

THE 46th ANNUAL SUTTON INTERNATIONAL COLLOQUIUM

University of Denver College of Law

President Obama's Power Africa Initiative

Presented by Engility-IRG

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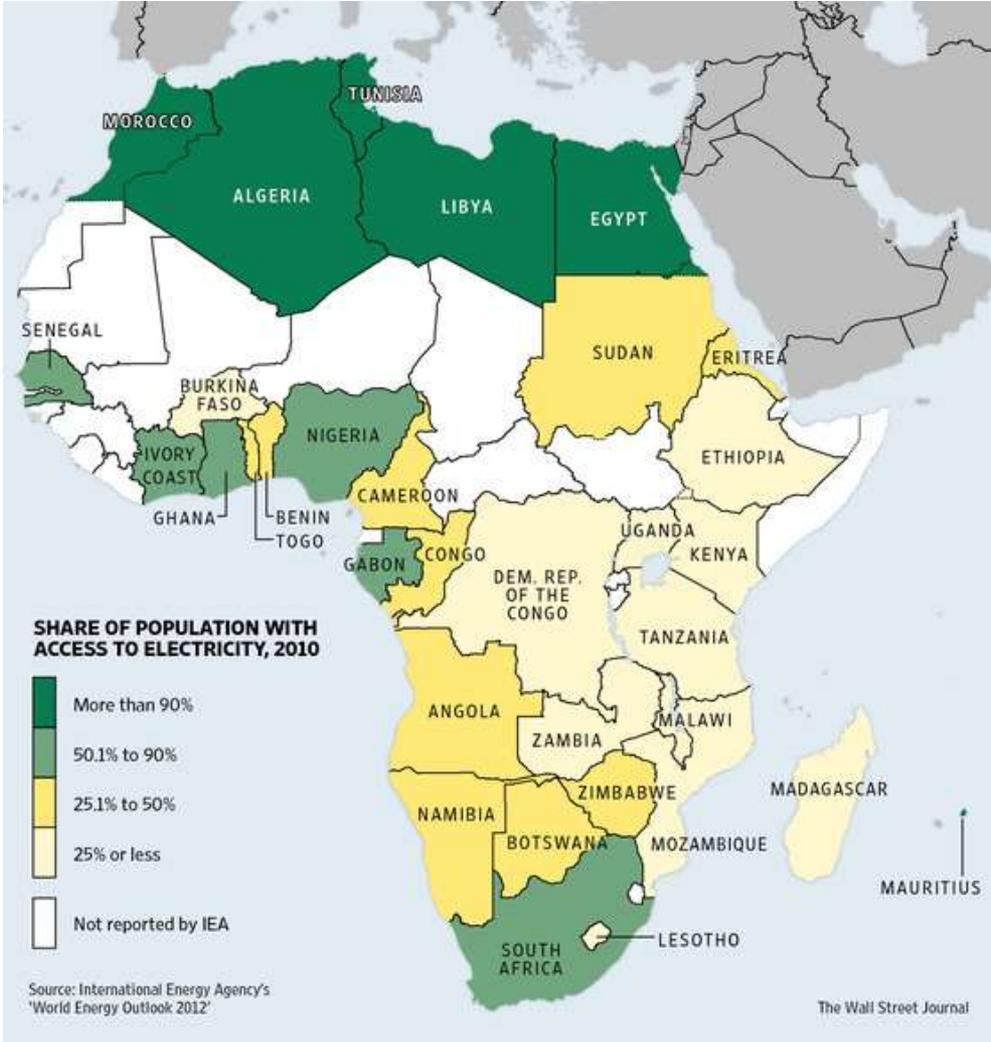
09 November 2013

ENGILITY
Your Mission. Our Commitment.

