Evaluation Brief · Renewable Energy And Climate Technologies (REACT)

REACT Sub-Saharan Africa: End-of-Programme Evaluation

What nine years of grants, results-based finance, and technical assistance achieved for off-grid energy access, and what comes next

Independent evaluation by Oxford Policy Management (OPM) · Programme period: 2017 – 2025 · Funded by Sida

644,928
household energy connections

3M+
people benefiting

26,711
micro and small enterprises served

664,658
tonnes of CO_2e emissions avoided

87
companies supported in 10 countries

18.42 MW
clean energy capacity installed

US$24.0M
private matching capital mobilized

2,500+
direct jobs (full-time equivalent)

IN BRIEF

- REACT SSA **delivered energy access at scale**: nearly 645,000 household connections and services to almost 27,000 small businesses, benefiting more than three million people.
- Results were **concentrated** in a few companies and in Kenya, and the portfolio met its sales targets only after they were revised; against original timelines, it fell 20% short.
- Supported companies **matured markedly**, especially in financial sustainability, but many still depend on concessional finance to keep serving hard-to-reach customers.
- The programme reached women and first-time users in line with or above sector norms, but **fewer of the poorest households** than comparable programmes.
- Lessons are already shaping **REACT 2.0**: a sharper Theory of Change, differentiated company support, a stronger results database and longer-term sustainability pathways.

About the programme

The Renewable Energy and Adaptation to Climate Technologies Sub-Saharan Africa (REACT SSA) programme was a US$60 million, Sida-funded programme implemented by AECF between 2020 and 2025. It aimed to increase energy

access for underserved communities and to help a diverse group of early-stage companies sustain and scale business models that serve hard-to-reach customers.

REACT SSA supported 87 companies across 10 countries through milestone-based grants, results-based finance (RBF), technical assistance, investment facilitation, and policy and advocacy support.

- **Main investment window (US$34.8 million):** milestone-based grants of roughly US$90,000 to US$1.5 million per company in Burkina Faso, Ethiopia, Liberia, Mali, Mozambique, Somalia and Zimbabwe.
- **Kenya RBF window:** companies in Kenya supported entirely through results-based finance.
- **REACT 1.5:** RBF top-ups for 13 of the best-performing grantees.
- **Innovation Fund:** grants for early-stage clean cooking and productive-use products.
- **Efficient Electrification Programme:** for households and SMEs in Ouagadougou, Burkina Faso.
- **Covid-19 Relief Fund:** support for Kenyan energy-access companies (evaluated separately).

About the evaluation

This independent end-of-programme evaluation, conducted by Oxford Policy Management (OPM), assessed how REACT SSA was implemented, the challenges it faced and what it achieved against expected outputs, outcomes and impact. It also generated lessons for future AECF and Sida programming, including the design of REACT 2.0.

The evaluation used a utilization-focused, theory-based approach covering relevance and coherence, effectiveness, impact, sustainability, value for money (VfM) and the Innovation Fund, with effectiveness, sustainability and the Innovation Fund as top priorities. **Each finding carries a strength-of-evidence rating.**

Evidence base

Source	Coverage
Key informant interviews	62 interviews with investees, AECF and Sida staff, industry bodies and peer investors
Portfolio and financial analysis	Programme performance and financial data; programme documents and mid-term reviews
Customer verification	Phone-based verification surveys by Ipsos
End-user impact surveys	60 Decibels surveys of 10 companies (about 20% of connections)
Workshops	Sessions with the AECF programme team

Limitations: restricted access to some government and in-country Sida stakeholders; gaps in programme data linked to staff turnover; closure of some investees; and limited coverage of the end-user surveys. The Covid-19 Relief Fund was excluded, as it was evaluated separately.

