Ministerium für Energiewende,
Landwirtschaft, Umwelt
und ländliche Räume
des Landes Schleswig-Holstein

Common Commission meeting
Schleswig-Holstein / Eastern Norway County Network
Kiel, 15 January 2014
Ministry of Justice, Cultural and European Affairs

Energiewende in Schleswig-Holstein

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Energiewende – Why, Who and What

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- **Energiewende – transition of the energy system**
- **Main targets of German Energiewende:**
  - Phase out of nuclear energy until 2022
  - Decarbonisation of economy until 2050 (reduction of GHG by 80-95%) implicates energy supply without CO_2-emissions
- **Energiewendeministerium Schleswig-Holstein**
  - Established June 2012 / Minister Dr. Robert Habeck
  - Consolidation of responsibilities for climate and energy policies
  - Two units (20 employees) + department on nuclear safety
- **According to three tier administrative structure in Germany the Energiewendeministerium nationally acts on three levels:**
  - Participation and initiatives concerning regulation in climate and energy policy on federal level (Bundesrat and minister conferences)
  - Climate and energy policy Schleswig-Holstein
  - Cooperation and networking with municipalities

Goals of climate and energy policy

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	EU (European Council 2007 / 2009 /**2014**)	**Germany** (IEKP 2007, Energiekonzept 2010 coalition agreement 2013)	**Schleswig-Holstein** (coalition agreement 2012, Energiewende- und Klimaschutzbericht 2013)
Reduction of greenhouse gases (GHG) until 2020 by 1990	-20% unconditioned -30% in case of internat. agreement	-40%, unconditioned	Goals in federal Energiekonzept 2010 are supported and are pursued also for SH. Support of a more ambiitious EU climate protection goal of -30% until 2020 and -**55%** until 2030 (MELUR)
Reduction GHG until 2030 on EU level	???	-40% (letter of BM Gabriel and Hendricks 12/2013)	
Reduction GHG until 2050 by 1990	-80 to-95%	-80 to -95%	Goals on federal level are supported and are pursued also für SH
Share of RES of end energy consumption 2020 / 2030	2020: 20% **2030: ???**	18%	90% (as a result of following sector specitic goals)
Sectors: **Electricity**		2020: 35% share of gross electricity consumption 2025: 40-45% (coalition agreement 2013)	300-400% share of gross electricity consumption are expected and targeted until beginning of 2020s **On federal level: > 50% until 2025**
Heat		14% share of total heat consumption	As federal level (14%)
Transport		10% share of end energy consumption in transport sector	As federal level (10%)
Improving energy efficiency	By 20% until 2020	Doubling energy efficiency until 2020	Goals on federal level are supported and are pursued also für SH

