



GOING BIG ON POWER AFRICA: FORTIFYING THE INITIATIVE FOR TODAY'S URGENT CHALLENGES

10 Recommendations to enhance Power Africa's impact on energy poverty, economic development, and climate change

Katie Auth
Judd Devermont
Todd Moss
Rose Mutiso
Nilmini Rubin
Kate Steel

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Summary

The US Government's Power Africa initiative grew out of a bipartisan commitment to addressing energy poverty. Since its launch by President Obama in 2013, the program has resulted in wins for both the US and its African partners: it has helped connect more than 18 million homes and businesses to electricity, brought over 11,000 megawatts (MW) of new generation to financial close, and catalyzed billions of dollars in private capital. The initiative's clear, measurable goals have rallied public and private partners around an ambitious objective under US leadership. It has also helped entrepreneurs and companies across the US see Africa -- sometimes for the first time -- as an attractive investment destination.

But today, the world we face is different. COVID-19, rapid African urbanization, the climate crisis, and rising national security threats make energy even *more* critical to global development now than it was in 2013. Power Africa must adapt in order to meet these new challenges. Building on Power Africa's success presents the Biden administration with a chance to greatly enhance the program's effectiveness; power post-COVID economic recovery; enhance climate resilience and climate ambition; answer China's regional engagement with more investment and stronger, more competitive markets; and help repair US diplomatic relationships in sub-Saharan Africa.

Here are **10 high-priority actions** the Biden Administration could take to make Power Africa a more effective tool in achieving these goals:

- 1) Establish new goals for power reliability and cost.
- 2) Commit to increased funding for energy projects in low-income and lower-middle income markets.
- 3) Coordinate to grow investment opportunities in grids and utilities.
- 4) Harness US innovation by seeding an early stage venture capital fund for energy tech.
- 5) Commit to supporting the design and/or establishment of competitive, transparent planning and procurement processes in at least 5 countries.
- 6) Encourage African governments to assert what they expect from their foreign infrastructure partners.
- 7) Scale-up and better target outreach to US firms.
- 8) Rally allies to end public financing for coal and oil, while maintaining flexibility to finance natural gas in energy-poor, low-emission economies.
- 9) Re-appoint an engaged senior NSC lead as co-chair of the Power Africa working group.
- 10) Secure a Power Africa budget line-item of \$300 million per year.

Intro to Power Africa

Power Africa is an interagency initiative coordinated by the US Agency for International Development (USAID) to expand electricity access and improve electricity supply in sub-Saharan Africa. The program grew out of a bipartisan recognition that addressing energy poverty is foundational to spurring economic development and improving livelihoods, and garnered support from both the executive and legislative branches. Officially launched by President Obama in 2013, the initiative was further reinforced and codified by passage of the Electrify Africa Act in 2016.¹ By applying a diverse mix of development tools from across twelve US Government (USG) agencies and leveraging international partnerships and private capital, Power Africa helps connect African households and businesses to electricity, accelerates investment in new generation, and supports the market reforms that will enable long-term investment.

What Did Power Africa Get Right?

In its first eight years Power Africa resulted in significant wins for both the US and African partners. To date, Power Africa has helped connect more than 18 million homes and businesses to electricity, and brought over 11,000 megawatts (MW) of new generation to financial close.² Factors enabling its success include:

- **Adopting a market-based approach.** Power Africa focuses US development resources on catalyzing private capital, and has secured more than \$40 billion in commitments from 150+ private sector partners. It explicitly places companies, investors, and entrepreneurs at the center of its programming -- recognizing their critical role in achieving its objectives and ensuring sustained impact. This approach makes sense in a sector like power, where development objectives and private sector interests align, and where the scale of needed investment is significantly larger than the available public resources. Power Africa's interagency structure enables it to address challenges along the entire power sector value chain. For example, to catalyze markets for private sector off-grid solar companies, Power Africa provides market intelligence and advisory services to help strengthen business models; grant capital, insurance, and development finance to mitigate investment risk; and grant-based competitions to drive technological innovation. This market-based model has since played a role in inspiring and shaping other US development programs, including Prosper Africa.

