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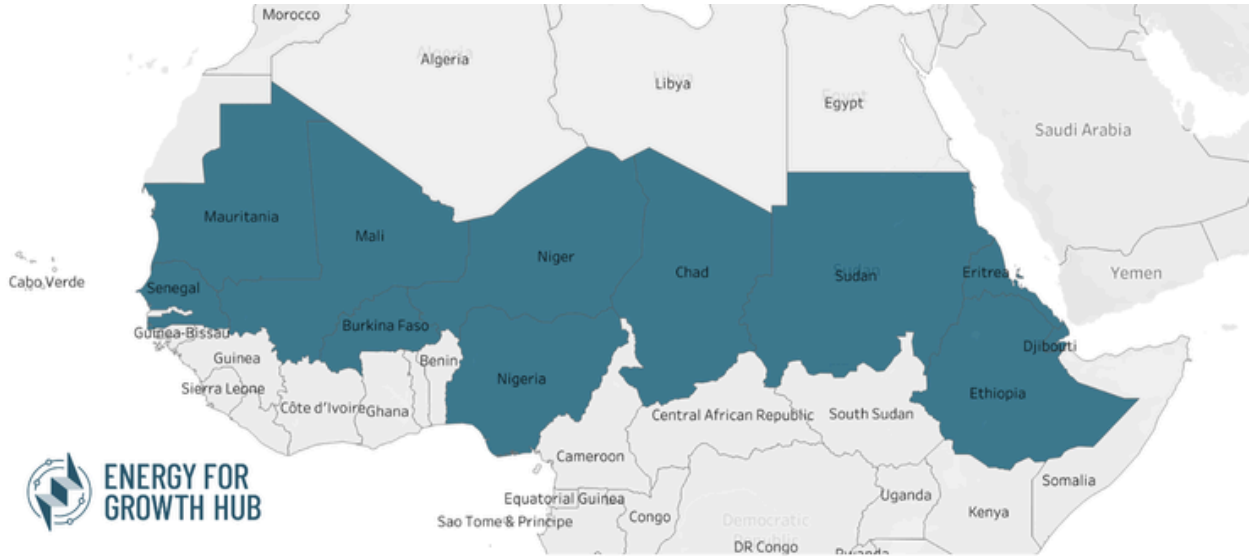
Desert to Power: A Reality Check on the AfDB's Electrification Ambitions in the Sahel

BLUF: Africa has tremendous untapped solar potential. The African Development Bank's (AfDB) Desert to Power initiative attempted to mobilize solar investment across all countries of the Sahel but has fallen far short of its promise, achieving minimal progress toward its goal of 10 GW by 2030. As AfDB President Sidi Ould Tah takes office, he can reset this flagship program by downsizing the target, prioritizing completion of existing projects, and focusing on a small number of high-impact investments.

Background: Launched in 2018, the AfDB's Desert to Power initiative set out to transform the Sahel by building 10 GW of solar capacity across 11 countries by 2030 and providing electricity to 250 million people. AfDB financing was set to catalyze larger investments through global funds and co-financing from partners. Seven years later, the initiative has approved financing for only 185 MW of solar capacity, less than 3% of its target, with approved projects still in early implementation phases and completion dates extending beyond 2025, except for one feasibility study. Tah's May 2025 election win is an opportunity to revitalize Desert to Power by auditing, restructuring, and injecting new momentum into the stalled initiative.

Relevance: The Sahel faces severe energy poverty, with some of the lowest electricity access and consumption rates globally. Reliable power is essential for economic development, particularly as the region confronts increasing hardships related to climate change, political instability, and security. Desert to Power's failure to deliver on ambitious energy targets leaves millions without electricity, undermines confidence in development initiatives, and shrinks prospects for economic growth. **The project is also a threat to the credibility of the AfDB itself.**



Note: The 11 countries of the AfDB's Desert to Power Initiative (Senegal, Mauritania, Mali, Burkina Faso, Niger, Nigeria, Chad, Sudan, Ethiopia, Eritrea, Djibouti)

What went wrong?

Factors outside the AfDB's control are largely to blame

- **Extreme political instability derailed implementation.** Soon after the project launch, governments were overthrown in coups in Mali (2020 and 2021), Burkina Faso (twice in 2022), and Niger (2023). All three countries are now controlled by Russian-backed juntas. Chad also experienced a coup (2021) while both Sudan and Ethiopia have convulsed from civil wars, and large parts of Nigeria are insecure. Six of the 11 countries are listed as conflict-affected by the World Bank, with two more as fragile, leaving only Senegal, Mauritania, and Djibouti as notionally stable. These extreme political dynamics have complicated international partnerships, restricted access, and increased costs, making implementation difficult and dissuading private investment.
- **COVID delays.** The pandemic caused delays and cost increases across the current portfolio. Projects approved in 2018-19 have seen completion dates pushed from 2021-23 to 2025-27. The Yeleen Rural Electrification Project in Burkina Faso, for example, has been delayed by five years.

Internal shortcomings probably meant success would have been elusive anyway

- ✕ **Unrealistic targets without an implementation roadmap doomed the initiative from the start.** The 10 GW goal lacked a clear pathway, detailed country plans, or adequate funding deployment mechanisms. The initiative is spending nearly half its timeline (2018-25) primarily on planning rather than implementation. For example, Ethiopia only began developing its national Desert to Power roadmap in November 2023, despite the initiative launching in 2018. Burkina Faso, Chad, Mauritania, and Mali only validated

their roadmaps in 2020, with further validation for pipeline development continuing into 2024 to inform the 2025 lending program.

