ENERGY EFFICIENCY COMMITTEE MEETING REPORT

Vienna, 19 June 2015

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Report of the Meeting Held on the Occasion of the Vienna Energy Forum June 2015

I. **Objective of the Meeting:** The purpose of the meeting, exactly one year after the last meeting of the Committee in 2014, was to provide members of the Energy Efficiency Committee with an update of the progress of the Global Energy Efficiency Accelerator Platform to date, its campaign for scaling up action leading up to COP 21, and a review of what is needed to achieve success. The meeting was an opportunity for the Accelerator Platform partners from private sector, international organisation and NGOs to present their work and needs, for partners of SE4All to hear about the work of the Energy Efficiency Platform, and for the Energy Efficiency Hub in Copenhagen and Energy Efficiency Facilitating Hub in Tokyo Hubs on Energy Efficiency to briefly describe their work

II. **Lima Paris Action Agenda:** SE4All has been given the leadership on what many consider one of the most important action areas to be featured at COP 21 – Energy Efficiency. The four members of the Lima Paris Action Agenda - UN Secretary General's Climate Change Team, UNFCCC, France, and Peru have high expectations on SE4All delivering on its high ambition leading to the COP in December. One of the objectives of the Energy Efficiency Committee meeting was to garner the support of the Committee and external partners to help the Energy Efficiency Platform deliver on its high level of ambition (see attached brief).

III. **Accelerator Presentations:** Representatives of four of the six accelerators (the other two were engaged in Vienna Energy Forum sessions) briefly presented the key messages and ambitions in each of the sectors they represented and the benefits that would result from the success in each of their campaigns (see annexe). The table in annexe summarizes these presentations. As can be seen from the attached, the benefits of a successful campaign in these energy intensive sectors would have high impact and outcomes not only for climate change but also for social and economic benefits.

IV. **Resources Required:** SE4All and each of the partners have been successful in mobilizing financial support for the work that each Accelerator is performing in several jurisdictions throughout the world. The presentations, however, also highlighted that in order to reach the high ambition set for COP 21, much more is required and each of the partners made a plea for active support by the members of the Committee in helping scale up to reach 100 jurisdictions in each. The attached table is indicative of the resources required to reach the ambition set for COP 21.

V. **Conclusions and Outcomes:** Following were the main conclusions and recommendations of the meeting with strong endorsement by the Committee members:

- **There was strong endorsement and support for the energy efficiency campaign and efforts leading up to COP 21 with the targets of 100 jurisdictions, 100 commercial banks, and 100 businesses engaged with the SE4All EE platform.**

- **There was a warm welcome and a call for a continued and heightened engagement by the EE Hub in Copenhagen and the EE Facilitating Hub in Tokyo**
- **The Committee welcomed and thanked the new and important partnerships with the European Commission, ESMAP and Power Africa and which now are added to the on-going support of the Regional Development Banks.**
- **The Energy Efficiency Committee reiterated its commitment to support the EE Platform and its high level of ambition for COP 21 and will do its part to directly support and help mobilize resources to make this ambition realizable.**
- **The Committee strongly supported and will be closely engaged in the preparations of the Energy Day at COP 21**
- **The Committee welcomed the new "WE COMMIT – Business for Energy Efficiency at COP21" campaign and its ambition to provide quantified and aggregated outcomes projections of the private sector engagements in energy efficiency**
- **The Committee took note and will explore ways in which a dedicated "Project Development Facility" can be established so support program and project development without which the ambitious goals will not be reached. The sum mentioned was some 2 million Euros to be mobilized for this purpose.**
- **The Committee will study the possibility to coordinate (or take in consideration) the best way (most effectively) the activity in the field of energy efficiency in the framework of existing international forums and organizations in order to exchange the best practices as well as to avoid the duplication and multiply the results.**

Lima Paris Action Agenda
A brief for the Energy Efficiency Committee on the Role of SE4All

The Lima Paris Action Agenda (LPAA) was agreed at COP 20 in Lima. It has four partners: Peru, France, UNSG, and UNFCCC. The objective is to catalyze and scale up multilateral multi-stakeholders climate action on the ground on high impact areas. The target is COP 21, thus our interest to be part of this effort and that we maintain a leadership in one or more areas where we want to deliver in Paris.

