

# Calendar No. 291

114TH CONGRESS  
1st Session

SENATE

{ REPORT  
114-176

## ELECTRIFY AFRICA ACT OF 2015

DECEMBER 8, 2015.—Ordered to be printed

Mr. CORKER, from the Committee on Foreign Relations,  
submitted the following

### REPORT

[To accompany S. 2152]

The Committee on Foreign Relations, having had under consideration the bill (S. 2152) to establish a comprehensive United States Government policy to encourage the efforts of countries in sub-Saharan Africa to develop an appropriate mix of power solutions, including renewable energy, for more broadly distributed electricity access in order to support poverty reduction, promote development outcomes, and drive economic growth, and for other purposes, having considered the same, reports favorably thereon with amendments, and recommends that the bill, as amended, do pass.

#### CONTENTS

	Page
I. Purpose .....	1
II. Committee Action .....	1
III. Background .....	2
IV. Discussion .....	3
V. Cost Estimate .....	6
VI. Evaluation of Regulatory Impact .....	7
VII. Changes in Existing Law .....	7

#### I. PURPOSE

The purpose of S. 2152 is to establish a comprehensive United States government policy to develop and coordinate strategies and reforms that improve access to, and the affordability, reliability, and sustainability of, power for residents of sub-Saharan Africa. S. 2152 further requires a progress report evaluating the effectiveness of policies and investments made by the U.S. in expanding electricity access in sub-Saharan Africa.

#### II. COMMITTEE ACTION

S. 2152 was introduced on October 7, 2015, by Senator Corker and co-sponsored by Senators Cardin, Rubio, Coons. On October 8, 2015, the committee considered S. 2152 and reported it favorably, by voice vote, with amendments.

The committee took the following action with regard to amendments:

Two amendments offered by Senator Markey passed by voice vote. Among other things, the Markey amendments added language requiring implementation of energy projects in a non-discriminatory way and local consultation with respect to energy project development and implementation.

### III. BACKGROUND

Chairman Corker and Ranking Member Cardin introduced S. 2152 to address the lack of electricity faced by nearly 70 percent of sub-Saharan Africa's population. The legislation addresses solutions to the lack of overall access to electricity, including a lack of access to affordable electricity options, and an inability to ensure sustainable and reliable power. It establishes goals of providing access to 50,000,000 sub-Saharan Africans by 2020 and adding 20,000 megawatts of electricity by 2020. With increased access to electricity, sub-Saharan Africans can open new doors to private sector investment and economic growth that aim to replace unsustainable and unhealthy fuel sources such as kerosene, wood, and charcoal. The bill supports financing for African energy generation development, regulatory reforms in African energy sectors to ensure long-term financial sustainability and operational reliability of grids, and policy advocacy that will significantly increase the continent's access to electricity in a socially responsible and financially sustainable way, and open new doors generally to increased economic growth and improved public health.

On June 30, 2013, President Obama announced his "Power Africa Initiative" to improve energy access and production in Africa with the goal of doubling the number of Africans with access to electricity. Power Africa focuses on leveraging private investment to increase financing for power projects in sub-Saharan Africa.

S. 2152 provides a framework for a coordinated strategy for the United States to work with sub-Saharan African nations to improve access to electricity. The bill encourages the Overseas Private Investment Corporation (OPIC), the United States Agency for International Development (USAID), the U.S. Department of Treasury, the World Bank, the African Development Bank, and the U.S. Trade and Development Agency as well as U.S. representatives to such international institutions as the World Bank and the African Development Bank to prioritize, as appropriate, loans, assistance, and technical support that promote private investment in projects that increase electricity access and reliability. The bill also encourages these agencies to partner with sub-Saharan African governments to develop policies that reduce burdensome regulations that hinder private investment in the electricity sector. To achieve broader energy access for those currently living beyond the reaches of the existing electricity infrastructure, S. 2152 places an increased emphasis on the promotion and development of off-grid and distributed technologies to be used at a local level.

The bill also requires a report to the committee in three years outlining the strategies, investments, and policy changes being made under the legislation. This report would detail the electricity access programs supported by the U.S. government and private in-

vestment, and would be accompanied by empirical data outlining the return on investment in terms of electricity access and reliability.

S. 2152 recognizes that improving electricity access in Africa will require a broad mix of fuel sources, many of which exist in Africa in abundance. S. 2152 therefore takes a fuel neutral, all-of-the-above approach. As called for in the policy section of the bill, Electrify Africa anticipates energy access being addressed in sub-Saharan Africa using renewable and non-renewable fuels.

