



**AREI 2023 Green hydrogen development
in Africa:
accelerating the energy transition**



Green hydrogen is becoming an increasingly valuable resource in global energy markets and a more attractive option in the transition to a cleaner energy system. It is beginning to attract increased attention in African markets with its accelerated adoption in the global market. By harnessing the continent's vast renewable resources to produce clean, sustainable green hydrogen, Africa can spur socio-economic growth, enhance energy security, and eradicate energy poverty by 2030.

Africa's search for clean energy solutions as part of its transition to a low-carbon future, as well as to address energy poverty, accelerate economic development and ensure a stable energy supply for years to come, has created fundamental opportunities for the development of green hydrogen.

It has been established that more than 50% of the world's hydrogen resources are in Africa and that hydrogen is probably the "ideal" energy of tomorrow. Hence the position of the African continent as a potential cost-effective supplier of green hydrogen. It is imperative that hydrogen is not seen as a commodity but as a growth factor for Africa.

The development of green hydrogen in Africa will bring substantial benefits to the continent, such as accelerating the energy leap to 100% renewable energy, building a green economy in African countries, improving and accelerating access to energy, creating local value and jobs, access to vocational training, capacity building and education.

By aligning renewable energy goals with green hydrogen considerations, countries can create competitive hydrogen markets that will accelerate socio-economic growth. Several African countries have begun to explore the potential for local green hydrogen production, with feasibility studies underway and some projects in the planning stages. Africa should harness its renewable energy potential to fully integrate the green hydrogen value chain to accelerate its economic development potential.

In the AREI newsletter of this month, the main objective is to identify the regulatory challenges for developing countries to develop the hydrogen industry

The Interview of the Month



Dr Augustine B. NJAMNSHI,

Vice President of the Pan African Climate Justice Alliance (PACJA)

1. Can you introduce yourself to those who don't know you?

My name is Augustine Njamnshi. I am an Environmental Law Expert with more than 25 years of legal drafting and climate justice advocacy in Africa. I am the Chair of the Political and Technical Affairs Committee of the Pan-African Climate Justice Alliance and the Continental Coordinator of the Africa Coalition for Sustainable Energy and Access.

2. You are the head of an important civil society organization on our continent, tell us about it.

The Africa Coalition for Sustainable Energy and Access (ACSEA) is an alliance of like-minded non-profit and for-profit organizations promoting renewable, sustainable, and inclusive energy investments and access in Africa. Its members include grassroots movements, civil society organizations, academia, private and public businesses, and academic and research institutions. ACSEA was founded in April 2016 to respond to the urgent need to align Africa's energy sector transformation with the need to substantially increase access to the poor while minimizing the sector's contribution to greenhouse gas emissions and existing social and developmental challenges. It is hosted by the Pan-African Climate Justice Alliance (PACJA).

3. Civil society in Africa is very committed to the SDGs and particularly to green energy and the environment. What can you say about the commitment of politicians in Africa in recent years?

We believe that the energy transformation that Africa needs and the attainment of relevant SDGs can only be achieved through the full participation of all stakeholders, especially civil society organizations. Since October 2021, we have been implementing a project called Ensuring a People-Centered Energy Transition in Africa Through Civil Society Participation. This project aims to strengthen civil society's role in promoting and implementing sustainable energy transition initiatives, including renewable energy-related NDC commitments in Africa. It will equip CSOs to influence renewable energy policy development and strengthen domestic, continental, and global voices in five (5) countries. We are pursuing the project's objectives through i) training and the development of information materials on renewable energy technology and policy options, ii) strengthening an effective African civil society network on renewable energy, iii) and the development of a monitoring tool that will allow civil society to independently track the progress of the sustainable energy initiatives on the continent. We believe the right political mindset now exists on the continent, but as CSOs, we are keen on ensuring that other forces do not derail it.

4. How is the collaboration with AREI going?

Indeed, the project I have just described was primarily designed to work with AREI to ensure that the Initiative upholds safeguards for an energy transformation that responds to the needs of communities. We are proud that despite some initial challenges, we are now working closely with AREI. In the last two years, we have co-hosted more than half a dozen events with AREI and will continue to do so this year. This level of collaboration shows that the current leadership of AREI understand the stakes and dares to do the right things.

