A fast global switch to Renewable Energy is economical possible and ecological necessary

Disrupted energy Landscape
Green Monday London 27. June 2012

Hans-Josef Fell
Member of German Parliament

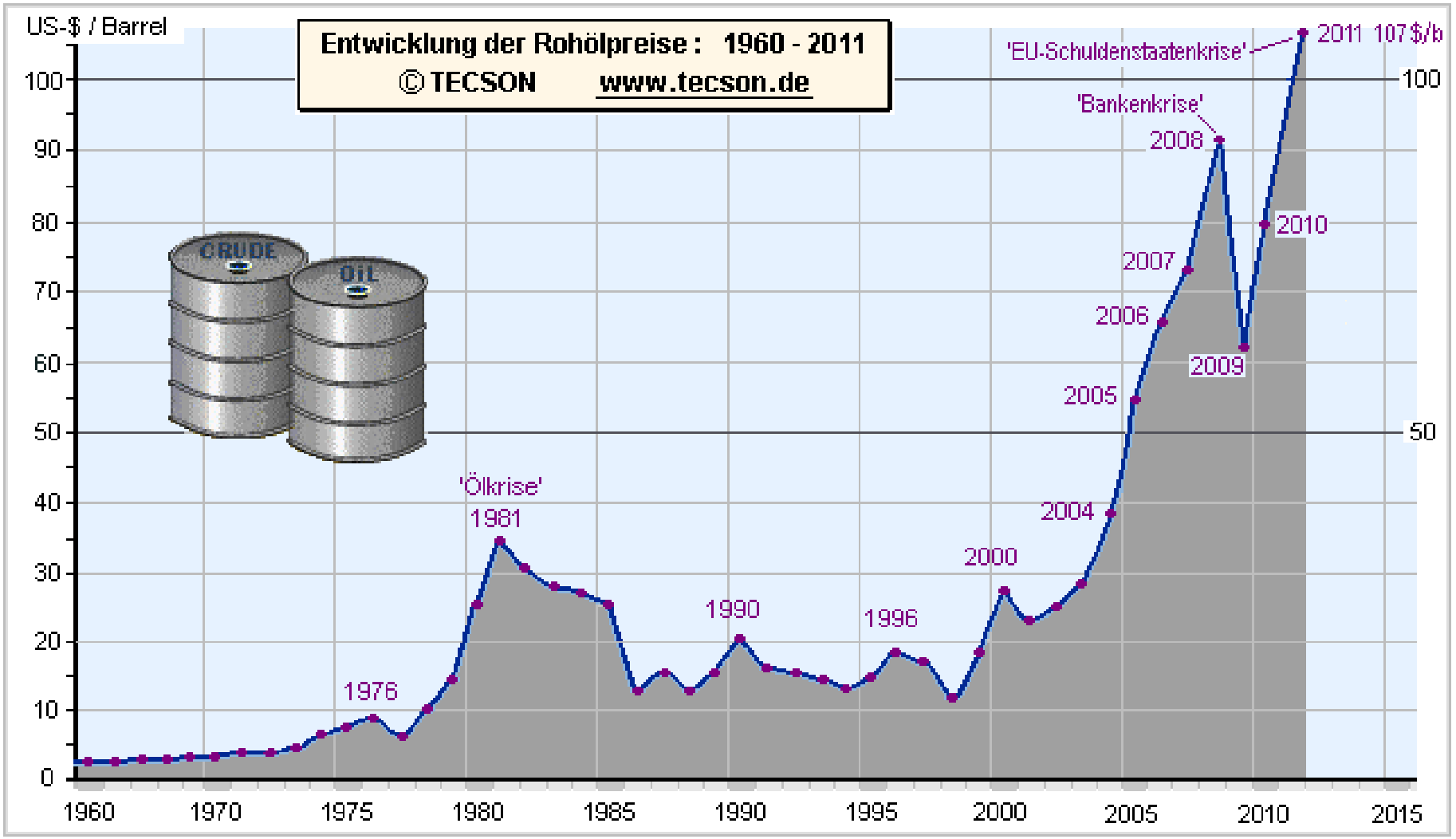
Political challenges

- Climate warming, biodiversity losses
- peak oil, energy security
- nuclear and environmental desasters
- oil wars, poverty, economic crises

