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United States Senate Testimony on Energy Access in Africa
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Thank you, Mr. Chairman and Senator Flake, for this opportunity to address energy access in sub-Saharan Africa. It is a shocking fact that 7 in 10 Africans lack any access to modern energy sources.

The ONE Campaign is a policy advocacy organization committed to the fight against global poverty and disease, particularly in Africa. We are probably best known for our co-founder and the lead singer of U2, Bono. We don't do service on the ground and we don't raise money from the public. With our nearly 2 million members in the United States, we raise attention about critical issues and work with policy makers on bipartisan solutions.

Given our focus on fighting poverty and disease, our interest in energy might seem curious. But we quickly realized this issue impacts nearly all aspects of human development including health, agriculture, education, economic growth, and poverty reduction.

This reality has been made perfectly clear to us by our partners and friends in Africa. The Sub-Saharan Africa Business Enterprise surveys cite Africa's insufficient and unreliable electricity access as the biggest constraint to business growth, impeding job creation. The lack of modern reliable energy access is estimated to cost African countries 2-5% of GDP¹. Twenty six African countries have committed to the goal of providing universal energy access by 2030 under the UN Sustainable Energy for All (SE4ALL) Initiative². The African Union has made regional energy access a top priority.

Early last year, 18 African heads of state and ambassadors – alongside policy, political and civil society leaders in the U.S. – signed ONE's "Open Statement on Electricity in Africa," which details the vast impact of the lack of electricity. (APPENDIX I) The letter noted that lack of electricity means that mothers are forced to give birth by candlelight, and that many children's vaccines can be spoiled without refrigeration, given that 60 percent of refrigerators in health clinics in Africa do not have reliable power. Limited access to modern energy services hinders irrigation, agricultural mechanization, and post-harvest storage and processing. Ninety million children go to primary schools without electricity and most students do not have decent lighting to do their homework after sunset¹. Some are forced to crowd around street lamps or airport runways at night to study for exams. According to a paper from the Center for Global Development, nearly 90 percent of rural Africans and about half of the urban poor in major cities across Africa, like Nairobi and Dakar, have no access to electricity. In fact, more than 700 African-based NGOs have signed similar letters asking for help on providing electricity to their people. (APPENDIX II)

¹ Kurt Yeager (Electric Power Research Institute and Galvin Electricity Initiative, USA). "Energy and Economy." *GEA*. Accessed March 25, 2014. http://www.iiasa.ac.at/web/home/research/Flagship-Projects/Global-Energy-Assessment/GEA_Chapter6_economy_hires.pdf

The Programme for Infrastructure Development in Africa, "Transforming Africa through Modern Infrastructure." Accessed March 25, 2014. <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/PIDA%20brief%20Energy.pdf>

² Which has the aim of providing universal energy access, doubling the share of renewables in the global energy mix, and doubling the rate of improvement in energy efficiency, all by 2030.

The world has made dramatic progress in reducing extreme poverty over the last 20 years, cutting it in half. And it is possible to virtually end extreme poverty in our lifetime. But electricity is essential to the kind of human well-being and economic growth needed to meet this audacious goal.

For a small farmer in Ethiopia, what difference would cool storage make in preserving her hard-earned crop on the way to market?

For a furniture maker in Kenya working by hand, what difference would a power saw and lathe make to his small business?

For a mother in Nigeria, what difference would an electric stove and lighting mean to making a meal or lighting and heating her family's home? Liberian President Ellen Johnson Sirleaf wrote in a recent *Foreign Policy* opinion piece: "In many places without power, women and girls are forced to spend hours each day in the time-consuming task of hunting for fuel and firewood -- often a key reason that girls spend less time in school than boys. Women are also disproportionately affected by respiratory illness as a result of indoor air pollution from open fires and kerosene used for cooking, heating, and lighting. Even the simple act of being outdoors becomes fraught with danger for women and girls in some places when the sun goes down and there are no streetlights."

The respiratory illness noted by President Sirleaf, stemming from inhaling toxic fumes, results in 3 million premature deaths each year worldwide. That is more deaths than from AIDS and malaria combined.³ As a career-long advocate in the fight against AIDS and malaria, this fact made me realize this issue could not be ignored.

