

# **Changing Course: Key Elements of a Global Energy Strategy**

**- A Contribution To the World Summit on Sustainable Development -**

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# The Global Energy Strategy Project


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# Why a Global Energy Strategy?

## Energy is a Global Challenge, because

- ▶ energy sector causes significant share of global environmental problems
- ▶ (liberalized) energy markets are increasingly global markets
- ▶ vulnerability of ecosystems, economies and societies is global in terms of cause/effect, and time
- ▶ availability and access to energy services is key “driver” of development, i.e. an issue of global justice
- ▶ major course changes in the energy sector have global consequences

# Basic Sustainability Rules

- ▶ At a minimum, supply sufficiently the basic needs of a growing world population, and future generations.
- ▶ Limit environmental burdens to a level ensuring the live-support functions of nature in the long term. Avoid endangering of mankind and nature by environmental pollution and high risk technologies.
- ▶ Guarantee equal opportunities to access basic energy services for all society members.
- ▶ Ensure security of supply for energy services.
- ▶ Sustain and expand potential of energy services, available on conditions which are acceptable in economic and social terms.

# Sustainability Management Rules I

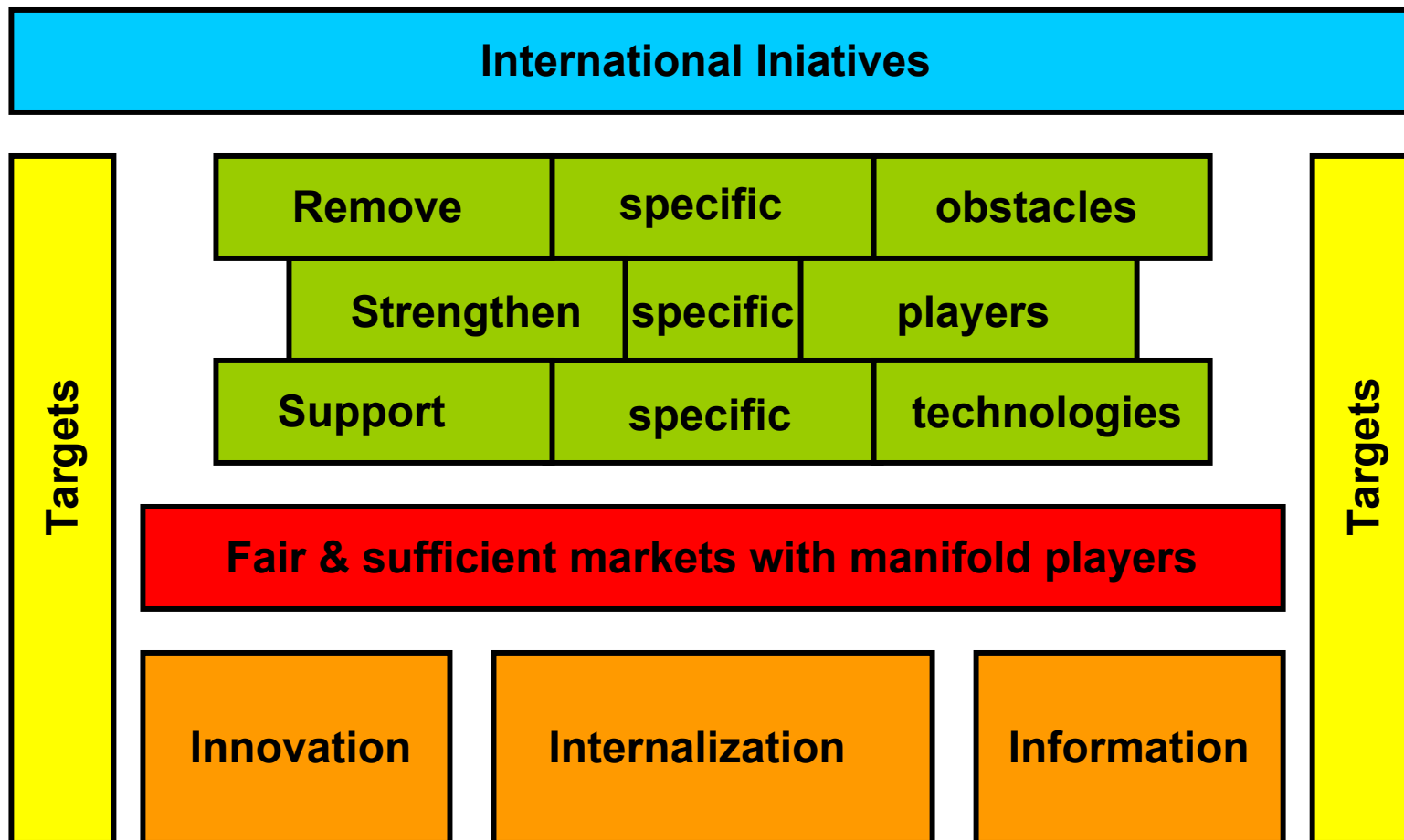
- ▶ Sustain/expand potential of energy services by energy efficiency improvements, renewable and low polluting/low risk technologies so that resources are sustained & environmental burdens and risks can be minimized.
- ▶ Regarding renewable energies, utilization should not exceed regeneration.
- ▶ Environmental burdens of energy utilization should be limited to a level not exceeding the regeneration and/or adaptation capacities of ecosystems.
- ▶ Utilization of energy technologies with large risk potentials and low fault tolerance must be minimized.