IRG

- On 30 June 2013 President Obama announced his 5 year, \$7 billion “Power Africa” initiative during a speech at the University of Cape Town, South Africa
- Power Africa is a U.S. Government initiative that addresses one of the most pressing challenges to sustainable economic growth & development in sub-Saharan Africa--access to electrical power
 - More than 69% of the population of sub-Saharan Africa has no access to electricity--and that number rises to more than 85% in rural areas
 - But the region has significant potential to develop power with clean energy sources (natural gas), as well as renewable energy sources (geothermal, hydro, wind, solar & biomass)
- Power Africa is designed to bridge the gap between Africa’s power shortage & its economic potential by working with US, international, & African private sector & government partners to—
 - Build out power generation & transmission
 - Expand the reach of mini-grid & off-grid solutions
 - Help countries responsibly develop newly-discovered resources

Access to Electricity



- With over 600 million people in sub-Saharan Africa lacking access to electricity, the challenge is enormous
 - Without electrical power, important benefits of modern life are beyond reach--industry cannot grow, students cannot study at nighttime in the dark, medicine & food cannot be refrigerated, & doctors cannot use the equipment often needed to save lives
 - According to the International Energy Agency (IEA), sub-Saharan Africa needs more than \$300 billion in investments to achieve universal electricity access by 2030--far beyond the capacity of any traditional development program
- The goal of Power Africa is to remove the power constraint to economic growth & spur trade & investment--while mitigating long-term greenhouse gas (GHG) emissions trajectories—by serving as a catalyst to spark a transformation in Africa’s energy & power sectors
- The immediate outcome should be to increase the supply of & access to reliable, affordable, & sustainable power for millions of Africans
 - and the enhanced responsible & transparent management of their energy resources

Imagine the Possibilities

Increasing access and reliability of electricity will:

Introduce better learning conditions and enhance education by allowing students to study after dark



Increase safety such as outdoor lighting so families can feel safer in their communities



Improve communication through telephones, TV, radio and computers



Foster productivity, since electricity also allows for irrigation, crop processing, food preservation and other income producing activities to enhance economic growth



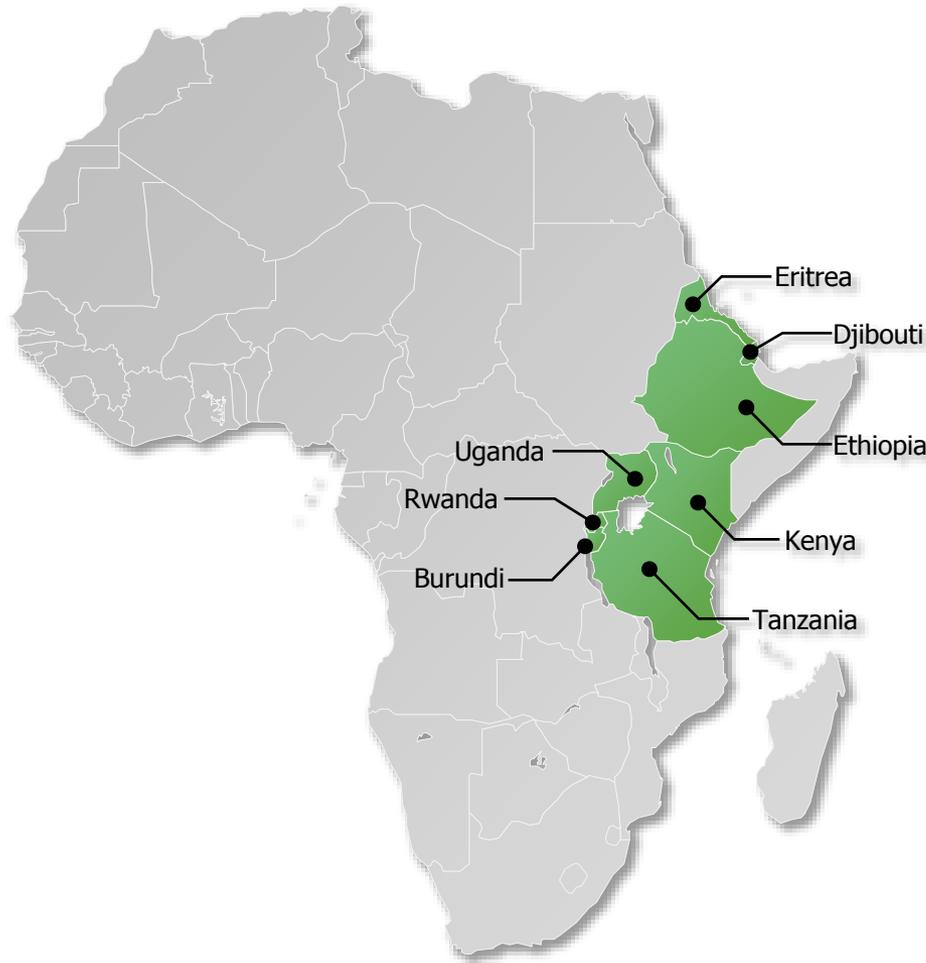
Improve health care conditions by providing drinking water pumps and lighting for rural health centers