¹ [Electrify Africa Act of 2015](#)

² USAID, [Power Africa: A US Government-Led Partnership](#), *Fact Sheet*, January 12, 2021

- **Rallying partners around simple, measurable goals.** Power Africa has two topline goals: 1) bringing 30,000 MW of new power generation to financial close; and 2) connecting 60 million African homes and businesses to electricity. Rather than miring the program in a complicated set of indicators, these two simple goals keep it focused on its core mission, provide a clear narrative with which to talk about its impact, and rally partners to join in the same effort.
- **Building and leveraging international coalitions.** The scale of the energy poverty challenge requires crowding in, complementing, and leveraging partners. Power Africa has built operational partnerships with bilateral and multilateral entities including the European Union, the African Union, Japan, and Korea. Where these entities have effective programs in place, Power Africa has contributed US funds to sustain and grow them rather than launching duplicative efforts. This enhances US credibility with its partners and helps ensure a more effective use of resources.
- **Mobilizing US private sector, innovation, and technology.** By signalling the USG's commitment to African energy markets, the program has driven increased interest among American firms, many of whom were inspired to consider African markets as viable investment destinations for the first time. Power Africa's US partners include developers, technology firms, and impact and commercial investors. The mobilization of these entities strengthens US ties to African markets, makes clear the mutually beneficial linkages between US development assistance and US prosperity, and helps shift the tone of US-Africa policy away from a traditional narrative of dependence toward one of mutual investment.
- **Demonstrating that multi-agency initiatives can be effective.** The US interagency is notoriously complicated and cumbersome. But the 12 participating Power Africa agencies have largely succeeded in collaborating to achieve common goals and respond to changing market needs. The Coordinator's Office enables the initiative to track shared progress, identify opportunities for collaboration, and -- crucially -- transfer targeted funding from USAID to other agencies in order to develop new programs and support catalytic investments.

Power Africa's Alignment with Biden Administration Foreign Policy Priorities

In 2021, eight years after Power Africa's initial launch, the world is different. COVID-19, rapid African urbanization, the climate crisis, and rising national security threats arguably make energy even *more* critical to global development now than it was in 2013. Power Africa must adapt in order to meet these new challenges. The program's established credibility, name recognition, and programmatic infrastructure across 30+ African countries provide an opportunity to quickly, efficiently, and effectively advance four of the Biden administration's core foreign policy goals:

- **Power post-COVID economic recovery and job creation.** COVID-related economic restrictions have severely impacted African economies and, as a result, their power sectors. For the first time in six years, the total number of people in sub-Saharan Africa without access to electricity is set to *increase*, rolling back hard-won progress.³ Power Africa has been successful in expanding household access, particularly in rural areas -- largely due to support for off-grid technologies like solar home systems. This remains an essential part of ensuring basic services and improving livelihoods. However, particularly in the aftermath of COVID-19, Power Africa can and should do more to provide power for large-scale job creation. This will help economies bounce back faster and more resilient, and support the growth and sustainability of Africa's dynamic and rapidly growing cities.
- **Enhance climate resilience and climate ambition.** Power Africa presents a major opportunity to address the climate crisis in sub-Saharan Africa. Since 2013, Power Africa has helped bring 98 renewable projects across the continent to financial close -- representing over half of its total portfolio, many of them among the first renewable projects in a given market.⁴ But the initiative can do more. African countries are committed to clean energy, with some already far ahead of the US and Europe: Kenya's grid, for example, is nearly 80% renewable (compared to less than 20% in the US). Power Africa should scale up support for clean energy projects. But at this point, many countries cannot integrate much more wind or solar power without additional investment in enabling infrastructure like modern grids and storage systems. Without functional grid systems to absorb the power, African countries will struggle to deploy renewables at scale. At the same time, they must build power systems capable of responding to Africa's most imminent climate crisis: adapting to extreme weather, drought, and rising temperatures -- all of which will need significantly more energy supply.

