



IEA's G8 Activities & New IEA publication: Global Energy Technology Perspectives

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G8 Gleneagles Summit

- Gleneagles G-8 summit plan of action calls on the IEA to play an important role
- Major implications for the IEA particularly in relation to energy technology and efficiency and its work with key non-IEA countries
- Final report due at the G8 summit in 2008 (Japan), interim reporting planned for the 2006 & 2007 summits (Russian and German chairmanship)

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IEA Roles in the G8 Gleneagles Plan of Action

- **Dialogue partner**
- **Advise on alternative energy scenarios and strategies**
- **Transform the way we use energy**
 - ◆ Energy indicators
 - ◆ Buildings
 - ◆ Appliances
 - ◆ Surface transport
 - ◆ Industry
- **Powering a clean energy future**
 - ◆ Cleaner fossil fuels
 - ◆ Carbon capture and storage
 - ◆ Develop renewable energy IEA Implementing Agreements
 - ◆ Electricity grids
- **Promoting Networks for Research and Development**
 - ◆ Enhance the Implementing Agreements and reinforce links with developing countries and industry

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What Will the IEA Do

- **The Means**
 - ◆ A major international programme of analysis, workshops, sharing knowledge and experience
 - ◆ Partnership with the World Bank and IFIs
 - ◆ Involving key non-IEA countries ("plus 5": Brazil, China, India, Mexico and South Africa)
- **The End**
 - ◆ Energy scenarios and strategies for a clean energy future
 - ◆ Best practice for policy and regulation

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Working with Others

- The IEA technology network
- National governments
- Major developing countries
- Industry
- Other international organisations
- Existing international initiatives



IEA Scenario Analysis for the G8

- IEA is asked by the G8 to “*Advice on scenarios and strategies for a clean, clever and competitive energy future*”
- Response:
 - ◆ Update of IEA World Energy Outlook Alternative Policy Scenario including analysis of new energy technologies that are expected to emerge from 2030 to 2050
 - ◆ New IEA publication “Global Energy Technology Perspectives” will address in detail how technologies may impact long-term energy markets (→2050)



Global Energy Technology Perspectives (GTP)

- New regular annual or bi-annual publication
- First edition planned for March 2006
- Based on ideas of a “World Energy Technology Outlook” and IEA Energy Technology Scenario publication
- Building on the IEA ETP project and global 15-regional MARKAL model
- Coordinated with WEO

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GTP Focus

- Status and perspectives for key energy technologies in different sectors
- Global scenario analysis to illustrate how technologies can make a difference out to 2050
 - ◆ WEO 2005 Reference and Alternative Policy Scenarios extended to 2050
 - ◆ Accelerated Technology Scenario (“ACT”), with sensitivity analysis
- Provide a vehicle for increased communication between IEA’s technology family and the IEA Ministers/Governing Board

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GTP Tools

- Based on the IEA ETP global energy technology model and sector specific support models
- Technology data from detailed database developed for the IEA ETP project
- Demand side analysis draws on IEA Energy Indicator data and analysis
- Analysis and text build on existing technology work (CCS, H2&FC, Renewables, transport, etc.)



Current Publication Outline

1. Introduction: Climate and Energy Security: The Technology Challenge
2. Overview of study, methodology and scenarios
3. Global scenario results; CO2 emissions, fuel supply
4. Electricity generation
5. Industry
6. Buildings
7. Transport
8. Special chapter on bio-energy
9. Towards a Hydrogen Economy Scenario
10. How to make it happen: Technology Policy Challenges arising from the analysis



Key Policy Questions

- How much can different technologies deliver?
- By when can they deliver?
- What policy efforts will be required to make them deliver?
- Timing of policy measures
- Deployment support (ETL investment) vs. R&D expenditures
- How ensure investments outside of the OECD?