

# SE4ALL Bulletin

A Daily Report of the First Sustainable Energy for All Forum

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SUSTAINABLE **ENERGY FOR ALL** 

### **SE4ALL HIGHLIGHTS:** WEDNESDAY, 4 JUNE 2014

The first Sustainable Energy for All (SE4ALL) Forum opened on Wednesday morning, 4 June 2014. Chad Holliday, Chair, SE4ALL Executive Committee, explained that SE4ALL has three goals—access, efficiency and renewable energy—and with the World Bank and other organizations it is measuring progress to ensure it has an impact on the world.

Ahmad Alhendawi, UN Secretary-General's Envoy on Youth, stressed the important role of young people as innovators, consumers and voters, who contribute in a meaningful way to development at large. Reema Nanavaty, Self-Employed Women's Association (SEWA), noted that rural women demonstrate how energy can transform lives, and argued for a platform through SE4ALL that enables poor people and women as users, owners and managers of energy devices. Winona LaDuke, Honor the Earth, noted that indigenous communities are in the most remote, least electrified and poorest areas of North America, and called for a just, "graceful" transition to renewables and less investment and subsidies for fossil fuels.

#### **GROWING THE MOVEMENT**

Together we've got the power: Why SE4ALL needs civil society? Gerard Bos, IUCN, moderated the session. Aaron Leopold, Practical Action, and Sarah Wykes, CAFOD, reported on a survey to understand the role of civil society organizations in implementing SE4ALL, which showed a demand from civil society to participate fully in SE4ALL, but that capacity building, resources and meaningful information are needed. Daniel Riley, WWF-US, said there is a need to: build trust among stakeholders; enable civil society to create social structures to promote participation and engagement; and ensure funding for energy access. Lizeth Zúñiga, Renewable Association of Nicaragua, said civil society does not yet know enough about SE4ALL despite consultations. Ishmael Edjekumhene, Kumasi Institute, described stakeholder consultations in Ghana, and while there is an effort to involve civil society, it still needs a better say in identifying energy needs of the poor. Mariam Mohamed Abdullah Abdelhafiz Allam, Arab Youth Climate Movement, stressed that sustainable energy is about people, not just technology, and called for eradicating energy poverty.

Leveraging multi-stakeholder partnerships: Progress and lessons from Rio+20 SE4ALL Commitments: This session

was moderated by Georg Kell, UN Global Compact. Carmen Becerril Martínez, Acciona, highlighted business models for rural electrification efforts in Peru and Mexico, including creation of "electrification committees" in each community. Marina Migliorato, Enel, discussed efforts to break down economic barriers to electricity access in Brazil and Chile, including by providing energy credits for recyclable waste, and training young, illiterate grandmothers to become "barefoot" solar engineers. Jean-Marc Fontaine, Total, described the "Awango by Total" project bringing solar lamps to remote areas in 16 countries. Ibrahim Rehman, TERI, said creating local entrepreneurship around off-grid electrification offers maximum impact, and has "triggered" the broader solar market.

The energy trilemma: Catalyzing business action: Christoph Frei, World Energy Council, highlighted the many risks confronting business and the importance of national policy developments for building an effective international framework. Clay Nesler, Johnson Controls, talked about innovations in energy savings performance contracting in the buildings sector. Morten Albaek, Vestas, discussed changing the energy mix for the poorest people by installing high-tech wind turbines in remote areas. Colin Calder, PassiveSystems, emphasized the need for energy market reforms, and the opportunities of using the digitalization of home appliances to optimize energy usage. Luc Tanoh, Econet Solar, discussed the deployment of "home power stations" in African countries to charge phones and provide LED lights. Thaddeus Burns, GE, noted that in addition to developing creative technologies, there is a need to liberalize trade in these technologies. Philippe Joubert, Global Electricity Initiative, discussing utilities, highlighted the lack of an effective policy framework and challenges related to intermittent loads, digitalization, and water and land use of new technologies. Alex Wittenberg, Oliver Wyman, talked about the energy sustainability index, highlighting the need for policy makers to create a stable regulatory and legal framework that is transparent and long term. Mahaman Laouan Gaya, Niger, emphasized awareness raising on sustainable energy among African leaders, and international assistance for, *inter alia*, improving private sector participation and overcoming regulatory barriers.

Harnessing the power of youth: Sean Collins, Student Energy, and Ahmad Alhendawi, UN Secretary-General's Envoy on Youth, described the importance of harnessing the power of youth to facilitate the transition to a sustainable energy future.

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They encouraged youth to become involved in the green energy movement from an early age, and underscored the need for youth to "make it personal" by viewing themselves as important players in the clean energy solution.

Partnership to scale up energy access through women's empowerment: Panelists included: Caroline McGregor, US; Bahareh Seyedi, UNDP; Soma Dutta, ENERGIA International Network; Nicola Armacost, Arc Finance; and Radha Muthiah, Global Alliance for Clean Cookstoves (GACC).

## CATALYZING INVESTMENT THROUGH INNOVATIVE BUSINESS MODELS

Accelerating sustainable energy deployment through support for innovation: Ethan Zindler, Bloomberg New Energy Finance, said US\$1.5 trillion in private funding has been invested in clean energy in the past decade, but it needs continued public support. Ashok Sarkar, World Bank, called for more investment to get to the US\$300 billion a year in incremental investments needed, particularly the private sector finance that complements development finance and innovative financing instruments. David Rodgers, Global Environment Facility (GEF), described the GEF's plans for innovative programming, including performance-based financing and incentives, multi-focal area projects with climate benefits, high-impact projects, regional projects and programmes, catalyzing private sector engagement, and small grants and loans.

Modern cooking appliances and fuels: Radha Muthiah, GACC, noted that the GACC Alliance advocates a market-driven approach to encourage investment, rather than a traditional NGO model. Moderator Tyler Suiters, Consumer Electronics Association, recalled that 4.3 million deaths are linked to indoor use of solid fuels. Koffi Ekouevi, World Bank, described two categories of users: those without access to alternatives to charcoal, who will need efficient cooking devices to control for the indoor air pollution; and those who are ready to transition to liquefied petroleum gas (LPG) and/or natural gas. Harry Verhaar, Philips Lighting, noted four pilot distribution models to accelerate market penetration of clean cookstoves. Maria Neira, WHO, said households need cleaner alternatives to unprocessed coal in the transition period before using clean cookstoves, and noted the forthcoming launch of indoor air pollution guidelines. Sean Moore, Acumen, said that so far, cookstoves have been funded by grant capital, which means that market demand will need to be built before commercial capital will come in. Gary Hattem, Deutsche Bank, said cookstoves are a "very early stage" industry, similar to microfinance 15-20 years ago, and require patient, flexible capital to encourage growth. Kimball Chen, GLPG Partnership and WLPGA, said a stove's cleanliness depends on the fuel it uses, and LPG is an important option. He said determining the right fuel for each situation depends on which is economically viable, scales up quickly, is available on the supply side, is accessible to consumers, is affordable, is culturally and politically acceptable, and is sustainable. Muthiah stressed the need for true adoption of clean cookstoves, not just sales, and highlighted the role of women in the supply chain to ensure adoption.

Innovations in finance for energy access: Christine Eibs Singer, SE4ALL, highlighted four barriers to finance for energy access: access for consumers and firms; distribution channels; capacity building; and consumer awareness. Willem Nolens, SolarNow, discussed the deployment of solar home systems, based on affordability, high quality, and a credit provision system facilitating purchasing additional appliances. Graham Smith, Off Grid Electric, talked about their approach to solar energy as a service, which does not entail large upfront costs to customers. Vincent Weirda, UN Capital Development Fund, discussing the CleanStart project, highlighted the role of the public sector in reducing risks and in supporting different pathways of investment. Silvia Kreibiehl, Frankfurt School-UNEP Collaborating Center for Climate & Sustainable Energy Finance, highlighted high perceived risks and limited access to long-term capital as barriers to small- and medium-scale renewable energy projects, while also discussing the GET FiT and Renewable Energy Performance Platform projects. Letha Tawney, World Resources Institute, talked about their research on the intersection of financial innovations and regulatory frameworks, using examples from Kenya, Senegal and India.

**Water-energy-food nexus:** This panel was moderated by Tania Rödiger-Vorwerk, Germany. Panelists included: Olivier Dubois, FAO, Anna Delgado, World Bank, Martin Hiller, REEEP and Klaus Rudischhauser, EuropeAid.

Clean energy mini-grids: Steven Hunt, DFID, identified five barriers facing the deployment of clean energy minigrids: inadequate regulation; market fragmentation; lack of standardization; lack of proven commercial business models; and lack of access to affordable long-term finance. Mahama Kappiah, ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), explained how clean energy mini-grids could help realize SE4ALL targets on energy access and renewable energy. Dean Cooper, UNEP, stressed the need to consider mini-grids with "practical urgency," and addressed the need for private sector investments to scale up deployment. Suman Sureshbabu, Rockefeller Foundation, identified the need to increase scale to achieve the level of standardization needed to bring down cost and complexity. Caroline Nijland, Foundation Rural Energy Services, described the potential for hybrid mini-grids to support rural electrification, provide supply quality and quantity, and accelerate deployment. Venkat Ramana Putti, World Bank, described the role of local financial institutions, and the need for their increased engagement, to ensure the long-term sustainability of mini-grids.

Energy efficiency accelerators: Luis Gomez-Echeverri, IIASA and SE4ALL, moderated the panel, calling for a massive scaling up of investment for energy efficiency, but said this cannot be done without the private sector. Rajendra Pachauri, TERI and IPCC, said energy efficiency is the lowest hanging fruit available to stabilize the global temperature increase to 2°C. Reid Detchon, UN Foundation, said most governments understand that energy efficiency is important, but are frustrated with the pace of implementation. Clay Nesler, Johnson Controls, said the building efficiency accelerator could reduce energy use in buildings by 25-50%, create jobs, improve capacity in developing countries, and improve quality of life. Steven

Kukoda, International Copper Association, discussed developing partnerships on energy efficiency in appliances and industrial equipment, which will reduce CO2 emissions and save money. Alfred Haas, OSRAM, said the lighting sector uses 50% of electricity and produces 5% of greenhouse gases, largely due to inefficient technologies, and said the Global Lighting Initiative will achieve climate savings. Sheila Watson, FIA Foundation, said fuel economy policies have improved fuel efficiency, while cost-effective technologies exist, but need greater involvement from the private sector. Paul Voss, Euroheat & Power, stressed the importance of District Energy Systems and said that an energy transition must be sustainable and keep economies competitive. Ivan Jaques, World Bank, stressed the importance of cities and said energy efficiency is a means to sustainable development and improves and expands access to services. Josué Tanaka, EBRD, listed three challenges to efficiency: lack of understanding of financial returns of projects; fragmentation; and lack of capacity of financial intermediaries.

Scaling up decentralized and 'bottom-up' energy solutions: Moderator Martin Krause, UNDP, said the SE4ALL Energy Access Committee has emphasized the need for offgrid, decentralized, bottom-up energy solutions and smallerscale technologies, and it recommends: changing messages to highlight development benefits of energy, not gridlines and kW hours; better coordination at the national level; and finding business models and approaches for investment in small-scale technologies. Nii Darko Asante, Ghana, said the key issue with distributive access is engaging smaller providers, which will require government measures to reduce costs to operators. Fabby Tumiwa, Institute for Essential Service Reform, said involving communities in decision-making about energy services requires bottom-up financing. Klaus Rudischhauser, EuropeAid, said the European Commission will prioritize rural electrification and added that small-scale models in rural areas require civil society involvement. Magnus Magnusson, UN Capital Development Fund, said the CleanStart component of SE4ALL is working toward clean pathways for households to jump-start permanent access to energy, noting that partnerships and collaborations between energy providers and microfinance institutions are important for supply. Andrew Webb, SolarAid, discussed the efforts of Sunny Money, which focuses on sales, and SolarAid. an international NGO, noting that the hybrid structure of the organization has been integral to its success. Aneri Patel, UN Foundation, noted the Energy Access Practitioner Network and its investment directory, and highlighted scratch cards and mobile money as examples of accessing energy by paying per use rather than owning an entire system.

