

Renewable Energies

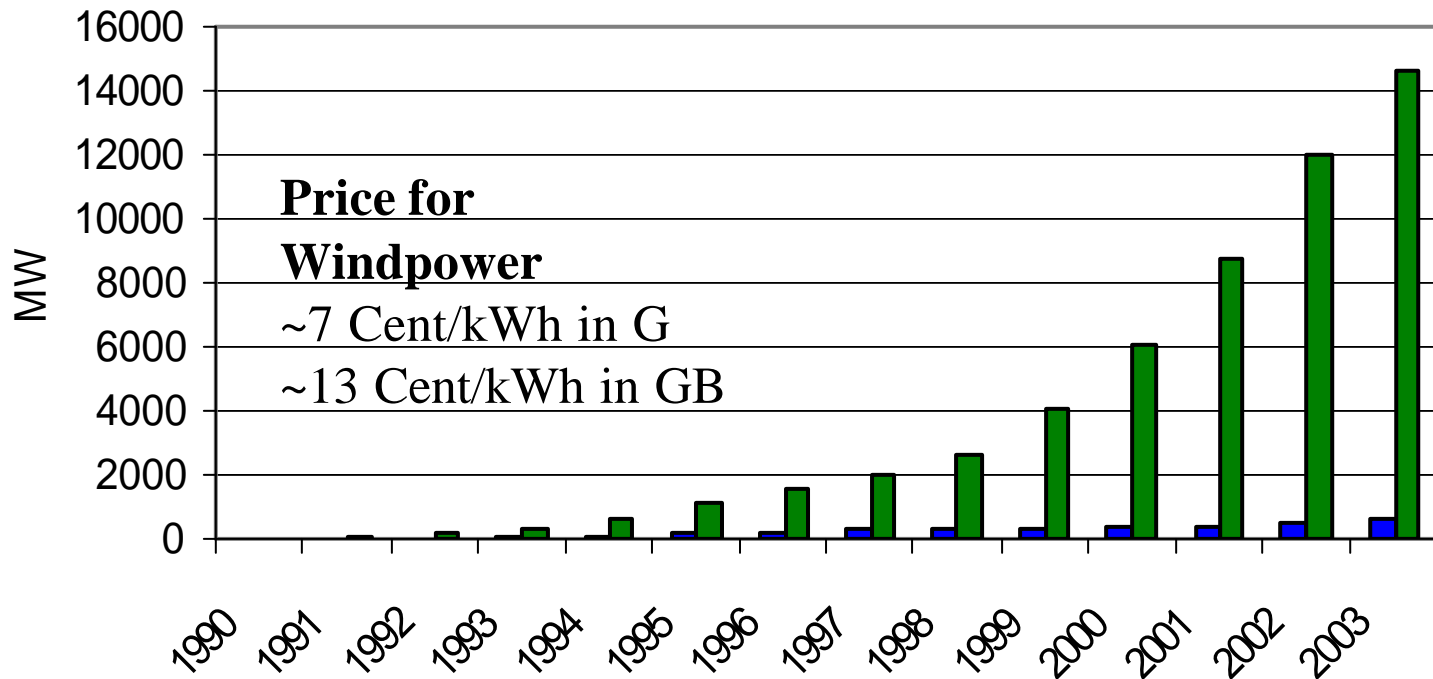
The solution for climate change and security of energy supply

Hans-Josef Fell
Member of German Parliament

17th International Photovoltaic Science and
Engineering Conference
3. Dec. 2007 Fukuoka, Japan

