



SUSTAINABLE
ENERGY FOR ALL

IMPROVING ENERGY EFFICIENCY

Energy efficiency—getting more from our limited resources through improved technologies and practices—contributes to more profitable business operations, cheaper and more plentiful energy for households, growing economies for countries, and a cleaner environment.

This is true across the globe, whether in Africa, where the savings from energy efficiency could help make modern energy services available to those who lack it—or in more industrialized countries, where investments in energy productivity can create new jobs, foster economic growth, and reduce energy costs for families and businesses.

United Nations Secretary-General Ban Ki-moon is calling on businesses, governments and civil society to achieve Sustainable Energy for All.

Doubling the global rate of improvement in energy efficiency by 2030 is an essential part of the Secretary-General's vision.

At the heart of his vision are three complementary objectives: achieving universal access to modern energy services; **doubling the global rate of improvement in energy efficiency**; and doubling the share of renewable energy in the global energy mix. Realizing these three objectives will drive economic growth, improve social equity, and protect our environment. Together, they will power the world toward a cleaner, healthier, and more prosperous, sustainable future.

THE BOTTOM LINE

Investing in energy efficiency creates jobs, fosters economic growth and improves energy security for countries that lack domestic fossil fuel resources.

Increasing the share of energy from renewable sources can reduce greenhouse gas emissions and local pollution, insulate countries from fuel price volatility, and improve those countries' balance of payments. Renewable energy is becoming increasingly cost-competitive. Hydro, geothermal and bioenergy have long been competitive where resources are available, and wind and solar are also economically attractive in many locations.

Of the three objectives of Sustainable Energy for All, improving energy efficiency has the clearest impact on saving money, improving business results, and delivering more services for consumers—better refrigerators that cost the same but use less energy; new vehicle designs that travel further on less fuel; and buildings that require less energy to heat and cool.

Investing in efficiency is critical to meeting future energy demand and mitigating climate change. It reduces greenhouse gas emissions and enables other benefits, including improved productivity and human health. Moving to sustainable energy and using it efficiently makes sense in a resource-constrained global economy.



**\$250–325 BILLION
ESTIMATED ANNUAL
FINANCIAL SAVINGS**

or avoided energy cost, of the global efficiency opportunity in 2030.¹



**SAVING
\$900 BILLION
ANNUALLY**

Investing \$170 billion annually in energy efficiency worldwide could generate an average internal rate of return of 17% and produce energy savings of up to \$900 billion per year.²

¹ McKinsey & Co., *Pathways to a Low-Carbon Economy*, 2009

² McKinsey Global Institute, *The Case for Investing in Energy Productivity*, 2008

“Energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive.”

– UN SECRETARY-GENERAL BAN KI-MOON

COMMITMENTS THAT BENEFIT ALL

The United Nations is ideally suited to convene key stakeholders at both the global and national level to achieve the vision of Sustainable Energy for All. Governments, businesses, and civil society can all make tangible commitments toward renewable energy. Commitments might include:

- **Establishing collaborative public-private partnerships** that set specific renewable energy targets with coordinated efforts to achieve them.
- **Developing communities of practice** to foster peer learning, capacity building, and expert assistance across governments, companies, NGOs, and financial institutions.
- **Identifying creative solutions** to reduce barriers in financing and regulatory frameworks.
- **Creating business incentives for innovation** in renewable energy in partnership with government innovation programs.
- **Demonstrating public sector leadership** by using renewable energy in facilities and procurements.
- **Developing new financing partnerships** to de-risk private investment in developing countries.
- **Adopting government policies** to promote investment, manage risk, and reduce impediments to adopting renewable energy.
- **Implementing and/or scaling up** existing renewable projects.

Many countries are already adopting efficient energy technologies and practices. Between 1990 and 2006, increased energy efficiency in the manufacturing sectors of 21 member countries of the International Energy Agency resulted in a 21% reduction of energy use per unit of output.³ Sharing and adopting these practices more widely among nations and industrial sectors can make energy more reliable and less expensive to homes and businesses.

The challenge of increasing the rate of improvement in energy efficiency is significant but achievable. The opportunities are greater still: **Economic growth. New markets. Sustainable and equitable development.** A cleaner planet. These are within the world's reach by 2030. Those who act now to improve energy efficiency are creating the future we want.



14%

REDUCTION IN GLOBAL PROJECTED ELECTRICITY CONSUMPTION

Adopting minimum standards for a wider range of currently available and cost-effective technologies could, by 2030, reduce global projected electricity consumption by buildings and industry by 14%, avoiding roughly 1,300 mid-size power plants.⁴



\$1 FOR EFFICIENCY AVOIDS MORE THAN \$2 IN SUPPLY INVESTMENTS

Each additional \$1 spent on energy efficiency in electrical equipment, appliances, and buildings avoids more than \$2, on average, in energy supply investments, according to the International Energy Agency.⁵

³ International Energy Agency, *Clean energy progress report*, 2011

⁴ International Energy Agency, *World Energy Outlook 2006*

⁵ Ibid.

**SUSTAINABLE
ENERGY IS
POWERING growth.**