

***TRANS-SOLAR, February 26 – 27, 2009***



# **Support of heat from renewable energy sources**

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**Calla - Association for  
environment saving**



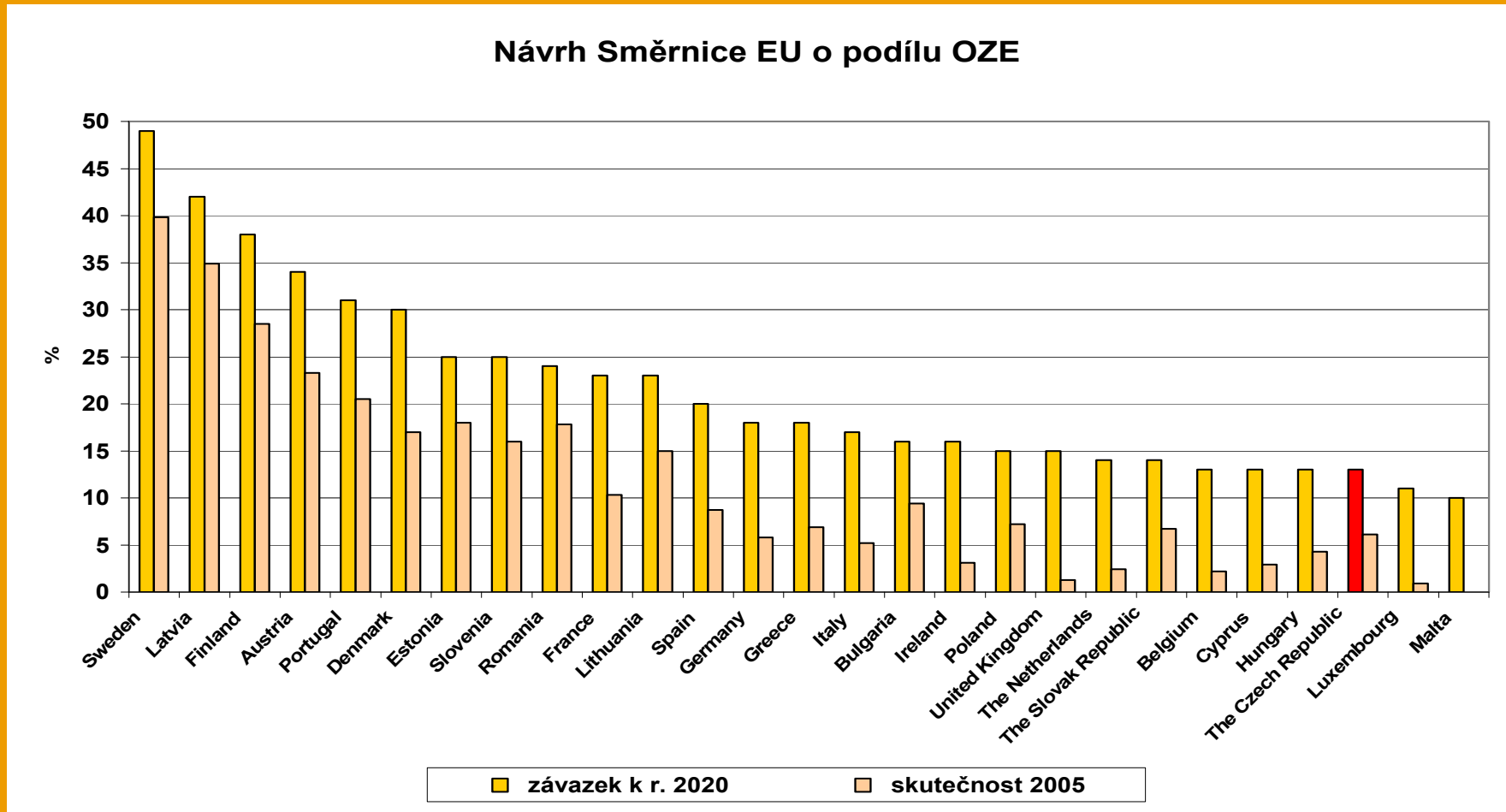
## Gross heat production from renewable energy sources in the CR in 2007

	Gross heat production in 2006 [TJ]	Gross heat production in 2007 [TJ]	Change 2006/2007
Biomass	41 760	45 523	9 %
Biogas	919	1 009	9,8 %
Biodegradable waste	2 310	2 405	4,1 %
Heat pumps	676	926	37 %
Solar collectors	128	152	18,8 %
<b>Totally from OZE</b>	<b>45 793</b>	<b>50 015</b>	<b>9,2 %</b>