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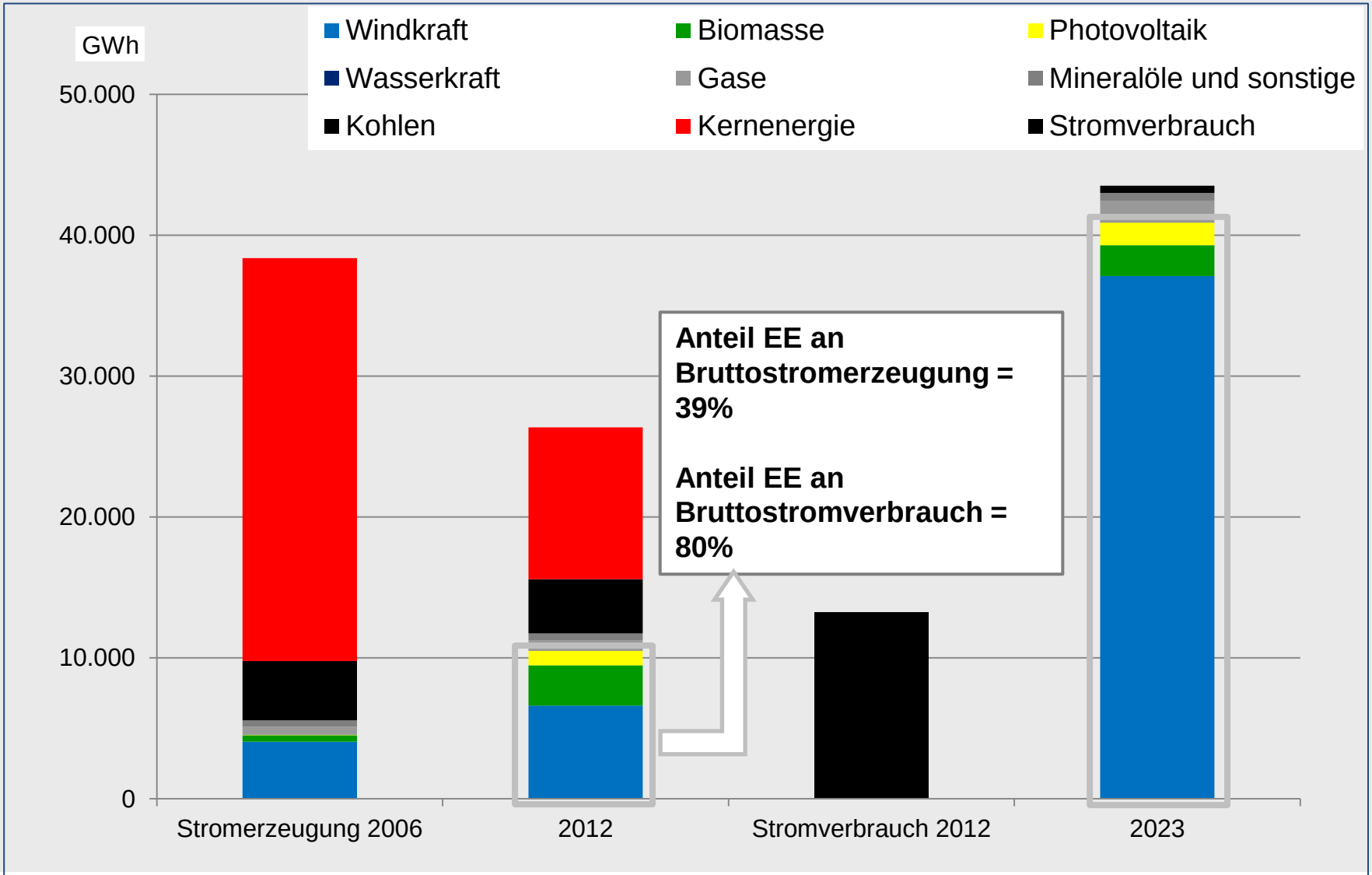
Electricity sector in SH –

past, presence and future



Energy and climate policy SH

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- **Energy transition is necessary in electricity, heating und mobility sector – though public debate in Germany and my contribution is concentrated on electricity sector**
- **Moreover, to achieve the goals of climate and energy policy, climate change issues are integrated not only in energy policy, but also e.g. in economic, transport, agricultural, building and housing policies**
- **Main (selected) fields of action in Schleswig-Holstein**
  - Development of wind energy
  - Development of electricity grids (Schleswig-Holstein, Germany, international) as well as flexibility and storage options
  - Aiming at a share of circa 40% budget resources for climate protection and energy in european structural fonds (ELER, EFRE)
  - Energy transition in heating sector / on local level
- **Reporting on goals, measures and indicators every two years** (Energiewende – und Klimaschutzbericht 2013 -> 2015)

Development of wind energy

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Planning, investment, financing of installation as well as operation of new wind turbines is done by private firms or citizens

Triplication of share of wind energy in the next 8-10 years by
- installation of wind turbines on additional areas
- repowering of existing wind turbines
- installation of offshore wind farms

Role of state government:

– Land use planning: 2012 the areas for onshore wind turbines were doubled up to 1.7%

– Approval procedure – increase of staff in approving authority

– Networking – e.g. cluster management windcomm SH http://www.windcomm.de/Seiten/en/home/home.php

– Support of citizen participation - cooperative models for plants managed by citizens, public participation in energy networks

– Setting the right framework – regulation and support measures on federal level

German Feed in tariff

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Renewable Energy Sources Act (EEG) 2012

Purpose: Increase the share of electricity from RES in electricity consumption to at least 35% until 2020 and to at least 80% until 2050

Basic elements

- Feed-in-tariffs for electricity from RES
- Privileged access to the grid

Current debate in Germany

- Electricity consumers are burdened with 6.2 Ct/kWh in 2014
- Debate on cost control / slowdown of development of RES
- EU commission started subsidy control procedure against EEG (mainly privileges for energy intensive firms are concerned)

Basic positions of MELUR in the reform debate

- Reducing the costs – not the quantity – of renewable electricity
- Wind energy onshore is the RES technology with lowest cost
- Fair balance of distribution of costs – reduction of exemptions for firms

More information

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- Internet information of MELUR on energy and climate policy
  www.energiewende.schleswig-holstein.de
- Energiewende- und Klimaschutzbericht der Landesregierung vom 5.6.2013 (Landtags-Drucksache 18/899)
  http://www.schleswig-holstein.de/Energie/DE/Energiewende/Ziele/Bericht/bericht_node.htm
- Information on climate and energy policy of federal ministries:
  http://www.bmu.de/en/topics/climate-energy/
  http://www.bmwi.de/EN/Topics/energy.html
- Information about the current EEG :
  http://www.erneuerbare-energien.de/en/topics/acts-and-ordinances/overview/

Thank you for your attention – the floor is yours!