Increase of Wind Power

Germany – Great Britain
Feed in System – certificate system

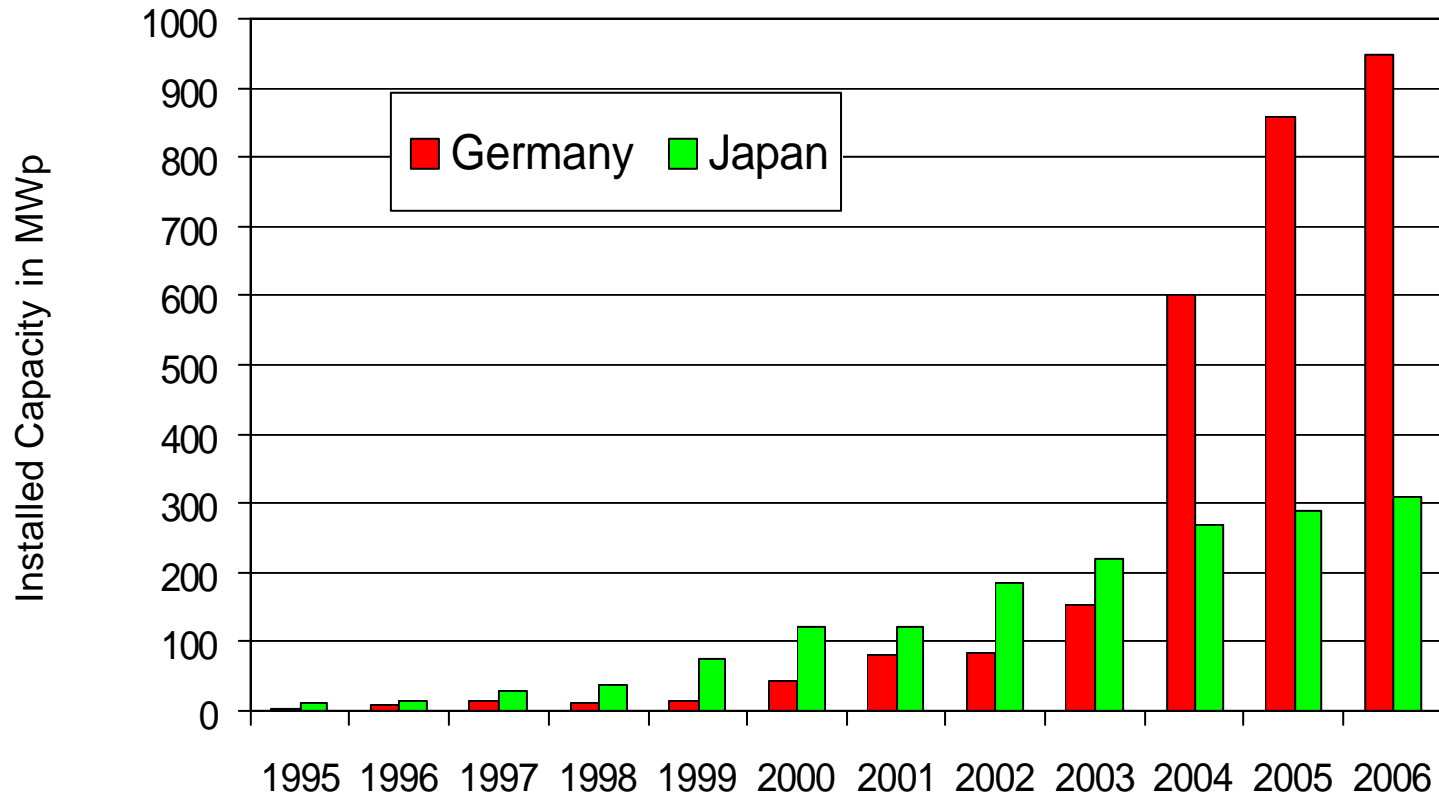


Source: Sawin (2004), Lauber (2003), Menanteau et al (2003)
feed in systems responsible for most deployment.

