

Energy

Renewable Energies in Germany at a Glance

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on behalf of the German Federal Ministry of Economics and Technology

<http://www.renewables-made-in-germany.com/>



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The Export Initiative “renewables Made in Germany”



The Renewable Energy Export Initiative

Launched by the German Parliament in 2002 and operated by the Federal Ministry of Economics and Technology

Main objectives:

- ▶ to stimulate the acceptance of renewable energies in other countries,
- ▶ to showcase Germany's technical and business expertise in the field of renewable energies,
- ▶ to provide comprehensive support to SMEs as they tap foreign markets,
- ▶ to contribute to climate protection.

Networking and Business Opportunities in Your Country

Business information & contact events:

- ▶ Seminars and individual get-togethers with potential business partners from Germany
- ▶ First-hand information about German renewable energy technologies
- ▶ Face-to-face contact with experienced German companies in the renewables industry
- ▶ Organized by local German bilateral chambers of commerce (AHKs)



Information and Business Opportunities Online

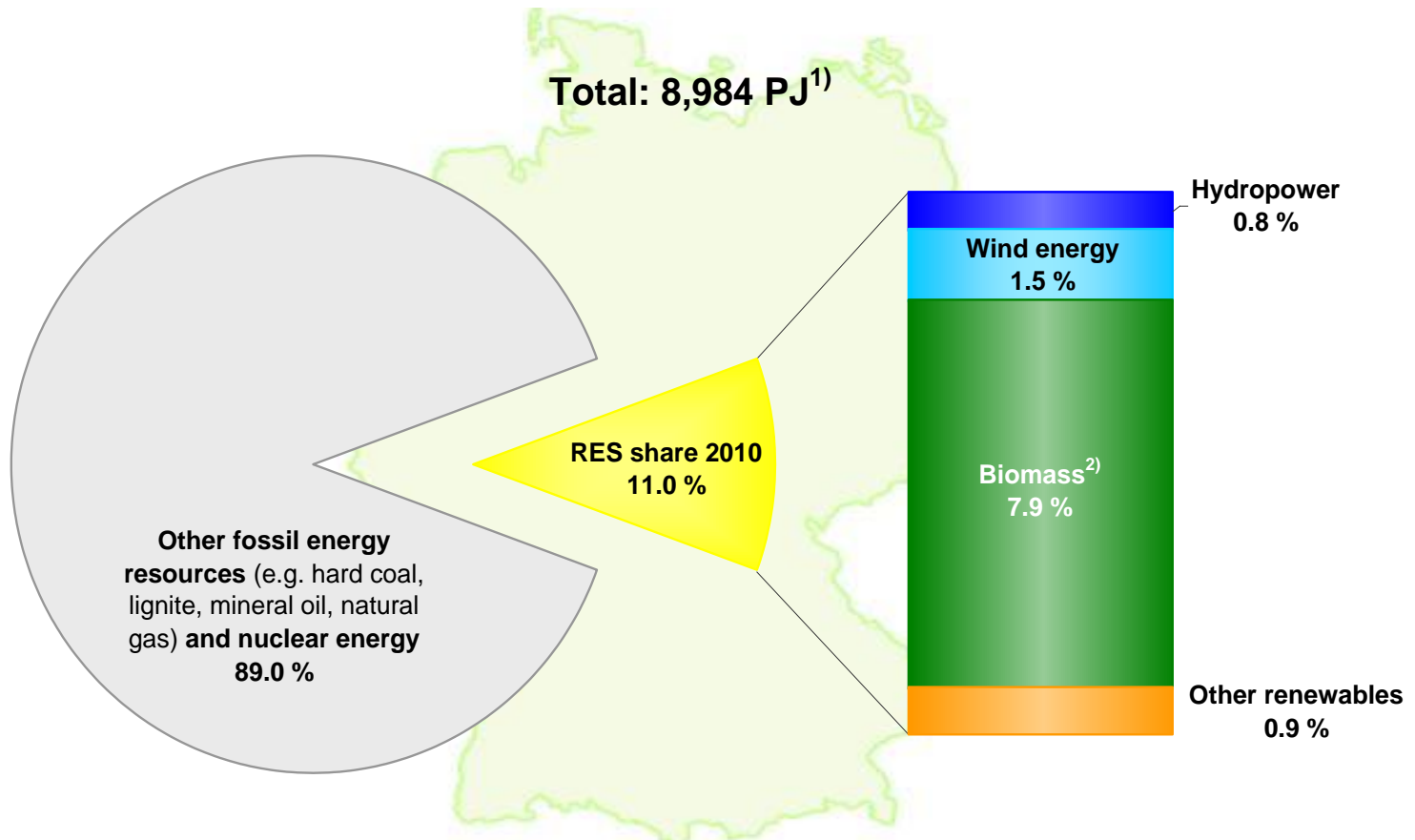
- ▶ Internet portal: www.renewables-made-in-germany.com
Information about renewable energies made in Germany, companies and product profiles
- ▶ Newsletter: www.renewables-made-in-germany.com/newsletter
Current news and developments, information about projects, applications, upcoming events and more
- ▶ Virtual market place: www.renewablesb2b.com
International online business platform, unique virtual marketplace and portal for market information