Sources: International Energy Agency, World Bank. **Photo Credits:** Sections 1 and 3–Shutterstock; Section 4 (clockwise from top left)–Ben Edwards / USAID, Riccardo Gangale / USAID, Morgana Wingard for USAID, Morgana Wingard for USAID, Issouf Sanogo / AFP. **Graphic Design:** Nan Dearborn / USAID

- Sub-Saharan Africa has vast reserves of natural resources—including natural gas, geothermal, hydro, wind, solar, & biomass—and it has some of the fastest growing economies in the world
 - Region has 4% of the world’s proved reserves of natural gas & 10% of the world’s unexploited potential for hydro power
 - Geothermal resources in the Rift Valley in East Africa (particularly Kenya & Ethiopia) have the potential to provide up to 17,000 MW of power
- The USG’s assistance to governments in sub-Saharan Africa who can tap into these plentiful, sustainable resources will necessarily advance efforts to mitigate climate change impacts, promote economic development, & improve education & healthcare in host countries

Geothermal Potential in East Africa

16,900 MW



Country	MW
Kenya	10,000
Ethiopia	5,000
Uganda	400
Djibouti	400
Tanzania	300
Rwanda	300
Eritrea	300
Burundi	200

“Whole of Government” Effort

- Power Africa is a “Whole of Government” effort—
 - U.S. Agency for International Development (USAID)
 - Chair of the “Interagency Group”
 - Will provide \$285 million in technical assistance, grants, & risk mitigation
 - Overseas Private Investment Corporation (OPIC)
 - Will commit up to \$1.5 billion in financing & insurance
 - U.S. Export-Import Bank (Ex-Im)
 - Will make available up to \$5 billion to support U.S. exports of equipment & services
 - Millennium Challenge Corporation (MCC)
 - Will invest up to \$1 billion in African power systems through its energy compacts
 - U.S. Trade & Development Agency (USTDA)
 - Will provide up to \$20 million in project preparation, feasibility, & technical assistance grants
 - U.S. African Development Foundation (USADF)
 - Will launch a \$2 million “Off-Grid Energy Challenge” to provide grants up to \$100,000
- As a “Whole of Government” effort, Power Africa is an important & highly complex program that requires working effectively with several implementing partners--both within & outside of the USG--and other regional donors & stakeholders

“Transaction-Centered” Approach

- Power Africa will use a broad-based, value-added “transaction-centered” approach that seeks to leverage U.S. strengths in energy technologies, private sector transactions, and policy & regulatory reform to address gaps in Africa’s energy sector
 - A transaction-centered approach will provide host governments, the private sector, & donors with incentives to galvanize collaboration, provide near-term results, & drive systemic reforms that will facilitate future investment
- The U.S. government will work to help its partners in Africa to—
 - Catalyze investment of up to \$7 billion in the power sector
 - Add more than 10,000 MWs of clean & renewable electric generation capacity
 - Enable new electricity access for up to 20 million households
 - Increase the reliability of the electricity supply to commerce & industry through combined grid, mini-grid, & off-grid solutions
 - Reduce technical & commercial electricity losses to an average of 20% or less
 - Increase the number of countries participating in regional cross-border energy trading to at least 10
 - Enhance the energy resource management capabilities of priority countries, allowing them to meet their critical energy needs & achieve greater energy security

- For the first time, this Presidential Initiative will be led from the field, with the Power Africa office located at the U.S. Embassy in Nairobi, Kenya
 - Mr. Andrew Herscowitz of USAID (former Ecuador Mission Director) will lead the effort as the Interagency Coordinator for Power Africa
- Power Africa will initially focus on 6 Priority Countries--Kenya, Ethiopia, Tanzania, Ghana, Nigeria, & Liberia--which have
 - The lowest access by households to electricity
 - Set ambitious goals in electric power generation
 - Agreed to important utility & energy sector reforms
- Power Africa also will seek to improve natural resource management in other sub-Saharan African countries—Democratic Republic of Congo (DRC), Mozambique, South Sudan, and Uganda
 - Have an immediate need for effective energy resource management due to recent oil & gas discoveries

