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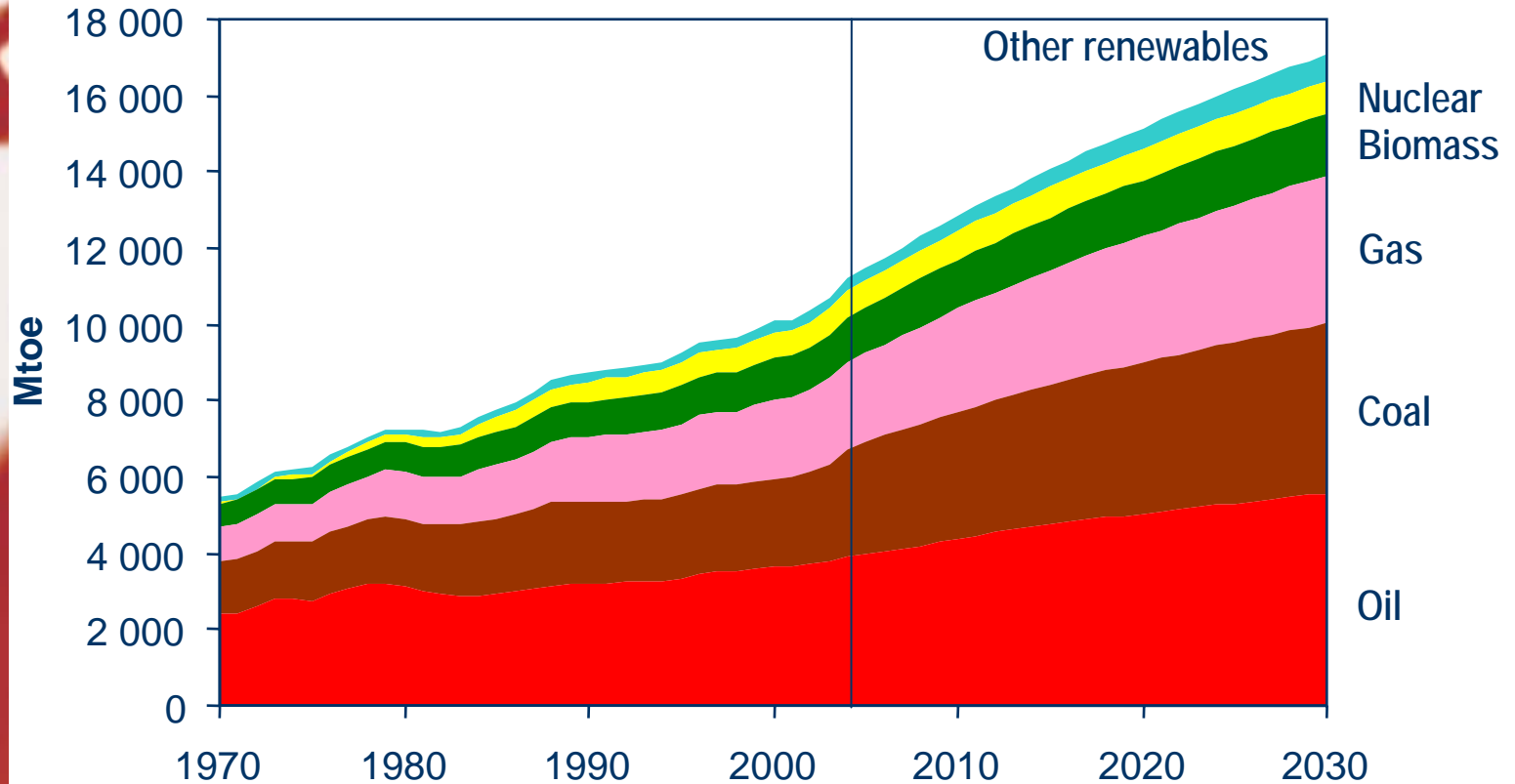
# WEC 2007 session on International Standards for Energy Efficiency and Renewable Energy Sources Rome