³ International Energy Association (IEA), [World Energy Outlook 2020](#)

⁴ USAID, [Power Africa Generation Projects](#), September 30, 2020

- **Answer China with more investment and stronger, more competitive markets.** Strategic competitors of the US are highly active in Africa’s power sector, often providing packaged project finance. These projects can come with aggressive diplomatic support and long-term implications that may constrain African options in the future and put US firms and commercial interests at a disadvantage. While some of the “Great Power Competition” language over the past four years has been simplistic -- and even sometimes diplomatically counter-productive -- the US does have an opportunity to answer Chinese investments by scaling up its own commitment to competitive, sustainable power markets. The International Trade Administration estimates the total value of opportunities in the African energy sector in FY2020/21 at \$125 billion -- larger than infrastructure, healthcare, and Information and Communications Technology (ICT).⁵ By increasing its focus on establishing norms for quality, competition, and transparency, Power Africa can further open this market for US companies, lower costs, and enable African partners to better assert their own priorities and requirements for energy infrastructure.
- **Help repair and strengthen diplomatic relations in Africa.** US relations with key African allies have suffered over the past four years as a result of factors including derogatory comments, travel bans, and a perception that the US views the continent primarily as a battlefield for ‘Great Power Competition’ with China. Enhancing Power Africa can be a first step in repairing these relationships by demonstrating renewed commitment to African countries not as recipients of aid, but as partners in trade, investment, and tackling shared global challenges.

⁵ International Trade Administration, “[Sub-Saharan Africa](#)”

How to Get it Done - A 10-Step Agenda for the Biden Administration:

We recommend 10 high-priority actions to enhance Power Africa's effectiveness and position it to meet today's challenges.

- 1. Establish new goals for power reliability and cost.** [*Power Africa Coordinator and NSC, in consultation with Congress*] African firms consistently identify electricity cost and reliability as leading constraints to productivity, employment, and economic expansion.⁶ Even if Power Africa achieves universal electricity access across the continent, its ultimate developmental impact will be limited unless the quality of supply is improved. In 2019, less than a third of African firms reported having access to reliable power.⁷ As a result, a majority rely on diesel generators for back-up, adding significantly to costs, local air pollution, and carbon emissions: the CO₂ emitted from generators in sub-Saharan Africa is equivalent to 20% of the region's total vehicle emissions.⁸ Despite poor quality, the unit cost of electricity in many African countries is more than double what it is in higher-income markets: electricity in Liberia, for example, is roughly four times as expensive as it is in the US.⁹ Conversely, where cost is low, it usually means the government is subsidizing the utility, creating a drain on the country's finances and disincentivizing performance improvements. Power Africa should make addressing these challenges a primary goal. One option is to use the *Reliability-Adjusted Cost of Electricity (RACE)* metric, which calculates the total cost firms pay for power, capturing both unit costs and the added burden of relying on diesel generators as a result of unreliability [Figure 1]. Power Africa could aim to help reduce the RACE metric by 25% in at least 10 countries. The underlying data is reported publicly and updated annually, so incorporating RACE would require no additional data collection effort. Increasing focus on cost and reliability would unlock entrepreneurial creativity and economic competitiveness across Africa, and enhance the program's development impact in Africa's rapidly growing urban centers.

⁶ World Bank [Enterprise Surveys](#); See also Moss, Todd, " [Job Creation and Energy in Africa](#)," Energy for Growth Hub, 2018.

⁷ Moussa Blimpo et al., [Electricity Access in Sub-Saharan Africa: Uptake, Reliability and Complementary Factors for Economic Impact](#), March 2019.

⁸ International Finance Corporation, [The Dirty Footprint of the Broken Grid](#), September 2019.

⁹ Moussa Blimpo et al., [Electricity Access in Sub-Saharan Africa: Uptake, Reliability and Complementary Factors for Economic Impact](#), March 2019.

