Testimony by United States Agency for International Development
Assistant Administrator for Africa Earl Gast
Senate Foreign Relations Committee
Subcommittee on Africa
March 27, 2014

"Powering Africa's Future: Examining the Power Africa Initiative"

Chairman Coons, Ranking Member Flake, and Members of the Subcommittee, thank you for the opportunity to speak with you today.

U.S. assistance to Africa is commonly thought of in terms of food, schools, clinics, and agricultural support. These are the instruments of traditional development assistance that USAID and other aid organizations have been deploying for decades. Yet our work in these sectors has limitations. With his new model for development, President Obama has added new and game changing tools to the development toolkit. One of those tools is Power Africa.

People who lack access to cleaner, more affordable energy spend significant amounts of their limited income and resources on costly and unhealthy forms of energy like indoor fires for cooking and expensive diesel to run factories. Without light, children can't study and businesses can't operate after dark. Without electricity, life-support machines and newborn incubators in hospitals don't function. Without refrigeration, food and medicine go bad before it ever reaches those who need it. Without modern cooking fuel, homes are filled with dangerous smoke and fumes. Better access to energy will multiply our investments in reaching the Millennium Development Goals by improving health, education, and household income.

Of the 1.2 billion people in the world who have no access to electricity, half live in sub-Saharan Africa. Over a year, a refrigerator uses six times more electricity than a Tanzanian citizen, and it would take an Ethiopian citizen two years to consume the same amount of electricity as an American does in three days. Of the 20 countries with the lowest electricity consumption in the world, 17 are in Africa. Sub-Saharan Africa (excluding South Africa) generates 28 gigawatts of power for more than 900 million people—about the same amount as Argentina generates for its 41 million people. And on any given day, a quarter of that energy is unavailable due to inefficient, outdated infrastructure. Rural electrification rates are well below 5 percent in many areas—the lowest in the world, significantly lower than average rates in Asia and Latin America. And even when all of the key components are there—energy resources, technology, know-how, demand—too few energy projects make it past initial planning because the investments that would bring all of these together rarely materialize.

Yet the region has tremendous untapped sources for sustainable energy generation. Africa hosts vast reserves of natural resources, from geothermal and natural gas reserves to hydro and solar

power potential. Tapping into these plentiful, sustainable resources will advance efforts to mitigate the effects of climate change, promote economic development, and improve education and healthcare. Cleaner energy and new technologies can power Africa's growth by bringing new businesses and jobs, and improving quality of life, while jumping past old generation technologies that pollute the environment and harm public health.

Power Africa is helping to make that happen through the U.S. Government's partnerships with African governments, private investors, other donors, and developers, which will bring sustained economic growth and benefits to the people of Africa and the United States. In six initial countries—Ethiopia, Kenya, Tanzania, Ghana, Liberia, and Nigeria—the U.S. Government will work with its partners to add 10,000 MWs of new generation capacity; increase the number of electricity connections by 20 million; increase the reliability of electricity; increase the number of countries participating in regional cross-border energy trade; and enhance the resource management capabilities of selected countries, allowing them to gain greater energy security.

The amount of investment needed for sub-Saharan Africa's power sector far exceeds the resources of the U.S. Government, African governments, and other donors. For USAID, Power Africa is our new model for development in action: facilitating private sector investment to advance development outcomes. We are discovering and supporting new and innovative ways to make our traditional development interventions become more effective and sustainable in the long run. Power Africa is creating investment opportunities and opening new markets to companies—from small businesses to multinational corporations. By leveraging U.S. strengths in energy technology, private sector engagement, and policy and regulatory reform, Power Africa is galvanizing collaboration, making quick-impact interventions, and driving systemic reforms to facilitate future investment. Power Africa uses these private sector engagements to identify the most critical policy and institutional reform issues standing in the way of these specific projects. African companies have already begun to seek out American investment partners so that they, too, can access tools that Power Africa offers from 12 different U.S. government agencies that are working closely together to implement a comprehensive strategy.

Part of that strategy will work to advance gender equality because women and men are affected differently by energy policies and strategies due to differences—particularly concerning security—in access to electricity, as well as control over energy and energy services. That's why we are studying the relationship between gender and energy and developing approaches to leverage its relationships with the private sector, host governments, NGOs, and local communities.

What we've accomplished in less than a year's time is striking. We have helped close deals that will generate 2,486 MW of electricity—25 percent of Power Africa's 10,000 MW goal—and we are in the planning stages of projects that will add 5,579 MW more. And for every dollar that the U.S. Government has committed, the private sector has committed two, over $14 billion thus far.

There is no “one size fits all” solution to Africa’s energy challenges, so Power Africa is serving as a conduit for pooling the expertise of the U.S. Government and other donors such as the World Bank and African Development Bank to tailor solutions to address each country’s and each project’s unique challenges. Power Africa is using a transaction-centered approach that concentrates on closing those deals that will have the greatest impact on improving sustainable energy access. The approach provides host governments, the private sector, and donors with incentives to encourage collaboration, provide quick results, and drive systemic reforms that will facilitate future investment.