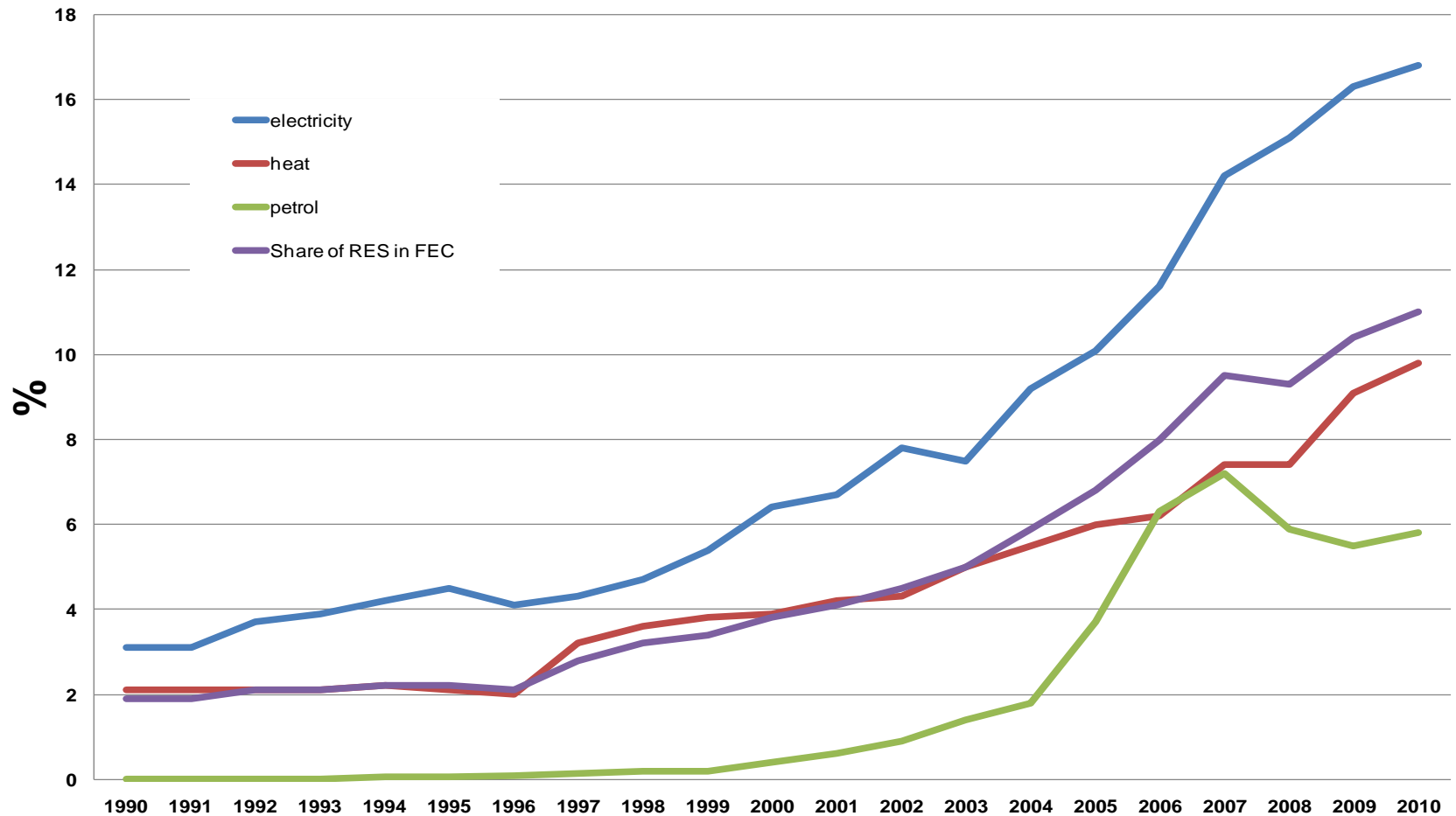
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Use of Renewable Energy Sources In Germany

