



IMPACT REPORT

2024

Letter From Our C.E.O.



KATE STEEL
Co-founder & CEO

Reflecting back on 2024, it was the inverse of 2023. In 2023 we were coming off a record year in investment in off-grid solar in 2022 and ran straight into the strong headwinds of inflation and currency depreciation. Investment in off-grid solar was down 43% in 2023 and we entered 2024 with shakiness across the sector that was reminiscent of the early COVID years. In the second half of the year, we saw deals start to move again and green shoots of optimism coming back.

With the number of available deals narrowing, we were able to expand our mandate. Nithio can now lend to businesses in 20 markets across Africa and we are very excited to have closed our first investment in DRC a few months ago. This investment in Altech will enable greater access to energy in a country with one of the largest off-grid populations and supports a fast-growing local business. We also have expanded the scope of FAIR lending to include productive use assets, clean cooking, and e-mobility.

In 2024 we also diversified the ways we use our analytics to understand and unlock investment in the off-grid energy sector. We continued to develop our Climate Vulnerability Index (CVI), which looks at the connections amongst climate vulnerability, ability to pay, and availability of energy products. We expanded our tracking of gender statistics and worked with partners to develop criteria for gender-focused investing.

Nithio launched with the goal of using data and AI to unlock financing. We're proud of the tools we have built to understand household credit risk and portfolio quality for off-grid energy companies. Based on the discussions at the GOGLA Forum in Nairobi in October, there is now greater awareness of the need for these types of tools and we will continue to engage with investors, distributors and industry associations to set the standard for understanding credit risk.




We have always been proud of our ability to work with small, local companies in addition to large, international ones. Through our work over the past years we have identified another friction point where we plan to leverage our AI tools. In 2023, like every other year, nearly 75% of the debt financing in the sector went to only six companies. This isn't a problem just in the energy space. Across Africa, only 22% of MSMEs have been able to access financing from a bank or other financial institution. To enable us to better serve this market, we are increasing our investment in automated lending and aim to greatly increase the volume of capital reaching smaller companies.

As we kick off 2025, we are excited to both grow our FAIR investment portfolio and get back to our roots as a technology developer. Our goal, as always, is to "lift all boats" through improved lending products and we look forward to partnering broadly across the sector in the coming year.







FAIR at a Glance

FAIR: The Facility for Adaptation, Inclusion, and Resilience (FAIR), managed by Nithio, is an open-ended private investment vehicle investing in companies providing household energy assets, including solar home systems and productive use appliances. Using our AI-enabled approach, we offer flexible financing at competitive rates to companies looking to grow their operations.

FAIR’s Financials

 15 Investments	 \$31.7M Loan Committments	 \$47.1M Committed Capital
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FAIR’s Impact

 494,950 People with improved energy access	 23,425 People using product to support enterprises	 148,038 Systems deployed
 1,776,719 Metric tons of CO ₂ e avoided	 17,134 People with access to clean cooking	 38% System purchasers who are women

The Power of Nithio's AI-Driven Analytics: Automated Lending

We need to increase access to financing to climate solutions companies, and we need to do it more quickly and cost-effectively. We created our Risk Analytics Engine to standardize credit risk assessments and inform sustainable financing. Now, Nithio is expanding on our capabilities with AI through our investments in Automated Lending to further unlock capital for climate solutions.



Funding Gap: There is a significant funding gap for climate-focused small and medium enterprises (SMEs). For example, in the off-grid solar sector, nearly 75% of total tracked investment funding has gone to just 6 off-grid companies, with the remaining divided across ~100+ companies according to GOGLA's Off-Grid Solar Market Trends Report. While locally owned and operated distributors struggle to access traditional financing sources, they are critical to reaching last-mile customers. Financing these critical companies is typically more expensive as they require more hands-on support while being constrained to smaller ticket sizes.

Nithio's Lending Automation Solution: Nithio fills a market gap by financing small, local distributors that reach last-mile customers with life-changing energy access products. We leverage our Risk Analytics Engine to assess portfolio performance and underlying customer repayment risk, monitor covenant metrics, and track impact. To date, 64% of Nithio's portfolio is what we classify as Tier 2 and Tier 3 borrowers (under \$25m in revenue). However, we have ambitious goals and aim to significantly scale our lending to climate-focused companies, increasing the number of transactions and decreasing the cost and time it takes to complete them.

