

Africa GreenTec Business Plan 2023

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Executive Summary

# Empowering Africa's Growth: AGT AG's Holistic Approach to Rural Development and Renewable Energy

Africa is set to become increasingly important on a global scale, with a projected 25 % of the world's population residing there in the next thirty years, and 40 % by the end of the century. The continent is experiencing rapid population and GDP growth, surpassing most other regions even during global economic downturns. This presents economic opportunities for companies, while also posing social, societal, and environmental challenges. Lifting people out of poverty in sub-saharan Africa (SSA) promotes development, education, and reduces migration and population growth. However, sustainable growth requires energy, ideally sourced from renewable sources like solar power. SSA benefits from abundant and free solar energy, with favorable climate conditions and high solar radiation. Solarpowered technologies are the most climate-friendly and cost-effective solutions for electricity, clean water, and cooling. Currently, there is a significant deficit and thereby demand for solar energy products in SSA.

#### Mini-Grids as the Sustainable Solution for Electricity Supply

When it comes specifically to the question on how to supply electricity to the vast rural regions, nationwide centralized power generators and grids are not an alternative because they are too expensive and take too long to develop. Decentralized systems that are used directly in the villages are advantageous here. However, approaches to supply people with electricity using solar home systems (SHS) have the disadvantage that the amounts of electricity generated are far too small to run machines, which in turn would lead to more productivity, income and jobs. Instead, purchasing power is siphoned off from people with SHS instead of generating income, ultimately exacerbating the problem. Not to mention the e-waste that is added due to inadequate disposal or repair concepts of the systems as a result of defective batteries. Against this background, minigrids have proven to be the better solution. Here, alternating current is generated in the order of magnitude from 30 kilowatt peak (kWp) and more, with which an entire village can be supplied with electricity.

In a study from 2022 World Bank forecasted a demand of 217,000 mini-grids by 2030, while in 2022 only 21,500 of these min-grids were in place.

21,500 mini-grids connect 48M people



217,000 mini-grids connect 500M people

2022

estimated growth >1,000%

2030

## Unveiling the Financials of Powering Progress

Africa GreenTec AG (AGT AG) finances and installs such solar systems in SSA and earns money through the operation of the systems and the sale of electricity. But on top of that AGT offers other utility services, such as cooling, water filtration, refrigeration and others. With this approach AGT reinvented the approach to rural electricity generation and distribution, internet connectivity, water access, and cooling by empowering rural communities to self-determination and growth. Our approach is holistic; we do not just bring an energy source to the people, but instead educate local people and build a whole ecosystem. With such a long term strategy we ensure a fair development opportunity for the people, companies and economies in the rural subsaharan regions to increase their incomes. A carpenter, for instance, increases his productivity by a factor of 6 by using electricity. In return for the investment and provision of infrastructures investors and AGT receive a continuous cash flow and a fair interest rate back.

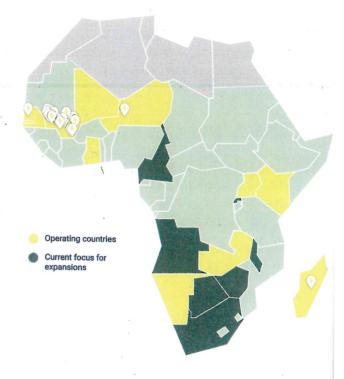
## Our Diverse Business Units for Lighting the Way

AGT's customer base includes private and business customers in rural villages, as well as large international customers and NGOs managing distributed sites in Africa. The company has three business units: (i) ImpactSites, which provide basic infrastructure and ImpactProducts to rural areas; (ii) commercial and industrial projects (C&I), targeting companies and facilities looking to reduce energy costs with solar-based electricity and cooling; and (iii) Residential projects, offering reliable solar solutions to homeowners in urban areas. C&I customers have strong financial capabilities and are willing to make upfront payments, making them promising partners. AGT also leases or sells solar home systems (SolarUP) to private customers. Our solutions provide a wide range of capacity options,

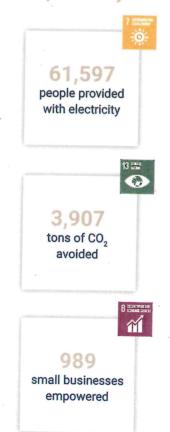
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ranging from 5 kWp to 30 kWp, and offer different battery storage options to meet various energy needs. The SolarUPs are designed to be versatile and can be easily installed on different types of roofs. The company has established partnerships with independent sales managers who are compensated based on commission, aligning their success with AGT's.

To get this business going, AGT AG established subsidiaries and partner structures in the respective countries, while creating the regulatory requirements and training employees. AGT has a strong traction, which can be seen by its prosperous expansion over the course of its subsistence. Currently, AGT has successfully set up 25 sites across four countries, namely Mali, Niger, Senegal, and Madagascar. Additionally, AGT has subsidiary operations in Namibia and Zambia, and is in the process of entering new markets such as Uganda, Kenya, and Cameroon. The company employs approximately 30 employees in Europe and around 100 employees in Africa. Our technologies provide electricity for 61,000 people and empower the further development of 989 small and medium sized businesses (SMEs).



#### **Our Impact Today**



## An Impactful Journey of Recognition, Growth, and Transformation

The company was founded by Torsten and Aida Schreiber, a German-Malian couple. The Management of AGT consists of highly experienced experts with a variety of specializations and skills. It is important to highlight that local people and especially women power is an important success factor for the organization. Within the AGT Group a streamlined management structure is provided by AGT AG in Germany while the majority of jobs and value creation is located and produced on the African continent. We built our African head office, a production hall and a logistic hub in Dakar, Senegal.

From a marketing perspective, it can be stated that AGT has gained significant recognition in Africa through effective brand communication and long-standing involvement in the respective countries. This is evident from the substantial following of 1.2 million Facebook followers. The strength of the brand enables AGT to successfully penetrate new markets, establish connections with new clients and local authorities, and reinforce its overarching vision. The aim is to scale its business model to increase the social and ecological impact by providing basic infrastructure and unleashing the entrepreneurial potential of the affected people.

From an investment case point of view AGT's systems and solutions foster the development in the villages and their productivity growth by factors up to 5 or more, which in turn flows back to AGT in the form of reve-

nues and higher sales. With the award-winning holistic approach, AGT is an industry role model. It is important to note that impact can be regarded as a valuable currency that can be monetized. Prior to entering a village, we conduct a thorough assessment of the situation, and subsequently measure the impact once electricity is introduced to the community. Thus, we can measure how the productive use of energy empowered its customers with its impact measurement system.

### Our Financial Journey in Unlocking Africa's Potential

Financially, AGT generates profit through

- the sale of products and equipment at a margin to subsidiaries or third parties
- service and maintenance fees when the customer has ownership over the assets and AGT is solely the system provider
- 3. sales of electricity, water, internet and cooling services
- 4. margins from the provision of funding, for example in connection with crowdfunding
- medium to long-term dividend payments from subsidiaries

The demand for our services is substantial. However, the challenge lies in securing pre-financing for the necessary capital expenditure (CapEx) required for most projects. This is because customers and villagers in SSA typically have limited capital to make upfront payments for purchasing the system and services. However, in the long term the investments pay off, due to the low operating costs of our technologies and the increasing productivity and incomes of the customers. Capital is needed in the form of equity, debt, and grants or donations. Previously, AGT secured project financing through various sources, including approximately €5 million from equity investors, around €5.8 million from crowd investors, €3 million from debt investors, and €7 million through a bond issuance in 2017 specifically for investment in the Malian sites. Further money is needed for the following aspects:

Firstly, financing is needed to pre-finance projects. AGT has a project pipeline with many economically viable projects that need starting capital. It has access to 250 villages in the countries of Senegal, Mali, Niger and Madagascar, as well as a long list of C&I customers. Currently, the three major C&I customers are UNHCR, SOS Children's Villages and Technical University of Cologne.

Especially when it comes to ImpactSites, a subsidy share of 20 % to 30 % is needed to make the project financially attractive for private investors - which is also called the blended finance approach. A total of €22.5 million in subsidies is needed for the 250 villages. Debt/equity providers in the range of €50 million with a lower

risk profile can come in - when the basic preconditions are met to finance projects. The €50 million could also come through other types of financing such as the Global South Impact Infrastructure Fund (GSIIF) - a mix of capital classes.

In order to scale up the group even further and realize its pipeline, AGT needs to develop its organization by hiring further people, digitizing processes, adding further products into the portfolio, entering further markets, preparing its IPO, getting working capital for pre-financing of projects, and, last but not least, expanding its production line in Dakar, Senegal to scale up the production capacity. Latter will create jobs in Dakar, reduce labor cost for AGT and minimize the logistics, since the production line will be in Senegal instead of Germany. For these next steps AGT is currently seeking to raise €20 million in equity.

In order to improve our sales we plan on standardizing processes even more and establishing a network of local sales managers in African countries who organize the financing. AGT provides technology, knowledge, and strong brand communication, while sales managers contribute their network and expertise of domestic circumstances, markets, and stakeholders. This helps penetrate markets and increase impact with minimal economic risk, as sales managers work on commission.

With a group-wide turnover of €2.5 million in 2022, AGT is one of the biggest mini-grid operators in Africa. In 2023 we expect an annual revenue of €6 to €7 million. This is mainly driven by C&I projects. Our primary focus is on that business unit as it involves securing funding, particularly through subsidies, for the rural ImpactSites. Based on the running sites plus the advanced projects in the implementation and sales pipeline we did a discounted cash flow (DCF) analysis. Additionally, we conducted a peer-group-comparison and tasked an evaluation agency with a brand evaluation. This all led to a company valuation of €85 million.

#### Final Thoughts and Next Steps

We believe that the goal of investors to invest in economically viable businesses that also generate a sustainable impact, align well with the mission of AGT AG and the expected outcome of its business activities. Our solutions possess substantial potential to drive local socioeconomic development, address climate change through mitigation and adaptation/resilience efforts and deliver significant impact while remaining commercially viable. However, for this to happen we need patient capital that would enable us to scale up our operations in order to demonstrate commercial viability. By that, we can attract additional capital that will enable us to expand our business and drive impact across Africa forward.

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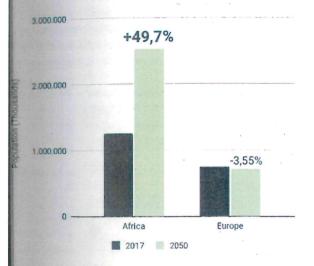
2.2.10 Power-Blox

2.2.11 Solarbakery

2.2.12 Overview

# 2.1 Challenge / Initial Situation

In the next thirty years, 25 % of the global population will reside in Africa. By the end of the century, it will even increase to up to 40 %. Africa is the fastest growing continent measured by both population and GDP, with growth rates across the continent outpacing most of the world, even in a global downturn. Given this trajectory this century, as Africa's population growth develops, so will the world's.



These circumstances can be perceived either as a threat or as an opportunity. Prof. Rosling's answer, based on comprehensive data, gives a clear answer here: Accelerating the process of lifting people out of poverty on the continent has multiple benefits, including improved educational levels, reduced migration flows, and controlled population growth. But growth needs energy. If growth on the African continent is to be based primarily on fossil fuels, that would lead the world into climate chaos in the shortest possible way. But the good news is that there are solutions here, too, and they include renewable energies, such as the sun in particular, which shines in abundance in Africa. Connecting these dots into an overall picture, it quickly becomes apparent that the opportunities outweigh the detriments. The economic development of the continent, to which we want to make a social contribution with renewable energy sources, has in turn economic opportunities from which AGT wants to profit.

Electricity is the main driver for the sustainable development of a society. The expansion of the power supply not only supports one of the most important Sustainable Development Goals (SDG) of the United Nations, but also positively influences 10 other SDGs as a result of it. Against this background, the impact of our work is undisputed.



#### 600 Mio. people

have no access to electricity



#### 40 % of fruits & vegetables

spoils due to a lack of cooling



### 54 % of the population

has no access to drinking water sources



### 75 % of the population

has no access to reliable internet

Imagine living a day of your life without electricity, cooling facilities and clean water. Even your smartest innovations and business ideas would be difficult if not impossible to realize. Basic infrastructures are the foundation of which prosperity is built. In sub-saharan Africa hundreds of millions people do not have access to electricity, clean water, cooling facilities and internet. Infrastructures provide the framework, so each of us has the possibility to unfold our potential and thrive for a better world and a better life.

In large parts of the world, the power supply is guaranteed by central power generators / power plants in connection with overland networks. However, this solution is unsuitable for rapid development on the African continent, since the population density is too low and the required investments are too high and too long-term. Another option is to sell solar home systems, usually small solar systems, often DC based with a PV panel on the roof. These systems are able to provide electricity for lighting, fans or mobile phone charging. However, larger systems or machines cannot be operated with such systems. This means that solar home systems are not able to contribute to increasing customer productivity. They deprive the population of the already limited purchasing power and only make a very limited contribution to securing income and jobs.

With the current technical possibilities, there will be more leap-frogs (skipping of usual development steps). We are currently experiencing this with the rapid progress in the development of PV, grid and battery technology. It is important not to repeat the mistakes of the past, which today lead to enormous burdens for the environment and people. Instead, to focus directly on decentralized, sustainable, renewable energy and collaboration.

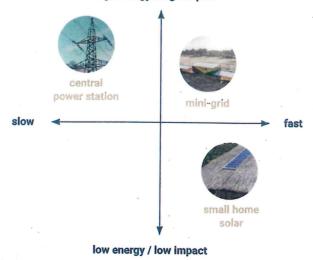


# 2.2 Product Offering, Features and Pricing

A technical solution that enables rapid implementation and at the same time increases the productivity of the population are so-called mini-grids, i.e. island grids that can provide a power generator and grid infrastructure for an entire village. In the case of AGT, an output of approx. 75 kW is currently provided in the form of 3-phase alternating current. This allows larger machines and end devices to be connected to the island grid. We have a functioning mini-grid system, of which more than 20 have been set up in Mali, Niger, Senegal and Madagascar and which have proven to be a technically reliable solution.

Getting running systems on the ground in Africa is a challenge itself. If this shall happen at a high speed in order to scale up fast, easy installation and deployment is crucial. Modularity and plug-and-play products concepts are therefore essential, especially when it comes to the mass market. Our main products are the Solartainer Amali, which is installed in more than 20 villages. The Solartainer Kani is technically similar, only that the PV system is installed on ground. The product has not been tested in the field yet, but it is ready-to-market. Our Cooltainer is on the market, but will soon be complemented by the Cooltainer PCM, which offers several advantages. The Cooltainer PCM will be available in a 20' and 40' feet version. The Watertainer prototype exists, it is currently tested and will be on the market in Q3 of 2023. These are our main products. The smaller ImpactProducts (e.g. solar pumps and fridges) are on the market and several hundreds are stored in our logistic hub in Dakar. On top of that, we have concept

high energy / high impact



ideas that support its holistic approach. As an example, in one specific project, an electric husking mill (rice peeling machine) was sold, resulting in an increased demand for electricity. With these smaller products, we foster the economical development and the energy demand in the villages, which in return increases our revenue by selling the electricity. We built an entire ecosystem around the main infrastructure.

The current product portfolio and the development stages of products are summarized below.

#### 2.2.1.Solartainer® Amali

We view our Solartainer Amali as "the growth hub for self-determination". With a capacity of up to 50 kWp, the Solartainer Amali provides electricity for productive use via mini-grid and smart meters In total, it can provide electricity for up to:



The mobility of our technology offers several benefits for our company and for our investors. The technologies are easy to transport and quick to install. The legal complexities surrounding the acquisition of ImpactSites are often circumvented due to the technology's ability to be swiftly relocated. Most importantly, mobile assets reduce many risks that are usually associated with investments in rural electrification in Africa. In case of central grid extension, the technology can be moved into another village while a refund is made for the little stationery investment in the village we might have incurred, e.g. the grid, which can be further used by the new operator. Since the government or the authority for rural electrification does not need to refund AGT for the main technology, they tremendously appreciate our approach and usually support us with the entering of the market. On top of that, in case of political instabilities, terrorism or extreme weather events we can dismantle, protect and move the assets rapidly.

We utilize German engineering of superior quality and durability. The technologies employed are standardized, modular, decentralized, mobile, easy to install, and highly scalable.



Through lithium battery storage supplied by Tesvolt, the system enables people to use electricity until late in the night, thus increasing security and learning conditions. It is a turnkey, mobile system which can be set up within 96 hours.

The basis of the Solartainer Amali is a special steel construction, which is used as a substructure for the PV modules. In addition to the container shell, this steel construction includes the arms, which can be extended and retracted by integrated rails. In operating mode, the arms are additionally held by two steel struts, which are fixed to the solar container. Finally, the steel construction includes a battery cabinet with a cooling system. Overall, it is a robust, flexible and mobile system that was designed for the harsh environment of rural subsaharan Africa.

We use smart meters that enable us to do digital billing, realization of its multi-level tariff system, remote monitoring and remote maintenance. The smart meter technology is supplied by Sparkmeter and Steama.Co (SteamaCo bitHarvester Edge with maximum switching current 16 A / 240 V) with whom we cooperated in the development of the available functions and features of the meter. Additionally, we created a data infrastructure that results in several dashboards that it uses for remote monitoring, and extensive data analytics for impact reporting and business model optimization. Depending on the country of destination and other factors, the list price of the Solartainer Amali to a third party is around €200,000 excluding taxes.

All of the customers pay upfront to consume electricity. Only if the customer has credit available, electricity can be consumed. A prepaid-meter system is utilized to ensure that no customer accrues debt. For every country, we set up the tariff structure according to the local regulations and social conditions. However, expected costs and margin differ from country to country. Therefore, the tariff schemes are specifically tailored to the country market.

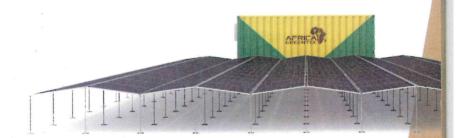
#### 2.2.2. Solartainer® Kani

In order to cater to the different sizes of the villages and ease manufacturing, the more flexible product concept of the Kani was implemented, built on a less complex structure. This mini-grid solution can be used in a wider range from 30 kWp up to 70 kWp. Also, the Kani is

based on a standard 20 foot transport container and overall largely standardized components. This characteristic makes the system well-suited for efficient and cost-effective production at the African site in Dakar. Specifically, the mounting and electrical installation processes are relatively straightforward and adhere to a strict scheme. Apart from basic mechanical tools, no specialized equipment is required. This allows for an easier scale up of production because new staff can start working without specialized knowledge right away.

Overall, the Kani significantly increases scalability in the field of mini-grids. Furthermore, in cases where the demand surpasses the existing capacity at an ImpactSite, it is possible to enhance the capacity of the Solartainer Amali by integrating a standalone solar power plant and connecting it to the Solartainer. The financial model shows this optionable upgrade as soon as the anticipated demand exceeds the available capacity. Sensitivity analyses with the financial model clearly show the strength of this approach: Slowly increasing the capacity and making consecutive smaller investments with the growing demand increases capacity utilization, reduces the levelized cost of energy (LCOE), which is the average net present cost of energy per lifetime, reduces the capital lockup and increases profitability.

Depending on the country of destination and the technical configuration the list price of the Solartainer Kani to a third party is around €150,000 excluding taxes.



#### **Pricing Electricity**

The electricity produced by the Solartainer is sold per basic fee and variable fee. These vary from country to country. The variable fee is roughly around 20 to 30 cent per kW/h during the day and 30 to 40 cent per kW/h during the nighttime. The working fee is structured according to our tariff system and ranges from roughly €4 per month for basic electricity supply for small households to around €23 per month for productive electricity that is needed to operate SMEs. The amortization of the Solartainer Kani takes around 11 years, the needed replacements of the inverters and batteries are considered in this calculation. PV modules last 25 to 30 years. Hence, the Solartainer provides socially impactful and renewable electricity and an economically viable business case in the long term.



After supplying electricity to the first few villages, we realized that supplying electricity is only the first step in increasing productivity in the villages. In order to accelerate economic development in the villages and thus increase the economic viability of the mini-grids, we realized that we needed to provide additional services that would develop the entire ecosystem in the villages we serve. This concept is called the ImpactSite. Here, the solar container is expanded to include other utility services. Since we already have trained employees in the village, it is comparatively easy to expand the services, thus creating economies of scope.

To offer this entire ecosystem we offer several smaller products such as LinkUP, a WiFi service for the villagers, PumpUP, a PV-powered irrigation system, StreetUP, a PV-powered streetlight and CoolUP, a PV-powered fridge. We have created a robust solution to address challenges holistically in rural Africa through the ImpactSite (every rural site we are supplying with its sustainable energy technologies is defined as an ImpactSite). The ImpactSite integrates sustainable power production and distribution through intelligent mini-grids with efficient technologies for cooling, water treatment and internet access.