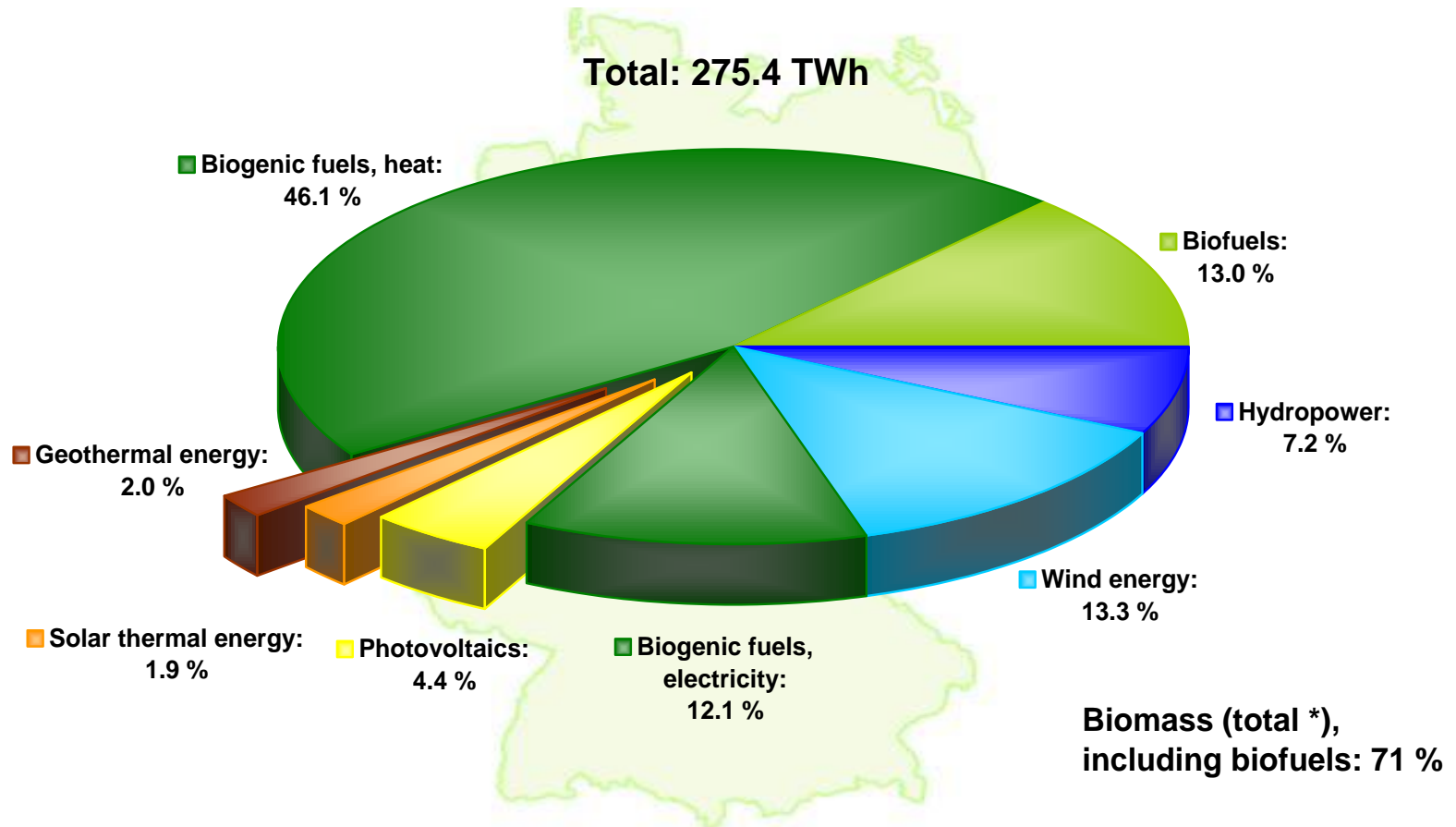
Structure of RES in final energy consumption in Germany 2010