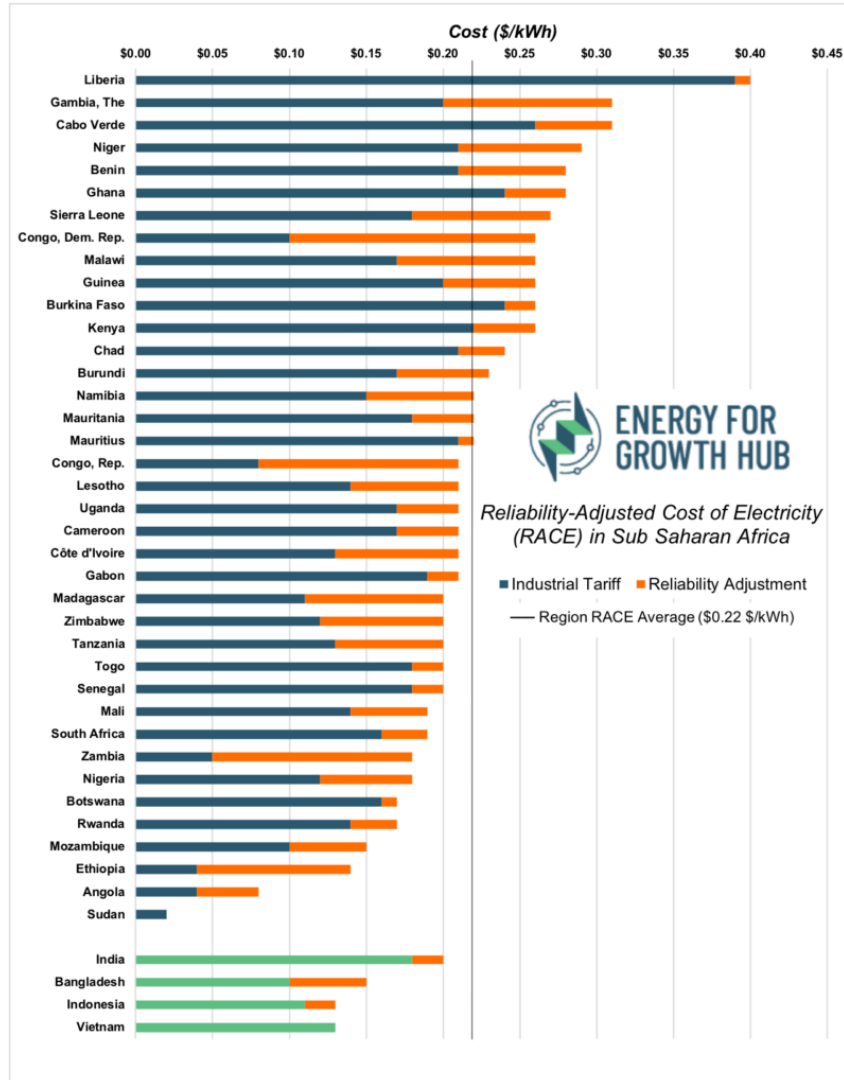


Figure 1. The Reliability-Adjusted Cost of Electricity (RACE) calculations for several countries in sub-Saharan Africa.

Sources: Fuel price from GIZ International Fuel Prices 2018-2019, tariff data from World Bank Enterprise Surveys, most recent year available, and back-up generation data from World Bank's Doing Business, 2020.

- 2. Commit to increased funding for energy projects in low-income and lower-middle income markets.** [DFC, USAID] The Development Finance Corporation's (DFC) Inaugural Development Strategy proposes targets of (a) at least 60% of all projects in low-income and lower-middle income countries, or in fragile states and (b) commitments of at least \$10 billion to the global energy sector by 2025.¹⁰ DFC could additionally commit to specific project and/or funding targets in the African energy sector, where additionality and development impact are both particularly high.

¹⁰ DFC, [DFC's Roadmap for Impact](#), January 2020 - December 2025.

3. Coordinate to grow investment opportunities in grids and utilities. [DFC, USAID] In most African countries, the primary obstacles to improving service, reducing costs, and bringing more renewables online include inadequate transmission and distribution (T&D) infrastructure and the poor financial performance of African utilities. Unless these immense challenges are tackled, it will be very difficult to scale renewable power across the continent or end widespread energy poverty. Recognizing this, the interagency launched 'Power Africa 2.0' in 2018, which aimed to increase prioritization of both T&D and utility strengthening. Overall support to date has been limited, largely because these areas are traditionally financed by the public sector and multilateral institutions, while Power Africa was designed to catalyze private investment. But opportunities for investment do exist -- and will grow as African markets continue to expand private sector participation under concessions and other models. USAID could increase its technical assistance to grid networks and utility performance, and identify early opportunities for DFC to invest in utility concessions, management contracts, rural electrification programs, distributed renewables and isolated grid systems, and utility services companies as sectors mature. And the Millennium Challenge Corporation (MCC) should look for opportunities to scale up its grant-based support for critical grid infrastructure, such as what's being provided under its current Senegal Power Compact.¹¹ Ultimately, building an integrated investment platform modeled on the UK's Gridworks program would enable the US to harness the DFC's equity authority, the US Trade & Development Agency's (USTDA) early stage project support, and USAID's technical assistance to significantly ramp up in an area with extremely high development impact.¹²