The bill also places strong emphasis on the development of economically sound utilities. To ensure appropriate cost-recovery by electricity transmission and distribution operators, an appropriate policy and legal framework must be in place. For this reason, the bill focuses not only on facilitating private sector development of electricity generation, the bill also requires implementing industry best practices with respect to transmission and distribution such as commercial cost recovery practices, regulatory reforms to improve efficiencies, strengthening independent regulators, and implementing smart grid technologies. The goal is to ensure that national electric grids, developed with U.S. assistance, will remain financially sustainable over the long term.

The legislation also aims to improve access to electricity for communities who, because of existing constraints and obstacles, are not or will not be linked to national and regional grids in the near term.

The bill also helps ensure that supported energy projects are developed and deployed to improve access for all local communities and in consultation with affected local communities. The bill calls for off-grid and mini-grid technologies to be employed as an alternative strategy to provide communities with electricity in an economical way in the short term.

#### IV. DISCUSSION

A summary of the key provisions of S. 2152, as amended, follows:

##### *Section 2*

Section 2 states that the purpose of S. 2152 is to encourage the efforts of countries in sub-Saharan Africa to improve access to affordable and reliable electricity to unlock the potential for inclusive economic growth and other important development outcomes.

##### *Section 3*

Section 3 declares that it is the policy of the United States, in coordination with international financial institutions, sub-Saharan African governments and the private sector, to:

- (1) promote first-time access to power and power services in sub-Saharan Africa for at least 50,000,000 people by 2020, in both urban and rural areas;
- (2) encourage the installation of at least 20,000 additional megawatts of electrical power in sub-Saharan Africa by 2020 through a broad mix of energy options that will reduce poverty, promote sustainable development, and drive economic growth;

- (3) promote reliable, affordable, and sustainable power in urban areas in order to promote economic growth and job creation;
- (4) promote efficient institutional platforms and financing for the provision of electrical service to rural and underserved populations;
- (5) encourage the necessary in-country reforms that will make possible the expansion of power access;
- (6) promote reforms of power production, delivery, and pricing, as well as regulatory reforms and transparency, in order to support long-term, market-based power generation and distribution;
- (7) promote policies to displace kerosene lighting with safer, cleaner technologies; and
- (8) promote an all-of-the-above energy development strategy for sub-Saharan Africa.

#### *Section 4*

Section 4 requires the President to establish and submit to Congress, within 180 days, a comprehensive multiyear strategy, consistent with the policy goals of section 3, to encourage the efforts of countries in sub-Saharan Africa in implementing national power strategies and developing an appropriate mix of power solutions. The strategy must address ways to attract private investment in the power sector, both on and off the grid, assess the financial viability of power utilities, and be sufficiently flexible to allow for technological innovation in the power sector.

The strategy must focus on the following components: increasing power production; strengthening electrical transmission and distribution infrastructure; providing for regulatory reform and transparent and accountable governance and oversight; improving the reliability of power; maintaining the affordability of power; maximizing the financial sustainability of the power sector; and improving access to power.

The strategy reporting must include plans and descriptions of: efforts to increase access to power in urban and rural areas; efforts to address commercial, industrial, and residential needs; efforts to reduce waste and corruption and improve existing power generation through the use of a broad power mix, distributed generation models, energy efficiency, and other technological innovations; an analysis of existing mechanisms to ensure commercial cost recovery; an analysis of mechanisms to commercialize electric service through distribution service providers, including cooperatives, to consumers; ways to promote improvements in revenue cycle management, power pricing, and fees assessed for service contracts and connections; efforts to reduce technical and commercial losses; and recommendations on the creation of new service provider models that mobilize community participation in the provision of power services.

The strategy report must make recommendations on how to reform electricity policies to ensure the long-term economic viability of power projects and to increase access to power, including the following priorities: allowing third parties to connect power generation to the grid; policies to ensure there is a viable and independent utility regulator; strategies to ensure utilities become or

remain creditworthy; regulations that permit the participation of independent power producers and private-public partnerships; policies that encourage private sector and cooperative investment in power generation; policies that ensure compensation for power provided to the electrical grid by on-site producers; policies to unbundle power services; regulations to eliminate conflicts of interest in the utility sector; efforts to develop standardized power purchase agreements and other contracts to streamline project development; and efforts to negotiate and monitor compliance with power purchase agreements and other contracts entered into with the private sector.

