

Policy Brief

| *Wider Atlantic Program* |

In Brief: Africa is the new frontier of a global energy transition during a century in which people are rightfully preoccupied by climate change and sustainable development. Energy access in Africa can be reached through unity within and across the continent. Eliminating the obstacles of the historical divisions of the continent – whether linguistic, economic, or geographic – would foment investments and development aid. The African Union would be best equipped to reallocate and redistribute resources if it developed a unique, dedicated continental tool to promote energy access in all of Africa. An African continental energy policy would provide the framework for international initiatives to effectively and transparently participate to increase clean and renewable energy access, responding to the needs of Africans as expressed by Africans themselves.

Enhancing a Continental Policy on Energy Access in Africa

by Priscillia Andrieu

Introduction

Energy is central to development. As of 2014, more than 620 million¹ of the roughly 1 billion Africans did not have access to electricity. Access to energy, and especially to electricity, guarantees access to fundamental basic needs, such as water, food, education, health, and transportation. Electricity provides for clean water, agricultural self-sufficiency via a maintained cold chain, the ability to study after dark, mothers giving birth in safer conditions, and workers able to get to and from work.

Many Africans now have access to information through the Internet and cellphones, and some of the major cities of the continent are fully electrified. The population is growing, and the urban population is expected to double over the course of the next ten years. These factors are driving the ongoing growth and transformation of the sub-Saharan energy sector.

1 Africa Energy Outlook (Paris, France: International Energy Agency, October 2014), 4, http://www.iea.org/publications/freepublications/publication/WE02014_AfricaEnergyOutlook.pdf.

Migration represents one of the most visible consequences of the disparities regarding energy access in Africa. There are many different steps that migrants can make in search of light: from the small village to a bigger village, to a city, to the capital, to the north of the continent, and across the Mediterranean Sea. Sub-Saharan Africans mostly migrate within the continent, creating major disruptions in host countries that are not equipped to support massive flows of foreign populations. North African countries are absorbing the better part of sub-Saharan migrants waiting to cross over to Europe.²

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And Europe is in need of a young workforce. For instance, Germany will lack 2.4 million workers in its job market by 2020, and up to 6 million if its growth reaches 3 percent per year.³ An aging continent should find opportunities to collaborate with a young and an increasingly educated continent other than through taking advantage of brain drain. Independently from the political, social and economic context, Africans – as well as every other population on the planet – will keep migrating, to Europe and other places. The natural flow of migrating people should be able to alleviate the workforce shortage in Europe. Because closing borders is unrealistic and self-defeating, allowing some migrants to settle in Europe will benefit both continents. One example of this beneficial collaboration can be seen in the e-medicine sector: Africans have the opportunity to be diagnosed by European

2 Hein de Haas, "Morocco: Setting the Stage for Becoming a Migration Transition Country?" *Migration Policy Institute*, March 19, 2014, <http://www.migrationpolicy.org/article/morocco-setting-stage-becoming-migration-transition-country>.

3 *Germany 2020: Future Perspectives for the German Economy* (Frankfurt: MckInsey & Company, 2008), Figure 1, 6.

doctors through Internet-connected computers, and African doctors share their first-hand knowledge of rare diseases with their European peers.

While only emitting 2 to 3 percent of the world's CO₂ emissions,⁴ Africa is one of the first victims of climate change, and climate refugees represent a major threat in the 21st century.⁵ Given this turning point in its economic development, Africa faces a historic opportunity to benefit from the lessons of industrialized countries and current technologies and expand its energy production, making it a green-based continent. Africa holds the necessary natural resources to make its energy mix mostly dominated by sustainable energy sources. While a carbon-neutral continent is unrealistic in the short-term as African countries are in urgent need of energy — they do not have the luxury of waiting for clean energy sources to be fully efficient and cost-effective to make them 100 percent of their energy mix — Africa owns the natural resources to build an energy mix mostly based on renewables.

The cost of energy transition in developed countries is extremely high because of both the imperative to maintain effective and accessible energy production to meet current demand and the cost of transforming existing infrastructures. Africa would not face such challenges if it turned to green energies. Africa accounts for 220 million hectares of tropical forest in the Congo Basin — the second tropical forest in the world after Amazonia — some of the most critical biodiversity in the world, 10 percent of the world's economically exploitable hydraulic reserves, 60 percent of the undeveloped arable lands, and a major share of ore and rare metals stocks. Benefiting from the most sustained wind, the widest solar exposure, and the

4 Carbon Dioxide Information Analysis Center, "CO₂ Emissions (Metric Tons Per Capita)," World Bank Data, <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC?locations=ZG>.

