

The Facts behind Today's Debate



Olkiluoto – July 2005

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ENS President

INSC President



Energy Intelligence for Europe. 09-05



The European Nuclear Society
Largest nuclear society for science and industry



24 Member Societies accross Europe

[Austrian Nuclear Society](#)

[Belgian Nuclear Society](#)

[British Nuclear Energy Society](#)

[Bulgarian Nuclear Society](#)

[Croatian Nuclear Society](#)

[Czech Nuclear Society](#)

[Danish Nuclear Society](#)

[Finnish Nuclear Society](#)

[French Nuclear Energy Society](#)

[German Nuclear Society](#)

[Hungarian Nuclear Society](#)

[Israel Nuclear Society](#)

[Italian Nuclear Association](#)

[Lithuanian Nuclear Energy Association](#)

[Netherlands Nuclear Society](#)

[Nuclear Society of Russia](#)

[Nuclear Society of Slovenia](#)

[Polish Nuclear Society](#)

[Romanian Nuclear Energy Association](#)

[Slovak Nuclear Society](#)

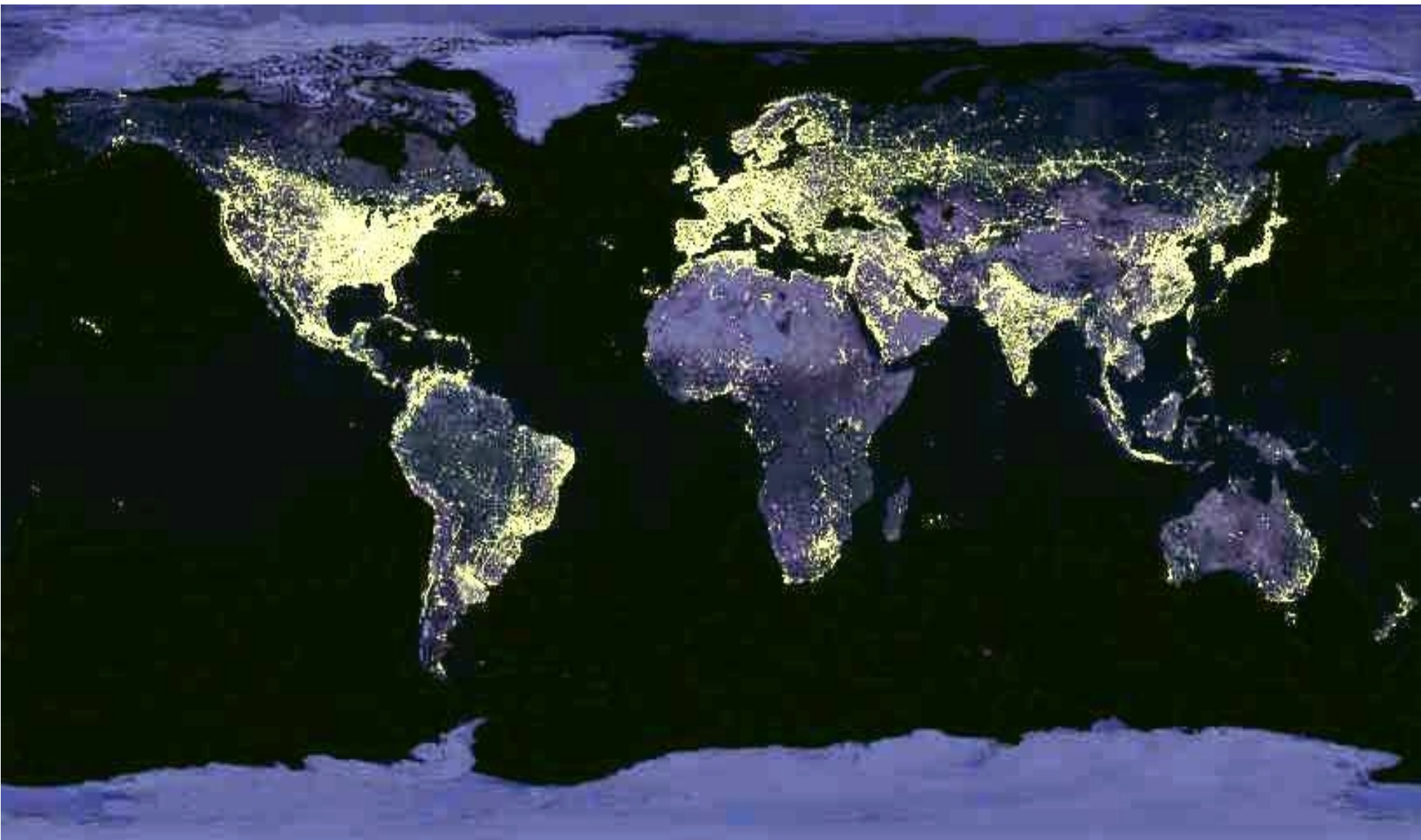
[Spanish Nuclear Society](#)