All these challenges are connected with fossil and nuclear Energies

Renewables will solve these problems

Oil World Prices 1960 - 2011



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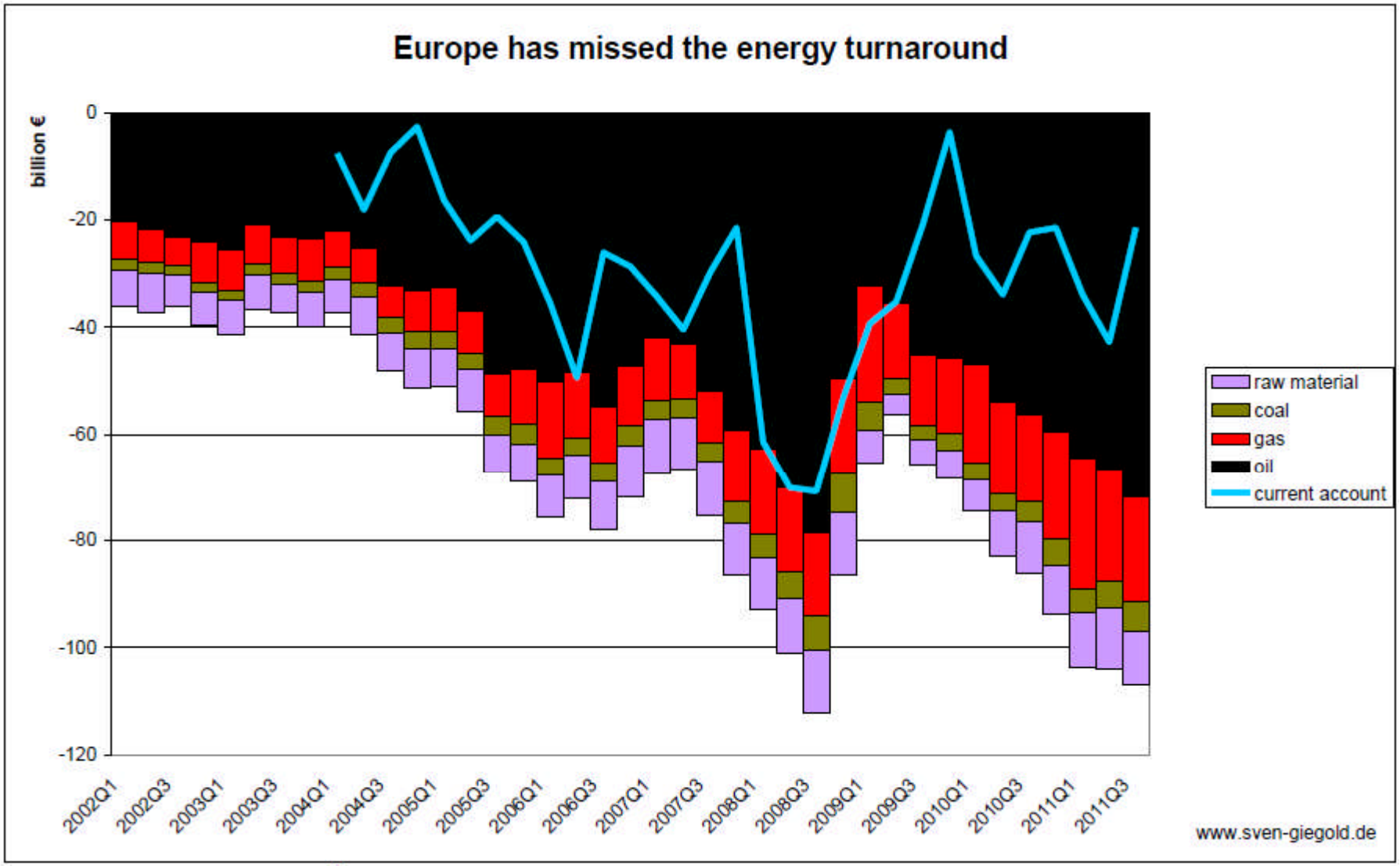