5 Peter Schwartz and Doug Randall, *Abrupt Climate Change Scenario and Its Implications for United States National Security* (Washington, DC: U.S. Department of Defense, October 2003), 4, <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA469325>.

most powerful hydro sources on the planet,⁶ Africa is the new frontier of the energy transition on the planet.

Building a green African economy with improved power access would be significantly advanced by 1) resolving the disconnects within Africa – mostly by bridging the gap between the Maghreb and South Africa, on one hand, and the rest of the continent, on the other hand, as well as between Francophone and Anglophone Africa; and 2) coordinating existing initiatives and involving Africans.

Africa is the new frontier of the energy transition on the planet.

Resolving the Disconnects within Africa to Improve Power Access

The main disconnects in Africa can be seen in differing levels of development and access to energy, as well as between their linguistic and economic backgrounds. The levels of development include wider characteristics than just import-export balance, production ratios, major economic sectors, etc.; they encompass factors such as access to energy, health, education, transportation, and so on. Language is linked to the socio-economic structure of African countries due to historic patterns of colonization. For instance, when France decolonized, it left behind an economic structure mostly based on exports through French companies to satisfy the needs of French consumers. Once French companies and consumers began to switch to other markets to satisfy their needs, many former French colonies found themselves without a viable economic model. Yet, the economic background from the colonial period of exporting agricultural goods remains today, even though many

6 Jeanny Lorgeous and Jean-Marie Bockel, "L'Afrique est notre avenir" [Africa is our future], *Rapport d'information n° 104 Sénat 2013-2014*, 51, <https://www.senat.fr/rap/r13-104/r13-1041.pdf>.

Africans lack sufficient food to meet their basic needs. Bridging the many gaps suggests pushing toward continental energy policies to overcome the challenges of governance and implementation.

Northern Africa and South Africa vs. the Rest of the Continent

Access to energy in Africa is characterized by a major geographic gap between northern Africa and South Africa on one side, and all other African countries on the other side, with the exception of Mauritius and Gabon. In the Maghreb and South Africa, over 80 percent of the population has access to electricity. Elsewhere on the continent, as of 2010, access to electricity ran between 1.5 percent for South Sudan and 60.5 percent for Ghana. Numerous countries are still under 10 percent of the population with access to electricity: Liberia, Niger, Chad, Central African Republic, Malawi, and Burundi.⁷

Energy access, especially in developing countries, has become a central issue for leadership. In the case of South Africa for historical reasons, it mostly depends on investments in non-renewable energies from British and North American investors. Looking to diversify its energy mix, South Africa created the Renewable Energy Independent Power Producer Procurement program (REIPPP) in August 2011, designed to procure 3,725 megawatts of energy from renewable sources and "to contribute towards socio-economic and environmentally sustainable growth, job creation, and to stimulate the renewable industry in South Africa."⁸ Showcasing the country's efforts, President Jacob Zuma said in July 2016, "Tremendous

7 Africa-EU Energy Partnership Secretariat, *Le Partenariat Afrique-UE pour L'énergie: Exemples de Réussite* (Eschborn, Germany: Initiative de l'Union européenne pour l'énergie – Facilité de dialogue et de partenariat, May 2016), 20, http://www.euei-pdf.org/sites/default/files/field_publication_file/aeep-success-stories_fr.pdf.

8 "Fact Sheet for the Media Briefing Session on 31 August 2011 re the Renewable Energy Independent Power Producer (IPP) Programme," *South African Department of Energy Fact Sheet*, August 31, 2011, <http://www.energy.gov.za/IPP/Aug%202011/Fact%20Sheet%20for%20the%20Media%20Briefing%20Session%20on%2031%20August%202011%20re%20the%20REIPPP.pdf>.

progress is being made in the government's quest for energy security in South Africa."⁹

Transitioning to renewables is also popular in the Maghreb, especially in Morocco. According to the African Development Bank (AfDB), renewable energy plans will account for 42 percent of overall electrical power capacity in 2020 through the Moroccan Solar Plan and Morocco's Wind, Energy, and Hydropower Development Project.¹⁰ As host of the upcoming 22nd United Nations Convention of the Parties (COP22), Morocco aims to cement its major role in the fight against climate change. Moroccan Minister of Foreign Affairs Salaheddine Mezouar has been advocating for Marrakesh to be the COP where commitments made by world leaders in Paris in 2015 are put into action and plans for implementation are advanced. Over the years of UN Climate Conventions, many commitments have been made without being followed by actions. Morocco's goal is to defy the "Copenhagen syndrome" by ensuring that the commitments made in Paris result in concrete and measurable actions.