Key findings

FINDING 1 | RELEVANCE AND COHERENCE

REACT SSA filled a distinctive niche, but its design was driven by funding windows more than strategy

The programme stayed relevant to national energy-access priorities and tackled the barriers investees identified, including working-capital constraints, last-mile delivery and limited internal capacity. Its African-led, technology-agnostic approach, its focus on early-stage companies and its presence in fragile and conflict-affected settings gave it distinctive value. Sida sees REACT as a bridge between start-up support and larger results-based facilities and has committed to funding REACT 2.0.

However, the programme's funding windows and tools shaped it more than its Theory of Change, several versions of which were used over its life, and its KPIs did not capture the market-strengthening objective. With donor budgets tightening and Mission 300 scaling up, AECF will need to restate its niche and coordinate more closely with similar funds, particularly EEP Africa.

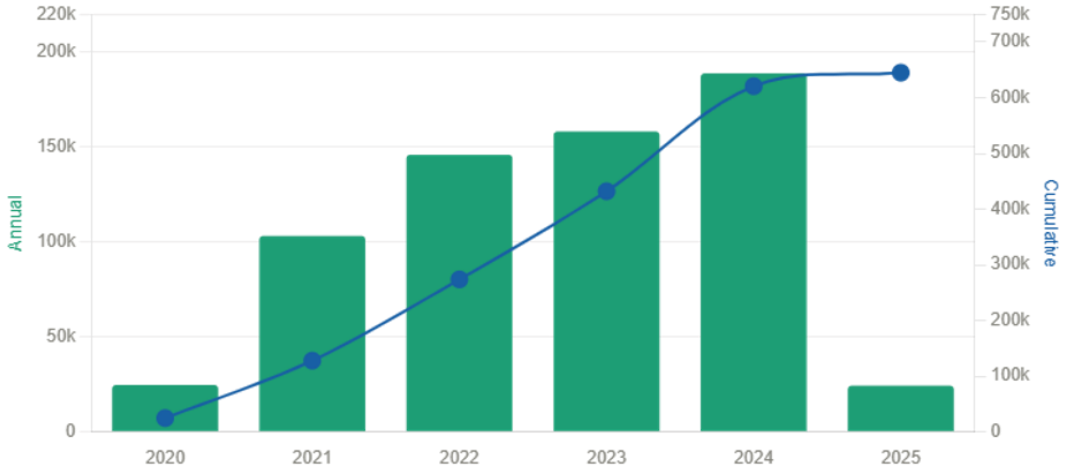
Strength of evidence: **Moderate**

FINDING 2 | EFFECTIVENESS

Energy access was delivered at scale, but results were concentrated, and targets were revised

Milestone-based grants and RBF enabled companies to deliver 644,928 household connections and energy services to 26,711 micro and small companies, benefiting more than three million people. The active portfolio exceeded its contracted sales targets by 19%, and 52 of the 76 main-window companies eventually exceeded their sales targets. Only seven contracts were terminated, accounting for just 2.4% of funds disbursed.

Figure 1. Annual and cumulative household connections, 2020–2025



Targets, however, were adjusted throughout the programme. Only 36 companies met their targets within the original contract periods; measured against original timelines, the portfolio would be 20% below its sales targets.

Figure 2. Portfolio sales performance depends on which targets are counted



Results were also highly concentrated. Five companies delivered half of all connections; two of them, KOKO Networks in Kenya and Sogepal in Mozambique, delivered 30% while serving largely urban or higher-income customers. The Kenya RBF window produced about 44% of connections with around 10% of disbursed funds, reflecting more mature companies, while fragile and conflict-affected markets each contributed 3–6%.

Data quality is a concern. Phone verification of REACT 1.5 sales could confirm only 38% of the 3,680 customers sampled, mostly because customers did not answer, although 80% of those reached confirmed their purchase. AECF adopted stricter RBF verification guidelines in June 2025.

