Energy Efficiency and the IEA

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Topics

- Why Energy Efficiency
- The IEA’s Energy Efficiency programme of work
- The IEA’s 25 Energy Efficiency Recommendations
- IEA efforts in support of policy implementation
The Energy Efficiency Yield

- Analysis and experience shows Energy Efficiency to be a least-cost way to achieve sustainable development.

[Graph showing energy use and savings from 1973 to 2005]
Efficiency measures account for two-thirds of the 3.8 Gt of abatement in 2020
The Energy Efficiency Gap

• However, market and institutional barriers hinder additional efficiency improvements

■ Public policies are needed to correct these failures and deliver more efficient outcomes
End-user awareness, low energy prices, financing, and implementation capacity are the most common barriers cited.
The IEA’s Energy Efficiency work program
The IEA’s 25 Energy Efficiency policy recommendations

- Developed through dialogue with political leaders
- Launched at the 2008 Hokkaido G8 meeting
- Grounded in the IEA’s work on climate change and energy efficiency
- Flexible vehicle for policy dissemination
  - A clear package for decision makers
  - Strong ‘brand’ and awareness
  - Strong IEA country buy-in
  - Conductive to tracking progress
- Recently updated to reflect implementation progress and new opportunities
25 Energy Efficiency Policy Recommendations Across 7 Priority Areas

Cross sectoral
1. Energy efficiency data collection and indicators
2. Strategies and action plans;
3. Competitive energy markets with appropriate regulation;
4. Private investment in energy efficiency
5. Monitoring, enforcement and evaluation of policies and measures.

Buildings
6. Mandatory building energy codes and minimum energy performance requirements;
7. Aiming for net zero energy consumption in buildings;
8. Improving the energy efficiency of existing buildings;
9. Building energy labels or certificates;
10. Improved energy performance of building components and systems.

Appliances and Equipment
11. Mandatory MEPS and labels for appliances and equipment;
12. Test standards and measurement protocols for appliances and equipment
13. Market transformation policies for appliances and equipment

Lighting
14. Phase-out of inefficient lighting products and systems;
15. Energy efficient lighting systems

Transport
16. Mandatory vehicle fuel efficiency standards;
17. Measure to improve vehicle fuel efficiency;
18. Fuel-efficient non-engine components
19. Improved vehicle operational efficiency through Eco-driving and other measures.
20. Transport system efficiency

Industry
21. Energy Management in industry;
22. High efficiency industrial equipment and systems;
23. Energy efficiency services for small and medium enterprises;
24. Complementary policies to support industrial energy efficiency

Utilities and end-use
25. Energy Utilities and end-use energy efficiency.
Energy savings attributable to the IEA 25 Recommendations

Yearly savings by 2030

- Buildings: 20.8 EJ
- Appliances: 3.7 EJ
- Lighting: 4.0 EJ
- Transport: 32.1 EJ
- Industry: 26.0 EJ
- Total: 86.6 EJ

Remaining energy consumption after energy efficiency savings

- Industry (30%)
- Transport (37%)
- Lighting (5%)
- Appliances (4%)
- Buildings (24%)
Why the Recommendations Work

- Linked to the IEA’s energy security and climate change work
  - Abatement of energy-related CO₂ under the 450 scenario
  - Estimates of potential impacts by sector and recommendation
- Provides a “policy package” that can be taken up by leaders
- Easily communicated and recognized
  - IEA “brand” and dissemination capacity
  - 50,000 downloads in three years
- Reflects a high quality of analysis from an objective source
- Conducive to tracking implementation progress over time
- Recommendations also apply to non-IEA member countries
- They can be updated or revised over time to reflect implementation progress or technological development
IEA support to policy implementation

- Policy pathways series
  - Helping governments implement their policies
  - Sharing good practice

- Energy Efficiency governance
  - Implementation advice and support
  - Key governance elements:
    - Enabling frameworks
    - Institutional arrangements
    - Coordination mechanisms

- Workshops, Capacity Building, Knowledge Exchange
Conclusions

- The IEA is committed to a strong, long-term programme of work addressing all aspects of Energy Efficiency
- Energy efficiency policies are needed to overcome the market failures and institutional barriers that hinder energy savings
- The IEA’s 25 Energy Efficiency policy recommendations if adopted can contribute significantly to energy security, climate change mitigation and sustainable development
Thank You