#### 2.2.4. LinkUP®

LinkUP, our integrated SatCom system, is integrated in the Solartainer. The SatCom system connects the Solartainer to the internet for remote maintenance and can be used to offer internet service via WiFi repeater for the community to gain additional revenues while enabling the community to stay informed and connected. The Internet is a crucial service for schools and small businesses. After implementing this service at a pilot ImpactSite in Niger, Amaloul, a rapid increase in demand within a short period of time was reported. AGT currently plans on implementing two different types of tariffs: TI1: 1.5 GB | TI2: 0.25 GB

#### 2.2.5. FilterUP®

FilterUP, our water purification system, can be integrated in all our Solartainers. This way up to 3000 liters per hour can be purified to enable safe drinking water in the villages AGT is operating in. The reason why AGT prefers this system is because it is environmentally-friendly with low water loss, low energy consumption and no need for chemicals. The system self-test checks for integrity of membranes and safe operation meaning. Overall, this simple system produces excellent water quality.

On top of that, AGT developed a smart water dispensing system, which allows digital and remote billing for the water. Each household will be given a card to access water at the one stop tap. The capital costs will be covered by a grant while the operational costs will be covered by revenues. This means that households pay a really small fee for their clean water in order to ensure sustainable operation of the purification system.

Depending on the water quality and the technical configuration the list price of the FilterUp integration is around €50,000 excluding taxes.

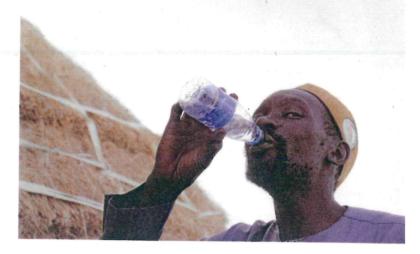
#### Pricing

As a social enterprise, AGT aims to be economically sustainable while offering fair prices. This leads to a minimum margin of 30 % of the AGT Group for product sales to third parties. The profit is split between AGT AG and a AGT subsidiary based on the location of the sale and the creation of value. In general, the pricing is defined by a minimum margin and the prices that are possible to achieve on the market. For this reason, every country office (AGT subsidiary) analyzes the respective market and defines the final retail price. AGT AG delivers and sells the products to the subsidiary.



#### 2.2.6. Cooltainer®

The Cooltainer is a smart and innovative approach for cooling based on 5 kWp solar power and battery technology, through which it can be operated in any terrain in rural areas that are not connected to the central grid. It is a self-sustainable, autarkic solution for a green cool



chain. It is modular, flexible, mobile and turnkey (plug & play) and can store up to 10t of produce. The Cooltainer ensures an inside temperature of 2°C to 10°C with an ambient temperature of 35°C. It drastically reduces food loss and gives farmers better access to the market and the chance to increase their revenues.

Based on our experience in Mali and Niger, cooling is one of the most crucial electricity applications in an off-grid area. However, usually customers get old, used and inefficient fridges which do not only require high investments, but also continuous payments for their electricity. On top of that, these used fridges usually break after a few years so that the customers need to buy a new one. Since we are not always offering 24/7 electricity with its standard battery configuration, fridges usually do not run the entire night so that food may spoil despite having a fridge. At the same time, these fridges - although limited in their use - require a big chunk of the Solartainer capacity that could be used for other purposes. With the Cooltainer, we are offering a solution that serves as the "fridge of the village" and therefore solves the described capacity issue, reduces cooling costs for the customers significantly, enables 24/7 cooling and gives us the chance to gain revenues not only by power generation, but also by smart productive use solutions.

The Cooltainer is available for a list price of €45,000 excluding taxes in Sénégal. The pricing structure for households is designed in a way that enables customers to save not only from the initial cost of purchasing a refrigerator but also in the long run by avoiding high electricity bills.

Thus, the boxes have sizes of a small or big fridge, but do not require the high upfront cost of owning a fridge.

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smal-

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₽m,

PV-

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ated s the nce and peater while onnecand ice at ease ported.



#### 2.2.7. Cooltainer® PCM

We are currently working on the second version of the Cooltainer, which is called the Cooltainer PCM. PCM stands for phase changing material and is used as a cold storage. In operating times with solar power supply, this material is frozen and the energy is stored thermally. At night, the material melts and cools the storage space by absorbing thermal energy. With this process, chemical storage (Li-lon or lead acid batteries) is no longer needed to provide a 24/7 cooling power supply. The reason for using phase change is the gain of enormous amounts of energy which can be stored during phase change. Therefore PCM technology is extremely efficient. The tricky part is the design of the ice storage and the material itself. We use an environmentally friendly material which consists of more than 99 % of water.

The Cooltainer PCM will be market-ready in Q4 2023. Instead of the battery and a cooling aggregate, it uses the phase changing material. The Cooltainer PCM is equipped for hybridization with (mini) grid power. This way it can become an additional energy storage (in the form of cooling) of the electricity we produce in the Solartainers. The PCM technology is a major improvement of the Cooltainer, since it increases the cooling power from 2.4 kW to 11 kW, which guarantees an inside temperature of -2°C to 8°C in the container with an ambient temperature of 43°C.

The improved cooling power of the Cooltainer PCM opens up new markets. Additionally to fruits and vegetables, it enables the customer to store meat and even fish. Meat usually requires a maximum temperature of 4°C. Fish can be stored in the Cooltainer PCM in combination with crushed ice. The cooling of meat and fish is a great asset, it will significantly increase the attractivity of our product and the number of potential customers.

#### **Pricing Cooling**

The space in the Cooltainer is around 27 cubic meters. We suggest renting out nine cubic meters to allow air circulation and ensure the cold temperature in the entire Cooltainer. We offer two different sizes of boxes with a volume of 75l and 150l. The prices per month are around €5 and €10. The workload of the Cooltainer varies according to the harvest seasons. With an average workload of 44 % the Cooltainer amortized itself after 9 years. The replacement of the batteries, cooling unit and inverter are considered in this calculation. With the Cooltainer PCM the replacement of the batteries is not necessary and it saves replacement cost. The Cooltainers lifespan is 15 years.

#### 2.2.8 Watertainer®



The Watertainer is easy to transport, completely self-sufficient, offers a customized built-in water purification system, called FilterUP, and an off-grid solar system which provides the needed electrical power. Up to 3000 liters per hour can be purified by the Watertainer. It is equipped with a battery storage, allowing the system to operate completely self-sufficient and withstand the harsh conditions of Africa's off-grid regions. The robust 20' feet container design makes the Watertainer ideal for all common logistics solutions.

The Watertainer not only offers people access to clean drinking water, but the installed solar system also provides electricity for other purposes and businesses. An integrated phone charging station can help the communities to charge their electrical devices. That way, the Watertainer can develop into a business center. Besides the water purification system and phone charging station, the Watertainer also has enough space to allow the operator to set up a little shop inside the container, enabling a kiosk where people can buy and sell different products. Depending on the water quality, which can be determined beforehand by conducting water tests, different water purification systems can be deployed. To improve water quality an ultrafiltration system is used. If even better filtration is required (eg. brackish water) it is possible to deploy a reverse osmosis system.

Depending on the water quality and the technical configuration the list price of the Watertainer is around €70,000 excluding taxes.

#### **Pricing Water**

We intend to earn around 5 % on the sold water, since water is a human right and should be as affordable as possible. The 5 % margin represents a small financial buffer for us for unexpected costs. The buffer increase the sustainability of the project, since the long-term stability of the water supply in combination with a fair price is in everybody's interest.





#### 2.2.9 PumpUP®, CoolUP® & StreetUP®

Our product portfolio includes the PumpUP, CoolUP and StreetUP, which are technologies that offer solutions for the off-grid market. The technologies are PV-powered, easy to install and long lasting with nearly zero operational costs.



#### PumpUP®

- 100 % autonomous
- · 1000 9000 liters/hour
- 0.48 4.5 kWp
- · (2 12 PV panels)
- · Borehole max. depth
- 10 230 meters
- List price excl. tax starting from €2,500 in Sénégal



#### CoolUP®

- 100 % autonomous
- 8h electricity for 24h cooling (PV panel with 150 - 200 watt is sufficient)
- 0-10°C at ambient temperature of 40°celsius
- · patented technology
- List price excl. tax of €700 in Sénégal



#### StreetUP®

- · 100 % autonomous
- possible to mount on existing poles
- replaceable lithium-ion battery
- PV module 35-100 watt for up 20,000 lumen
- List price excl. tax of €950 in Sénégal

#### 2.2.10 Power-Blox

The financial viability and benefits of constructing mini-grids are dependent on villages having an adequate number of customers and houses that are in close proximity to each other, rather than being widely dispersed. However, in order not to endanger the social peace in the villages, a solution should also be offered to these inhabitants that are located at the outskirts of the villages. Solar home systems are not a viable option due to their high cost in relation to the available power and their inability to support productive use. Solar kits for individual houses are still conceivable, but they are very expensive.

This is where so-called nano grids come in. Power-Blox is one of these suppliers, but it has a considerable advantage that also enjoys worldwide patent protection; swarm capability. This means that individual installations can be connected to one another, creating a mesh network that can be scaled as desired and does not require any complex configurations during installation, meaning that it can also be set up by technicians without special knowledge. This reduces OpEx by 70 % and CapEx in terms of installation costs tremendously. A PBX-200 has a continuous power output of 200 VA and a battery capacity of 1,200 Wh. The partnership and the take-over of the majority of Power-Blox AG thus

supports our goal of a modular solution approach.

AGT AG and Power-Blox AG have a license agreemen according to which AGT AG has the exclusive distribution and manufacturing rights in Africa for the Power Blox technology.

In addition to that, Power-Blox AG is to be acquired b AGT AG in the course of a capital increase at a (preferential) valuation of €1 million. Power-Blox AG has deloped an international patent application for a swarn algorithm with the number WO 2017216308 and the PBX-200 and PBX-400 solar battery system based or



#### 2.2.11 Solarbakey

or the

The operations of the company Solarbakery are closely costs. linked to those of AGT AG. Their prototype is currently under construction on the AGT AG compound in Germany. In the future, the Solarbakery will be produced and assembled in the AGT production center in Sénégal. The self-sufficient "plug-and-play bakeries" are powered 100 % by PV electricity and eliminate the need for expensive, environmentally harmful fuels. The integrated power supply means that new markets can be opened up in the most remote areas of the world. Areas where production of fresh baked goods previously seemed unthinkable. The intended side effect is that the sustainably produced baked goods promote local value chains and open up completely new prospects for local people. The highly profitable business model creates jobs and thus supports the sustainable development of the local economy. After all, on average up to 120 traders are employed per bakery.



#### **Technical Specifications:**

- Measurements (LxWxH): 13.716 x 2.438 x 2.896
- Energy Output: 51,6 kWp | Energy Storage: 76,0 kWh
- Output Bread Production: 75 kg/hr (3,000 bread/day)
- Equipment: Rotary Oven, Spiral Mixer, Tables
- Layout fold-out rooms for fermentation & storage

sting

#### 2.2.12 Overview

ittery		ű.		
or up t	Product	Description	Tested	Development Status
ed by refe-	Solartainer® Amali	50 kWp	implemented in more than 20 villages	on the market
	Solartainer® Kani	75 kWp solar power plant	not tested, but technically similar to the Amali	ready to market
	Cooltainer® (20 feet)	<ul> <li>cooling 2 - 10°C at 35°C ambient temperature</li> <li>battery &amp; cooling aggregate</li> <li>cooling power: 2.4 kW</li> </ul>	technically tested, but not the operating model	on the market
	Cooltainer® PCM (20 feet) & (40 feet)	<ul> <li>cooling -2 - 8°C at 43°C ambient temperature</li> <li>cooling for fish and meat</li> <li>PCM; no batteries needed</li> <li>cooling power: 11 kW</li> </ul>	<ul> <li>second prototype being built</li> <li>tested in Germany Q1 2023</li> <li>field test Q3 2023</li> <li>20 feet ready to market Q4 2023 / 40 feet Q1 2024</li> </ul>	in development
s deve arm :he	Watertainer®	• water purification system • up to 5000 l / h	<ul><li>prototype is built</li><li>tested in Q1 2023</li></ul>	ready to market
d on it	CoolUP®	fridge	stock in Dakar	on the market
	PumpUp®	water irrigation	stock in Dakar	on the market
	StreetUP®	street lights	stock in Dakar	on the market
	LinkUp®	internet	<ul> <li>tested, but business model not tested</li> <li>regulatory licenses represents a barrier</li> </ul>	in development
	SolarUP®	solar-battery-system for on-grid and off-grid	stock in Dakar	on the market
	Water Dispensing Unit	payment through RFID chip cards	tested in Germany Q1 2023	concept idea (technical aspects work)

# 03

## **Business Models**

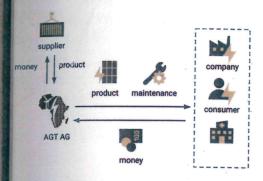
3.1 System Provider Model

3.2 Leasing Model

3.3 Utility Provider Model

Our diverse range of products and services are delivered through three distinct core business models, each designed to meet the unique needs and financial capacities of our target markets.

### 3.1 System Provider Model



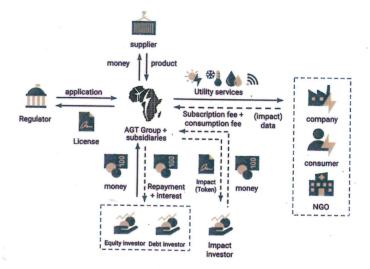
As a system provider, our operation encompasses a wide range of services, including engineering, procurement, construction, and maintenance of solar systems. In this model, our primary revenue stream comes from the outright sale of our products or systems to third parties. These include mini-grids sold to government entities, Cooltainers sold to farmers or non-profit organizations (NGOs) or PV battery systems sold to Residential clients. Our target customers under this model encompass a wide range of entities, from individual consumers and companies to NGOs like the World Food Programme (WFP). By offering comprehensive services beyond the product sale, we ensure our clients receive reliable, high-quality solar solutions tailored to their specific needs and circumstances.

# 3.2 Leasing Model



In the second business model, AGT serves as both system and financing provider, offering our customers the option to lease our solar solutions. This business model incorporates all the services of the system provider, with the added element of financing, giving clients the flexibility to access solar solutions without an upfront capital investment. This model generates revenue primarily through leasing fees and service & maintenance charges. It opens up opportunities for companies, consumers, and NGOs who wish to transition to renewable energy but may have financial constraints. An example of this business model could be leasing PV-battery solar systems to commercial and industrial clients, such as farmers.

# 3.3 Utility Provider Model



As a utility provider, AGT, via its local country subsidiaries, offers end-to-end solar solutions for its customers, handling all aspects from engineering, procurement, and construction to service, maintenance, and operations. Unlike the previous models, this model goes a step further, involving AGT's operation of the solar systems on behalf of the customer.

In this model, revenues come from service charges and impact monetization. AGT works under license agreements with regulators, pre-financing their projects through partnerships with impact investors, equity investors, and debt investors.

AGT's services under this model are not limited to providing electricity to villages but extend to supplying other solar solutions such as Cooltainers to farmers in villages. By acting as a utility provider, it can reach remote communities and offer sustainable, cost-effective energy solutions, aligning with the mission to combat energy poverty and foster socio-economic development in Africa's most marginalized communities. Each of these business models have been designed with the financial realities of the target markets in mind, ensuring that AGT can provide flexible and affordable solutions to customers with different financial capacities and needs.

# 04

# Customer Benefit and Impact

4.1 Theory of Change

4.2 ImpactStories

4.3 Impact Measurement and Reporting

4.4 Impact Monetization

4.5 Vision, Values and Business Objectives

# Our Impact for the Climate and our Customers

Our customers are, on the one hand, villagers and people that neither have access to an electricity grid nor do they have access to clean water, cooling or internet. Other customers, on the other hand, only have access to productive electricity when using a diesel generator, which is inefficient and therefore stipulates a high LCOE.

We are combating energy poverty and offering resilient solutions to the effects of climate change to rural African communities. An important USP here is that AGT does not limit itself to the provision of electricity, but also offers the application of electricity. Thus it additionally offers access to clean water, decreased food loss via cooling, clinics to refrigerate life saving medicine, provide light for children to study at night, and contributed to 11 SDGs (directly and indirectly). This accelerates development in the village, their productivity grows, which in turn flows back to AGT in the form of higher revenues. With this award-winning holistic approach, AGT is an industry role model. In essence, we have observed the tangible effects both prior to and following the introduction of electricity in a community, allowing us to quantify the transformative power of energy utilization for our customers.

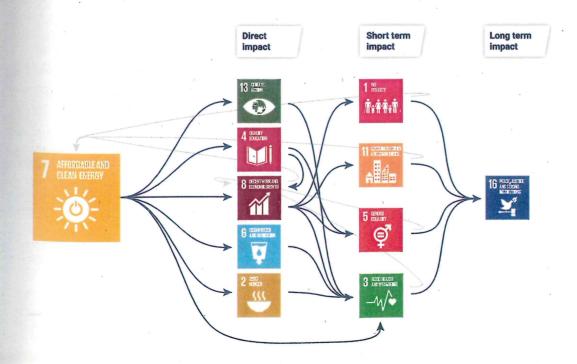
As a social enterprise, our mission is to tackle ecological challenges, while empowering people to achieve more self-determination and growth through sustainable energy solutions. AGT's solutions target households, SMEs, social institutions and farmers in rural

areas with no prior access to electricity or highly dependent on diesel generators. We provide our services in the Least Developed Countries (e.g. Niger, HDI of 189/189) where we bring socio-economic development opportunities to the countries that are suffering the most from the effects of climate change - even though they have the least responsibilities for it.

Our work is oriented towards the 17 Sustainable Development Goals (SDGs) issued by the UN in 2016. These goals were set out to drive forward the improvement of social, ecological and economic conditions around the world by 2030. Through our services, people can use cooling chains, internet, light and more, but more importantly, they are given the chance to make a difference in their home communities and create a better future for the next generations. In fact, electricity means opportunities for people, businesses and farmers and new perspectives for future generations. AGT's work on providing access to electricity and services that allow a productive use sets exponential development in motion and enables entire villages to write their own success stories.

# 4.1 Theory of Change

Since the first field studies together with the Technical University of Munich, it has become increasingly clear and measurable how AGT actively promotes the achievement of 11 SDGs through various interactions. The ImpactModel illustrates these effects and thus shows AGT's theory of change and motivation: electricity is the foundation and prerequisite for real sustainable development.





Supplying people with affordable and clean electricity is the core of AGT's vision and daily work. AGT estimates that an average ImpactSite contributes to SDG7 producing up to 75 MWh/Year of renewable energy, and serving around 2.500 people per year.



The solutions within the ImpactSite allow small businesses to boost their productivity, create jobs and raise income levels. AGT considers entrepreneurship in the village to be particularly important in driving socio-economic development forward. AGT estimates that an average ImpactSite contributes to SDG8 empowering up to 40 SMEs per Solartainer and up to 40 SMEs per Cooltainer.



AGT's technology is based on 100 % solar energy. It provides renewable energy for productive and income generating activities, as well as technological innovations in water supply, water pumping and refrigeration for the agricultural sector. The Solartainer alone avoids up to 137 tCO2/year when compared to conventional diesel generators, while the Cooltainer mitigates around 11 tCO2/year.



Access to AGT's services bring considerable productivity gains to the village (both in terms of time and income) which often result in better education. Finally, electricity provides access to information through the access to internet, radio and television and allows children to study in the evenings. AGT estimates that an average ImpactSite improves access to education to up to 250 households per village.



Electricity allows the operation of water purification systems, which AGT supplies and operates through the Solartainer. Furthermore, electricity enables the operation of irrigation pumps for agriculture. AGT estimates that an average ImpactSites contributes to SDG6 providing access to up to 30.000 liters of clean water per day / per village.



Every year, about 40 % of the fruit and vegetable harvest in sub-saharan Africa goes to waste due to the lack of adequate refrigeration systems. The Cooltainer not only preserves the food supply for the population, but also provides opportunities for farmers to increase yields. AGT estimates that an average ImpactSites contributes to SDG2 avoiding approximately 300 tons of food losses a year.



AGT understands poverty primarily as lack of opportunities and self-determination. The productive use of tricity has a particularly positive impasocio-economic development in the v (SDG 8) by creating new opportunities and increasing income through employment. In addition, solar power provide affordable access to electricity and leto cost savings in many areas of daily

business life.



Electricity increases security and red crime in the local communities. A key factor here is light – both in househo and through street lighting. Moreovel providing new opportunities, several causes for migration are being elimit Electricity thus enables AGT's custor to create safe, inclusive, sustainable resilient communities.