Strength of evidence: **Strong**

> *"100% life-changing funding, with a few hiccups along the way."*
>
> — REACT SSA investee

FINDING 3 | IMPACT: COMPANY STRENGTHENING

Companies matured, especially financially, but growth did not always bring stability

Among 34 companies assessed on the Company Maturity Scale, the overall maturity rating rose by 50%, with the strongest gains in financial sustainability (69%) and the weakest in operational and institutional maturity (30%). The share of sample companies at seed stage fell from 41% to 9%, and three reached the stability stage. Revenues grew for

about two-thirds of the 53 firms with financial data, yet 23 reported losses, and 23 were highly leveraged in their latest financial year.

Two-thirds of companies interviewed reported unexpected capacity benefits from the combination of finance, technical assistance, investment facilitation and day-to-day mentoring by portfolio officers. Technical assistance worked best when delivered in person, in local languages, by embedded experts. Investment facilitation mobilized US$33.3 million against a US$20 million target, with two companies accounting for half of this total.

The clearest policy result was a foreign-exchange facility negotiated with Zemen Bank in Ethiopia, which enabled investees to access all of AECF's US-dollar financing without delay. Elsewhere, the programme strengthened renewable-energy associations and sector coordination, but wider policy effects were limited.

Strength of evidence: **Moderate**

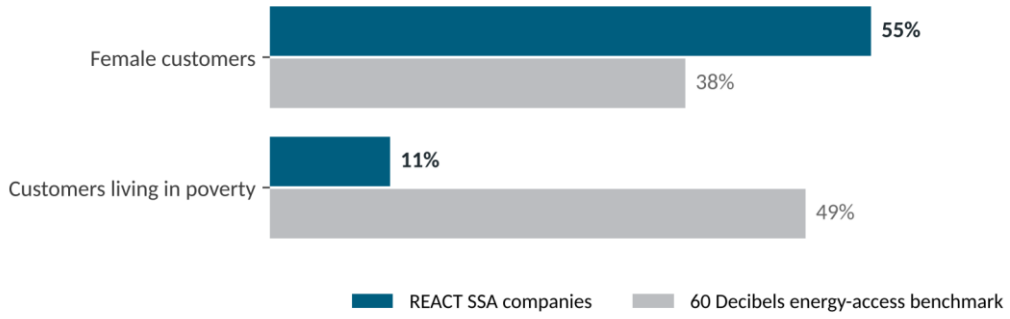
> *"The sales system, structuring, training and data we have today is thanks to AECF."*
>
> — REACT SSA investee

FINDING 4 | IMPACT: INCLUSION

Benefits reached underserved customers in line with industry norms, but fewer of the poorest households

On the limited 60 Decibels sample, REACT companies matched sector benchmarks for first-time and rural access and weighted by connections, exceeded the benchmark for female customers (55% against 38%). However, only 11% of customers were living in poverty, compared with a benchmark of 49%, and the weighted income inclusivity ratio was 0.35, compared with 0.77. This reflects a trade-off between rapid growth in connections and the ability to reach harder-to-reach segments.

Figure 3. Customer profile of REACT SSA companies against the energy-access benchmark



Source: 60 Decibels surveys of 10 REACT SSA companies (about 20% of connections), as reported by OPM (2026).

At the national level, REACT companies accounted for 35% of solar energy kit sales in Zimbabwe, 22% in Liberia, and 19% in Mali between 2020 and 2024, and an estimated 53% and 39% of new clean cooking connections in Mali and Mozambique, respectively.

Strength of evidence: **Weak on end-user impact; moderate on national contribution**

FINDING 5 | SUSTAINABILITY

Continued service to hard-to-reach customers will depend on further concessional funding

Three-quarters of sample companies expect to continue operating in the short- to medium-term, but fewer than half have secured the mostly concessional funding needed to continue serving underserved markets. Around a quarter of rated companies did not mature significantly during the programme, and two of the most promising investees, KOKO Networks and LIB Solar, have since stopped operating or changed ownership. Affordability is a risk if subsidies end: 26% of solar home system customers surveyed described payments as a burden, rising to 42% in Mali.

