

Africa's renewable energy transition: What does it take? **Special Session of the Renewable Industry Advisory Board (RIAB)**

Wednesday, 24 October 2018
Rome

Conference brief



On 24 October 2018, the IEA RIAB gathered for the 14th time during a Special Session in Rome, back-to-back with the Italy-Africa Ministerial Conference and the 74th IEA REWP meeting. This particular RIAB session was a full-day special workshop with a first-time regional focus on Africa's renewable energy transition as the topic and was open to observers, IEA REWP members, and external invitees. The event was co-organised by RES4Med&Africa and the Ministry of Foreign Affairs of Italy, and gathered more 100 participants from RIAB members, RES4Med&Africa members, IEA management and REWP representatives, institutions, United Nations and African Union leadership, as well as country representatives. The session also included a high-level opening and audience, among which were present three state ministers (Italy, Zambia), the African Union Commissioner for Energy and Infrastructure, as well as the United Nations Economic Commission for Africa Executive Secretary.

This special session presented a status update on the continent's RE market developments, followed by 2 panels that addressed the issues of energy access through decentralized solutions and the quality of supply in grid-connected systems; as well as a fourth panel that centered on the role of IFIs in accelerating RE investments. Speakers engaged in a thought exercise to develop joint visions and necessary strategies for Africa's clean energy future and accelerate renewable energy investments. The agenda included a ceremonial opening session that drew Africa's current renewable energy context, challenges identified and priorities set through 3 keynote speeches by high-level representatives. The subsequent 3 sessions were conducted under typical RIAB format including presentations and input remarks by RIAB members to set the scene and panel discussions, all under the Chatham House Rule.

Session 1 – RE in Africa: status, scenarios, priorities

The opening and ceremonial session aimed to set the context of Africa's current renewable energy context, highlighting high-potential characteristics and remaining criticalities. The session was opened by Massimo Gaiani, Director General for Global Issues, Ministry of Foreign Affairs and International Cooperation (MAECI) and by Paolo Frankl, Head of Renewable Energy Division, IEA, followed by 3 high-level keynote speeches by Amani Abou-Zeid, African Union Commissioner for Energy and Infrastructure, Vera Songwe, United Nations Economic Commission of Africa Executive Secretary and Antonio Cammisecra, President of RES4Med&Africa and CEO Enel Green Power.

Key talking points:

- Africa has enormous potential to pursue a clean energy transition, thanks to the continent's dynamic economic and population growth, its wealth in renewable energy resources, falling technology costs, and the potential from home-grown innovative technologies and entrepreneurs. Renewable energy investments are considered a key solution to introduce widespread affordable, reliable and sustainable energy access to the region. By 2030, renewables are expected to be the fastest, most affordable, reliable and sustainable strategy to electrify Africa.
- This vast market potential is based on an important growing African energy demand. Over 600 million people still live without access to energy in the region, representing significant residential and productive demand for affordable, reliable and clean energy. Reducing energy poverty in Africa is widely recognized as fundamental to accelerating economic transformation and sustainable development and can be achieved by the deployment of large-scale and decentralized (off-grid) renewable energy solutions.
- Yet, the continent is facing many issues that will impact its clean energy transition including urbanization, climate change, demographic growth, energy demand growth. There is a strong need to leapfrog rapidly.
- Climate change will drastically impact Africa's energy future and sustainable development, and should be on every government's agenda. The take-off of renewables is both a consequence from and a strategy to respond to climate change. Africa's clean energy transition needs to take into account the interlinkages between renewables, sustainable development and climate action to ensure resilient economic growth going forward.
- Achieving universal access to energy in Africa is difficult yet doable and lucrative, but it cannot be done without the private sector. Private sector actors have a specific constructive role to play and should take part in formulating solutions for the challenges that still remain, rather than awaiting ideal conditions to appear.
- Africa has a problem of high-risk perception, yet has very low default rates – if risk perception is worked on and turned around, a win-win situation can be reached.
- UNECA Executive Secretary mentioned a proposal to launch an SDG sustainable energy bond to crowd in financial investments based on SDG 7.

Session 2 – How to improve quality of electricity supply? Challenges and opportunities in sub-urban and peri-urban areas

From session 2 onwards, the format followed typical RIAB structure including setting the context, input remarks, and panel discussions, all under the Chatham House Rule.

Key talking points:

- Ensuring universal access to energy in Africa means tackling rural electrification of remote areas on the one hand, and improving quality of supply for urban and peri-urban zones on the other. Different electrification strategies will be needed depending on the varying needs and achievable impact from energy access for remote and urban areas, and how they will be foreseen of electricity. Indeed, ensuring high-quality supply of power to Africa's (peri-)urban zones will book significant progress and impact on African livelihoods and economic development.
- Urbanization is an important challenge for Africa's future energy systems. African countries are expected to witness strong continued demographic growth and urbanization rates, with millions of people moving from rural areas towards Africa's already crowded urban zones seeking to escape energy poverty, yet who still find unreliable, expensive and polluting electricity upon arrival. Migration to (peri-)urban areas will continue to add stress to already-stressed energy systems. This will require a two-fold strategy based on improving quality of energy supply in urban areas on the one hand, and ensuring basic energy access as well as living conditions in remote areas to prevent migration on the other hand.