- Power Africa will focus most of its efforts on an initial group of about 24 power project “Transactions” that are “Late Stage Transactions” & will aim to bring these projects to “Financial Close” with “Permanent Financing”
- Transactions
 - Generation, transmission, or distribution projects
 - Access projects including mini-grids & off grids
 - Gas production concessions, gas pipelines & associated infrastructure
 - USG is not supporting oil projects—but venturing beyond renewables (natural gas) is a big step
- Late Stage Transactions
 - Those projects in which USG assistance could play a significant role in advancing & accelerating these transactions to reach “Financial Close”
 - Projects that are in the advanced stages of development--past feasibility study stage—where the major project agreements have been drafted & are being negotiated
 - Projects that have an estimated Financial Close date no more than 18 months after the beginning of USG assistance

- Financial Close
 - When each of the conditions precedent to the initial drawdown of funds under the Credit Agreement are either satisfied by the Project Company, as borrower, or waived by the Project Lender(s)
 - Implies that the Project Company has concluded with Project Lenders a complete package of “Permanent Financing” on a nonrecourse or limited recourse basis
- Permanent Financing
 - The availability of debt finance with a grace period equal to the construction period plus a repayment period of at least 10 years on reasonable terms & conditions

- Project must
 - Be a renewable energy project
 - Use associated gas that would otherwise be flared
 - Use non-associated gas or LNG in combined-cycle configuration
- Project has the potential to be
 - “Bankable”—private investors are providing financing and/or private companies are providing equipment or developing government-financed projects
 - “Feasible”—economically, financially, environmentally, & socially
- There is a role for the USG to play
 - In moving the Project to completion or to a major milestone (PPA signing)
 - In creating the conditions (enabling environment) for the Project to be successful (enactment of a geothermal law)
- The Project could be catalytic
 - Could lead to establishing best practices, frameworks, & reforms which would help more such projects to be realized in the host country

Regulatory & Institutional Strengthening, Including Early Stage Transaction Support

- Early-stage transaction support activities will be designed & aimed to facilitate the development of Bankable Projects in the Priority Countries
- Early-stage activities will be designed to support technical advisory, legal, financial, fiscal, analytical, & policy assistance to facilitate private sector investments
- Includes
 - early stage transaction support
 - mini-grids, small-scale projects (less than 10 MW), & rural electrification
 - mobilizing finance
 - transmission & distribution
 - policy and regulatory reform
 - natural gas
 - regional institutions & cross-border power trading

A shortage of electricity is one of Africa's greatest development challenges. Much of the continent experiences regular blackouts and brownouts, and emergency power sources cost too much for many homes and businesses.

