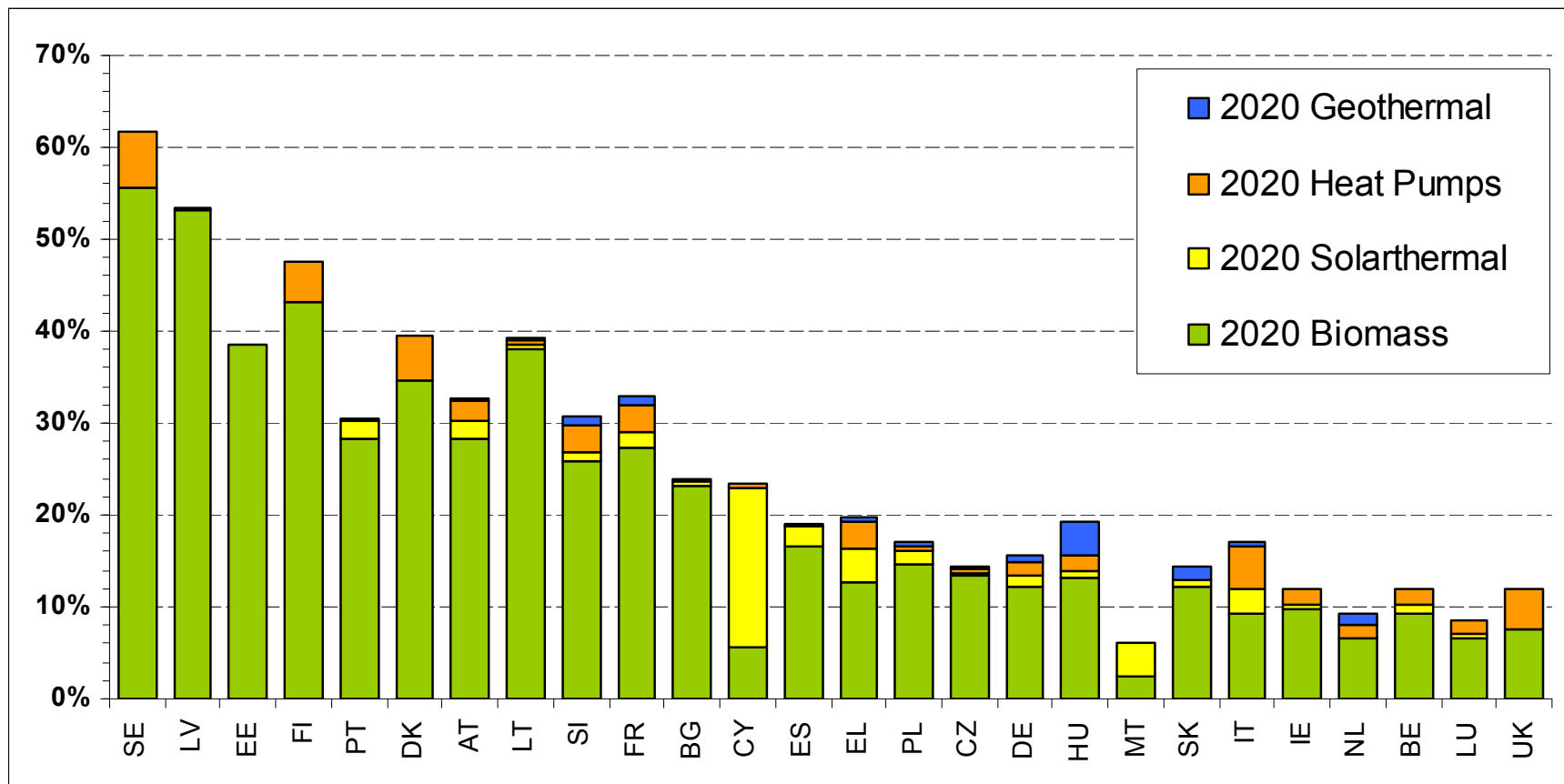
Source: National Renewable Energy Action Plans