## Sustainability Management Rules II

- ▶ Supply energy services at least cost, incl. externalities
- ▶ Implement transition of energy system towards sustainability so that employment effects and other social issues are positive, or can be limited to levels which could be compensated with other policies
- ▶ Conflict management shall follow democratic principles. Interests of future generations have to be taken into account in a sufficient way.
- ▶ Global justice and equal opportunities in the energy sector lead to a special responsibility of industrialized countries, and to the necessity of fair terms of trade.
- ▶ Technical and social innovation plays a crucial role in the transitions process towards a sustainable energy system and must be strengthened.

# Sustainable Energy Policy

= I<sup>3</sup> + T + FSM<sup>2</sup>P + OPT + I<sup>2</sup>



# A Disaggregated View on Global Energy

## Global Developments

## Regional developments

- ▶ OECD  
Europe, Northern America, Pacific OECD
- ▶ Africa  
Northern Africa, Central Africa, Southern Africa
- ▶ Asia  
Central Asia, South-East Asia
- ▶ CEE & FSU
- ▶ Latin America, and the Caribbean
- ▶ Middle East
- ▶ Pacific Island States

# Which Energy Systems Are Sustainable?

## Consensus

- ▶ energy efficiency
- ▶ (most of) renewables (excl. large hydro)

## (regionally) different assessments

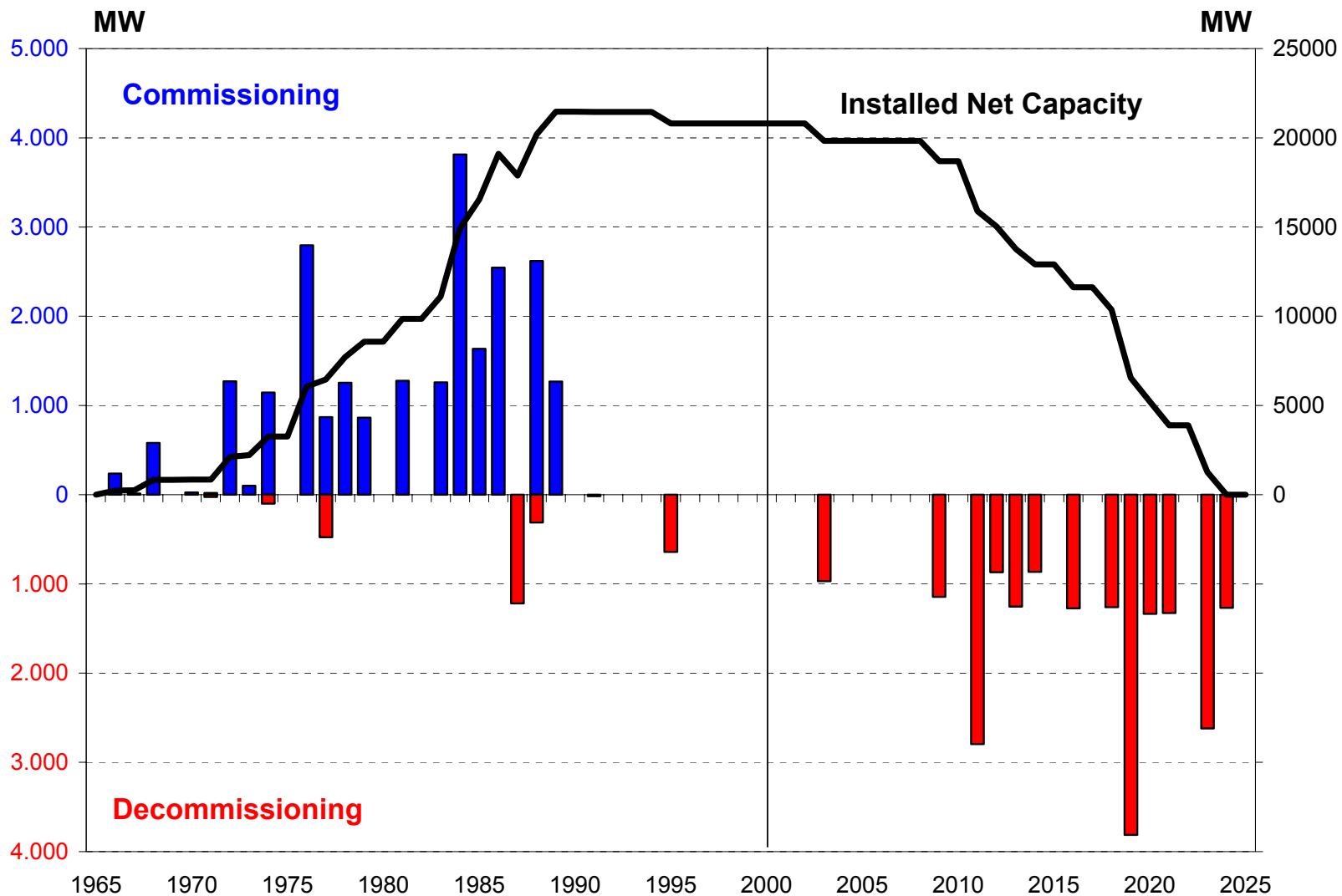
- ▶ (clean) coal
- ▶ natural gas
- ▶ (some) renewables (esp. large hydro)