Energy access for development impact: how can the private and public sector collaborate on renewable energy solutions: Moderated by William Brindley, Newdea, the following panelists spoke: Scott Fast, Accenture Foundation; Roger Ford, Accenture Development Partnership; Zia Khan, Rockefeller Foundation; Harvey Rubin, University of Pennsylvania and Energize the Chain; and Christine Eibs Singer, SE4ALL.

**Sustainable bioenergy HIO:** Moderated by Gerard Ostheimer, SE4ALL, the following panelists spoke: Olivier

Dubois, FAO; Gerard Bos, IUCN; Ignaas Caryn, KLM; and Adam Monroe, Novozymes.

Global gas flaring reduction HIO: Moderated by S. Vijay Iyer, World Bank, the following panelists spoke: Bjorn Hamso, Global Gas Flaring Reduction Partnership, and Hege Marie Norheim, Statoil.

#### PARALLEL MULTI-STAKEHOLDER SESSIONS

Women, Energy and Economic Empowerment: This session, moderated by Chad Holliday, Bank of America and SE4ALL, focused on the work of SEWA. Anurag Bhatnagar. Grassroot Trading Network for Women, explained how the poor find it difficult to access energy. Mohinder Gulati, SE4ALL, discussed how access to energy contributes to the empowerment of women. Reema Nanavaty, SEWA, discussed the history of the organization and how poor households were spending 40-45% of their incomes on accessing energy. Divuben Rathod, SEWA, described the life of salt workers and how 70% of their earnings used to go to buying diesel, but solar pumps have decreased diesel consumption by 70-80%, dramatically increasing income and savings. She said that she used the money she saved to bring the voice of 30,000 poorest women from Kutch desert to the policy makers in New York. Ramilaben Rohit, SEWA, discussed the savings achieved through solar lights. Heeaben Dave, SEWA, discussed the economic and health benefits of switching from kerosene and fuelwood to solar.

Renewable Energy – the Brazilian expertise: This panel was moderated by José Antônio Corrêa Coimbra, Chief of Staff for Brazil's Minister of Mines and Energy. The panelists were: Altino Ventura Filho, Ministry of Mines and Energy; Albert Geber de Melo, CEPEL and State University of Rio de Janeiro; and Jorge Miguel Samek, ITAIPU.

Knowledge hub for SE4ALL: Research consortium and analytical agenda: Luis Gomez-Echeverri, IIASA and SE4ALL, introduced the three pillars of the initiative's knowledge hub: modeling; monitoring implementation; and knowledge management of successful policy experiences. Nebojsa Nakicenovic, IIASA and Vienna University of Technology. presenting on pillar one, highlighted findings from the normative scenarios developed in the Global Energy Assessment report. Vivien Foster, World Bank, talking about pillar two, discussed the development of: the Global Tracking Framework; the Readiness for Investment in Sustainable Energy project; and the State of Energy Access Report. Letha Tawney, World Resources Institute, discussing pillar three, highlighted the importance of both research on successful policy experiences, and attention to information users' demands and information communication. Ibrahim Rehman, TERI, emphasized the importance of: scenario development at national levels; the availability of demand-side information in tracking; and the challenge of communicating technical knowledge. Vijay Modi, Columbia University, noted the need for the availability of actionable local data.

Wind for Prosperity: This panel was moderated by Morton Albaek, Vestas. The panelists were: Martin Krause, UNDP; Sergio Oceransky, Yansa Group; Luc Tanoh, Econet Solar; and Nawal Al-Hosany, Masdar.



Energy efficiency: Sharing experiences and launching a global platform to accelerate the transition to efficient appliances and equipment: John Christensen, UNEP DTU Partnership, introduced the two areas of focus: national energy efficiency success stories, and the launch of a Global Platform to accelerate the transition to efficient appliances and equipment. Masahiko Horie, Japan, summarized the success of the Top Runner Program, in encouraging competition and innovation among companies to fulfill efficiency targets. Ib Peterson, Denmark, noted the success of energy efficiency policies in Denmark. Sergio Toro, Chile, reflected on successful measures in Chile to implement energy efficiency lighting standards. David Rodgers, GEF, underscored the role of public-private partnerships in providing best practices. Daniel Assandri, ABB Canada, stressed the importance of motors for realizing efficiency gains. Arnaldo Vieira de Carvalho, IADB, highlighted initiatives taken by IADB to support countries in preparing energy efficiency legislation. Juan Pablo Moreno Cadena, MABE, said that challenges facing energy efficiency can only be overcome through collaboration, such as regional alliances to harmonize standards. Christine Egan, CLASP, addressed the role of energy efficiency as the "proven first fuel," as it is cheaper than building new capacity and benefits consumers, local manufacturers, and the environment. Harry Verhaar, Philips Lighting, said that a remaining challenge for lighting efficiency is to expand efforts toward non-residential lighting.

## SHARING KNOWLEDGE AND EXPERIENCES, DEVELOPING CAPACITY

**Energy Access Practitioner Network.** Richenda Van Leeuwen, UN Foundation, moderated the panel. Ishmael Edjekumhene, Kumasi Institute, said financial institutions need to find the right financing scheme for energy access in rural areas. Harish Hande, SELCO India, said the Energy Access Practitioner Network in India addresses what is lacking in finance by training bankers to provide financing and creating more energy entrepreneurs. Fiza Farhan, Buksh Foundation, stressed the importance of the Network in working with private sector foundations to leverage more public financing for energy access, adding that understanding market dynamics and giving investors what they need buys a solution. Princess Abzeita Djigna, AbzeSolar SA, said that the Network has helped exchange best practices and bring business women, the private sector, and local governments together to help provide solutions and empower women.

Launch of Poor People's Energy Outlook Report: Aaron Leopold, Practical Action, moderated a panel to launch the Poor People's Energy Outlook (PPEO) report 2014, which calls for defining energy access by services, not supply.

Simon Trace, Practical Action, said a physical connection to a grid is not the same as energy access, and called for an agreed definition of access, better engagement by SE4ALL with civil society, and shifting investment and financing to off-grid approaches. Bahareh Seyedi, UNDP, said PPEO reports have contributed to: treating energy as an enabler of sustainable development, not an end in itself; shifting the focus from large-scale energy projects to small-scale, decentralized options; and emphasizing the need for a multi-stakeholder process.

Global Tracking Framework: Multi-tier access indicators: Moderated by Vivien Foster, World Bank, the following panelists spoke: Mikul Bhatia, World Bank; Jens Drillisch, KfW; and Steven Gitonga, UNDP.

Launch of SE4ALL Capacity Building Hub: Rajendra Pachauri, TERI, introduced the Capacity Building Hub, called the "Specialized Training, Education and Experiential Resources (STEER)," which aims to build stakeholder confidence to achieve global SE4ALL goals by empowering individuals and institutions along the entire energy value chain. Ibrahim Rehman, TERI, described the governance structure of the STEER International Steering Community, comprising representatives of major donors, development partners, and delivery partners. Silas Lwakabamba, Rwanda, welcomed the launch of STEER as an opportunity to learn from other countries to realize significant energy savings, including through transmission and end-use energy losses. Mohinder Gulati, SE4ALL, said that the value added of STEER is its broader view of capacity-building support. Nebojsa Nakicenovic, IIASA and Vienna University of Technology, underscored the importance of human capital in order to deliver on SE4ALL goals. Kandeh Yumkella, SE4ALL, added that SE4ALL is a major initiative that is not only about the energy poor, but a broader energy revolution that also involves wealthy countries.

Cities: Charting new frontiers of energy sustainability: Moderated by Vatsal Bhatt, Brookhaven National Laboratory, the following panelists spoke: David Gilford, New York City Economic Development Corporation; Paula Brooks, Franklin County, Ohio; Robert Phocas, City of Charlotte, North Carolina; Jerry Tinianow, City and County of Denver, Colorado; and Jianping Wei, Weifang University.

A Discussion on Potential Energy Goal, Targets and Indicators for Post-2015 Development Agenda: Magdy Martinez Soliman, UNDP, noted that sustainable energy is a key enabler of sustainable development. Ivan Vera, UN-Energy, called for a stand-alone Sustainable Development Goal on securing sustainable energy for all by 2030, with targets on: ensuring universal access; doubling energy efficiency; and doubling the share of renewable energy. Vivien Foster, World Bank, discussed the SE4ALL Global Tracking Framework, which is a data platform that covers over 180 countries and has a 20-year history from 1990-2010 of tracking the three SE4ALL goals. Elizabeth Thompson, SE4ALL, said we need to emphasize the linkages between energy and issues like water, food production, health and transport. Sarah Wykes, CAFOD, said the targets on renewables and efficiency need to be increased significantly to keep global warming below 2°C, with at least 45% of energy coming from renewables by 2030.

REN21 Global Renwables 2014 Global Status Report public presentation: The REN21 Global Renewables 2014 Global Status Report was launched in a session moderated by Christine Lins, REN21, with a presentation of the report by Arthouros Zervos, REN21 and Greek Public Power Corporation. Kandeh Yumkella, SE4ALL, said the SE4ALL target on doubling the share of renewables was conservative, and looked forward to achieving higher gains. Tania Rödiger-Vorwerk, Germany, expressed hope for a higher increase in the global share of



renewable energy, and said Germany will organize further international dialogue on the issue. Pradeep Monga, UNIDO, said heating and cooling applications of renewable energy require more attention, and that UNIDO would like to work with WHO and others on energy's health benefits. Mahama Kappiah, ECREEE, said the report's quality of data and information has improved over the years, and noted an upcoming high-level SE4ALL event to launch an ECOWAS status report on renewable energy and energy efficiency. Nebojsa Nakicenovic, IIASA and Vienna University of Technology, said renewable energy is no longer a niche market but an important system, and that the SE4ALL target is reachable.

**Clean Energy Solutions Center:** Panelists included: Mark Hopkins, UN Foundation; Christine Egan, CLASP; Ellen Morris, Embark Energy; and Ian Lloyd, US.

Energy and health: Maria Neira, WHO, moderating the session, noted the importance of the energy-health nexus. Carlos Dora, WHO, discussed the links between energy efficiency and air pollution in the built environment and transport sector. Bahijjahtu Abubakar, Nigeria, highlighted the work of the Climate and Clean Air Coalition on reducing short-lived climate pollutants. Laura Stachel, WE CARE Solar, talked about the development of the "solar suitcase" to provide solar power to hospitals in Nigeria and its impact on childbirth and maternal health improvements. Yahav Lichner, UNFPA, noted the importance of discussing at the international level: interlinkages between different issue areas; securing access to energy to every private individual; and measurability, data and statistics. Jem Porcaro, UN Foundation, discussed the Energy and Women's Health initiative co-led by the UN Foundation, the WHO, and UN Women, which seeks to support governments and their partners in reducing maternal mortality, and improving children's and communities' health through the expansion of sustainable energy in rural and remote areas.

**Sustainable energy use in cities:** Panelists included: Vincent Kitio, UN-HABITAT; Renata Mele, Enel Foundation; Angie Fyfe, ICLEI; Djaheezah Subratty, UNEP; and Paul Voss, Euroheat & Power.

#### ACCELERATING COUNTRY ACTION

#### **SE4ALL National Action Agenda and Investment**

Prospectus: This session was moderated by Susan McDade, SE4ALL. 'Akau' ola, Tonga, described the Tonga Energy Roadmap and its implementation challenges. Sospeter Muhongo, Tanzania, described Tanzania's efforts to use natural gas, coal, hydro, and renewable energy to provide universal access to energy, which will eradicate poverty, but noted the challenges of the energy supply infrastructure and corruption. Hans Olav Ibrekk, Norway, said that donors must focus on results and outcomes and let countries figure out how results are achieved, but that there is a need for more education to reach the 2030 targets. Klaus Rudischhauser, EuropeAid, said a small amount of development grant money can leverage public and private funds for energy development, adding that energy is more than just electricity.

