
VISION ON THE LCOE OF PV UNTIL 2030

Workshop „IEA Technology Roadmaps: Solar Electricity, 2014 Updates“



Dipl.-Phys.oec Johannes Mayer

Fraunhofer Institute for Solar
Energy Systems ISE

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www.ise.fraunhofer.de

Study »Levelized Cost of Electricity – RE technologies«

November 2013



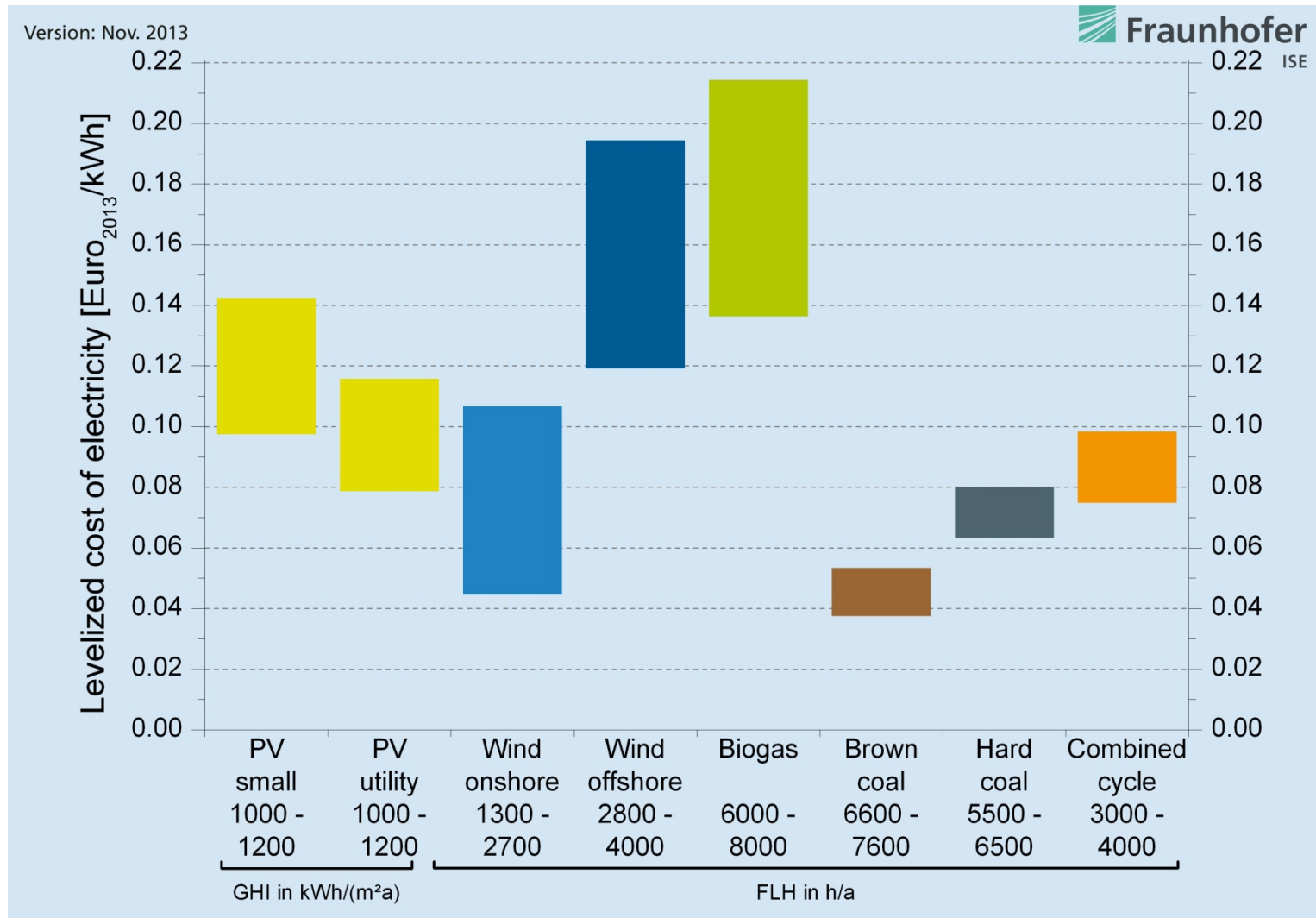
- LCOE calculation for different renewable technologies
- Technology specific CAPEX
- Conventional power plants as reference
- Projection until 2030