AGT's electricity enables many wom save significant amounts of time in 1 day-to-day lives and in turn to invest more effectively in their own educati family or business. In order to streng women in the village, AGT implemer men's Empowerment Programs toggwith our experienced partners.

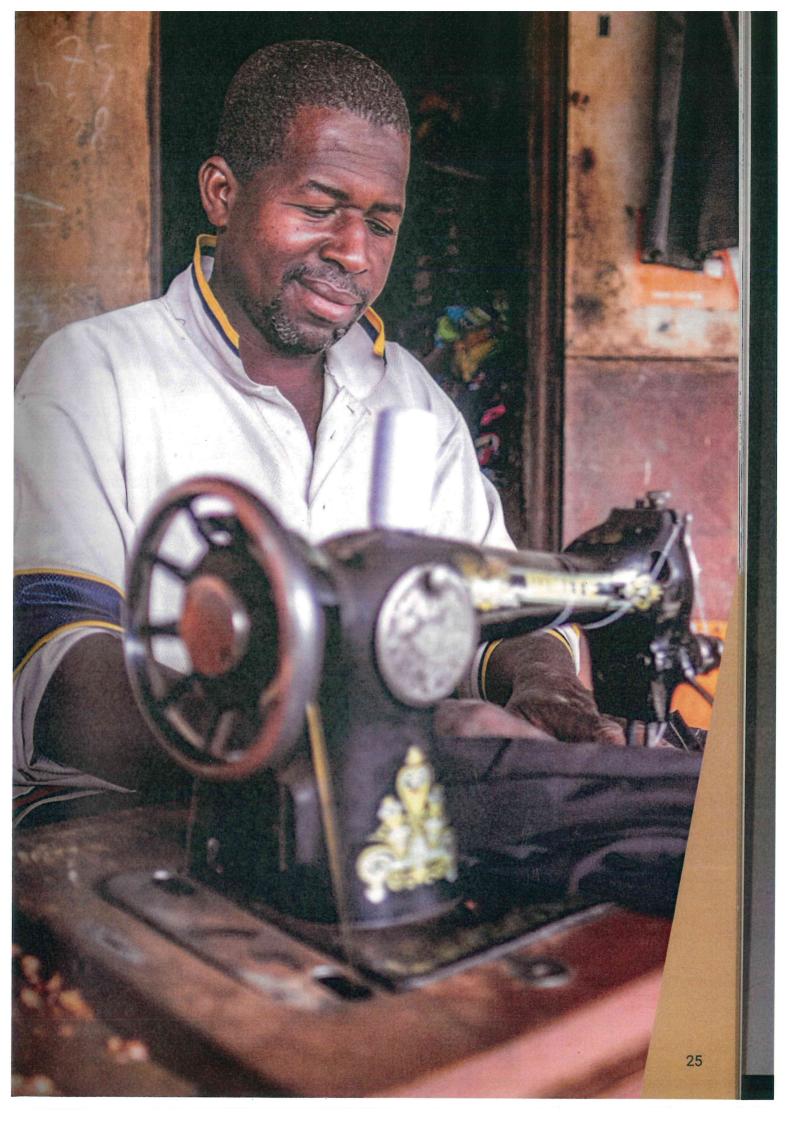
AGT estimates that the AGT Group vinclude up to 200 women per Impac our Women's Empowerment Progra



By replacing diesel generators, kero and oil lamps, AGT reduces air pollifrom particulate matter and nitroge oxides. This reduces the risk of discussion as strokes, heart attacks, lung and chronic and acute respiratory cases. The increase in food supply an availability of drinking water furthe bute to the improvement of physiol health. Finally, hospital wards are swith stable electricity which drastic improves their quality.



AGT firmly believes that creating o nities through basic infrastructure the root causes of some of the gre challenges in the Global South, rat just addressing the symptoms. AG ceives electricity to be an effective of combating the root causes of n and flight, and of promoting inclus societies and peaceful communiti stable income can ease tensions I ethnic groups and in some cases prevent them from joining terroris have hired several young people a

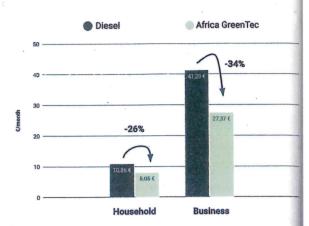




### 4.2 ImpactStories

AGT's services and solutions offer lower LCOE, reliable energy access and price-stability. The customers become independent from supply shortages and fluctuating fossil fuel prices. The constant price enables long term planning stability, which is advantageous for end consumers and companies. On top of that, customers receive reliable provision of energy, since the power cuts of the public grid will not affect them anymore. AGT's favorite stories are about customers who wanted to leave their villages to emigrate in the hope of new opportunities, but who decided to stay with their families and in their community after getting access to electricity, and thus experiencing exponential productivity gains. Let's take a look at how AGT's solutions change people's lives:

## Per village, this means up to €21,000 savings per year per Solartainer







Thanks to AGT's reliable energy, I can finally work without interruptions. My old diesel generator was constantly failing and too expensive, making smaller jobs unprofitable. Now I have a lot more orders and my customers no longer have to drive all the way to Bamako to get custom-made products. This way the jobs and the money stay in the village! I have hired several young people and now I employ over 20 people. To me, my business means independence, self-sufficiency and freedom. I earn more today than I did in Algeria or Morocco - why would I want to leave?

Modibo has a lot of responsibility. He is the main provider for his extended family. The income from the business even allowed him to build a house for the family a few years ago, and his siblings appreciate his support.



2 h

interrupted electricity supply through diesel generator



8 h

reliable power per day, a productivity increase of 300 %



34 %

savings on energy costs s up to





During the rainy and harvest season, I have very few daytime customers. Thanks to electricity and light I can now open my shop in the evening. I also bought a refrigerator. Now I not only throw away less food, but I also attract new customers. They come to buy cooled products and then hang around - my shop has become a meeting point for the village and my income has multiplied. I am now able to feed more than 60 people in my family!

Diessira runs a kiosk in Mali. If the diesel generator was empty, the drinks were served warm. At 6pm it became dark and her business was closed early when the sun went down. Today she always serves cool drinks and is open in the evening. In the future she wants to open more local shops and help people from her community by not having to travel to Bamako to do their shopping.

for his come from ed him to nily a few



Serial Entrepreneur



Without electricity it is impossible to turn my ideas into reality, electricity is the foundation of everything. Electricity enabled me to increase my productivity by 70 % and then to open a restaurant, where I was able to hire six people. I want to help the village by starting businesses and creating jobs. As an entrepreneur, I am independent and can make my own path - and I couldn't be happier. Ten years ago I was already in Morocco and wanted to go to Europe. If someone offered me to move to Paris today, I would refuse - I have everything here!

Nassou's family had saved €15,000 to send him to Europe to find work and send the earnings to his family. On the way there, his uncle called him: "Nassou, come back, we are getting electricity". Nassou took the next bus and came back home. And he bought a chicken farm with the money, opened two restaurants and hired six people. Now he is a happy and healthy person, has a future, a family he can take care of, social recognition and is a role model for many others.





Bara N'diaye Farmer



With my old pump my work was not economical, because the costs for maintenance and diesel were really high. Besides, the use of the diesel pump was damaging the soil of my fields. With the solar water pump system from AGT I can produce more and expand my business. The Cooltainer will help me to keep my crops fresh longer so I can sell it at a good price at market for a longer period of time.

Bara N'diaye is a farmer in a in Senegal. After first leaving village to seek his fortune in city, he came back to his villa become a farmer and till his ly's land. He bought a diesel to irrigate his fields for €1,00 dumped €275 worth of diese his pump every month, and a the harvest 40 % of his crop : led, leaving him with just eno money to live an acceptable Today he uses a solar pump. leases it, pays €200 for 3 yea then the pump is his. He puts harvest in a refrigerated cont and the food loss rate drops few percent, resulting in tripli income.









100 % income increase possible due to perserving through cooling



€22,50
monthly usage fee if a box in the Coolta
(room for up to 60 the cooltangle)



€275

monthly operating costs for the diesel



€200

monthly leasing costs



#### 3 years

later the customer owns the solar water pump system



## 4.3 Impact Measurement and Reporting

For us, anecdotal evidence about the impact of AGT's services in the form of such stories is not enough. Just as in our financial controlling and reporting, we want to be able to monitor and understand our impact as the basis for ongoing impact management. Measuring our impact is a crucial prerequisite for this endeavor of becoming a data-driven company not only in finance and operations, but also in our approach to scaling our mpact. Measuring our impact enables us to credibly report our impact to external partners to increase trust, such as impact-driven investors or customers of CO2certificates, which typically increase in value the better we are able to provide transparency around the social co-benefits of the certificates we are generating. Consequently, measuring impact becomes not only an internal tool to improve impact performance, but also a tool to get better access to impact-driven capital markets.

We collect data for metrics that are aligned with the most acknowledged frameworks in the impact investing scene (e.g. SDGs, GIIN IRIS+) as well as sector-specific standards (e.g. GOGLA) to ensure comparability and clarity while complying with the five dimensions of impact measurement set by the Impact Management Project. After collecting data in a pilot study in our village in Ndiob, we are now ready to collect more evidence of our impact in a more streamlined fashion that ensures ongoing impact monitoring and reporting. For this, we are using an external software tool called leonardo. The software makes primary data collections easy while ensuring high quality data by automatically processing the data, sorting out outliers and checking for data validity.

This external verification adds further credibility to our impact numbers and keeps costs low when compared to expensive field audits. In the end, we are able to monitor as well as report our impact based on acknowledged frameworks and reporting standards. The kind of data we are collecting goes far deeper than just reporting on the number of customers or number of kWh we have sold. Understanding and credibly repor-

ting our impact means for us, to quantitatively verify those effects and outcomes that we hypothesize within our theory of change. Consequently, we are measuring the effects that our interventions have in terms of livelihood outcomes, such as access to education, health, life satisfaction, productivity, peace and security. Here's a list of exemplary indicators besides output metrics such as the number of customers and kWhs we are tracking, showing the depth of impact data we report:

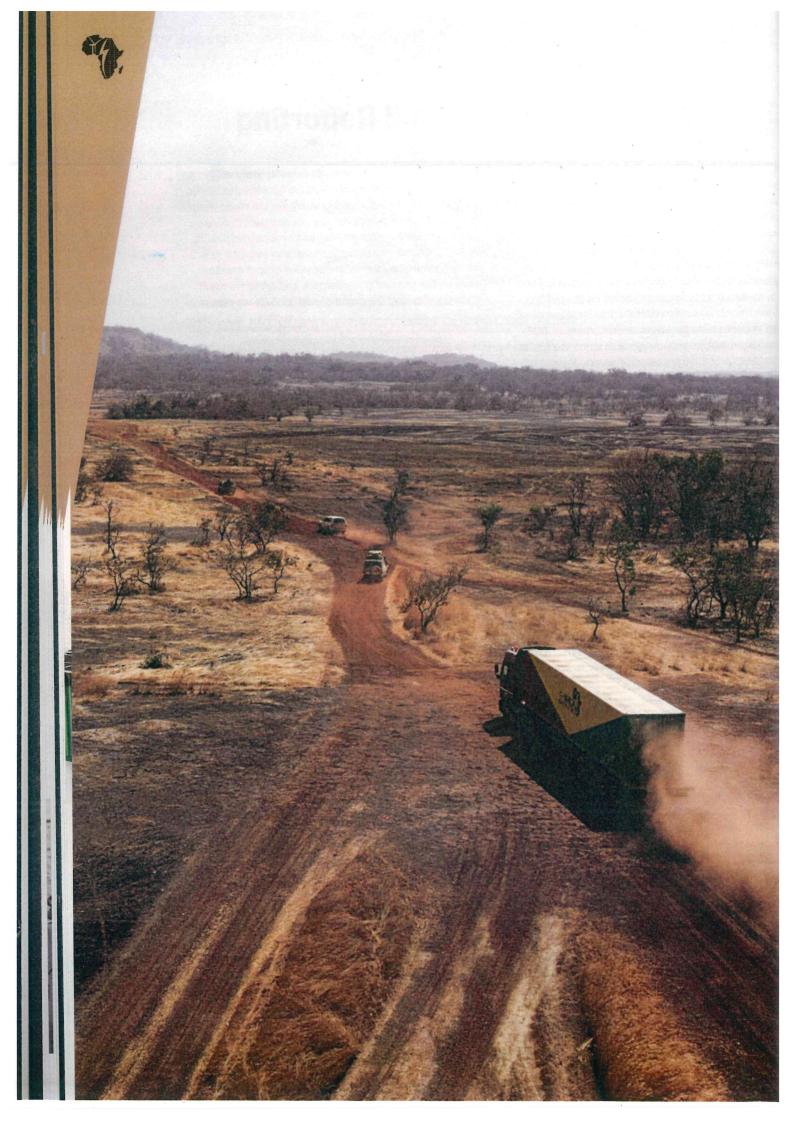


- below international poverty line
- International Wealth Index (IWI)
- Prevalence of moderate or severe food insecurity in the adult population (only customers)
- · Cantril Ladder Scale / life satisfaction (today)
- Study hours
- Completion rate: Primary education
- · Time for water collection
- Proportion of adults (15 years and older) with an account at a financial institution or mobile-moneyservice provider by sex
- Unemployment rate
- Proportion of customers willing to stay in their community
- Proportion of customers that feel safe walking alone around the area they live

## 4.4 Impact Monetization

One of the most promising revenue streams for AGT in the coming years will be the innovative concept of impact monetization. Impact monetization refers to the process of assigning a monetary value to the social or environmental impact created by a particular activity or initiative, allowing for the quantification of positive or negative effects on society or the environment in tangible monetary terms. Given AGT's extensive involvement

in creating measurable social and environmental value with our various projects, we are uniquely positioned to monetize this impact. We are eligible to generate revenue by selling our created impact on the voluntary carbon market. Currently, we are in an exciting pilot phase with our partners Loom Impact. Together, we are working to tokenize our impact using groundbreaking blockchain technology and subsequently market the



g carbon credits. Below, it can be found the first token of the pilot project with Impact Loom impact created in the village of Amaloul, Niger. additional credibility to this token, a third-party measurement company - leonardo - conducted to verify and validate the impact created, by utie most internationally accepted methodologies. ers of such impact tokens will also have access omplete Impact Audit conducted by leonardo. market these new tokens at \$29 / token. Thehe sale of such tokens might sum up to a total UR \* 1.197 credits = €31.122 / year for each Site. This revenue stream could be potentially nen the actual revenue stream from the sale of ty!

ential in this arena is significant. As we are creating a substantial impact with our active there is a tremendous opportunity for revenue growth once the pilot has been successfully tested. This potential is further underscored by the current trends in the EU carbon price development. The price is expected to triple by 2030 due to increased demand for carbon credits, thereby amplifying our revenue potential even further in the coming years.

For a concrete example, consider our UNHCR Melkadida project, where we could earn an additional €10,000 per year by selling carbon credits. This calculation is based on the assumption that the carbon price is around €26 per metric ton of CO2, and we save 378 tCO2/year (600 kWp plant capacity) with our Melkadida plant. Furthermore, our commitment to comprehensive impact measurement adds even greater value. We're not merely measuring CO2 reduction; we're tracking other SDG metrics, allowing us to sell the credits at a premium since we can prove an impact that goes beyond mere carbon emission reduction.

### Vision, Values and Business Objectives

ory of AGT began with the idea of bringing offar power mini-grids to rural areas of Mali. Aida sten Schreiber knew from the start that electrine key to enable socio-economic opportunities s a hub of self-determination. Founded in 2016, is one of the top leading mini-grid developers, nd operating in low-income countries, especially and East Africa and now further expanding. The ly was established following the visit to Mali by man CEO and Founder, Torsten Schreiber and an wife, Aida Schreiber (Africa GreenTec Coand majority AGT AG shareholder). During this couple were requested by the Malian Ministry y and Water to devise a strategy that will bring ty to the country, and substitute the 20 MW ower plant, which used approximately 140,000 fuel per day. In SSA, especially in West Africa, esel fuel generators are widespread, especially areas (off-grid), and they supply electricity at onomic and ecological costs. As a very comadvocate of climate protection, this was in stark t to Aida and Torsten's views. Against this backthey both developed the concept of a social se that would provide electricity to millions of and thus empower people in rural areas.

#### tatement

vide 3 million people with electricity enewable energies, cooling, water ent and internet access by 2030.

#### Statement

npower people to achieve more etermination and growth through nable energy solutions. After the first villages were electrified, it quickly became clear that mini-grids could only be operated economically when economies of scale developed. Many small mini-grid developers and operators do not get access to the best possible technologies and the funding pots at the scale they need. Economical operation of mini-grid sites requires a minimum number of about 50 sites. Moreover, there was the realization that economies of scope could be leveraged to provide a full range of utility services, and with the resulting creation of a holistic ecosystem, the economic prospects for success in a village could be greatly improved. Against this backdrop, the vision of a pan-african multi-service asset light utility provider.

Having this in mind, we want to acquire investments to enter new markets and scale our operations in existing markets. More specifically, we are targeting market entries in Mauretanien, Ghana, Kenya, and Uganda while scaling up our operations in Mali, Niger, Madagascar, and Senegal. The vision is to provide a lean management structure by the AGT AG in Germany, which is responsible for the strategic management decisions, performs the brand communication, ensures the quality of the products, works on research and development of the products, provides a framework for the AGT subsidiaries and the network of sales managers to penetrate the markets. The production, logistics and most of the value creation will take place in the African countries to reduce cost of the products, reduce the logistics, create jobs and transfer knowledge. The networking on the ground will be conducted in the countries to unfold the potential of the subsidiaries and sales managers and their expertise about the local markets.

# )5

# **Business Units**

5.1 AGT's Strategy to Scale

5.2 ImpactSite

5.3 C&I Projects

5.4 Residential

### 5.1 AGT's Strategy to Scale

Activities in the Public-Private-Partnership environment require long project development times and are more likely to generate revenue in the medium to long term. Additionally, a profitable roll-out of the mini-grid business requires the exploitation of economies of scale and can therefore only be rolled out expansively if the corresponding financial resources are available. In particular, village electrification requires a subsidy share of 20 % to 30 %, which is provided by Development

Financing Institutions (DFIs) in particular. However, these funds often require lengthy application processes and also require a significant company size. AGT has therefore decided to expand into other business areas that can be implemented faster and more independently of local authorities, where there is perceived high demand, and which require AGT's core competencies in solar energy. These are the business units C&I and Residentials.

### 5.2 ImpactSite®



For our ImpactSites in the villages we pursue a concession model. AGT undertakes to design, build and operate the Solartainer, Watertainer and Cooltainer. For our provided services, we collect a payment from the customers. The customer has to prepay the services. In order to promote our services payments can be made by the public sector (e.g. start-up financing or final payments). The prices for our services vary depending on the country. This holistic approach benefits the impact on the village on multiple levels, while it diversifies the revenue streams of the ImpactSite and mitigates the financial risks associated with the investment. In order to increase the usability of the provided electricity in the first place, corresponding machines and end devices (ImpactProducts) such as the CoolUP and PumpUP are required. Hence, AGT builds an entire offgrid solar

powered ecosystem. The products can be either purchased directly or bought with a lease-to-own model (three-year contract). Since our customers usually do not possess the financial liquidity for our products, the lease-to-own model is the way to go. Especially in connection with financing by local financial institutions, the supply of this terminal equipment can be an additional lucrative revenue source in the short term.

- Electricity, water, cooling and internet for the rural areas
- Customers: inhabitants of villages who buy services via AGT-platform solution
- · Business model: operator
- IRR: 14.2 %
- · Payback period: 8 years



### 5.2 C&I Projects

Another approach next to the ImpactSite and the smaller PV-powered products is the focus on C&I customers. Other than ImpactSites, C&I projects focus on commercial customers rather than governments or municipalities. Generally, projects range from supplying a hospital with PV power to selling a Cooltainer to a farmer association. Therefore the pricing model can be structured in many different ways. Usually the project ranges in terms of revenue for C&I customers between €100,000 to €5 million. The customers can choose from business models as aforementioned.



Usual customers are hospitals, hotels, energy intensive industries, farmer associations and organizations such as subsidiary bodies of the UN or SOS Children Villages. For instance, one of our leading C&I projects is to electrify three United Nations High Commissioner for Refugees (UNHCR) compounds in Kenya and Uganda. UNHCR is poised to transition their facilities towards the utilization of green energy. In line with this, they are eager to incorporate our PV systems into their energy infrastructure. At present, some of their compounds are connected to the main grid, which, however, is frequently susceptible to power cuts. Diesel generators serve as a backup during these outages, but their high operational costs and excessive CO2 emissions render them less than ideal. Motivated by these drawbacks, the UNHCR has opted to harness our self-sustaining energy solutions for their compounds. These projects, in particular, present us with unique opportunities to form new partnerships and embark on further projects, thereby bolstering our strategic standing. A testament to this, the implementation of the aforementioned projects has already enabled us to secure another project with the UNHCR in Ethiopia, scheduled for completion next year. This highlights the strategic significance of these projects in shaping our future prospects.