5. How can renewable energy help fight climate change and save the planet?

More than three-quarters of human-induced greenhouse gas emissions come from the energy sector. This means that reversing global warming must include substantial cuts in emissions from the energy sector. In practice, this involves a transition to renewable energy. Thus, renewable energy plays two crucial roles in addressing the climate crisis: it reduces emissions and, more significantly, addresses climate vulnerabilities related to energy poverty by enhancing energy access for communities.

6. Africa has an unexploited potential; how could we increase investments in electricity production based on renewable energies for the purpose of self-sufficiency but also for exploitation?

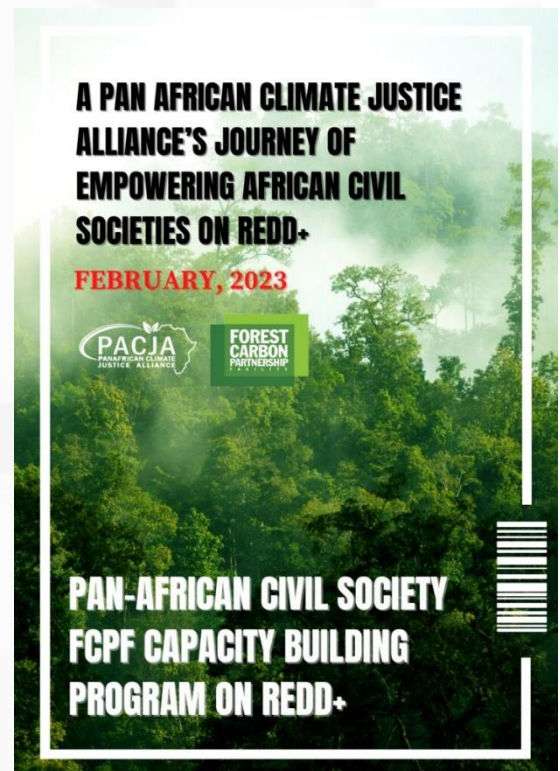
We think that what can be achieved in the short term is to redirect planned investments in fossil fuel development into renewable energy. Renewable energy can quickly offset the current energy poverty since it can be generated and deployed at scale through decentralized, community-driven investments and processes. But equally, the authorities need to incentivize renewable energy investments using a combination of fiscal and regulatory measures that can spur community-level investments and cross-border trade.

7. What do you think about the development of an adequate regulation and policy for renewable energy in Africa?

As I have said above, adequate policies and regulations must accompany the political will to develop the renewable energy sector. These must be tailored to the African reality and nationally relevant to ensure they are not counterproductive.

PACJA event of the month

Since 2008, we have decided that instead of criticizing the effort that governments are making, we work together to contribute without losing our civil society hat. We decided that instead of non-African NGOs speaking on our behalf, Africans are mature enough to articulate their needs and put them forward at the international and national levels. This is what we have been trying to do for several years and it is working well. By the way, if you look at the African common position on climate change before Copenhagen, you will see that 60% of the African civil society demands were based on science, justice, equity and responsibility. Africa's forests have been in gradual decline due to excessive deforestation for a variety of reasons. Indeed, more than half of the continent's population depends directly or indirectly on forests for their livelihood. It is estimated that 3.4 million hectares are lost annually (FAO, 2010); this figure is increasing. Small-scale agriculture and fuelwood collection are the main drivers of deforestation and forest degradation.



"Civil society needs support and strong cooperation with institutions,"

said Dr. Augustine B. NJAMNSHI, Vice President of the Pan African Climate Justice Alliance (PACJA)

"The Assembly enables governments to align their efforts on building a new energy system, enabling the goals of the Paris Agreement and key global priorities such as job creation, industrial development and green supply chains, energy security and universal access, among others."

"Energy transition is not only a priority in these defining times, but a responsibility for countries, industries and communities," said H.E. Raj Kumar Singh, India's Minister for Power and New and Renewable Energy and Chair-Elect of the 13th IRENA Assembly. "India continues to take concrete steps to meet its firm commitment. We look forward to facilitating discussions on the energy transition trajectory in preparation for the global inventory process."