The LPAA has several Areas of Actions , each has substantive leads and SE4All leads Energy Efficiency.

LPAA - Energy Efficiency Draft Implementation Plan

Two key deliverables are envisaged for COP 21: a global campaign to recruit substantial commitment to ambitious energy efficiency goals that can be tracked and reported, and some 100 Integrated Policy and Investment Roadmaps/Action Plans which will guide project implementation, supported by a global network of experts, institutions and businesses.

Major announcements at COP21:

- 100 jurisdictions part of the Accelerator Platform, with activities launched in Asia, Africa, Central and Eastern Europe, middle east, and Latin America;
- 100 banks part of the Accelerator Platform, with millions of dollars committed or 'ring-fenced' by financial institutions;
- 100 businesses engaged with the Accelerator Platform, with resultant new innovations and business models;
- SE4All partners in appliances, buildings, district energy, industry, lighting, transportation, industry and lighting sectors announce transformative energy efficiency measures.

The Energy Efficiency Campaign

The campaign consists of teaming up with partners with global reach and convening power, with governments, businesses, financial institutions, and civil society to catalyse a major campaign for scaled up action and investments in energy efficiency. Current initial partnerships include the European Union and the Covenant of Mayors for mobilizing local leaders throughout the world, Power Africa will accelerate energy efficiency ambition in Africa, the European Bank for Reconstruction and Development (EBRD) which, through the SE4All Energy Efficiency Finance Accelerator, will expand its Energy Efficiency Financial Institutions Network globally, ESMAP (World Bank) and its Energy Efficient Programs, regional development banks in Asia, Africa and Latin America, and UN agencies. Other partnerships in process.

Overall Objectives/ Targets/Key Results

- Policies and actions underway to increase global energy efficiency on a trajectory consistent with the 2030 goal.
- Increased level of annual investment from all sectors toward the 2030 EE goal.
- Clear Strategy and Business Plan for short-term outcomes/milestones until COP 21 and beyond to cover the window of 2016-2020 when no legally binding agreement in place.

EE Objectives	Key Results	COP 21 Target
Dramatically Accelerating Action in Energy Efficiency	• Substantial growth in the number of jurisdictions engaged • SE4All Plans of Actions, Roadmaps agreed	• At least 100 jurisdictions join the Accelerator Platform and 100 Road Maps in process of preparation
Catalyzing Investment and Business Action in Energy Efficiency	• Large scale private investments catalysed in jurisdictions • Substantial number of financial institutions engaged as partners • Additional business commitments mobilized across businesses	• Large private investment in process of being negotiated • At least 100 banks part of the Energy Efficiency Platform • Millions of dollars committed or 'ring-fenced' by financial institutions
Growing the SE4All Movement in Energy Efficiency and global campaign	• A Post -2015 agenda developed and that fully integrates EE • Substantial increase in the number of core partners • Global presence of EE work dramatically increased	• INDCs integrate energy efficiency • 100 jurisdictions 100 businesses/100 banks • SE4All Energy Efficiency special events organized: SE4All Forum, EE Global, VEF, COP21 and other events
Scaling Up Communications& Outreach in Energy Efficiency	• Harmonized Comm. Material of the EE Accelerator Platform Partners Public Comm dramatically scaled up • Social and digital media presence	• Harmonized Comm. Strategy • Spike in Comm subscriptions • Website and social media revamped • Logos /branding material developed
Facilitating Knowledge Management in Energy Efficiency and establishment of Scientific Research Hub to address knowledge and data gaps by COP 21	• Best Practices and lessons learned codified and shared • Common tools/methodologies for EE are developed and shared • Collaboration with knowledge centres & academia arranged	• Annual Best practices/lessons learnt documents disseminated • Tools and methodologies disseminated used/refined • Collaboration with existing centres/initiatives
Ensuring Monitoring and Reporting in Energy Efficiency	• Robust monitoring/ accountability frameworks in place in collaboration with GTF of the WB • SE4All EE commitment tracking established/updated	• SE4All Annual Reports incl. commitments tracker also in EE • Global tracking Reports done regularly

