



**Energy Efficiency Committee
Report to the Advisory Board**

June 1, 2014



Cover Note

The Advisory Board constituted four committees, one each on Access, Renewables, Energy Efficiency, and Finance. Each committee is co-chaired by Advisory Board members and is supported by a member of the GFT. Most committees also invited non-Advisory Board members to participate on a thematic basis to draw on expertise and experiences that could enrich the debate and analysis on the topic area under discussion.

The Access Committee has focused on the decentralized, off-grid, mini-grid and clean cooking elements of the access challenge. Its deliberations include policies, business models and financing of on mini- /off-grids, as well as enterprises based solutions for energy services provision. Three background papers were prepared: 1) Demand Profile of Poor Consumers, 2) Decentralized Energy Products and Services- Off Grid Enterprises 3) The Mini-grid Option - Lessons learned and factors of success. The Committee will provide advice and recommendations to support the goal of achieving the universal energy access focusing on diverse approaches to decentralized energy, energy enterprise development and business financing models that can be used by governments, entrepreneurs, social enterprises, NGOs or other local organizations. The role that national power utilities can play in enabling off grid and decentralized solutions was also examined.

The Renewable Energy committee has focused on developing a set of recommendations to achieve the objective by 2030, and initiating a set of game-changing initiatives/instruments in support of the renewable objective. The Committee set out three priority areas: knowledge management, policy and regulation, and public support. In January 2014, IRENA launched the REmap 2030, a roadmap to double the share of renewable energy by 2030. REmap 2030 is the first global study to provide renewable energy options based on a bottom-up analysis of official national sources.

The Energy Efficiency Committee has organized a series of dialogues on Energy Efficiency. The first of these series took place at World Economic Forum in Davos, followed by an Expert meeting in Paris and the Committee meeting in Copenhagen in early May. The result of these meetings was a decision to establish a global energy efficiency platform with a number of 'accelerators' in a selected number of sectors (i) buildings, (ii) lighting, (iii) motors, (iv) appliances, (v) district energy, (vi) industrial energy efficiency (large industry, small and medium size enterprises, and energy sector itself), and (vii) transportation. A working group for each "accelerator" will be responsible for drafting the work program for the accelerators. UNEP with the support of several working group experts and the GEF, is in the process of finalizing brief concept papers for the accelerators.

The Finance Committee's focus is on (i) defining the market opportunity i.e. countries, sub-sectors of energy, typology of projects and the size of financing-deficit to be addressed for the developing countries; (ii) sources of capital and financing instruments: to prepare a review of investors, transaction structures, financing instruments, and optimization of risk; (iii) preparation and implementation of bankable projects: to identify typical project sponsors in the energy sector. The Committee is also exploring the possibilities of creating MDB sponsored fund-of-funds and institutional mechanisms to deploy it and determine who will deploy the capital and monitor the projects, particularly the bottom of the pyramid investments. The Finance Committee co-chaired by Dr. Luciano Coutinho, President of the Brazilian National Development Bank (BNDES) and Mr. Purna Saggurti, Chairman of Global Corporate and Investment Banking, Bank of America Merrill Lynch started work in mid-January 2014. This report presents preliminary conclusions and recommendations of the Finance Committee and would be revised and refined when conclusions and recommendations of the other three committees become available over the next few months. A process of iteration and synchronization between the four committees is envisaged over the next six months.



Energy Efficiency Committee Report to the Advisory Board

The Sustainable Energy for All (SE4ALL) Advisory Board established the Energy Efficiency Committee to provide high-level support to the objective of doubling the global rate of improvement in energy efficiency by 2030. The EE Committee operates under the overall guidance and direction of the Advisory Board of SE4ALL, and is complementary to the activities of the Committees in the areas of Finance, Energy Access, and Renewable Energy.

I. Structure and Composition:

The EE Committee current membership is as follows:

Three co-leads: Jean-Marc Ollagnier, CEO, Accenture Resources, Achim Steiner, Executive Director of UNEP, and Mogens Jensen, Minister of Trade and Development Cooperation of Denmark.