To scale our impact and reach climate-focused SMEs, Nithio is developing a lending automation approach to streamline our financing. By building on our existing Risk Analytics Engine and applying innovative AI-enabled automation, we are reducing time and costs for our team and therefore our borrowers. The initiative leverages both our data analytics and investment expertise. It will reduce our Investment Team's manual efforts around due diligence and allow the team and borrower to focus on high-value support.

Scalable Impact: Closing the financing gap and providing capital more quickly and cost-effectively to companies – both large, international ones and smaller, local distributors – focused on scaling climate solutions has wide-reaching benefits. For the company, they are able to have a clearer and quicker path to accessing critical capital. This scales financial inclusion and enables more end-users to get access to products that build climate resilience and scale mitigation.

「 Our goal is to reduce relevant transaction costs and time by 50% by the end of 2025. 」



FAIR's Impact

	Kenya	Nigeria	Uganda	DRC	Total
People with improved energy access	145,727	279,045	20,485	49,693	494,950
MTF Tier 1	34,542	193,001	18,878	43,471	289,892
MTF Tier 2	94,051	86,044	1,607	6,222	187,924
Unknown	17,134	0	0	0	17,134
Metric tons of CO ₂ e avoided	537,878	1,216,930	5,527	16,384	1,776,719
People using products to support enterprise	13,152	8,796	134	1,343	23,425
Women	4,717	4,591	42	551	9,901
Men	8,300	4,161	92	792	13,345
Unknown	135	44	0	0	179
People with access to clean cooking	17,134	0	0	0	17,134
Systems deployed	39,976	91,361	5,126	11,575	148,038
Women	14,919	35,354	1,966	4,378	56,617
Men	24,376	55,189	3,131	7,195	89,891
Unknown	681	818	29	2	1,530
Number of people with improved food security	3,185	0	0	0	3,185
Number of people with improved thermal comfort	294	61,392	0	0	61,686



Investment & Analytics Growth

The Facility for Adaptation, Inclusion, and Resilience (FAIR), managed by Nithio, provides investment to companies that sell energy products to households, smallholder farmers, and microentrepreneurs – increasing connectivity, improving livelihoods, and building climate resilience. As an AI-informed investment manager, we deliver risk-adjusted returns and impact to investors.

We proudly invested in 11 companies that distribute solar home systems, and solar productive use products across East, Central, and West Africa. Leveraging our Risk Analytics Engine, we are able to assess and monitor the portfolio quality of our borrowers to ensure long-term financial health and sustainable impact.