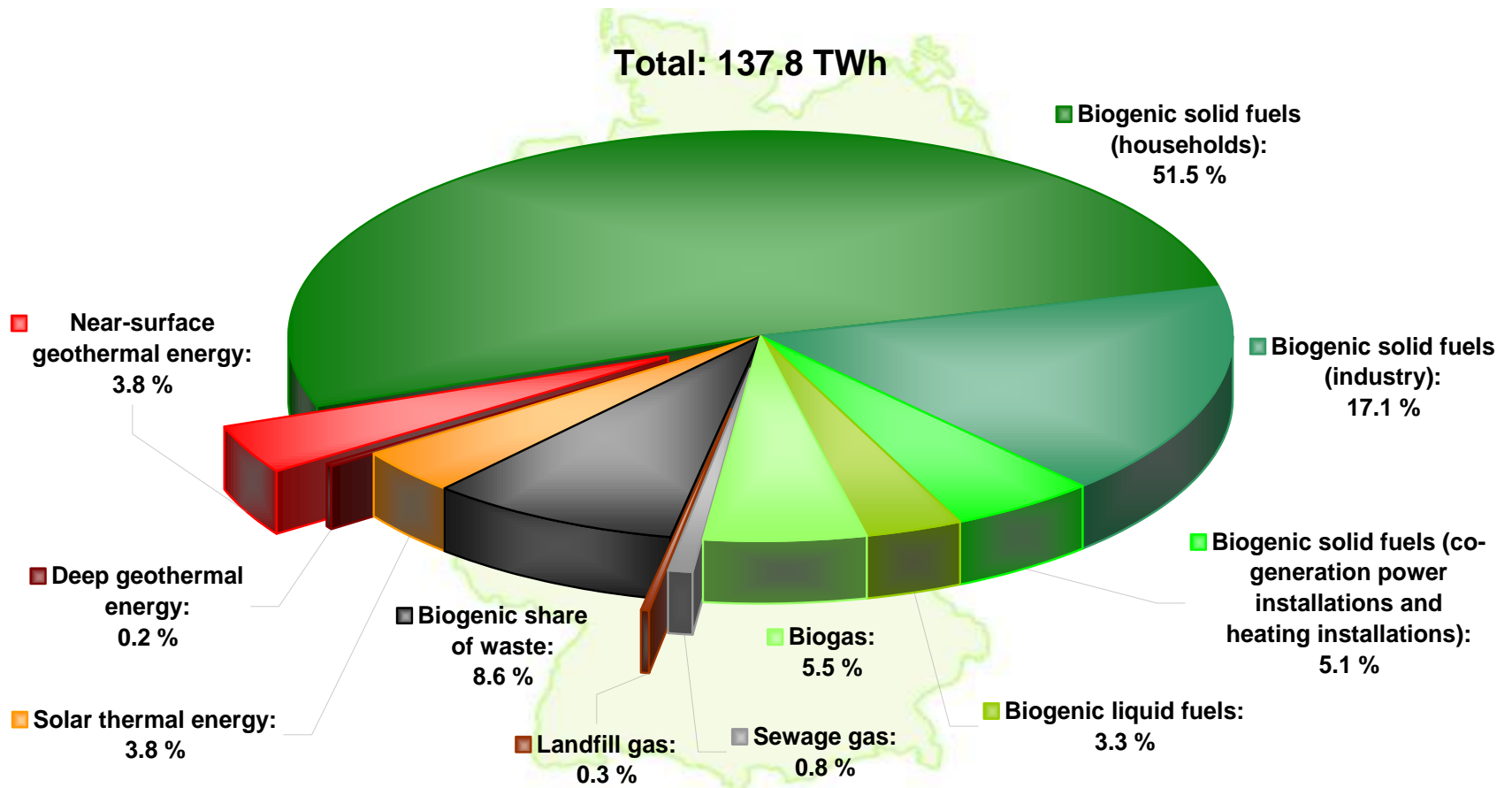
Structure of RES in final energy consumption in Germany 2010