Seven members: Ambassador Masahiko Horie, Ambassador for Global Environmental Affairs, Japan; Kirill Lugovset, Russian Energy Agency; Naoko Ishii, CEO, Global Environment Facility; Maria van de Hoeven, Executive Director, International Energy Agency; Leena Srivastava, Executive Director, TERI; Lund Helge, Statoil; Timothy Wirth, UN Foundation.

It was always foreseen that the Committee would invite additional members who, in the view of the Committee, could strengthen the work and balance its representation. The following members have been agreed, and invitations have been sent by the SE4ALL Global Facilitation Team. These invitations have gone out with a request to nominate a representative – a person who can be an active practitioner – of these institutions to serve in the Committee:

World Business Council for Sustainable Development

World Energy Council

World Bank/ESMAP

EBRD

C40 Cities Climate Leadership

R20 Regions of Climate Action

World Economic Forum

II. Rationale for Action

Energy efficiency enhances energy security and stimulates the economy of countries, makes energy more affordable to families and businesses, creates jobs, provide economic benefits (increased productivity, lower costs, net job creation), and improve people’s well-being and comfort. It also opens new markets, fights climate change through lowering greenhouse gas emissions and reduces health impacts from air pollutants. Energy efficiency is a winner for both developed and developing countries.

The energy sector is a key driver of climate change, responsible for roughly two thirds of human-generated emissions. According to the International Energy Agency, targeted energy efficiency measures could reduce global energy-related emissions by 1.5 Gt in 2020 and could contribute to the stabilization goals required to limit the global temperature increase to 2 degrees Celsius. About 60% of potential savings are from the buildings sector, including lighting, appliances, and equipment, where efficiency policies and measures have been tested and proven in multiple locations. Other key sectors include transport, street lighting, and industry. The objective of this initiative is to build on recent progress in various industries, sectors, and geographies and create new momentum for rapidly scaling up energy efficiency improvements as well as demand management and conservation with important development outcomes, energy/cost savings and climate benefits.

The energy efficiency objective of Sustainable Energy for All is within reach of all countries, regions, states and cities and can be adapted to each. What is clear, however, is that this objective cannot be reached unless there is a transformation in the nature and the scale of investments that affect energy use. IPCC, Global Energy Assessment and World Bank reports document that a Business as Usual scenario would lead us to a climate and energy trajectory that is unsustainable. The SE4ALL will support country action to deliver impact that can be measured over time using goals of their choice. Examples of compatible goals include a doubling of energy productivity (GDP per unit energy use) or a doubling of the rate of improvement in energy use intensity in buildings (energy use per square meter). Energy efficiency is already a top priority in almost every country—SE4All will help quantify existing goals and performance and support future commitments to efficiency improvement.