■ UK ■ Germany

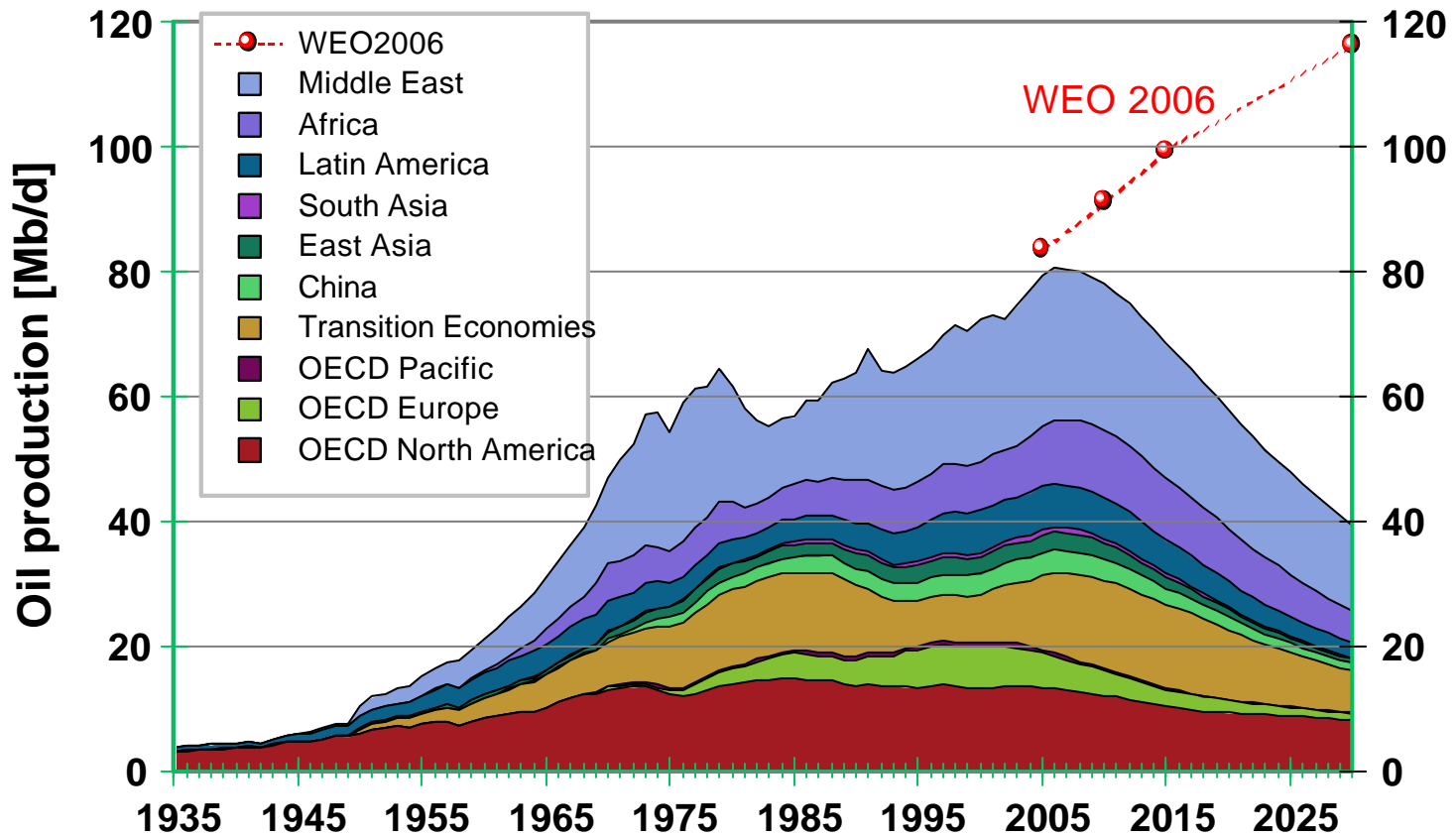
increase of photovoltaics

Germany - Japan

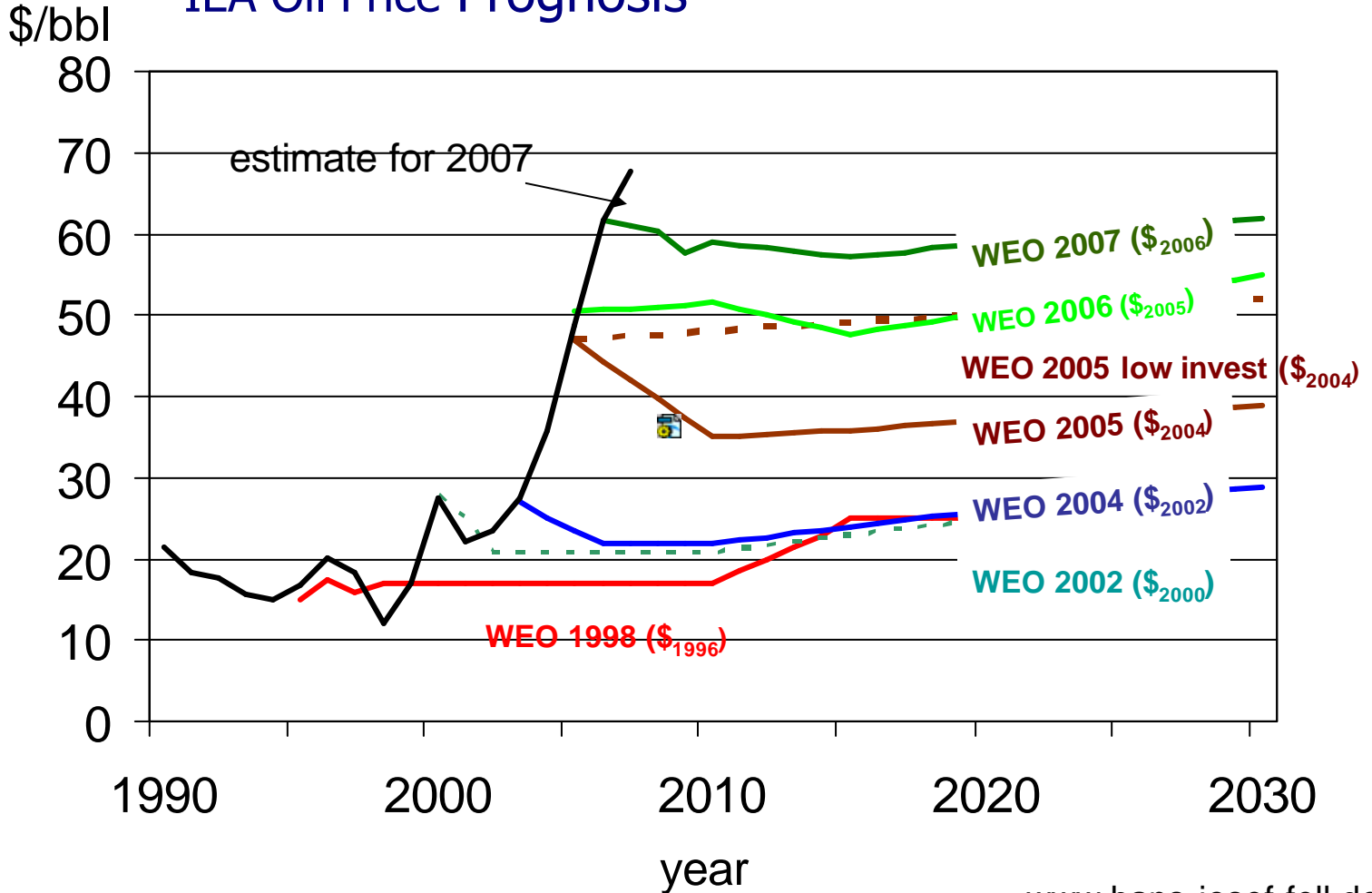


Oil production world summary