- Electrification of single off-taker with high electricity demand
- Customers: commercial and industrial customers (e.g. factories, hotels, UNHCR)
- · Business model: sale or leasing
- · IRR: 18 %
- Payback period: 5 years

### 5.3 Residential

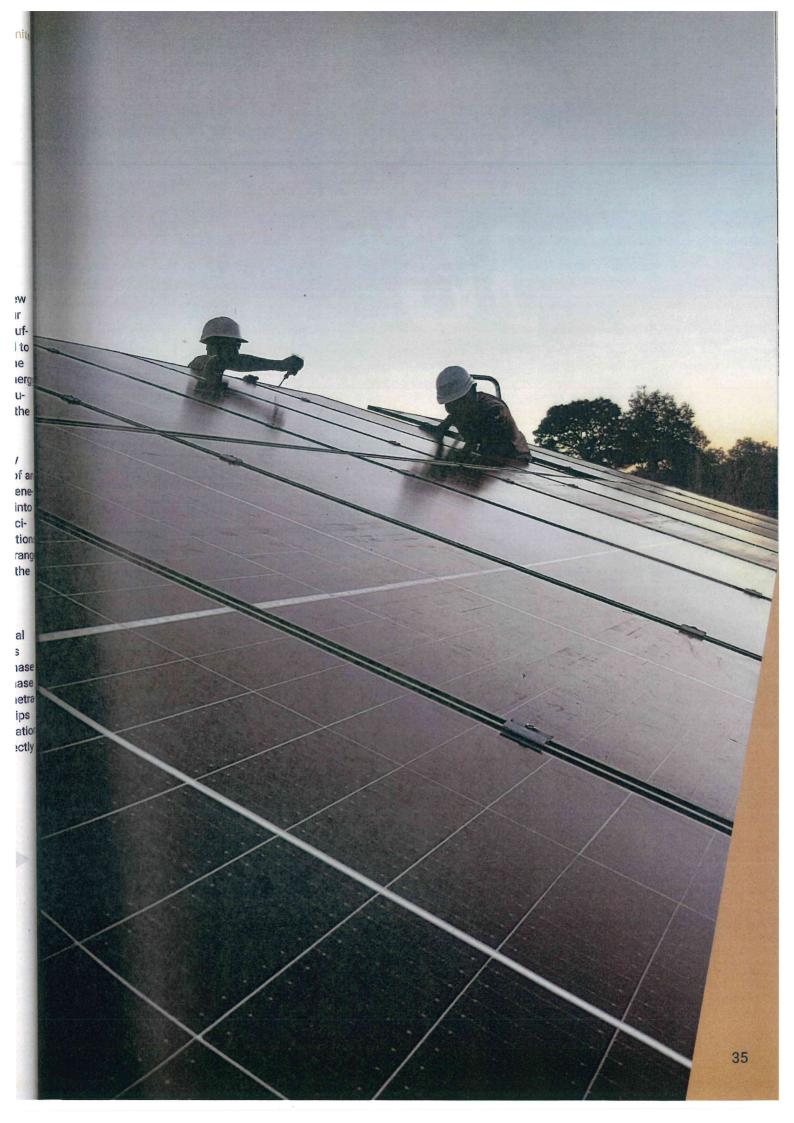
Expanding our scope with the introduction of our new business unit, Residentials, allows us to broaden our operational reach, now offering a reliable and self-sufficient energy supply to urban areas as well. Central t this unit's offerings is SolarUP, our versatile PV home solution meticulously crafted to meet the unique ene needs of private households. This self-sufficient solution eliminates the issue of power cuts, enhancing th continuity of power supply to residences.

Our SolarUP systems offer a unique benefit, as they can function both on and off the grid. In the event of energy surplus, residents have the opportunity to gen rate income by feeding the excess electricity back int the grid. SolarUp systems come in a range of capacities, from 5 kWp to 30 kWp, and battery storage optic from 5 kWh up to a substantial 120 kWh. This wide rar of options enables us to tailor the system to meet the unique needs of each client.

To ensure optimal service delivery, we conduct a thorough analysis of each client's roof and use local weather data to design a PV system that best suits their needs. Customers have the flexibility to purchas the system outright, lease it, or opt for a hire purchas agreement with us. Furthermore, to effectively penetr te the market, we have formed strategic partnerships with independent sales managers. Their compensations commission-based, where their rewards are direct proportional to their success.



- · Electrification of individual households
- · Customers: private households in urban areas
- Business model: sale or leasing
- · IRR: 17,4 %
- Payback period: 5 years



# 16

## Market Overview

6.1 Target Group, Market Size and Growth Trends

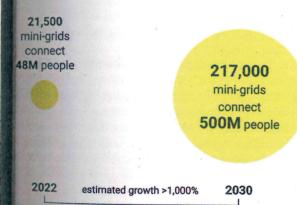
6.2 Value Chain and Value Creation

6.3 Positioning Against Competitors and Competition Analysis

6.4 Market Entry Barriers and Market Potential

### 6.1 Target Group, Market Size and Growth Trends

The African market offers enormous growth potential in the coming years. The continent will experience the world's largest population growth. Due to comparatively low average income and current infrastructure development, Africa is predicted to experience tremendous growth. The world bank estimates a growth rate of mini-grids from 21,500 in 2022 that connect 47 million people to 217,000 connecting 500 million people by 2030. The competition in the market is still relatively low, but will increase in this decade with the market development. AGT has the first-mover advantage, having entered several markets already and having established local expertise on the ground.



The market potential for mini-grids was analyzed by the World Bank in 2022 in a comprehensive study. Besides the enormous market potential, the study outlines several benefits. Mini-grids are a cost-efficient technology. They have positive environmental impacts: 210,000 mini-grids powered by solar energy would help avoid 1.5 billion tons of CO2 emissions globally, that's nearly twice the amount of CO2 that Germany emits per year. They also offer national utilities a win-win solution in the electricity sector by paving the way for more financially viable future grid expansion. Once the main grid becomes operational, AGT will have not only fostered a substantial demand for electricity, but also established a strong brand presence in the market. Furthermore, governments might potentially grant compensation payments for contracts held with them directly. In any way, the mobile nature of our systems allows us to recoup our investments by relocating them to other villages, providing a sustainable and effective payback strategy.

# 6.2 Value Chain and Value Creation

The roles in the value chain are the following:

- · Financing Institutions and Fonds
- Supplier
- · Project Development
- Project Implementation
- Service & Maintenance
- Operations

In this value chain AGT takes on the role as an EPC-supplier, so our responsibilities and value creation lay in engineering, procurement, construction and maintenance of the project sites. AGT is a turnkey solar installer, which means the products are completely finished and ready to use as we provide them. The customers have the choice to either secure funding for the project themselves or to let AGT secure funding including compensation for that service. Lastly, our customers can also purchase the full service package, which means that AGT provides and organizes the entire project.

#### Value Creation through the Transformation of Free Solar Power into Useful Services

AGT developed the Solartainer, Cooltainer and Watertainer and several more products that provide access to basic infrastructure, which is a significant benefit for our customers. The access to infrastructure unleashes entrepreneurial actionism and socio-economic development. Our technologies run on solar energy and have nearly zero operational cost while providing services such as clean water, cooling and electricity with significantly lower LCOE than fossil fuel-powered solutions. Moreover, our technologies have proven to withstand the harsh conditions of SSA. Besides the access and the low LCOE, the robustness, reliability and therefore planning security are also of enormous value for our customers.

#### **Direct Value Creation**

The value of our technologies is created by our research and development of the final products, by organizing the procurement and logistics of the partial products such as PV modules, batteries, inverters, cooling technologies that are part of the final products. We ensure the compatibility of the intermediary goods and their technical integration. AGT assembles the technological components and builds the final products. Finally, we do the operation and maintenance of the capital intensive technologies. This is done by remote monitoring, training of local people on the ImpactSites and providing professional technicians and engineers in several African countries.

#### **Indirect Value Creation**

AGT creates content for the brand communication, increases the marketing reach to inform potential customers about the technological solution, which is a



crucial factor to increase the sales rate of the products. AGT operates and manages a sales network, establishes and maintains contacts to decision makers and important stakeholders. In addition to that, AGT even organizes the financing of the projects in some cases. Overall, AGT offers the full package and services to realize infrastructure projects from the start to finish during its lifetimet.

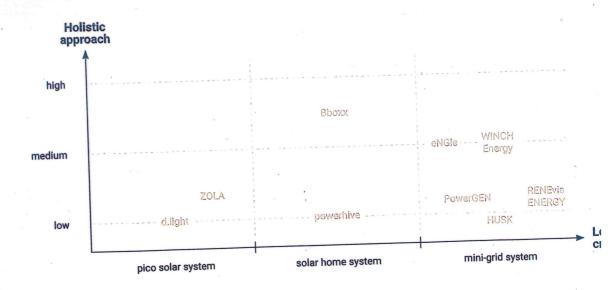
AGT is the linkage between final customers in sub-saharan countries, decision-makers or local authorities of the states and investors from all over the world. The knowledge of the needs, concerns and habits of the customers, authorities and the investors and the communication between the different stakeholders creates a high value. AGT brings customers and investors together and organizes a business model, which allows all parties to cooperate together and profit from each other and ensures a stable environment for investments and sustainable economic growth.

## 6.3 Positioning Against Competitors and Competition Analysis

The off-grid electricity market can be classified in three different application fields. There are the pico solar systems, solar home systems and mini-grid systems. AGT focuses on the mini-grid system. The pico solar products usually power low consumption appliances such as lightning, cellphones, etc. The SSA off-grid market is dominated by pico products, however, the downside of that is that these products can only power small appliances and it has been noted that over the past years there has been an increase of cheap Chinese

pico products on the market. AGT in contrast uses quality technologies made-in-Germany for our customers. The solar home technologies provide more p than the pico solar systems, but can usually not be used for productive use that is highly needed to bo the socio-economic development of the local computes. That is why AGT focuses on the mini-grid mar. The mini-grid systems provide sufficient electricity economical purposes such as craftsmanship and mercial businesses, which leads to a boost of the and medium sized enterprises.

The mini-grid market is big and has an even bigger potential. We are not the only company that realize potential. There are other mini-grid operators such PowerGen, Zola, powercorner, Bboxx, Winch Energy werhive, Redavia that offer off-grid electricity soluti Since the market and the market potential is huge, relative market competition is little. This will chang the next decade. However, due to our early engage in the countries we have a first-mover advantage. I ver, AGT sets itself apart from the current competi Some of the competitors use technologies from C while we use robust, made-in-Germany technologi combined with local experience and community e ment. Some of the other mini-grids operators use generators, while our Solartainer is solely based o and lithium-ion battery storage. Another major dif is that we do not only provide electricity, but offer facilities, internet and clean water. Our holistic co an advantage. It allows us to better coordinate an rate all the different parts of a community's infras as we bundle the entire project development in or On top of that, we can combine the planning proc logistics and maintenance of the different infrast per project site resulting in more efficient implem on. The holistic approach diversifies the revenue and mitigates financial risks. This increases the lity and planning security for AGT, the customers investors. Especially in the field of infrastructure stability is a great asset.



# 6.4 Market Entry Barriers & Market Potential

The current barriers to the market in West and East Africa are characterized by the following:

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Barriers	Details	Our Competitive Advantages
Grid Expansion Uncertainties	In our countries of operation, there are no clear plans or regulations in place for how developers will be compensated if the grid reaches the area.	The mobility of our technologies reduces part of this grid extension risk. In case of central grid extension to the rural area, the Solartainer can easily be dismantled within 24 hours and moved to another village.
Unclear Incentives	No tax subsidies or exemptions for mini-grid development.	From the start, AGT AG negotiates with local governments to assist with solar tax and customs exemptions. Due to the PPP agreements, the local government sometimes also covers the costs for the grid and feasibility studies - hence, significantly reducing the CapEx.
Public Private Partnership	Although companies are allowed to fully own and operate mini-grids, formalization of PPP has to be established first in these countries which may be critical to the success of the mini-grid market.	We have a great network with the different govern- ments through our local employees, partners and the local CEO. These connections often enable us to get PPP agreements with the governments.
Shortage of Experienced and Local Mini-Grid Labor Force	Shortage of qualified local labor with skills in mini-grid development and operation.	With assistance from the team in Germany and our partners in India and Mali, we ensure that new employees receive extensive training.
Households with Low Income	Due to the low income of the communities people may not be in the position to afford electricity and our services.	We offer all customers an opportunity to pay the connection fees in installments. Our tariff system is designed to enable even low-income households access to electricity for a very fair price. Moreover, our services increase income levels and purchasing power.
Political and Security Risk	In Niger and Mali, there have been reported multiple terrorists' activities and drug trafficking in the country, especially in the areas bordering Mali to the West, Libya to the North, and Nigeria to the South.	With the local team, we carefully select areas where to set up our ImpactSites. At the same time, due to the mobility of our technologies, it is easy to disassemble the Solartainer and Cooltainer within hours and operate it somewhere else. For example, in Niger and Mali, we already have experience, meaning that we have expertise (and inside information via networks) on which areas to avoid when traveling in the country. When the team is visiting the country, security is always provided.
Access to Finance	Many companies that want to participate in the market require capital, however, this is very challenging to acquire.	AGT AG uses its international network to source funds and loans for its projects (e.g. a successful crowdfunding campaign with private investors). Additionally, AGT successfully participates in tenders for grants (e.g. from the German Ministry of Economics and Energy, the German Ministry of Economics and Climate Protection etc.). Grant providers especially appreciate our approach as we deliver comprehensive ecosystem solutions, tackling issues in a systemic multi-dimensional

tackling issues in a systemic, multi-dimensional manner, rather than just addressing them linearly.



# Marketing and Sales

**7.1** Positioning in the Competitive Environment - USP, Marketing Strategy & Branding

7.1.1 Brand Awareness7.1.2 Pricing Strategy

7.2 Advertisement and Customer Acquisition

7.2.1 Overall Brand Communication and Advertisement

7.2.2 Marketing and Communication in African Villages

7.3 Sales and Distribution Channels

7.4 Project Implementation

7.4.1 Market Selection Process

7.4.2 ImpactSite Selection Process

# 7.1 Positioning in the Competitive Environment - USP, Marketing Strategy & Branding

#### 7.1.1 Brand Awareness

AGT is a well known brand on the African continent. On the one hand, the name Africa Greentec is easy to understand and to remember and shows in which field AGT operates in. On the other hand, with our successful social-media presence and digital marketing campaigns, we reach the network of potential customers (African diaspora) and stakeholders in a cost efficient way. This is a huge advantage, since Africa is characterized by a young and internet affin population. AGT's online presence enables us to communicate up to date, be flexible and inform about relevant milestones and innovations. AGT sets itself apart from its competitors that way.

AGT stands out from the mini-grid competitors, since the competition only focuses on electricity. Our USP is our holistic approach to provide different aspects of basic infrastructure. This increases the social impact and it minimizes the financial risks along the way due to the diversification of revenue streams. The ground network and many subsidiaries in several countries are another asset, which distinguishes us from the competition. The direct contact, local expertise and being present in the country helps immensely to realize projects. With over seven years of experience, our knowledge and processes constantly improve and help us to further penetrate the market.

Additionally, the added-value production is shifted from Germany to the African countries, which increases the customers sympathy for the company. AGT is perceived as an African company that uses high quality made-in-Germany technologies.



Excellent access to local governments and authorities, as well as end customers



Holistic approach leads to true value generation and productivity boost for the customer



**Environmental orientation** 

100 % green energy approach without diesel hybrid systems



One stop solution planning, building, operations – all integrated into the value chain



Quality provider "best-inclass" approach with regards to technology & high-quality German engineering



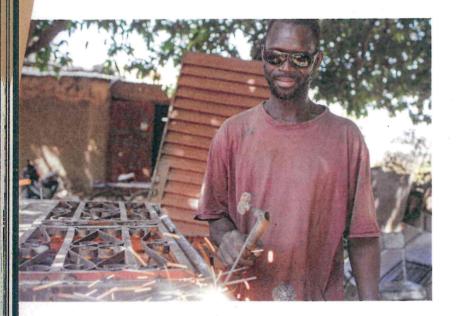
Platform enables integration of further profitable & impact generating technologies



#### 7.1.2 Pricing Strategy

We have provided electricity to around 60,000 people and about 989 SMEs. These customers are summarized below

Customers	% of Sales
T1: low-income households (up to 50W)	50 %
T2: medium-income household (up to 90W)	20 %
T3: high-income households and small traders who have activities in the evening (up to 180W)	10 %
T4: social and public institutions, e.g. schools, clinics, mosque (up to 1500W)	1 %
T5: businesses (valid only during the day, up to 650W, flexible/negotiable conditions)	19%



Most of our existing customers are low-income households. And despite small businesses making up to 20% of our electricity supply mix, the demand of low-income households is much higher, making them our highest revenue-generating customers.

Our target customers primarily include private households, social and public institutions such as schools and clinics, as well as small productive use businesses like welders, tailors, shops, carpenters, mills, and others. At the local level, the revenue generated from electricity is largely driven by these small businesses. The graph below shows the number of smart meters installed at our Solartainer in Mali, with the assumption that there are ten people impacted per connection or smart meter. The target number of smart meters is 5,711 of smart meters installed (57,110 people), we currently have 2,843 smart meters installed.

#### **Example of Installed Smart Meters in One Village in Mali**

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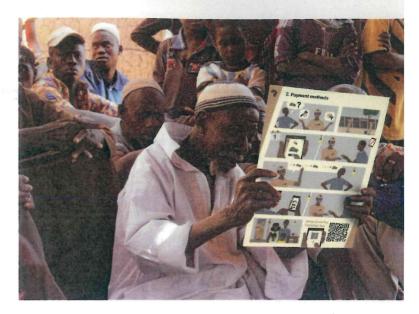
# 7.2 Advertisement and Customer Acquisition

#### 7.2.1 Overall Brand Communication and Advertisement

AGT's brand communication focuses on a) the broad public relation, b) a specialized audience, such as people and companies interested in sustainable development and Africa and c) on advocacy and investor relation. The first two groups are reached by our strong brand communication on LinkedIn and Facebook with over 1.2 million followers. We publish videos and pictures of our ImpactSites as well as background stories in order to illustrate how our products affect the lives of our customers. This suitable content for social media is watched frequently and increases our reach. For more detailed information, people can visit our websites africagreentec.com and africagreentec.investments. Besides that, AGT regularly appears on television and newspaper and is invited to podcasts due to its extraordinary business approach focussing on gross social impact. The media appearances multiply our reach and strengthen the brand awareness of AGT. To further increase our network and reach, regarding people and companies that are interested in sustainability and Africa, we participate in fairs such as the Impact Festival in Offenbach or join the association of social entrepreneurs. Similar fairs where we present our products and connect to companies are the Intersolar Munich or the Expo Augsburg. To foster and expand our investor relations, AGT participates in the German Sustainability Price, COP27 and the world economic forum. We expand our network there and meet important stakeholders such as international funds, development aid organizations, Socially Responsible Investing (SRI) departments of companies and development banks that are interested in our technological solutions.

# 7.2.2 Marketing and Communication in African Villages

AGT carried out the marketing of our ImpactSites in over 20 villages. We gained plenty of expertise and optimized our marketing process in the villages over the years. The marketing in the villages is executed in the following manner:



- During the village selection process we already start with the provision of information and sensitization for the project in the village. We also regularly organize informational events (Q&As) later on where we explain our tariffs, products and their efficient, safe and productive use.
- Informing customers through comics to include illiterate people.
- Once the Solartainer is deployed in a village, it effectively promotes itself.
- However, the initial adoption of our model often relies on early adopters who can demonstrate its effectiveness, as many of our customers have been let down by previous operators who failed to deliver on their promises. Once we establish the reliability of our electricity systems, more and more people join us as customers.
- To ensure excellent customer service, we employ a minimum of two individuals at each ImpactSite where a Solartainer is located: one electrician and one guard. These employees are responsible for acquiring new customers and regularly checking in with existing ones to ensure their access to electricity remains reliable.
- We actively encourage local early adopters to become ambassadors for our cause, as having an independent party spread the word about our offerings can greatly assist in our mission. The foundation of this approach is a dependable system that provides constant access to renewable electricity.