III. The Energy Efficiency Challenge

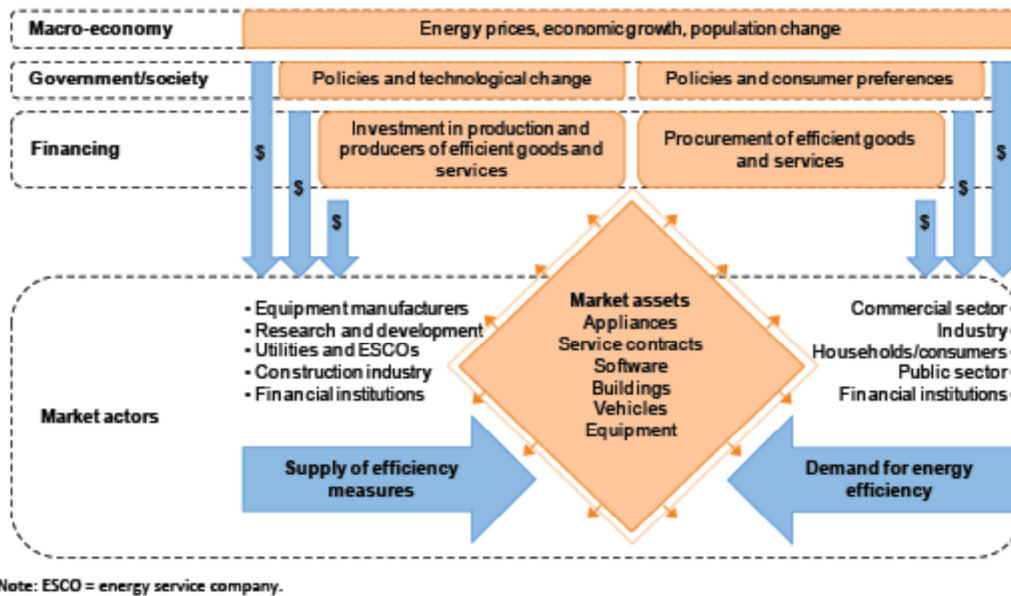
Meeting the three Sustainable Energy for All (SE4ALL) objectives for the year 2030—universal access, doubling the rate of improvement of energy efficiency, and doubling the share of renewable energy in the global energy mix—will call for an estimated doubling or tripling of recent capital flows of about \$400 billion a year to the energy sector. For energy efficiency alone, investment would need to rise by approximately \$130 billion per year over the recent level of \$180 billion per year in order to reach the SE4All objective. Funding on this scale cannot be provided by the public sector alone, and thus the success of the SE4ALL initiative depends on significant mobilization and engagement of the private sector.

The constraints as well as the benefits that result from a wider adoption of cost-effective energy-efficiency measures have been widely studied by many national and sub-national governments, regional and international bodies, industry organizations, academic groups and NGOs around the world. Since the 1970s, many approaches have been used to raise energy efficiency in all sectors and under widely varying economic, social and political circumstances, with some notable results and many important lessons about what works and what does not. Adoption of readily available energy-efficient equipment, systems and practices is, however, still far from universal. The scale of the action required to meet the 2030 SE4ALL objective calls not only for broader and accelerated deployment of existing technologies and processes but also for exploring the frontiers of efficiency beyond the best available today.

The objective of the SE4ALL Advisory Board Energy Efficiency Committee is not to repeat the extensive diagnostics previously performed, but rather to focus on a few sectors and to select those critical issues that are amenable to action by the SE4ALL partnership in the medium term, and to map out actions that the initiative should take to help scale up finance in each of these. The initiative will provide practical advice on implementing these ideas and support countries' efforts to establish the necessary frameworks to implement energy efficiency. The Committee provides advice on initiatives that can be implemented and presented at the Climate Change Summit of September of 2014 and Lima in December 2014 and Paris in December 2015. The work of the Committee is expected to evolve over time and will be reviewed periodically.

On behalf of SE4ALL, teams will engage in high-level dialogue with stakeholders in the policy and regulatory (government) arena, energy utilities, manufacturers of major energy-using equipment and appliances, key energy-consuming sectors, expert groups, and civil society organizations. They will aim to develop practical approaches to unlocking key barriers to energy efficiency, to motivate action in line with those approaches. To facilitate this, a number of highly regarded representatives of these stakeholder groups have been invited to join the Energy Efficiency Committee as external (non-Advisory Board) members.

The recent *Energy Efficiency Market Report* of the International Energy Agency (IEA) shows how important efficiency can be: In the 11 OECD countries examined, energy efficiency investments since 1974 led to avoided energy use in 2010 equivalent to nearly two-thirds of total actual energy use. The report describes how energy prices influence the uptake of efficiency measures, and how policies can address non-price barriers and market failures, including high transactions costs, lack of information, and insufficient technical and institutional capacity. In the figure below, the IEA represents the roles different sets of actors play in markets for energy efficiency and the means by which they do so. Additional significant items, not represented in the figure, include the role of government in communications and raising awareness of energy efficiency, and the role of financial institutions in providing households with access to financing.



Source: IEA, *Energy Efficiency Market Report 2013*.