Energy Watch Group

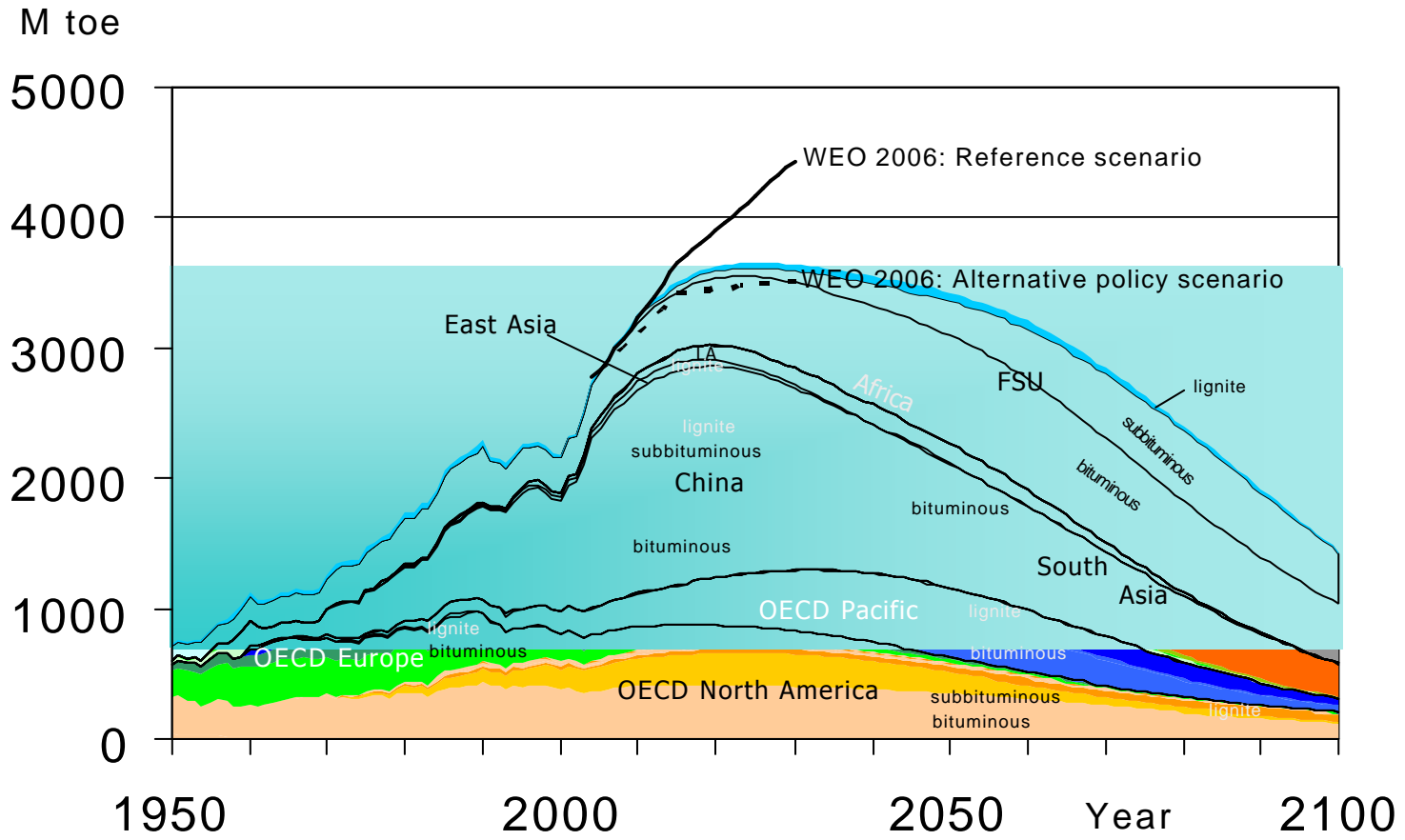


IEA Oil Price Prognosis

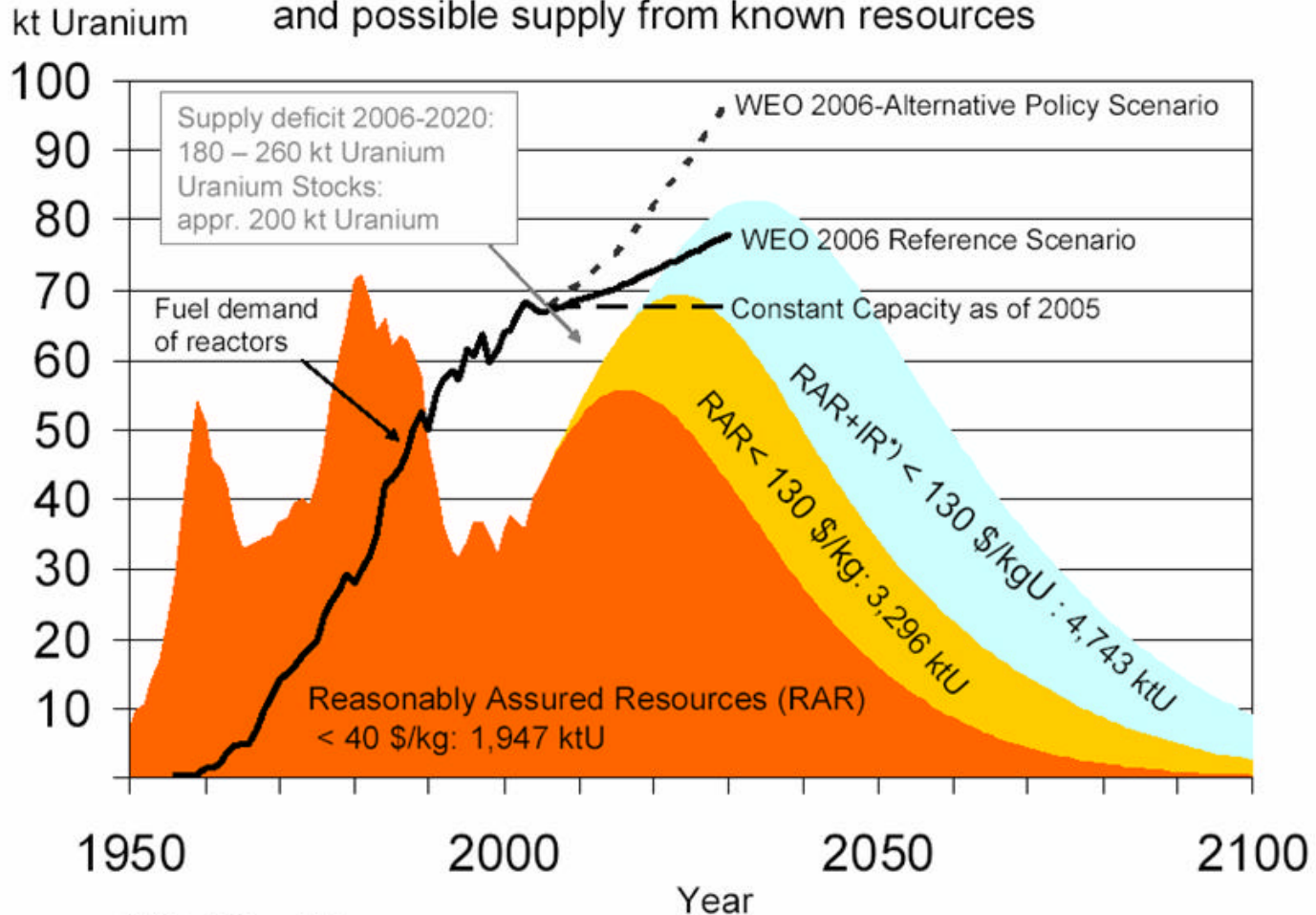


Global coal production: Peak 2030

