

Solar Energy in Senegal



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WHAT IS RENEWABLES IN AFRICA (RIA)?

As Clean Energy Engineering Consultancy:

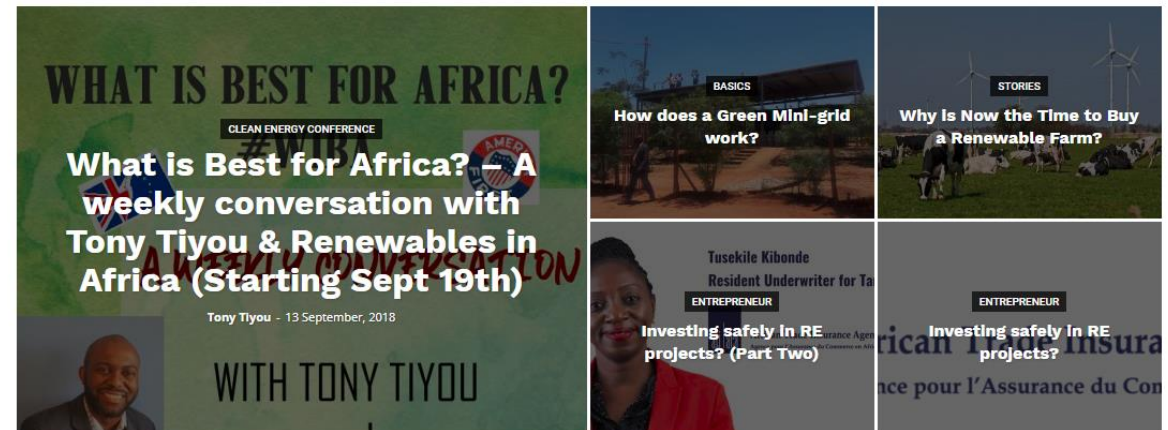
- ✓ **Technical advice** to project developers and power consumers.
- ✓ **Market insights & business intelligence** to investors.
- ✓ **Brokerage** and **routes to markets** to clean energy companies.

As Media platform:

- ✓ **Promotion** and **awareness building** about Renewable Energy to businesses and general public.

Nanga Def! (Hello in Wolof)