**Country action progress: Action agendas:** Janvier Litse, AfDB, highlighted messages from the African launch of the UN Decade on SE4ALL. The subsequent panel discussion on

"Country Action Progress: Action Agendas" was moderated by Daniel Schroth, AfDB. Emilio Rappaccioli, Nicaragua, said energy is a key factor in reaching sustainable development, and noted Nicaragua's progress in renewable energy generation, electrification, sustainable timber and energy efficiency. Arnaldo Vieira de Carvalho, IADB, compared Latin America's progress with the world's overall, and noted the region's share of countries opting into SE4ALL, as well as the Bank's commitment of funds. Nii Darko Asante, Ghana, highlighted his country's focus on access to modern energy for productive uses and cooking, and their work toward a draft investment prospectus. Bah Kadiatou Balde, Guinea, described his country's process toward an action plan, and discussed linking the action agenda to the investment prospectus. Ruby Sandhu-Rojon, UNDP, said action agendas must: have political leadership and sustained commitment, which has enabled much of Ghana's success to date; be part of broader development efforts; reach all stakeholders, including the primary users of energy, such as women; account for all three dimensions of sustainable development; and ensure transparency and accountability. Simon Trace, Practical Action, said civil society can provide a "reality check" of policies' effectiveness for poor people, build support for action agendas, and create energy literacy, yet does not currently feel engaged by SE4ALL.

Regional energy partnerships to promote sustainable industrial development and SE4ALL in the post-2015 **development agenda:** Introducing the panel, Vijay Modi, Columbia University, addressed the role of regional energy partnerships in promoting sustainable industrial development. ECOSOC President Martin Sajdik described the important role that industrialization plays in fighting the scourge of unemployment. Pradeep Monga, UNIDO, addressed the role of regional cooperation for achieving economies of scale for inclusive development and industrialization, pointing to the Global Network of Regional Sustainable Energy Centers as an example. Jessica Erivo, East African Community, noted the importance of regional cooperation in scaling up access to modern energy to promote renewable energy in East African communities, although certain sectors, such as agriculture, continue to demand a high level of energy and electricity. Nebojsa Nakicenovic, IIASA and Vienna University of Technology, addressed the need for regional partnerships, from both supply and demand sides, for smaller countries in order to realize economies of scale. Mahama Kappiah, ECREEE, underscored improved cooperation across West African countries, through capacity-building efforts and partnerships that complement national level actions. Vince Henderson, Dominca, and SIDS DOCK, encouraged bottom-up style of discussion, which can help prevent agencies from picking technologies without regard to the suitability for recipients.

Renewable energy for off-grid/rural electrification: Dolf Gielen, IRENA, highlighted that renewable energy is increasingly cost competitive, yet tapping into this potential will require an enabling policy environment and tailored business models. Salvatore Vinci, IRENA, asked the panel to discuss the conditions and challenges to scaling up off-grid projects. Carmen Becerril Martinez, Acciona, discussed projects in Peru and Mexico, highlighting the importance of relations with the local community and the role of small enterprises. Ishmael Edjekumhene, Kumasi



Institute, talked about challenges to off-grid electrification in Ghana, including political interferences, unclear delineations of the off-grid market, and ineffective regulatory regimes. Dana Rysankova, World Bank, noted that the most remote people are not necessarily the most appropriate targets for existing business models, and emphasized access to finance and inclusion of local financial institutions. Harish Hande, SELCO India, highlighted the role of incubation centers in rural and semi-rural areas to reach local entrepreneurs, and emphasized the replicability of processes instead of the scalability of projects. Marcus Wiemann, Alliance for Rural Electrification, noted the importance of cost-effective technologies, scalability, and financial prospects.

**Promoting sustainable energy for all:** Moderated by Ethan Zindler, Bloomberg New Energy Finance, the following panelists spoke: Mark Kissel, US; Bob Freling, Solar Electric Light Fund; and Jan Corfee-Morlot, OECD.

New Business models: bringing sustainable energy to the energy poor: Klaus Rudischhauser, EuropeAid, moderated the session. Andris Piebalgs, EU, said sustainable energy can be achieved with public-private partnerships and the SE4ALL framework is developing a new model. Helen Clark, UNDP, said that to attract private sector financing the necessary regulatory environment must be available and UNDP is working to encourage parliamentarians in this regard. Silas Lwakabamba, Rwanda, discussed projects in energy infrastructure development in Rwanda, including common projects with Uganda, Kenya and Ethiopia. Francesco Starace, Enel Green Power, called for adoption of indirect business models that take into account that the energy-poor consume very little energy per capita, but small amounts of energy change lives in big ways. Marcus Wiemann, Alliance for Rural Electrification, said we need a clearer picture on where to invest and that the finance sector needs to be more innovative to give rural people access to energy. Tania Rödiger-Vorwerk, Germany, said: energy is the largest sector of German development cooperation; ensuring universal access to energy is a social concern; and outcome monitoring should focus on benefits. Kandeh Yumkella, SE4ALL, said sustainable energy is not another aid problem, but is about investments and business models, and public policy is needed to incentivize the process.

**Expanding rural electrification:** This panel was moderated by Carlos Pascual, US, who suggested that energy access depends on the right kind of business model, more than availability of capital or technologies. Jay Ireland, GE Africa, said the value chain must make economic sense for every investor that will be part of it. Roseann Casey, USAID, said successful transactions are not the "end game" and described Power Africa's efforts toward government reform. Brian O'Hanlon, Overseas Private Investment Corporation, said the best risk mitigation is a solid project with effective players and agreements that spread risk across all parties. Caroline McGregor, US, discussed the Department of Energy's work on a quality assurance framework for mini-grids, including definition of levels of service, and an accountability framework. Himesh Dunghel, Millennium Challenge Corporation, said that if consumers do not pay a costreflective tariff for a service, the project is not commercially viable and, therefore, is unsustainable.

#### **International Energy and Climate Initiative Energy+:**

Moderator Jon Vea, Norway, opened the panel discussion with an overview of Energy+, which aims to fund energy access, renewable energy, and energy efficiency in low-income developing countries. Hans Brattskar, Norway, explained how Energy+ shares objectives in common with SE4ALL and acts as a delivery instrument for its objectives. Jiwan Acharya, ADB, stressed the role of partnerships for increasing access to sustainable energy services, as seen by the Energy+ cooperation with Bhutan. Hans Olav Ibrekk, Norway, addressed design principles of Energy+ that use a sectoral approach, encourage payment by results, and aim to create an enabling environment to leverage commercial investments. David Reed, WWF-US, stressed the importance of private sector support and the role that Energy+ serves in exploring new models of partnerships.

**Country action progress: Investment prospectuses:** The session was moderated by Rohit Khanna, World Bank. Abou Salam Diallo, Senegal, discussed Senegal's energy strategy and rural electrification programmes.

Bah Kadiatou Balde, Guinea, described the development of Guinea's investment prospectus, which involves expanding the electricity network, using mini-grids, and expanding off-grid services to remote areas. Mohammad Hossain, Bangladesh, discussed partnerships with the US and others on an action plan to advance the three SE4ALL objectives, the government's Vision 2021 "electricity for all" plan, and renewable energy and energy efficiency targets. Molly Ward, US, further discussed the development of Bangladesh's Investment Prospectus Framework. Maria Isabel Cifuentes, Guatemala, talked about Guatemala's strategy on clean cookstoves and clean cooking solutions. Julio Perez, Nicaragua, discussed clean cooking solutions in Nicaragua.

**Asia and Pacific Initiatives on SE4ALL:** Moderated by Rae Kwon Chung, ESCAP, the following panelists spoke: 'Akau'ola, Tonga; Harry Verhaar, Philips Lighting; Soma Dutta, ENERGIA; Ruslan Bultrikov, Kazakhstan; and Han Jiangzhou, China.

#### **CLOSING PLENARY**

Kandeh Yumkella, SE4ALL, reflected on a successful first day of the Forum, noting that 46 sessions were held with over 200 speakers. He expressed hope that the Forum will convince negotiators of the need for a Sustainable Development Goal (SDG) for energy. Christoph Frei, World Energy Council, described how the framework of an energy trilemma—of energy security, energy equity, and environmental sustainability—appears to be gaining traction. Jorge Pinheiro, R20 Brazil, underscored the potential for improving governance and alternative finance in order to realize energy goals. Sheila Oparaocha, ENERGIA, said the work presented by WHO on household air pollution has added value to SE4ALL. She noticed a widespread desire for data, not only for the sake of accountability but also for energy commitments central to the SDGs. Tom Hart, ONE Campaign, described the success of the Electrify Africa Act that received bipartisan support from the US Congress as an example of what SE4ALL stakeholders can accomplish through cooperation.



# SE4ALL Bulletin

A Daily Report of the First Sustainable Energy for All Forum

Published by the International Institute for Sustainable Development (IISD) in collaboration with the Sustainable Energy for All Forum

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# SUSTAINABLE ENERGY FOR ALL

# **SE4ALL HIGHLIGHTS:** THURSDAY, 5 JUNE 2014

The second day of the Sustainable Energy for All (SE4ALL) Forum convened on Thursday, 5 June 2014 at UN Headquarters in New York. During the panels and presentations, the United Nations launched the UN Decade of Sustainable Energy for All 2014-2024, and announced the dedication of the first two years of the Decade to the "Energy-Women-Children-Health" nexus. The International Renewable Energy Agency (IRENA) also launched REmap 2030, a renewable energy road map to double the share of renewable energy in the world's energy mix between 2010 and 2030.

#### TEN YEARS TO TRANSFORM THE WORLD'S ENERGY: UN DECADE OF SUSTAINABLE ENERGY FOR ALL 2014-2024

In opening remarks, UN Secretary-General Ban Ki-moon said that as a result of SE4ALL's efforts, a growing number of people "have light and power where there was none before." He sees this Forum as an annual meeting place for the global energy community, where it can assess progress, inspire, and mobilize new partners, in order to shape a new energy future.

World Bank President Jim Yong Kim, speaking via video, conveyed the World Bank Group's commitment to working with participants during the "action phase" of SE4ALL, noting that confronting climate change and ensuring clean, efficient and reliable energy are essential to the Bank Group's goals.

UN General Assembly President John Ashe welcomed the launch of the UN Decade of Sustainable Energy for All, noting progress already made to consider a stand-alone goal on sustainable energy for all in the current draft of the proposed Sustainable Development Goals. He also welcomed the Secretary-General's initiative to convene the Climate Summit in September 2014 as an opportunity for generating practical solutions and political momentum to arrive at a comprehensive climate agreement in 2015.

Iceland President Olafur Ragnar Grimsson offered his country as an example of how clean energy can serve as a solid foundation for economic growth, based on Iceland's generation of 100% of its electricity and heating from sustainable energy sources.

Andris Piebalgs, EU, said SE4ALL aims to create an "energy revolution" across the developing world, and that after two years of building momentum, it is time for SE4ALL to deliver results. This will require developing countries to make their markets investment-friendly, and others to assist them in this.

Zhang Yuqing, China, said the old energy structure created problems for the world, but SE4ALL presents an opportunity to

address climate change and energy access to reduce poverty. He added that his government aims to provide access to sustainable energy for all by 2020.

UNDP Administrator Helen Clark said the global launch of the UN Decade of Sustainable Energy for All highlights the fundamental role of energy as an enabler of sustainable development, noting that UNDP has the largest energy-related portfolio in the UN system, with 160 projects in more than 100 nations, backed by US\$570 million in grants, leveraging more than US\$4.5 billion.

Luis Alberto Moreno, President, Inter-American Development Bank, said they have invested over US\$30 million in energy and energy efficiency projects that support the three pillars of SE4ALL and have brought access to energy to millions, but 100% coverage requires commitment and innovative solutions.

Suma Chakrabarti, European Bank for Reconstruction and Development (EBRD), highlighted the EBRD's sustainable energy initiative, adopted in 2006, which finances 800 energy efficiency and renewable energy projects, while also noting the need for, *inter alia*: the right policies and prices; leadership; a long-term approach; and the integration of sustainability in all aspects of business functioning and organizational strategies.

## THIRD MEETING OF THE SUSTAINABLE ENERGY FOR ALL ADVISORY BOARD

Chad Holliday, Bank of America and SE4ALL, emphasized that action is needed in the next five years to fundamentally and sustainably change the energy system by 2030, and that we need to evaluate the risk-reward ratio of actions taken.