4. Harness US innovation by seeding an early stage venture capital fund for energy tech. [DOE, DFC, USAID] The Biden administration has announced an intention to increase public support for innovation in clean energy technologies, including new commitments to the Advanced Research Projects Agency-Energy (ARPA-E), with even more ambitious plans reportedly under consideration.¹³ This is a hugely beneficial step -- but the administration should ensure that funding for energy research and development (R&D) includes technologies and business models relevant in emerging and frontier markets, including in Africa. The US has a comparative advantage in early-stage energy technologies like smart metering, power control systems,

¹¹ Millennium Challenge Corporation (MCC), [Senegal Power Compact](#).

¹² Gridworks, [Gridworks: Investing in electricity networks across Africa](#).

¹³ US Department of Energy, "[DOE announces \\$100 million for innovative clean energy solutions](#)", February 11, 2021; Columbia SIPA Center on Global Energy Policy, [Energizing America](#), September 2020.

energy storage, and distributed renewable generation. Particularly in the off-grid sector, many of the leading companies have US roots. DFC could create a specific funding window to crowd-in early stage venture capital to harness new technologies in overseas markets, akin to the early private equity funds created and seeded by DFC's predecessor agency. USAID and DFC could also work more closely with the Department of Energy (DOE) to identify promising new technology companies who are not yet aware of the opportunity in sub-Saharan Africa.

5. Commit to supporting the design and/or establishment of competitive, transparent planning and procurement processes in at least 5 countries.

[USAID] To date, Power Africa has focused on providing targeted technical assistance and investment tools to move individual power projects to financial close and commissioning. As is common across the African power sector, most of these deals stemmed from unsolicited proposals put forward by private developers who bilaterally secured contracts with African governments to supply power. This system has resulted in many good projects, but has also contributed in many cases to needlessly high costs, oversupply issues, and misalignment between countries' generation mixes and their actual energy and climate goals. Competitive processes drive down costs and give African governments and utilities a greater voice in what type of electricity -- and how much of it -- they need. Programs like the International Finance Corporation's (IFC) Scaling Solar program (to which Power Africa has contributed funds) have demonstrated the role of competitive auctions in enabling rapid renewable deployment at lower cost.¹⁴ Helping design and implement competitive auctions also establishes the standards for future energy procurement, which can help level the playing field for US and other like-minded firms. The US Treasury's Office of Technical Assistance, USAID's Environment, Energy, and Infrastructure Hub, and USTDA's Global Procurement Initiative have significant technical expertise in procurement design in emerging markets worldwide, and should be better harnessed to support the design and/or establishment of competitive processes.

6. Encourage African governments to assert what they expect from their foreign infrastructure partners.

[State Department, USAID] China will continue to be a major player in African energy infrastructure, but Power Africa can do more to work with African countries to ensure that Chinese-financed deals are real, beneficial, and non-discriminatory. While the

¹⁴ International Finance Corporation (IFC), "[Unlocking Private Investment in Emerging Market Solar Power](#)".

US can play a powerful role in helping set standards for quality, competitiveness, and transparency, ultimately it must be African countries that set and demand compliance with these standards. The US should scale up diplomatic engagement to encourage African partners to root out problematic investments and establish robust, transparent systems for review. For example, Côte d'Ivoire established a task force to monitor the execution of nearly \$6 billion in Chinese investments and ensure quality and transparency.¹⁵ The US should support the creation of similar structures, and in parallel, continue to support resources like the African Development Bank's African Legal Support Facility, which assists African countries in legal and transactional negotiations.

7. Scale-up and better target outreach to US firms. *[Commerce, USTDA, USAID]* Power Africa's partnerships with US firms have increased domestic awareness of sub-Saharan markets and led to a range of investments across various technologies. However, Power Africa has opportunities to scale up and better target its outreach to harness US innovation. First, Power Africa should increase its focus on and direct outreach to the sub-sectors in which American firms have a true comparative advantage: particularly in more complex emerging technologies like service provision, storage, automation, and systems management. Second, Power Africa should engage more directly with US firms about the relative risks and opportunities in particular markets, and deploy tools targeted to address them - including in collaboration with Prosper Africa. Being aware of sub-Saharan Africa as a viable market is often not enough to convince US firms to invest time and money there when there are easier markets closer to home; this is particularly true for the technologies in which the US is most competitive. Third, Power Africa should better leverage the Department of Commerce's expertise and capacity. While Power Africa has historically engaged most directly with the Advocacy Center, which is best placed to engage on projects already in process, it could better leverage other parts of the Department including the Small Business Association. To increase collaboration with Commerce, Power Africa should consider funding a Commerce employee to focus exclusively on Power Africa and coordinate across the various parts of the Department.