International standards to develop  
and promote energy efficiency and  
renewable energy sources

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**Senior Policy Analyst**  
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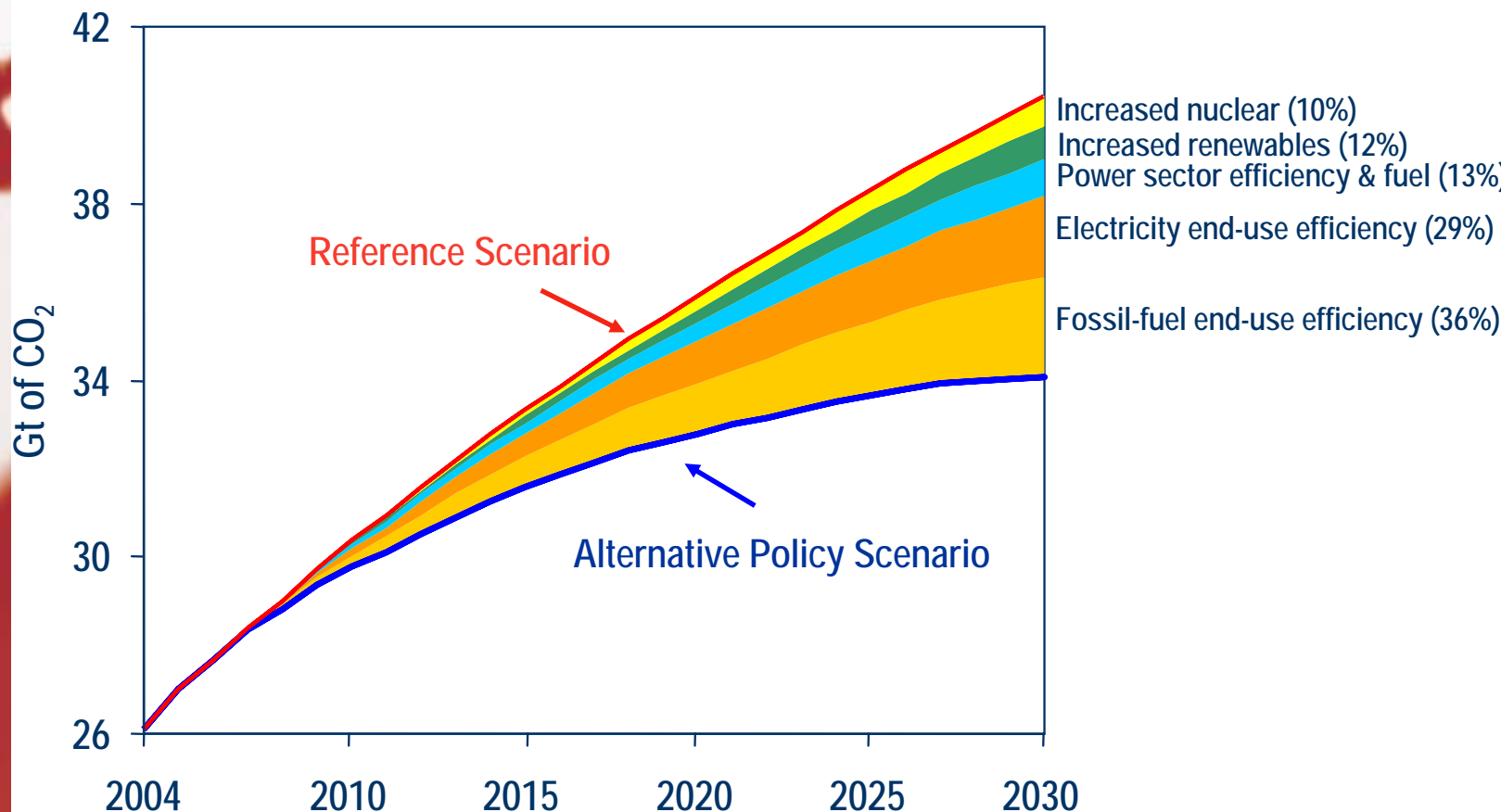
**12th November 2007**