There are many challenges to improving energy efficiency that can be identified at many levels and in many sectors. They include, among others, market distortions, lack of information, coordination, and risk aversion elements. The first task of the Energy Efficiency Committee will be to focus on several challenges that play key roles and that may be amenable to influence through actions stimulated by the Committee. The following are high-level challenges where there is promise for the Committee to identify specific actions that could bring about change in key countries: gradually bringing **energy prices** to cost-reflective levels that can motivate efficiency investments, purchases and behaviors; **transforming markets** for energy-using equipment and buildings; promoting the evolution of energy markets **to deliver energy services**, not just energy products; raising **awareness and technical capability**; improving the **efficiency of energy supply** to reduce costs; and improving **urban energy efficiency**.

IV. Focus of work: Global Energy Efficiency Accelerator Platform

Following a series of dialogues and consultations, the Committee agreed to establish a global platform for multi-stakeholder action based on sectoral ‘accelerators’ that will focus on scaling up and accelerating energy efficiency work at the national, sub-national and city levels. This platform, dubbed the *Global Energy Efficiency Accelerator Platform*, will define common elements for each component of the accelerators, such as governance, performance metrics, reporting requirements, commitment management, policies, resources and tools as well as public and private-sector financial support.

To demonstrate the approach, a number of countries, cities, regions and industries will be identified as initial partners that are interested and willing to scale up action with potential

supporters – investors, donors and policy experts – in selected sectors. The initial sectors identified include: buildings, lighting and appliances, district energy systems, transport and industrial energy efficiency, including small and medium enterprises. Each of these sectors will have ‘accelerator’ programs and work plans developed by those interested to join and will initiate programs in selected cities, regions and other geographies.

To help reach the SE4ALL energy efficiency objective, a **Global Energy Efficiency Accelerator Platform** will drive action and commitments by those interested at city, state or regional, or sectoral level, in active partnership with national governments that step forward to participate. A collaborative network of institutions, businesses and NGOs will commit to providing tools, expertise, technical capabilities and financial capacity to these sub-national governments to help accelerate improvement. A key deliverable of these collaborative engagements is an integrated policy and investment roadmap to support public-private collaboration, tailored to the specific priorities and market and regulatory circumstances of each city, region, or state for those areas and sectors where significant energy efficiency and economic gains can be achieved.

Cities, states and regions around the world have been leaders in driving energy efficiency policies and practices within their jurisdictions. Many large and medium-sized cities have participated in the C40, Climate Group and ICLEI initiatives to improve sustainability and reduce carbon emissions within their cities. UNEP’s Global Initiative for Resource Efficient Cities launched at RIO + 20 is a good example of a program positioned to assist cities in the transition to greater energy and resource efficiency. At the recent C40 Mayors Summit in Johannesburg, 88% of participating cities reported that they had collectively taken 1,812 actions in energy efficiency. The R20 Regions of Climate Action, along with the States and Regions network of the Climate Group, have taken similar collective action to reduce climate impacts in their areas. There remains a need for stronger collaboration between the public sector, which has the task of setting policy and regulatory frameworks, and the private sector to drive technology standards, financial solutions and targeted incentives to accelerate improvements.

There are many examples of successful public-private collaboration. The UNEP en.lighten initiative, with support from the GEF, is one such example, with the goal of promoting high-performance efficient lighting technologies in emerging and developing countries, to bring about a global transition in the sector through this public-private partnership. A major accomplishment of this program was the development of a global policy strategy to phase out inefficient and obsolete lighting products, with the active support of a number of large global lighting manufacturers, including Philips and Osram. The initiative provides countries with a toolkit to help with integrated policy development, standards, regulations, conformance testing, finance and communications. Initiatives such as these and many others that exist throughout the world provide lessons and good practices. They can be used and leveraged to scale up action and investment world-wide for energy efficiency improvements. (See Annex 1 for a more comprehensive list of current energy efficiency initiatives, prepared by WRI.)

