Contents lists available at ScienceDirect



## Energy Research & Social Science

journal homepage: www.elsevier.com/locate/erss



#### Perspectives

# Signalling, governance, and goals: Reorienting the United States Power Africa initiative



### Todd Moss<sup>a,b,\*</sup>, Morgan Bazilian<sup>c,d,e</sup>

<sup>a</sup> Center for Global Development, Washington DC, USA

<sup>b</sup> Center for Energy Studies at Rice University's Baker Institute, Houston, TX, USA

<sup>c</sup> Center for Global Energy Policy at Columbia University, NY, USA

<sup>d</sup> Payne Institute at the Colorado School of Mines, CO, USA

e Center for Strategic and International Studies, Washington DC, USA

#### ARTICLE INFO

Keywords: Energy access Development finance Africa Private investment

#### ABSTRACT

Power Africa, the United States' effort to boost electrification on the continent launched in 2013, has made an impressive start. Progress toward generation and connections goals are on track. The initiative has catalyzed significant private sector investment, built a diverse portfolio, and embraced a range of technologies including natural gas. Nevertheless, Power Africa faces political and institutional hurdles that threaten its continued success and perhaps its very survival.

#### 1. Introduction

A lack of access to electricity and other modern energy services limits economic development, constrains opportunity, and leaves millions in extreme poverty [1]. The *Power Africa* initiative, launched in June 2013 by President Barack Obama, is the United States' signature electrification initiative aimed at boosting power generation and access on the continent [2]. The multi-agency initiative attracted broad bipartisan support and was further cemented in law by the Electrify Africa Act of 2016 [3]. If implemented smartly, Power Africa has the potential to be transformative for millions of people, while also promoting regional security, U.S. foreign policy objectives, and American business. While the effort has made a promising start, its ultimate success—and even its survival—faces significant political and institutional hurdles.

The ambitions of Power Africa are directly relevant to addressing some of the largest challenges of global development. Worldwide, about 1 billion people live without access to electricity, the majority in sub-Saharan Africa where most economies are vastly underpowered [4]. Additionally, millions of businesses and community facilities are either without access or have only poor quality services [5]. Energy poverty impacts a wide swath of development and security issues [6], while cost and reliability of electricity is cited as a top constraint holding back firm growth and job creation [7].

This journal has made a considerable effort at covering a wide range of issues related to energy access, including with its first special issue (Volume 5), which focused on renewable energy in sub-Saharan Africa [8]. That volume included treatment of financing, which is directly related to the topic of this *Perspective* [9]. It also considered non-financial barriers to access [10]. In a different volume, treatment of the political economy aspects of energy access is provided; this is a key element in our discussion of the institutional landscape surrounding Power Africa [11]. Finally, in 2017 the subject of power supplies for industry in sub-Saharan Africa was discussed in the context of the mining sector in Zambia [12]. The acknowledgement that the energy issues in Africa go well beyond household access is a crucial aspect of Power Africa.

#### 2. Goals

The Power Africa initiative has established an admirable set of simple, specific, and measurable targets: to increase installed generation capacity by 30,000 megawatts (MW) and add 60 million household and business connections by 2030. In August 2017, the Power Africa team released its fourth annual report detailing a wide range of progress indicators [13]. The portfolio pipeline is diverse by region and fuels mix and paints an overall optimistic picture of being on track to meet the targets. To date, Power Africa has assisted 82 transactions that are online, under construction, or have reached financial close. These projects will generate 7219 MW, of which 2043 MW are already operational (see Figs. 1 and 2). The report also claims 10.6 million home and business connections, which (assuming five people per household)

https://doi.org/10.1016/j.erss.2017.11.001 Received 31 October 2017; Accepted 6 November 2017 2214-6296/ © 2017 Elsevier Ltd. All rights reserved.

<sup>\*</sup> Corresponding author at: Center for Global Development, 2055 L Street, NW, 5th Floor, Washington DC, 20036, USA. *E-mail address:* tmoss@cgdev.org (T. Moss).