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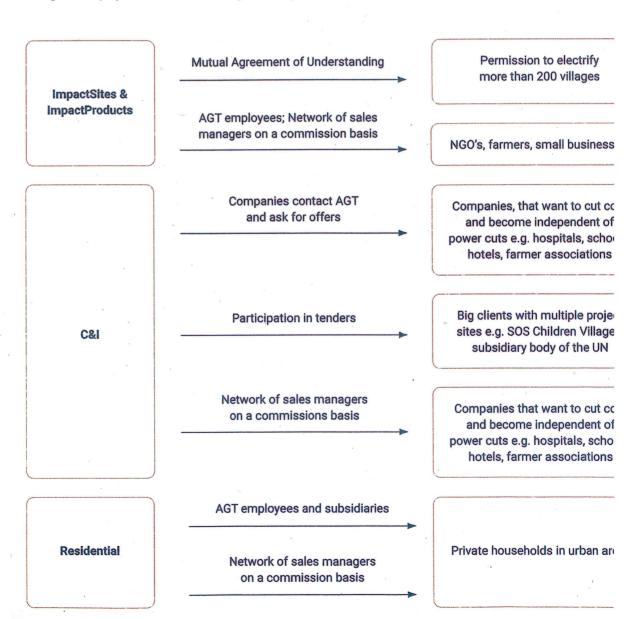
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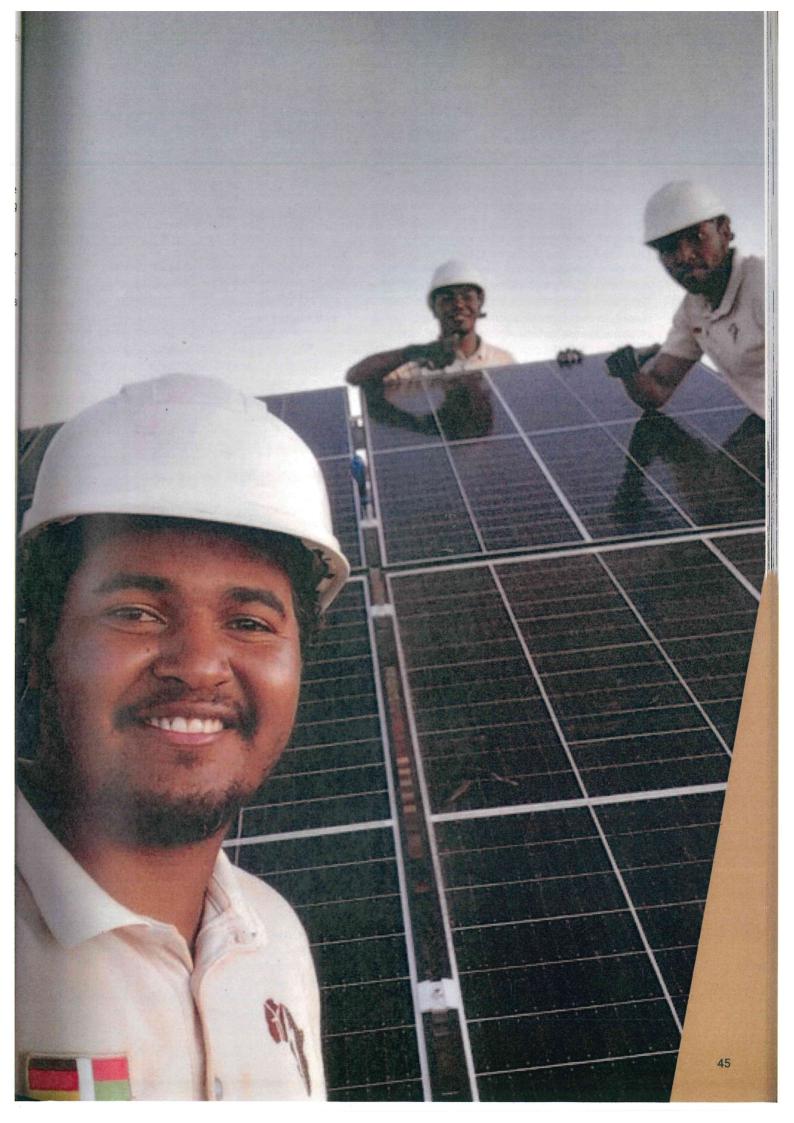


### 7.3 Sales and Distribution Channels

The distribution of our products can be separated into three different channels. There are the Memorandum of Understandings (MoU's) with the governments of several countries (Niger, Mali, Madagascar and Senegal) in which permission to electrify more than 200 villages have been agreed upon as a sales channel. Depending on the economical viability and the needs of the villages, the villages will not only be electrified, but also supplied with cooling infrastructure and water infrastructure. Second, there are C&I projects with two different approaches. On the one hand, AGT receives requests and orders from hospitals, schools or companies that want to electrify their site through our network of employees. On the other hand, we participate in tenders with large institutions, such as the SOS Children's Villages or sub-organizations of the UN. They want to electrify their project location or offices with renewable energies. C&I projects have the advantage of being

swift revenue generators due to their substantial s and financially robust customer base. The third sa channel, a network of local sales representatives i countries on site, is still in the development and te phase. On one side, we have AGT staff on the grou in the countries of Senegal, Mali, Niger, Madagasc Namibia and Kenya, who are doing sales as well a ject coordination. On the other side, we have a net of local sales managers which is being establishe who distribute our technologies on a commission and at the same time secure financing for the cus mers. This way we achieve a fast market penetrat and keep the financial costs and risks for AGT sm AGT utilizes the pool of motivated local sales mar gers, who have extensive knowledge of local conc ons, to scale up sales and the financing of individu projects.



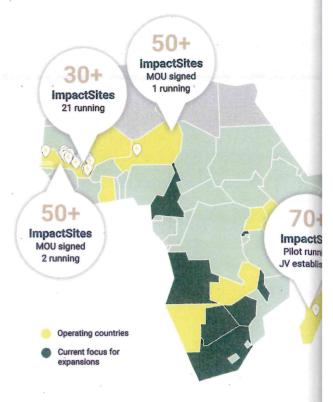




#### **Touchpoints with Village Customers**

We are in direct contact with the customers in the villages through the two village staff members who are trained for the ImpactSites and supervise them. The employees are firmly integrated into the village structure and society and thus the customers get to have direct contact. Feedback and wishes can be given and passed on in collected form by the employees to AGT. Additionally, we are in indirect contact with the customers through remote monitoring and maintenance. Direct contact is maintained with the C&I customers, as they are major customers, the number is therefore manageable and these business relationships are particularly important for AGT.

For all of our ImpactSites, our objective extends beyond selling electricity; we strive to offer productive use solutions such as cooling, internet, and water purification, along with equipment that enhances productivity in various sectors like welding, milling, and farming. Based on our experience in Mali, Niger, Madagascar, and Senegal, we have found that this approach not only enhances customer satisfaction and electricity consumption but also improves our profitability and contributes to the growth of small and medium enterprises (SMEs), thereby maximizing our impact. AGT has successfully secured a significant pipeline for villages and C&I projects across multiple countries. Our projections indicate that by 2030, we anticipate serving 270 customers



and investing €210 million to install 67 MW of power. With a promising market potential, combined with our expertise in the African market and extensive knowledge in the PV sector, we are well-positioned to expa our business and actively participate in the substantial market growth.

## 7.4 Project Implementation

#### 7.4.1 Market Selection Process

#### First step

Initial market research

1.1. preliminary market assessment Indicators on the socioeconomic, competitive, political and security market environment, current energy supply (country specific)

1.2. research on state electrification projects + political, regulatory and financial situation

Research on planned public/private projects and power grids

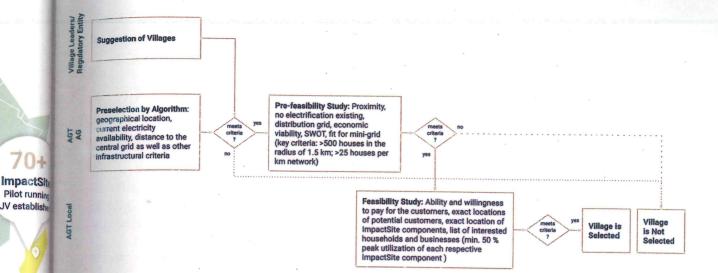
#### Second step

Local authorities approached to initiate market integration + cooperation with the government

#### Market integration

- Conditions to sign the MOU
- 15 years licence covering at least fifty 50 villages.
   This includes the option to move ImpactSite components between villages during the concession period
- A right to approve and/or to decline the implementation of ImpactSites in villages proposed by the relevant competent authority of the country
- A low-voltage grid provided by the government or a third party
- Customs duty and import tax exemption at the benefit of the local OpCo
- Approval by the relevant competent local authorities of the tariff model provided by the local OpCo

#### 7.4.2 ImpactSite Selection Process



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Credit worthiness of our customers is assessed when we collect detailed data during the village selection process explained in the previous section. We usually conduct comprehensive surveys in order to better understand the needs and the ability and willingness to pay our customers and in order to use this information for modification of our own tariff model (inspired by the World Bank Tier structure). The tariff structure has been designed to accommodate affordability, different types of demand and income levels as well as to enable households, SMEs and social institutions to consume as much power as they need to use it productively.

#### 1. Villages identified by:

- Village leaders approaching the local OpCo,
- A regulatory entity suggesting villages,
- Or the local OpCo based on an algorithm that is able to pinpoint villages that are attractive for rural electrification, taking into account: geographical location, current electricity availability, distance to the central grid as well as other infrastructural criteria
- Criteria for pre-feasibility study Digital, remote study (pre-evaluation) taking into account the following criteria:

- Proximity to existing sites of local OpCo (clustering)
- No electrification by other suppliers/programs planned
- Guarantee for a distribution grid in the location during 6 months after installation of the ImpactSite
- First evaluation of the economic situation, e.g. regional agricultural production,
- SWOT analysis of the village
- Fit for a mini-grid solution (key criteria: >500 houses in the radius of 1.5 km; >25 houses per km network)
- Criteria for the final feasibility study On the ground survey-based study (final evaluation) taking into account the following criteria:
  - · Ability and willingness to pay of the customers.
  - Exact locations of potential customers (for future grid planning, if not already available)
  - Exact location of ImpactSite components (incl. permit for placing the components there for at least 15 years)
  - List of interested households and businesses evidencing first commitments as customers (a minimum of 50 % peak utilization of each respective ImpactSite component shall be applicable)

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# Business System and Company Organization

8.1 Group Structure and Subsidiaries

8.2 Founders and Management

8.3 Procurement, Production and Make-or-Buy

8.3.1 Key Components

8.3.2 Supplier Selection Strategy

8.4 Processes und IT-Systems

8.4.1 Internal Processes

8.4.2 Transactions and Grid Operations

8.4.3 External Communication

8.5 Legal and Taxes

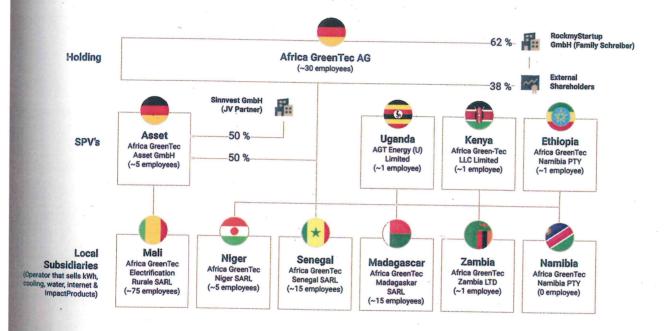
8.5.1 Legal Form

8.5.2 Operating Facility and Locations

# 8.1 Group Structure and Subsidiaries

AGT AG's affiliated companies in SSA typically own 100 % of local projects. The local companies' role is to carry out the ImpactSites activities while also being in charge of the operation and maintenance. Meanwhile, AGT AG (the holding company) supervises and avails its experienced team of engineers, financers, market intelligence researchers and technicians to ensure that local operations are successful. In this role, AGT AG

monitors and reports the activities in order to ensure that the project's Key Performance Indicators (KPIs) are met. Additionally, we also cooperate with other private companies (particularly technology suppliers) and local governments to improve the local renewable energy policies and strategies to achieve the rural electrification targets and simultaneously push sustainable development in off-grid villages.



# 8.2 Founders and Management

Aida and Torsten Schreiber are the founders of AGT AG. Torsten, a seasoned social entrepreneur, previously founded several companies including the green crowdfunding platform "Bettervest". Aida Moussa Schreiber, a Malian Co-founder of AGT AG, offers valuable insights into local Western African cultures and politics due to her upbringing in Mali, providing AGT a competitive edge in the region. Prof. Dr. Rams, Co-founder and CFO/COO of AGT AG, boasts a rich history in entrepreneur-

ship and innovation management, having established numerous companies and served as a professor of entrepreneurship.

Their combined experience is of great use to set the strategic and long term decisions for the company. On top of that, their network of important stakeholders in the industry, science and politics is a great asset to strengthen the development of the company.



#### **Founders**



#### Torsten Schreiber

Founder & Chief Executive Officer (German)

#### Qualifications

Management, Government Network, Communication and Marketing

#### **Biography**

Motivated by a deep enthusiasm for climate conservation and the energy transition, Torsten Schreiber is the founder and CEO of Africa GreenTec AG. He has already founded several companies, including the green crowdfunding platform "Bettervest", experiences which make him a highly qualified social entrepreneur and demonstrate his strong climate activism. His strong political connection especially to African countries' presidents and village networks are valuable in entering new markets and executing the projects, whilst his previous experience as a social media consultant in German politics also guids AGT's marketing department.



#### Aida Schreiber

Founder & African Operations (Malien)

#### Qualifications

Community Network, Women's Empowerment, Local Languages

#### **Biography**

Aida Schreiber is the Co-founder of Africa GreenTec A She is the local representative of AGT Group, and following her strong desire to bring development to rural Africa, she has been leading community projects for more than five years, specifically focused on creating a positive impact for women. Having grown up in Mali Aida's valuable insights into local cultures and politica structures gives AGT a clear advantage for establishin its presence and entering new markets, specifically in Western Africa. Moreover, she is a local language polyglot and pundit, hence being a key figure in commnications and understanding the African market.



#### Prof. Dr. Wolfgang Rams

Co-Founder & Chief Operating Officer, Chief Financial Officer (German)

#### Qualifications

Fund Raising, Accounting, Financial Modeling, Operations, Strategy, Leadership

#### **Biography**

Wolfgang Rams is co-founder and COO/CFO of Africa GreenTec. He is a serial entrepreneur, an investor and business angel. In 2016, he invested in AGT, was chairman of the supervisory board and has now been a board member for 3 years, with the goal of scaling the company and the impact brought about by Africa GreenTec. He has been teaching entrepreneurship and innovation management for almost 10 years, but gave up this job to focus on his board position at Africa GreenTec.

#### **Management Team - AGT Subsidiaries**



#### Biba Nainou Dogo

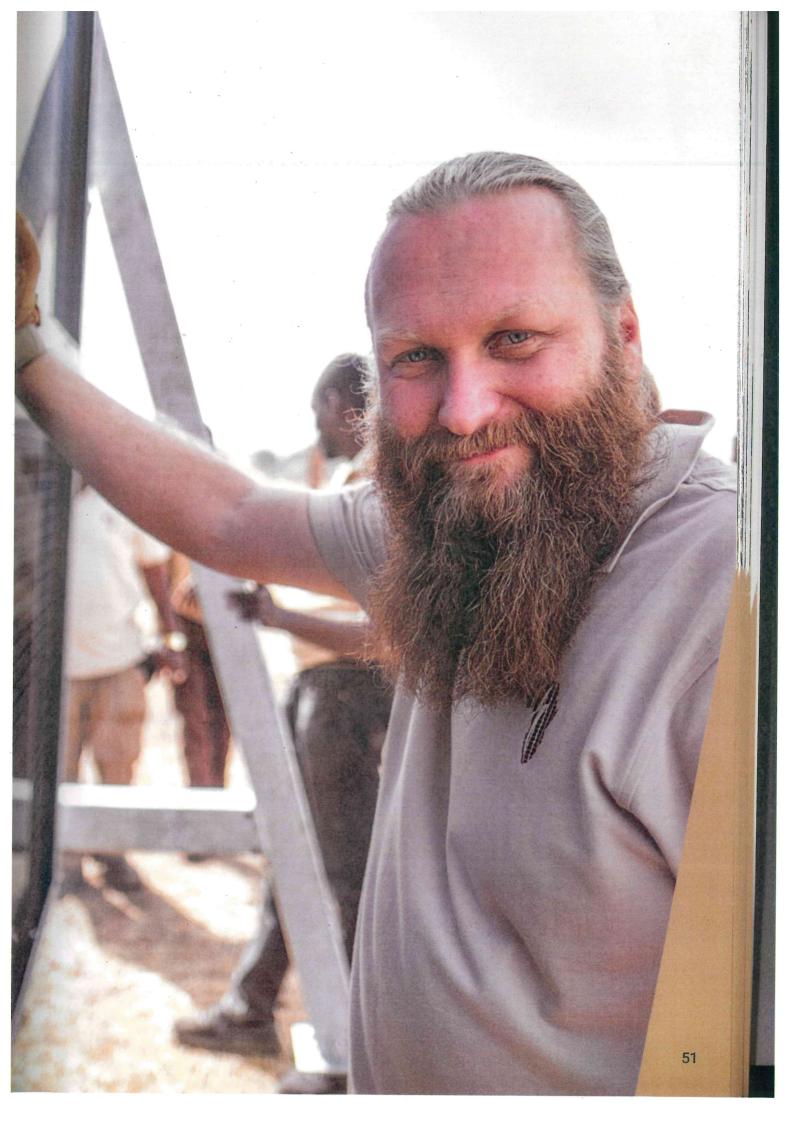
Co-Founder, Chief Operating Officer & Board Member (Nigrerin)

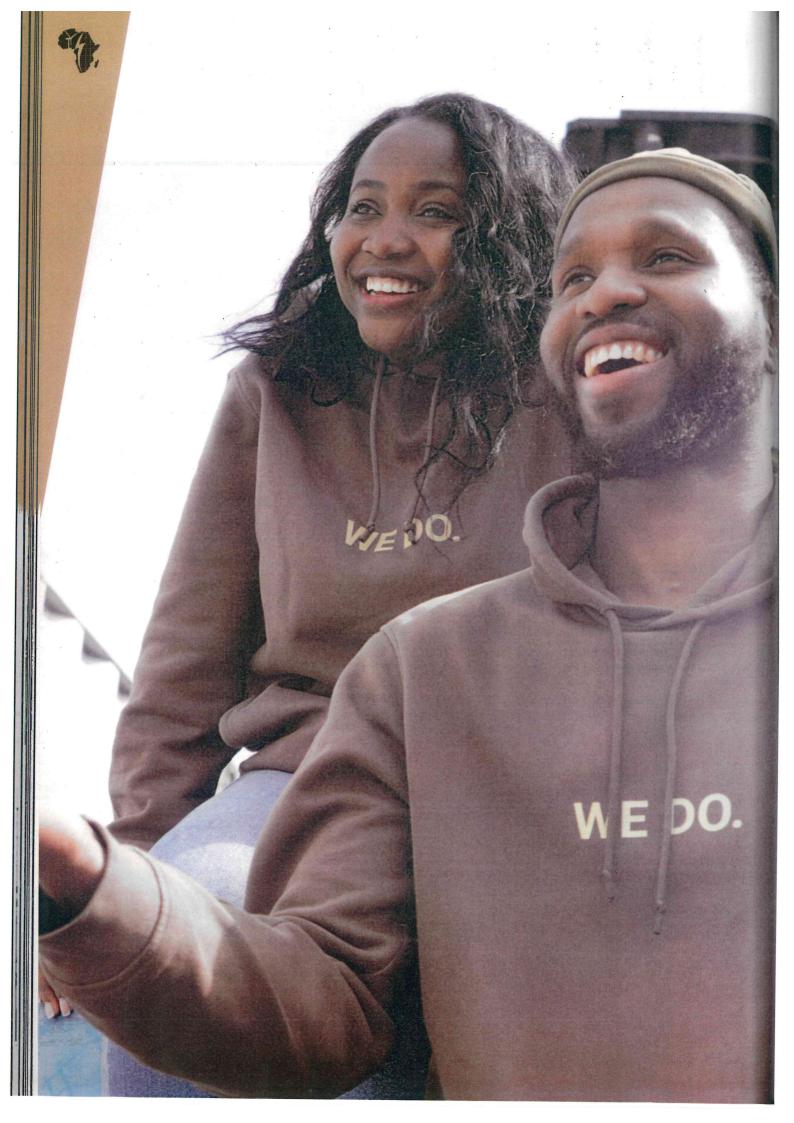
#### Qualifications

Local Policies, Network, Local Languages, Project Management, Wome Network

#### **Biography**

Biba Nainou Dogo has an extensive network with the local government in Niger. She holds a master's degree in International Business Development Administration from the University of Hamburg and has seven successful years of experience in operations management sales and marketing to drive new business development. Besides AGT Niger, she also consults various international companies including US companies to enter the Nigerien market.