Each of the individual energy efficiency accelerators will form its own task team to guide its program of commitments and coordinate the collaborative activities of its members. Current initiatives that can be leveraged in developing individual accelerators include the en.lighten initiative (for the Lighting Efficiency Accelerator) and WBCSD’s Energy Efficiency in Buildings program as well as UNEP’s Sustainable Buildings and Climate Initiative (for the Building Efficiency Accelerator).

Expected Outcomes

	Deliverables	Current and Potential Partners	Strategy – How do we achieve the deliverables
<p>Global Energy Efficiency Accelerator Platform: Energy Efficiency Accelerators (e.g. buildings, appliances, transport, lighting, district energy, etc.)</p>	<p>A <u>global collaborative platform</u> of governments, businesses and CSOs from all sectors, building on existing initiatives, to serve as an umbrella for accelerating energy efficiency, aimed at supporting the objective of SE4ALL of doubling the rate of EE improvement globally by 2030.</p> <p>By the UN Climate Summit, 10 large and medium-sized cities committed to working with the Global EE Platform to develop roadmaps for accelerating energy efficiency improvements with major impacts on emissions reductions to 2020.</p> <p>Beyond the Summit, the aim is to have hundreds of cities around the world join the Coalition.</p>	<p>The list of partners and cities being put together will include initially 10 mayors, supported by their governments, with a number of private business partners committed to invest in these cities, international organizations supporting cities with technical assistance for enhancing enabling environments, and financial institutions (both private and public, including IFIs) providing finance as well as de-risking the investment environment. Civil society organizations will contribute to education and public awareness.</p> <p>Networks such as C40, R20 and ICLEI will be critical to the success of the Coalition.</p>	<p>UN Climate Summit, New York, September 23: 10 cities to announce and commit to a detailed plan of measurable gains in energy efficiency with a goal of doubling the rate of improvements by 2030.</p> <p>Other events are being explored for similar reporting on progress:</p> <ul style="list-style-type: none"> • June 4-6: SE4ALL High Level Forum in New York • August – Drafts ready • December 2014: COP 20 in Lima, Peru • December 2015: COP 21 in Paris

Energy Efficiency Accelerators

In order to make an early and meaningful impact, at least 10 interested countries, cities, states or regions will be sought for charter commitments to action, for announcement at the UN Climate Summit in September 2014. Examples of possible cities/countries that may be interested to join the energy efficiency accelerator initiative include Latin American cities (e.g., Lima/Peru, Bogota/Colombia, Rio de Janeiro and Sao Paulo/Brazil, Buenos Aires/Argentina, Santiago/Chile), Eastern/Central European cities (e.g., Warsaw/Poland, Prague/Czech Republic, Sofia/Bulgaria, Bucharest/Romania, Bratislava/Slovakia, Budapest/Hungary), Asian-Pacific cities (e.g., Manila/Philippines, Jakarta/Indonesia, Bangkok/Thailand, Kuala Lumpur/Malaysia) and tier

2/3 cities in China. It should be mentioned that SE4ALL is a universal program and therefore, similar lists are currently being put together with potential cities/countries in the OECD that may want to exercise their leadership in this area. National governments will commit to support their cities, states or regions by adopting enabling policies and providing technical and/or financial assistance.

A policy and investment roadmap (that includes an identification of existing barriers) will be developed by those interested cities involving their governments, business and civil society stakeholders, leveraging existing toolkits and best practice resources readily available from multiple sources. Funding for policy roadmap development and program implementation will be secured from a variety of public and private financial institutions as part of this initiative.

Commitments will include: 1) collaborating with public and private-sector stakeholders to set a public goal of doubling the rate of energy efficiency improvement by 2030, 2) quantification of the goal and baseline, 3) estimation of the impacts on carbon emissions reduction, energy savings, cost reduction and jobs creation, 4) implementation of enabling measures, policies and regulations, or reform where needed, including the introduction of new performance standards and fiscal policies, 5) demonstration of leadership through improvements in their own facilities and assets, and 6) reporting actions and progress annually while sharing challenges, solutions and best practices.