Projections: Contribution of different RES-H/C technologies to the final energy demand for heating and cooling in 2010



Source: National Renewable Energy Action Plans

Projections: Contribution of different RES-H/C technologies to the final energy demand for heating and cooling in 2020



Source: National Renewable Energy Action Plans

Current policy framework for RES-H/C

- Most Member States focus their support policies for renewables on renewable electricity generation
- Support policies for RES-H concentrate on three classes of budget financed instruments (while available budgets are often rather limited)
 - Investment grants
 - Tax measures (e.g. tax deductions, reduced VAT rates)
 - Soft loans
- Currently only few Member States apply non-fiscal measures such as
 - Use obligations (e.g. ES, DE, PT), however often restricted to new buildings
 - Eligibility of RES-H/C investments within White Certificate Schemes (IT, FR)

Current policy framework for RES-H/C (status 10/2009)

	AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK	
Financial grants (investment support)	Green		Green	Green	Green	Green			Green		Green	Green	Green	Green		Green	Green	Green	Green	Green		Green	Green	Green	Green	Green	Green	Green
Tax incentives (incl. VAT incentives)	Olive	Olive					Olive		Olive		Olive	Olive			Olive	Olive				Olive		Olive		Olive				
Soft loans			Green			Green			Green	Green		Green				Green												
Eligibility to White Certificate Scheme												Blue			Blue													
Use obligation						Red				Red												Red						
CHP biomass (via RES-E or CHP support)	Yellow	Yellow	Yellow		Yellow	Yellow				Yellow							Yellow	Yellow		Yellow	Yellow				Yellow			

Source: IEE project RE-Shaping

Policies in order to achieve the 2020 RES-H/C targets: Cross analysis of the NREAPs

- MS were asked to report on policies and measures planned for achieving the indicative 2020 RES-H/C targets (section 4.4 of NREAPs)
- Most NREAPs do only reflect the status quo (current policy framework), many NREAPs lack a clear assessment that the reported policies will be ambitious enough to achieve the targets
- Most Member States stick to fiscal measures (e.g. investment subsidies, tax incentives, low interest loans)
- Only few Member States (e.g. UK) plan to implement completely new policy instruments
- NREAPs lack a clear overview how Member States intend to comply with Article 13 (4) of the Renewables Directive 2009/28/EC
"By 31 December 2014, Member States shall, in their building regulations and codes or by other means with equivalent effect, where appropriate, require the use of minimum levels of energy from renewable sources in new buildings and in existing buildings that are subject to major renovation."

Two policy cases

1. Renewable Heat Incentive (RHI) in Great Britain
2. Use obligation and subsidies in Germany

Renewable Heat Incentive (RHI), UK

- RHI will come into force as of July 2011
- The RHI is a tariff based mechanism, it involves major elements of a classic feed-in scheme
- RES-H operators in the non-domestic sector are entitled to receive a legally fixed tariff per kWh of generated renewable heat; tariff is paid for a period of 20 years; payments are made quarterly
- The level of payment varies depending on the technology and the system size
- Tariffs will not initially degress, but it is expected that this will apply later
- All equipment and installers must be certified under the microgeneration certification scheme (www.microgenerationcertification.org)
- Tariffs will be paid for from the public budget (rather than through a levy on energy bills as originally planned)
- From 2012, the Government plans to introduce a second phase of support, which will include RHI tariffs for domestic installations