#### **Andreas Rohardt**

Co-Founder, Chief Financial Officer & Board Member (German)

#### Qualifications

Wind, Solar, Technical Design and Construction, Management

Rohardt is a civil engineer with more than 48 perience of managing projects in Germany and As the Honorary Consul he is representing the of Niger in Germany. He has also been a board of wind and solar companies in Germany. He ess to a wide network in Germany and Africa, ally the Nigerien government.



#### Anna N'Diaye

Co-Founder, Managing Director - AGT Sénégal (Senegalese)

#### Qualifications

Business Administration, Finance, Local Languages

#### **Biography**

Anna N'diaye has applied her financial expertise in the private and public sector, specifically leading project management in real estate companies. Her finance and management skills are valuable assets to the company. She is well-connected within the Sénégalese networks, and is thus of immense help in leading negotiations with the local rural electrification agency ASER.



#### Alou Keita

Managing Director - AGT Mali (Malien)

#### Qualifications

Local Policies, Network, Local Languages, Project Management, Finance

hy

ng his passion to bring innovative technologies Alou Keita has extensive experience of leading ple microfinance projects in Mali. As an Ashoka the highly renowned social entrepreneur fellows is reviving economically stagnant rural communities through projects like microfinance and rural cation. With his network in rural communities h political leaders, he acts as a mediator and to successfully implement AGT projects.



#### Heinz-Werner Binzel

Managing Director - AGT Asset Mali (German)

#### Qualifications

Local Policies, Network, Local Languages, Project Management

phy

Werner Binzel has a wealth of experience in the sector, having previously been appointed the ian of the board of RWE Solutions and acted as er of the board of RWE Energy. During his time at ie was responsible for the Photovoltaics division I as the finance division. He thus combined his ise in economics and electrical engineering, two in which he also holds degrees. Currently, he is ector of DENSYS PV5 GMBH, a PV company that in close cooperation with Africa GreenTec. Simulsily, he is on the advisory board of TÜV Rheinland I as the Finnish Energy provider Fortum Oyi.



#### Moritz Brauchle

Managing Director - AGT Madagascar (German)

Qualifications

Renewable Energies, Project Management, Fund Raising,

#### **Biography**

With an education background in electrical engineering and IT, Moritz Brauchle brings more than five years of experience in energy-related project management experience to the company. Having initially focused on projects such as second-life batteries in the automobile industry, Moritz soon realized the importance of contributing to a sustainable and more equal future, and joined AGT. He collected valuable experience as AGT's Technical Director in Tchad before becoming General Director of AGT Madagascar.

#### **Anjana Silveira**

Managing Director - AGT Kenya (German)

#### Qualifications

Project Management, Local Policies, Logistics, Network

#### Biography

Anjana Silveira has extensive experience in the logistics industry in East Africa with particular focus on supply chains and project development and management such as, for instance, last mile distribution projects. She is an engaged manager with intercultural sensitivity and emotional intelligence and the ability to switch between interactions with teams on the ground and senior industry as well as public sector leaders with ease. After studying international law and legal studies at Freie Universität Berlin, she worked and advised several companies working in the countries Kenya, Djibouti and Ethiopia.



#### **Supervisory Board**



Robbert van der Feltz Board Member (Dutch)

**Qualifications**Economy, Finance & Strategic
Management

#### **Biography**

Robert van der Feltz is a global, multicultural, strategic, entrepreneurial executive with 30+ years experience in leading transformation projects in emerging markets, mainly Asia, Russia and the Middle East. He has a proven track record of leading game changing transformation projects, breaking status quo and developing teams and businesses to high performance levels. His focus thereby lies on the complete value chain 1) people & culture; building strong teams with excellent leaders and structured HR processes, 2) right portfolio; developing products, and services tailored to the local needs with regional development centers and 3) goto-market innovations; building hybrid models of direct / indirect joint ventures, supported by all dimensions of marketing ranging from products, services to digital and engineering.



Prof. Dr. Eicke Weber

Substitute Board Member (German)

#### Qualifications

Solar and Wind Energies, Clean Technologies, Research

#### Biography

As a researcher and professor of Material Sciences at the prestigious UC Berkeley, Eicke Weber has continuously been contributing to the sustainable energy transformation for 36 years. He has also gathered in-depth insights into the market, having been the founder, CEO and Director of various companies in the renewable and clean energies sector. Following his mission to bring low-cost renewable energy to everyone, he is engaged in international projects from California over Germany to Singapore.



Patrick Knodel

Board Member (German)

#### Qualifications

Business Development, Marketing

#### **Biography**

Patrick Knodel has a track-record in impact-focused innovations and investment, and is currently the director of the think tank PANDION which focuses on investing in companies with a positive social impact, such as AGT. On top of that, he is supporting AGT with his experience as an entrepreneur and project manager.



#### **Andreas Rickert**

Key Advisor (German)

#### Qualifications

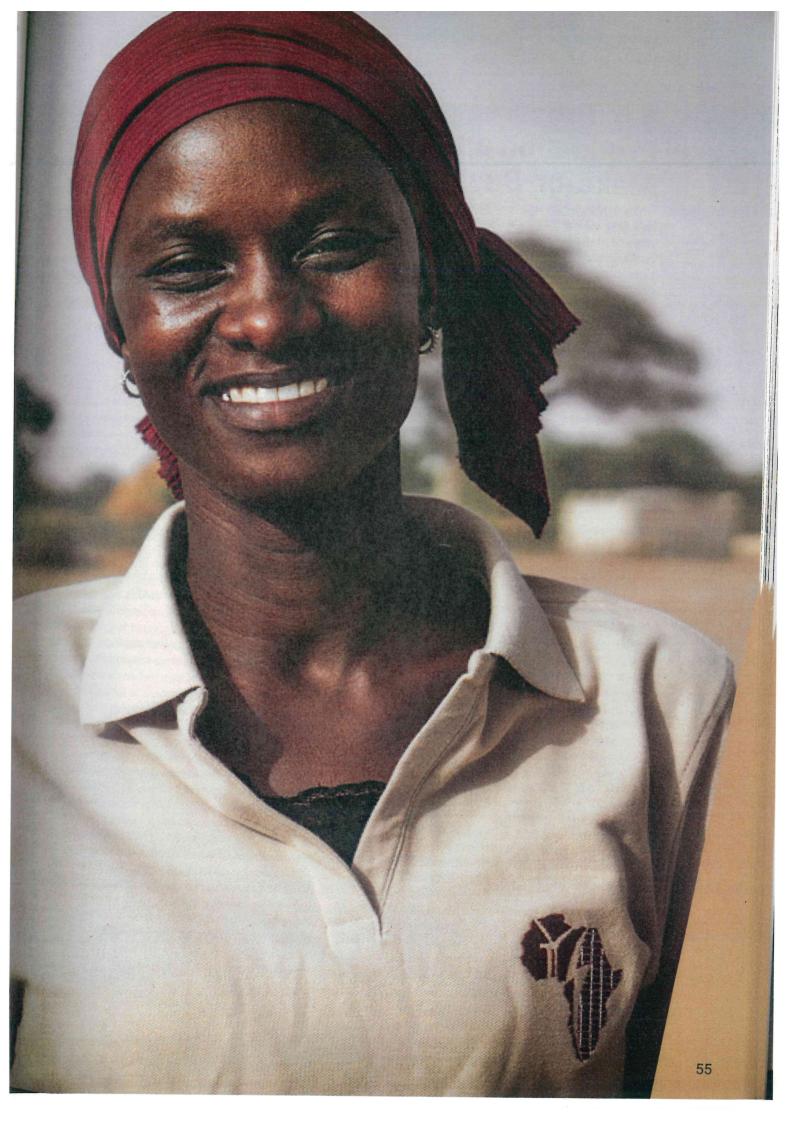
- CEO of PHINEO a think-and-dotank for strategic philanthropy and impact investing.
- Senior management positions at McKinsey, the World Bank and Bertelsmann Stiftung
- · PhD in Molecular Biology

#### 8.2.2 Personnel Structure and Planning - Key Positions

The AGT Group consists currently of around 30 employees in Germany and 100 employees in the subsidiaries of which around 60 people operate and maintain our plants in the villages (status: June 2023).

There are similar responsibilities in the AGT AG and the AGT country subsidiaries. The responsibilities include logistics, project management and international business development. However, in Hainburg and Berlin there are also employees that work in accounting software development, and financing. The research and technical development of the products is conducted in Hainburg and Dakar and the assembly of the products happens in Dakar. In the medium-term, the research and development of new products shall be shifted to the team in Dakar.

AGT employs technical managers, electrical engineers, logistic experts, software developers, marketing managers, legal experts, finance managers and project developers. Overall we possess a streamlined team of highly skilled professionals, which cover all important fields to run an EPC company successfully. This enables AGT to work dynamically and efficiently.





## 8.3 Procurement, **Production and** Make-or-Buy

AGT built and maintains a widespread network of suppliers. We critically assess our suppliers and ensure a diversified supply chain for all our products to mitigate disruption and dependencies. With most of our suppliers we have long lasting and reliable partnerships. The intermediate goods of the entire technical system are purchased. AGT researches and develops the final technical product and ensures the compatibility of the intermediate goods. The parts are delivered to Dakar, Senegal and then assembled by AGT.

We decided to buy most parts and assemble the final product to benefit from the international division of labor and the specializations of our supplier in their fields. Following this approach, we reduce cost and concentrate on our main business. AGT focuses on the identification and assessment of market trends. the adequate development of the final products, the logistics, final assembly, the project development, the construction on site and the maintenance.

#### 8.3.1 Key Components

The key components to be procured depend on the individual product to be produced. The following overview shall give insights into the key components for our main products. Generally, PV, electric and battery energy storage systems (BESS) are the main cost drivers and thus require special attention in the procurement process.

#### Solartainer

- Subconstruction
- Container
- PV
- Electric
- **BESS**
- Remote Monitoring
- Cooling
- Miscellaneous
- **M**&0
- Expendables

#### Cooltainer (non-PCM Technology)

- Converted Container/ **PV Substructure**
- Electric
- PV
- **Batteries**
- **Cooling Unit**
- Cooling Cell (demm plates)

Watertainer

- Converted Container/ PV Substructure
- Water Purification System (ultrafiltration or reverse osmosis)
- Water Tanks
- PV
- Electric
- **Batteries**
- Add-On: CoolUPs, **Phone Charging** Station

#### 8.3.2 Supplier Selection Strategy

Our main suppliers have been identified for the relationship with AGT and for their track record in the electrification, agriculture and water industries. The supply chain will be managed in cooperation between local subsidiaries and AGT AG. AGT AG has experience in bringing high-tech to SSA when faced with tough conditions and underdeveloped infrastructure. The main suppliers of our equipment are:

- · Tesvolt (battery)
- SMA (inverter)
- Densys PV5 (PV wholesale)
- Tier-1 PV Modules (e.g. Bauer Solar, Amerisolar)
- Steama.Co, Sparkmeter (smart meter)
- Wilo (water pumps)
- Sonepar (electrical wholesale)

Our suppliers comply with health, safety, hygiene and environmental standards. Most of the time, this is certified through ISO 9001 (Quality Management) and ISO 1400 certificates. In the context of our own certification process (ISO 9001 and 14001) our suppliers are evaluated on a yearly basis.

Apart from this, we select our suppliers based on criteria that are also reflecting high standards in regards to sustainability, particularly when it comes to redistribution and recycling.

AGT AG has also developed the company's Supplier Selection Strategy (SSS) that guides and details our approach to supply chain management. With lessons from our mini-grids, our procurement and engineering teams have established a list of strategic partners, suppliers and consultants that we are working with.

#### Second-Life Battery Strategy (Cooperation Agreement with Audi)

In 2021 AGT and the car manufacturer Audi AG signed a cooperation agreement to use old batteries of the Audi E-Tron. Since lithium-ion batteries, which are no longer suitable for accelerating heavy cars, usually still have 70 % to 80 % of their original capacity and are therefore still good enough for less demanding applications such as our Solartainers. They charge and discharge comparatively slow and are thus much gentler on the batteries. Experts assume that a secondlife phase of batteries can last up to ten years. The batteries make up to around 60 % of the total cost of the Solartainer. With discarded elements from the Audi E-Tron, the costs can now be halved.

# 8.4 Processes und IT-Systems

### 8.4.1 Internal Processes

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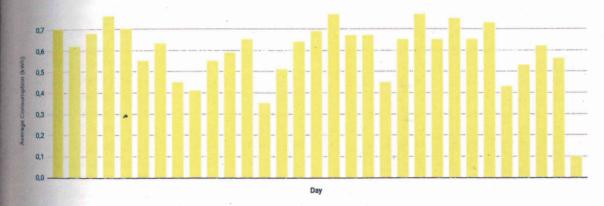
to

For file sharing and office software, AGT uses Google Workspace, which offers best of class security and excellent collaboration tools. AGT uses the ERP-system Odoo. Since the beginning of 2023, AGT Group and its subsidiaries have handled all accounting and book-keeping tasks in Odoo. This system allows full and timely insight into the current financial situation of each country. At the same time, important preparations

for an upcoming IPO can be made. Step by step the ERP-system will be extended to the processes of the other departments, including project-management and customer relationship management. Odoo will enable us to monitor project budgets and manage cash flows. The system ensures the standardization of processes throughout the AGT Group.

#### 8.4.2 Transactions and Grid Operations

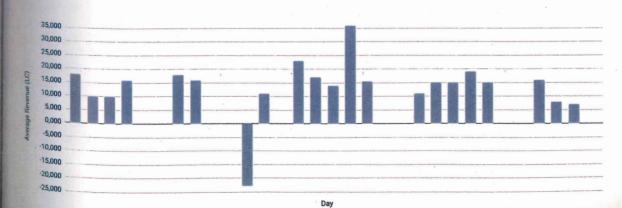
#### Average Daily Consumption (kWh) in Mahavelona



AGT uses a number of internal and external IT systems to carry out day-to-day operations. Smart meter solutions of the market leaders, SteamaCo and Sparkmeter, enable a high degree of automation in metering and billing of our electricity customers. For reporting, AGT relies on the platform provided by Odyssey Energy Solutions, which integrates with both systems of our smart meter suppliers. It facilitates the multi-dimensional analysis of key performance indicators, such as

connected users, tariff distribution, average revenue per user (ARPU) and electricity consumption by time of day. The AGT systems (e.g. Solartainer, Cooltainer, Watertainer) are equipped with industrial internet-of-things (IoT) devices for real-time monitoring and control purposes. In 2023 we have started to roll out purpose-made IoT SIMs to obtain the best possible network coverage in any location and reduce the management overhead compared to locally purchased SIMs.

#### Average Daily Revenue in Mahavelona





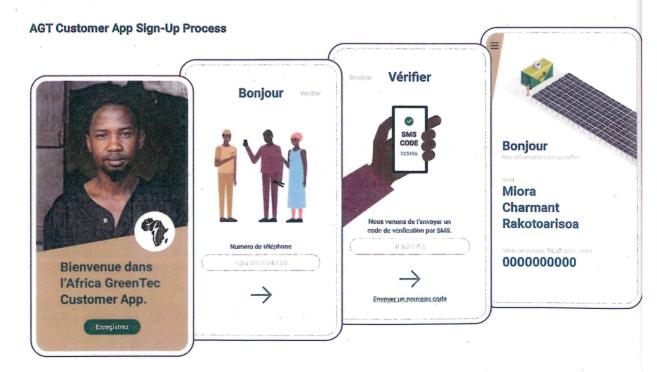
#### Dashboard of the ImpactSite in Mahavelona



Our custom-built device management software ensures a standardized, secure baseline configuration on all devices and enables easy updates. Devices are remotely accessible exclusively via an on-demand VPN, not via public IP addresses. Telemetry data is collected from local systems (inverters, battery management systems, electricity meters, temperature and humidity

sensors), efficiently encoded and transmitted to our data warehouse via the industry standard MQTT protecol. Various dashboards in a private Grafana instance allow our operations and maintenance staff to keep track of system performance in real-time. A fully automated alerting system ensures that field technicians are informed of outages in a timely manner.

#### 8.4.3 External Communication



T uses IT-services to communicate with potential estors, the interested general public and with the agers of the ImpactSites. Our websites africagreen-.com and africagreentec.investments are based on rdpress and operated by the brand communicateam. Moreover, we provide a mobile app for our stomers of the ImpactSites, which allows customers check their account balance, enables them to make necessary adjustments to the tariff booked and he future will also provide the possibility to directly form digital payments for services purchased. This tform will be further expanded by integrating KoBo veys for continuous impact measurement. The is implemented as a progressive web application VA) that is compatible with all smartphones, tablet desktop devices, requires only about 1 MB of data rage, has a simple interface and thus ensures high er friendliness.

### .5 Legal and Taxes

#### 5.1 Legal Form

T AG is an unlisted public shareholder company ktiengesellschaft (AG). This allows investors to ticipate directly and to get a say concerning the npany and the projects. However, AGT is not listed the stock exchange. The AGT subsidiaries in the ican countries have the legal status of a "société à ponsibilité limitée" (SARL), which is comparable to a blic limited company.

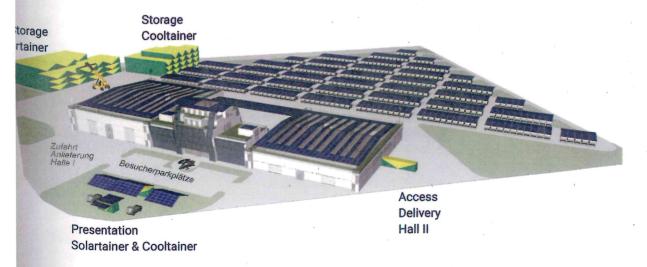
Within those subsidiaries AGT AG holds the majority of shares. This construct allows the AGT subsidiaries to act independently from the AGT AG and ensures the safety of the whole AGT Group. If one AGT subsidiary should fail, the AGT AG and the other AGT subsidiaries will stay unaffected.

#### 8.5.2 Operating Facility and Locations

AGT AG headquarter is located in Hainburg, near Frankfurt am Main, Germany. The project management and development, design and improvement of new technological products is conducted in Hainburg. On top of that, we rent a coworking space in Berlin and Frankfurt, where some of our employees work. The African headquarters with the production line, a logistic hub and an office is located in the capital of Senegal, Dakar. To optimize logistics and production efficiency, the technical department based in Hainburg is planned to be relocated to Dakar in the medium-term. AGT creates jobs in Senegal and increases the knowledge transfer and production. Moreover, we have subsidiaries in Niger, Mali and Madagascar.

In each office up to 10 people are employed. Furthermore, we opened up subsidiaries in Kenya and Namibia where only a few employees work, since we are still in the process of building up the local teams. Once they are set up, the subsidiaries will drive forward the market penetration.

#### anned African Headquarter in Dakar, Senegal



# )9

# Implementation Roadmap

- 9.1 Goals and Milestones
- 9.2 Successes to Date and Traction
- 9.3 Ensuring Future Scalability
- 9.3.1 Economies of Scale
- 9.3.2 Economies of Scope
- 9.3.3 Focus Productive Use
- 9.3.4 Academy
- 9.3.5 AGT as a Platform for Partnerships
- 9.3.6 AGT's Formula to Scale in 5 Dimensions
- 9.3.7 Crowdfunding Platform
- 9.3.8 Blended Finance Approach
- 9.3.9 Asset Light Model with Fund Structure (GSIIF)

# 9.1 Goals and Milestones

one goal is to increase the production capacity of our production hall in Dakar, Senegal. The production process will be further streamlined and personnel will be trained. Another important milestone is the penetration of the African markets by establishing a network of sales managers that work on commission basis. Their task is to secure further C&I and Residential projects and to sell impactProducts. Moreover, the sales managers' task will also include organizing the pre-financing of the technologies for C&I customers since securing the capital for the initial investment poses one of the biggest challenges for our customers. Therefore, the sales manager network will play an important role in the future development of AGT and unleash the potential of our technological solutions for the African markets.

### 9.2 Successes to Date and Traction

In the past eight years AGT evolved from a start-up to an international medium-sized company with over 130 employees. AGT Group grew organically, adapted and professionalized from step-to-step. On the way we won ten different awards such as Mini-Grid Project of the Year by AFSIA Solar Awards, Hessischer Staatspreis Energie or the Sustainable Impact Award. We developed several products according to the market needs that create added value for our customers. We expanded our business units from focusing on ImpactSites in rural areas to offering solutions for C&I and private customers. We constructed more than 20 ImpactSites, gathered data by monitoring the sites for several years. Our logistic network is diversified and is based on positive experience in years of cooperation. We maintained the ImpactSites, demonstrated that our technologies withstand the harsh conditions of SSA, proved that our customers are willing to pay for our services and that our business model is economically viable.