ANNEX I

Key Messages and Benefits of the Accelerators

APPLIANCES ACCELERATOR

Key messages	Benefits
By 2030, the stock of appliances and equipment will significantly increase in developing countries and emerging economies as a result of higher standards of living and a strongly growing middle-class. Subsequently, electricity demand is expected to more than double. • The wide deployment of available and affordable energy-efficient technologies is crucial to achieve the 2 degree climate objective. • The United for Efficiency initiative supports developing countries and emerging economies to leapfrog their markets to energy-efficient appliances and equipment, with the overall objective to reduce global electricity consumption and mitigate climate change. • A global transition to efficient products could reduce CO2 emissions by 1.25 billion tons annually and save an investment of US$ 500 billion in power generation. • In addition, the shift to efficient products will reduce electricity bills for end-users, and create new jobs and business opportunities	The shift to efficient products in the five category products targeted – air conditioners, refrigerators, fans, electric motors and distribution transformers – will reduce global energy consumption by 1,500 TWh, CO2 emissions by almost 1 billion tons each year, and save US$ 215 billion on electricity bills, leading to an increase of disposable income for citizens and reducing trade balances of countries. This will further reduce electricity demand, especially during peak-time, blackouts and avoid large investments in new electricity generation and grid capacity.

BUILDING EFFICIENCY ACCELERATOR

Key messages	Benefits
• About one-fourth of global energy demand comes from the building sector that accounts for nearly one-third of GHG emissions globally. • Global building energy demand (thermal) can be reduced by one-third by 2050 if known energy efficiency best-practices are implemented on a large scale across regions. • The Building Efficiency Accelerator is supporting cities and sub-national jurisdictions to double the rate of energy efficiency improvement by 2030 in the building sector.	Nearly 60% of the world's electricity is consumed in the building sector. Buildings are responsible for about one-third of global GHG emissions. Accelerating the efficiency improvements in existing and new buildings is critical to achieving global energy and climate protection goals, and can extend the available energy supply to more urban and rural residents.

DISTRICT ENERGY ACCELERATOR

Key messages	Benefits
District energy systems create synergies between the production and supply of heat, cooling, domestic hot water and electricity. District energy systems provide the only means to capture and deliver waste heat for heating and cooling buildings, as well as to use ambient water or wastewater to cool buildings. By 2050, cities will represent nearly 75% of the world's population, 75% of CO2 emissions and 75% of waste. District energy can be an important part of the solution to many problems, such as energy security, energy efficiency or air pollution. By optimizing the use of local sources of energy (recovered heat, renewables, wastes, local water bodies), district energy can reduce the demand for fossil fuels. Countries and cities need to elevate attention on heating and cooling. One simple way is by having explicit heating and cooling targets in their energy plans. The business cases of district energy systems require long-term vision, to allow factoring in the multiple benefits as well as the lower operating costs versus higher initial capital investments. District energy is frequently more cost effective -by up to 50% - than alternative heating and cooling technologies, given certain market conditions and density of demand.	District energy systems can result in multiple benefits such as: • Rapid, deep and cost-effective emissions greenhouse gas reductions, due to fuel switching and decreases in primary energy consumption of 30-50%. • Reduced indoor and outdoor air pollution and their associated health impacts, through reduced fossil fuel consumption. • Operational efficiency gains of up to 90%. • Harnessing of local energy sources, including from waste streams, reject heat, natural water bodies and renewable energy. Piloting of new technologies, such as thermal storage, to integrate variable renewables. • Reduced import dependency and fossil fuel price volatility. Management of electricity demand and reduced risk of brownouts. • Cost savings from avoided or deferred investment in generation infrastructure and peak power capacity. Wealth creation through reduced fossil fuel bills and generation of local tax revenue. Employment from jobs created in system design, construction, equipment manufacturers, operation and maintenance.