Kandeh Yumkella, SE4ALL, highlighted the need to align politics, policy, pricing and partnerships, and called for investments of US\$600-800 billion per year over the next two decades to achieve the SE4ALL "energy revolution."

Reporting on the Advisory Board Committee on Finance, Brazilian Development Bank President Luciano Coutinho summarized the scale of finance that needs to be increased, including an additional US\$45 billion for universal access and US\$394 billion for energy efficiency.

Reporting on the Advisory Board Committee on Efficiency, Naoko Ishii, Global Environment Facility, highlighted the potential for efficiency gains through buildings, lighting, appliances, District Energy Systems, and transport. She cautioned that "silos" can hinder efficiency goals, but this can be overcome through a cohesive coalition of partners.

Adnan Amin, IRENA, called for a knowledge framework to provide clear and accessible information on renewable energy

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to enable rational choices, and for debunking myths about renewable energy.

Klaus Rudischhauser, EuropeAid, said most people without energy are in rural areas, and noted that solutions will depend on civil society, particularly women. He stated the entire government must be involved to ensure that energy access translates into health, education, and other development outcomes.

UN Secretary-General Ban Ki-moon noted that there is clear evidence that doubling the share of renewable energy is economically viable and beneficial to all. He highlighted that strong partnerships can provide the necessary money, and that public funding commitments can be used as leverage for private funding. He closed by calling for leadership for action on climate change and on reducing energy waste.

#### GLOBAL LEADERSHIP DIALOGUE

Catalyzing Large Scale Financing and Investment for Sustainable Energy for All: Rachel Kyte, World Bank, moderated the session, noting that last year's Global Tracking Framework report concluded that we need US\$600-800 billion to achieve the SE4ALL targets. She said this panel follows the November 2013 Finance Panel on bridging the gap between investors and finance needs.

Purna Saggurti, Bank of America, said investors perceive specific risks when evaluating sustainable energy opportunities in emerging markets. He highlighted the 11 recommendations from the SE4ALL Finance Committee and recommended targeting growth areas of proceeds bonds, municipal green bonds, project bonds, and asset-backed securities. Abyd Karmali, Bank of America Merrill Lynch, called for a focus on four thematic areas that need attention to close the funding gap: green bonds; development finance institution (DFI) private risk sharing; aggregation; and insurance.

Luciano Coutinho, Brazilian Development Bank, said favorable tax treatment can make renewable energy more competitive, and said that Brazil levied a small surcharge on grid use to subsidize extension of access to the poor. Suma Chakrabarti, EBRD, said the Bank has found that local commercial banks can play a strong aggregating role to scale up energy efficiency projects.

Carter Roberts, WWF-US, said there is a need for a new, 21st-century paradigm for engaging communities and civil society during the project design process to build in environmental values and stability. Emilio Rappaccioli, Nicaragua, said that since 2007 his country has doubled its generation of electrical power through renewable energy by catalyzing investment with a "clean" policy and regulation framework, and incentives for promoting access to energy.

Luigi Sampaolo, Eni SpA, said the key word in catalyzing finance is "integration": integration of markets, integration of energy sources, and integration of public and private efforts. Michael Eckhart, Citigroup, recommended: power purchase agreement (PPA) insurance and offtake guarantees; a global programme to advance credit worthiness of all utilities in the world; and credit enhancement.

Carlos Pascual, US, suggested that DFIs could play a "first risk" leadership role in a succession of power utility projects around the world. He also highlighted distributed generation—the "flip side" of aggregation—noting that countries like India will need to set up hundreds of small, 5-10 kW projects.

Assistant Secretary-General Robert Orr said that the complexities of this issue can "freeze up" politicians, and we must offer clear propositions for them to support. Marie-José Nadeau, World Energy Council, noted that since private companies' commitment is to shareholders, they will always seek mitigated risks and return on investment; UN initiatives must speak their language.

In concluding, Kyte said that we have experience in most of what is being proposed. She added that SE4ALL is a "remarkable partnership" that needs to focus on where we can get the biggest impact and results.

The Energy Linkages: Kathy Calvin, UN Foundation, commended efforts to expand energy access to women and children, including through UN efforts such as the collaboration between UN Women, WHO and the UN Foundation for "Energy for Women's Health." Lakshmi Puri, UN Women, stressed the need to recognize women not only in terms of the disproportionate impact on them, but also as agents of change and enablers of SE4ALL goals.

Max Axi Gaye, The Gambia, discussed The Gambia's 2007 national energy policy, which addresses renewable energy and its linkages to other areas, such as health, agriculture, education, fisheries, and water resources, and he stressed the need for political will to implement such policies. Salif Lamoussa Kabore, Burkina Faso, highlighted his country's diversification of energy production, including thermal energy, hydroelectricity, and solar, to ensure accessibility in terms of quantity, quality, and cost, while noting that people in rural areas understand the challenges of climate change. Laura Stachel, WE CARE Solar, explained how the development of a "solar suitcase" brought to remote regions serves as one small solution that has made a "life saving" difference.

Radha Muthiah, Global Alliance for Clean Cookstoves, said that a market-based approach for clean cookstoves serves as a clean fuel intervention that generates health, environment, economic, safety, and security benefits. Monty Jones, Sierra Leone, welcomed the tremendous gains that have been made in his country over the past three years, including a recent initiative to offer free education for women who would like to go into the field of science. Simon Trace, Practical Action, stressed the importance of mechanical power, such as small motors and machines, which contribute to economic development and livelihood improvements.

Nelton Miguel Friedrich, ITAIPU Binacional Brazil, noted improvements in energy access in Brazil and highlighted linkages to local organic food production and cooking in schools. Christoph Frei, World Energy Council, emphasized that linkages between energy and new types of risk, such as climate change and severe weather events, will change our perspective on infrastructure development, and noted the importance of national energy policies, which half of the world's countries have not yet developed. Elizabeth Thompson, SE4ALL, highlighted the need for closer ministry collaboration so that any energy policy also engages relevant departments related to, *inter alia*, health, water, women's empowerment, education, food production, and the management of cities.

## THE HUMAN FACE OF SUSTAINABLE ENERGY FOR ALL: ENERGY, WOMEN, CHILDREN AND YOUTH

Announcing the global campaign on sustainable energy for women and children's health, Lynn Featherstone, UK, said, via video, that women and girls bear the impacts of energy policy.



Mark Lyall Grant, UK, welcomed this special focus for SE4ALL's first two years and added that ENERGIA is leading a UK-supported research effort on advancing health for women and girls through clean, affordable, and modern energy.

Global Leadership Panel: Hans Brattskar, Norway, noted the large change in Norway over the last 40 years in gender equality and women's empowerment through civil society engagement, political decisions and investments in education and health care, while also calling for basic rights for women and offering support for the focus on women, children, and health during the UN Decade of Sustainable Energy for All, and gender equality as part of the post-2015 targets.

Helen Clark, UNDP, noted that access to energy is not an end in itself but a means to improving human development, while emphasizing the importance of equity, inclusiveness and sustainability, and endorsing the focus on women and children during the first two years of the UN Decade.

Lakshmi Puri, UN Women, called for: access to energy to be considered a human right; local, national, regional and international energy policies to clearly incorporate and mainstream gender equality and women's empowerment; women's needs to be taken into account; and linking specific interventions on gender, energy and health to other interventions on, *inter alia*, water, sanitation, and education.

Babatunde Osotimehin, UN Population Fund (UNFPA), linked maternal and infant mortality to lack of electricity in hospitals and clinics, and called for: public-private partnerships to fill the gap in critical services for women and children; and empowering youth to become innovators and creators of renewable energy.

Maria Neira, WHO, noted that more than 4 million people die prematurely from illness attributable to household air pollution through increased risk of pneumonia, stroke, pulmonary disease and lung cancer. She called for innovative interventions to dramatically reduce emissions generated by cooking, heating and lighting.

#### REMAP 2030 LAUNCH

Timothy Hurst, IRENA, announced the IRENA launch of a publication outlining a practical, affordable path to doubling the share of renewable energy by 2030. Adnan Amin, IRENA, said the 36% renewable energy target is both ambitious and realistic, and REmap 2030 provides an operational framework to reach the target. He noted cost declines for modern renewables, and said the overall transition will cost less than half the current spending on fossil fuels, and generate health, environmental and climate-related savings. The report also finds that the resulting energy mix will limit global temperature rise, and that renewable energy has already created 6.5 million jobs, and will create more.

#### GLOBAL LEADERSHIP DIALOGUE

**Doubling the Share of Renewables in the Global Energy Mix:** Moderator Matthew Bishop, The Economist, asked if the target of doubling the share of renewables in global energy output was achievable. Both Francesco Starace, Enel SpA, and Jose Manuel Entrecanales, Acciona, responded positively. Starace added that were fossil fuels to be phased out suddenly, all of the Middle East and North Africa, and some South American states, would move to renewables immediately. Entrecanales said that in the developing world demand is such that regulators are always behind, but in developed economies, regulation is needed to enable the shift to renewables.

Hans Brattskar, Norway, said the reduction in solar costs by 70-80% in recent years is an encouraging step. He also said his country industrialized using hydropower, which now produces 97% of the electricity consumed, despite being a petroleum producer. 'Akau'ola, Tonga, noted the Pacific region's lack of "bankable data," and said the Pacific Regional Data Repository created last year potentially can fix this, which effectively would double renewable energy programme budgets. Mike Allen, New Zealand, said reducing financing risk requires political leadership at the highest level.

Maja Wessels, First Solar, said technology is "taking care of itself," and the big constraint is the high cost of financing. In response to a question on subsidies, she noted the costs of renewables have come down enough so that subsidies also can come down. Kerry Adler, SkyPower, said solar is the greatest wealth creation opportunity of this generation and the only thing stopping its growth is the cost of capital. In response to a question on reducing financing costs, Adler said strong leadership, such as by the UN, will solve the credit problems developing countries face.

Steve Sawyer, Global Wind Energy Council, cited the need to change consumption behavior, either by regulating consumption efficiency or raising prices, so that renewables can supply most or all energy. He noted that when countries transform their entire energy system around electricity, solar and wind get a larger share. Arthouros Zevos, REN21 and Greek Public Power Corporation, said traditional biomass makes up 10% of the current 19% of renewables, and without modern biomass the target will never be achieved, adding "we will never get there with solar." Adnan Amin, IRENA, responded that efficiency is also a factor and said the cost of capital and the high risk premiums on investments are incomprehensible, and multilateral financing is "not cutting it."

Ensuring Universal Access to Modern Energy Services: In a conversation moderated by Kandeh Yumkella, SE4ALL, Mohammed Wakil, Nigeria, discussed developments in the Nigerian energy sector, including renewable energy, and emphasized the need for coordination of policies that touch on energy issues. Monty Jones, Sierra Leone, noted the potential for renewable energy in his country, while stressing the importance of regional cooperation and highlighting Sierra Leone's Agenda for Prosperity and the goal to become a middle-income country by 2035.

Silas Lwakabamba, Rwanda, said that one of the biggest challenges for energy access is energy cost, and explained how appropriate tariffs, prices, and policies can create price stability and affordability. Janvier Litse, New Partnership for Africa's Development (NEPAD) and the African Development Bank, highlighted the Africa 50 Fund as a flagship initiative that aims to close the infrastructure gap in Africa through finance. Brian Dames, Eskom, acknowledged the importance of access to energy grids, but said that this will not solve the problem entirely; innovative solutions for affordability are needed to ensure access. Philippe Joubert, Global Electricity Initiative, emphasized that for utilities the problem of the energy transition is not technology or finance, but that they are government owned or strictly regulated, and stressed the need for a long-term and coherent policy framework. Abyd Karmali, Bank of America Meryll Lynch, highlighted the work of the SE4ALL Finance Committee, and noted recent developments in finance for energy access resulting from lower technology costs and innovations in



business models. Klaus Rudischhauser, EuropeAid, underscored energy access and renewable energy challenges resulting from rapid and unplanned urbanization. Ceri Powell, Royal Dutch Shell, said that oil and gas companies could help expedite energy access through capacity building, technology development, and "unusual" partnerships, although she noted that more practitioners with technical capabilities are needed to drive down costs. Shamas-ur-Rehman Toor, Islamic Development Bank, discussed the Solar Homes Systems Programme in Bangladesh as an initiative that successfully delivered electricity to remotely located rural households, transforming the lives of poor communities and especially youth and women.