Worldwide possible coal production

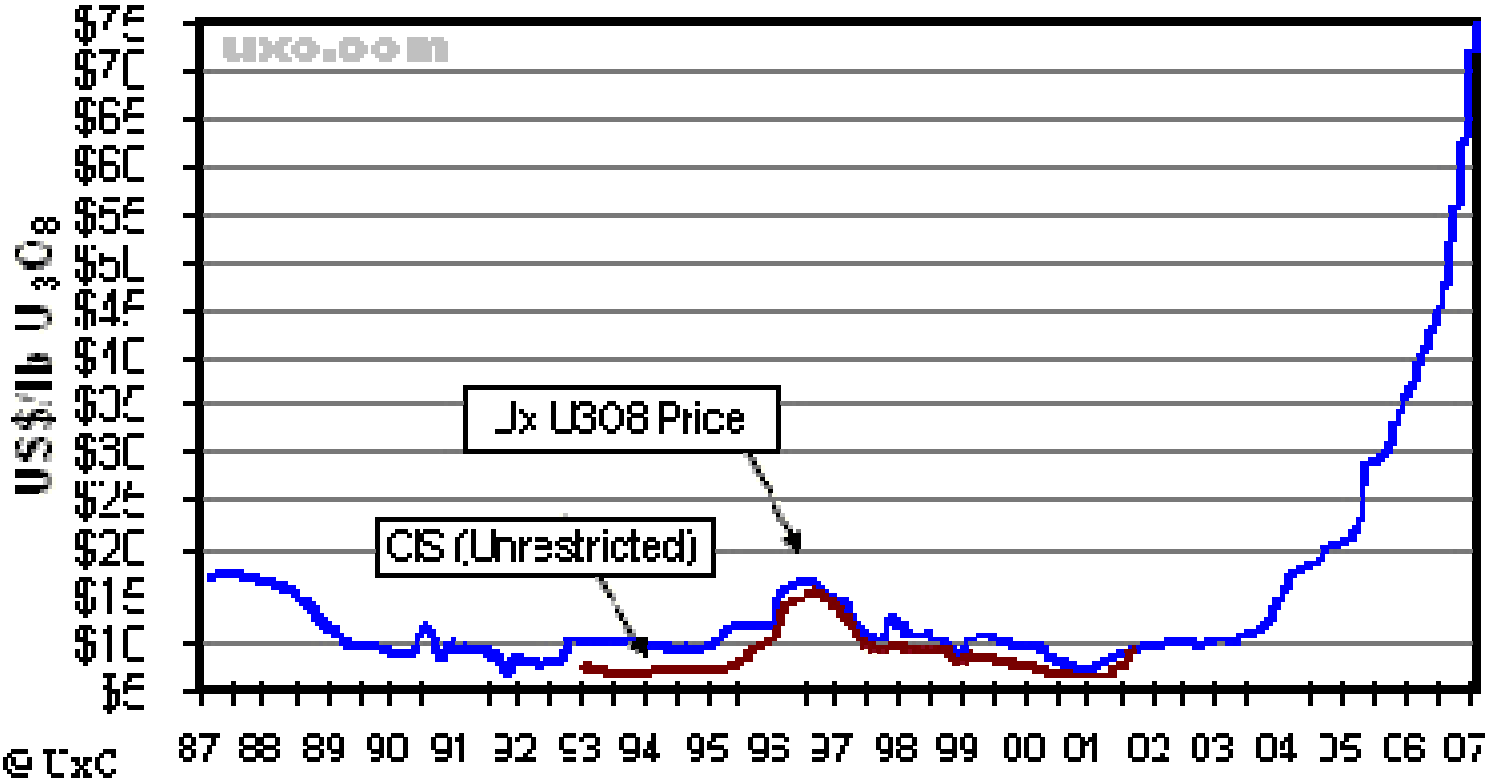


Uranium demand according to IEA scenarios and possible supply from known resources