- Energy is an enabler for development and industrialization. Africa's clean energy transition presents an opportunity to diversify African commodity-based economies towards creating new clean energy economic sectors, resulting in business development, job creation and other socio-economic spill-over effects. Clean-energy based industrialization is of particular importance. In Africa, unlike in other continents, urbanization took place without being linked to productive economic centers and services that grew organically, resulting in the growth of anchor loads customer's ability to pay, upon which an energy system could be built. Africa's (peri-) urban zones need to be built on top of clusters of economic activities and hubs. The most feasible strategy is to anchor renewable energy solutions around industrial nodes or parks in (peri-) urban areas where the private sector can participate because there is a direct customer base, guaranteed anchor load, and ensured returns.
- Ensuring high-quality power supply in Africa's urban and peri-urban zones can be achieved through a mix of available technologies involving micro-grids, interconnections and grid-connected networks. This mix will depend on the presence of an enabling and well-structured policy and regulatory framework, based including cost-efficient tariffication for decentralized technologies that stimulate private sector participation and innovation to accelerate the spread of micro-grid solutions in particular.

Session 3 – Decentralized renewable energy to accelerate sustainable development: what business model and what role for PPP's?

Key talking points:

- A paradigm change is underway from energy-as-commodity thinking towards an energy-as-service approach with significant potential for its sustainable development. Access to electricity not only benefits community welfare and business creation, but also grows development opportunities when electricity is paired with community needs in connectivity, mobility, water and agriculture or even financial services, presenting building blocks for local development.
- Besides the need for additional generation capacity, emphasis was put on the role of electricity distribution and what this means for grid quality and infrastructure. Applying Europe or USA's distribution models onto African countries does not work due to very different conditions of remoteness, abilities to pay, load density profiles, etc. Africa has to invent its own model to generate and distribute energy. Traditional IPPs energy models are not enough, innovative business models must arise as easier solutions, making projects scalable, modular, tailored made as a differentiated model for African countries. Here, Africa's innovation and entrepreneurial background comes into play.
- Africa's clean energy transition needs strong commercial sectors which help build jobs, avail better access to data, to develop more viable business models and thereby ensure more bankable projects. A variety of options exist to bring more reliable power to residential and commercial areas. Moreover, the discussions identified the priority to build home-grown African companies and private sector, so as to help grow a local base that takes root in these countries and upon which an energy system can reliably be built. This requires cost-effective regulation, and tariffication is needed to attract the private sector.
- There seems to be availability of a wide range of capital from the private sector and DFIs, covering seed capital, venture capital, and growth capital, nevertheless, there is a gap to be covered providing later venture capital (\$2m-5\$m) for financing and de-risking medium-sized projects supported by a strong regulatory environment for the private sector.
- The importance of modern bio-energy technologies was underlined as a key productive strategy for Africa's renewable energy and climate resilient future.

Session 4 – IFI's role to accelerate RE investments, what additional tools?

Key talking points:

- Only 3% of planned new renewable energy generation capacity worldwide in the next 5 years will take place in Africa. Investments need to be scaled up to achieve Africa's clean energy transition. Lack of investments is not linked to financing or liquidity, but rather to the lack of good bankable projects.

Private sector actors see a role for themselves to help IFI's and DFI's identify good from less-good projects. Moreover, Africa's clean energy transition will need to see an increase in investments for all renewable energy technologies. IFI's need to think of providing guarantees and risk mitigation for other technologies than the proven ones.

- Renewable energy investors in Africa are exposed to high-risk perception. IFI's and DFI's play a key role to enhance the creditworthiness of projects by providing guarantees. The most important risks identified are: lack of clear legal and regulatory framework for renewable energy projects in Africa, low government commitment to set up a suitable investment environment, and complexities regarding negotiation and administrative procedures.
- In the absence of strong support of local governments where there cannot be bankability, political will is a must. Public-private dialogue must be strengthened to enable the commitment of long-term stable volumes of renewable energy projects into the continent. Africa still faces many challenges but with the joint efforts of IFIs, the private sector, and local leadership as partners, the energy gap in Africa can be addressed. Constructive dialogue is needed between the public and private sector, to discuss PPPs and solve problems. A financing gap exists between grants/donors and what is needed to scale up investment level. Grants and donations should be limited to small projects and instead should serve to liberate and unlock private sector funding.
- Innovative financing programs are needed that allocate risk in the right way on the right shoulders – many such programs exist, but not all are successful. Helpful financing programs are needed that allocate risk in the right way on the right shoulders. The discussion reflected a need for a new investment instrument for Africa, with a proposal (“RenewAfrica”) based on an agreement by all industry colleagues on the needs and potential solutions for a financing support program to scale up renewables investment in Africa.

Meeting outcomes: Two new partnerships for RES4Med&Africa

During the conference RES4Med&Africa announced two important new partnerships. Antonello Cammisecra, President of RES4Med&Africa, and Vera Songwe, Executive Secretary of the United Nations Economic Commission for Africa (UNECA), signed a Memorandum of Understanding to collaborate on joint initiatives such as training programmes, thematic publications, seminars and conferences. The MoU also represents the first step for UNECA's joining of the RES4Med&Africa network as a regional member, a recently-introduced membership type.

Antonello Cammisecra and Amani Abou-Zeid, Commissioner for Infrastructure and Energy of the African Union Commission, then announced their collaboration on the “Renewable Energy Capacity Building Program”, a regional training programme focusing on renewable energy which will take place in 5 African countries. The letter of intent between RES4Med&Africa was signed the following day on the margins of the Italy-Africa Ministerial Conference in Rome.

For more information please visit www.res4med.org or write to communication@res4med.org

Renewable Energy Solutions for the Mediterranean & Africa (RES4Med&Africa) is an association that promotes the deployment of large scale and decentralized renewable energy in Southern-Mediterranean and Sub-Saharan African markets to meet local energy needs for growth. Since 2012, RES4MED&Africa gathers a member network from across the clean energy value chain and supports the creation of an enabling environment for renewable energy investments and strategic partnerships.



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