INDUSTRY ACCELERATOR

Key messages	Benefits
• The industrial sector accounted for about 29% of the total final energy demand in 2011. • Demand for energy use in the industrial sector over the next two decades is expected to rise at rates higher than in other sectors because of its potential to contribute to higher economic growth and job opportunities. • Industrial energy efficiency offers a range of multiple benefits at the enterprise level such as increased competitiveness, improved operational efficiencies and productivity, reduced material losses and solid waste, decreased water use and improved product quality. • Such benefits have the potential to add another 50% in economic benefits on top of the direct energy cost reductions. • The Industrial Energy Efficiency Accelerator draws on the expertise and	Widespread adoption of energy efficiency measures could reduce industrial energy use by over 25%. That potential is significant: it represents 3.92 Gt CO2 – an 8% reduction in global energy use and a 12.4% reduction in global CO2 emissions

experience of partners to promote energy efficiency through the implementation of energy management systems in Industry. • With the financial support from GEF, UNIDO has been working with 16 countries on implementing programmes to promote energy management systems in industry. • The target is to have 100 countries signed up and developing industrial energy efficiency policies by the COP21 in Paris. • In India Industry pilot project focuses on the SME sector - a critically important contributor in the value chain to industrial energy efficiency.	

LIGHTING ACCELERATOR

Key messages	**Benefits**
Lighting from electricity accounts for over 15 per cent of global energy consumption and five per cent of worldwide greenhouse gas emissions (GHG). • Unless policies are implemented immediately to address this issue, overall energy consumption for lighting will have grown by 60 to 70 per cent by 2030 with dramatic consequences for climate change. • The phase-out of inefficient incandescent lamps provides one of the easiest and most cost-effective ways to reduce carbon emissions. • The UNEP/Global Environment Facility (GEF) en.lighten initiative supports countries in implementing policies and concrete measures that will accelerate market transformation to efficient lighting technologies. A target date for the global phase-out of all inefficient lighting has been set for the end of 2016. • The replacement of all inefficient on-grid lighting in the world would yield annual cost savings of over US$120 billion and would achieve annual CO2 reductions of over 530 million tons, which is more than the annual emissions of the entire United Kingdom.	A transition to efficient lighting in all end-use lighting sectors – residential, commercial/industrial and outdoor – would save over US$ 120 billion annually in avoided electricity bills through a reduction of more than 1,200 TWh of electricity. It would save over US$ 233 billion in avoided investment in 280 large coal-fired power plants. These savings could even be greater by increasing the level of ambition and the massive deployment of LED technology. Today, no developing country has in place mandatory efficiency and quality standards for LED lighting. This raises the need to facilitate standardization assistance to avoid markets with low quality and poor performance LED lamps, which would result in public backlash against this efficient lighting technology.

VEHICLE FUEL EFFICIENCY ACCELERATOR

Key messages	**Benefits**
• The global fleet is set to triple by 2050 – with all growth to take place in non-OECD countries. • Doubling the efficiency of the global fleet will result in massive CO2 reductions (1 GT/ yr by 2015, 2Gt/yr by 2050), plus costs savings, reduced air pollution, and less oil dependence.	Doubling the efficiency of the global fleet will have major climate benefits – it would reduce emissions of CO2 by over 1 gigatonne (Gt) a year by 2025 and over 2 Gt/yr by 2050, and result in savings in annual oil import bills alone worth over USD 300 billion in 2025 and USD 600 billion in 2050 (based on an oil price of USD 100/bbl). Additional benefits would include