The COP22 is an opportunity to shine a light on energy access in Africa and the successful programs implemented by innovative countries such as Morocco to run a green economy. Implementing the methodology and the technology from northern Africa and South Africa across the rest of sub-Saharan Africa would contribute to balancing the disparities in access to energy among African countries and between rural and urban areas. Given that most of Africa is rural, a grid system would not be the best fit for sub-Saharan Africa. Miles of electrical transmission lines would mean energy wasted and not be the most efficient technique. Off-grid processes would best fit these spread-out and diverse territories by adjusting to the

9 Carin Smith, "Zuma: Tremendous Progress with SA's Energy Security," *Fin24*, July 27, 2016, <http://www.fin24.com/Economy/zuma-tremendous-progress-with-sas-energy-security-20160727>.

10 Morocco - *Renewable Energy and Global Rural Electrification Project (PERG) - SESA Summary* (Addis Ababa: African Development Bank, September 2011), 1, http://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/EES-Renouvelable_percent20et_percent20PERG-Resume_English.pdf.

environment. For instance, solar lamps would be more effective in small rural territories with few inhabitants. Experiences in similar developing countries such as India could apply to some territories in Africa. For example, proliferation of micro-credits in India enabled female-led micro-businesses providing solar lamps to electrify small villages and encouraged local and female economic activity.

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Creating Unity within the African Continent

Africa is an incredibly diverse and complex continent, comprising 54 states, almost 30 million square kilometers, and multiple languages and ethnic groups. But perhaps the main division among African countries falls along linguistic lines – between Francophone and Anglophone Africa. Though Portuguese and Arabic are official languages of many African countries, English or French are the official languages of roughly two-thirds of them. For historical reasons linked to the colonization process, African countries have organized themselves within the continent based on these languages, often informally through affinities between leaders and heads of state and government. Indeed, linguistic divides affect politics within the African Union (AU), with competition for chair of the AU Commission largely falling along French-English battle lines.¹¹ Foreign investors – mostly from the United States, Europe, the Arabian Peninsula, and China – tend to follow this pattern and continue to invest in the same areas, since they lack of easy access to the markets whose language they do not speak. English-speaking investors tend to invest in Anglo-

11 "It's Shakespeare vs Molière in the African Union," *ISS Peace and Security Council Report*, November 27, 2015, <https://issafrica.org/pscreport/addis-insights/its-shakespeare-vs-moliere-in-the-african-union>.

phone Africa and French-speaking investors tend to invest in Francophone Africa, largely due to force of habit as well as a certain sense of security obtained by mastering the dominant language. Yet, avoiding divides and uneven power distribution within the continent suggests the need to provide energy access to all of Africa without regard to the dominant official language. The time is ripe to find ways to bridge the linguistic divides in Africa, since many leaders have been focusing on their national energy policies, not only in South Africa and Morocco. For example, President Alpha Condé of Guinea, inaugurating a hydroelectric dam in Kaleta in September 2015, declared: “With electricity, we will be able to industrialize and we won’t see our children die in the Mediterranean Sea anymore. They will stay in Africa and find work in Africa.”¹²

The time is ripe to find ways to bridge the linguistic divides in Africa.

Creating a sustainable energy sector providing access to electricity is also a key part of continental policy, and partnerships with Africa can support it. As Aboubakari Baba Moussa, director of Infrastructures and Energy at the Commission of the African Union, said at the Second Stakeholder Forum of the Africa-EU Energy Partnership in Milan in May 2016: “The African Union commits to pursue the reinforcement of energy cooperation with Europe. Technology transfers and investment are the key of a sustainable energy development in Africa.”¹³

The African continent as a whole, working in collaboration with other major partners on energy security,

also represents an important form of diplomacy. But some of the aforementioned schisms within Africa represent obstacles to doing so. Building a continental structure able to promote an African energy policy suggests the need to give a larger role to the African Union in order to bridge divides and more effectively coordinate with external partners.

Coordinating Existing Initiatives and Involving Africans

Major international actors have created a significant number of initiatives to promote energy access in Africa in the past five years.¹⁴ But the processes are not operating at full scale yet, and they could be made more effective by applying unity on the ground and in the practices by creating a unique continental tool dedicated to promoting energy access. Among the main initiatives promoting and financing energy access in Africa are those put forward by the African Development Bank (AfDB), European Commission, United Nations, and United States, revealing the importance of the interest in the energy sector in Africa, and the amount of resources available. The major actors in Africa, from the United States to the European Union and including the United Nations, should create a unified effort by pooling their financial and logistical resources together under the auspices of an African Union-led task-force. This political will of Africans was expressed by the African heads of state and government during their successive summits since January 2015. President Condé has been playing a lead coordinating role at the level of the Economic Community of West African States (ECOWAS). At the January 2016 African Union summit, African leaders decided “to extend the latter’s [President Condé’s] role at continental level on Africa’s commitments in the

12 “Guinée: Le Barrage de Kaleta Officiellement Inauguré,” *RFI*, September 29, 2015 (author’s translation), <http://www.rfi.fr/afrique/20150929-guinee-barrage-kaleta-officiellement-inaugure-alpha-conde>.