**Doubling the Global Rate of Improvement in Energy Efficiency:** To start the panel, Tsering Choden and Tashi
Palden, Manhattan Comprehensive Night and Day High School, introduced the Green Track Programme, where they learned how to build solar panels and a solar lamp, and which was a finalist for the Zayed Future Energy Prize.

Chad Holliday, Bank of America and SE4ALL, facilitated the discussion, beginning with a question on engaging private enterprises in increasing energy efficiency. Pavol Hamzik, Slovakia, suggested combining credits provided by private enterprises with subsidies provided by state institutions, and stressed public-private partnerships as well as education of private and public sectors. Masahiko Horie, Japan, discussed the Top Runner programme and said ten cities will be selected to serve as "locomotives" for energy efficiency, as part of a platform to be launched at the UN Climate Summit in September 2014. Kim Kielsen, Greenland, highlighted partnerships with other governments.

Josué Tanaka, EBRD, said that once a business sees a higher rate of return, it takes a greater interest in providing energy efficiency financing. Lutaf Kassam, Industrial Promotion Services, Ltd., cited governments' lack of financial capacity to incentivize the private sector. Sze Ping Lo, WWF China, highlighted the role of legislation to build industry. Teresa Ribeiro, Union for the Mediterranean, described two pillars of their work: regional dialogue regarding regulatory frameworks, best practices and capacity building; and projects with a demonstrative and learning effect, to feed the regional dialogue. Karoly Borbely, Romania, spoke on energy efficiency of public buildings, and said his country's forthcoming 2014-2035 strategy will give an important role to energy efficiency programmes.

Martin Hiller, Renewable Energy and Energy Efficiency
Partnership, said the trick is to make energy efficiency more
exciting, such as the role of energy efficiency in Formula One,
while noting that in buildings we need to aim for positive energy
buildings and look at efficiency in a systemic context. Reid
Detchon, UN Foundation, said many cities and countries have
good energy efficiency policies, but that does not mean building
codes are enforced. Fergus O'Dowd, Ireland, said we have to
look at new ways to harness natural resources and that Ireland is
helping low-income households make their homes more efficient.
Detchon said information technology is improving energy use.
Tanaka stressed the importance of energy waste recovery.

On the role of governments, Borbely mentioned governments can encourage companies to create green energy technology jobs. Horie said governments have to spend money to promote energy efficiency and renewables research and development. Hege Marie Norheim, Statoil, said that a reduction in gas flares could help fill energy needs, but public-private cooperation is needed.

Tanaka emphasized both the demand and supply sides. O'Dowd said some cities do not want energy infrastructure, and there could be more renewable energy if we deal with the planning issue. Kielson said national governments and the private sector must work together for solutions.

Catalyzing Bottom-up Financing and Investment for Sustainable Energy for All: In a conversation with moderator Boason Omofaye, Bloomberg TV Africa, about reaching the poor, Harish Hande, SELCO India, stressed that different categories of poor people have different finance needs, and, taking the Indian approach to the agricultural sector in the 1960s-70s as an example, advocated a focus on financing rural entrepreneurs.

Sospeter Muhongo, Tanzania, discussed the inclusion of the private sector in Tanzania from a historical perspective, emphasized that an effective legal framework guides the energy system, stressed the transparent process of policy development, and highlighted the elimination of corruption in energy contracting. Edward Saia Sanneh. The Gambia, discussed his country's national energy and renewable energy policies, highlighting a focus on thermal and solar energy and the inclusion of the private sector. Nicola Armacost, Arc Finance, addressed the need for more innovative financing solutions that are developed "outside of the box," including mobile phone and pay-as-you-go technology for finance. Reema Nanavaty, SEWA, underscored the need for communities to organize themselves, for example through integrated grids that communities own and manage. Jiwan Acharya, Asian Development Bank, underscored project viability in order for a finance instrument to work. Gyan Chandra Acharya, UN High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, stressed that upfront capital investments and strong leadership are needed for countries in special situations. Zia Khan, Rockefeller Foundation, characterized the funding challenge as a coordination one. David Reed, WWF-US, compared key differences between mobile phone and sustainable energy technologies, including demand and delivery costs in rural areas, which explain the "runaway success" of mobile phones in countries like Kenya. Ign Wiratmaja, Indonesia, described successful measures to accelerate renewable energy use through incentives such as feedin tariffs for geothermal and photovoltaic energy. Kimball Chen, GLPG Partnership and WLPGA, stressed the need to look at cultural and policy requirements for each type of energy within a larger "energy ecosystem." Christine Eibs Singer, SE4ALL, stressed the need for cross-sectoral policy conversation so that ministers of energy, health, and agriculture develop energy policy together.

#### WRAP UP PLENARY

Sam Russ, Liberia, noted that the Forum has effectively discussed defining the problem of sustainable energy for all, and that finding solutions entails recognizing that: countries have different needs; resources should be directed to specific issues; peer-to-peer learning experiences are important; and a regional approach is needed. Edmond Alphandéry, Centre for European Policy Studies, called for a multilateral effort to introduce a carbon tax, which could be used to invest in infrastructure and clean energy in the poorest countries. In closing, Kandeh Yumkella, SE4ALL, echoed the importance of a discussion on energy governance and pricing.



# **SE4ALL Bulletin**

A Summary Report of the First Sustainable Energy for All Forum

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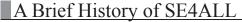


SUSTAINABLE ENERGY FOR ALL

### SUMMARY OF THE FIRST SUSTAINABLE ENERGY FOR ALL FORUM: 4-6 JUNE 2014

The first Sustainable Energy for All (SE4ALL) Forum convened from 4-6 June 2014 at UN Headquarters in New York, US. The Forum's 1000 participants assessed progress on sustainable energy since the UN Conference on Sustainable Development (Rio+20) in June 2012, showcased successes, shared best practices, presented new commitments, and catalyzed action to help shape the global energy debate for the next decade.

On the first day of the Forum, representatives from governments, UN agencies, international organizations, the private sector and civil society attended 46 different parallel panel discussions featuring over 200 speakers. During the second day, a Global Leadership Dialogue was convened through global leaders' panels; the UN Decade of Sustainable Energy for All 2014-2024 was officially launched, with the first two years to focus on energy for women and children's health; and the International Renewable Energy Agency (IRENA) launched REmap 2030, a renewable energy road map to double the share of renewable energy in the world's energy mix between 2010 and 2030. On the final day, ministers, government delegates and other stakeholders addressed energy in the post-2015 development agenda.



In December 2010, the General Assembly adopted resolution 65/151, declaring 2012 as the International Year of Sustainable Energy for All. The resolution also requested the UN Secretary-General, in consultation with relevant agencies in the UN system and UN-Energy, to organize and coordinate activities to be undertaken during the International Year of Sustainable Energy for All. In that resolution, the General Assembly recognized that access to modern affordable energy services in developing countries was essential for the achievement of internationally agreed development goals, including the Millennium Development Goals (MDGs), and sustainable development, which would help reduce poverty and improve the conditions and standard of living for the majority of the world's population.

In response to resolution 65/151, UN Secretary-General Ban Ki-moon launched the "Sustainable Energy for All" initiative to mobilize action from all sectors of society to realize sustainable energy for all by 2030. The Secretary-General set three interlinked objectives to be achieved by 2030: providing



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.

In September 2011, to guide the work carried out under the SE4ALL initiative, Secretary-General Ban Ki-moon appointed a High-level Group on Sustainable Energy for All, comprising global leaders from around the world. Drawn from the business and financial sectors, governments, civil society and the UN system, the group has worked to mobilize a broad range of stakeholders to catalyze commitments and form partnerships to support achieving the SE4ALL targets. The Chair of the SE4ALL Executive Committee is Charles "Chad" Holliday, Chair of Bank of America. The Secretary-General's Special Representative for Sustainable Energy for All and Chief Executive Officer (CEO) of the initiative is Kandeh Yumkella, Chair of UN-Energy and former Director-General of the UN Industrial Development Organization (UNIDO).

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GLOBAL ACTION AGENDA: The Global Action Agenda was developed and endorsed by the High-level Group in April 2012. It provides a strategy for governments, the private sector and civil society to engage with the UN as a convening platform where key stakeholders from both developing and developed countries can mobilize commitments, foster new public-private partnerships and leverage the investments needed to make the transformative changes to the world's energy systems.

The Global Action Agenda identifies 11 "action areas" that provide a framework for organizing collaborative efforts across all relevant sectors. The action areas are classified into "sectoral action areas" and "enabling action areas." The sectoral action areas are: (a) modern cooking appliances and fuels; (b) distributed electricity solutions; (c) grid infrastructure and supply efficiency; (d) large-scale renewable power; (e) industrial and agricultural processes; (f) transportation; and (g) buildings and appliances. The enabling action areas are: (a) energy planning and policies; (b) business model and technology innovation; (c) finance and risk management; and (d) capacity-building and knowledge-sharing.

INTERNATIONAL YEAR OF SUSTAINABLE ENERGY FOR ALL: During 2012, numerous activities and initiatives were undertaken in support of SE4ALL. The rollout of the International Year took place at the World Future Energy Summit held in Abu Dhabi, United Arab Emirates from 16-19 January 2012. Between February and May there were regional roll-outs in Asia (New Delhi, India on 1 February 2012), Europe (Brussels, Belgium on 8 February 2012), Africa (Nairobi, Kenya on 18 February 2012), for small island development States (Bridgetown, Barbados from 7-8 May 2012), and the Pacific (Suva, Fiji on 18 May 2012).

At Rio+20, sustainable energy for all was a consistent, high-profile theme. Several high-level side events on the issue were organized. Significant commitments to action in support of the achievement of sustainable energy for all were announced and were included in the online Conference registry of voluntary commitments. The Conference outcome document, "The Future We Want" also takes note of the SE4ALL initiative and the determination of stakeholders to make sustainable energy for all a reality. Numerous UN agencies and other organizations also sponsored events throughout the year (see the Secretary-General's report on the International Year in document A/67/314).

INTERNATIONAL DECADE ON SUSTAINABLE ENERGY FOR ALL: In December 2012, the UN General Assembly declared 2014-2024 as the Decade of Sustainable Energy for All. Resolution 67/215 calls upon Member States to galvanize efforts to make universal access to sustainable modern energy services a priority. The resolution stresses the need to improve access to reliable, affordable, economically-viable, socially-acceptable and environmentally-sound energy services and resources for sustainable development.

The Assembly calls upon governments, as well as relevant international and regional organizations and other relevant stakeholders, to combine, as appropriate, the increased use of new and renewable energy resources, more efficient use of energy, greater reliance on advanced energy technologies, including cleaner fossil fuel technologies, and the sustainable use of traditional energy resources, to meet the increasing need for energy services.

### SE4ALL Forum Summary

The first Sustainable Energy for All (SE4ALL) Forum opened on Wednesday morning, 4 June 2014. Chad Holliday, Chair, SE4ALL Executive Committee, explained that SE4ALL has three goals—access, efficiency and renewable energy—and with World Bank leadership and support from other organizations, it is measuring progress to ensure it has an impact.

Ahmad Alhendawi, UN Secretary-General's Envoy on

Youth, stressed the important role of young people as innovators, consumers and voters, who contribute in a meaningful way to development at large. Reema Nanavaty, Self-Employed Women's Association, noted that rural women demonstrate how energy can transform lives, and argued for a platform through SE4ALL that enables poor people and women as users, owners and managers of energy devices. Winona LaDuke, Honor the Earth, noted that indigenous

fewer subsidies for fossil fuels.



communities are in the most remote, least electrified and poorest areas of North America, and called for a just, "graceful" transition to renewables, and less investment in and

#### MULTI-STAKEHOLDER PARTNERSHIPS DAY

After the opening plenary, the Multi-Stakeholder Partnerships Day began with parallel panel discussions under six different themes. The following is a summary of the ideas that emerged during the day. For more details, see IISD's daily coverage at http://www.iisd.ca/energy/se4all/2014f/html/crsvol181num5e.html.