Fig. 1: EU-27: current account[2] and net imports on a quarterly basis in bn. Euros

Global Warming

Oftener and more powerfull:
Aridity and Forest Fires; Floods and Storms

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The imperative for climate protection

Cooling down the earth

This possible !

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Climate Issues and Peak Oil Can Only Be Solved By Two Strategies:

1. Stop greenhouse gas emission
   (not only a reduction of emissions)

- switch to 100% Renewables
- completely cancel the use of fossil and nuclear energies

2. Take out carbon from atmosphere

- convert plants to humus soil
- afforesting big areas, greening the deserts

The Target must be: **330 ppm CO_2**

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A Path to Sustainable Energy by 2030

'Wind, water and solar technologies can provide 100 percent of the world's energy, eliminating all fossil fuels.'

(Mark Z. Jacobson & Mark A. Delucchi)

Costs of Renewable Energy vs. Cost of Continued Use of Fossil Fuels

Estimated costs fossil, nuclear energies (US $)	
Petroleum	3350-4475 Bil.
Natural Gas	550-830 Bil.
Coal	150-300 Bil.
Electricity	1490-2150 Bil.
Sum per year (without external costs!)	5000–7750 Bil.
Sum 2010-2030 (+ 20% rise)	**200 000 Bil.**
Sum to replace world's energy with 100 % renewable energies by 2030	**100 000 Bil.**

Sources:
Mark Z. Jacobson/ Mark DeLucchi 2009, A plan for a sustainable future, in: Scientific American Nov. 2009
Dr. Werner Zittel 2010, Worldwide Estimated Yearly Energy Costs (EWG 2010)

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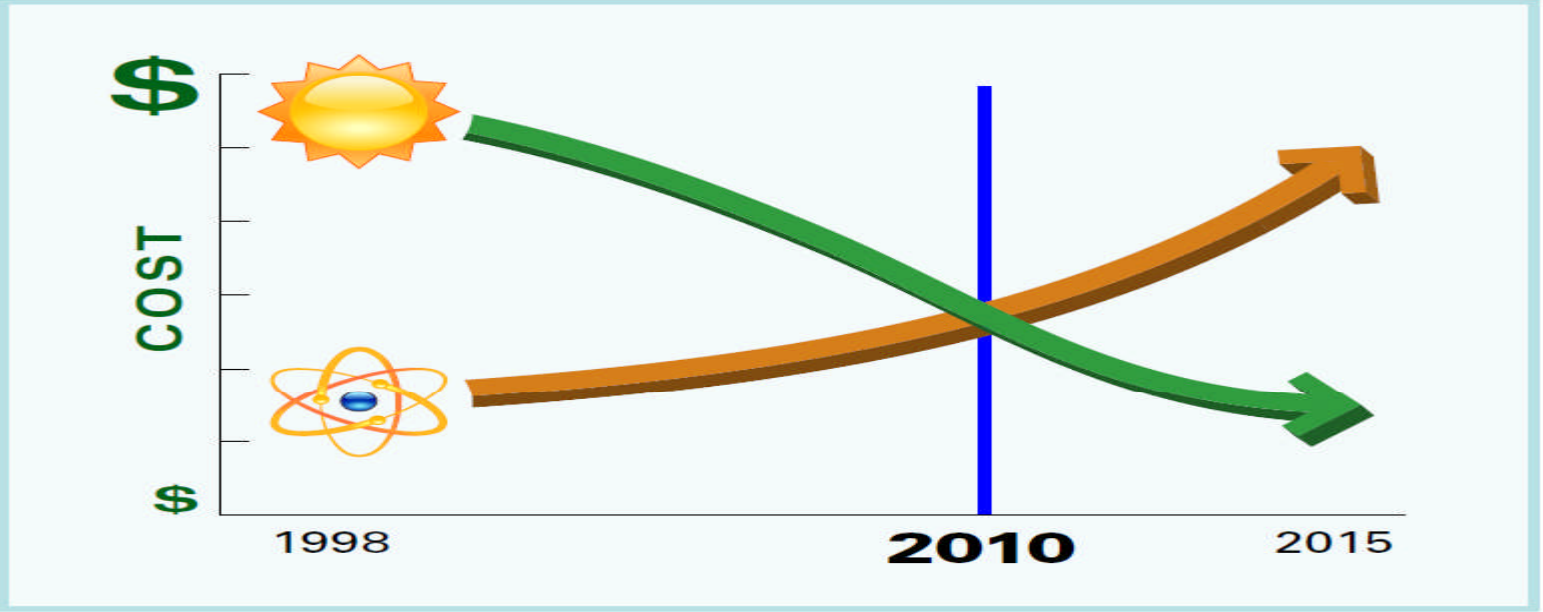
Solar and Nuclear Costs — The Historic Crossover