13 Africa-EU Energy Partnership Secretariat, 11 (author’s translation).

14 “Mapping of energy initiatives and programs in Africa,” Africa-EU Energy Partnership, 2016: http://www.euei-pdf.org/sites/default/files/field_publication_file/mapping_of_initiatives_final_report_may_2016.pdf

area of renewable energy”¹⁵ before deciding on the governance structure of the African tool for renewable energies in Kigali in June 2016, known as the Africa Renewable Energies Initiative (AREI).¹⁶ This continental energy policy is being launched under the leadership of numerous presidents and political leaders, as well as African Union President Nkosazana Zuma and AfDB President Akinwumi Adesina.

The Sustainable Energy for All initiative¹⁷ was launched in 2011 by UN Secretary-General Ban Ki-Moon to guarantee access to clean energy by 2030 to the least developed countries by building partnerships among governments, the private sector, and civil society. However, donating member states of the United Nations have only contributed a small portion of their development aid to the program. Individual countries tend to favor bilateral agreements over multilateral and global initiatives since geostrategic interests diverge.

The United States made Power Africa¹⁸ a core part of its foreign policy toward Africa through the Electrify Africa Act, passed by Congress on February 1, 2016, adding to the legacy of the administration of U.S. President Barack Obama, and stating the imperative to promote energy access in the fastest growing market on the planet. U.S. House Foreign Affairs Committee Chairman Ed Royce described the passage of the bill as “a direct response to the fact that today 600 million people living in sub-Saharan Africa – that is 70 percent of the population – do not have access to

reliable electricity.”¹⁹ Although Power Africa received pledges up to the amount of \$7 billion from the U.S. government and \$43 billion from the private sector since its launch in 2013, Power Africa’s results in the field are not tangible yet. Initially focused on Anglophone Africa, the organization is more strenuously looking into moving to partner with Francophone countries.

Europe does not have a dedicated aid program for energies in Africa.

The European Commission began the Electrification Financing Initiative (ElectriFI)²⁰ in 2014, with focus on rural areas. The budget allocated by the European Commission to this program – and to energy programs in general – does not match the scope of the needs in the field nor the strong connections between the two continents. Today, Europe does not have a dedicated aid program for energies in Africa. In fact, the European development aid dedicated to energy in the world only amounts to €3 billion per pluri-annual plan; the current plan runs from 2014 to 2020. Combining national, regional, and thematic programs within the European Development Fund by reallocating funding to a more effective and specific target would facilitate a clean energy transition in Africa.

The African Development Bank announced the latest program promoting energy access as a result of the COP21 in Paris in December. Part of the AfDB’s

15 African Union, *Assembly of the Union: Decisions, Declarations and Resolutions*, Twenty-Sixth Ordinary Session, 30-31 January 2016, Addis Ababa, Ethiopia, Assembly/AU/Dec. 603 (XXVI) Rev. 1 p. 2, http://au.int/en/sites/default/files/decisions/29514-assembly_au_dec_588_-_604_xxvi_e.pdf.

16 The governance structure includes a Board of Directors, a Technical Committee (TC), a Trustee in the form of the AfDB, and an Independent Delivery Unit (IDU). The IDU will be hosted by the AfDB and is accountable to the Board. For more detail, see African Union, *Assembly of the Union: Decisions and Declarations*, Twenty-Seventh Ordinary Session, 17-18 July 2016, Kigali, Rwanda, Assembly/AU/ Dec. 609 (XXVII), p.1, http://au.int/en/sites/default/files/decisions/31274-assembly_au_dec_605-620_xxvii_e.pdf.

17 See Sustainable Energy for All, “About Us,” <http://www.se4all.org/about-us>.

18 See United States Agency for International Development, “Power Africa: About Us,” <https://www.usaid.gov/powerafrica/aboutus>.

19 Cindy Saine, “Congress Passes ‘Electrify Africa Act’ to Help Millions Get Access to Power,” *Voice of America*, February 1, 2016, <http://www.voanews.com/a/congress-passes-electrify-africa-act/3172795.html>.