For businesses and governments, Power Africa offers a variety of support mechanisms. African governments may establish delivery units that can help to expedite transactions. For investors and developers, Power Africa brings together the financing, insurance, and technical assistance offered by the U.S. Government to help bring power and transmission projects to fruition. U.S. Government transaction advisors are stationed in each of the six Power Africa countries to identify these potential opportunities for investment and partnership, as well as obstacles that may derail a deal. They ascertain what needs to happen to keep these deals on track, while simultaneously helping to build the capacity of existing host government ministries to deliver results.

This new model for development relies on private sector participation and private capital for success. When Power Africa was launched nine months ago, we had secured partnerships with more than 35 partners from the United States, Africa, and other regions that collectively committed over $14 billion to achieving Power Africa’s objectives. Since then, hundreds more companies have contacted us for information or assistance. Some have worked in Africa for decades; many are now evaluating opportunities on the continent for the first time because of Power Africa.

To ensure both large and small power projects are successful and meet the energy needs of the population, African governments must improve their investment climate by forming laws, regulations, tariffs, market structures, and institutions, and improving indigenous capacity to plan, design, and negotiate sophisticated transactions. Given the scale and diversity of renewable and gas resources, there is growing interest in the development of regional energy corridors and regional power transmission networks that will expand opportunities for economically and environmentally sound development for larger markets. We are working, together with other donors and international finance institutions, with existing west, south, and east power pools and looking for possible generation projects that can further cross-border interconnections and commercial electricity trade.

Consequently, a major contributor to Power Africa's success is the Millennium Challenge Corporation work to engage the African energy sector in countries eligible to receive MCC funds, Ghana, Tanzania and Liberia. MCC plans to invest up to $1 billion in these three Power Africa countries through its country compacts to increase access and the reliability and sustainability of electricity systems.

One of the most significant deals that Power Africa is helping to close is the 1,000 MW Corbetti geothermal project in Ethiopia, which promises to be the first privately owned generation project in Ethiopia. With Power Africa's assistance, the Ethiopian Government has engaged accomplished legal assistance to help negotiate its power purchasing agreement with Reykjavik Geothermal, the U.S.-Icelandic company developing the project. Power Africa's transaction advisor has been deeply involved in the deal structuring and negotiations as a neutral broker, and Power Africa and its partners are working to help reduce the drilling risk through grant facilities.

The involvement of the U.S. Government through Power Africa has also helped to increase investor confidence in Corbetti, which has expanded from an initially planned 300 MW project to up to 1,000 MW today. This project is transformational. Not only is Ethiopia opening up its energy sector to private investment for the very first time, but the Government of Ethiopia also is diversifying its energy portfolio, moving beyond large dam projects and embracing other types of renewable energy. As a direct result of Corbetti, U.S. and other companies now are exploring entering the Ethiopian energy market, and it is only the beginning for power development in the Rift Valley, which has the potential to eventually produce up to 15,000 MW of clean geothermal power.

In fact, every Power Africa country offers unique natural resources that can be developed using tailored mechanisms. In Tanzania, Power Africa helped local company Kiwari develop a 10 MW hydropower project by providing a loan guarantee through USAID's Development Credit Authority, as well as by playing an active role in negotiating the financial term sheet and loan processing associated with the $17 million project. In Kenya, as part of the Lake Turkana 300 MW wind project, which just celebrated its financial close in Nairobi on Monday, Power Africa provided technical advice that gave Lake Turkana's lenders comfort that the Kenyan electrical grid could absorb the intermittent power associated with wind farms. In addition, through the Overseas Private Investment Corporation (OPIC), Power Africa is working with the African Development Bank to provide necessary financial guarantees. Power Africa is also providing new opportunities to facilitate the growth of existing African businesses. An Ethiopian-American company is now working to develop and manufacture over 2 million smart meters for Ethiopia's power utility—in part due to a loan guarantee from USAID, as well as technical assistance funding from OPIC—to produce devices that will help reduce commercial losses and improve the efficiency of Ethiopia's national electric grid.

Reaching the most inaccessible corners of Africa's rural communities and other under-served populations is a critical component of Power Africa. Decentralized off-grid and mini-grid solutions often offer the swiftest, cleanest, and most innovative solutions to energy poverty by sidestepping the need to connect to the national electricity network. Power Africa has deployed an array of activities that explicitly target small-scale, creative energy innovation.