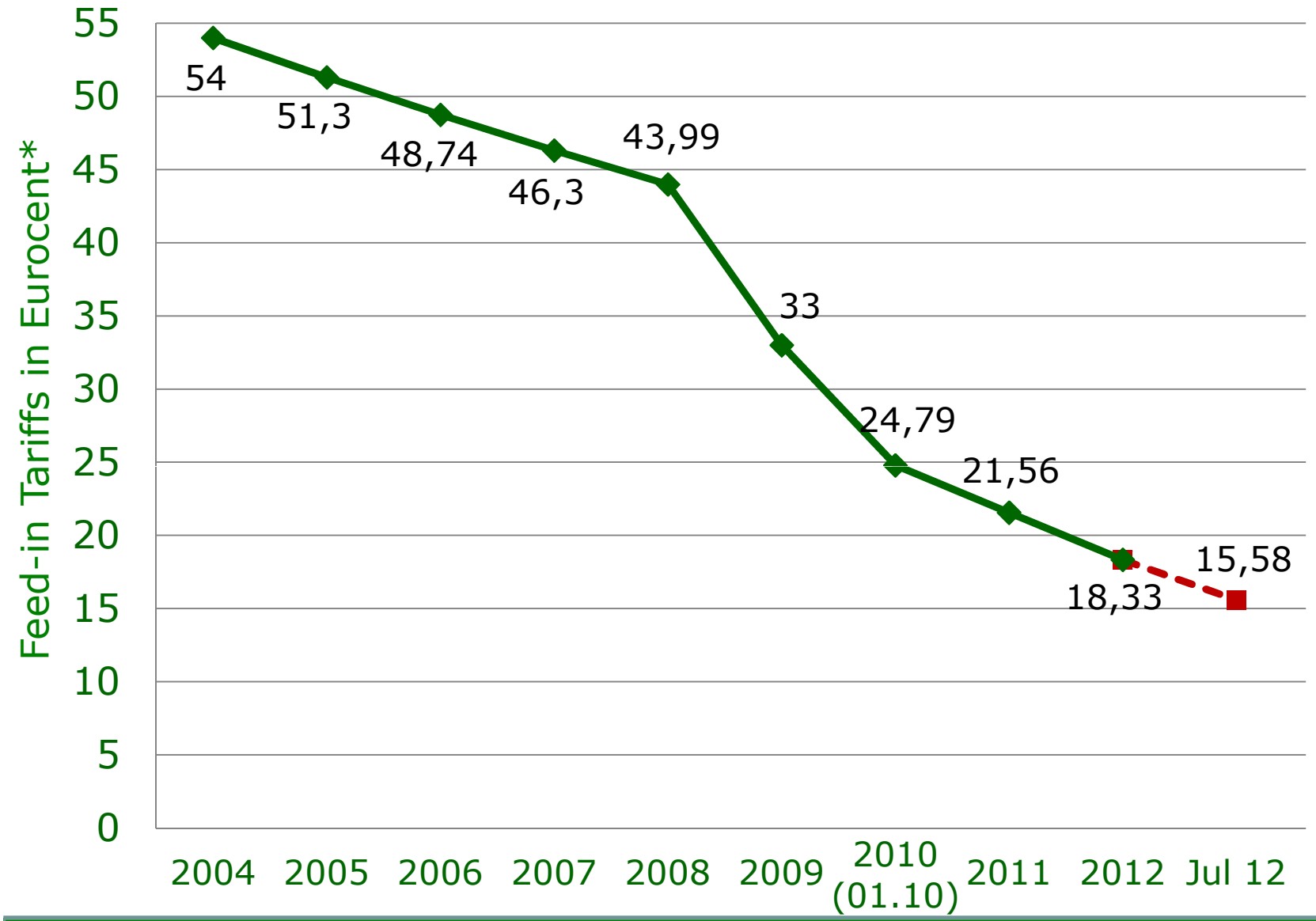
Solar Energy is Now the Better Buy



John O. Blackburn
Sam Cunningham
July 2010

Prepared for NC WARN

Development of Feed-in Tariffs for Photovoltaic Roof Systems above 1 MW



Feed-in Tarriffs for PV Systems in 2013 according to own calculation