Entwicklung EEG-Umlage

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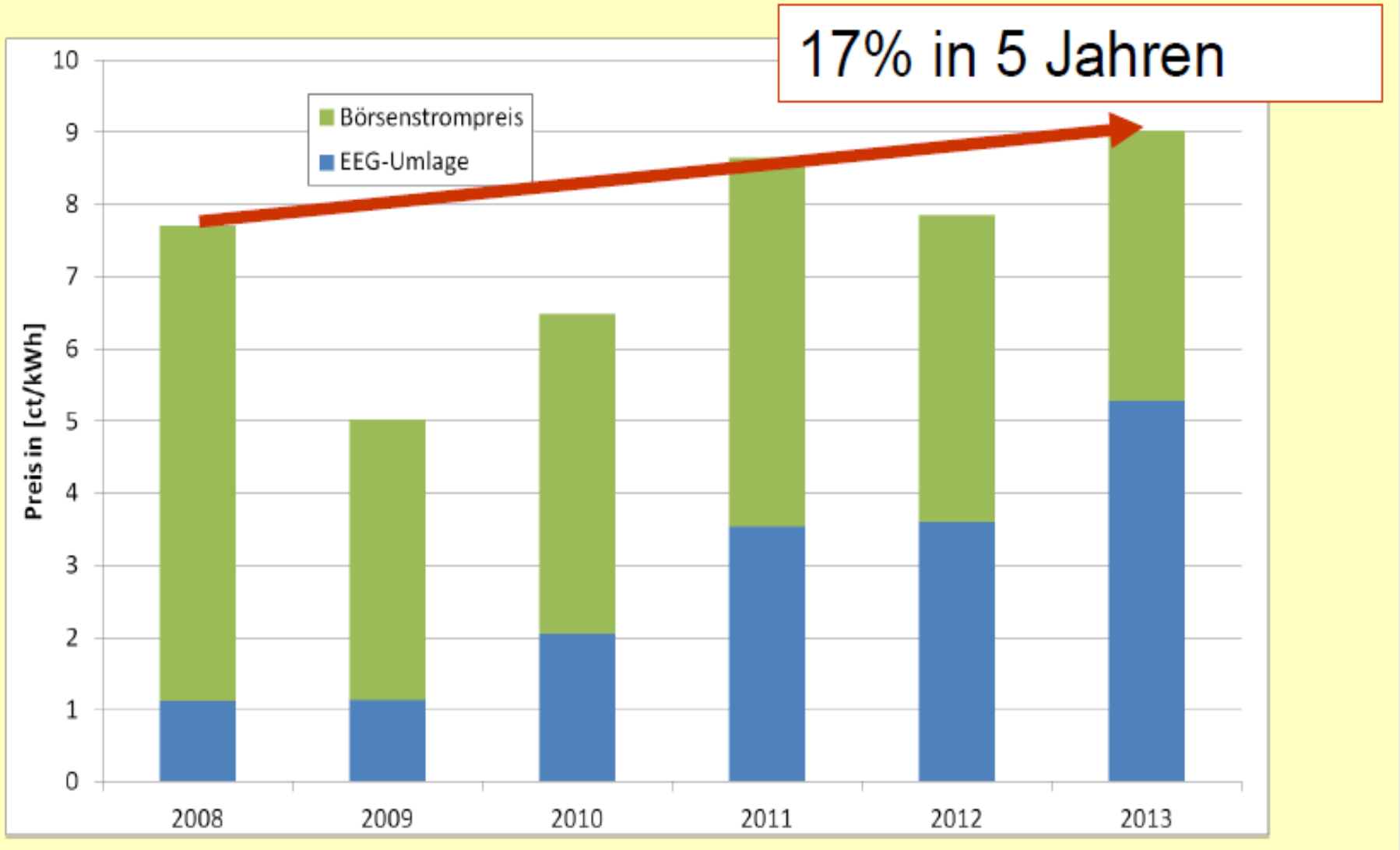