Strength of evidence: **Moderate**

FINDING 6 | VALUE FOR MONEY

Value for money was within expectations of most criteria, but efficiency fell short

A VfM framework developed with AECF during the evaluation produced the ratings below. Delivery costs were 31% of the budget, within AECF's expected range but above comparable funds such as EEP Africa (27%), a difference the evaluation considers justified by REACT's focus on early-stage companies in fragile settings. Because the benchmarks were set retrospectively, these ratings are best read as a test of the framework.

Table 1. Value-for-money ratings

Criterion	Rating
Equity	**Good**
Effectiveness	**Good**
Delivery costs	**Good**
Safeguards against mismanagement	**Adequate**
Cost-effectiveness	**Adequate**
Efficiency (slow early disbursements; mixed usefulness of TA and investment facilitation)	**Poor**

Source: OPM (2026).

The average subsidy was US$50 per connection, ranging from US$12 in Kenya to US$166 in Liberia, and varying widely by technology.

Figure 4. Average REACT SSA subsidy per connection



Source: OPM (2026), based on AECF REACT reporting data.

Strength of evidence: **Strong**

FINDING 7 | INNOVATION FUND

The Innovation Fund readied most new products for launch, but sales remained small

Between 2022 and 2024, eight companies received grants averaging about US$230,000 to develop clean cooking and productive-use products. Six reached readiness for commercial launch and 75% met all their milestones. Sales of 2,232 units exceeded the 2,000-unit target, but only because one company far outperformed; half of the companies installed less than two-thirds of their targeted units. Progress was strongest where established companies improved existing product lines; entirely new products have grown slowly.

Strength of evidence: **Moderate**

Lessons and recommendations

1

Strengthen the Theory of Change and results framework

Integrate the market-strengthening objective explicitly, state the underlying assumptions, and address the tension between expanding energy access and building commercially sustainable companies.

2	**Differentiate company-strengthening support** Use deep baseline assessments and the Company Maturity Scale to tailor support, set milestones that cover both energy-access delivery and company strengthening, and run multiple funding calls to identify suitable companies over time.
3	**Build a robust digital performance database from day one** Retain original and revised targets, strengthen monitoring of customer usage, payment rates and environmental and socio-economic benefits, and apply REACT 1.5 lessons to RBF verification, including digital tools.
4	**Prioritize tailored, in-person technical assistance** Rely more on embedded experts and locally based portfolio managers and broaden investment facilitation to help companies access larger grants and performance-based finance.
5	**Develop longer-term sustainability pathways** Consider top-up funding for high performers and a broader range of reimbursable financing instruments, while improving coordination among funders.
6	**Strengthen the evidence on impact and value for money** Integrate VfM indicators into routine monitoring, set benchmarks at design, commission independent mixed-methods impact assessments, and survey customers around five years after installation.
7	**Focus policy and advocacy** Limit policy ambitions to supporting investees through national and regional renewable-energy associations and state this narrower role clearly in the Theory of Change.

THE OVERALL LESSON

Early-stage energy companies can deliver access at scale with the right mix of finance and hands-on support, but reaching the poorest and sustaining services beyond the grant period requires deliberate design, better data, and patient, longer-term capital.

ABOUT AECF

The Africa Enterprise Challenge Fund (AECF) is a Pan-African development institution that finances early- and growth-stage businesses in agribusiness, renewable energy and climate-smart technologies. Combining grants, results-based and repayable finance, and technical assistance, AECF helps enterprises innovate, create jobs, and build resilient, sustainable incomes in rural and marginalized communities, with a particular focus on fragile contexts, women, and youth.

Since 2008, AECF has supported more than 700 enterprises across 26 countries in Sub-Saharan Africa, reaching an estimated 37.4 million lives. AECF commissions independent evaluations of its programmes and publishes what it learns, including mixed results, so that evidence shapes future programming.

ABOUT THIS BRIEF

This brief summarizes the independent end-of-programme evaluation of REACT SSA conducted by Oxford Policy Management (OPM, 2026) and commissioned by AECF. The views expressed are those of the evaluators and do not necessarily reflect those of Sida. The full evaluation report is available on request from AECF.

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