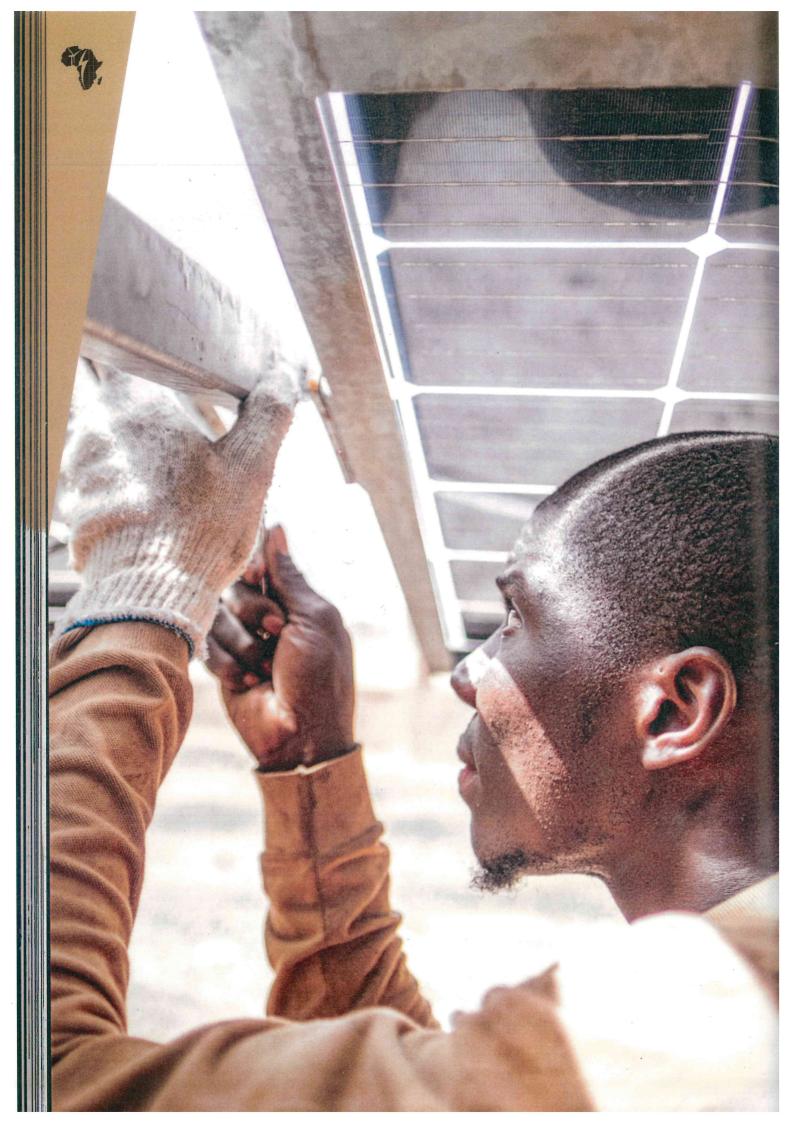
#### **Company History: Milestones**



# 9.3 Ensuring Future Scalability

The scalability of our technology and of our business approach is based on the huge market potential, great product-market-fit and the focus on productive use of electricity. The demand for basic infrastructural services like electricity, water, cooling and communication that address essential regional challenges and satisfy human needs is similar in different regions in SSA. Therefore, scaling operations in new markets does not require any substantial changes to our products.

While the core product stays the same in every location (Solartainer), optional services for productive use solutions can be implemented just as needed. This modular approach to each ImpactSite enables every component to be standardized while keeping flexibility for perfect product-market-fit. By working with external partners and third-party suppliers, production can be scaled up quickly as well as flexibly.



### 9,3.1 Economies of Scale

The market entry in individual countries requires the astablishment of a local company structure, a network with local personalities and institutions and the procurement of licenses, which is particularly important in the field of energy supply. This undertaking must be evenly applied the newly implemented projects and their associated costs. It is obvious that only single projects in individual countries do not justify the establishment of a central company structure. For the distribution of overhead costs, therefore, a minimum number of 30-50 projects per country is necessary.

Another scale effect results from purchasing power. This basic mechanism is an elementary factor of economics that comes into play in our market, too.

The access to capital is also easier, when the funding needed is big enough. AGT has therefore adopted a massive growth strategy aimed at being able to make attractive offers to larger funds of money.

#### 9.3.2 Economies of Scope

AGT has introduced a groundbreaking approach in the sector with its award-winning concept of holistic impactSites, which has sparked a significant shift. The underlying logic stems from the understanding that projects can achieve sustainable success through continuous local presence and support. To ensure this, AGT has consistently trained and employed staff within the villages, who remain permanently stationed there. This localization of team members enables the provision of additional services, leading to economic growth and competitive advantages over fragmented solutions.

#### 9.3.3 Focus Productive Use

The scalability is further reasoned in our focus on productive use. Our high capacity electricity access enables the local industry to accelerate, thus creating obs and increasing purchasing power in the village. This is further pushed forward by our smart, efficient and productivity focused energy application services and consulting programs for women and local SMEs. The rise in purchasing power enables thus in turn the ocal community to demand our services, which again ncreases productivity and income levels, which again eads to higher purchasing power and more demand or our services. This way, our services do not necesarily just satisfy a given demand, but create more lemand for services. This self-reinforcing upward spiral is the reason for local socio-economic developnent, upscaling of our operations at any implemented mpactSite and the basis for our sustainable business nodel overall

#### 9.3.4 Academy

A bottleneck factor in the rapid growth of the company, in addition to access to capital and the establishment of local company structures in the individual countries, including licenses, is the acquisition of suitable employees. The development of an appropriate training program is therefore an important component of AGT's growth strategy. Initial successes have already been achieved here, particularly in Mali, on the basis of which a more far-reaching overall concept can and must be developed. Another notable example involves our partnership with SOS Children's Villages. In this collaboration, we go beyond just electrifying one of their villages. We also construct a school by which we facilitate education for the children in the village and provide them with encompassing opportunities.



By leveraging digital tools, providing training to the local operating organization, and deploying local technicians at each ImpactSite, we can achieve cost-effective operation and maintenance. This approach allows for partial remote management and reduces dependence on the German headquarters and its engineers (AGT AG). As a result, we can maintain multiple ImpactSites with a significant decrease in marginal costs. Additionally, economies of scale with our suppliers contribute to further cost reductions.

#### 9.3.5 AGT as a Platform for Partnerships

As previously elaborated, there is a self-reenforcing positive cycle of demand acceleration at work in our field of business. It is comparable to the mobile communications market, where on the one hand the telecommunication companies provide the basic services and thus enable the development of innovative online services. On the other hand, it is precisely these services that increase customer demand for more bandwidth, which in turn benefits the telecommunications companies. While the basic infrastructure involves high investment, considerable scaling is possible at the application level with comparatively little effort.



In contrast to the telecommunications companies, which have largely failed to tap into application types in addition to the basic service, AGT wants to develop revenue sources at the application level very early on. However, since this application level also involves considerable complexity, AGT cannot develop all of these services itself. Therefore, as has already been demonstrated in the mobile industry via the numerous apps, AGT relies on partnerships with many potential providers of applications (app developers), which can then be provided on the basis of AGT's infrastructure.

AGT presents itself as an open platform. Against this background, partnerships with various companies looking to enter the African market are very welcome from AGT's point of view. The partnership with WILO SE, a prominent German pump manufacturer, serves as a logical platform for collaboration, enabling us to engage at the application level. This collaboration not only facilitates the offering of our products and services on the platform but also actively supports marketing efforts in the villages.

#### 9.3.6 AGT's Formula to Scale in 5 Dimensions

Revenue >	Number of X	Customers X	Sites Country	X	Countries	=	Revenues
<ul> <li>Increase in purchasing power:</li> <li>+260 % p.a.</li> <li>Share business customers: 18 %</li> <li>business custumer</li> <li>3,9x higher revenue than residentials</li> </ul>	Offer more services (economies of scope): +4 services since 2020 ImpactProducts as new BU AGT as platform for further apps, e.g. Solarbakery	<ul> <li>elect bigger villages with more than</li> <li>5000 inhabitants</li> <li>Job and income creation in a village</li> <li>Grid extension less expensive</li> </ul>	Framework agreements with govern- ments with at least 50 sites per country		<ul> <li>Active in 2 countries since 2017</li> <li>3 new market entries since 2020</li> <li>5 new countries in preparation</li> </ul>		

#### 9.3.7 Crowdfunding Platform

AGT's projects are not only interesting from an economic point of view, but also touch the hearts of numerous people who are not able to invest on a large scale, but are very willing to provide manageable financial resources for meaningful projects. Against this background, it is not surprising that Africa has attracted considerable financial resources via crowdfunding in the past. The long experience of the team (especially Torsten as the co-founder of Bettervest) in the field of crowdfunding is of course an essential prerequisite here.

Utilizing crowd-investors for AGT's projects is highly advantageous, as these investors typically prioritize the project's content and are willing to take on higher risks. This approach becomes even more effective when the projects are presented in a concrete and easily understandable manner, simplifying the process of capital recruitment. Therefore, the platform's buyer should emphasize individual projects and provide support through their own financing efforts.

By utilizing an independent platform, we can efficiently gather investors for our projects in a precise and agile manner, aligning perfectly with AGT's objectives. This approach significantly reduces costs compared to utilizing existing platforms. Additionally, we establish our own crowd and transform them into loyal investors and advocates, gradually attracting larger investors who become shareholders of AGT AG. In the long run, these benefits are invaluable for our project finance, marketing efforts, and the creation of an asset in a thriving market. Furthermore, we have plans for future internationalization to attract investments from the French diaspora and investors from various countries and continents.



#### 9.3.8 Blended Finance Approach

The development of innovative financing instruments plays a crucial role in AGT's work, as demonstrated by the example of crowdfunding. While traditional project financing focuses solely on financial returns and risk control, AGT operates in a domain where the impacts on people's lives, aligned with the SDGs, hold significant importance. These positive impacts can be directly capitalized through compensation instruments

like DREC, catering to the interests of DFIs and philanthropists who support such projects. AGT adopts the industry approach of blended finance to address the financing needs of these stakeholders, splitting projects into segments that cater to each investor's requirements. By leveraging grants to cover initial risks and address market failures, AGT attracts additional private investors and raises a substantial amount of capital.

#### 9.3.9 Asset Light Model with Fund Structure (GSIIF)

"Global South Impact Infrastructure" SICAV-RAIF is intended to be a Luxembourg based sustainable Infrastructure Equity/Debt fund with investments in local operating companies (opcos) targeting smart infrastructure in sub-saharan Africa.

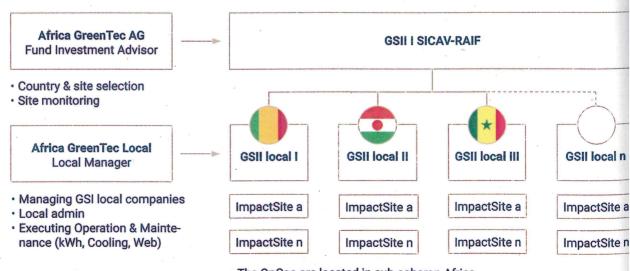
- Opcos purchase, install, hold, and operate ImpactSites
- ≈ 300 ImpactSites hold by different opcos across several countries
- Ramp up/ramp down period of 5 years (each ImpactSite with 15 years useful lifetime)

Expected to be classified as EU SFDR article 9 product Professional investors have repeatedly made clear to us how important it is in the capital market to have clear demarcations in terms of asset classes. A separation between the service and the assets/replacements nee-

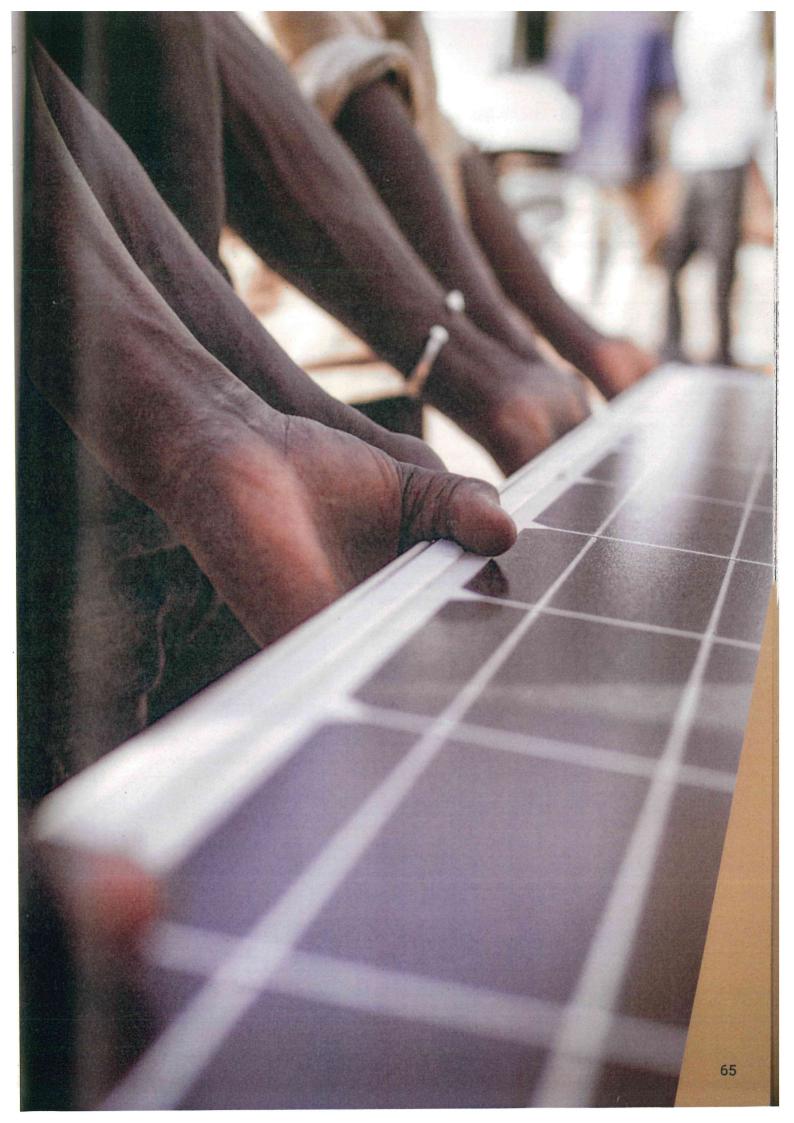
ded for it, was strongly advised.

Especially in the case of infrastructure measures, the investment requirements are considerable. From AGT's perspective, there is no compelling reason to want to own these assets. Rather, AGT wants to take on the role of operator and is looking to position itself as a pan African, multi-service, asset-light utility company. Pursuing this direction, AGT has strategically established an investment fund as one feasible possibility to take the role of an asset owner, especially for Impact-Sites. It is essential to note, however, that this fund serves as merely one among a variety of options that enable us to adopt an asset light model. While the fund provides a significant and beneficial method of ownership, there are other alternative strategies sustaining flexibility, always keeping the goal of optimizing our assets' efficacy and impact in mind.

#### **GSII I SICAV-RAIF Structure**



- The OpCos are located in sub-saharan Africa
- Each OpCo owns and operates the ImpactSites
- · Revenues through sales of services
- · Resale of ImpactSites after 15 years useful life at predefined price



# 10

# Opportunities and Risks Management

10.1 Risk and opportunity analysis

# **Example structure for one country**

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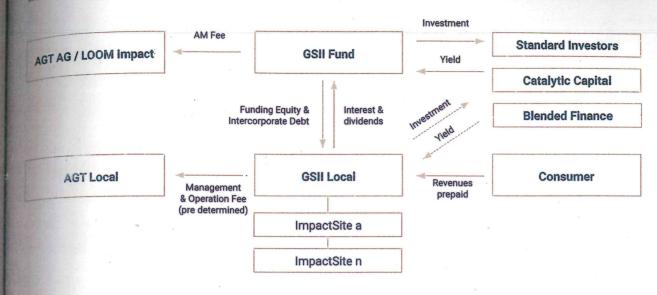
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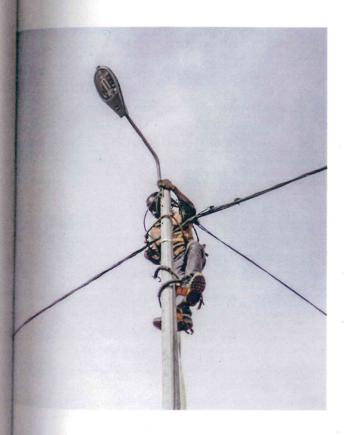
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#### **Intended Key Facts**

Type of Fund	Infrastructure Equity/Debt		
Investment Region	Sub-Saharan Africa		
Investment Volume	€100 million		
Min. Investment	€250.000		
Investment Period	5 years		
Fund Duration	20 years		
Initiator	LOOM Impact AG & Africa GreenTec AG		
Investment Advisory	Africa GreenTec AG		
AIFM	IQ EQ Fund Management S.A.		
Administration	IQ EQ S.A.		
Depositary	IQ EQ Depositary Services S.A.		

# 10.1 Risk and Opportunity Analysis

The activities of the company are located in fragile states and their risk profile can affect our operations on the field. AGT AG being located in Germany and far from our operations makes the work more difficult because of the lack of direct and reliable information.

AGT has developed an internal Risk Mitigation System matching all the potential risks for the company and its subsidiaries with an appropriate mitigation plan. The system covers more than 90 potential events that

might happen on different levels of the company and are updated on a weekly basis by our Risk Manager. In order to control the risk, we spotted all the potential events that might occur at the company level, taking into account diverse sources. The experience of our CEO on the field but also the local managing directors contribute to the mitigation process of the risks. Internal information is very important and is completed by updates from external organizations such as the United Nations, the local authorities and the World Bank.

#### Risk / Opportunity Mitigation / Exploitation

Misk / Opportunity	mitigation / Exploitation				
Low Purchasing Power in Local Communities	Our experience helps us to spot the willingness to pay in rural areas, focusing on local businesses. Our holistic approach engenders more productivity which leads to job creation and new income sources as well as a multi-channel business model with three business units.				
Slow Processes Due to Regulatory Issues	The local entities, the presence of our employees in each village and the mobility of the assets lead to fast implementation processes and allow the flexibility to change the location.				
Fraud and Corruption	The prepayment of electricity avoids certain types of fraud. The smart meter prevents electricity theft, locals don't want to harm their essential infrastructure. We also apply a bottom-up approach and emphasize our direct contact to local decision making people and the customer through one employee per site.				
Political Risks or Security Issues	A takeover of the military happened twice in Mali in the last years, all AGT sites are still running continuously. The decentralized swarm system also splits the risk into many locations and the service is not dependent on other infrastructure, the power of the sun and local people are always available.				
Expropriation	Suitable guarantees of national or supranational institutions for worst case scenarios (German Government, BMZ, Euler Hermes). In case the expropriation would be complicated to solve, the assets can be moved to another location in a few days.				
Currency Risk	The currency risk is less relevant for AGT because most of the countries we operate in use the Franc CFA and it remains stable. Nevertheless, we apply for guarantee programs that cover the potential losses due to high currency exchange rates. We are also in close contact with currency hedging companies to keep constant surveillance.				
Weather - Climate Risk	The weather/climate risk is partially mitigated by the fact that our Solartainer are movable. Meaning that if extreme weather conditions are forecasted, we have the possibility to move it to another location in less than two days.				
Transportation Risk	The transportation risk is partially covered by our transport supplier. In the agreement, we are insured up to 18,5 % of the value of the Solartainer (German Freight Forwarders).				
Damage Risk	The risk would be mitigated by a private insurance provider in the target country (e.g, Allianz Group, Professional Multi-risk Insurance by SUNU).				
Future Main Grids Make Mini-Grids Obsolet  Once the main grid becomes operational, AGT will have not only fostered a demand for electricity, but also established a strong brand presence in the more, governments might potentially grant compensation payments for co them directly. The mobile nature of our systems allows us to recoup our investment of them to other villages, providing a sustainable and effective paylet.					