So, we are deeply grateful to President Obama and his Administration for the Power Africa initiative, which has helped shine a spotlight on this issue and taken the first serious steps toward tackling this disparity in six African countries. U.S. government commitments combined with substantial investment from the private sector has already started to make an impact.

For example, a key milestone was reached in securing financing for Kenya's Lake Turkana Wind Power Project. This project will add an existing 300 megawatts of reliable, low cost wind energy to Kenya's national grid and is part of Harith General Partner's Power Africa commitment to provide \$70 million in financing for wind energy projects in Kenya and \$500 million across the African power sector through a new investment fund.

Power Africa is a crucial first step, but Congress has an important role to play. Increasing energy access is a massive, long term challenge and it will take a long term commitment to make a real impact. We are very grateful for the bipartisan work being done in Congress to pass legislation that builds on and strengthens the Power Africa initiative.

In the House, Chairman Royce and Ranking Member Engel's legislation, the Electrify Africa Act, would catalyze investment in the energy sector in Africa, reaching 50 million people with first-time access with 20 gigawatts of new power, which is close to double the amount of usable power in sub-Saharan Africa outside of South Africa. And because the bill uses resources already available within the government, and leverages private sector capital, these goals can be reached without additional appropriations. In fact, the Congressional Budget Office has

³ 3.5 million deaths are directly associated with indoor pollution each year (predominantly associated with cooking and heating from open biomass fires). Another 500,000 deaths are caused by outdoor air pollution from cooking. (The Lancet, Global Burden of Disease, 2012)
HIV/AIDS global deaths in 2011 = 1.7 million (UNAIDS, Together We Will End AIDS July 2012)
Malaria global deaths in 2010 = 660,000 (mostly children) (WHO, World Malaria Report 2012.)

estimated that the House bill would raise a net \$86 million in revenue. In this case, doing good can actually reduce the deficit.

And I want to compliment Senator Coons and his colleagues, Chairman Menendez and Senator Corker, for considering similar legislation and look forward to its introduction in the near future.

ONE is often asked why legislation is necessary. The answer is simple: legislation will give longevity to the initiative, beyond the Obama Administration. The scale of the electricity deficit in Africa combined with the complexity of securing financing and generating and distributing power requires a long term commitment. While I have every confidence the next Administration will embrace this idea, Congress creates the stability, direction, and support. Ten years ago, ONE was heavily involved in the passage of The President's Emergency Plan for AIDS Relief, PEPFAR -the largest investment in any global health challenge and responsible for keeping nearly 7 million people alive today. President Bush deserves enormous credit for his commitment and leadership. What is often forgotten is that it was built on the framework of bipartisan legislation from this chamber -- sponsored by Senators Frist and Kerry. Once President Bush announced PEPFAR, legislation was debated, with all the arguments, compromises, twists and turns, resulting in a law that has been reauthorized twice and maintained strong, sustained bipartisan support for 10 years. Addressing the energy deficit in Africa is earning the same bipartisan support from both ends of Pennsylvania Avenue and from the American public, and could be every bit as transformative as PEPFAR has been to the lives of people on the continent.

Most importantly, beyond a sustained commitment to increasing investment in the energy sector in Africa from the U.S. government and private sector, ONE believes the people of Africa must be in the driver's seat in terms of the mix of power solutions most appropriate to their countries. We have to recognize that with current technology, bringing power to those who do not have it will inevitably lead to a small increase in global carbon emissions. The International Energy Agency estimates that bringing a basic level of energy access to all 1.2 billion people globally who need it would increase emissions by about 0.7 percent. In that context, the U.S. government, international institutions, civil society organizations and policy experts should support those countries to make better choices than we – and most western nations – did in our own drive to bring power to all.

The good news is that many African countries are choosing cleaner, more sustainable forms of energy from renewable sources and natural gas. In fact, what little electricity Africa currently has is 26 percent renewable – more than two times cleaner than what we have in the United States. Many African countries have barely scratched the surface of their renewable energy potential, from solar to wind to geothermal. As renewable energy becomes more available at an affordable cost, we expect to see, and certainly support, significantly more investment in cleaner energy sources. This is particularly true in rural communities where off-grid and mini-grid renewable power is more viable than traditional grid solutions and can provide rapid access to basic services. Natural gas deposits are also abundant in many African countries and will doubtless be harnessed as part of a mix of solutions to tackle the massive need. In everything we do, we need to recognize that we have obligations both to those whose needs demand urgent attention today and to the generation yet to come who will inherit the planet.