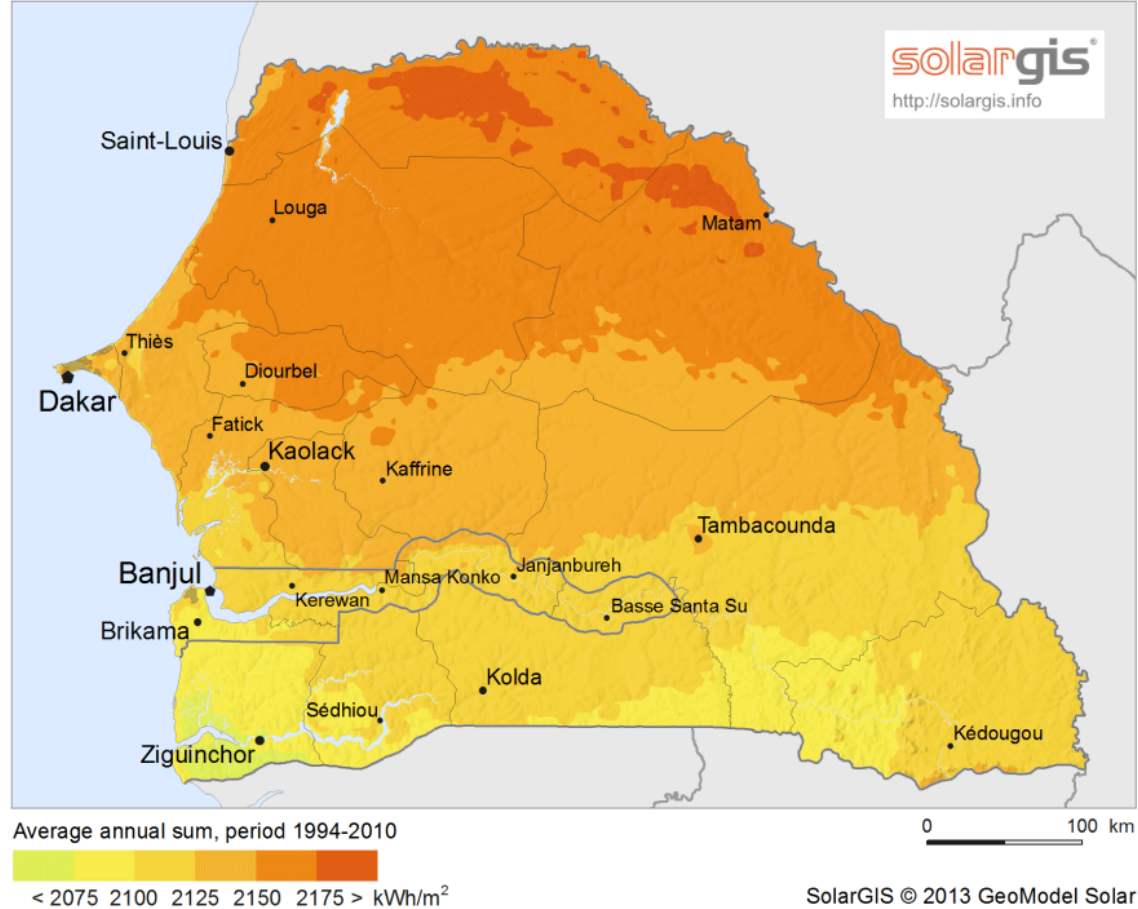
WE  RiA



BACKGROUND

Global Horizontal Irradiation

Senegal and Gambia



	2015		2018	
	Installed Capacity (MW)	Share	Installed Capacity (MW)	Share
Oil & Diesel	556	81.6%	558	63.0%
Natural Gas	44	6.5%	173	19.5%
Hydro	81	11.9%	75	8.5%
Solar			80	9.0%
Total	681		886	

Solar has jumped for nothing to 9% in only 3 years!!!!