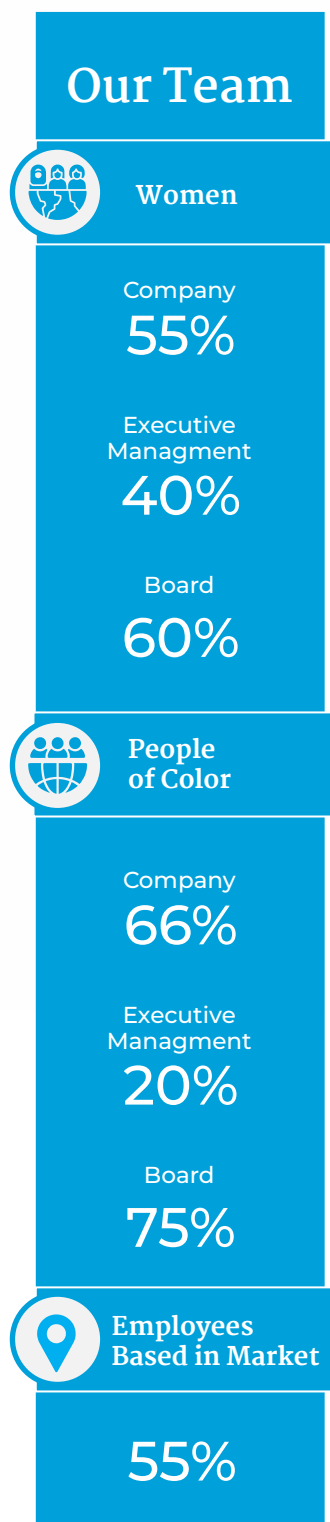
FAIR's Expansion to DRC

Nithio is excited to partner with Altech on our first investment in the Democratic Republic of Congo (DRC). With over 80 million people lacking access to electricity, the DRC faces significant challenges as one of the world's most climate-vulnerable countries. Ongoing conflict in the region has exacerbated vulnerability, displacing millions and

limiting access to electricity and clean water. With this investment, we are proud to contribute to a more connected and resilient future for the DRC. With Nithio's financing, Altech will expand its solar home systems portfolio, scale e-mobility solutions, and enhance its household water point products, broadening its impact.

Leveraging Analytics to Support Portfolio Assessment & Monitoring

Our goal at Nithio is to unlock capital at scale for solutions that build climate resilience. Our Risk Analytics Engine informs our investment decisions and also enables other capital allocators to make risk-informed decisions. For example, we are proud to support SunKing's groundbreaking securitization transaction by serving as the monitoring agent. We have worked with other industry-leading financiers including IFU, EDFI-ElectriFI, Mirova, and Triple Jump to assess portfolio quality and risk during due diligence, track environmental and social impact, and monitor ongoing portfolio performance.



Diversity, Equity, & Inclusion

Building a Diverse Team

Nithio is committed to fostering diverse and inclusive leadership across teams to drive impact. Our hiring and onboarding processes are designed to attract and retain top local talent from diverse backgrounds, ensuring we build teams with deep understanding of the regional context. As part of our commitment, we have scaled our Lagos and Nairobi-based teams, tapping into deep local expertise that strengthens our mission.

Fostering an Inclusive Team Culture

As a global team, we are focused on building a strong, inclusive culture focused on respect, communication, and a common mission of making a difference. We practice an asynchronous work environment but maintain a focus on building in-person connections. In 2024, we hosted our annual retreat in Lagos, Nigeria, which brought together team members from across 9 countries for a week of knowledge sharing, team building, and partner site visits.

Investing in Team Growth

We are committed to the professional development of our team, supporting colleagues across investment, analytics, operations, finance, and partnerships to continue to expand their areas of expertise. Team members have leveraged the professional development support to upskill their quantitative and analytical capabilities, learn new languages, attend industry conferences, and develop their people management skills.

What Are We Excited About in 2025

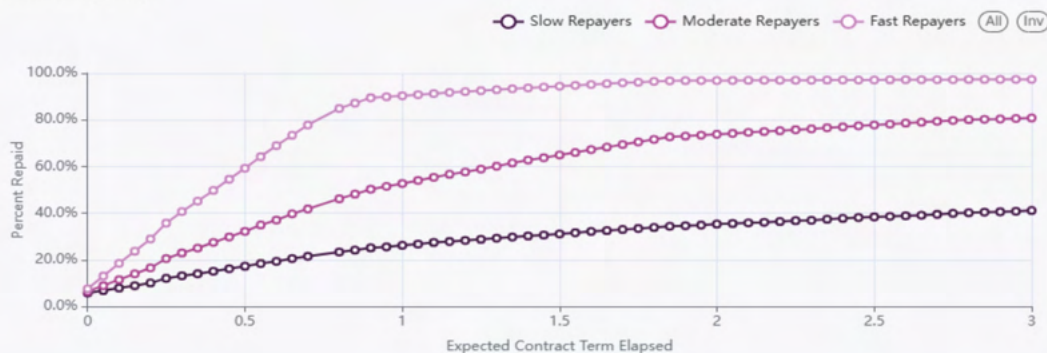
Understanding Market Risk with Nithio's Engine

In 2024, the African clean energy sector came face-to-face with the risks and uncertainties in the market – especially around customer credit risk. This year, Nithio's Risk Analytics Engine will take center stage in helping investors assess underlying customer repayment risk, forecast portfolio health, and monitor performance and impact with standardized metrics.