GROWING THE MOVEMENT: Under this theme, several panels convened to address how civil society organizations and stakeholders can engage in advocacy campaigns and outreach under the UN Decade of Sustainable Energy for All. Thematically, the panels addressed two general issues: reasons for engaging civil society, and ways for women, youth and business partners to participate in the SE4ALL process.



Panel (L-R): Anurag Bhatnagar, Grassroot Trading Network for Women; Mohinder Gulati, SE4ALL; Reema Nanavaty, SEWA; Chad Holliday, Bank of America and SE4ALL Executive Committee; Heeaben Dave, SEWA; Divuben Rathod, Salt Worker, SEWA; Ramilaben Rohit, grassroots leader, SEWA



On the need to engage civil society, some panelists explained that civil society has demonstrated a demand to participate fully in SE4ALL. However, others noted that more capacity and resources are needed to reach full participation and engagement.

Panelists considered ways to leverage multi-stakeholder partnerships based on the progress and lessons learned from Rio+20 SE4ALL commitments. As one example, it was noted that local entrepreneurship in the area of off-grid electrification has provided maximum impact, and has triggered the broader solar market. Some panelists described examples of successful initiatives on increasing involvement of women, youth and business partners in the SE4ALL process. Others noted the many risks confronting business and the importance of national policy development for building an effective international framework. In terms of youth engagement, it was noted that youth play an important role in facilitating the transition to a sustainable energy future.

CATALYZING INVESTMENT THROUGH
INNOVATIVE BUSINESS MODELS: Under this theme, speakers noted the SE4ALL Energy Access Committee's recommendation to pursue off-grid, decentralized, bottom-up energy solutions and smaller-scale technologies. Participants called for more support from the public sector, which could take the form of, *inter alia*: reducing risks for small- and medium-scale renewable energy projects, such as solar; and reducing costs to operators, in order to engage smaller providers and ensure distributive access. It was noted that fuel economy policies have already improved fuel efficiency.

Panelists highlighted that the private sector also has a role to play in complementing development finance and innovative financing for deployment, by scaling up investment for energy efficiency, which needs incremental investment of US\$300 billion, and by advancing fuel efficiency technologies. They also noted that collaboration between energy providers and microfinance institutions could strengthen supply.

Speakers suggested local financial institutions could support the long-term sustainability of clean energy mini-grids and that the cost and complexity of mini-grids will fall as they achieve scale and standardization, while highlighting lack of capacity of financial intermediaries as a challenge for accelerating energy efficiency.

Clean cookstoves served as a case study on this topic, with participants discussing the need to build market demand and attract investment, and ensure not only the broad availability of stoves but also their adoption by users. Speakers cited the need for "patient capital" to encourage growth, and the close involvement of women at every stage to ensure success.

One panelist gave SolarAid as another example of an innovative business model, describing it as an organization that unites both commercial and advocacy work. Speakers also highlighted pay-per-use approaches to energy access, rather than consumers' needing to own an entire system.

PARALLEL MULTI-STAKEHOLDER SESSIONS: A series of multi-stakeholder panels addressed issues related to: women's empowerment; research and analysis; energy efficiency; wind for prosperity; and renewable energy, using Brazil as a case study. Many panelists underscored the academic and analytical developments in the areas of energy demand and energy efficiency policy. Several research developments and reports were discussed, including: the SE4ALL Knowledge Hub; Global Energy Assessment through the International Institute of Applied Systems Analysis; and State of Energy Access Report through the Energy Sector Management Assistance Program.

Other panelists offered their on-the-ground insights, with one panelist describing the life of Indian salt workers and how 70% of earnings used to go to buying diesel. She explained that, through solar pumps, salt workers have been able to dramatically increase income and savings. Stakeholders also discussed the transition to energy efficient appliances and equipment, specifically addressing national energy efficiency success stories. A Global Platform to accelerate the transition to efficient appliances and equipment was launched as part of this discussion.

SHARING KNOWLEDGE AND EXPERIENCES, DEVELOPING CAPACITY: Panels discussed several specific initiatives and reports, including the Energy Access Practitioner Network, the 2014 Poor People's Energy Outlook Report, the SE4ALL Capacity Building Hub called "Specialized Training, Education and Experiential Resources (STEER)," and the Renewable Energy Policy Network for the 21st Century's (REN21) Global Renewables 2014 Global Status Report.

Many panelists highlighted activities at the local level, such as the provision of finance to local entrepreneurs and rural areas, and small-scale, decentralized energy projects, while also emphasizing the importance of multi-stakeholder processes and private sector engagement. Recurrent themes were the importance of empowering women, and the linkages between energy access and health, water, food production, and transport. Several participants emphasized the need for a stand-alone Sustainable Development Goal (SDG) on securing



Sean Collins, Co-Founder, Student Energy



sustainable energy for all, and said targets on renewables and energy efficiency need to be more ambitious than current ones in order to keep global temperature increases below 2°C.

**ACCELERATING COUNTRY ACTION:** During the parallel sessions on this theme, governments, regional development banks, international organizations and other stakeholders described different country-level initiatives. They noted that sustainable energy is not another aid problem, but is about investments and business models, and public policy is needed to incentivize the process.

Government initiatives discussed included:

- the Tonga Energy Roadmap;
- promoting access to energy in Tanzania;
- Nicaragua's progress in renewable energy generation and efficiency;
- Ghana's work on access to energy and challenges with off-grid electrification;
- energy infrastructure development in Rwanda;
- Senegal's energy strategy and rural electrification programmes;
- Guinea's investment prospectus, which involves expanding the electricity network, using mini-grids, and expanding off-grid services to remote areas;
- Bangladesh's Investment Prospectus Framework and Vision 2021 "electricity for all" plan; and
- Guatemala's strategy on clean cookstoves and clean cooking solutions.

Donors and the private sector called for: more education; the use of development assistance to leverage public and private funds for energy development; increased access to finance and the inclusion of local financial institutions; innovative finance; development of outcome monitoring; the right kind of business model; risk mitigation; and making projects commercially viable.

One panel examined the international energy and climate initiative, Energy+, which aims to fund energy access, renewable energy, and energy efficiency in low-income developing countries.

Other speakers noted the need for political leadership, sustained commitment and an enabling policy environment. Regional energy partnerships for the promotion of sustainable industrial development and regional cooperation for scaling up access to modern energy were also mentioned. Some spoke about the roles of parliamentarians and public-private partnerships in accelerating national action. At the local level, it was noted that civil society can provide a "reality check"



of policies' effectiveness, and that local communities, small enterprises, incubation centers in rural and semi-rural areas, and local entrepreneurs are all important parts of the solution.

ADVISORY BOARD AND GLOBAL LEADERSHIP DIALOGUE ON SUSTAINABLE ENERGY FOR ALL

TEN YEARS TO TRANSFORM THE WORLD'S **ENERGY: UN DECADE OF SUSTAINABLE ENERGY** FOR ALL 2014-2024: On Thursday, UN Secretary-General Ban Ki-moon said that as a result of SE4ALL's efforts, a growing number of people "have light and power where there was none before." He sees this Forum as an annual meeting place for the global energy community, where it can assess progress and mobilize new partners, in order to shape a new energy future.

Jim Yong Kim, President of the World Bank, speaking via video message, conveyed the World Bank Group's commitment to working with participants during the "action phase" of SE4ALL. UN General Assembly President John Ashe welcomed the launch of the UN Decade of Sustainable Energy for All, noting progress already made to consider a standalone goal on sustainable energy for all in the current draft of the proposed SDGs. Iceland's President Ólafur Ragnar Grímsson offered his country as an example of how clean energy can provide a solid foundation for economic growth, based on Iceland's generation of 100% of its electricity and heating from sustainable energy sources.

Other speakers, including Andris Piebalgs, European Union (EU), Zhang Yuqing, National Energy Administration, China, Helen Clark, UN Development Programme (UNDP), Luis Alberto Moreno, Inter-American Development Bank, and Suma Chakrabarti, European Bank for Reconstruction and Development, supported the global launch of the UN Decade of Sustainable Energy for All. They highlighted the linkages between access to sustainable energy and poverty reduction,



Panel (L-R): UN Secretary-General Ban Ki-moon; Kandeh Yumkella, Chief Executive Officer, SE4ALL; Chad Holliday, Chair, Bank of America and Chair, SE4ALL Executive Committee



and the need for commitment, investment-friendly markets and innovative solutions to provide universal access to sustainable energy.

THIRD MEETING OF THE SUSTAINABLE ENERGY FOR ALL ADVISORY BOARD: This session reported on the work of the SE4ALL Advisory Board and Committees. Chad Holliday emphasized that action is needed in the next five



Chad Holliday, Bank of America and SE4ALL

years to fundamentally change the energy system in a sustainable way by 2030, stressing the need to examine whether the risk-reward ratio of actions taken is right. SE4ALL CEO Kandeh Yumkella highlighted the need to align politics, policy, pricing and partnerships, and called for investments of US\$600-800 billion per year over the next two decades to achieve

the SE4ALL "energy revolution." UN Secretary-General Ban Ki-moon noted that there is clear evidence that doubling the share of renewable energy is economically viable and beneficial to all.

Participants also heard reports from the various committees of the SE4ALL Advisory Board.

**GLOBAL LEADERSHIP DIALOGUE:** On Thursday, six global leadership dialogues were held. For more details, see IISD's daily coverage at http://www.iisd.ca/energy/se4all/2014f/html/crsvol181num6e.html

Catalyzing Large Scale Financing and Investment for Sustainable Energy for All: This panel examined how to bridge the gap between the needs of investors and the required US\$600-800 billion to achieve the SE4ALL targets. Participants set forth a number of recommendations, including:

- targeting the growth areas of proceeds bonds, municipal green bonds, project bonds, and asset-backed securities;
- focusing on four thematic areas that need attention to close the funding gap: green bonds; development finance institution private risk sharing; aggregation; and insurance;
- instituting favorable tax treatment to make renewable energy more competitive;
- using local commercial banks that can play an aggregating role and scale up energy efficiency projects;
- integrating markets, energy sources, and public and private efforts; and
- developing a global programme to advance credit worthiness of utilities.

One panelist underscored the need for a new, 21st-century paradigm for engaging communities and civil society during the project design process to include environmental values and stability. Another stressed the importance of a clear policy and regulatory framework, as well as incentives, to attract investors.

The Energy Linkages: This panel discussed linkages between sustainable energy and other issue areas, highlighting the central role of energy for all facets of sustainable development. Panelists paid particular attention to the energy-

women nexus, stressing the need to recognize women not only in terms of the disproportionate impact on them, but also as agents of change and enablers of SE4ALL goals. They commended efforts to expand energy access to women and children, including through UN efforts such as the collaboration on women's health and energy between UN

Women, the World Health Organization (WHO) and the UN Foundation.

Speakers provided specific examples, such as on cookstoves, "solar suitcases" and electric spinning wheels, to show that clean energy interventions can provide health, environmental, economic, and security benefits. Some participants stressed the importance of political will to achieve the benefits of these



achieve the benefits of these
nexuses and called for closer inter-ministry collaboration to
engage relevant government departments in energy policy
development. Others noted that new types of risk, such
as climate change and severe weather events, will change

the perspective on energy infrastructure development, and underscored the importance of national energy policies, which half of the world's countries have not yet developed.

**Doubling the Share of Renewables in the Global Energy Mix:** Several speakers stressed that this target is achievable, noting the reduction in solar costs by 70-80% in recent years, and that costs have come down enough for subsidies to also come down. Others drew attention to constraints or conditions: developed countries will need regulation to enable the shift to renewables; political leadership at the highest level is needed to reduce financing risk; and while technology is "taking care of itself," the high cost of financing remains a constraint.

One speaker highlighted solar as a major wealth creation opportunity, but said the cost of capital hinders its growth. Participants debated whether solar and wind can drive the doubling of renewables in the global energy mix. These sources play a larger role in countries that focus their energy system on electricity, said one. Another said biomass will be a major part of achieving the target, given its current high share in the renewables mix. One speaker expressed disappointment in the current cost of capital and high risk premiums placed on investments, despite the performance record of renewables in developing countries.