on Basis of the minimum respectivly maximum Degression;
Sources: Solarenergie-Förderverein Deutschland e.V. , EEG 2004, EEG 2009, EEG 2012

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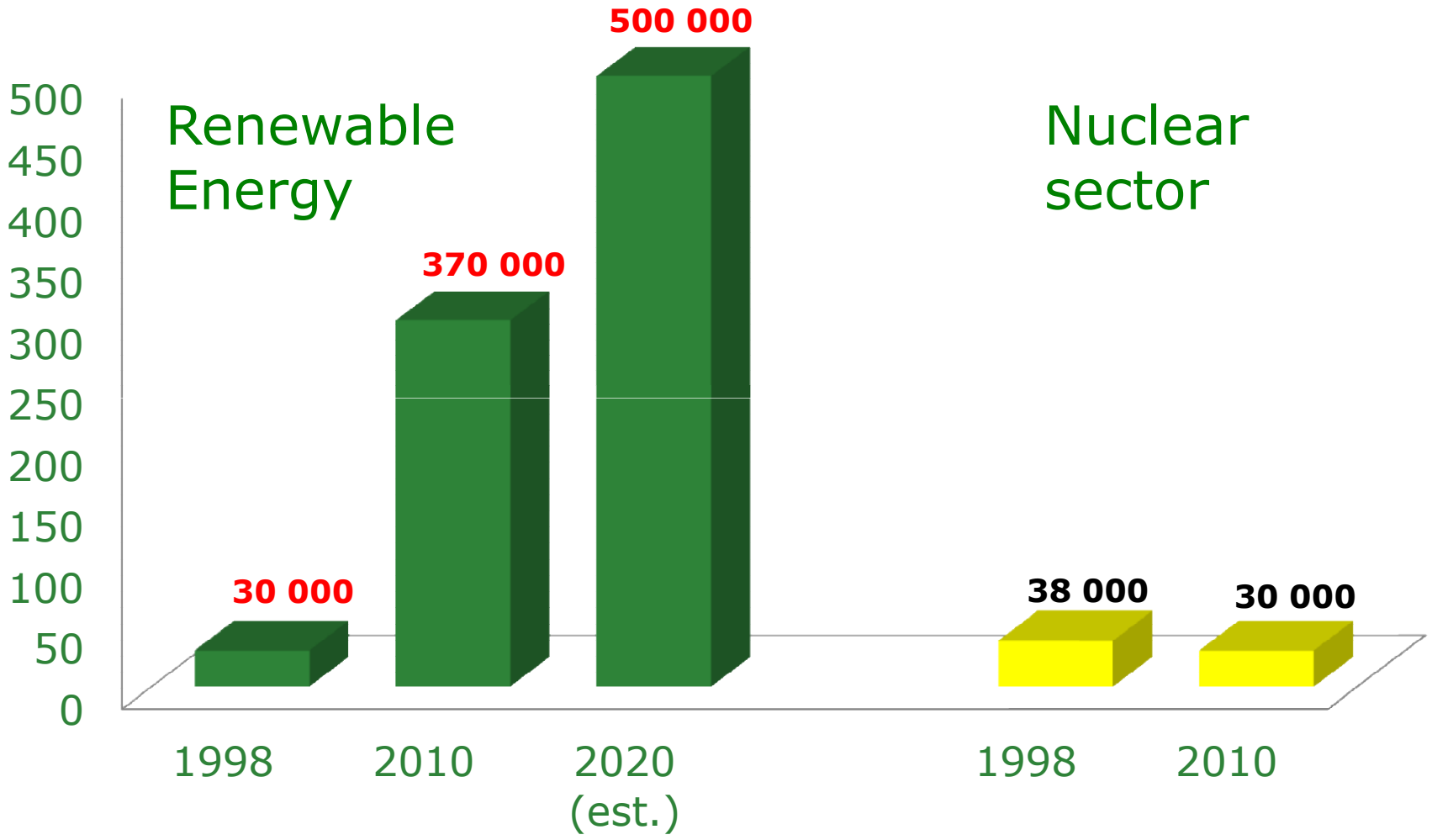
Renewable Energy as a Job Engine in Germany