*) IR = Inferred Resources

Ux U308 vs. CIS* Prices



Quelle: http://www.uxc.com/review/uxc_g_price.html Zugriff 06.02.2007

Climate problems can be solved only by two strategies:

1. **Stop greenhouse gas emission**

(not only to reduce the emission)

- promote zero emission technologies
- completely canceling the use of fossil and nuclear energies

2. **Taking out carbon from atmosphere**

- convert plants to humus soil
- reforesting big areas

Oil, gas, coal are the main causes of damage to the climate

- Burning of oil, gas, coal emits worldwide ~80% of all greenhouse gases
- Real climate protection is only possible by ending the use of oil, gas, coal; this means using completely renewable energy and renewable chemistry.
- Energy saving is very helpful; but saving alone will not solve the climate problems

Climate-protection policies

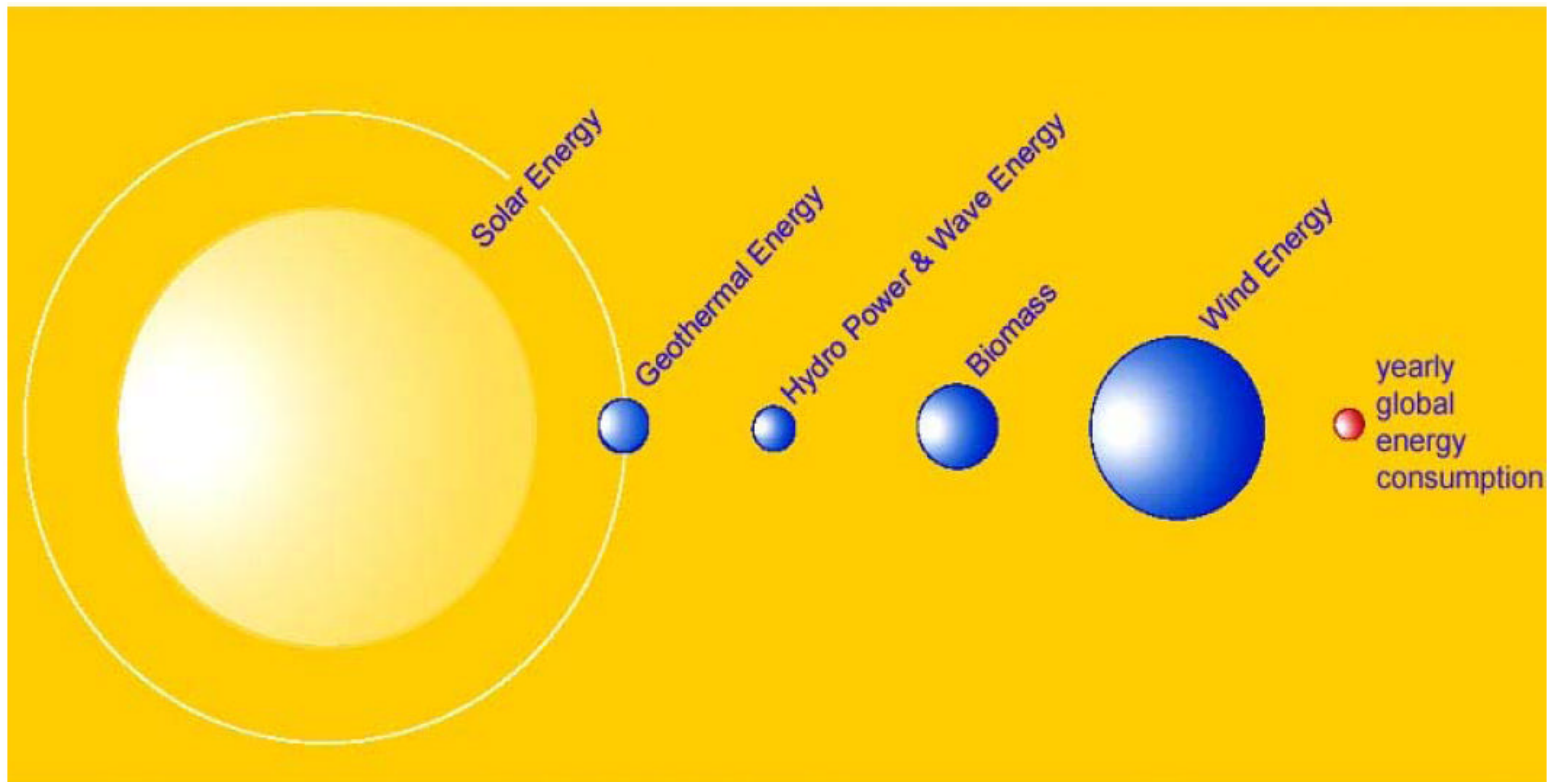
Promoting renewable energy and chemistry:

- Laws for feed-in tariffs
- tax exemption for renewables
- canceling subsidies for fossil and nuclear
- research offensive for renewables
- reduce the approval obstacles