[Swedish Nuclear Society](#)

[Swiss Nuclear Society](#)

[Yugoslav Nuclear Society](#)

The Global Energy Picture is Changing.



Undoctored NASA photo puzzle

Anthropogenic interference with the climate system ?

IPCC 1990 : The size of this warming is broadly consistent with predictions of climate models, but it is also of the same magnitude as natural climate variability. **Thus the observed increase could be largely due to this natural variability ;** (*Not sure...*)

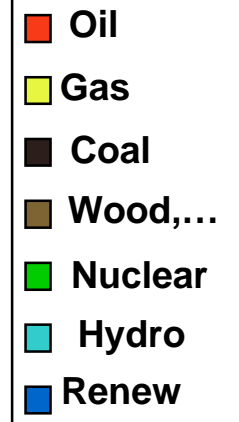
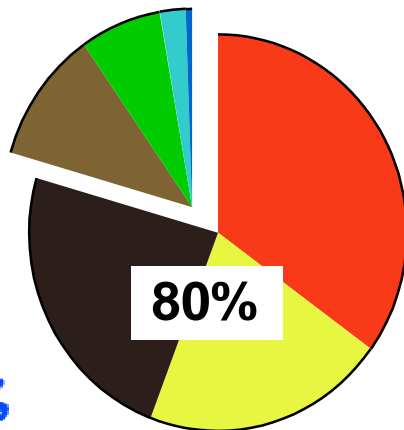
IPCC 1995 : The balance of evidence suggests a discernible influence on global climate. (*Probably*)

IPCC 2001 : There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities. (*Very likely !*)