Sectors and Working Groups

For each of the sectoral accelerators, a working group has been or in some cases will be established with at least two co-leads: one from the private sector and one from the public sector or a Civil Society Organization (CSO). Because membership is designed to be open to those interested to join, these working groups will be evolving over time. The co-leads of the working groups will be responsible for designing a strategy and work plan as well as a plan for implementation that includes members and geographies to target. In order to ensure synergies and cross-sectoral linkages, a Steering Group composed of the working group co-leads will be established.

The following working groups are initially envisioned:

Buildings: Co-leads: UN Foundation and Johnson Controls

The buildings sector accounts for about one-third of global energy use and energy related GHG emissions. Widespread implementation of state-of-the-art policies, building design and technologies, coupled with behavior change could deliver reductions in energy demand from new and existing buildings of over 50% compared to business as usual (IPCC, 2014). Achieving such savings would not only significantly reduce GHG emissions, but also produce additional comfort, health, environmental and economic benefits. Essential to achieving such savings is the mainstream adoption of progressive sustainable energy policies for buildings that encourage best available technologies, low-energy new building design and energy efficiency renovation.

Cities/states/regions will be sought to make charter commitments for participation in this program for announcement at the Climate Summit in September 2014. These commitments will include: 1) engaging in a collaborative process with public and private sector stakeholders leading to the setting of a public goal at COP 21 to double the rate of energy efficiency improvement by 2030, 2) quantifying the extent of reductions needed to achieve the goal and a local baseline, 3) estimating the benefits of energy efficiency improvements with respect to carbon emissions reduction, energy savings, cost reduction, occupant health and productivity, job creation and economic growth, 4) implementing progressive and innovative policies and regulations, 5) demonstrating leadership through improvements in government-owned and government-funded facilities and 6) reporting actions and progress annually as well as sharing challenges, solutions, pilot project results and best practices.

Lighting: Co-leads: UNEP and Philips Lighting

Electricity for lighting accounts for 15% of global power consumption and 5% of worldwide CO₂ emissions (UNEP, 2012). A global transition to widely available efficient solutions in all lighting sectors (residential, commercial/industrial and outdoor) by 2030 could reduce electricity demand for lighting by more than 32%, and avoid 3.5 Gt of CO₂, while significantly cutting electricity bills, reducing fuel imports and black outs, and improving end-user welfare. The transition would save over \$108 billion annually in avoided electricity bills to consumers, through a reduction of almost 1,000 TWh of electricity every year. It would also save close to \$130 billion per year in avoided investment in 257 large coal-fired power plants. Furthermore, if the world leapfrogged to LED lamps in all sectors, it would reduce global electricity consumption for lighting by more than 52% and avoid 735 million tons of avoided CO₂ emissions per year.

Whereas the phase-out of inefficient incandescent lamps is progressing steadily – a large number of developed and emerging economies have already or will phase out by the 2016 en.lighten target – the transition to efficient lighting in the commercial, industrial and outdoor sectors remains mostly untapped. Fundamental challenges that need to be addressed to achieve an effective and sustainable global transition to efficient lighting include: (1) leadership and institutional frameworks, (2) market awareness and affordability of efficient products, (3) capacities for surveillance and quality control, (4) capacities for environmentally sound management of used lighting products, and (5) lack of donor and international financial institutions coordination and support.

Many countries are already implementing projects to improve lighting efficiency. This effort will identify and work with additional countries to establish for such projects.

Appliances (including Room AC and Refrigerators): Co-leads: UNEP, GEF and International Copper Association

As per-capita incomes rise in the developing world, the demand for refrigerators and room air conditioners (RACs) is expected to grow exponentially. Growing populations, urbanization, and affordability of equipment will drive this demand. In China, for example, urban ownership of RACs increased from less than 1% to 62% from 1990 to 2008.

The potential cost-effective savings from refrigerators and RACs in 2030 are 800 TWh, which is 3% of the expected global electricity consumption at that time. Accelerating the market transformation to efficient refrigerators and air conditioners offers an opportunity for highly effective action, significant global impact and a clear focus.