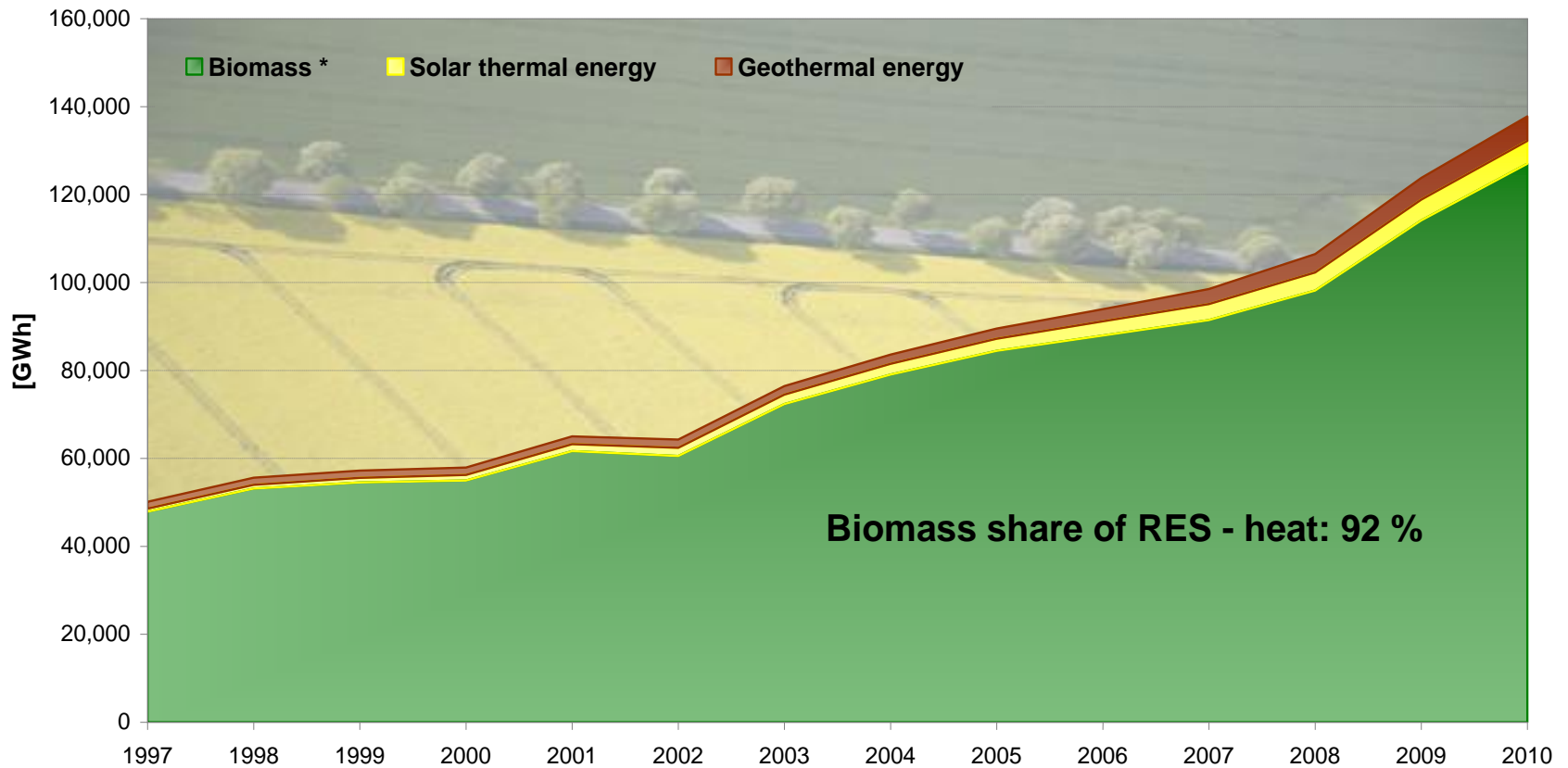
Structure of final energy supply from RES in Germany 2010