- ✕ **Severe funding deployment shortfall made the 10 GW financially impossible.** Of the estimated $20 billion needed, only $727 million (3.6%) has been committed. The AfDB has recognized these implementation challenges and has begun planning to address them. The Desert to Power 2023 annual report stressed strengthening the project's pipeline by reinforcing its work on creating enabling environments for increased private sector investments. Despite creating specialized financing facilities like the Desert to Power G5 Sahel Financing Facility, most of the initiative's investments have been small-scale. Of the 15 approved projects, 11 involve less than $50 million each, with only the Mauritania-Mali interconnection exceeding $200 million. At the current pace of approving financing, reaching the target financing needs for 10 GW would take 40 years, not the five years remaining.

Green shoots despite challenges

- ✓ **Successful private sector partnerships:** The Djermaya Solar PV project in Chad (28 MW, expandable to 36+ MW) is Chad's first utility-scale solar plant structured as an Independent Power Producer, funded primarily through private investment. Supported by AfDB, Proparco, and InfraCo Africa, it leverages limited public funds with private capital to incorporate battery storage and modern grid integration to increase the utility of the project.
- ✓ **Rallying some investors:** While falling short of total funding needs, the AfDB secured investments from valuable partners at COP27, including $35 million from the Global Energy Alliance for People and Planet and approximately $29 million from Norway to support the Sustainable Energy Fund for Africa. These contributions are modest compared to the initiative's overall requirements, but they demonstrate international confidence in the program's potential.
- ✓ **Recent push for continued technical assistance:** The 2024 Desert to Power Regional Technical Assistance Project shows AfDB's continued commitment to the initiative. This IGAD-implemented technical assistance project will support East African countries through strengthening regulation, project preparation, and addressing government administrative barriers.

How President Tah can reset Desert to Power

1. **Revise targets to match regional realities.** Smaller, country-specific goals would create more viable pathways for implementation and allow for testing approaches before scaling up. A more realistic approach would be to secure and deploy financing for the generation and distribution of 1 GW by 2030. While much less ambitious than the original vision, such an increase could boost the Desert to Power countries' electricity generation capacity by 5%.
2. **Focus on completing existing projects.** Concentrate resources on near-complete projects to demonstrate tangible progress before approving new ones. For example, the Solar PV Powered Pumping for Irrigation Project in Sudan (approved in 2019, planned completion by December 2025) offers a relatively small investment ($21.8M) for tangible agricultural impact, benefiting 1,170 farmers (50% women) with 5.81 MW capacity. Similarly, the Rimdir Mini-Grid Electrification in Mauritania (approved in 2023, planned completion by July 2026) would connect 26,900 people across 40 communities through seven mini-grid clusters. Prioritizing these projects in stable countries would deliver immediate benefits while building implementation credibility.
3. **Incorporate Desert to Power into Mission 300.** The AfDB has already committed to adding 50 million new connections as part of its contribution to a joint World Bank initiative to reach 300 million people by 2030. Making Desert to Power part of that effort would eliminate resource competition, leverage complementary strengths, and reduce initiative proliferation.

Conclusion: It is not too late to save Desert to Power

The vision remains important in the region, but it requires honest reassessment. By focusing on fewer projects, dedicated funding, and country-specific approaches, the AfDB can seize this leadership transition as an opportunity to transform this initiative from aspiration to practical reality in the Sahel. The change in leadership is an opportune moment to evaluate what is working, adjust what isn't, and chart a more effective path forward.

TABLE 1: Investments approved by the AfDB under the Desert to Power

PROJECT NAME	COUNTRY	US$ MILLION	CAPACITY (MW)	TYPE	PEOPLE CONNECTED
Dédougou Solar Project	Burkina Faso	7	18	Solar PV Power Plant	Not specified
Dekemhare Solar Photovoltaic Project	Eritrea	77	30	Grid-connected Solar PV Power Plant	Dekemhare town & Asmara region
Desert to Power Initiative East Africa	Multinational	6	Not specified	Regional Integration & Technical Assistance	Indirect: Electricity users in 8 IGAD countries
Desert to Power Initiative West Africa	Multinational	4	Not specified	Regional Integration & Technical Assistance	Indirect:~400 million people
Djermaya PV Solar Power Plant	Chad	20	28	Solar PV Power Plant	25,000 customers (equivalent)
Electricity Sector Support Project (PASET)	Chad	23	8	Hybridization & Grid Improvement	75,000 people (15,000 new subscribers)
Electrification Project (PEDECEL)	Burkina Faso	159	Not specified	Grid Expansion & Connection	1,528,800 people (528,000 direct beneficiaries)
Eritrea Mini-Grid Project	Eritrea	24	12	Mini-Grid Project	235,430 people in Gash Barka region
Gassi & Lamadji Solar Power Plants	Chad	31	30	Solar PV Power Plants with Battery Storage	Not specified
Yeleen Solar Plant Development	Burkina Faso	53	53	Solar Plant & Grid Reinforcement	528,000 people
Mauritania-Mali Interconnection	Mauritania, Mali	280	Not specified	Power Interconnection and Solar Power Plants	2.7 million people
Regional Technical Assistance Project	Multinational	3	Not specified	Regional Technical Assistance	Indirect: 120+ million people
Rimdir1 Mini-Grid Electrification	Mauritania	16	Not specified	Mini-Grid (PPP model)	26,900 people across 40 communities
Solar PV Powered Pumping for Irrigation	Sudan	22	6	Solar PV for Agricultural Irrigation	1,170 farmers
Yeleen Rural Electrification Project	Burkina Faso	4	Not specified	Mini-grid & Stand-alone Solar Systems (PPP)	945,000 people (150,000 households)

Source: African Development Bank