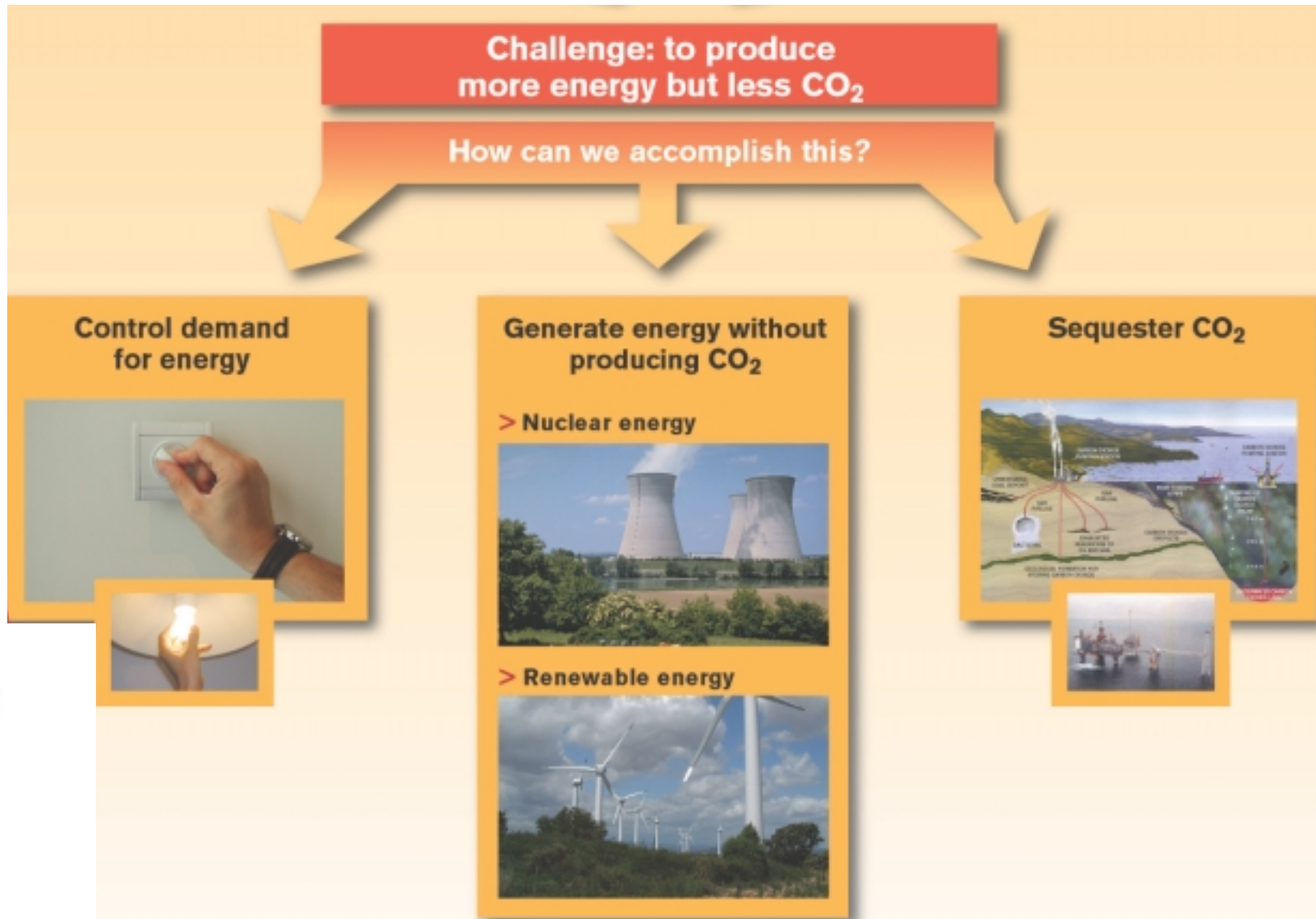
IPCC 2007 ?

The Challenge of Global Change :

Reduce CO₂
Emissions
while
Producing more
Energy



No Single Magic Bullet !



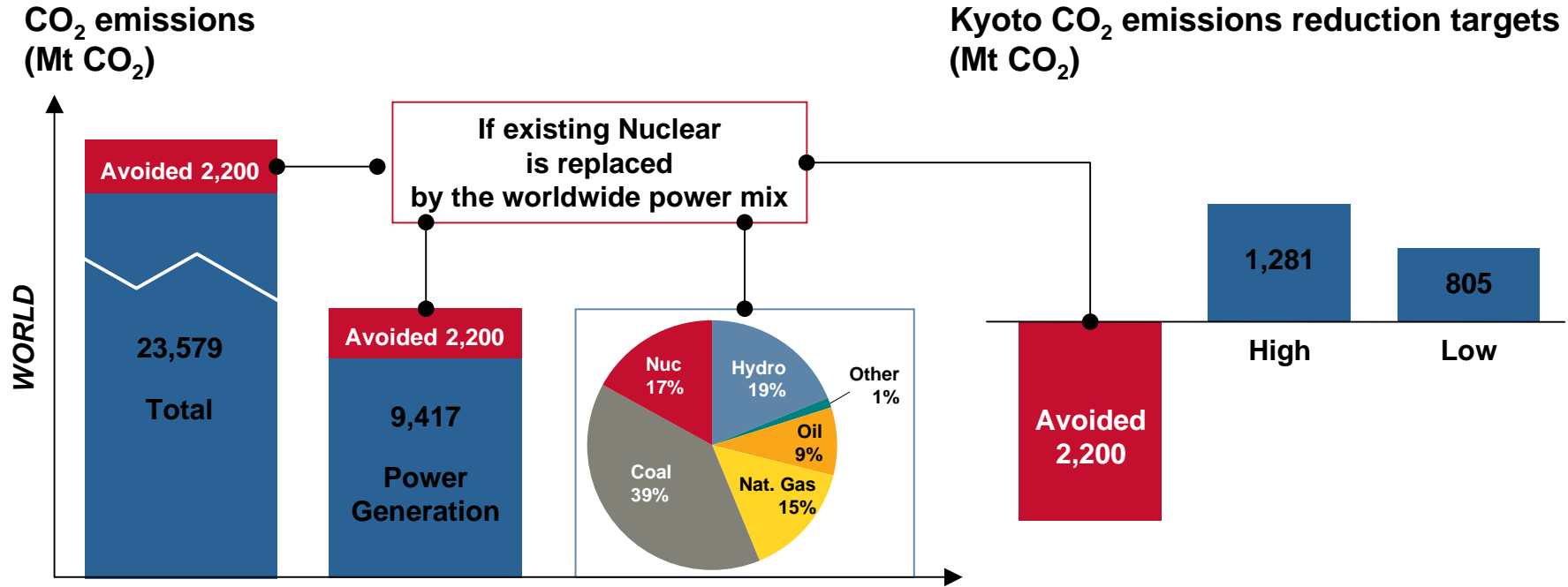
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Nuclear and Renewables are Complementary