Ensuring Universal Access to Modern Energy Services: This panel identified some of the challenges and opportunities that face the SE4ALL objective of ensuring universal energy access. The panelists identified barriers that hinder access and opportunities for overcoming them, specifically through case studies.

On opportunities to overcome energy barriers, panelists considered the need to: coordinate policies that affect energy issues; establish appropriate tariffs, prices and policies for stability and affordability; and close the "infrastructure gap" in Africa through finance. One panelist underscored the need to expedite energy access through capacity building, technology development and formation of "unusual partnerships." Another emphasized that the successful delivery of electricity to remote rural households can transform the lives of poor communities, especially youth and women.

Panelists also noted that access to energy grids, while important, is not enough to solve the problem entirely; innovative solutions for affordability are needed to ensure access.

Doubling the Global Rate of Improvement in Energy Efficiency: Participants considered ways for both private enterprises and governments to support energy efficiency. They noted that private enterprises need to see a higher rate of return from investing in energy efficiency projects, before they will take an interest in providing financing. On the role of governments, speakers highlighted urban planning for renewable energy, enforcing building codes for energy efficiency and encouraging companies to create jobs in green energy technology. Participants noted many governments' lack of financial capacity to incentivize the private sector.

Several areas for public-private collaboration were suggested, including: a combination of credits provided by private enterprises, with subsidies provided by state institutions; education for both sectors; and cooperation to reduce gas flaring. One mentioned the importance of partnerships among governments.

Catalyzing Bottom-up Financing and Investment for Sustainable Energy for All: This panel discussed reaching the poor and improving sustainable energy for all at the "bottom of the pyramid." Participants stressed that different categories of poor people have different finance needs. Drawing from concrete country initiatives and projects, panelists identified the need for:

- rural banks and finance for rural entrepreneurs;
- government to make energy more affordable, accessible and reliable;
- engagement with the private sector;
- more innovative financing solutions, such as mobile phone and pay-as-you-go technology for finance;
- communities to organize themselves, for example through integrated grids that communities own and manage;
- upfront capital investments and strong leadership to support countries in special situations:
- measures to accelerate renewable energy use through incentives such as feed-in tariffs for geothermal and photovoltaic energy;
- attention to cultural and policy requirements for each type of energy within a larger "energy ecosystem"; and
- cross-sectoral policy conversations enabling ministers of energy, health and agriculture to develop energy policy together.

#### THE HUMAN FACE OF SUSTAINABLE ENERGY FOR ALL: ENERGY, WOMEN, CHILDREN AND YOUTH

On Thursday, Lynn Featherstone, UK, announced the global campaign on sustainable energy for women and children's health, saying that women and girls bear the brunt of energy poverty. Mark Lyall Grant, UK, welcomed this special focus

for the first two years of the UN Decade on Sustainable Energy for All, noting that the SE4ALL Global Facilitation Team is designing the campaign and everyone is welcome to participate.

Hans Brattskar, Norway, noted the large change in gender equality and women's empowerment in Norway over the last 40 years, through civil society engagement, political decisions and investments



Helen Clark, Administrator, UNDP



Lakshmi Puri, Deputy Executive Director, UN Women

in education and healthcare. Helen Clark, UNDP, said access to energy is not an end in itself but a means to improving human development. Lakshmi Puri, UN Women, called for access to energy to be considered a human right, and noted the importance of mainstreaming gender equality and women's empowerment in energy policies at all levels.

Babatunde Osotimehin, UN Population Fund (UNFPA), linked maternal and infant mortality to lack of electricity in hospitals and clinics, and called for public-private partnerships



Babatunde Osotimehin, Executive Director, UNFPA

to fill the gap in services critical to women and children. Maria Neira. WHO, addressed global conditions for air pollution and health, noting that each year more than four million people die prematurely from illness attributable to household air pollution through increased risk of pneumonia, stroke, pulmonary disease and lung cancer.

#### REMAP 2030 LAUNCH

On Thursday, IRENA launched REmap 2030, a road map to doubling the share of renewable energy in the world's energy mix by 2030. Adnan Amin, IRENA, said the 36% renewable energy target is both ambitious and realistic, and REmap 2030 provides an operational framework to reach the target.

Amin noted cost declines for renewables, and said the overall transition will cost less than half of current spending on fossil fuels, and generate health, environmental and climaterelated savings. The report also finds that the resulting energy mix could limit global temperature rise, and that renewable energy has already created 6.5 million jobs.

#### HIGH-LEVEL MINISTERIAL DIALOGUE: ENERGY IN THE POST-2015 DEVELOPMENT AGENDA

Kandeh Yumkella opened Friday morning's session and said the Forum has demonstrated that the three SE4ALL targets are achievable, make economic sense, and help the environment, noting that the remaining challenge is to speed up implementation of actions. He welcomed the inclusion of energy as the seventh proposed SDG in the post-2015 development agenda.

Economic and Social Council (ECOSOC) President Martin Sajdik said the success of the Forum will have considerable impact on the final shaping of the post-2015 development agenda. He stressed the linkage between investments and the rule of law, adding that an accountable legal system is a precondition for stable and transparent investments.

Felipe Calderón, former President of Mexico, and Global Commission on the Economy and Climate, described the choice between economic growth and tackling climate change as a "false dilemma." He said the Commission will issue a



report in September 2014 demonstrating that it is feasible to achieve both. To maximize this outcome, he suggested, *inter alia*: building better cities; avoiding unsustainable technologies in favor of low-carbon, modern approaches; ensuring larger government investment in research and development so that renewable energy generation will become cheaper than generating fossil fuel energy; and stopping deforestation.

Iceland's President Ólafur Ragnar Grímsson urged an energy transformation that is "small-scale, simple, practical and incremental," highlighting that innovations and cost reductions in technologies allow individual households to "become their own energy companies." He called for bringing existing technologies to all people, and promoting research and development for a "solar Apollo project" to reduce the costs of solar technology and storage systems.

Ministerial Statements: Burkina Faso stressed the need for, *inter alia*: sustainable supply of electrical power, which will be achieved by developing connections with other countries; increased access to electrical services; promotion of renewable energy; and rational management of demand for energy, including through updated studies on the consumption of firewood. Côte d'Ivoire said he would like to see continued investments for structural, regional, and national projects to be part of sustainable energy for all.

Nicaragua called for new patterns of consumption and production to balance the global population with a planet of limited resources. He outlined Nicaragua's efforts to provide reliable energy supply including through renewable sources. Rwanda said its energy mix is 50% renewables and 50% diesel, and that the latter is costly, especially for a landlocked country. He expressed a wish to learn from others on promoting biomass alternatives.

Tanzania urged SE4ALL to focus on Africa, highlighting that energy is a powerful driver for long-term economic growth, which is necessary to address poverty reduction and socio-economic development. Turkmenistan highlighted the importance of international attention to the reliable transit of energy and its role in sustainable development, recalling two UN General Assembly resolutions adopted on this topic in 2008 and 2013.

Brazil said it is giving priority to solar and photovoltaic options for energy production, and celebrating the success of its Light for All programme, which has supplied electricity to more than 15 million people. China stressed the need for: a

clean and safe energy strategy; high-efficiency, modern energy solutions; and the development of solar and other renewable energy sources.

The Gambia said it has been chosen as a SE4ALL pilot country for West Africa, and expressed hope that small-scale renewable energy projects in the country will become a baseline for meeting renewable energy goals in off-grid communities. Guatemala said primary energy comprises 55% of its consumption, while renewables remain high-cost and, therefore, are not accessible to the population or profitable for investors. He called for the post-2015 agenda to include a platform to facilitate the transfer of technology, research and development.

Ireland emphasized the importance of including an energy target in the post-2015 development agenda, including a specific focus on women and the most vulnerable people, while also highlighting that 2020-2030 will be critical for the EU in its transition to a low-carbon economy. Nigeria highlighted national and regional efforts in renewable energy and energy efficiency, and noted that the recent reform of the country's power sector has created new opportunities for investors.

Norway identified the following priority areas: good governance, including the rule of law and independent justice systems; education, in particular for girls; and gender equality from both an economic and a human rights perspective. He also underscored the need for a framework for more predictable financing. Romania said that energy price volatility, climate change and reduced access to low-carbon technologies can hamper the achievement of the SE4ALL goals.

The Holy See said true sustainable energy for all requires a "radical" paradigm shift in behavior and view of the economy and development, and called for prioritizing energy consumption and distribution on the basis of justice and solidarity. Greenland said: sustainable energy solutions are a challenge and the country cannot be a "first mover" in providing technological solutions; and it depends on

technology for clean energy at reasonable costs.



Ib Petersen, Permanent Representative of Denmark to the

Government Statements:
Slovakia noted the strong
links between energy
services and the MDGs,
and supported a standalone
goal on energy in the SDGs.
Azerbaijan emphasized its
national strategy for the
development of alternative
and renewable energy
sources, with a particular
focus on solar and wind
energy, despite being a gasrich country.

Denmark noted that while its economy has grown by 78%, energy consumption has remained more or less the same, and noted that the SE4ALL Energy Efficiency Hub was initiated to play a role in achieving efficiency goals. Italy described its regional activities, including the Italy-Africa initiative, which aims to strengthen relationships with Africa through priority areas of energy, the environment, and infrastructure.

Kazakhstan said Astana EXPO 2017 will have the theme "Future Energy," and highlighted his government's actions for an environmentally-friendly and energy-secure world, with an



emphasis on inclusiveness, social justice, gender equality and poverty eradication. Kenya welcomed the dedication of the first two years of the UN Decade to women's and children's health, and said participants in the Forum should commit themselves to implementation.

Colombia noted that the current production system based on highly polluting fossil fuels demands the development of a new global energy matrix based on sustainable sources of energy, and highlighted Colombia's challenges of using hydropower, as well as efforts to assess other sources, such as wind, solar and geothermal energy. Kyrgyzstan noted its national strategy for sustainable development, with particular attention to hydropower and the creation of a favorable environment for investments in this area, while also expressing hope that the development of sustainable energy will be reflected in the post-2015 development agenda.

The Netherlands stressed the need for governments, NGOs, and business actors to work together, offering the work of Philips Lighting and its partnerships with national governments as an example. Pakistan welcomed the integration of energy into the SDGs and the post-2015 development agenda, and said that the Forum will provide a global roadmap for mobilizing domestic and foreign capital for delivering energy commitments, especially to the poorest and most vulnerable.

Peru said sustainable energy must be a basic part of the post-2015 development agenda, and highlighted the country's plans to provide renewable energy sources to its entire population by 2021, the bicentennial of its independence. Solomon Islands said investing in renewable energy is "the most cost-effective way to guarantee humanity's survival," calling for a UN system-wide approach to investment, including through the UN Development Assistance Framework (UNDAF) and UNDP country programmes. She said the post-2015 development agenda must enable and incentivize global partnerships for energy efficiency and renewable technologies.

Spain noted that it is the first country where wind energy has become the primary technology for generating electricity, and expressed support for the inclusion of sustainable energy in the post-2015 development agenda. Uganda expressed support for a standalone SDG on ensuring access to affordable, sustainable and reliable modern energy services for all, while highlighting its efforts to further develop hydropower, and rural and urban electrification projects through grid extensions, mini-grids and photovoltaic solar home systems.

Belarus urged a new strategic look at energy issues that is more systematic, coherent, and effective, noting that this should be included in work towards a post-2015 sustainable development agenda. Indonesia said that it has set a target of increasing the share of renewable energy in the national energy mix

by 23% in the next ten years. Malaysia highlighted, *inter alia*, its efforts for energy efficiency in manufacturing and building, and its 2015 rural electrification target. He called on SE4ALL members to present solid deliverables at the next Forum.

New Zealand, where renewables provide 80% of electricity, supported the six proposed targets for sustainable energy as part of the post-2015 development agenda, and said local community participation is an essential component in providing sustainable energy for all. The Russian Federation highlighted the absence of international institutions dealing with stability of energy supply and transit, accidents at energy facilities, and international energy cooperation, and called SE4ALL a forum for open and non-politicized expert discussion, while noting the inadequacy of the institutional

framework to implement its objectives.