Quelle: Ministerium für Umwelt, Klima und Energiewirtschaft BW, Dr. Genoese, 2013

EEG Durchschnittsvergütungen

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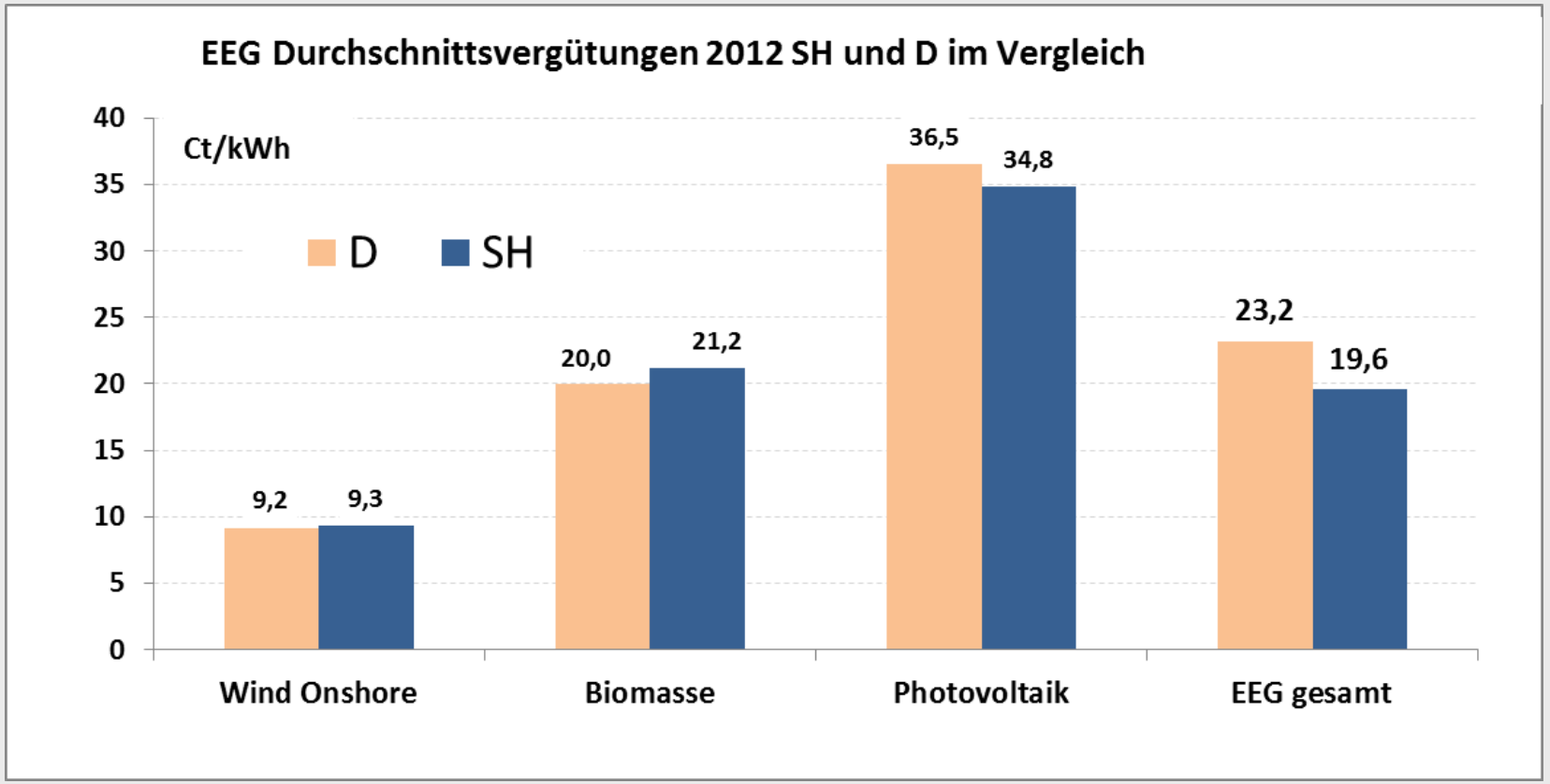