Source: BEE /BMU 2011

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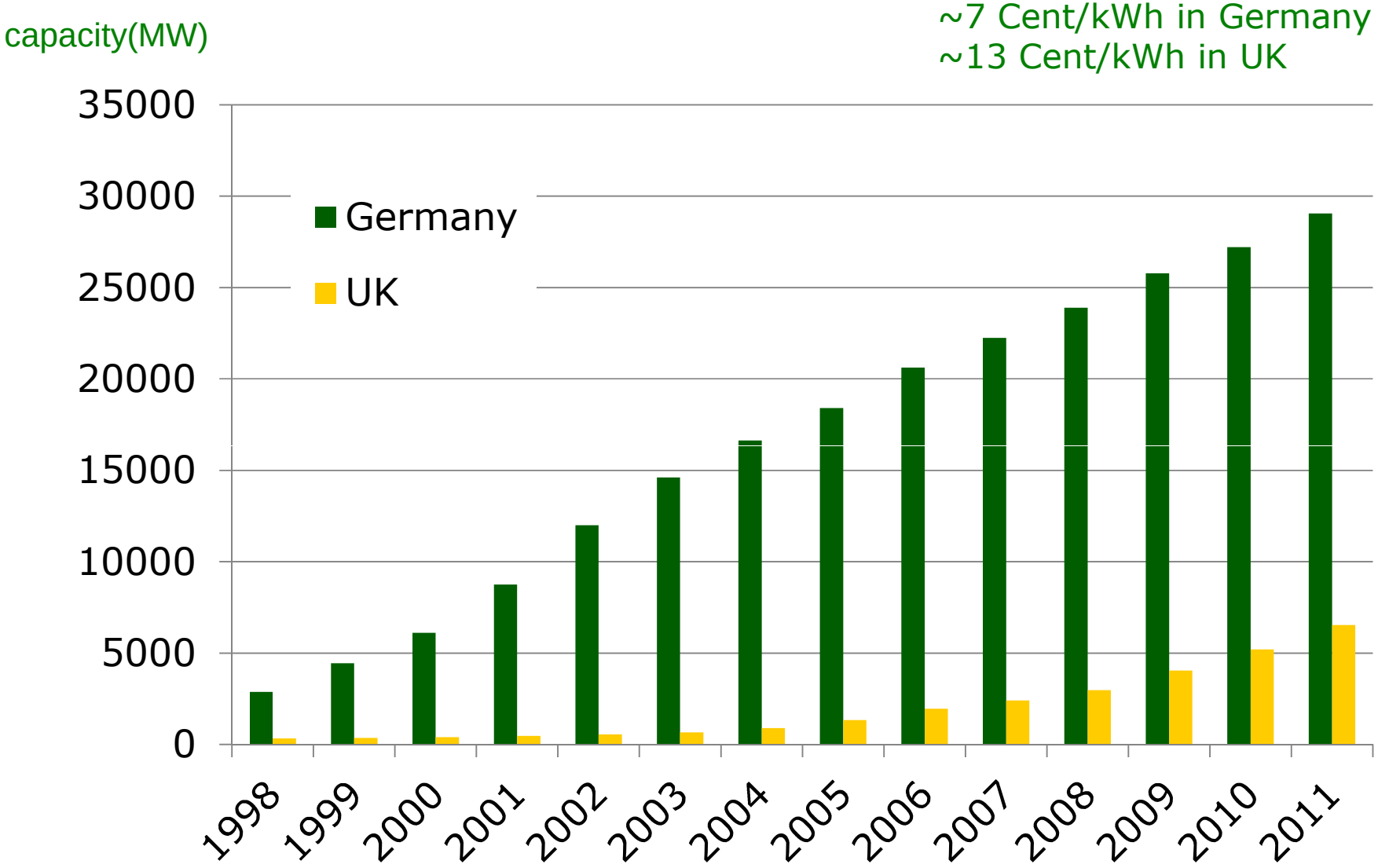
Windpower – Increase & Costs

Costs for wind energy:
~7 Cent/kWh in Germany
~13 Cent/kWh in UK



Source: http://www.ewea.org & Hans-Josef Fell

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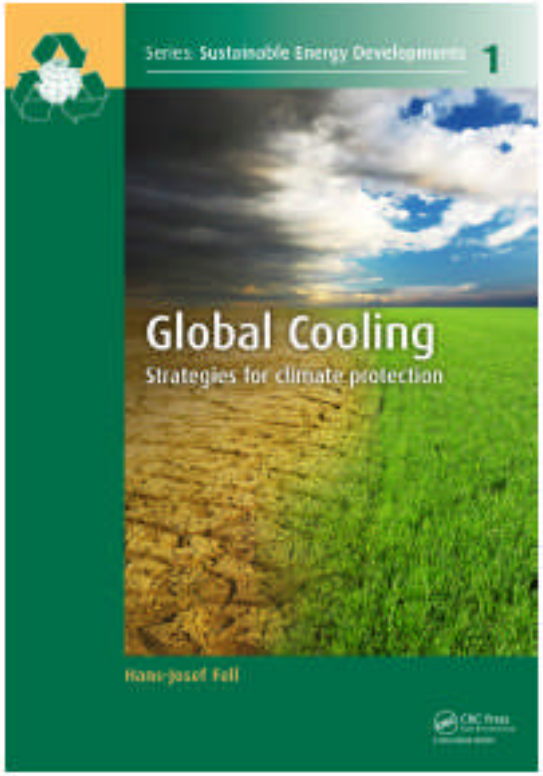
New Book about Global Cooling



SUSTAINABLE ENERGY BOOK SERIES

Series editor: Jochen Bundschuh

VOLUME I

Global Cooling: Strategies for Climate Protection

Hans-Josef Fell

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English Edition is going to be published in Summer 2012.

Paperback Edition will be available for 19 Euro.

Thank You Very Much for Your Attention!

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