Renewable Heat Incentive (RHI), UK

Levels of support					
Tariff name	Eligible technology	Eligible sizes	Tariff rate (pence/kWh)	Tariff duration (Years)	Support calculation
Small biomass	Solid biomass; Municipal Solid Waste (incl. CHP)	Less than 200 kWth	Tier 1: 7.6 Tier 2: 1.9	20	Metering Tier 1 applies annually up to the Tier Break, Tier 2 above the Tier Break. The Tier Break is: installed capacity x 1,314 peak load hours, i.e.: kWth x 1,314
Medium biomass		200 kWth and above; less than 1,000 kWth	Tier 1: 4.7 Tier 2: 1.9		
Large biomass		1,000 kWth and above	2.6		
Small ground source	Ground-source heat pumps; Water-source heat pumps; deep geothermal	Less than 100 kWth	4.3	20	Metering
Large ground source		100 kWth and above	3		
Solar thermal	Solar thermal	Less than 200 kWth	8.5	20	Metering
Biomethane	Biomethane injection and biogas combustion, except from landfill gas	Biomethane all scales, biogas combustion less than 200 kWth	6.5	20	Metering

Use obligation and subsidies in DE

German support framework for renewable heating and cooling:

Element 1: **Use obligation** for the installation of renewable heating and cooling devices for **new** buildings: **EEWärmeG**

Element 2: **Financial support:** *investment grants and soft loans* for the installation of renewable heating and cooling devices in **existing** buildings:
Market Incentive Programme (MAP)

Use obligation for new buildings: EEWärmeG

- Act on the Promotion of Renewable Energies in the Heat Sector (EEWärmeG) came into force 01 January 2009
- Owners of newly constructed buildings (obligated parties) must cover a share of their space heating and hot water demand with renewable energies (please note: rate of new buildings only 0,5-1% per year)
- Minimum share is depending on technology (e.g. solar thermal 15%, biomass 30-50%, heat pumps 50%)
- Obligation covers residential and non-residential buildings
- Investors are free to choose their type renewable energy source
- Alternative measures
 - heat supply by CHP or district heating fulfilling minimum efficiency criteria
 - extended energy saving measures at the building envelope (insulation)
- Regions (Bundesländer) are allowed to extend the obligation to existing buildings

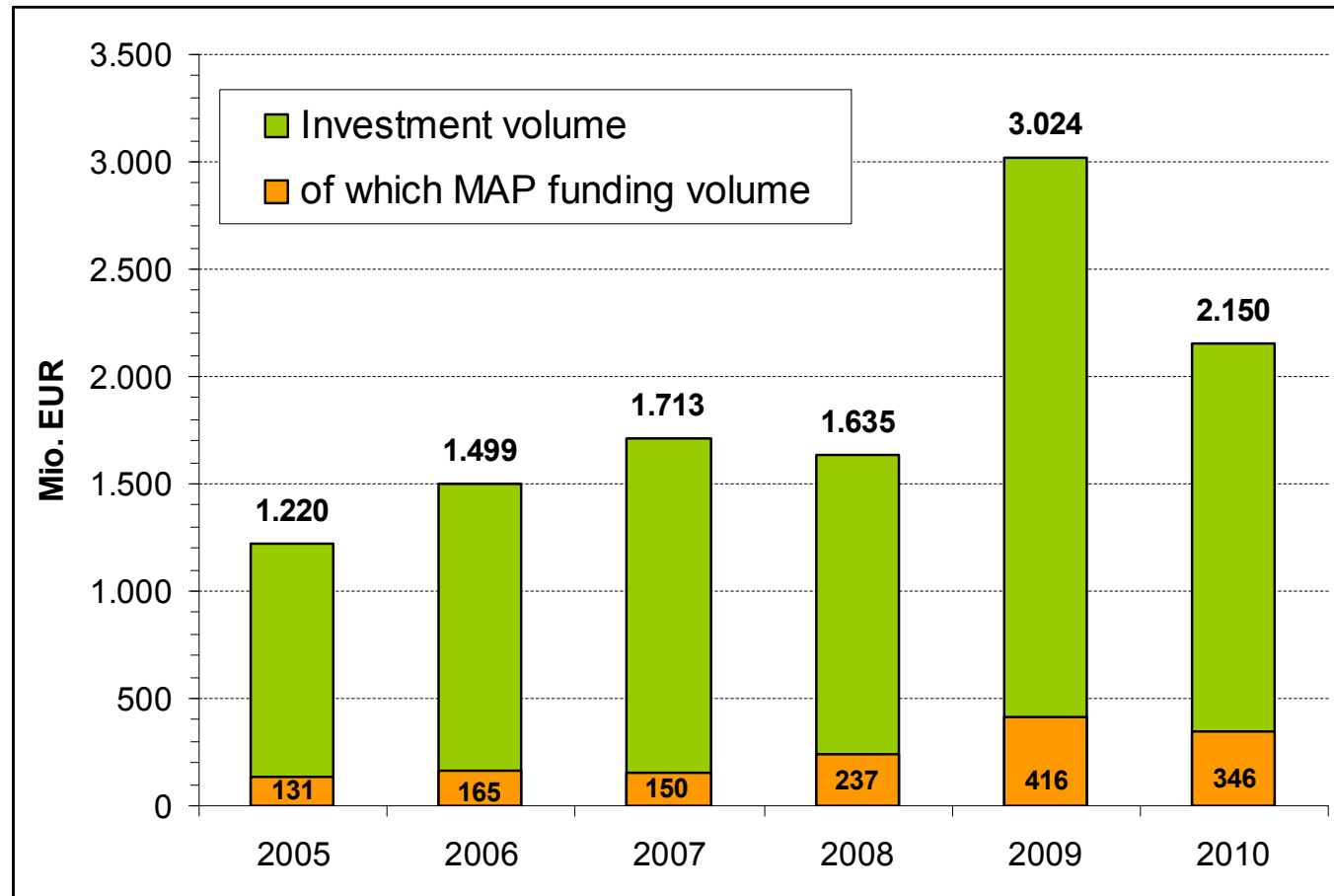
Use obligation for new buildings: EEWärmeG