20 “EU Announces New Rural Electrification Projects which will Provide Access to Energy to More than 3 Million People in Poor Rural Areas,” *European Commission Press Release*, June 4, 2014, http://europa.eu/rapid/press-release_IP-14-630_en.htm.

New Deal on Energy,²¹ the bank pledges to triple its financing to climate change initiatives through the AREI by 2020 by dedicating 40 percent of the AfDB's resources to such efforts. However, the AfDB has yet to convince all African leaders to affirm their political support for the bank, and to gather the 54 nationalities and interests around a common African-based project.

Coordinating these initiatives and making all of this development aid for the energy sector in Africa more effective is a difficult task. To work toward this goal, the different initiatives should focus on a specific and restricted range of projects – such as access to rural electrification in sub-Saharan Africa. Similarly, funds, logistics, and chains of command should be combined to generate a more substantial effect, as opposed to the current practice of scattered aid, uncoordinated numerous actors in the field – both public and private – and varied market and feasibility studies.

The task of directing these efforts should fall to Africans rather than donors. An effective clean energy transition investment plan in sub-Saharan Africa should be done through a unique, dedicated continental tool, under the control of the African Union. This continental tool would help bridge the gaps within Africa (Maghreb vs. sub-Saharan Africa, Francophone vs. Anglophone, rural vs. urban, etc.), and would contribute to resolving the issue of efficiency. Though it would be challenging to forge the consensus necessary to make such a tool work, by at least providing a centralized coordinating mechanism, it could reduce waste and duplication.

As mentioned above, the African Union has been looking into making it a priority to create a new continental policy toward energy since January 2015. But the African Union lacks the logistical capacity to handle a project of this magnitude at this point. If the logistics of a dedicated tool for continent-wide energy

21 "AfDB to support electricity access for all by 2030 with African Renewable Energy Initiative," *African Development Bank Press Release*, December 2, 2015, <http://www.afdb.org/fr/news-and-events/article/afdb-to-support-electricity-access-for-all-by-2030-with-african-renewable-energy-initiative-15119/>.

policy prove to be too difficult to develop, the African Union should still coordinate the work of all existing initiatives and institutions, such as the African Development Bank. A special task-force with representatives of each region and completed by international experts as well as donors would give the African Union the practical support to implement the innovative policies it has been designing.

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Negotiations among African leaders are still taking place to determine the contours of such a task-force. Political unity, one of the major challenges of a continental energy policy, is already being achieved through the latest decisions of the African Union. As discussed above, the political agreement of all 54 nations has been advanced by Guinea's Condé, as appointed by his peers, in addition to major figures such as President Macky Sall of Senegal during his term as president of the New Partnership for Africa's Development (NEPAD). Including experts and specialists on this task-force based on a political agreement will allow donors a place of choice in the board of governors by enhancing transparency and traceability.

The General Assembly of the United Nations in September 2016 was another occasion to reaffirm unity within the African continent and to discuss a new generation of partnerships with the European Union. Still in closed discussions, Africans (state leaders, the African Union, and AfDB) are discussing pooling together African and European initiatives under the umbrella of the African Union through the AREI. The next summit of the African Union in January 2017 will confirm the current developments and hopefully disclose the ambition of the continent on energy access, in partnership with Europe.

Conclusion

In the words of UN Secretary-General Ban Ki-Moon, “energy is the golden thread that connects economic growth, increased social equity, and an environment that allows the world to thrive.”²² Africa is the new frontier of a global energy transition during a century in which people are rightfully preoccupied by climate change and sustainable development. Its growing and young population, its potential in natural resources, and its capacity to generate growth make Africa the continent of a green and clean future in energy that is environmentally and economically beneficial for all parties.

Europe would be the main beneficiary of the upcoming economic and energy boom in sub-Saharan Africa, and it should make the energy transition in Africa the center of its development aid and international cooperation policies.

Energy access in Africa can be reached through unity within and across the continent. Eliminating the obstacles of the historical divisions of the continent – whether linguistic, economic, or geographic – would foment investments and development aid. The African Union would be best equipped to reallocate and redistribute resources if it developed a unique, dedicated continental tool to promote energy access in all of Africa. An African continental energy policy would provide the framework for international initiatives to effectively and transparently participate to increase clean and renewable energy access, responding to the needs of Africans as expressed by Africans themselves.

²² “Sustainable Energy ‘Golden Thread’ Connecting Economic Growth, Increased Social Equity, Secretary-General Tells Ministerial Meeting,” *United Nations Press Release*, May 12, 2014, <http://www.un.org/press/en/2014/sgsm15839.doc.htm>.

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