United States Senate Committee on Foreign Relations

Subcommittee on Multilateral International Development, Multilateral Institutions, and International Economic, Energy, and Environmental Policy

Wednesday, November 1, 2017, 2:30 PM
Washington, D.C.

Briefing by Rachel Kyte
Special Representative of the United Nations Secretary General for Sustainable Energy for All and CEO of Sustainable Energy for All (SEforALL)

Chairman Young, Ranking Member Merkley, distinguished Members of the Subcommittee, I appreciate the invitation to brief you today.

In 2015, the international community agreed a set of Sustainable Development Goals (SDGs). Sustainable Development Goal 7 is to secure “affordable, reliable, sustainable and modern energy for all by 2030”. Its targets include a doubling of the rate of improvement in energy efficiency, a doubling of the amount of renewable energy in the energy mix and universal access to “sustainable energy”. Later in 2015, the Paris Agreement on climate change put the energy

transition at the forefront of a time sensitive economic transformation to cleaner and more inclusive sustainable growth. To meet the goals of the SDG and the Paris Agreement, the energy transition will embrace three drivers: decarbonization, decentralization, and digitalization

Included in the energy transition is delivering electricity to over 1 billion people that currently lack access, in the coming 13 years.[i] Twenty countries in Africa and Asia represent 80 percent of this challenge.[ii] In these countries, domestic and international, public and private finance commitments averaged just under half of what estimated needs are in the period 2013-14,[iii] ($19.4 billion compared to an annual estimate need of $52 billion[iv]). This finance targeted critical support for economic and industrial growth, however only $6 billion focused on connecting residential consumers. Nearly two-thirds of this finance was for India, the Philippines and Bangladesh. Eleven of the twenty highest impact countries, all in Africa, each saw less than a billion dollars a year of investment.

Decentralized electricity systems could provide near-term, low-cost electricity to millions of rural consumers, but face policy and regulatory uncertainty that constrains growth. Seventy percent of Africa's least electrified nations—where access is below 20 percent—have barely begun to establish an enabling environment for access. Electrification plans that help define boundaries between centralized and decentralized services are generally lacking. Only one percent - $200 million a year – in financing commitments in these 20 countries over 2013-14 focused on decentralized energy.

Countries in Asia with a strong policy framework, such as India and Bangladesh[v] see corresponding high rates of electricity access. They do well across policies for grids, mini-grids, and stand-alone systems, suggesting these efforts are complementary.

By 2030, the International Energy Agency (IEA) suggests that on a business as usual basis 89 percent of the 674 million people still without access (missing the Sustainable Development Goal) will be in Africa.[vi] Some countries, such as Kenya and Bangladesh, have announced plans to close the electricity gap well ahead of 2030. It is possible to estimate the "dividend" in economic and development terms of achieving access to electricity early.[vii] Benefits include significant savings to authorities and households from savings in energy expenditure as well as additional study time. With advances and dropping prices of distributed renewable technologies and with evidence of the benefits of connection, the question before countries with electricity access gaps and the international community is why wait for the grid to arrive and why push access down the priority list of investments needed.[viii]

Electricity represents one part of the energy needs of those without access or little access. Clean cooking presents a significant added challenge. Just over 3 billion people lack access to clean fuels for cooking and stoves.[ix] Under a business as usual projection, 2.3 billion people in Asia and Africa are projected to remain without access in 2030.[x] Current detectable financing flows for clean cooking is very low against estimated needs of $4.4 billion per year.[xi] Stronger emphasis is needed on creating big markets for clean fuels, in addition to the current often small-scale projects on clean cooking technologies. Funding for research and development and innovation in cooking

technologies is also needed. Use of traditional biomass (wood, charcoal and animal dung) is devastating to human health and a driver of deforestation – this land degradation removes the carbon sink capacity of many countries. The World Health Organization estimates that over 4 million people die prematurely from illness attributable to household air pollution from cooking with solid fuels every year. Transitioning to cleaner fuels—including ethanol, LPG and natural gas—will require long-term, "industry-building" initiatives, which must begin immediately to meet the 2030 goals.

These comments have been primarily focused on challenges in securing universal energy access. The good news is that advances in technology, financing and business models and a focus on demand side efficiency in products and services, mean that we can achieve the goal and do so cleanly. However, it will require a shift in mindset from supporting energy systems that have been centralized, to ones that are integrated, with a greater mix of fuel sources, including more renewables. Securing access to reliable and affordable energy services delivers other economic, political and social benefits. The United States has been engaged in these efforts for many years. Its continued engagement, at a time of technology and business model advances and international focus on sustainable development, could reap real rewards.

I am ready to answer any questions you may have. Thank you.

---

[i] IEA and World Bank, 2017. Global Tracking Framework 2017 (GTF) http://gtf.esmap.org/

[ii] Those countries are Angola, Bangladesh, Burkina Faso, Chad, Democratic Republic of the Congo, Ethiopia, India, Kenya, Democratic

People's Republic of Korea, Madagascar, Malawi, Mali, Mozambique, Myanmar, Niger, Nigeria, South Sudan, Sudan, Tanzania and Uganda.

[iii] SEforALL. 2017. Energizing Finance: Scaling and Refining Finance in Countries with Large Energy Access Gaps.

[iv] IEA, 2017. World Energy Outlook Special Report, Energy Access Outlook, 2017.

[v] World Bank, 2017. Regulatory Indicators for Sustainable Energy: A Global Scorecard for Policy Makers. http://RISE.worldbank.org. – India and Bangladesh score 84 and 68 percent, respectively, in the Regulatory Indicators for Sustainable Energy compared to 33 percent on average in Africa

[vi] IEA, 2017. World Energy Outlook Special Report, Energy Access Outlook, 2017.

[vii] SEforALL, Power for All and ODI. 2017. Why Wait? Seizing the Energy Access Dividend (forthcoming).

[viii] The Energizing Finance reports recommend that to drive the energy transition, at the required pace, African governments, bilateral and multi-lateral financiers should consider urgently developing a shared vision and targeted work program to deliver SDG 7 that embraces energy access goals, enabling policies, utility participation, and financing. Integrated policy and regulation that embraces centralized and decentralized electricity solutions can increase market certainty, reduce the risk of stranded assets, decrease the risk profile of decentralized investments, and provide confidence to private investors. Complementary measures are required to enable access for the most vulnerable people who are beyond the reach of conventional markets. SEforALL. 2017. Energizing Finance: Scaling and Refining Finance in Countries with Large Energy Access Gaps.

[ix] IEA and World Bank, 2017. Global Tracking Framework 2017 (GTF) http://gtf.esmap.org/

[x] IEA, 2017. World Energy Outlook Special Report, Energy Access Outlook, 2017.

[xi] SEforALL. 2017. Energizing Finance: Scaling and Refining Finance in Countries with Large Energy Access Gaps.