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# SE4ALL Bulletin

A Daily Report of the First 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 Rappacioli, 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. Kielsen 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 Saja 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 feed-in 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.