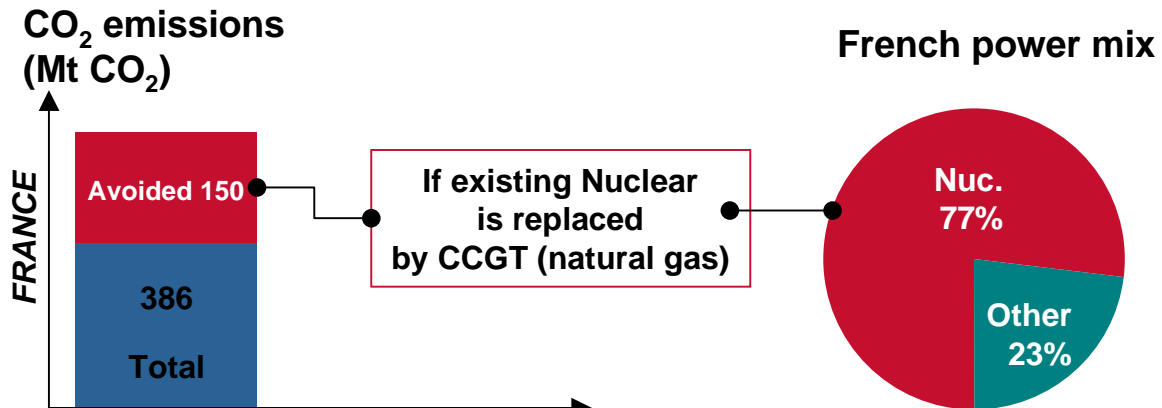
- ▶ Renewables, solar & wind power, can play an essential role in places (windy or sunny) where population density is low.
- ▶ In our regions, these intermittent and diffuse energy sources are better suited for decentralised generation and a complement to the grid.
- ▶ Solar & geothermal are best suited for heating, possibly together with heat pumps
- Larger units, nuclear reactors insure, together with river dams, baseload generation, day and night, all the year long.



Nuclear Power reduces CO₂ Emissions today



Source: IAE 2004 outlook



Source DGEMP - "scenario tendanciel 2030"



For Europe, GHG is not the only Issue

Nuclear Power also contributes to our security of Supply

European Commission's Green Book 2000 (*) : Even with nuclear power, EU's energy dependency will grow from 50% to 70% by 2030