The Off-Grid Challenge, for instance, is a partnership between the U.S. African Development Foundation and General Electric that asked for ideas—from companies or from individuals—to develop or scale-up off-grid activities that would reach communities not served by existing power grids. Six first-round winners were selected based on the sustainability, efficiency, and impact of their projects. One Off-Grid Challenge winner, Mibawa Suppliers, will expand delivery of pay-as-you-go lighting to households in rural Kenya. Another, GVE Projects Ltd., will electrify off-grid communities using metered solar and rechargeable battery systems.

However, Power Africa's off-grid solutions are not about identifying one-off projects that may not be scalable due to the lack of interest on the part of large investors. For this reason, Power Africa continues to explore opportunities to bundle together off-grid projects so that institutional investors can deploy capital into these projects at scale.

In Kenya, Power Africa recently helped launch a 10 MW biomass project with Cummins that will use mesquite wood, a highly invasive species, as feedstock for its generator. This plant is a source of both energy and income for local residents who now will sell the wood for fuel at four times the price they currently sell for charcoal. Power Africa helped facilitate the power purchasing agreement negotiations between Cummins—a U.S. company—and the Government of Kenya. Cummins is looking to expand to add up to 18 new biomass projects in Kenya and exploring opportunities in other Power Africa partner countries. Through the U.S.-Africa Clean Energy Financing Facility managed by OPIC, Power Africa also approved technical assistance funding to support 28.5 MW in a series of potential hydropower projects in Uganda.

Power Africa is also exploring cleaner technologies that are more efficient, effective, and in some cases, even easier to set up than traditional energy sources like diesel-powered generators. We have seen how these clean energy solutions can make a tremendous difference in communities. In Kenya, Power Africa's work with government counterparts helped to expedite the development of the privately-owned 60 MW Kinangop Wind Park, which will use GE turbines and is now the largest privately owned wind park in sub-Saharan Africa, outside of South Africa.

Sometimes the Power Africa contribution does not merit a front page headline, but its effects can be significant. In Nigeria, USAID's team of advisors is working with the central government on its extensive privatization plan for the electricity grid. The gradual sale of these government-

owned power plants will raise much needed capital for Nigeria's government while helping reduce inefficiencies. USAID's transaction advisor for Nigeria, a highly experienced U.S. lawyer, identified one of the key constraints preventing some deals from moving forward: the lack of a government guarantee. In response, he worked with the Nigerian government to adapt its power purchasing agreements to include an innovative "Put Call/Option Agreement" clause that helped address that concern. That clause has now been used in 12 other deals.

In fact, this week in Washington, top U.S. and African energy lawyers who have negotiated power purchasing agreements in many of the Power Africa countries are gathered at the U.S. Department of Commerce alongside experts from international financial institutions and lawyers from Power Africa governments for a workshop hosted by the Commercial Law Development Program. Their goal for this week is to emerge with annotated, standard power purchasing agreement clauses that will significantly reduce the amount of time spent on negotiating the terms of power deals. In short, this will help electricity come online more quickly.

We also know that simply creating new energy supply will not solve the issue of cost, which remains out of reach for many Africans. We are committed to working with partner governments to ensure that these projects make energy both accessible and affordable and that our partner governments improve their legal and regulatory environment to sustain investment. For example, we are supporting the Government of Tanzania in developing its roadmap for energy reform, and the Government of Kenya in integrating renewables into its national grid.

Finally, because Power Africa's work is not over once a transaction is complete, we have created an extensive monitoring and evaluation plan to ensure that we meet our goals. We also plan to release our first annual report this summer summarizing progress.

In August, USAID established Power Africa's field headquarters in Nairobi, which has greatly facilitated interactions with the private sector and eased close collaboration with our teams at the U.S. Embassy in each of the Power Africa focus countries. As countless businesses pass through Nairobi or set up headquarters there, Power Africa's team can meet face-to-face with the businesses and speak to them directly about the constraints they are confronting and identify what the U.S. government can do to address them.

Soon, an institutional support contract will be awarded in Nairobi, which will permit us to deploy experts in a wide range of fields on a moment's notice, to work on everything from identifying gaps and solutions for facilitating new deals to helping our African partner governments develop energy master plans. USAID already has embedded an advisor at the African Development Bank in Nairobi to work with donors and partner governments in East Africa to develop a collaborative regional geothermal development plan. Power Africa's teams in Ethiopia, Ghana,

Kenya, and South Africa are also in the process of developing a strategy for strengthening power trade and regional power pools across sub-Saharan Africa.

Power Africa's strong field presence is contributing to our success. Our teams know what is happening on the ground and can convey information in real time to the Washington-based agencies for the purpose of tapping into tools and solutions. On a daily basis, the U.S. Government interagency team works together to advance transactions and push reforms, and each week, the team meets to discuss the Power Africa priority transactions, policy issues, and new opportunities. This model is working.

USAID hopes to build upon our early successes to generate momentum for additional partners and investors to support electrification in Africa.

Thank you Mr. Chairman, Ranking Member Flake, and members of the Subcommittee for facilitating our assistance for African development. I welcome your questions.