The strategy requires reporting on engagement with African countries including: plans to ensure meaningful local consultation, as appropriate, in the planning, long-term maintenance, and management of investments designed to increase access to power in sub-Saharan Africa; mechanisms to be established for selection of partner countries for focused engagement on the power sector; ensuring that project development is pursued in a manner that does not discriminate against or disadvantage particular regions or populations within a country; monitoring and evaluating increased access, reliability and affordability of power in sub-Saharan Africa and the financial sustainability of power generation, transmission, and distribution; establishing metrics to demonstrate progress and terminating unsuccessful programs.

The strategy will include specific provisions related to bringing power to African communities, given particular constraints in Africa. These recommendations will include: plans to promote trade in electrical equipment with countries in sub-Saharan Africa; plans to lower or eliminate import tariffs/ taxes for energy and other power production and distribution technologies including equipment used to provide energy access, including solar lanterns, solar home systems, and micro and mini grids; plans to protect the intellectual property of companies designing and manufacturing products that can be used to provide energy access in sub-Saharan Africa; plans to encourage the growth of distributed renewable energy markets in sub-Saharan Africa, including off-grid lighting and power; plans to address market barriers to the deployment of distributed renewable energy technologies, including an analysis of the efficacy of efforts by U.S. agencies to facilitate the financing of the importation, distribution, sale, leasing, or marketing of distributed renewable energy technologies; and a description of plans to ensure that small and medium enterprises based in sub-Saharan Africa can fairly compete for energy development and energy access opportunities associated with this Act.

Section 4 further states the President may establish, as appropriate, an Interagency Working Group to coordinate executive branch agencies involved in the implementation of the strategy. The Interagency Working Group would also facilitate partnerships between executive agencies, the private sector, and other development agencies to ensure effective implementation. With respect to provisions in Section 4 calling for the Administration to partner with the private sector entities, the Senate strongly encourages the Working Group established under this section and Administration officials charged with implementation of this Act generally, to consider partnering with the National Rural Electric Cooperative Asso-

ciation which has significant experience in working to establish financially sustainable electricity grids in Africa.

*Section 5*

Section 5 directs the Administrator of the United States Agency for International Development, the Director of the Trade and Development Agency, the Overseas Private Investment Corporation, and the leadership of the Millennium Challenge Corporation to, as appropriate, prioritize and expedite institutional efforts and assistance to promote the development of power projects and markets consistent with the goals and policies of the Act and with the strategy.

*Section 6*

Section 6 directs the United States representatives at the appropriate international bodies, including but not limited to the Executive Directors at the World Bank Group and the African Development Bank to use the influence of the U.S., consistent with the broad development goals of the United States, to encourage those institutions to significantly increase efforts in sub-Saharan electrification projects, consistent with host-country absorptive capacity and provide technical assistance to regulatory authorities. The committee believes these efforts should include modifying regulatory and legal regimes to reduce certain losses, implementing cost-based tariffs, providing for commercial cost recovery, reducing corruption, improving transparency, and implementing reforms that facilitate efficient and responsible power generation, transmission and distribution, as well as off-grid energy markets. These efforts should use clear, accountable, and metric based targets to measure effectiveness.

*Section 7*

Section 7 requires a 3-year evaluation of progress made towards achieving the strategy described in section 4. The report reviews policies advocated by the United States that promote increased energy access and electricity sector reform. The report also identifies the number and type of projects receiving United States government support, the total costs of the project, the amount of U.S. supported investment, and empirical results of the project in terms of increased electricity to businesses, communities, and individuals.

#### V. COST ESTIMATE

In accordance with XXVI, paragraph 11(a) of the Standing Rules of the Senate, the committee notes that the cost estimate provided by the Congressional Budget Office (CBO) estimates that enacting S. 2152 would not increase net direct spending or on-budget deficits in any of the four consecutive year 10-year periods beginning in 2016. The CBO further estimates that implementing new requirements, such as the development of the comprehensive strategy and subsequent reports to the Congress, would cost less than \$500,000 each year and total roughly \$1 million over the 2016-2020 period with such spending subject to the availability of appropriated funds. Finally, CBO has concluded that enacting S. 2152 would not affect direct spending or revenues and that, therefore, pay-as-you-go procedures do not apply.

## VI. EVALUATION OF REGULATORY IMPACT

Pursuant to the requirement of paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the committee has considered the regulatory and paperwork impact of S. 2508, as amended, and concluded that such impact would be minimal. The Congressional Budget Office estimate for S. 2152 has concluded that S. 2152 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act and would not affect the budgets of state, local, or tribal governments.

## VII. CHANGES IN EXISTING LAW

In compliance with Rule XXVI, paragraph 12 of the Standing Rules of the Senate, it is the conclusion of the committee that S. 2152 will require no changes in existing law.