8. Rally allies to end public financing for coal and oil, while maintaining flexibility to finance natural gas in energy-poor, low-emission economies. *[NSC, USG interagency]* Many donors and development financiers are grappling with how best to balance support for climate and economic development goals. Some have announced limitations on financing for new

¹⁵ Baudelaire Mieu, "[Ivory Coast Creates Task Force to Monitor China-Backed Projects](#)," *Bloomberg*, November 28, 2018.

fossil fuel infrastructure, and in January 2021 President Biden directed relevant federal agencies to develop a plan to do the same.¹⁶ Thoughtful limitations on support for new fossil fuel infrastructure are important -- but any restrictions developed by the US should leave flexibility for natural gas in the markets that need it most, for example in low-emitting, energy-poor countries [Figure 2]. Potential gas projects should be assessed on the basis of factors such as: contributions to economic growth and job creation; impacts on the cost and reliability of power, and on the power sector as a whole; and contributions to a country's climate resilience and its pathway to net-zero. Support for gas should also extend to liquid petroleum gas (LPG) distribution for cooking, which offers a significant emissions and development improvement over charcoal and traditional biomass. Aligning with key allies on consistent approaches will make it easier for the US to collaborate on financing projects, and easier for developers. Critically, the US policy towards natural gas must be sufficiently clear and simple to avoid continuous intra-agency battles and/or reliance on project-by-project waivers, which risks effectively blocking and disincentivizing support. Staff within relevant agencies must be adequately trained and provided with the tools to assess the climate and development impact of projects quickly and accurately -- and be empowered to weigh complex trade-offs and make investment decisions accordingly. Finally, this screening process should *not* overly constrain the ability of Power Africa's Transaction Advisors to meet regularly with a wide-range of developers to understand their challenges, scope potential projects for US intervention, and understand the market.

¹⁶ White House, "[Executive Order on Tackling the Climate Crisis at Home and Abroad](#)", January 27, 2021.