# Reference Scenario: World Primary Energy Demand



*Global demand grows by more than half over the next quarter of a century, with coal use rising most in absolute terms*

# Energy efficiency and renewable energy are key to delivering CO<sub>2</sub> abatement: Alternative Policy Scenario: policies for CO<sub>2</sub> reduction



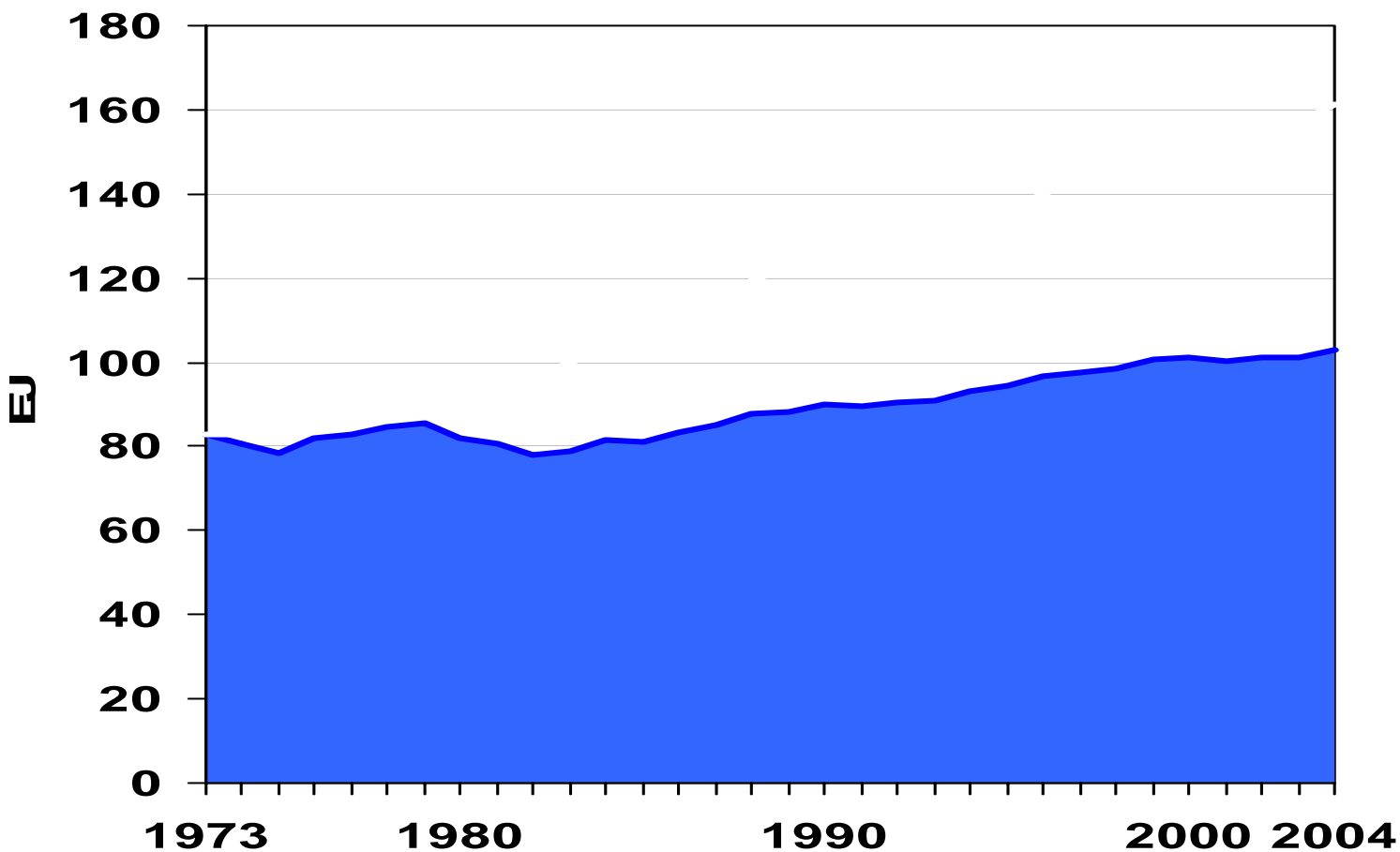
***Improved end-use efficiency alone accounts for two-thirds of avoided emissions in 2030 in the APS***