Structure of Heat Supply from RES in Germany 2010



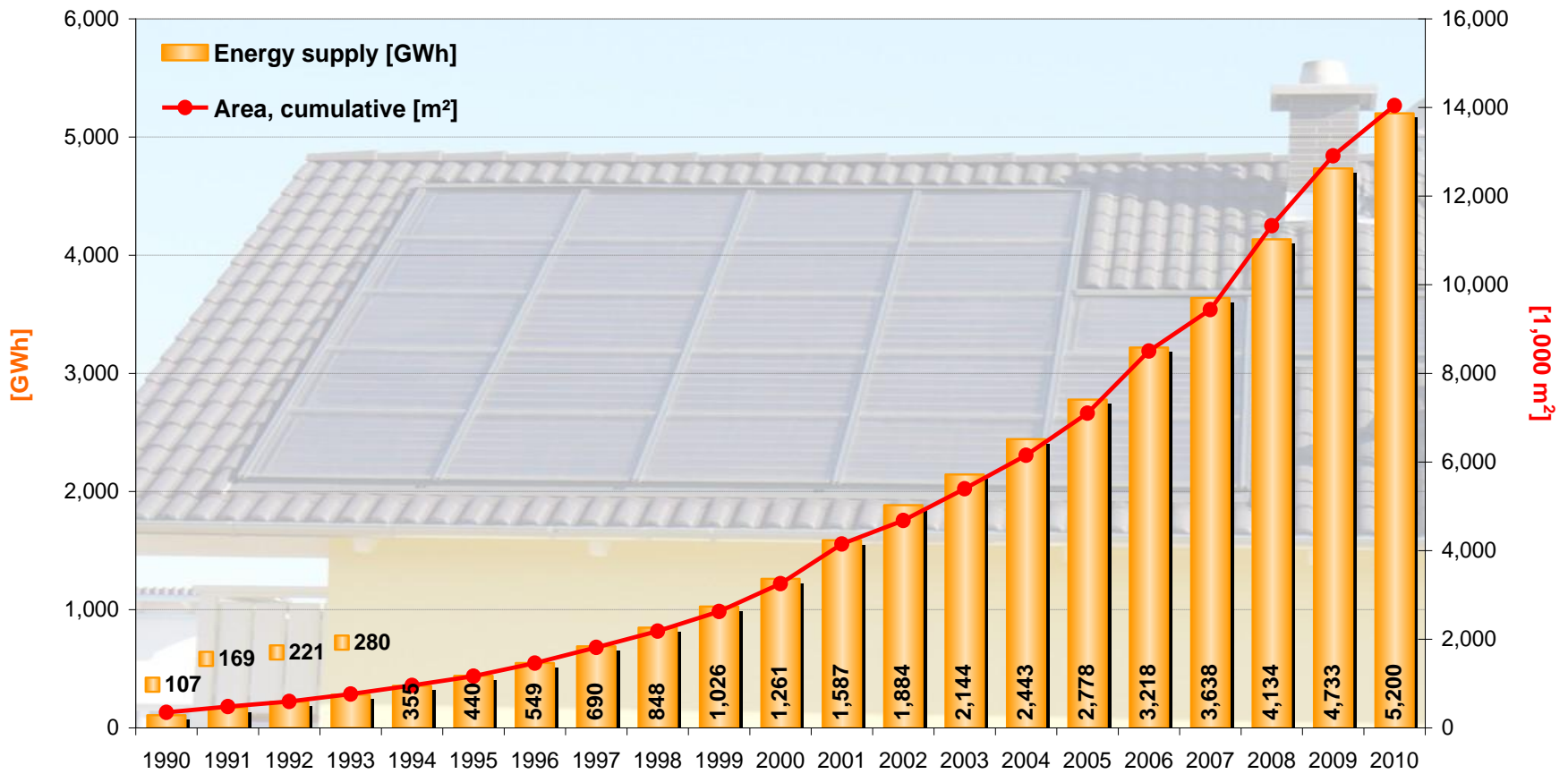
Contribution of RES to heat supply in Germany 2010