No: quota or certificate systems

both are unable to promote the renewables fast

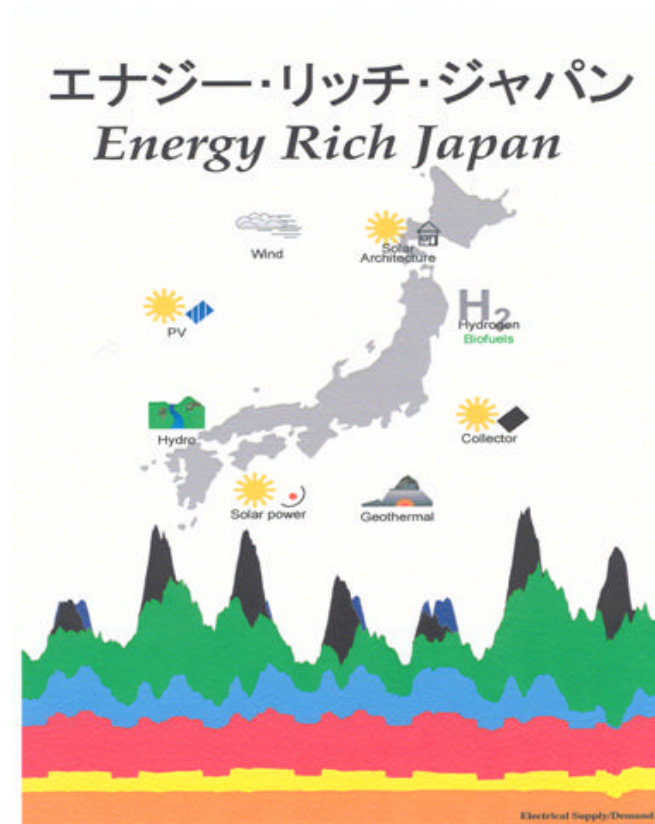
Worldwide Potential Renewable Energy



© Research Association Solar Energy

www.hans-josef-fell.de

Japan could be fully supplied with renewable Energy

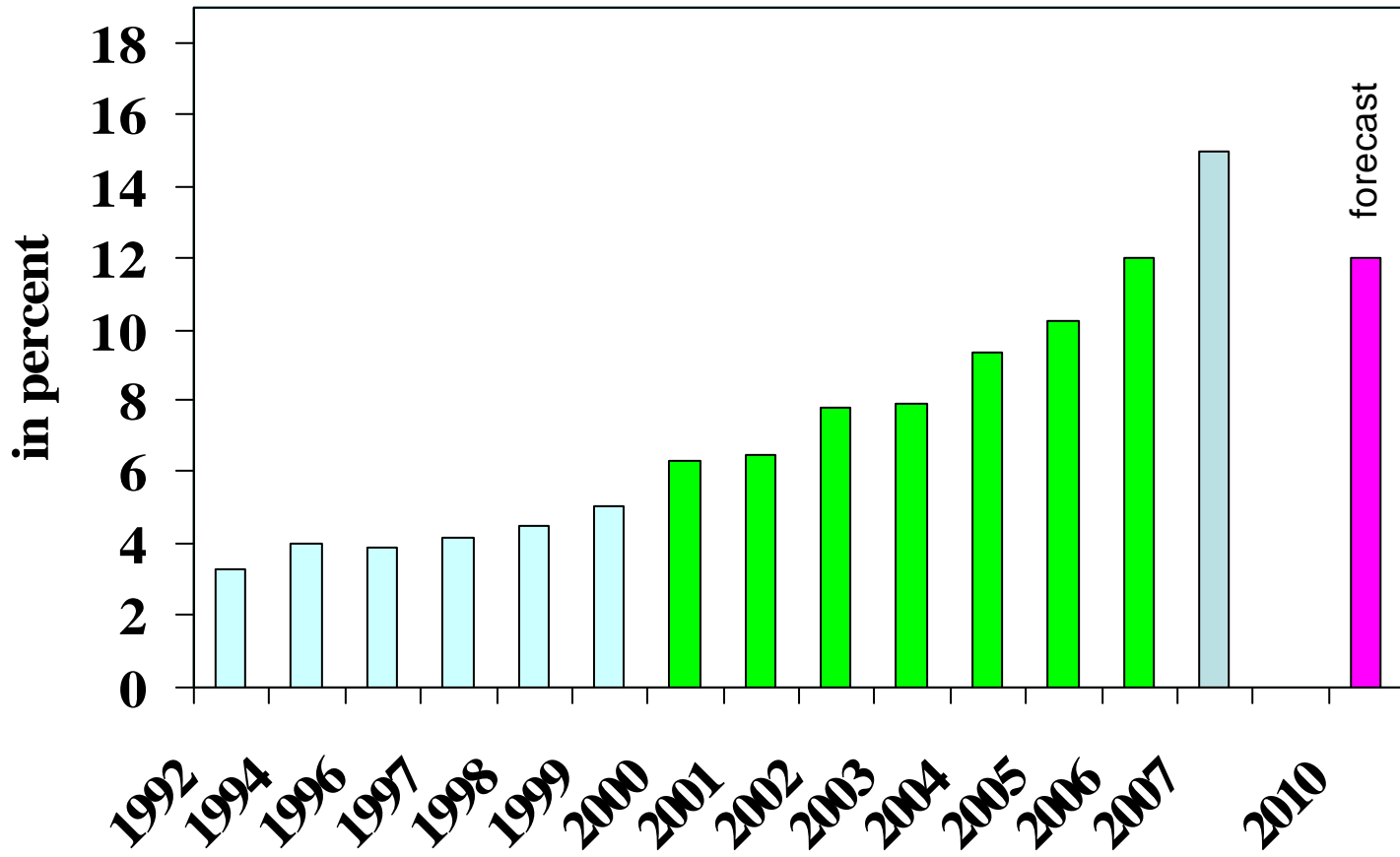


www.energyrichjapan.inf

o

www.hans-josef-fell.de

Share of Renewables in the Gross Electricity Consumption

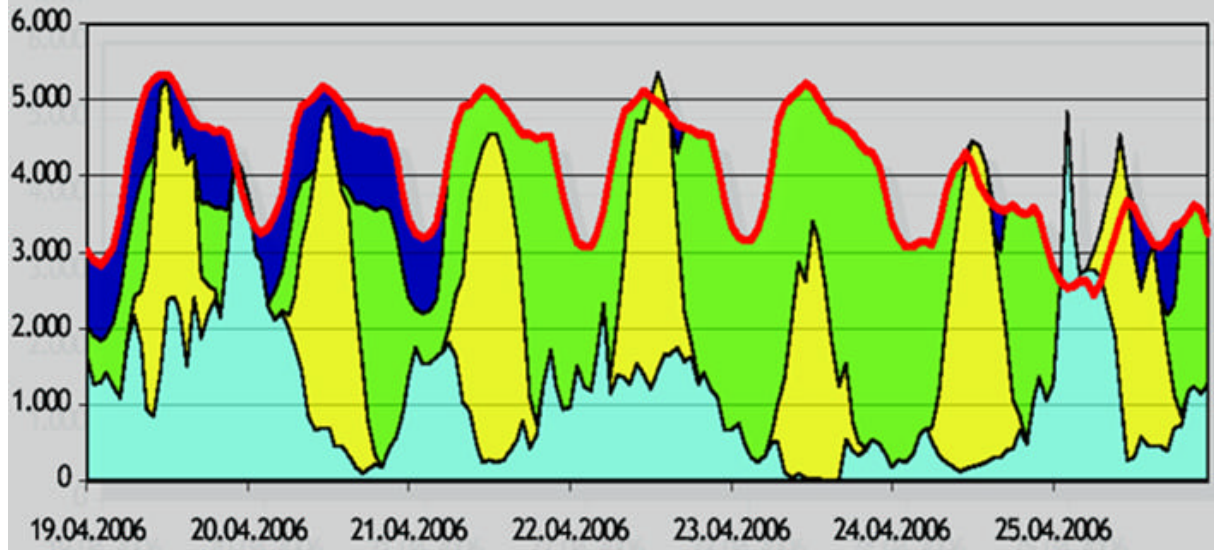


Sites of Combined Cycle Power Stations in Germany



Quelle: Business Institute Solar Strategy

Simulation of Satisfaction of Demand