A myriad of other substantial challenges exist in delivering electricity to people in Africa. Generating more electricity on the African continent is one thing, but it is quite another to sort out how to get it to people, run power lines, sort out tricky domestic regulations, subsidies and create a customer base. ONE does not pretend to have answers to all these challenges. That is one reason we are so pleased to work with the U.S.-based National Rural Electric Cooperative Association. These are the people who got electricity to rural America and they are now active in Africa and are a critical partner in this effort.

When PEPFAR was signed into law in 2003, we still had not figured out all the difficulties of getting high-priced and technical drugs, to combat a highly stigmatized disease, to the most remote parts of Africa. But, there's nothing quite like political leadership and the promise of bold progress to knock down these tough issues. Reforms happen only as a result of crisis or the promise of bold positive change. The Millennium Challenge Corporation is another good example of this phenomenon, where large development compacts have incited domestic reforms, called the "MCC effect". And I should note the MCC, while not a focus in the legislation, is doing terrific work in the energy sector in Africa.

Challenges certainly remain in delivering access to electricity for the first time to millions of Africans. But I am reminded each day that African leaders, hospital workers, farmers, business owners, teachers and countless ordinary citizens say that reliable electricity is one of their most urgent needs. American constituents have spoken up as well: more than 100,000 people have signed ONE's petition encouraging and applauding this effort. ONE members have sent over 62,000 individual messages to Members of the House and Senate. There is broad, bipartisan support for these issues – and let me thank the Committee again for focusing on this critical component to reducing poverty and promoting health and well-being for people in Africa and for the opportunity to address this panel. Thank you.

APPENDIX I

Signatures on this statement do not imply endorsement of specific legislation.

Open Statement on Electricity in Africa

More than 550 million people in sub-Saharan Africa do not have access to electricity. In 30 African countries, endemic power shortages are a way of life. Without a reliable power supply, women give birth in under-equipped hospitals, children's vaccines requiring refrigeration are at risk, students are unable to study after dark and routine business transactions become extremely difficult.

One in five Africans cites infrastructure – including electricity – as their most pressing concern. Seven out of 10 business leaders across the region say the lack of affordable and reliable power is one of the most important constraints to growth. The absence of modern energy access limits GDP growth in sub-Saharan Africa by an estimated 2 to 5% each year. With 14 million sub-Saharan Africans entering the workforce annually, government leaders are facing the political imperative to address critical and growing energy demands.

The good news is sustainable solutions to address Africa's energy poverty can deliver immediate progress as Africa has yet to harness the majority of its energy potential from renewables and natural gas. Countries are increasingly taking the lead with bold plans to develop these resources for their national benefit. We support the more than two dozen African nations that have committed to the goal of providing universal energy access by 2030, so that people living in rural and urban areas are lifted out of poverty and can benefit from strong economic growth. We encourage catalytic support from the U.S. government and private sector in order to achieve this large scale increase in energy access. Collectively, this partnership can help provide millions of people access to modern energy which, in turn, will energize progress in all areas of human development and self-sufficiency on the continent.

Signed,

Her Excellency **Ellen Johnson Sirleaf**
President
Republic of Liberia

His Excellency Adebawale Adefuye
Ambassador to the United States
Federal Republic of Nigeria

His Excellency Daniel Ohene Agyekum
Ambassador to the United States
Ghana

His Excellency Blaise Cherif
Ambassador to the United States
Republic of Guinea

His Excellency Daouda Diabaté
Ambassador to the United States
Republic of Cote d'Ivoire

His Excellency Joseph B.C. Foe-Atangana
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His Excellency Al Maamoun Baba Lamine Keita
Ambassador to the United States
Republic of Mali

His Excellency Silas Lwakabamba
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His Excellency Steve D. Matenje
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Republic of Malawi

His Excellency Cheikh Niang
Ambassador to the United States
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His Excellency Abednego M. Ntshangase
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Kingdom of Swaziland

His Excellency Cyrille Oguin
Ambassador to the United States
Republic of Benin

His Excellency E. Molapi Sebatane
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His Excellency Seydou Bouda
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Former Senator Richard Lugar
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Elizabeth Glaser Pediatric AIDS Foundation

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**UN High-Level Group on Sustainable Energy
for All**