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Use of Renewable Energy Sources In Germany – Solar Energy

Solar Thermal Energy Market in Germany



Solar Thermal Energy Market in Germany

1) Sales figures of the German solar thermal sector (retail turnover)

Year	Sales figures in m Euro
1998	200
1999	250
2000	350
2001	500
2002	340
2003	550
2004	600
2005	750
2006	1.200
2007	850
2008	rd. 1.700
2009	rd. 1.500
2010*	rd. 1.000

Source: BSW Solar; * BSW estimates

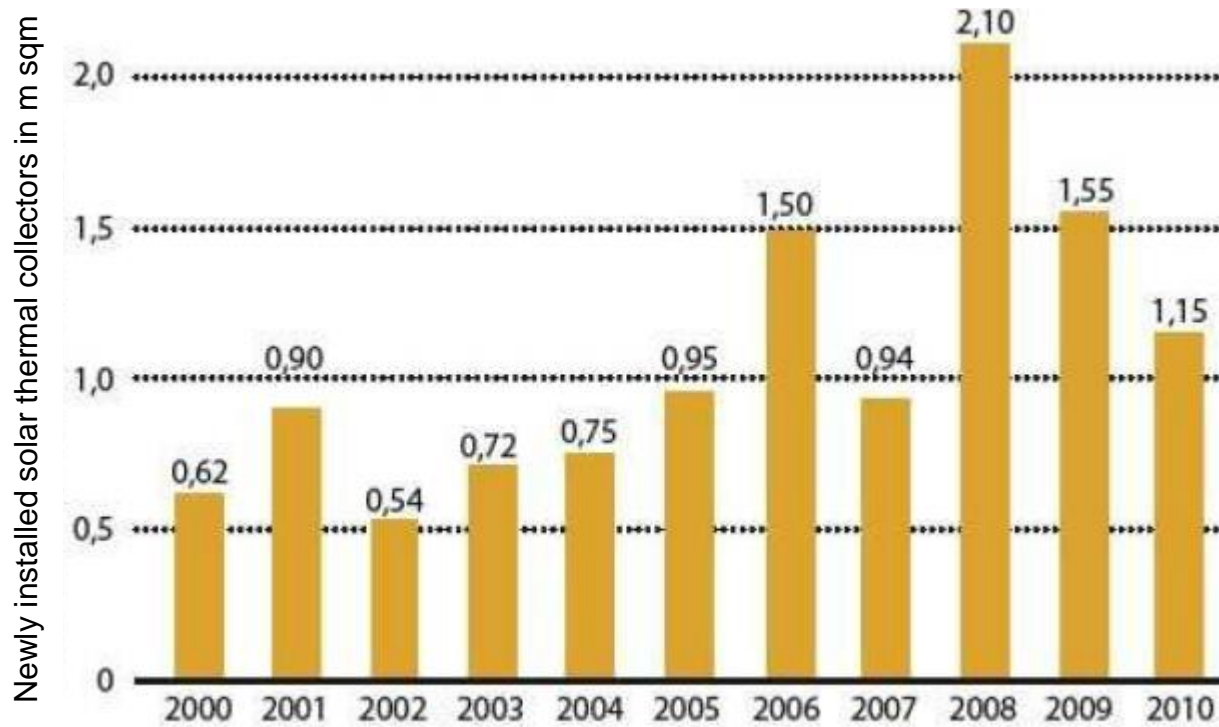
Solar Thermal Energy Market in Germany

2) Newly installed solar thermal systems in Germany

Year	New installations of collector surfaces in sqm	Total of collector surfaces in m sqm	Total number of solar thermal systems
1999	420.000	2,3	265.000
2000	620.000	2,9	350.000
2001	900.000	3,8	471.000
2002	540.000	4,4	540.000
2003	720.000	5,1	623.000
2004	750.000	5,8	700.000
2005	950.000	6,8	800.000
2006	1.500.000	8,3	940.000
2007	940.000	9,2	1.034.000
2008	2.100.000	11,3	1.244.000
2009	1.550.000	12,9	1.394.000
2010*	1.150.000	14,0	1.509.000

Source: BSW Solar; * BSW estimates

Solar Thermal Energy Market in Germany



(c) JV / BSW-Solar

Solar Thermal Energy Market in Germany 2010

- ▶ Number of solar thermal companies: ~5,000
 - ▶ Of which producers of collectors, storage units and components: ~100
- ▶ Newly installed collector surfaces in Germany in 2010: 1.15 m sqm / 115,000 new solar thermal installations
- ▶ Newly installed capacity: ~800 MW (therm.)
- ▶ Total installed capacity 9.8 GW_{th}
- ▶ Total solar thermal surfaces installed: ~14 m sqm
- ▶ CO2 savings: >1 m tons per year
- ▶ Turnover in 2010: ~ 1 b EUR