# Standards are essential for energy efficiency to be measurable, visible & valued: Consider final energy demand in IEA11

Energy Use  
in the New  
Millennium

Trends in IEA  
Countries



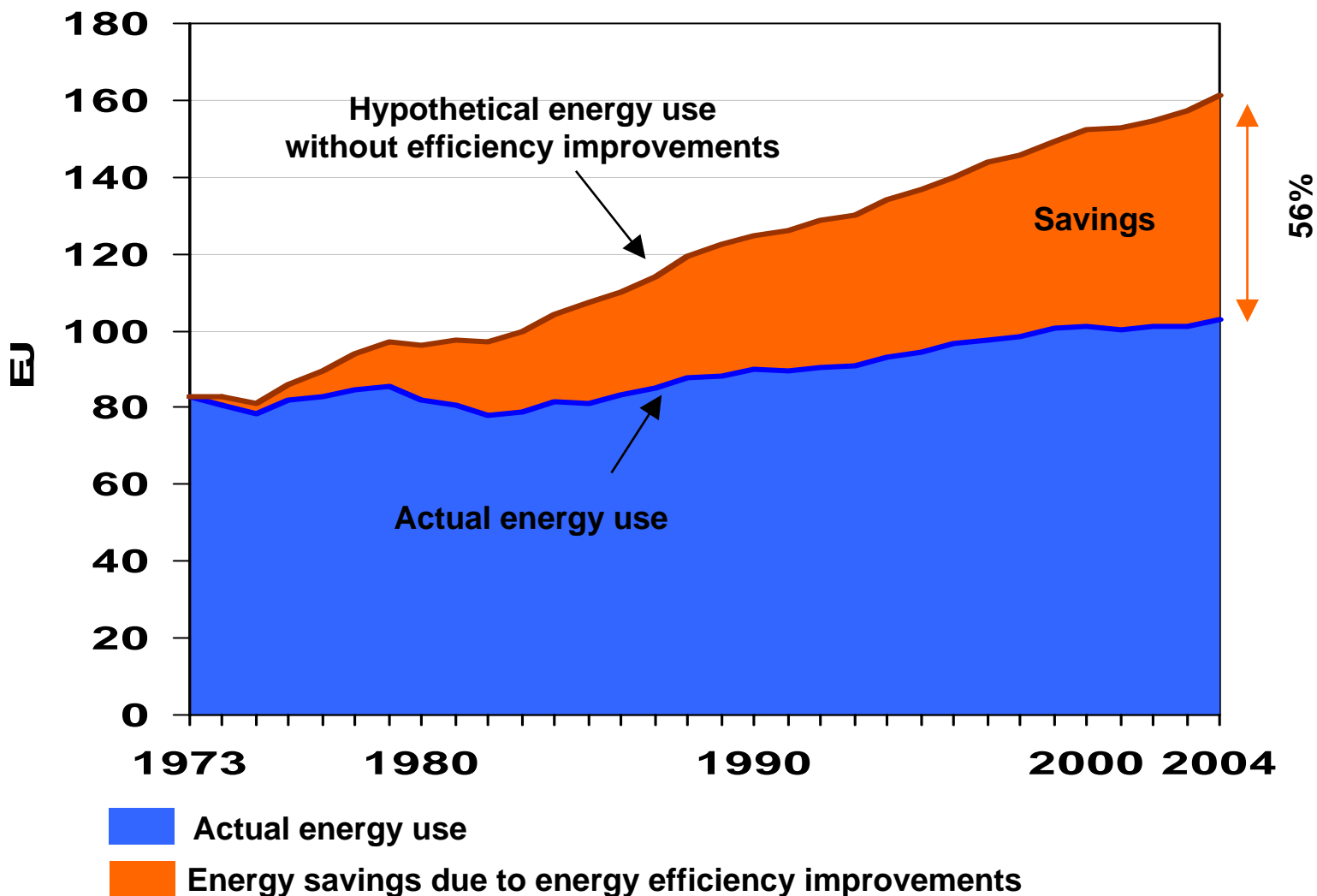
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# Long-term Energy Savings from Improvements in Energy Efficiency, All Sectors, IEA11