Source: Ministry of trade and industry

# EU renewable energy policy

EU standard proposal for OZE share



obligation to 2020

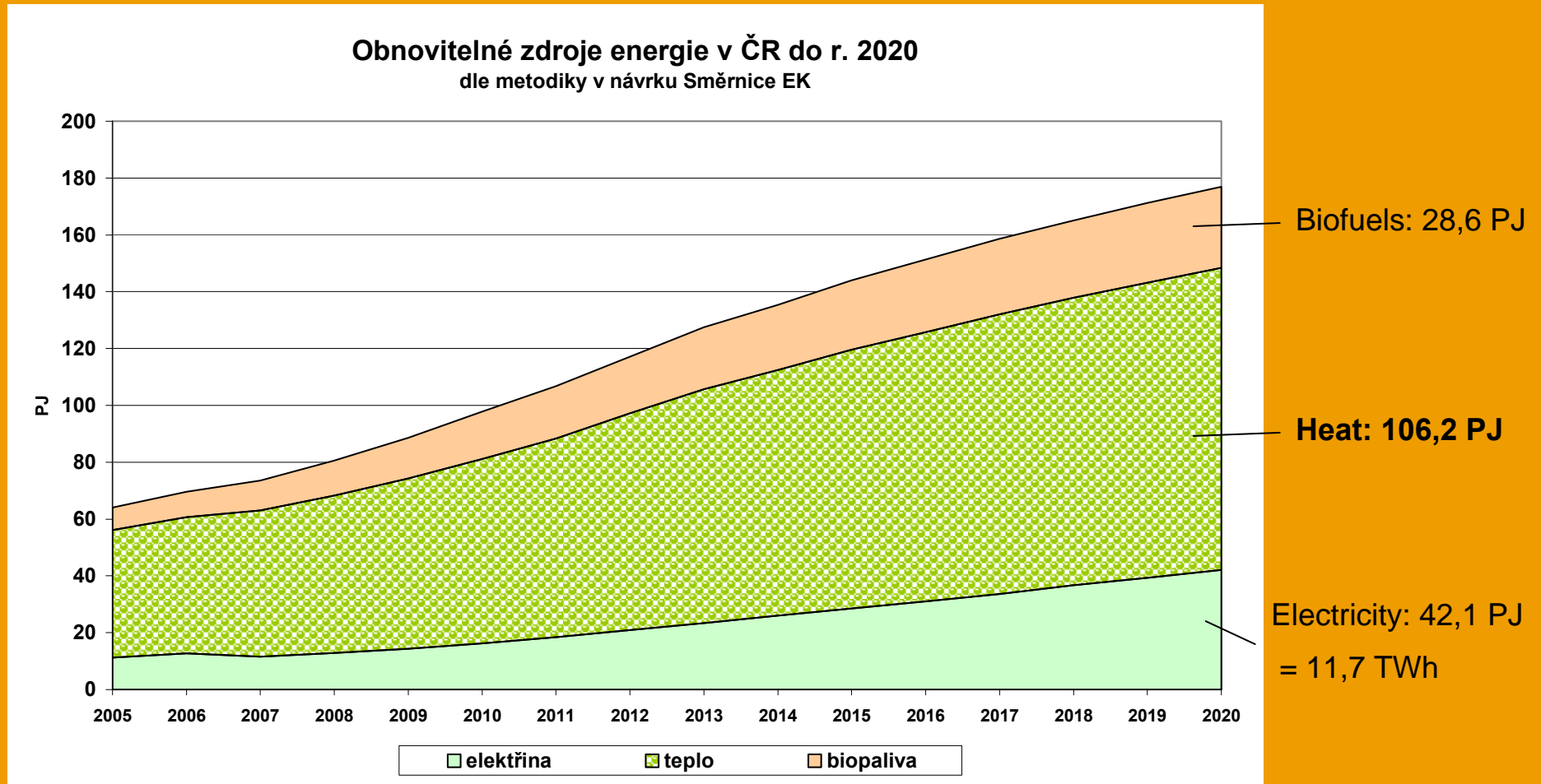
reality 2005

Source: European commission

**Target for the CR in 2020: 13 % of final energy consumption from OZE**

# Possibility of the obligation fulfilment until 2020

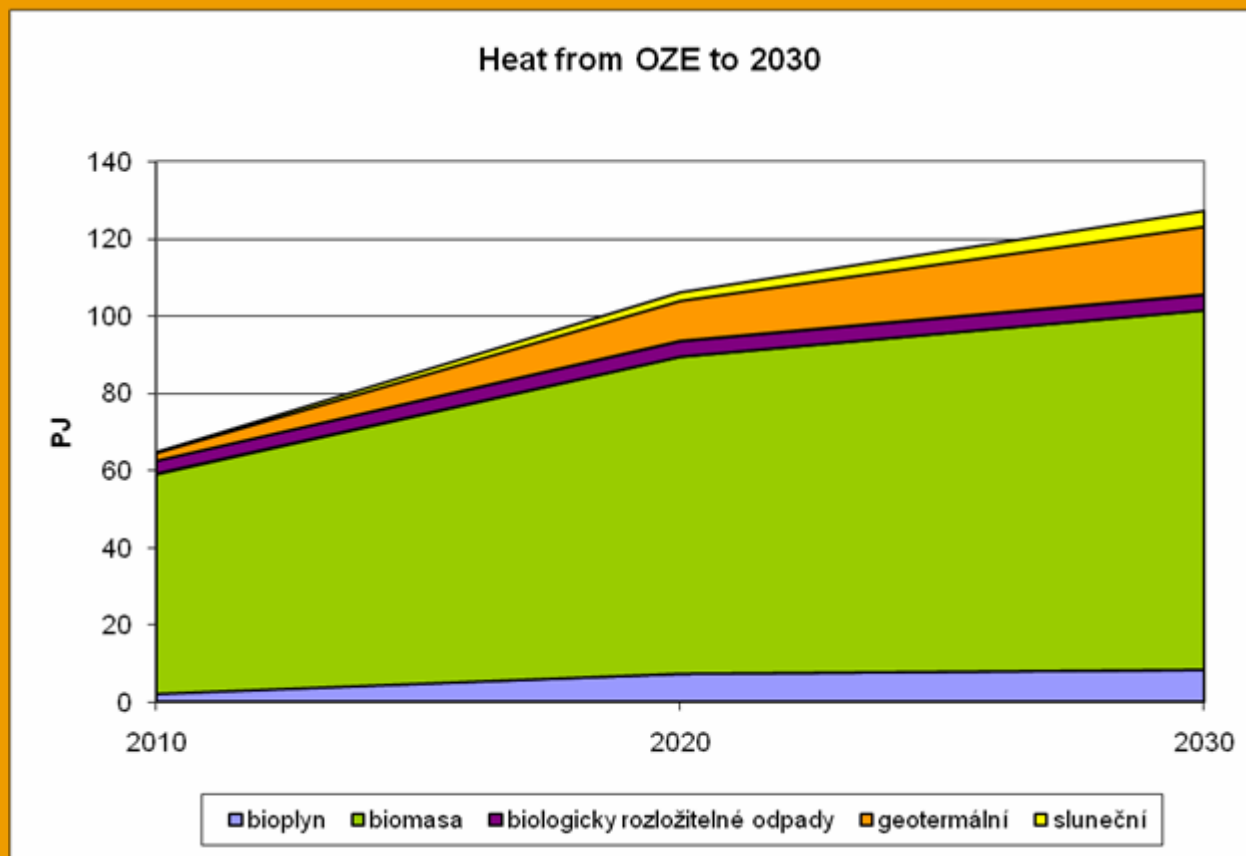
Renewable energy sources in the CR  
till 2020 according to methodics in the  
EC standard proposal



Final energy consumption according to NEK in 2020: 1272,4 PJ

OZE total: 176,9 PJ = 13,9 %

# Potential of renewable sources in the CR for heat production



Solar  
 Geothermal  
 Biologically decomposable waste  
 Biomass  
 Biogas

PJ	2005	2010	2015	2020	2025	2030
biomass	44,14	62,36	84,30	93,48	99,80	105,52
geothermal energy	0,55	2,20	5,73	10,51	14,40	17,70
solar energy	0,10	0,28	1,03	2,25	3,08	4,12
<b>total</b>	<b>44,8</b>	<b>64,8</b>	<b>91,1</b>	<b>106,2</b>	<b>117,3</b>	<b>127,3</b>

Source: Association for utilization of renewable energy sources

# Expected trend of solar energy utilization for heat



Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		2030
PJ	0,10	0,13	0,15	0,17	0,22	0,28	0,32	0,44	0,59	0,77	1,03	1,27	1,47	1,74	1,98	2,25		4,12

Source: Association for utilization of renewable energy sources

## Support of the heat production from renewable energy sources

**Program declaration of the CR government, January 2007:**

*„The government will support the utilization of renewable energy for heat production so that price differences of single sources are not significantly higher than now.“*

**Fulfilment deadline:** end of 2007

**MPO – Support comparison of heat production from OZE in different countries and analyses of possibilities to use available support systems, December 2007:**

- „no support for the heat production from biomass because of its present competitiveness“
- „in case of solar thermal collectors, it is not recommended to provide a flat-universal contribution for device purchasing or a tax support by decreased VAT of such devices“
- „it is not recommended to introduce obligations for heat producers regarding mandatory supplies of certain heat amount produced from OZE“
- „hold back the decision about heat supplies from OZE until the standard is published“

Because of disagreement of MŽP, the material was not even submitted to the government proceedings.