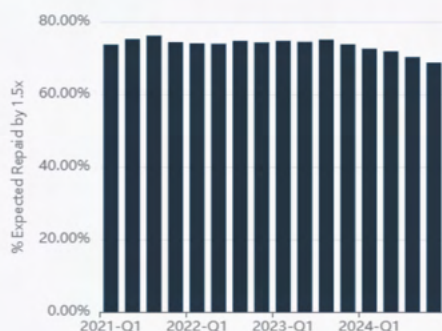
Our Engine supports investors throughout the investment process – including due diligence, portfolio verification, portfolio and covenant monitoring, and impact tracking. This empowers capital allocators to make risk-informed decisions and mitigate risks. As the demand for sustainable energy solutions continues to grow, Nithio's Risk Analytics Engine will be instrumental in continuing to unlock sustainable financing.

An Example of Risk Segmentation from Nithio's Portfolio Portal

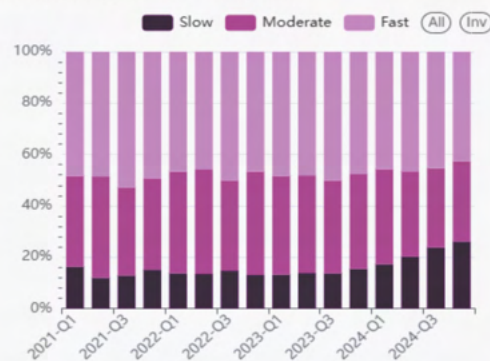
Repayment Trajectory



Expected Payback per Activation Cohort



Risk Segment per Activation Cohort



Data-Informed Gender-Lens Financing

Nithio is committed to increasing women's access to clean energy products. In analyzing our portfolio, we found that women have better repayment rates than men, repaying an average of 90% of their outstanding balances throughout their customer lifecycles, compared to men, who repay an average of 84%. Additionally, women experience fewer repossessions and product write-offs compared to men. Clean energy companies reaching more women customers is highly impactful and good for business.

Supported by FMO and in partnership with AdVision Finance Inc., Nithio has developed a gender-focused lending tranche deployed via FAIR. This instrument will incentivize clean energy companies to increase their number of women end customers in a sustainable and impactful way.



Methodology

Data Input

Nithio leverages its robust database, which comprises localized geospatial socioeconomic and environmental data (down to 1 sq. km), and energy customer data.

Framework

Nithio computes impact metrics in alignment with industry standards as well as carries out more contextually specific impact measurements using its Risk Analytics Engine. Where applicable, Nithio applies the impact measurement framework for off-grid solar products developed by GOGLA¹, as well as the Efficiency for Access impact framework for productive use appliances², including the following metrics:

- Energy access
- Kerosene replacement
- Metric tons of CO2e emissions avoided
- Number of systems deployed
- Number of people reached with energy access
- Number of people reached with productive use assets
- Number of people using products to support enterprise
- Number of people who attribute the use of the appliance to improved food security
- Number of people who are experiencing improved thermal comfort

Nithio leverages its database and analytics to disaggregate impact metrics by key variables such as gender and location. Tracking gendered impact is crucial because women and girls are

disproportionately affected by energy poverty. With the built-in granularity of its geospatial data, Nithio also provides impact analysis on a sub-national level, which is important as many outcomes vary based on geographical settings and contexts.

Nithio's analytics enhance the precision of potential impact across the lifespan of a system. Nithio's prediction model forecasts the lifetime repayment trajectory for each household using an energy product. Since most PAYGo products are based on pay-for-usage tokens and payment models, the pace and amount of repayment can be roughly translated into the household's energy usage and utility derived from the product.

We use this prediction output to calculate the specific household's likelihood of system loss, whether caused by default or intermittent usage for a period less than the product's full potential lifespan. This approach to discounting for system loss is a more accurate forecast of the lifetime impact of a solar home system on a household's or community's well-being.

¹https://www.gogla.org/wp-content/uploads/2024/11/gogla_impact_metricsv4.pdf.pdf

² <https://efficiencyforaccess.org/publications/impact-assessment-framework/>

