

FACT SHEET

Building Energy Efficiency

Why Green Building is Key to Asia's Future

An Asia Business Council Book

Asia has an enormous, largely untapped, opportunity to save money and cut growth in greenhouse gas emissions by taking measures to increase energy efficiency in buildings.

Energy efficiency is one of the quickest, cheapest, cleanest ways to address energy and environmental challenges. In China, gaining a megawatt of electricity by building more generating capacity costs four to six times as much as saving a megawatt through greater efficiency—and that ignores the environmental costs of using fossil fuels. Yet China currently is building the equivalent of two 500-megawatt power plants every week.

More than half of the world's new construction is taking place in China and India alone. Buildings account for around 30 percent of the world's total energy consumption and a similar percentage of the world's greenhouse gas emissions. The way buildings are designed and constructed today not only will have an impact on their operating costs, but will affect the world's energy consumption patterns and environmental conditions for many years to come.

Contrary to popular perceptions, industry interviews and research confirm that many energy-saving initiatives can be achieved with little or no cost through careful building design and good management practices of building operators and occupants.

Governments have a role in mandating regulations to create a level playing field and helping build industry capacity. California's latest building and appliance standards are expected to avoid the need for five large power plants in the next 10 years. The average U.S. refrigerator uses only one-quarter of the electricity of its counterpart 30 years ago, when standards and labels were introduced, despite a larger size and more features. In the absence of well-designed policy measures to stimulate the supply and demand sides of the equation, improvements in building energy efficiency and appliances will continue at a relatively slow pace in Asia.

Industry associations in Asia have to date not played a significant role in this change, leaving initiatives largely to government. This differs from the US and Europe where industry-driven initiatives are one of the leading forces driving market transformation.

10 of 11 Asian countries in our study have put MEPS (minimum energy performance standards) into place in the last ten years with sometimes dramatic results: for example, South Korea has reduced energy usage by refrigerators 74% in ten years.

All 11 Asian countries in our study now have labeling programs.

For most countries in Asia, implementation and enforcement remain among the most significant challenges.