Energy Source	Minimum share	Additional requirements
Solar thermal	15%	Solar collectors are certified with the European quality label "Solar Keymark"
Biomass solid	50%	Biomass boiler must meet minimum efficiency and emission requirements; biomass must meet certain sustainability criteria
Biomass gaseous	30%	Biogas must be used in a CHP installation; processing and feed-in of biogas must comply to sustainability criteria
Biomass liquid	50%	Bioliqids must be used in condensing boilers; bioliqids must fulfil sustainability criteria
Geothermal and Heat pumps	50%	Heat pumps must meet minimum seasonal performance factors; heat pumps must be equipped with heat volume and electricity meters

Subsidies: Market Incentive Programme (MAP)

- Market Incentive Programme MAP (*Marktanreizprogramm*)
- Two support elements:
 - Technology specific investment grants for smaller applications (e.g. solar collectors) -> roughly 10% share of investment costs
 - Soft loans with low interest rates for larger applications
- Eligibility to be funded is linked to technology specific minimum requirements
- MAP is financed through the federal budget
MAP volume: 200-450 million EUR per year
- Roughly 95% of all solar collectors and wood boilers (mainly pellets) are funded through the MAP

Available funding and initiated investment volumes in the MAP



Source: BMU (2011) – Erneuerbare Energien 2010

Some final remarks

- Despite the Directive 2009/28/EC the topic of RES-H/C in general and the need of a support framework aiming at enhancing the deployment of the existing RES-H/C potentials in particular still don't get the adequate attention in many Member States
- RES-H/C support policies and measures reported with the NREAPs stick to existing fiscal measures and do not seem to be ambitious enough to achieve the indicative 2020 RES-H/C targets
- In principle several support models have the potential to stimulate the market penetration of RES-H/C provided they are well designed
- For most technologies (especially for biomass) a single instrument will not be sufficient to boost the market → need of a consistent support instrument package
- Support frameworks for RES-H need to be well aligned to the instruments addressing the efficiency of buildings

Thank you for your attention

Contact

Veit Bürger
Öko-Institut e.V.

tel.: +49-761-45295-25
email: v.buerger@oeko.de