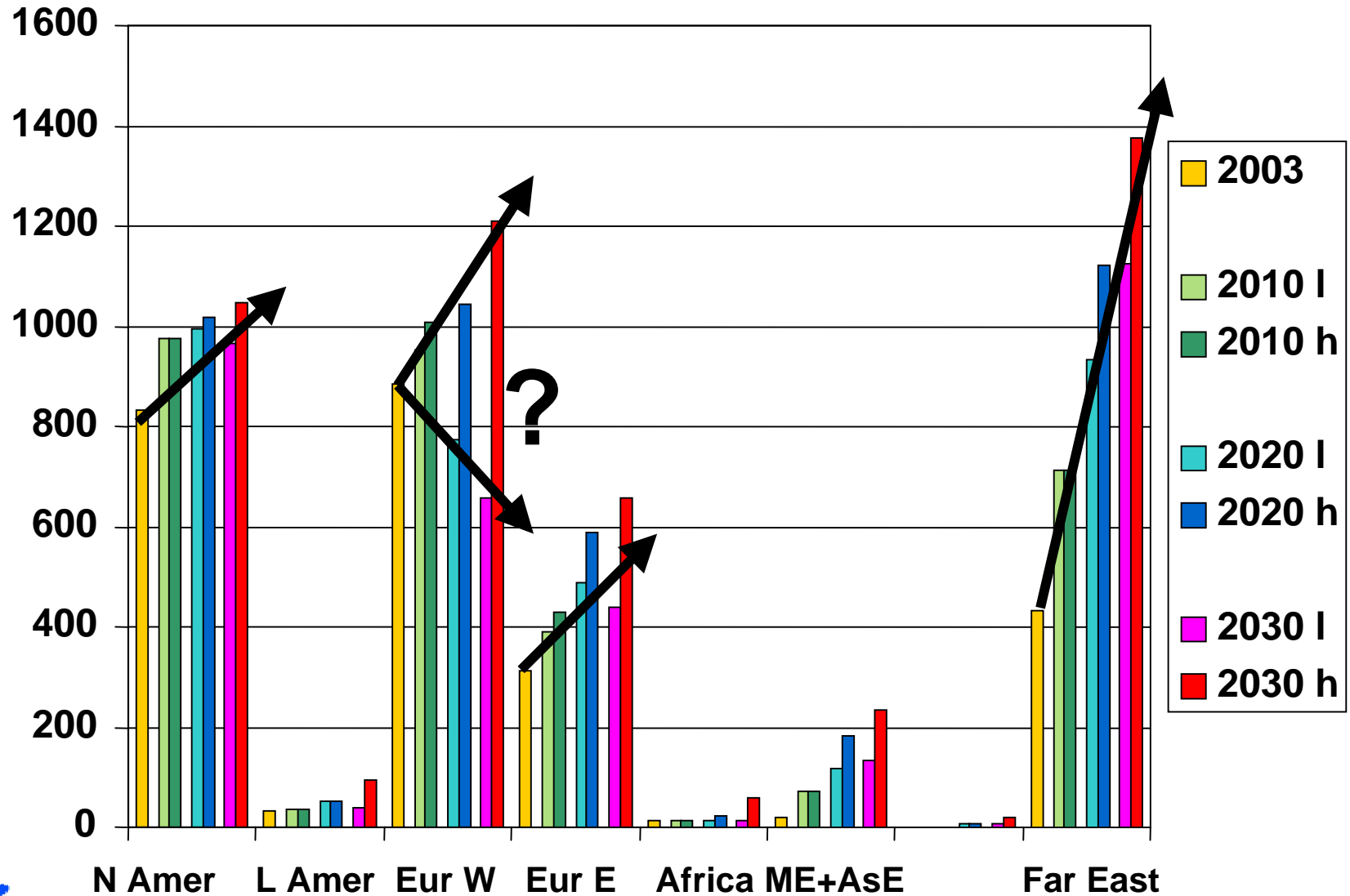
We must keep the nuclear option in Europe



(*) approved by European Parliament 2002

Nuclear Generation Forecasts 2003-2030

(IAEA July 2004)

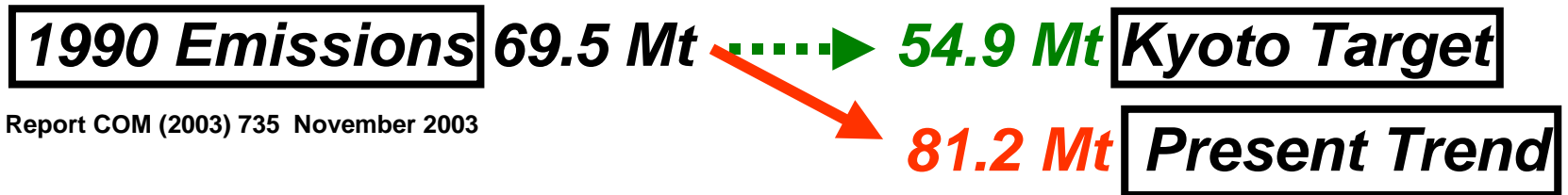


The Copenhagen Controversy ?