## Legislative support of the heat production from renewable energy sources

**Part of the law on support of electricity and heat production from OZE, 2003 -2004, heat was finally completely omitted.**

**Proposal of MPs from ČSSD and KDU-ČSL, 2006:**

- obligatory heat quote from OZE for source owners over 1 MWt
- obligations of building promoters to use 20 % (constructions from public finances) or 10 % (others) of the heat from OZE

The proposal was returned for adaptations and factually finished in this form.



## Legislative support of the heat production from renewable energy sources

**Amendment of the energetic act (458/2000 Coll.),** now being discussed in the parliament:

- MPO proposal to delete the obligatory heat energy buy-out by licence holders for its distribution was not accepted during the government preparation, however, this paragraph is practically ineffective
- implementation of the standard 2004/8/EC – support of the effective co-generation through a privilege electricity buy-out price will support also the co-generation from OZE

**Tax reform**– proposals to cancel the 5-year tax holiday for incomes from OZE operation in the law of income tax and for heating changes towards OZE in the real estate tax.

## German law on the renewable heat

### **EEWärmegegesetz is effective since January 1st, 2009**

- new buildings over 50 m<sup>2</sup>, being heated or cooled, must cover a part of respective energy from renewable sources.
- minimum share regarding the solar radiation is 15 %
- minimum share regarding the biomass is 50 %
- alternate measure can be a coverage of at least 50 % of heat requirements from waste heat, co-generation or connection to CZT (but also in this case, minimally 50 % must origin from OZE, co-generation, waste heat or possible combinations)
- alternate measure is also a thermal insulation which exceeds by 15 % the requirements of the notice on energy savings

## What must the support of heat production from OZE fulfil?

- **Financial sustainability of the system: equal cost distribution and zero load for the state budget**
- **Ensuring the stability of the line business environment: long-term duration and transparency of the supporting mechanism and its fixation in the law**
- **Supporting tools must be preferably motivational, not restrictive**
- **Cost efficiency of the system: guarantee of appropriate profits and limitations of a quick enrichment**

## What must the support of heat production from OZE fulfil?

- **Administration: simplicity and financial modesty**
- **Conformity with the valid legislation and rules of energetic market functioning**
- **Political enforceability, that means**
  - a) **possibility of a positive communication to the public**
  - b) **acceptability for the key market players**
- **Cost efficiency of the system: guarantee of appropriate profits and limitations of a quick enrichment**

## Proposal of Calla and Rainbow movement as for the support of heat from OZE

### **Bonus model for sources over 200 kW of the heat output**

Reasons:

- a) administratively manageable
- b) these sources are registered according to the law on the air protection

Main principle comes out of the logic to support electricity from OZE – long-term guaranteed bonus for each pure giga-joule of the produced heat

### **Support of installations in households**

Form of mandatory and administratively simple grants from SFŽP, with a sufficient allocation of the means (CZK 1 mld. per year)

## Proposal of Calla and Rainbow movement as for the support of heat from OZE

- Each heat source from OZE with installed output over 200 kWt and required efficiency will be given a guaranteed extra charge („bonus“) for each GJ of the produced heat
- Bonus will be differentiated according to the technology and burnt material and will be also applied in case of a co-burning with fossil fuels
- Bonus amount will be guaranteed for the period of 15 years and valorised by the price index of industrial producers, regarding new sources, the bonus amount must not decrease more than 5 % between years
- The same bonus guarantee period is applicable also for sources being set to operation before the support system effective date

## **Proposal of Calla and Rainbow movement as for the support of heat from OZE**

- Bonus will be paid monthly from a fund into which the heat producers from fossil sources over 200 kWt will have to contribute**
- Payment of the contribution to the fund will be done monthly and will be related to GJ of produced not-renewable heat**
- Payment to the fund will be made in form of a new fee with the same mechanism as applicable for discharging the polluting substances into the air**

## **Proposal of Calla and Rainbow movement as for the support of heat from OZE**

- **Natural administrator of the system would be the State fund of the living environment**
- **Bonus amounts for renewable sources and fee amounts for not-renewable sources are set by the Energetic regulation office**
- **Assumed bonus amount: 20 to 50 CZK/GJ**
- **Assumed payment amount: tens of halers for GJ, units of crowns in case of supporting physical persons**



## **Proposal of Calla and Rainbow movement as for the support of heat from OZE**

### **Government should also:**

- **lead an information campaign for households and public administration**
- **start educational and certification programs for companies**
- **introduce standards of supply from OZE for new and renovated buildings**
- **enforce a lower rate of VAT for OZE technologies**
- **speed-up an efficient ecologic tax reform**

# Thank you for your attention!



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