600 million people,

70%

of the population of sub-Saharan
Africa are without electricity



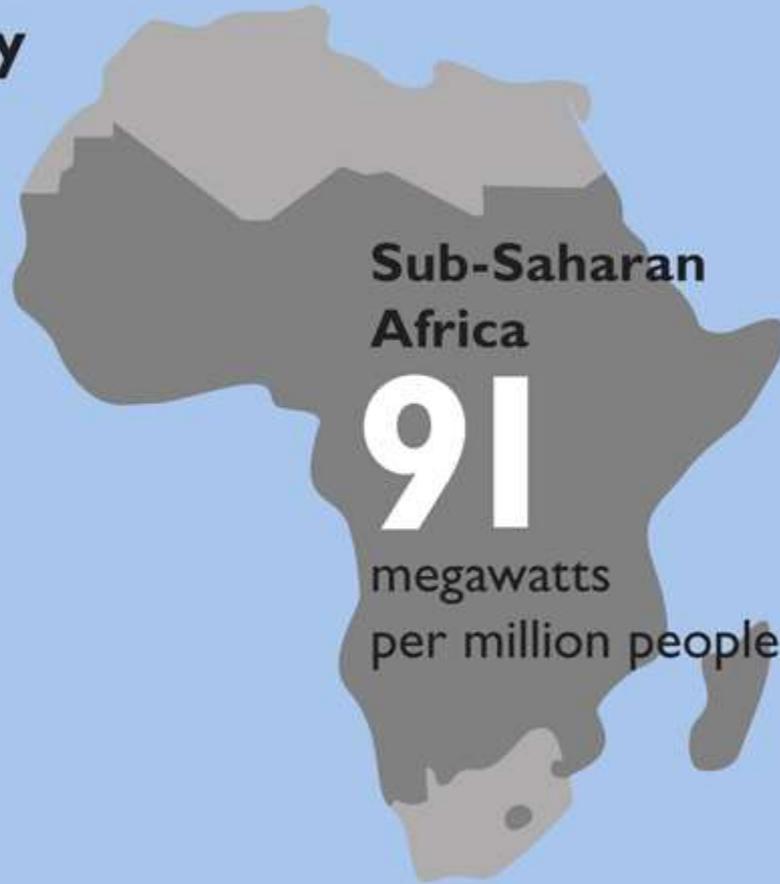
Generation Capacity—US & Africa

Generation Capacity

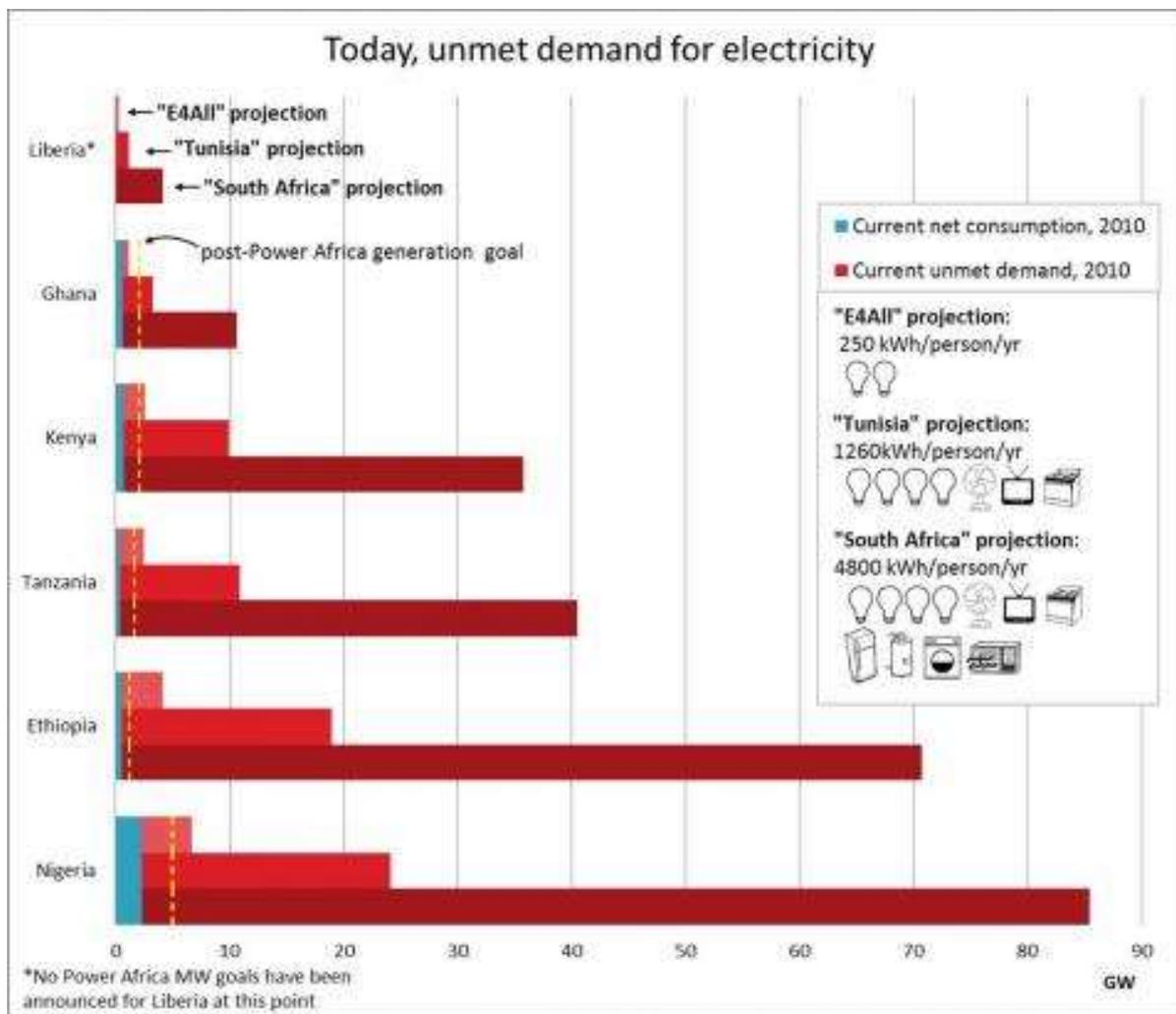
