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SUPPLEMENTARY INFORMATION

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Adverse effects of rising interest rates on sustainable energy transitions

Tobias S. Schmidt[1*], Bjarne Steffen[1*], Florian Egli[1*], Michael Pahle[2], Oliver Tietjen[2,3] and Ottmar Edenhofer[2,3,4]

[1]Energy Politics Group, ETH Zurich, Zürich, Switzerland. [2]Potsdam-Institute for Climate Impact Research, Potsdam, Germany. [3]TU Berlin, Berlin, Germany. [4]Mercator Research Institute on Global Commons and Climate Change, Berlin, Germany. *e-mail: tobiasschmidt@ethz.ch; bjarne.steffen@gess.ethz.ch; florian.egli@gess.ethz.ch

Supplementary Materials for

Adverse effects of rising interest rates on sustainable energy transitions

Tobias S. Schmidt[1]*, Bjarne Steffen[1]*, Florian Egli[1]*, Michael Pahle[2], Oliver Tietjen[2,4], Ottmar Edenhofer[2,3,4]

[1] Energy Politics Group, ETH Zurich
[2] Potsdam Institute for Climate Impact Research
[3] Mercator Research Institute on Global Commons and Climate Change
[4] TU Berlin

* tobiasschmidt@ethz.ch *bjarne.steffen@gess.ethz.ch *florian.egli@gess.ethz.ch

Note S1: Data and model

All input data and models used are available online in the Excel file “Data and model Schmidt et al., *Nat. Sust.* (2019)”. The file contains a “read me” sheet, explaining the content of the data and calculation sheets. Sources for input values can be found in the references of this Supplementary Information.

Table S1: Time-varying input parameters for the LCOE model.

Solar PV	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Investment cost EUR/MW (CAPEX)	700,000	672,962	649,490	630,075	610,476	593,024
Cost of capital	1.55%	1.55-2.12%*	1.55-2.68%*	1.55-3.24%*	1.55-3.80%*	1.55-4.36%*
Onshore wind	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Investment cost EUR/MW (CAPEX)	1,750,000	1,739,264	1,728,588	1,718,645	1,710,085	1,702,698
Cost of capital	1.89%	1.89-2.46%*	1.89-3.03%*	1.89-3.61%*	1.89-4.18%*	1.89-4.75%*

* = depending on the interest rate scenario

Table S2: Constant input parameters for the LCOE model.

Variable (source)	**Solar PV**	**Onshore wind**
Leverage ratio [6]	0.87	0.82
Debt margin [6]	1.03%	1.10%
Equity premium [6]	3.26%	3.84%
Asset lifetime [10]	25 years	25 years
Learning rate [10]	15%	5%
Full-load hours p.a. [10]	1,105	2,500
Operation and maintenance cost (OPEX) [10]	17,500 €/MW	30,000 €/MW
Tax rate [12]	0.30	0.30

Table S3: Input parameters for the marginal cost model.

Variable (source)	**Lignite plant**	**Hard coal plant**	**CCGT plant**	**unit**
Thermal efficiency [13,14]	0.37 – 0.43	0.37 – 0.46	0.52 – 0.62	$MWh_{elelctric}/MWh_{thermal}$
Emission factor[14]	0.404	0.339	0.202	$t/MWh_{thermal}$
Variable O&M cost [15]	5	5	4	$EUR/MWh_{electric}$
CO2 emissions cost	15.92	15.92	15.92	EUR/t
Fuel cost in flat scenario[15]	1.8	11.34	26.3	$EUR/MWh_{thermal}$

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