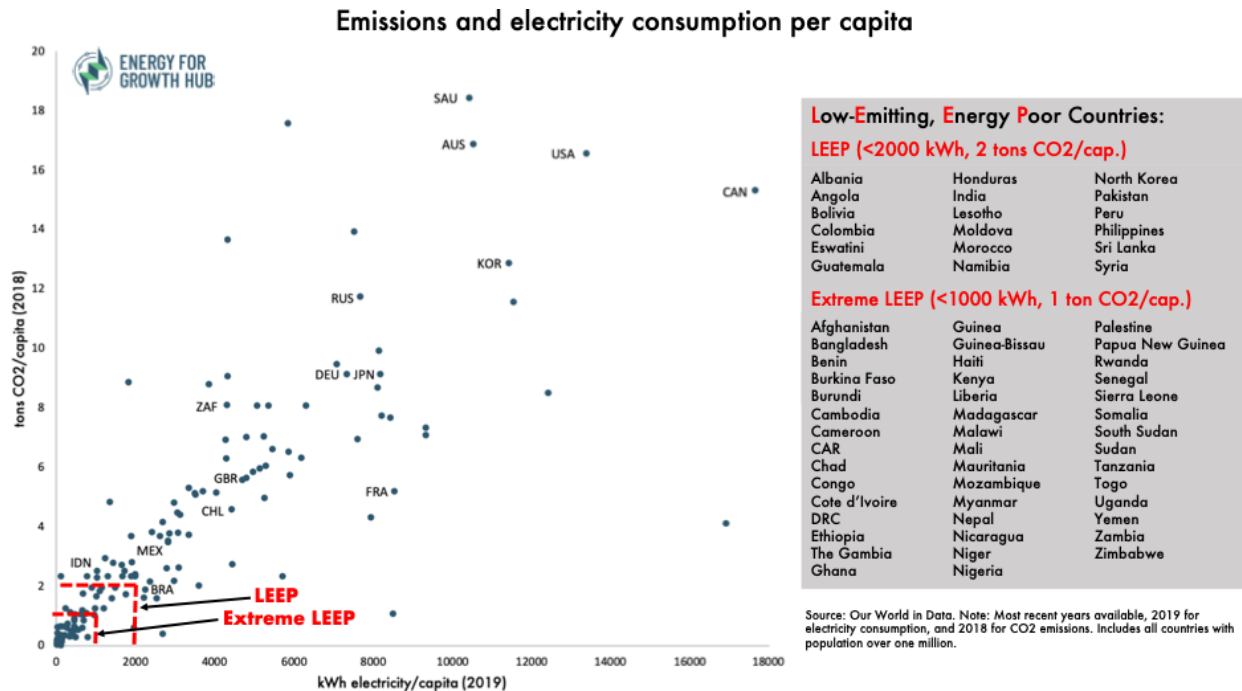


Figure 2. A comparison of country-level per capita carbon dioxide emissions and electricity consumption.

9. Re-appoint an engaged senior NSC lead as co-chair of the Power Africa working group.

[National Security Advisor] An Executive Order formally established the Power Africa interagency working group, co-chaired by the USAID Power Africa Coordinator and a member of the National Security Council (NSC) staff.¹⁷ For the past four years, interagency collaboration has suffered without an engaged NSC representative ensuring its alignment with White House priorities and helping to drive strategic decision making that rises above the narrow interests of any one agency. Re-engagement by the NSC will better position both the White House and Power Africa staff to approach the African energy sector as it relates to broader foreign policy and national security priorities, and to engage effectively in personal diplomacy when in the strategic interest of the US. However, it is important that the Power Africa Coordinator and respective Agency leads must retain the flexibility and ability to make decisions quickly and efficiently, without NSC micromanagement.

¹⁷ The White House Office of the Press Secretary, [Executive Order -- Advancing the Goals of the Power Africa Initiative to Expand Access to Electricity in Sub-Saharan Africa Through the Establishment of the President's Power Africa Working Group](#), November 03, 2016.

10. Secure a Power Africa budget line-item of \$300 million per year. *[White House, Congress]* Power Africa's effectiveness is currently limited by a lack of adequate, predictable resources. Over the past four years Power Africa's annual budget has hovered at roughly \$75 million, far below the initial commitments made by the Obama administration. At this level, the initiative was forced to pull back from many of the tools that historically made it so successful, including its ability to transfer funds across the interagency, provide direct grant capital, and contribute to international funds that align with its goals. Without a line item for increased resources, Power Africa's ability to address rising challenges and contribute more substantively to the Biden administration's goals will be severely constrained.

About the Authors

[Katie Auth](#) is the Policy Director of the Energy for Growth Hub. Previously, she served as Senior Development Finance Advisor at the United States Agency for International Development and in various roles at Power Africa, including as Energy Office Director and Acting Deputy Coordinator.

[Judd Devermont](#) is the Director of the Africa Program at the Center for Strategic and International Studies (CSIS). Prior to joining CSIS, he served as the national intelligence officer for Africa from 2015 to 2018.

[Todd Moss](#) is founder and Executive Director of the Energy for Growth Hub. He is also a nonresident fellow at the Center for Global Development, at the Center for Energy Studies at Rice University's Baker Institute, and at the Colorado School of Mines' Payne Institute. Previously, Todd served as U.S. Deputy Assistant Secretary of State for African Affairs.

[Rose M. Mutiso](#) is the Research Director for the Energy for Growth Hub and co-founder and CEO of the Mawazo Institute. Previously, Rose was a Senior Fellow in the Office of International Climate and Clean Energy at the U.S. Department of Energy.

[Nilmini Rubin](#) is a Senior Associate at CSIS. Previously, she led Tetra Tech's global team implementing energy and internet infrastructure projects in emerging economies. Nilmini also served for twelve years as a senior aide on both the Senate Foreign Relations Committee and the House Foreign Affairs Committee.

[Kate Steel](#) is the co-founder and COO of Nithio, a start-up focused on financing energy access in Africa. Previously she was the Director of the Energy Office at Power Africa, and focused on renewable energy and energy access investments in Africa and South Asia at Google.

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