Download der Studie unter: www.ise.fraunhofer.de/de/daten-zu-erneuerbaren-energien

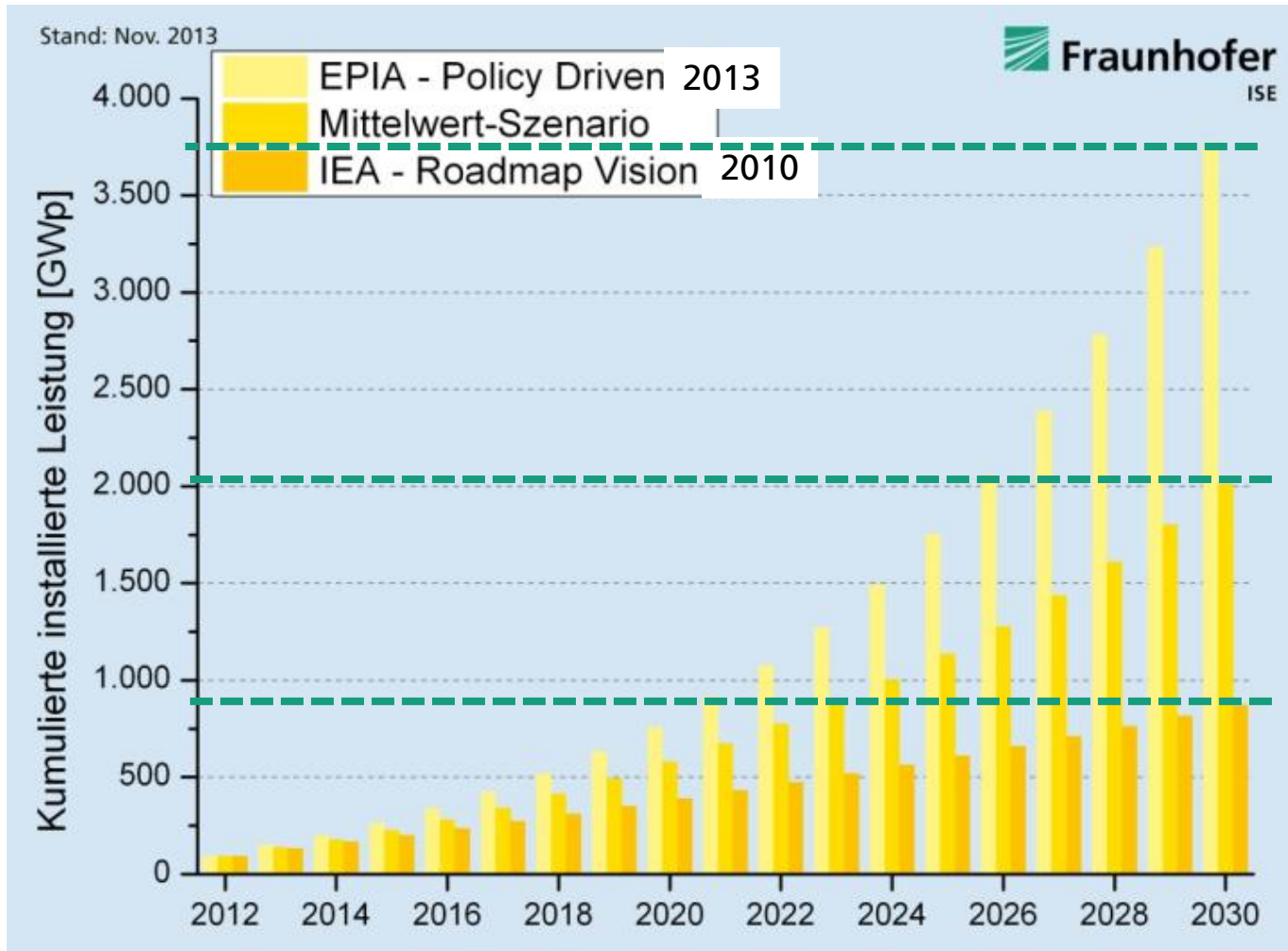
Technology specific financing parameters for Germany