• To double the efficiency vehicles need to go from 8l/100 km to 4l/100. OECD countries are almost on track to achieving this, but non-OECD countries have no policies and incentives in place and thus see no improvement in their fuel economy. • The Global Fuel Economy Initiative (GFEI) is supporting countries to put in place fuel economy policies, with the ultimate target to double the efficiency of the global fleet. • With support from the GFEI 40 countries are developing fuel economy policies. The target is to have 100 countries signed up and developing fuel economy policies by end 2015, at the COP21 in Paris.	reduced fossil fuel dependence, short lived climate pollutants(black carbon) and air quality. WHO estimates that air pollution prematurely kills 7 million people per year with as the major contributor vehicle emissions.

ANNEX II

Required Resources for the Accelerators

APPLIANCES ACCELERATOR (United for Efficiency, U4E)

An estimated investment of US$ 20 million is required in order to assist 50 countries in defining, adopting and implementing the integrated policy approach to transition to efficient appliances and equipment. Should U4E receive the needed financial support, it could over the next 24 months:

- Obtain the high level commitment of 50 developing and emerging countries to develop policies, standards and financial packages to transform their markets to high efficiency products by 2020, by joining U4E.
- Support these countries in developing national/regional strategies and implementation plans to leapfrog to high efficiency appliances and equipment by 2020.
- Demonstrate the multiple benefits of leapfrogging to efficient appliances and equipment and the substantive opportunities for climate change mitigation.

BUILDING EFFICIENCY ACCELERATOR (BEA)

To manage the partnership of the NGO's and businesses under the Building Efficiency Accelerator requires approximately 600,000 Euros each year. In addition, 250,000 Euros are required for each "deep dive" city where local workshops, market engagement activities and capacity building trainings are provided. This would allow in each of these cities a 18 month in-depth partnership process to launch policies and project actions. Funds would be subgranted to local partners and institutions for activities with the city partners. Total cost annually in the June-2015 to December-2016 period is budgeted at 2.15 million euro. This would include 30 cities engaged in a "light touch" approach and 5 cities working in depth as we scale up. The funding is scalable and "deep dive" city efforts will be undertaken based on resource availability.

DISTRICT ENERGY SYSTEMS ACCELERATOR (DES)

Should the Global District Energy in Cities Initiative receive US$ 15 million in additional financial support, it could over the next 24 months:

- Undertake a global communications campaign on the multiple benefits of modern district energy systems and policy/business model best practices.
- Obtain high level commitment from 100 additional countries/cities to integrate heating and cooling in their energy strategies.
- Collect data and undertake assessments on heating and cooling demand across regions.
- Support 20-40 city district energy assessments and feasibility studies, depending on city size and conditions.
- Support the access to funds and facilities for district energy project development.

INDUSTRY ACCELERATOR

It is estimated that the funding of the core accelerator activities is around US$ 1,000,000 for the first two years of operation. These will include the organization of regional consultation workshops, setting up the platform, facilitating meetings of the implementation committee, preparing outreach material, etc. In addition, the two pilots proposed for China and India are estimated for around $10 million (detailed project concepts for both countries are available upon request). Project development phase requires flexible funding for activities such as: visit to country, inception workshops, assessments, negotiation, and final agreement of project document, as well as some of the activities below:

- Setting up national task force
- Setting baseline of current efficiency
- Model results of policies and measures

- Begin to develop tailor made national policy
- Help countries start to adopt and implement

LIGHTING ACCELERATOR (en.lighten)

Key messages

If support is materialized the en.lighten initiative could ensure that 100 developing and emerging country partners commit to leapfrogging to advanced lighting by COP21. Such effort would require an investment of US$ 15 million. Should the en.lighten initiative receive financial support, over the next 24 months it could:

- Obtain high level commitment of 44 additional developing and emerging countries – making a total of 100 countries – to develop policies, standards and financial packages to transform their markets to high efficiency lighting by 2017, by joining en.lighten.
- Support 44 countries – and additional 30 existing en.lighten partner countries, which have not received en.lighten support due to lack of funding – to adopt and implement efficient lighting policy in the residential, commercial and outdoor sectors, and accelerate the massive deployment of LED lighting.
- Demonstrate the multiple benefits of leapfrogging to advanced lighting technologies and the substantive opportunities for climate change mitigation.