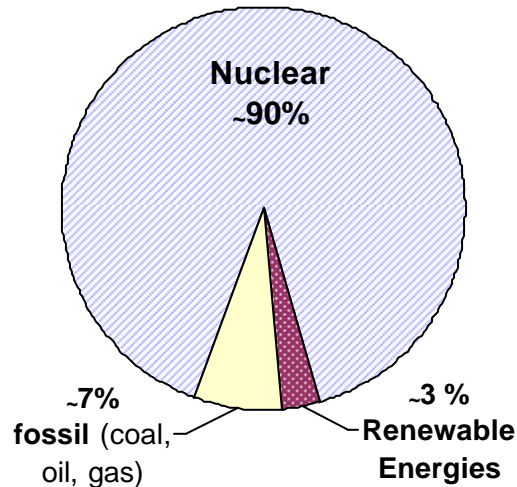
Windenergy  Photovoltaics  Bioenergy  Power Requirement 
Hydroelectric Stations with Storage Reservoir 

? 100 % Satisfaction of Energy Demand by Renewables

Solar Car (Twike) in front of Solar Park

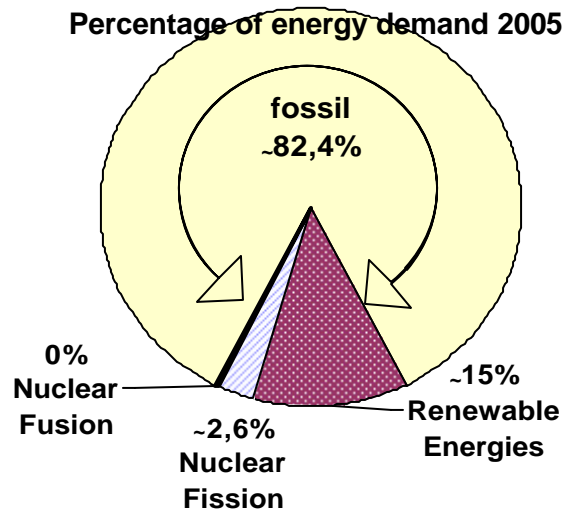


Energy Research Budget (OECD) 1950-2005



Result of Energy Research Budget :

Percentage of energy demand 2005 (estimated)



Nuclear research is the biggest research flop world -wide www.hans-josef-fell.de

**Many thanks for your
Attention!**

<http://www.hans-josef-fell.de>

<http://energywatchgroup.org>