Kosten der Energiewende

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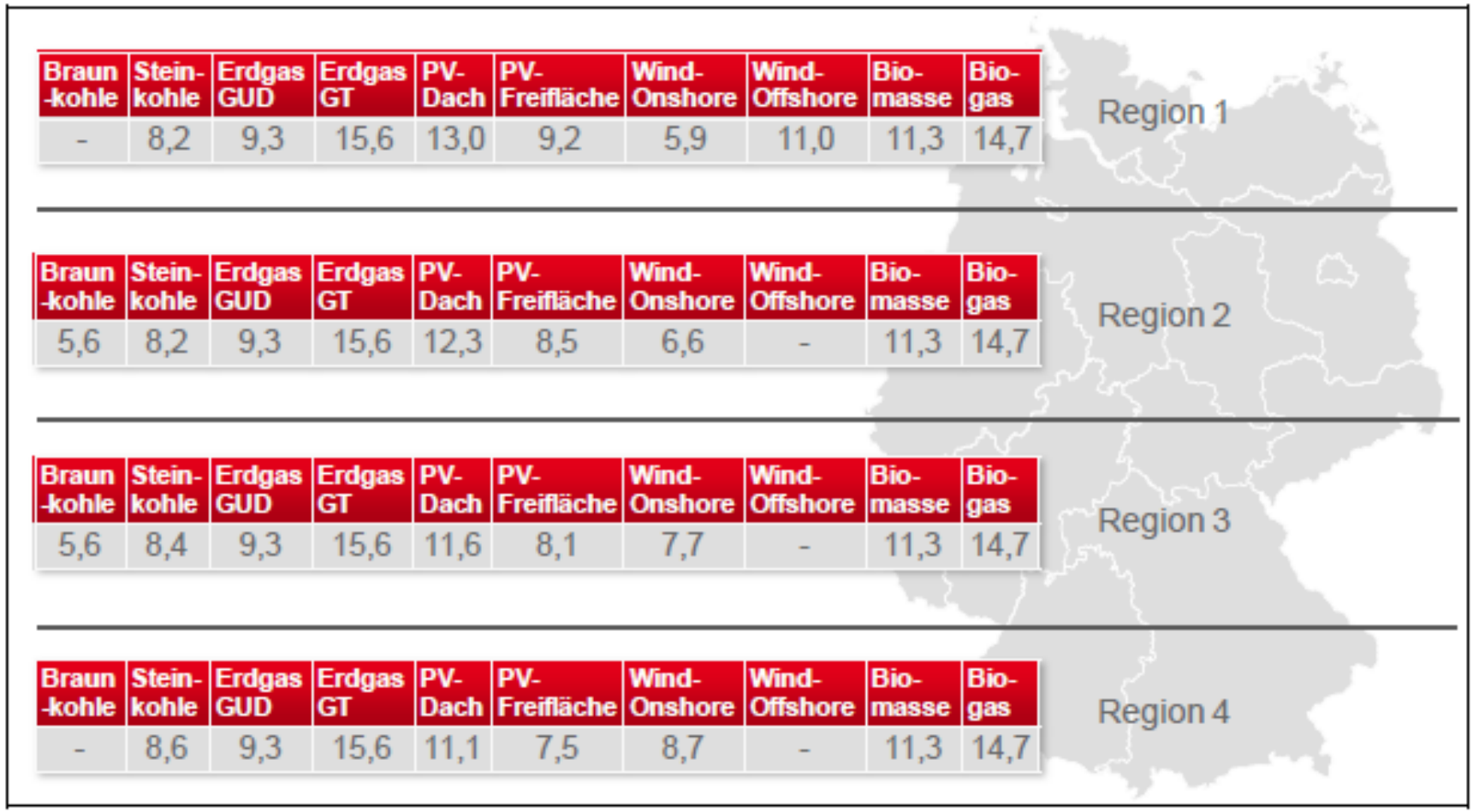
Mittlere Stromgestehungskosten (LCOE) der einzelnen Erzeugungsarten nach Regionen, in $Cent_{2012}$/kWh (**über 40 Jahre!**)



Braun-kohle	Stein-kohle	Erdgas GUD	Erdgas GT	PV-Dach	PV-Freifläche	Wind-Onshore	Wind-Offshore	Bio-masse	Bio-gas	
-	8,2	9,3	15,6	13,0	9,2	5,9	11,0	11,3	14,7	Region 1
5,6	8,2	9,3	15,6	12,3	8,5	6,6	-	11,3	14,7	Region 2
5,6	8,4	9,3	15,6	11,6	8,1	7,7	-	11,3	14,7	Region 3
-	8,6	9,3	15,6	11,1	7,5	8,7	-	11,3	14,7	Region 4

Quelle: Prognos AG, Entwicklung von Stromproduktionskosten, 2013