

Enabling Africa to be a global green hydrogen powerhouse

The European Investment Bank, International Solar Alliance and the African Union (AU) have unveiled a study into Africa's green hydrogen potential, with the support of the government of Mauritania, HyDeal and UCLG Africa.



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<https://reglobal.co/> green hydrogen Harnessing Africa's solar energy to produce 50 million tons of green hydrogen a year by 2035 can help secure global energy supply, create jobs, decarbonise heavy industry, enhance global competitiveness and transform access to clean water and sustainable energy.

First detailed research

The *Africa's Extraordinary Green Hydrogen Potential* report represents the first detailed research of the feasible development of green hydrogen across the continent.

The new study combines an analysis of investment opportunities focusing on three hubs: Mauritania - Morocco, southern Africa and Egypt with a roadmap of technical, economic, environmental and financial solutions to unlock commercial development.

Scaling up green hydrogen production to transform access to low-cost energy

The comprehensive analysis carried out in recent weeks by international consultancy CVA suggests that large scale green hydrogen investment can accelerate decarbonisation by enabling large-scale African energy users, such as fertiliser and steel producers, to use green hydrogen.

The research is enhanced by CVA's unique strategic partnership with energy partners across Africa, Europe and around the world.

The study highlights that solar powers green hydrogen is economically viable and can be produced at less than EUR 2 per kilogramme, cheaper than traditional fossil fuel energy, and cater both for local energy demand and allow green hydrogen to be exported to global markets. This is equivalent to energy costs of \$60 a barrel.

Roadmap for green hydrogen commercialisation across Africa

The research suggests three requirements to enable 50 million tons of green hydrogen to be produced in Africa by 2035:

- National planning, regulation and incentive schemes need to mobilise private sector investment.
- Pilot projects need to show successful green hydrogen generation, storage, distribution and use at both demonstration and commercial scale.
- Market-based partnerships are needed to enable mass-scale domestic and international off-take and demand for green hydrogen.
- Increase cooperation to design, finance, build and operate green hydrogen production, storage and distribution infrastructure.

The new study outlines how production and transmission of green hydrogen can lead to a EUR 1-trillion investment yielding seven exajoules of energy (versus a consumption in Africa of 19.9 exajoules in 2021) and a correlative massive increase in GDP, creating hundreds of thousands of permanent and skilled jobs across Africa.

Large scale green hydrogen investment will transform supply of clean water in areas regularly impacted by drought and chronic water shortages and will help empower communities. Decarbonising Africa's heavy industry.

The new analysis estimates that green hydrogen investment could reduce carbon emissions in Africa by 40%, replacing 500 million tons of CO² a year.

A global green hydrogen powerhouse

According to the study large scale green hydrogen generation will enable Africa to supply 25 million tons of green hydrogen to global energy markets, equivalent to 15% of current gas used in the European Union. The new analysis will be followed by in-depth research of local green hydrogen investment potential, regulatory requirements and changing demand in the coming months.

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