Most of these savings could be achieved if the gap between the most and least energy-efficient products was decreased. However, this potential remains under-exploited due to several reasons: While most developed and a few developing countries have adopted standards and labeling programs, their level of ambition and their effectiveness varies widely due to different (a) baseline conditions, (b) local manufacturing capabilities, (c) consumer awareness and ability or willingness to incur upfront costs for higher-efficiency equipment, (d) energy prices, financing costs, fiscal policies and incentive mechanisms, and (e) different stages of adoption of seasonal metrics in the case of RACs.

A further constraint is the unavailability of adequate market surveillance mechanisms and testing. A lack of consensus on test methods and harmonization between national markets also impedes global progress. Adopting harmonized test methods (between and among regions) would allow for greater comparison of products, trade of goods between countries and, therefore, greater ease in implementing efficiency measures. Working together with country leadership, global and country level projects will be supported.

District Energy Systems: Co-leads: UNEP and Danfoss

District energy systems (DES) are among the most efficient ways to distribute electricity as well as heating and cooling (thermal) services, providing efficiency gains up to 80-90% relative to conventional separate generation of electricity and heat. By 2050, modern DES (District Heating and Cooling with Combined Heat and Power) could avoid over 35 GT of CO₂ emissions at low cost, and deliver 58% of CO₂ emission reductions required to keep the global rise in temperature to 2-3°C, while producing significant environmental and economic benefits.¹

DES enable the use of (1) energy that is typically lost (reducing primary demand by 30-45%), (2) energy sources that are not viable at the scale of the single building, (3) a variety of local fuel sources, including waste streams and renewables. District Energy Systems ES are fuel and technology-agnostic and also enable the greater integration and balancing of variable renewables. District energy is an opportunity open to all countries, and particularly for those that have coal-based electricity production, and those that could harness important economic gains by fuel switching to locally available renewable energy sources. Harnessing economies of scale, DES lower the cost of moving buildings to higher efficiency. As a form of decentralised energy, they allow the matching of energy output with specific load demands, which defers or avoids additional investment in central generation and distribution infrastructure; and use of different locally available energy, reducing vulnerability to external events. In places where

¹ Power generation efficiency and fuel switching 5%; End-use fuel switching 15%; End-use fuel and electricity efficiency 38%

electricity infrastructure is being built, DES can increase access to modern energy services and achieve greater system reliability. Other benefits include local economic development through job creation.

District Energy Systems DES are not new, and cost-effective technologies are available today. Still, there are long-standing barriers to greater deployment of DES: lack of awareness about benefits and savings; lack of appropriate recognition of benefits by some green building certification programs (e.g. LEED), which favor building-scale energy solutions; the lack of an agreed methodology to recognise energy saving and environmental benefits; lack of integrated infrastructure and land-use planning to match supply and demand, ensure a large, densely developed customer base to ensure viable project economics, mitigate load uncertainty (ensure future connections) and minimize cost to end users (anchor loads); grid access and interconnection regulations; high upfront capital cost; lack of knowledge/capacity in structuring projects to attract the investments; and a lack of access to patient capital.

Transport/ vehicles: Co-leads: Global Fuel Economy Initiative, GEF and World Bank

The global vehicle fleet is set to increase rapidly from about 850 million today to as much as 2.5 to 3 billion by 2050. Ninety percent of this growth is set to take place in developing and transitional countries. It is predicted that greenhouse gas emissions of the global fleet are set to triple. According to the IEA, the transport sector has the highest growth of CO₂ emission of any sector – its contribution to energy-related CO₂ emissions is estimated to go from one-quarter today to one-third by 2050. Black carbon and pollutant emissions are also set to increase similarly, with major health and short-term climate impacts.

The Global Fuel Economy Initiative (GFEI) was established in 2009 with the primary aim of at least doubling the efficiency of the global vehicle fleet from an average of 8L/100 km in 2005 to 4L/100 km by 2050 and all new vehicles by 2030. Even if vehicle kilometers driven double by 2050, efficiency improvements on this scale would effectively cap emissions of CO₂ from cars at current levels. It is estimated that CO₂ savings would exceed 1Gt annually by 2025 and 2Gt annually by 2050.