Sierra Leone noted its investments in hydroelectricity, thermal, solar and bioenergy, and its engagement in regional collaborative projects on power transmission. Myanmar noted that its electrification rate is only 13% and that a majority of households depend on solid fuels. He promoted energy independence, grid expansion and energy efficiency.



Hind Alowis, Counselor, Acting Deputy Permanent Representative of United Arab Emirates

Nepal underscored the role of sustainable energy in realizing its commitment to graduate from least developed country (LDC) status by 2020. Zimbabwe said its Agenda for Sustainable Socio-Economic Transformation identifies renewable energy as a key element of development, shared his country's goal of becoming energy secure using natural resources, and conveyed its commitment to increasing private sector investment in the energy sector, including in renewables.

Barbados said her country is striving for a viable renewable energy and energy efficiency sector as part of its green economy efforts, and to help reduce imports of fossil fuels. Tonga highlighted the country's energy insecurity, high dependence on fossil fuels, weak energy sector, and low investments in renewable energy, which has adverse impacts on other sectors, and emphasized the importance of developing the Pacific Regional Data Repository.

The United Arab Emirates called sustainable energy the only way to decouple economic growth and climate change, and emphasized its engagement with the shift towards renewable energy and energy efficiency, including US\$750 million in grants and soft loans for renewable energy projects in developing countries in 2013. Australia described its efforts to



Tsering Choden and Tashi Palden, Manhattan Comprehensive Night and Day High School, introduced the Green Track Programme, where they build solar panels and a solar lamp, and which was a finalist for the Zayed Future Energy Prize.

address energy during its 2014 G20 presidency, adding that the G20 will focus on ways to, *inter alia*, bolster energy efficiency and build resilience of gas markets.

Egypt discussed its efforts towards a "Master Plan of Renewable Energy in Egypt," which will begin by connecting wind and solar energy to the grid. Japan noted that it is a "crucial moment to inspire the world," and discussed initiatives it has taken under the strategy to implement Actions for Cool Earth, which focuses on furthering technical innovation and low-carbon technology, and pledges assistance to developing countries of ¥1.6 trillion from 2013 to 2015.

Niger said Africa has enormous natural resources but populations live in "intense energy precariousness," and good governance and management of the resources must be brought to bear. He added that exploiting even a small percentage of



Fred Krupp, President, Environmental Defense Fund

Niger's potential solar power would make the country self-sufficient. Turkey highlighted that energy, while absent from the MDGs, is now considered a key part of the international development agenda, and said it should be recognized that countries can choose appropriate paths to sustainable energy according to national priorities and common but differentiated responsibilities and capacities.

Maldives emphasized that small island developing States

contribute the least to climate change, yet are among the most vulnerable, and called for partnerships for technology provision, investor-friendly policies, and engagement of the private sector. The United Kingdom underscored the importance of access to electricity for the livelihoods of women and children.

International Organizations' and NGOs' Statements: The UN Economic Commission for Europe stressed the need to "get the rules of the game right," in order to improve the technical, economic, environmental and social efficiency of the entire energy system.

WHO proposed defining health-related indicators to measure energy access in terms of "how much health you are generating," such as reduction in deaths caused by air pollution.

The Environmental Defense Fund said there is no high-carbon path to prosperity, and noted important moves by several actors, including the cuts to carbon pollution from power plants recently proposed by the US, and Europe's capand-trade system.

The New Partnership for Africa's Development (NEPAD) provided an overview of progress toward achieving the SE4ALL targets, including through: the Programme for

Infrastructure Development in Africa; the Africa Policy Framework for Sustainable Charcoal; the SE4ALL Africa Hub; the Africa Clean Energy Corridor initiative; the development of action plans and investment prospectuses for Kenya and The Gambia; and the SE4ALL High Impact Opportunity on Sustainable Bioenergy.

The World Energy Council highlighted the energy "trilemma"—energy security,



Sheila Oparaocha, Executive Secretary, ENERGIA

energy equity and environmental sustainability—and stressed the importance of energy as a standalone SDG, considering enduring challenges, such as the expected continued dominance of fossil fuels in the energy mix in 2050.

The International Union for Conservation of Nature (IUCN) underscored the need for the SE4ALL process to reach out not only to the energy supply side but also the energy demand side, as the needs and voices of energy users need to be heard. ENERGIA International Network described its commitment of &12 million to provide technical and financial assistance to country programmes in Africa and Asia that strengthen the capacity of women and small enterprises to deliver energy services to over two million consumers by 2017.

The Asian Development Bank noted his region's continued reliance on traditional biomass for daily heating and cooking needs, said energy access must be expanded to reach the 600 million energy-poor in the region, and said the SE4ALL regional hub will be launched at the upcoming Asia Clean Energy Forum in Manila.

The Global Wind Energy Council said that for renewable energy, "doubling is just the beginning," and that governments must stop subsidizing CO2 emissions at US\$110 per ton, and put a price on carbon, in order to protect the climate system.

The Islamic Development Bank announced the launch of the Renewable Energy for Poverty Reduction initiative and the Renewable Energy Alliance for the Poor, explaining that this will provide electricity through off-grid and renewable energy solutions, and envisioned SE4ALL providing a forum for stakeholder dialogue to discuss capacity-building, bankable projects, the role of the private sector, regulatory reform and the creation of an enabling policy environment, and financing.

The International Energy Agency highlighted the complementarity of its work to SE4ALL's, noted its upcoming special report on Africa's energy outlook, and stressed the importance of energy in the SDGs.

#### **CLOSING REMARKS**

Kandeh Yumkella thanked Member States, institutions and civil society organizations for their ideas, support and experiences. He said SE4ALL is about bringing partners together, looking holistically at energy issues and giving everyone a voice. He said the sustainable energy movement has just started, and there is a need to decide the long-term institutional framework for sustainable energy partnerships: what will be its legal form, and how will it be financed and supported. "It's a long journey," Yumkella noted, "and we have just taken the first step."

Yumkella closed the first SE4ALL Forum at 1:45 pm.

### **Upcoming Meetings**

2nd International Off-grid Renewable Energy
Conference and Exhibition: IRENA, the Asian Development
Bank and the Alliance for Rural Electrification are organizing
this conference to convene off-grid renewable energy
stakeholders to: gain insights into the current status of
electricity access in Asia and gather stakeholder perspectives
on improving access to modern energy services; discuss
barriers faced in scaling up off-grid renewable energy
deployment; identify solutions for overcoming barriers;
and sharing best practices and lessons about design and
implementation of policies and financing solutions. dates:
16-17 June 2014 location: ADB headquarters, Manila,
Philippines email: offgridconference@irena.org www:
http://www.iorec.org

**OWG-12:** The Open Working Group (OWG) on Sustainable Development Goals will continue the consideration of sustainable development goals, targets and indicators. Informal consultations are scheduled from 9-11 June. **dates**:



16-20 June 2014 **location**: UN Headquarters, New York, US **contact**: UN Division for Sustainable Development **phone**: +1-212-963-8102 **fax**: +1-212-963-4260 **email**: dsd@un.org **www**: http://sustainabledevelopment.un.org/owg12.html

Asia Clean Energy Forum 2014: The Asia Clean Energy Forum is being organized by the Asian Development Bank, the US Agency for International Development and the World Energy Council, and will gather stakeholders from academia, industry, civil society, government and multilateral institutions to discuss clean energy in Asia. dates: 16-20 June 2014 location: ADB headquarters, Manila, Philippines contact: Aiming Zhou phone: +63-2-632-5602 fax: +63-2-636-2444 email: azhou@adb.org www: http://www.asiacleanenergyforum.org

16th Africa Energy Forum: The 16th Africa Energy Forum will gather governments and business leaders in the energy sector to collaborate on improving energy infrastructure in Africa. Sessions will cover, among other topics, overcoming financing and other challenges, technological developments, and improving investment attractiveness of African infrastructure projects. dates: 18-20 June 2014 location: Istanbul, Turkey email: http://www.energynet.co.uk/content/contact-us www: http://africa-energy-forum.com

2014 CIF Partnership Forum: The Climate Investment Funds (CIF) and the Inter-American Development Bank are jointly convening the 2014 CIF Partnership Forum. During the forum, panels will address a variety of topics, including managing climate change programmes and unlocking private finance from mini-grids to REDD+. dates: 23-24 June 2014 location: Montego Bay, Jamaica email: CIFAdminUnit@ worldbank.org www: https://www.climateinvestmentfunds.org/cif/event-partnership/2014

UN Environmental Assembly of UNEP: The first meeting of the UN Environmental Assembly (UNEA) of the UN Environment Programme (UNEP) is expected to include ministerial plenaries on the SDGs and post-2015 development agenda, and illegal trade in wildlife and timber. dates: 23-27 June 2014 location: Nairobi, Kenya contact: Jiří Hlaváček, Secretary of Governing Bodies, UNEP phone: +254-20-7623431 email: unep.sgb@unep.org www: http://www.unep.org/unea/

High-Level Policy Conference at EU Sustainable
Energy Week 2014: The High-Level Policy Conference of
the EU Sustainable Energy Week, organized by the European
Commission, will focus on topics key to achieving the
EU's 2020 climate and energy targets on climate change,
renewables, and energy efficiency. dates: 24-26 June 2014
location: Brussels, Belgium contact: Ilka Neumann phone:
+32-2- 340-30-67 email: ilka.neumann@eusew.eu www:
http://www.eusew.eu/high-level-policy-conference-2014
Twitter: @euenergyweek

**OWG-13:** The OWG will continue the consideration of sustainable development goals, targets and indicators. Informal-informal consultations will be scheduled during the week before. **dates**: 14-18 July 2014 **location**: UN

Headquarters, New York **contact:** UN Division for Sustainable Development **phone**: +1-212-963-8102 **fax**: +1-212-963-4260 **email**: dsd@un.org **www:** http://sustainabledevelopment.un.org/owg13.html

Local Renewables 2014 Conference: The 6th Local Renewables Conference puts particular emphasis on the key role of the local level and the importance of renewable energy and improvement of energy efficiency. dates: 22-24 October 2014 location: Freiburg and Lörrach, Germany contact: ICLEI European Secretariat phone: +49-761-368-92-20 fax: +49-761-368-92-29 email: lr2014@iclei.org www: http://www.local-renewables-conference.org/

Italy-Africa Initiative: The Italy-Africa Initiative will host a ministerial meeting to address sustainable energy access in Africa. dates: 13-14 October 2014 location: Rome, Italy contact: Matteo Romitelli, Ministry of Foreign Affairs email: matteo.romitelli@esteri.it www: http://www.esteri.it/MAE/IT/Politica\_Estera/Aree\_Geografiche/Africa/Iniziativa\_italia\_africa.htm

Additional SE4ALL Meetings: Upcoming SE4ALL meetings include the Second Latin America and Caribbean SE4ALL Regional Meeting in October 2014, and meetings in Europe in November 2014 and Tanzania in January 2015. In October 2014, ECREEE will hold a high-level event to launch the ECOWAS status report on renewable energy and energy efficiency, in collaboration with REN21 and the Worldwatch Institute, as part of ECOWAS SE4ALL work. The second SE4ALL Forum will be held in mid-2015. For more information on SE4ALL meetings, contact: SE4ALL Secretariat phone: +43-1-2606083403 email: info@se4all. org www: http://www.se4all.org

Astana EXPO 2017: Kazakhstan will host EXPO 2017 in Astana with the theme of future energy. The objective is to explore strategies, programmes and technologies aimed at sustainable energy development, promoting energy security and efficiency, encouraging the use of renewable energy, and guiding visitors through their essential, active role in the design and execution of a plan for energy efficient production and use. dates: June-September 2017 location: Astana, Kazakhstan contact: Expo 2017 Organizing Committee email: info@expo2017astana.kz www: http://www.expo2017astana.com/en/For additional meetings, see http://energy-l.iisd.org/.

#### **GLOSSARY**

<b>IRENA</b>	International Renewable Energy Agency
MDGs	Millennium Development Goals
SDGs	Sustainable Development Goals
SE4ALL	Sustainable Energy for All
UNDP	United Nations Development Programme
WHO	World Health Organization



SE4ALL Staff and Volunteers