	PV small	PV large	PV utility scale	Wind On- shore	Wind Off- shore	Brown coal	Hard coal	Com- bined cycle	Bio- mass
Lifetime [in years]	25	25	25	20	20	40	40	30	20
Share of equity	20%	20%	20%	30%	40%	40%	40%	40%	30%
Share of debt	80%	80%	80%	70%	60%	60%	60%	60%	70%
Return on equity	6.0%	8.0%	8.0%	9.0%	14.0%	13.5%	13.5%	13.5%	9.0%
Interest rate on debt	4.0%	4.0%	4.0%	4.5%	7.0%	6.0%	6.0%	6.0%	4.5%
WACC _{nom} (Weighted Average Cost of Capital)	4.4%	4.8%	4.8%	5.9%	9.8% (8.8%)*	9.0%	9.0%	9.0%	6.2%
WACC_{real}	2.4%	2.8%	2.8%	3.8%	7.7% (6.7%)*	6.9%	6.9%	6.9%	4.1%

LCOE of different technologies in Germany 2013



Global PV market projection until 2030



3750 GW

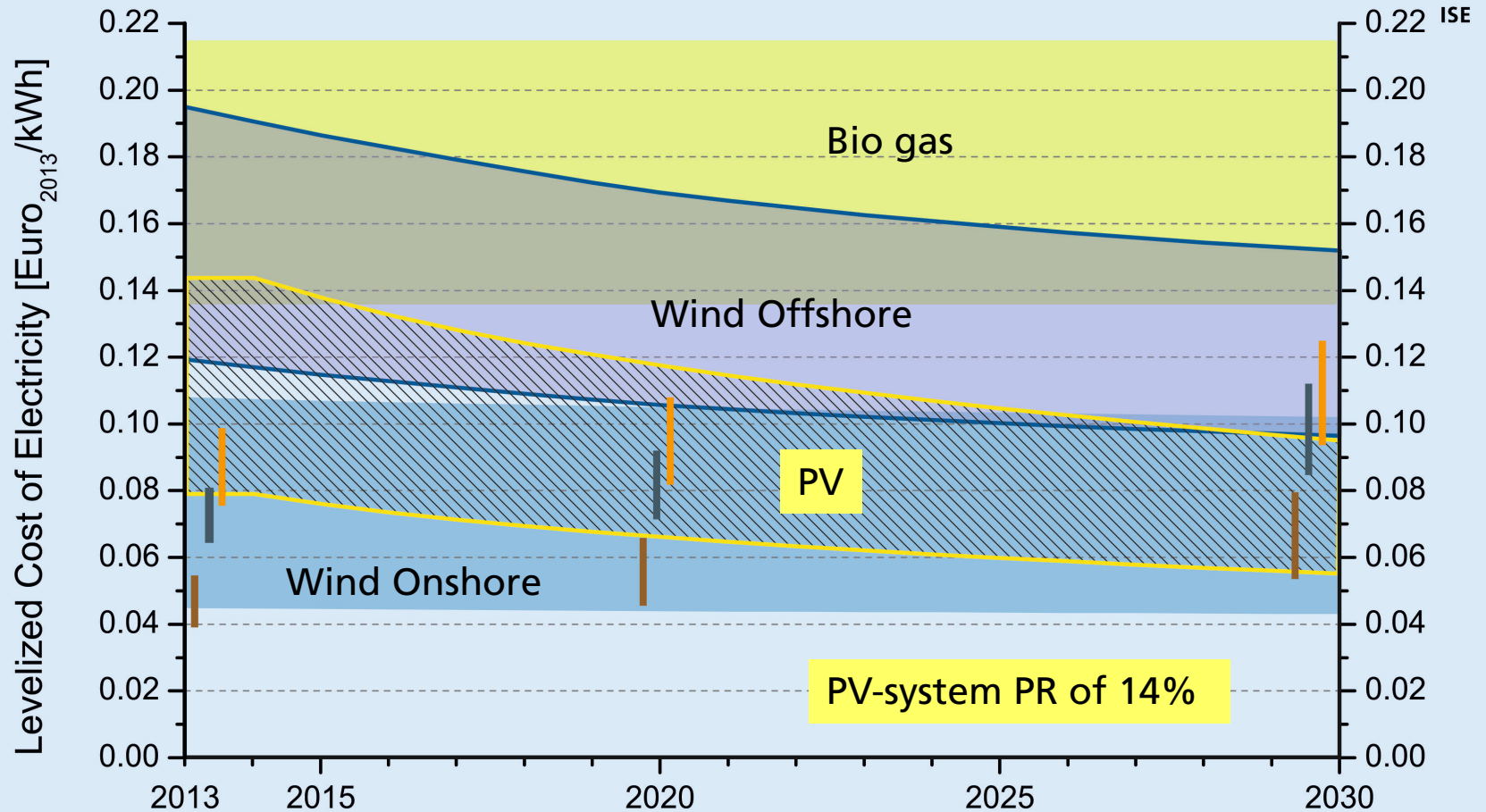
2000 GW

850 GW

LCOE projection until 2030

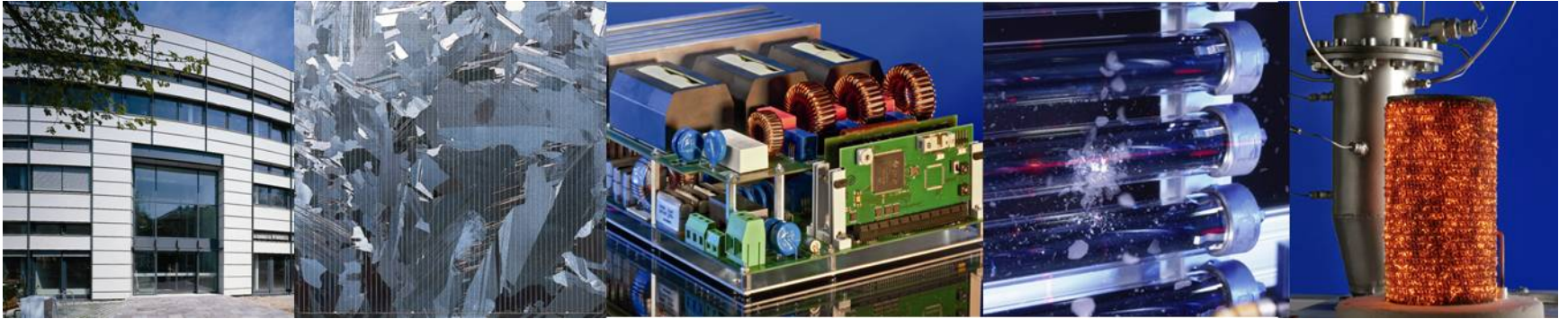
Version: Nov. 2013

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Source: Study „Levelized Cost of Electricity“, Nov. 2013, Fraunhofer ISE

Thank-you for your attention!



Fraunhofer Institute for Solar Energy Systems ISE

Dipl.-Phys.oec Johannes Mayer

www.ise.fraunhofer.de

johannes.nikolaus.mayer@ise.fraunhofer.de