Substantially improving vehicle-fuel efficiency requires comprehensive fiscal and other policies. While many developed countries have adopted these policies and are on track to double their efficiency, most developing countries do not have policies in place and the efficiency of their fleet is not improving. Many relevant government agencies in developing and transitional countries are looking for support to better understand fuel economy policies and their benefit. Improved institutional coordination and cooperation between the Energy, Environment, Transport and Finance Ministries will help to develop comprehensive fuel economy policies. The development of national automotive fuel economy policies needs the involvement of various government agencies and industries. The GFEI is working closely at global, regional and national level with governments, the private sector, NGOs, academia, and institutions to promote automotive fuel economy at all levels. As the SE4All work program evolves, attention will also turn to strengthening mass and public transport as a way to promote energy conservation.

Industry: This accelerator is in the process of being established. It will most likely consist of multiple working groups focusing on specific industries, carbon-conscious sectors, energy efficiency in the power sector, and SMEs. Co-leads could include UNIDO, Accenture, World Resources Institute, and TERI.

V. SE4ALL Energy Efficiency Hub:

The SE4ALL Advisory Board has established several regional and thematic Hubs. The SE4ALL Energy Efficiency Hub is located in Copenhagen and is managed and supported by UNEP, which is responsible for providing technical support to the work of the Committee and managing its work plan. The choice of UNEP is based on a strategic decision to build on its work in the area of energy efficiency and the desire of the Advisory Board to leverage this experience by bringing in SE4ALL partners to join its work and scale it up under the umbrella of SE4ALL.

The Energy Efficiency Hub is also exploring, in collaboration with the IEA and the Global Facilitation Team of SE4ALL, the establishment of an information clearinghouse or other means of sharing information on energy efficiency to support organizations interested in scaling up efforts in their constituencies, learning from each other and avoiding duplication. This clearinghouse will provide information on energy efficiency initiatives, facilities, and technical assistance resources. In consideration of the importance of hub functions regarding enhancement of energy efficiency in the world, the possibility of establishing a regional sub-hub in Tokyo will be explored while making sure to set appropriate modalities and working relationships with the Energy Efficiency Hub in Copenhagen.

Deliverables:

Advisory Board Meeting, June 2014: Presentation of the Global Energy Efficiency Accelerator Platform, a description of each of the accelerators, the working groups, and initial work plans to deliver specific outcomes by the Climate Summit and beyond to 2020 in support of SE4ALL 2030 goals. This will be an occasion to bring together the work of the accelerators and seek guidance on the elements required to advance them with for specific outcomes by the Summit and beyond.

Climate Change Summit, September 2014: A global 'grand coalition' of governments, businesses and CSOs from all sectors, building on existing initiatives, to serve as a mega-umbrella for accelerating energy efficiency, aimed at supporting the overall goal of SE4ALL of doubling the rate of EE improvements globally by 2020. By the Summit, 10 large and medium-sized cities and countries will have committed to working with the Global EE Coalition/Platform to develop road maps for accelerating energy efficiency improvements with major impacts on emissions reductions to 2020.

COP 20 – Lima Peru, December 2014: Event presenting Energy Efficiency Accelerator progress, with updates on specific initiatives, plus a meeting of partners present in Lima.

[COP 21 – Paris, December 2015](#): Presentation by a selected number of partners of the on-going work of the EE Committee of SE4ALL and its Global Energy Efficiency Accelerator Platform. By the time of the Paris COP, dozens of cities, businesses, regions, and governments around the world will have joined. Estimates of the impact of the initiative will be featured in Paris at a special event hosted by the French Government and SE4ALL.

[Toward 2030](#): Ongoing reports on the level of achievement toward the goal of doubling energy efficiency gains and the contribution of the Global Accelerator Platform toward this goal.

1 June, 2014