



Appliance standards and labelling

Key point

- ***Energy standards and labelling schemes for appliances and equipment are a cost-effective policy tool for transforming markets and encouraging energy-efficient products.***

Appliance standards and labelling explained

Energy-efficiency standards are procedures and regulations that prescribe the energy performance of manufactured products, sometimes prohibiting the sale of products that are less energy efficient than the minimum standard, often called minimum energy performance standards, or MEPS.

Energy-efficiency labels are informative labels affixed to manufactured products to describe the product's energy performance (usually in the form of energy use, efficiency, or energy cost); these labels give consumers the data necessary to make informed purchases.

An energy efficiency standards and labelling programme is one of the most effective policy tools for improving energy efficiency at end use and reducing greenhouse gas emissions. It can be integrated as a part of the national standards.

How they work

Consensus building between governments and private sector

For the standards setting, governments usually follow a process of consensus and negotiation of standards that the industry can meet with reasonable increase in prices. A voluntary target is applied usually before going into a mandatory phase. As the market transformation proceeds, the targets are introduced as standards.

Two approaches in setting targets

Standards can be set using a top-down approach in which the reference point of technologies that are best in the market are taken for standards settings and reasonable time period is provided for manufacturers. This approach has been made famous by Japan with its Top Runner programme. The other recognized tactic is the bottom-up approach in which standards are carefully planned by keeping the technology or international standards in mind. It is mostly an incremental approach to reaching these standards so as to mitigate the effect of inflated prices of better products and technology. Usually this is used by countries where the industry is not that mature.

Strengths with standards and labelling

- **Reduces negative environmental impacts**, such as CO₂ emissions, and saves energy.
- **Saves money for building tenants** (such as reduced energy costs).
- **Nurtures green businesses:** Manufacturers whose products are in compliance with energy standards can increase a business opportunity in the market, while inefficient products are kicked out of the market.

Challenges to using standards and labelling

- **Impact depends on the level of stringency of the standards.** Different levels of stringency of standards bring about different results. Standards that are too strong lead to over-investment in energy efficiency, which can be a burden for manufacturers. It can also become a consumer burden because products may be more expensive than the amount people will recover from their utility bill savings. If standards are too weak, low-quality products become prevalent and thus they can contribute to higher electricity bills.

Implementing strategies

Make the public procurement of energy-efficient appliances mandatory. Public procurement of energy-efficient products in public buildings has been used to accelerate the popularity of them among consumers by demonstrating a government's commitment. Because public procurement is generally based on a least cost basis, the life-cycle cost is used to justify energy-efficient products with higher prices.

Offer financial incentives for purchasing energy-efficient products. Financial incentives can help entice consumers to purchase energy-efficient appliances. They are often funded by utility companies and/or local or regional governments, although they usually have a fixed time duration. For instance, a subsidy can be provided to projects that aim to phase out inefficient incandescent lights and replace them with LEDs.

Review periodically testing procedures, standards and labels. It is important for governments to adjust the test procedures, adjust the stringency of standards and redesign labels as new technology emerges and use patterns change.

Further reading

Barrier Removal for Energy Standards and Labelling Project Factsheet: Standards & Labelling for Energy Efficiency (Dhaka, Bangladesh, United Nations Development Programme, 2011).

Energy Efficiency Labels and Standards: A Guide Book for Appliances, Equipment, and Lighting (Washington, D.C., Collaborative Labelling and Appliance Standards Program, 2005). Available from www.clasponline.org/GB2ndEdition/Chapter2/Chapter2.htm

Energy Labelling and Standards Program Throughout the World, by Lloyd Harrington and Melissa Damnic (Victoria, Australia, National Appliance and Equipment Energy Efficiency Committee, 2004).