- ▶ Share of German heat consumption 2010 / 2050* < 1% / ~30%

Source: BSW Solar; * BSW estimates

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Development of RES in Germany - Forecast

Solar Heat Generation and Share in Heat Consumption - Forecast 2020



Heat Generation in Germany - Forecast 2050

in TWh/a	2010	2015	2020	2025	2030	2040	2050
Biomass	109,3	128,8	144,6	150,6	156,5	163,0	163,6
- Biogas	18,3	22,9	27,0	28,4	29,7	32,2	32,3
- Solid Biomass	85,8	82,6	100,4	116,1	120,8	124,8	125,4
- Biog. Waste	5,2	5,5	6,0	6,0	6,0	6,0	6,0
Solar Collectors	5,1	10,5	19,5	31,7	43,9	70,6	95,3
- Individual Systems	4,9	9,2	15,8	23,5	31,2	43,1	50,3
- Local Heat	0,2	1,3	3,7	8,2	12,7	27,5	45,0
Geothermal	6,3	14,7	26,0	40,5	55,0	78,9	101,7
- Individual Systems (HP)	5,8	11,8	18,0	24,1	30,3	35,9	43,0
- Local heat systems	0,5	2,9	8,0	16,4	24,7	43,0	58,7
RES Heat Total	120,7	153,9	190,1	222,8	255,4	312,5	360,6



Federal Ministry
of Economics
and Technology



Deutsche Handelskammer
für Spanien
Cámara de Comercio Alemana
para España

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Participating Companies



Participating German Companies

Company	Representative
WESTFA GmbH	Marcel Härtel
Citrin Solar GmbH	Dr. Stefan Remke
IFF Kollmannsberger KG / Thermosolar	Markus Beslmeisl
Solitem Group	Dr. Ahmet Lokurlu

Participating German Companies

Company	Representative
SOLVIS GmbH & Co. KG	Daniel Gómez López
Phönix SonnenWärme AG	Angel Botana Barral
Industrial Solar GmbH	Christian Zahler

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Thank you for your attention!

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