VEHICLE FUEL EFFICIENCY ACCELERATOR (GFEI)

The Global Fuel Economy Initiative is currently supporting 26 countries and is in the process of receiving additional funding for some 24 additional countries to bring total to 50 countries. The estimated support for these first 50 countries is $10 million. It is estimated that some additional $10 million would be required to add another 50 countries. These additional resources would be aimed at helping countries develop and adopting fuel economy policy that would improve fuel consumption of new vehicles. To increase the number of countries to 100 by COP 21, some project development funds would be required as a matter of urgency.

ANNEX III

List of Participants for the Energy Efficiency Committee Meeting

Internal Guest List

Name	Organization
1. Jean-Marc Ollagnier 2. Bruno Berthon 3. Fabienne Babinsky	Accenture
4. John Chistensen	Energy Efficiency Hub in Copenhagen
5. Naoko Ishii 6. David Rodgers	GEF
7. Ambassador Masahiko Horie 8. Kenichiro Tanaka 9. Yoshitaka Ushio	Japan
10. Jakob Rogild Jakobsen	Ministry of Foreign Affairs, Denmark
11. Natalia Nozdrina	Russian Ministry of Energy
12. Kandeh Yumkella 13. Mohinder Gulati 14. Luis Gomez-Echeverri 15. Minoru Takada 16. Thibaud Voita 17. Monika Froehler 18. Elizabeth Thompson	SE4All
19. Leena Srivastava	TERI
20. Reid Detchon	UN Foundation
21. Achim Steiner 22. Mark Radka	UNEP

External Guest List

Name	Organization
23. Janos Pasztor	Climate Change Support Team of UN SG
24. Rohit Khana 25. Ivan Jaques	ESMAP
26. Klaus Rudischhauser	European Commission
27. Sylvie Lemmet	Ministry of Ecology, Sustainable Development and Energy, France
28. Ronald Goldberg	Ministry of Foreign Affairs Netherlands
29. Ambassador Konrad Max Scharinger	Permanent Mission of Germany to International Organizations in Vienna
30. John Wasielewski	Power Africa
31. Gevorg Sargsyan	World Bank

Accelerators

Name	Accelerator
32. Steve Kukoda (Copper Alliance)	Appliance
33. Jennifer Layke (Johnsons Control) 34. Peter Graham (GBPN)	Building
35. Jigar Shah (IIP Network) 36. Rana Ghoneim (UNIDO) 37. Marina Ploutakhina (UNIDO)	Industry
38. Sheila Watson (FIA foundation)	Vehicle Fuel Efficiency

Energy Efficiency Committee Meeting Agenda

Vienna, 19 June, 12:00- 14:00, Café Demel

12:00 – 13:00

1. Welcoming remarks by Dr. Kandeh Yumkella, Special Representative of the Secretary General and CEO of the SE4All initiative;
2. The road from Davos to COP 21 – brief update on our journey: Jean Marc Ollagnier, CEO of Accenture Resource;
3. The Lima Paris Action Agenda – the Ambition to COP 21: Achim Steiner, Executive Director of United Nations Environment Programme; Comment by Janos Pasztor, UN Assistant Secretary-General on Climate Change.
4. Realizing the Ambition and Requirements to Make it Happen: Morten Jespersen, Under-Secretary for Global Development and Cooperation, Denmark.

13:00 – 14:00

Question and Answer: With participation of co-conveners of all the accelerators