- ▶ **Denmark is Nils Bohr's Country**
- ▶ **Denmark is very Environment Conscious**
- ▶ **Denmark is the World Leader in Wind Turbines Technology**

Yet...

- ▶ **Denmark is one of Europe's worst CO₂ Emitter per capita :**



Isn't today's Conference a bit surrealistic ?

The silly concept of « Level playing field » !

- ▶ **Given their present stage of development, most renewables *MUST* be subsidized and politically supported...**
- ▶ **...just as nuclear power *USED TO* be, in the 50s and 60s.**
- ▶ **A true « level playing field » would simply thwart renewables and co-generation.**
- ▶ **Is that what we want ???**

IV. Conclusions

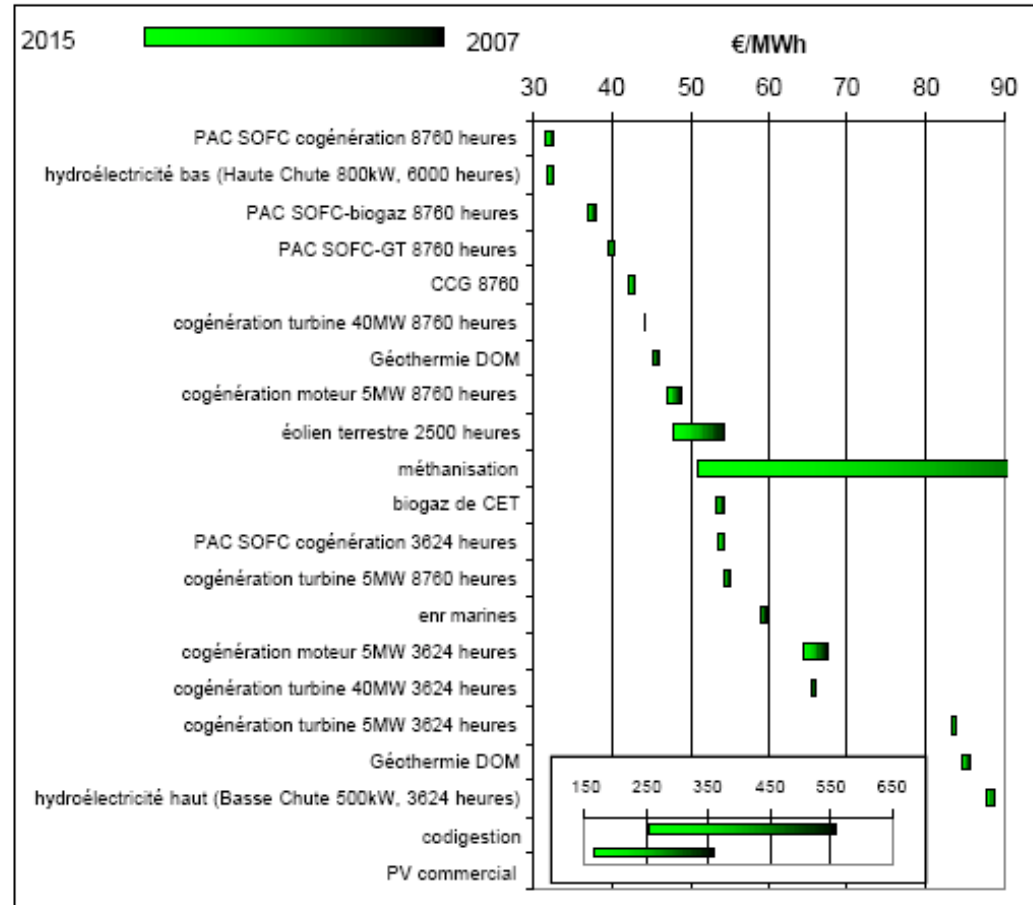


Figure 5 – Evolution des coûts de production de 2007 à 2015.



Support to Nuclear in Euratom Treaty

- ▶ ***The « Euratom Loans » are restricted to improvements in reactor safety in accession countries : who wants to abolish them ?***
- ▶ ***In the Framework Program 6, the Budget for R&D on nuclear fission is 190 M.Euro, mostly for safety and waste management.***
- ▶ ***In the Framework Program 6, the Budget for R&D on Renewables is 890 M.Euro. Would you rather have « a level playing field » ?***