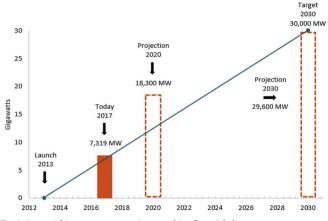


Fig. 1. Power Africa progress on projects reaching financial close. Source: USAID.

reach 53 million people.

To reach these goals, the initiative has mobilized a suite of U.S. resources to unlock private capital and to unblock a long pipeline of potential deals. Power Africa has included at least nine federal agencies coordinated by a team at the United States Agency for International Development (USAID), at least five international financial partners, and over sixty private firms or investors.

#### 3. Engaging the private sector

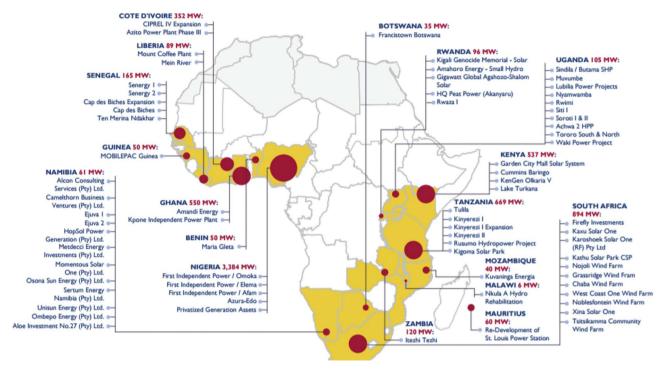
A major strength of the initiative is the successful leveraging of public-private partnerships. The initial \$9 billion in private commitments have blossomed to over \$40 billion. Crowding in private investors not only limits the exposure of U.S. taxpayers, but also encourages the selection of projects that are more likely to be commercially sustainable in the long run. The heavy inclusion of the private sector may also bring some potential political benefits at home in the current environment. According to the annual report, Power Africa has also benefitted U.S. firms, with 64 companies from across the United States involved in projects that are at or near completion (Fig. 3). The report estimates that the initiative has generated more than \$500 million in U.S. exports, with the full pipeline potential of \$7 billion in export opportunities. These are all important facts for maintaining a political constituency, but could run the risk of being overdone. Power Africa is succeeding precisely because it is achieving its international energy goals, not becoming a domestic jobs program.

#### 4. Finance

At the same time, the original commitment of Power Africa to provide \$7 billion in public financing [14] has been far smaller than anticipated, largely because the US Export-Import (Ex-Im) Bank has reached just \$132 million out of its \$5 billion pledge. (While the Ex-Im number was always unrealistic, the shortfall was mainly because of a temporary shutdown of the agency and other problems unrelated to Power Africa.) The public financing bright spot has been the Overseas Private Investment Corporation (OPIC), which has already reached \$2.3 billion in commitments, surpassing its \$1.5 billion financing pledge easily and far ahead of schedule [15]. Despite these significant funding commitments, Power Africa represents a small percentage of the overall investment required to meet Africa's energy needs [16]. International financial assistance (i.e., official development assistance plus other official flows) to the sub-Saharan electricity sector has almost quadrupled over the last decade, reaching \$4.9 billion in 2015 [17]. A recent review of financing flows by the Sustainable Energy for All Initiative shows the contours of the finance gap (Fig. 4) [18].

#### 5. A diverse portfolio

Another bold decision is that the initiative, while promoting a wide range of renewable energy technologies, does not shy away from the inclusion of natural gas in the Power Africa portfolio. It has facilitated financial close on 19 gas-related transactions with new installed capacity of 4315 MW, while the 2030 generation goal anticipates that natural gas will account for the single largest source of additional capacity. The Department of Energy has also explicitly encouraged the use



Download English Version:

# https://daneshyari.com/en/article/6557563

Download Persian Version:

https://daneshyari.com/article/6557563

Daneshyari.com