## Strong Controversies

- ▶ nuclear
- ▶ CO<sub>2</sub> capture, and sequestration

**A global energy strategy must focus on  
the consensual options**

# Nuclear Phase Out



# GES Special Focus

- ▶ Energy & global climate change policy
- ▶ Energy technologies & energy systems for rural areas and LDC
- ▶ Energy technologies and systems for DC MegaCities, and emerging economies
- ▶ Energy technologies and systems in EIT countries
- ▶ Energy policy, market liberalization and privatization
- ▶ Financing sustainable energy systems

# Mechanisms Of A Global Energy Strategy

## R&D and Technology Transfer

### Focus activities

- ▶ WCD follow up, e.g. WC fossil fuel projects
- ▶ Global market transformation campaigns, including adaptation funds

### Financing sustainable energy

- ▶ ODA
- ▶ MDB
- ▶ FlexMechs
- ▶ Private Investment & Public Private Partnership

### Sustainable energy networks

# Policy Challenges of a Global Energy Strategy

## ▶ Re-consider “naïve” deregulation:

EE/RE need stewardship from governments

Competition must be based on fair terms (removal of subsidies, internalizing externalities)

Competence for monitoring needed

Long-term role of energy infrastructure, and innovation

## ▶ No “give-aways”:

EE/RE support must focus on business, and civil society

Education & capacity building pay off

## ▶ Beyond Bretton Woods:

North-South cooperation needed for global action

Future markets in East and South for EE/RE dissemination

# Marketing Policies for the Global Energy Strategy

- ▶ **Create multilateral policies to introduce / strengthen EE/RE market development using competitive schemes, especially**
  - Global Transformation Campaigns for Solar, Biomass, and Cogeneration with Private & Civil Sector Partners**
  - Fair grid access, fixed feed-in tariffs or quota for cogen/RE**
- ▶ **Support CDM/JI mechanisms for “fast track” and “bundling” of small projects**
- ▶ **Shift project-based ODA funding to regional microfinancing schemes for EE/RE**
- ▶ **Abandon MDB sector policies, integrate energy in economic/social development schemes**

# Financing the Global Energy Strategy

- ▶ Gradually remove subsidies for fossil/nuclear in all countries
- ▶ Separate industrialized R&D activities from ODA, re-focus ODA for EE/RE away from projects towards implementation
- ▶ Co-ordinate bi- and multilateral donors in targeted EE/RE facilities for world regions
- ▶ Combine EE/RE funding with regional and local economic/social development, and vice versa
- ▶ Earmark national CDM revenues for funding of sustainable energy technologies
- ▶ Engage Private Sector (Funds, foundations)

# UN Bodies and the Global Energy Strategy

- ▶ Key factor is to focus/bundle support schemes for EE/RE technologies in DC
- ▶ Instead of new bodies, create and strengthen global & regional EE/RE networks, support their nodes, and outreach
- ▶ Strengthen South-South and East-East (business) partnerships “below” UN level
- ▶ Decouple GEF from UNDP/UNEP/Worldbank, add regional representation, and mandate to work with private sector

**Draft & Final Report  
will be available at the  
Global Energy Strategy  
website:**

**<http://www.oeko.de/service/ges/>**