Energy Use  
in the New  
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## The market does not fully deliver cost-effective energy savings autonomously

- Missing or partial information on EE performance and lack of common metrics
- Lack of awareness re cost-effective savings potentials
- Split incentives: Landlord-Tenant issue
- EE often a minor determinant of capital-acquisition decisions
- EE is bundled-in with more important capital decision factors
- All result in emphasis on 1<sup>st</sup> not Life-cycle costs



# Measurement standards are needed to make energy performance visible on a level basis

Energy	
Manufacturer Model	Logo ABC 123
More efficient	<b>A</b>
Less efficient	
Energy consumption kWh/year (standardised multi-use)	<b>350</b>
Actual consumption: based on how the appliance is used and where it is used	
Fresh food volume l	200
Frozen food volume l	80
Noise (dB(A) 1 m)	45
Information on labels manufacturers	
Annex 17 of the Ecodesign Regulation (EU) 2017/1369	





# International Standards to develop and promote energy efficiency and renewable energy sources

A common position paper by the:  
IEA and ISO

- Prepared in April 2007
- Circulated to G8



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Mind  
the Gap

Quantifying  
Principal-Agent  
Problems in  
Energy Efficiency

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# G8 Heiligendamm Summit 2007



In support of the G8 Plan of Action

# G8 endorsed 16 energy efficiency policy recommendations from IEA

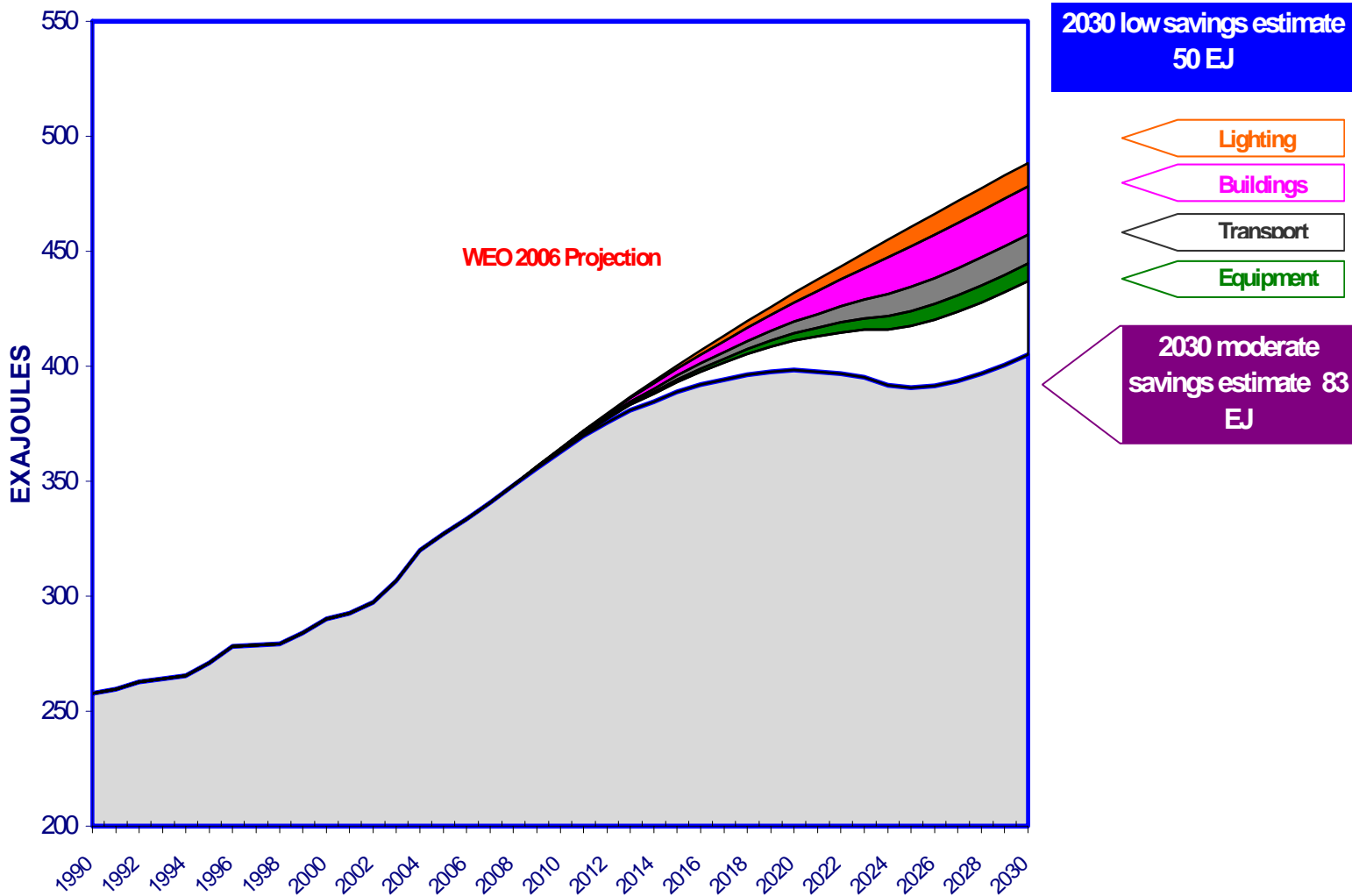