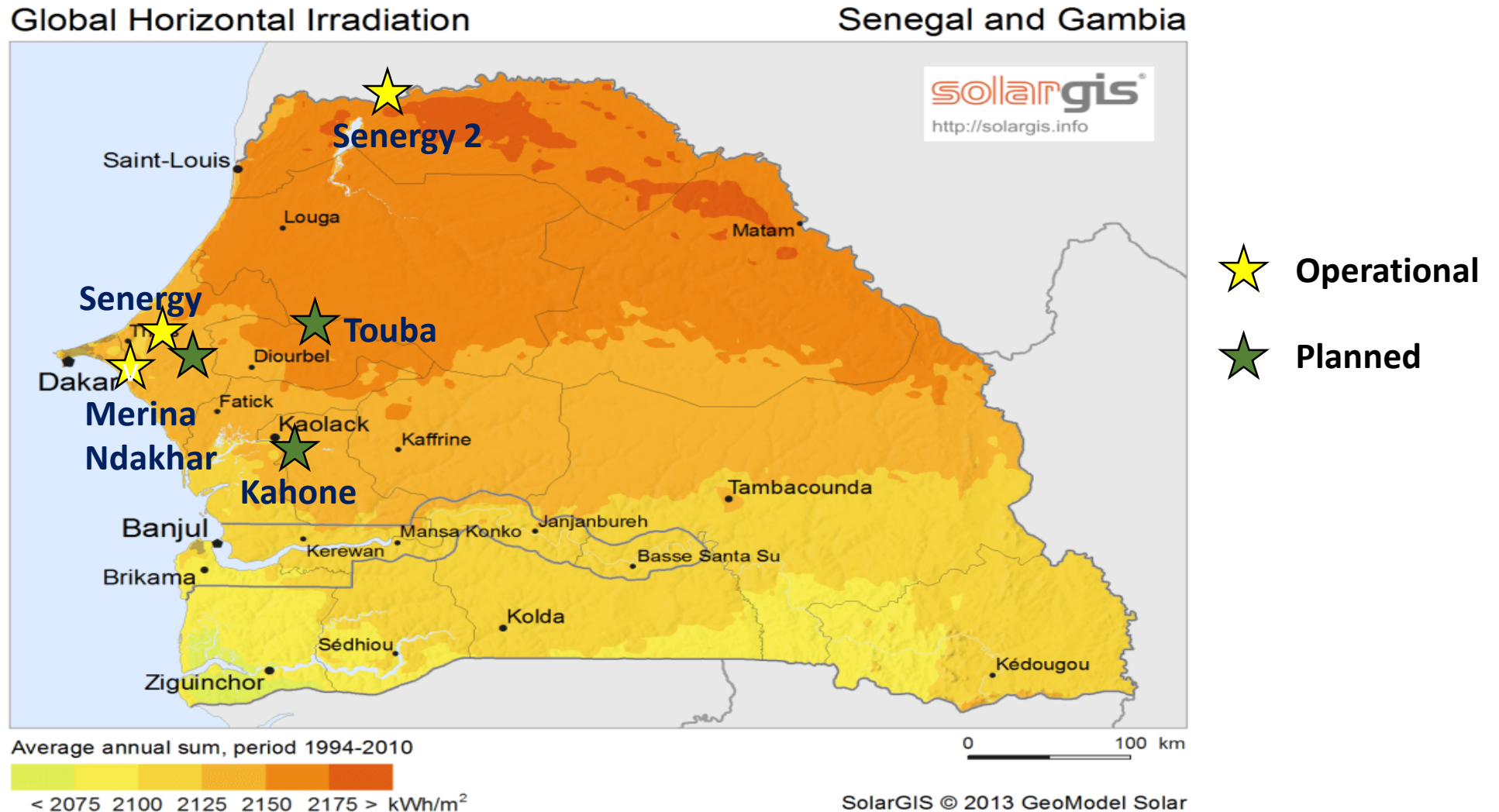
SOLAR PV PLANTS IN SENEGAL

Senegal has 3 operational Solar Plants and 1 in construction

Name	Capacity (MW)	Location	Commissioning date	Developer	EPC	Offtaker	Investors
Senergy II	20	Bokhol (Mauritanian Border)	Oct 2016	GreenWish	Vinci	Senelec	\$28m Denham Capital
Senergy	30	Santhiou Mékhé (Thies Region)	June 2017	Solairedirect (ENGIE)	Solaire direct Schneider Electric	Senelec	\$47m Meridiam + Proparco
Cheikh Anta Diop	30	Merina Ndakhar	Jan 2018	Ten Merina Ndakhar SA	Eiffage Solairedirect (ENGIE)	Senelec	\$47m Meridiam + Proparco
	15 +2 (15: On-grid 2: Off-grid)	Saloum, Thiès, Tambakounda and Kolda.	Awarded in Nov 2017	Vinci	Vinci	Senelec	\$26m KfW + Senelec

2 new Solar PV projects (totaling 60 MW) to be built by Engie + Meridiam in Kahone and in Touba-Kael
 New record for Solar PV project tariff. Respectively €38 (\$4.70) and €39.8 (\$4.90) per MWh → **Scaling Solar**

SOLAR PV PLANTS LOCATION



Renewable Energy Orientation Law adopted in Dec 2010

- Senegal Renewable Energy Tenders Decree (in force).
- Senegal Net Metering Decree (Ratified but not yet enforced).
- Preferential tax regimes for large-scale Solar (Not implemented).

Plan Senegal Emergent (by 2025) adopted in Nov 2012

- Power Sector recognised as a key component.
- Reduction of electricity generation costs.
- Universal electricity access.

Senegal Renewable Energy target adopted in Oct 2012

- 15% of RE in electricity supply by 2025, excluding biomass.
- Creation of the national renewable energy agency (ANER).
- Creation of the national rural electrification agency (ASER).

Senegal 2030 Emissions Reduction Target in Sep 2015

- Reduction greenhouse gas (GHG) emissions by 21% (INDC).

Large Solar PV projects

- Since 2017 Law, IPPs compete for PPAs through tenders (2-year transition period allow for direct negotiation).
- Grid connection and grid re-inforcement are borne by sponsor.
- Before law, sponsors had to provide performance bonds 6 months after PPAs approval.

Off-grid Solar PV projects

- SPPs apply for concessions to ASER.
- Import duty and VAT exemptions.
- Others benefits (e.g free incorporation fees).

Solar has made significant contributions:

- ✓ Energy mix.
- ✓ Electrification of country.
- ✓ Reduction of emissions.

WHAT'S ON WITH RIA?

- ☐ Collaboration with Grant Thornton LLP for discount rates study in RE projects in Africa (Currently working on report).
- ☐ Collaboration with Energy Jobline for skills shortages survey (ongoing).
- ☐ Working on Offgrid project in East Africa.
- ☐ Engaged in WtE project in Philippines.
- ☐ More....



JAI-RRUH-JEF (THANK YOU) !!

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