



FACT SHEET:
SUPER-EFFICIENT EQUIPMENT AND APPLIANCE DEPLOYMENT (SEAD) INITIATIVE

At the Clean Energy Ministerial in Abu Dhabi on 6–7 April 2011, ministers advanced joint efforts to dramatically improve the energy efficiency of household appliances and other energy-using equipment — cutting energy waste, creating jobs, reducing pollution and saving money for consumers around the world.

Ministers committed to expand the coverage and accelerate the updates of appliance efficiency standards and labeling programs, as well as to expand and initiate supporting programs, such as incentives, procurement and R&D. They called upon the SEAD initiative, a global market transformation effort launched at the first Clean Energy Ministerial (CEM) in Washington last July, to help their governments realize these commitments and track their progress.

SEAD partners are working together to accomplish the following: (1) “raise the efficiency ceiling” by pulling super-efficient appliances and equipment into the market through cooperation on measures like incentives, procurement, awards and R&D investments; (2) “raise the efficiency floor” by bolstering national or regional policies like minimum efficiency standards; and (3) “strengthen the foundations” of efficiency programs by coordinating technical work to support these activities.

The potential energy savings from these activities is large: raising the efficiency of new sales in SEAD economies to that of the world’s most efficient current standards and sustaining progress thereafter could, by 2030, save as much as 1,800 terawatt hours per year of electricity (as much as would be produced by 600 five-hundred megawatt power plants), 21 exajoules per year of primary energy (equivalent to the energy in three billion barrels of oil) and roughly US\$150 billion per year of net energy-related expenditures. The appliance and equipment efficiency regulations SEAD partners have developed since January 2010 alone could tap nearly 10% of these potential electricity savings and about 15% of the potential primary energy and financial savings.¹ SEAD’s partner governments are working together to maximize these savings and expand beyond them.

Progress since the first Clean Energy Ministerial and Upcoming Activities

SEAD partners have undertaken several activities, including the following:

- 1) **International technical cooperation to accelerate national and regional efficiency standards and labeling programs.** SEAD partners are committed to working together to accelerate the pace of existing efficiency standards and labeling programs to achieve the most cost-effective savings while making the most efficient use of government resources. Toward that end, based on an assessment of regulatory schedules, energy savings potentials and government interests, subgroups of partners are launching collaborations focused on

¹ For more details on potential estimates, see Superefficient.org.

six product categories — commercial refrigeration, computers, distribution transformers, solid-state lighting, motors and televisions — and one energy use mode, network standby. Preliminary analysis indicates that efficiency standards in these areas could save as much as 1,000 terawatt hours per year (comparable to 330 five-hundred megawatt power plants) and US\$75 billion per year by 2030.

- 2) **Recognizing the world's most efficient televisions.** SEAD partners laid out a plan for the first round of SEAD's Global Efficiency Awards, which will recognize the most efficient televisions sold on the global market. By highlighting the most efficient appliances, the awards aim to spur greater ambition from both manufacturers and government efficiency programs. SEAD anticipates that the winners of the TV awards will be announced in the second half of 2012. Preliminary SEAD technical analysis indicates that widespread deployment of super-efficient televisions in SEAD economies could save 27 terawatt hours per year and roughly US\$2 billion per year by 2030.
- 3) **Promoting public and private procurement of efficient equipment.** SEAD partners are helping governments improve or enhance their public procurement programs. Key activities include developing a best practices guide for public procurement programs, creating complementary toolkits for specific equipment and appliance types aimed at supporting decision making by procurement officials and organizing existing guidance and tools to highlight their availability to relevant policymakers. For example, a tool designed to facilitate purchase of advanced street lighting systems will launch in June. SEAD partners are also exploring public-private "procurement challenges," in which large-scale private and public sector buyers, working with technical support from government experts, pool their procurement power to draw super-efficient products into the market at cost-effective prices.
- 4) **Incentivizing the deployment of super-efficient appliances.** SEAD partners are engaged in efforts to identify and share best practices for regulatory frameworks and associated delivery models that enable utilities and third-party efficiency providers to drive deployment of super-efficient appliances. This topic was the subject of a public-private roundtable discussion, "Regulatory Strategies to Accelerate Utility-Scale Energy Efficiency," held just prior to the second Clean Energy Ministerial (CEM2). Going forward, SEAD partners will work together to identify opportunities for technical support on developing and implementing new appliance efficiency demand-side management programs.

More details about SEAD activities, as well as underlying technical analyses, are available at SEAD's newly launched Web site, www.superefficient.org. This Web site aims to serve as a hub linking together the world's appliance efficiency experts, with the goal of facilitating deployment of their expertise in support of public and private sector efficiency efforts. To facilitate interactions among efficiency programs, it will host a database that provides up-to-date information on current and planned appliance efficiency standards, labeling and test procedures.

Several CEM partners also made major announcements on appliance and equipment efficiency in support of SEAD's goals:

- 1) Between January 2010 and April 2011, SEAD partners finalized national and regional product efficiency standards that, according to SEAD technical analysis, will, by 2030, save about 80 terawatt hours per year of electricity (comparable to 26 five-hundred megawatt power plants), 1 exajoule per year of primary energy (equivalent to 170 million barrels of

oil) and roughly US\$7 billion per year of net energy-related expenditures. Regulations finalized earlier and put into effect between January 2010 and April 2011 will save another 150 terawatt hours per year of electricity, 1.5 exajoules per year of primary energy and roughly US\$11 billion per year.

- 2) In February 2011, India's Bureau of Energy Efficiency (BEE) adopted new quality standards for solid-state lighting—a process greatly accelerated as a result of SEAD-facilitated technical exchange between BEE and the United States Department of Energy. These standards are in the process of being notified through the Bureau of Indian Standards. In March, India also launched new internationally harmonized efficiency labels for laptops, drawing from the Energy Star program.
- 3) In February 2011, the Commercial Building Energy Alliance (whose members include major retailers like Wal-Mart and Target), with support from the U.S. Department of Energy, announced a procurement challenge to encourage manufacturers to bring cost-effective, highly efficient rooftop air conditioning systems with advanced onboard diagnostics onto the market. Several manufacturers have expressed interest in meeting the challenge. This partnership serves as an exemplar of SEAD's procurement challenge model.
- 4) Mexico's National Commission for Energy Efficiency (CONUEE) is employing a draft version of the SEAD Procurement Toolkit for Energy Efficient Street Lighting to help guide the newly launched Public Lighting Replacement Program for Municipalities.

Participants as of 7 April 2011

SEAD is organized as a project within the International Partnership for Energy Efficiency Cooperation, which is a high-level international forum to facilitate actions that yield high energy-efficiency gains.

Participating governments include Australia, Brazil, Canada, the European Commission, France, Germany, India, Japan, Korea, Mexico, Russia, South Africa, Sweden, the United Arab Emirates, the United Kingdom and the United States. (Not all partners are engaged in all SEAD work streams.) The Collaborative Labeling and Appliance Standards Program serves as the operating agent for SEAD.

Development of SEAD's Global Efficiency Awards is being led by Australia, Canada, India, Japan, Sweden, the United Kingdom and the United States. Procurement efforts are being led by Canada, India, Mexico, South Africa, Sweden, the United Kingdom and the United States.

SEAD has an initial five-year budget for technical work, coordination and associated information-sharing efforts that includes at least US\$20 million from the United States over five years, US\$135 thousand from Sweden in seed funding, US\$1 million from the ClimateWorks Foundation and in-kind support from other participating countries.