- **Buildings**
  - 1. Stringent mandatory energy efficiency standards for new buildings
  - 2. Passive & zero energy buildings
  - 3. Collection of information
- **Appliances & lighting**
  - 4. Limit standby power to 1 watt
  - 5. Implement MEPS and labels for all significant energy using products
  - 6. MEPS – set-top boxes
  - 7. Low power modes automatically & networked devices
  - 8. & 9. Phase out inefficient incandescent bulbs as soon as commercially & economically viable+ measures for other lighting
- **Transport**
  - 10. Set mandatory fuel economy standards
  - 11. a) Set maximum rolling tyre resistance b) require tyre labelling
  - 12. a) adopt tyre test procedures b) tyre pressure monitoring
- **Industry**
  - 13. Improve coverage of end-use data
- **Cross-sectoral**
  - 14. Encourage increased investment in energy efficiency
  - 15. Set goals and formulate action plans
  - 16. G8 countries report progress to the IEA



# Mind the Gap

Quantifying Principal-Agent Problems in Energy Efficiency

# Estimated impact of full implementation of IEA G8 policy recommendations on world final energy consumption





## Conclusion

- Energy efficiency and renewable energy are the key means to achieve a secure, low-carbon energy future
- Common measurement and methodological standards are the foundation of all market and policy driven responses
- Without these key efficiency remains invisible and undervalued
- Completing the standards portfolio is a priority