United States

3,360

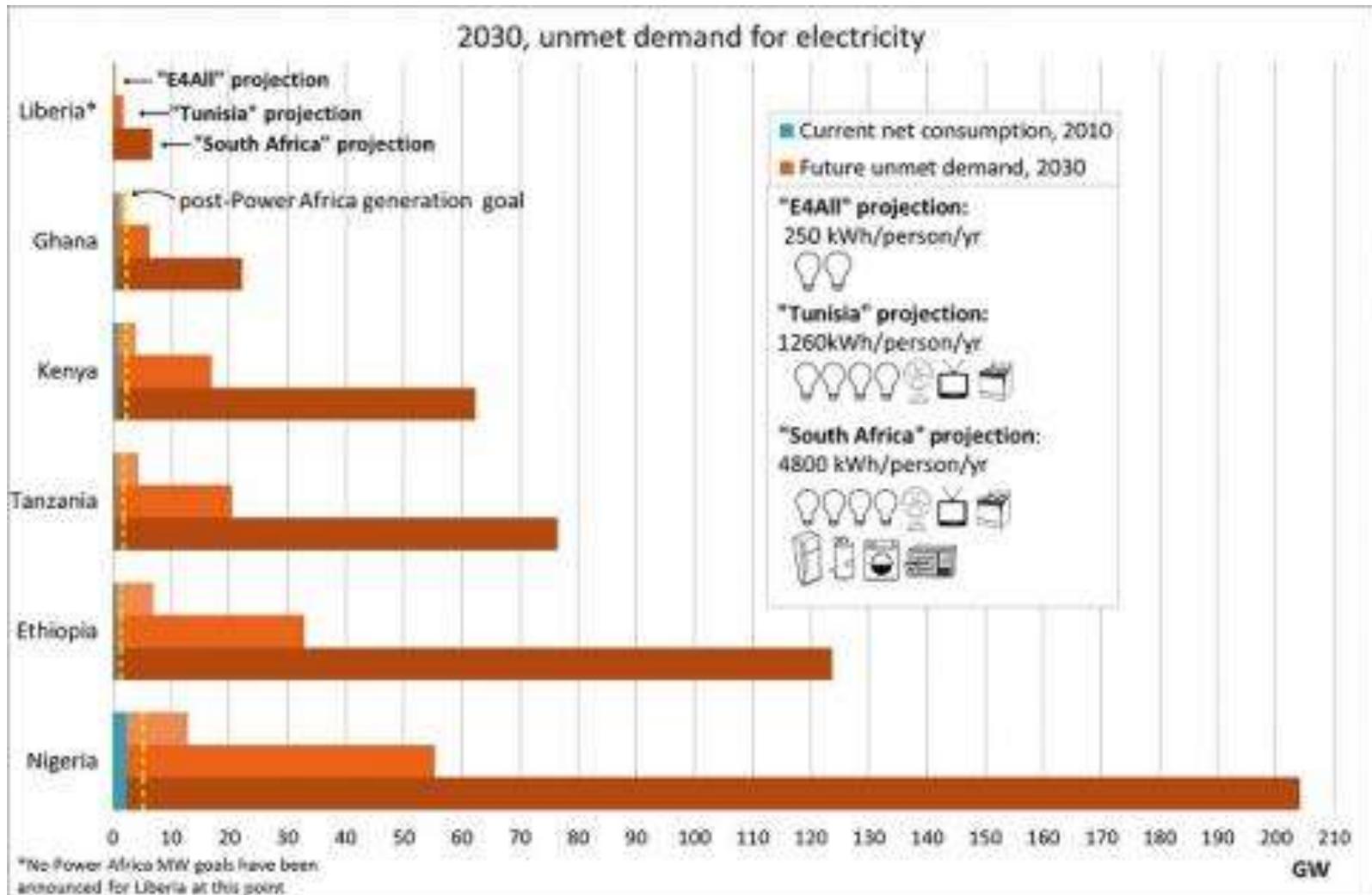
megawatts
per million people



Current Unmet Demand for Electricity



2030 Unmet Demand for Electricity



Thank You!

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