AREI Partners



"Hydropower has been an effective source of clean energy generation for more than a century," said Francesco La Camera, Director General of IRENA. "However, with the rapidly changing energy landscape, it is important to reassess its future role and take advantage of recent technological advances that can maximize its potential while ensuring its sustainability and climate resilience."

According to IRENA's 1.5°C scenario, if the world is to fully achieve decarbonization and meet the climate goals set out in the Paris Agreement, the installed capacity of hydropower, including pumped hydro, would need to more than double by 2050. This will require an approximate five-fold increase in annual hydropower investment.



Hydropower, although the most mature renewable technology, faces several challenges, including:

- Upgrade aging fleets to meet the requirements of modern electrical systems;
- Attracting new investment; and
- Update market structures and business models that do not reward all services provided by hydropower beyond electricity generation.

"Hydropower planning and development will only be successful if aspects of sustainability and resilience are considered."



The consortium developing the Ghoubet wind project in Djibouti has announced the launch of the construction of this wind farm which will be located near Lake Assal. It will have a capacity of 60MW.

The construction of the Ghoubet wind farm is launched. The realization of the project starts after the financial closing made by the consortium in charge of its development. The consortium consists of the Netherlands Development Finance Company (FMO), Africa Finance Corporation (AFC), a pan-African infrastructure development fund based in Lagos, Nigeria, Climate Fund Managers (CFM), a climate investment fund manager, and Great Horn Investment Holding (GHIH), an investment fund set up for the development of Djibouti.

All the partners of the Ghoubet wind project have launched an ad hoc company called Djibouti Wind LP. It will be responsible for supervising the implementation of the project and the construction of the future Ghoubet wind farm.

A 60 MW wind farm

The project is being developed in the Arta region, along the border with the Tadjourah region. The park will occupy an area of 395 hectares, near Lake Ghoubet. It will consist of seventeen wind turbines, each with a maximum capacity of 3.5 MW. The turbines will be carried by 150 m high masts (rods). The Ghoubet wind farm has a capacity of 60 MW.

An important development project for Djibouti

Approximately 10 km of access roads will be built in the Ghoubet wind project area. For the construction site, a temporary construction complex consisting of administrative buildings and housing for workers will be installed. The electricity generated by each wind turbine will be collected via surface lines or buried cables to the wind farm substation.

The consortium will also construct a 230 kV overhead transmission line, approximately 3.5 km long, to connect the wind farm to the grid via the Ghoubet substation. This power supply point is being constructed by the Djibouti authorities. Over a distance of approximately 70 km, it will connect Ghoubet to the Jaban substation near the capital Djibouti via a 230 kV double circuit transmission line.

The Ghoubet wind farm is an important development project for Djibouti. It is also part of the climate ambitions of this country in the Horn of Africa, aiming to reduce its CO₂ emissions by 40% by 2030.

RENEWABLE ENERGY AGENDA 2023

AGENDA AREI

March 5 – 15 | **Casablanca**

Technical Continental Platform (Hybrid):
Regulation for Energy Transition: Fostering
Private Investment in
Africa's Transition

AREI CT Meeting

March 12-15 | **Johannesburg**

Pan-African Parliament

March 13-15 | **Windhoek**

Ministerial Meeting

Technical Continental Platform (Hybrid): Elements
of a Bankable PPA

AREI CT Meeting

GREEN ENERGY AGENDA

NAEPEC March 13 – 16, 2023 | **Barcelona - Spain**

NAEPEC is the largest and most influential
international exhibition and conference in North
Africa, Europe and the Mediterranean for the
hydrocarbon and energy sectors.

<http://www.naepec.com/>

World Electrolysis Congress

March 14 - 16, 2023 | **Dusseldorf -Germany**

World Electrolysis Congress is the event focused
solely on the opportunities and challenges of
electrolyser technology.

<https://www.worldelectrolysiscongress.com/>

Be POSITIVE 21 - 23 March 2023 |Lyon - France

Be POSITIVE is the only French trade show dedicated
exclusively to the challenges and solutions of the
energy transition. It brings together all the players in
the building and energy sectors.