## Financial Planning

11.1 Introduction - AGT as an Investment Opportunity

11.2 Unit Economics - ImpactSites

11.2.1 Revenues / ARPUs

11.2.2 Profit & Loss

11.2.3 Cash Flow Over Time

11.2.4 Impact of an Average ImpactSite

11.3 Unit Economics - ImpactProducts

11.4 Unit Economics - C&I

11.4.1 Revenues / ARPUs

11.4.2 Profit & Loss

11.4.3 Cash Flow Over Time

11.5 Unit Economics - Residential

11.5.1 Revenues / ARPUs

11.6 Sales Forecast and Project Pipeline

11.6.1 Short-Term Bottom-Up Planning

11.6.2 Medium to Long-Term Top-Down Planning

11.7 Consolidated Numbers

11.7.1 Basic Structure

11.7.2 Profit & Loss Planning

11.7.3 Cash Flow Statement

11.7.4 Balance Sheet

11.7.5 Capital Expenditure and Prizing per Business Units

11.8 Use of Funds

11.9 Valuation DCF-Model

# 11.1 Introduction: AGT as an Investment Opportunity

From an investment point of view AGT's systems and solutions foster the development of the villages and increase their productivity growth by factors up to 5 or more. This in turn flows back to AGT in the form of revenues and higher sales. With our award-winning holistic approach, AGT is an industry role model.

Furthermore, we perceive impact as a valuable asset that can be converted into monetary value. To assess the impact, we analyze the socio-economic conditions prior to electrifying a new village and measure the subsequent changes that occur within the community after the introduction of electricity. Therefore, we are able to measure how the productive use of energy empowered our customers with our impact measurement system.

Financially AGT generates profit through

- the sale of products and equipment at a margin to subsidiaries or third parties,
- service and maintenance fees in case of projects where the ownership belongs to the customer and AGT covers the role of a system provider only,
- sales of electricity, water, internet and cooling services,
- margins from the provision of funding, for example in connection with crowdfunding.
- medium to long-term dividend payments from subsidiaries.

The demand for our services is substantial. However, the challenge lies in securing pre-financing for the necessary CapEx required for most projects. This is because customers and villagers in sub-saharan Africa typically have limited capital to make upfront payments for purchasing the system and services. However, in the long term the investments pay off, due to the low operating costs of our technologies and the increasing productivity and incomes of the customers. Capital is needed in the form of equity, debt, and grants or donations. Previously, AGT secured project financing through various sources, including approximately €5 million from equity investors, around €5.8 million from crowd investors, €3 million from debt investors, and €7 million through a bond issuance in 2017 specifically for investment in the Malian sites.

In order to better understand the financial structure, the following sections provide an in-depth overview of the business economics of the following three business units:

Impact Sites: Electrification of communities in rural regions with renewable energy solutions, mostly as an

operator model, in connection with services based on this, such as cooling, water management and internet.

Commercial & Industrial (C&I) customers: Solar energy solutions for large customers, companies or NGOs.

Residential: Solar energy solutions for private customers in urban areas.

After introducing the unit economics of the individual business units, their financials are projected for the upcoming 15 years. Finally, the financials are consolidated on a group level to provide an overall financial overview.

# 11.2 Unit Economics: ImpactSites

#### 11.2.1 Revenues / ARPUs

The graph below shows the average revenues per user for each of the ImpactSites' services. In the electricity sector, an average of 15 % of customers are business customers. However, these customers account for about one third of the turnover, which amounts to about \$35,000 per year. In addition, there is an annual turnover of \$2,844 from the capitalization of sustainability effects, e.g. from the so-called D-RECs. The D-REC (Distributed Renewable Energy Certificate) Initiative is a not-for-profit, multi stakeholder initiative that aims to create a new market instrument for the certification of renewable energy certificates. The D-REC Initiative specifically targets Distributed Renewable Energy (DRE) project developers for energy access projects in developing and emerging markets.

The issuance of D-RECs can be streamlined to all distributed renewable energy projects developed by AGT. First, a subsidiary of AGT installs a distributed renewable energy system. Then, as electricity is generated, data from the renewable system is transmitted to the D-REC monitoring and tracking platform. Subsequently, the data from multiple renewable systems is aggregated to create a D-REC in accordance with the protocols of international standards organizations. Finally, global companies buy D-RECs to achieve their carbon emission goals. There are other similar mechanisms besides D-RECs that will enable AGT to monetize its impact.

In the refrigeration sector, business customers play the main role, both in absolute numbers and in turnover. The refrigerated storage of the harvest not only reduces the food loss rate, but the farmers can also sell the goods later when prices have risen again. Private customers in particular can rent small refrigerator boxes instead of buying their own refrigerator.



	Service info	User	Average revenue per user per month	Revenues per year
Acres and a second a selection of the second and an advantage of the second and an advantage of the second and				Private: 23.206 €
ectricity	Selling electricity (kWh) Basic fee + variable fee	233 Private	Private: 8.30 €	Business: 11.857 €
Elect	4 different tariffs Prepaid (smartmeter, via mobile money)	Business	Business: <b>24.10 €</b>	REC's: 2.844 € Renewable Energy Certificates
ooling .	Selling cold storage space (liter) Basic fee	12 Private	Private: <b>7.42 €</b>	Private: 1.068 €
8	2 different tariffs Prepaid (via mobile money)	48	Business: <b>22.27 €</b>	Business: 13.000 €
Internet	Selling data volume (mb) Basic fee (flatrate) 2 different tariffs Prepaid (via mobile money)	300	x 2.03€	→ 7.308€
Water	Selling liters of water Only Variable fee Prepaid (via mobile money)	260	x 2.21 €	→ 6.895€
¹all numbers a at a given site	re at the end of scaling up operations after 4 years	∑tariffs 894	x ø 6.17€	= ∑ revenues 66.178 €

The penetration rate of mobile phone services in West Africa is quite high, with every family using at least one mobile phone. Mobile phone services are widely available, yet quite expensive. Based on the power supply and the possibility to establish satellite connections for remote maintenance, AGT has the possibility to provide internet access to the village via WiFi services. In this case, customers can inherit vouchers and then use the service. Experience shows that the demand for these services is very high, but a license is required. This is currently an operational hurdle.

Water treatment is a service that is accessible to nearly all residents in the area. AGT ensures that its pricing aligns with current market rates, aiming to maintain a fair market structure and avoid overwhelming competitors. Overall, we see a potential of about \$6,900 turnover per year here. The payback period in this service is 17.5 years. As this time period is quite long for financially driven investors, the water purification system is supposed to be financed by grants.

#### 11.2.2 Profit & Loss

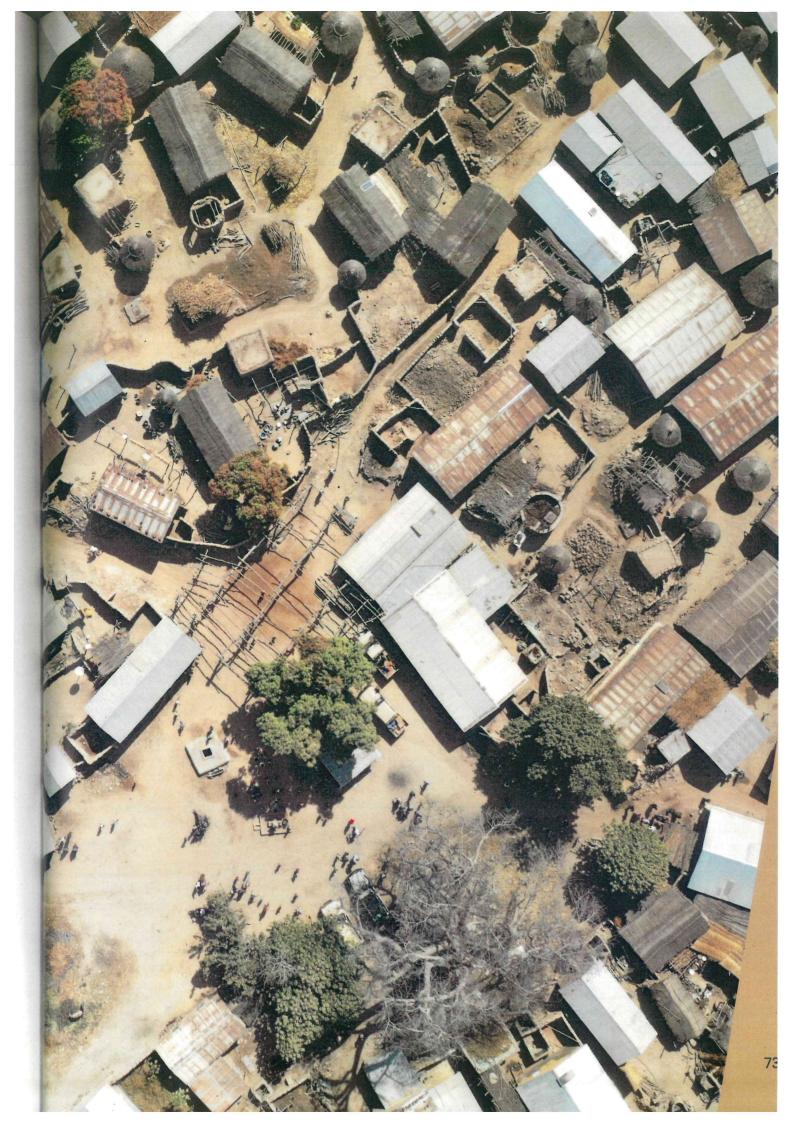
When analyzing the profit and losses (P&L) of an ImpactSite over a 15-year timeframe, it becomes evident that the largest portion of revenue is derived from the

electricity service, which also necessitates the highest investment. Additionally, apart from the revenue generated by selling utility services, there is a grant component that supports the funding of grids and house installations, typically expected to be financed by the local government or DFIs. However, customers are also required to make an investment to connect their houses to the grid.

The operation and maintenance of the facilities covers 15.4 % of the costs. Assuming a debt ratio of 72 %, with an interest rate of 6 % p.a. and a grace period of 2 years the financing costs represent on average only 18 % of the cash flow.

However, solar systems are funded after 15 years and, if properly maintained, can continue to provide electricity for at least another 10 years or longer. Therefore, with the sun as a free resource, there is a considerable upside potential.

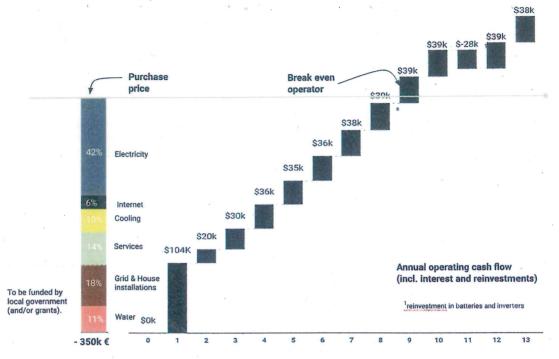
The following table (Table 8) lists a detailed ImpactSite P&L, based on a period of 15 years. Important to note is that this P&L highlights an asset ownership case in which all assets remain in the possession of AGT. On the contrary, if the investors would hold the asset ownership, a margin would have to be deducted.





#### 11.2.3 Cash Flow Over Time

Looking at the cash flows on the time axis in the figure below (Figure 44), it can be seen that the cash flows increase from year to year, whereas the ImpactSite's cash flows displayed in the picture are based on an average performance of a 50 site bundle over 15 years.



#### 11.2.4 Impact of an Average ImpactSit

In table below shows the main impact KPIs of an average ImpactSite are listed (assuming a project duration of 15 years).

	Total
SDG 2	
Total Tons of food losses avoided	4.500,0
Assumption: food loss avoided per month per Cooltainer in tons	
SDG 6	
Households with access to drinking water	260,0
SDG 7	
People with access to clean electricity	2.467,5
Assumption: number of people per household	
,	
SDG 8	
Small business empowered to increase productivity	89,1
Electricity	41,1
Cooling	48,0
SDG 9	
Number of people with access to internet	520,0
i .	
SDG 13	
Avoided tons of CO2 per ImpactSite (total)	2.149,8
Electricity	1.969,6
Factor: tCO2 per MWh consumed (based on CDM methodology and real data from Goumera)	
Cooltainer	180,2

\*SDG2 - Based on the assumption that the 1 liter of cooling capacity can store 0,5 kg of food and that full load is withdrawn and filled up again 6 times per month. \*SDG6 - Our villages have an average of around 260 households.

**\*SDG7** - Assuming an average village with around 2.500 inhabitants.

\*SDG8 - On average, in our villages around 17 % of our total clients are SMEs that demand our electricity and around 19 % of our total clients are SMEs that demand our cooling services.

**\*SDG9** - Based on the assumption that on average around 20 % of the population of the villages demand this service line.

\*SDG13 - For this calculation we used the internationally recognised CDM methodology: AMS-I.L. Electrification Of Rural Communities Using Renewable Energy (version 3). The baseline scenario of this methodology is the following: "In the absence of the project activity, the end users would have used fossil fuel based lighting and stand-alone diesel electricity generators for appliances other than lighting".

	Tota
Income Statement	100
Operating Income	1.207,54
Revenues	1.098.04
Product Sales	
Leasing Fees	
Service Revenues	1.098.04
Change in inventory	
Other operating income (e.g. grants)	109.500
Total operating income	1.207.543
COGS - from product sales	(30.000)
cogs - Share of purchasing price in leasing fee	,
Gross profit	1.177.543
Product costs (service parts)	(63.062)
Personal expenses (local)	(266.764)
Marketing expenses	(726)
Other Admin expenses (subsidiary)	(76.218)
Operating Expenses	(406.770)
EBITDA	770.773
Depreciation	(389.450)
EBIT	381.323
EBIT Margin	001.025
Financing costs	(61.632)
EBT	319.691
EBT Margin	015.051
Tax	93.173
Profit after tax	226.518
	220.010
Cashflow Statement	
Cash in bank bop	1.975.065
Operative cashflow	677.600
Investment cashflow	(423.550)
Finance cashflow	70.000
Total cashflow	324.050
Free cashflow	254.050
Change in cash	234.030
Cash in bank eop	
Balance Sheet	
Non-current assets	04.400
Fixed assets	34.100
Current assets	34.100
Cash & Cash equivalence	261.810
Accounts reveivable (from Leasing)	261.810
Prepaid expenses	
Inventory	-
Total assets	-
Equity	
labilities	296.518
ongterm debt	-
Accounts payable	-
Peferrals	3= -
otal equity & liabilities	(608)
A-red a naminies	

The revenue is mainly made up of the sale of utility services, while no product sales or leasing deals are reflected here. Nevertheless, there is further potential for product sales in the village, as AGT has very good local market access due to its local presence. These can be either direct sales or leasing transactions.

Other operating income represents grants, mainly for grids and house installations.

The costs of goods sold, at €30k, are a comparatively small value, since the largest expense relates to investments, which then only becomes visible in the P&L in the form of depreciation and financing costs.

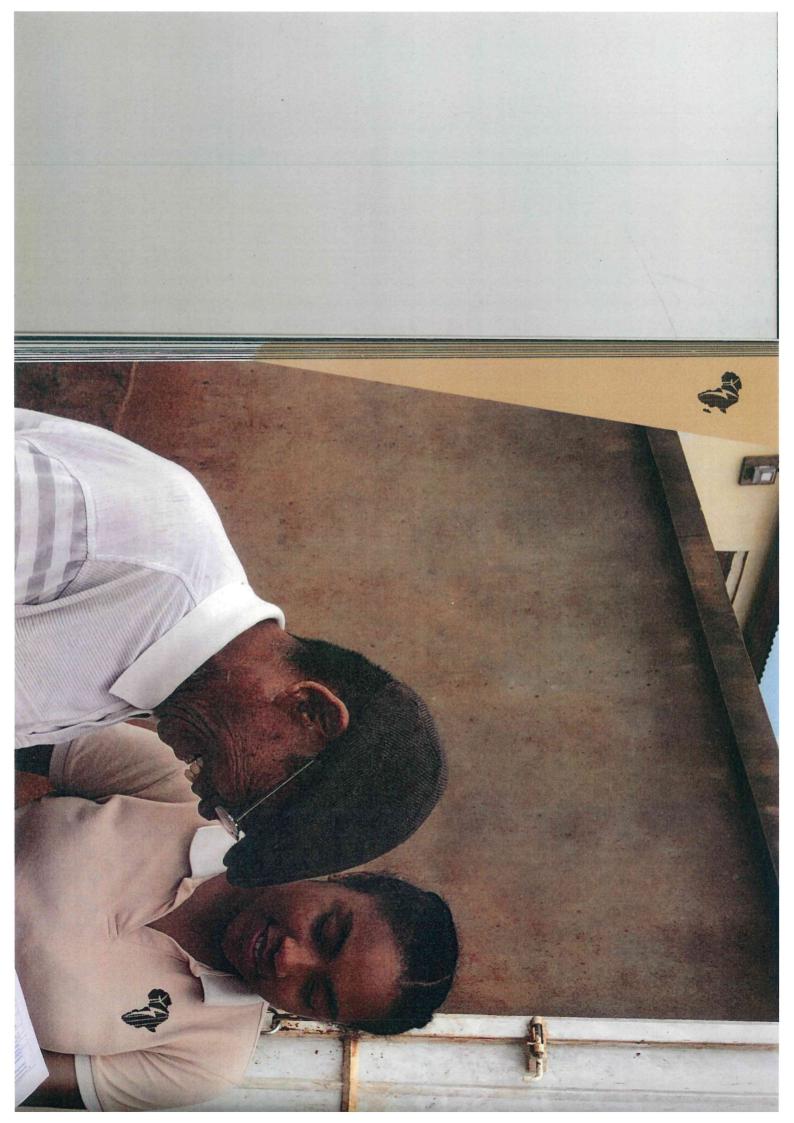
Product costs are service parts for the maintenance of the ImpactSite. They include €775 per year for the Solartainer, €600 per year for the Cooltainer and €2,100 per year for the water purification system. The water purification system needs new filters on a regular basis.

Salaries for local employees include three full-time employees per location and some head office staff. Marketing is limited to local shares in the village and is therefore a rather low value. Other admin expenses are primarily insurances and fees.

Over the 15-year period, the positive **result** is around €420,000 **before tax**.

As far as the **cash flows** are concerned the operating cash flow totals the cash inflow from sales. The investment cash flow (including the investments and the finance cash flow) is positive because all loans have been repaid at the end of the period under review.

The **balance sheet** at the end of the period shows the residual book value of the fixed assets as well as the cash in the bank account. In total, an ImpactSite has an IRR of 14.9 %.



# 11.3 Unit Economics: ImpactProducts

Customers have the flexibility to purchase the system outright, lease it, or opt for a hire purchase agreement with us. In the case of direct sales of the products, the prices are shown in the following table:

Product	Sales price
CoolUP AC	€480
CoolUP DC	€530
CoolUP DC + Solar	€710
Cooltainer Kit	€27,000
Cooltainer PCM	€3,.000
PumpUP	€3,600
Power Blox 200W (until the end of 2023)	€2,200
Power Blox 400W (from 2024)	€3,200
PVESS 5000W (small)	€7,285
PVESS 5000W (large)	€11,336

\*Prices of AGT AG. Subsidiaries add a markup of 15 %.

# 11.4 Unit Economics: C&I

#### 11.4.1 Revenues / ARPUs

The concept of productive use holds great potential, as customers have the financial capability to pay for it, and the cost of production failures often outweighs the cost of electricity itself. Moreover, since productive use activities predominantly occur during the day, there is no need for batteries, reducing additional expenses. C&I projects are driven by three main factors: (a) lack of grid supply (off-grid), (b) unreliable energy supply or high prices on the grid without the option to inject electricity into the national grid, or (c) on-grid with the ability to inject electricity and earn revenue. In the case of (a), customers rely on diesel generators, but the switch to solar systems becomes financially beneficial due to potential savings on diesel costs. Diesel generators require frequent maintenance and are prone to breakdowns, making a solar power supply a more reliable option for ensuring uninterrupted production, especially for businesses and small companies that primarily operate during daylight hours.

The question of whether feeding-in is possible depends on national regulations. If it is possible, a reliable and regular revenue is generated, which then only depends on the solar irradiation and the reliability of the system, and supports the economic advantage of the solar system. At the same time, this also favors the ability of the system to be financed by banks and other financing institutions.

In an extreme case whereby the solar plant is not connected to a single productive business customer, but the plant is built explicitly for feeding into the public grid, the electricity buyer is the national electricity supplier and the operator. Therefore, the investors receive a comparatively secure and calculable income from the sale of electricity via a government-fixed purchase price.

As far as individual business customers are concerned, there are basically two sales or payment variants possible. On the one hand, the plant can be marketed under a permanent lease. In this case the plant remains in the possession of AGT AG or an asset company and the customer only buys electricity on a kWh basis. On the other hand, the customer pays off the system via purchase installments over a longer period of time, with the system becoming his property at the end of the term (possibly in connection with a down payment). In both cases, AGT's goal is to generate recurring revenue from a service and maintenance contract.

In order to understand the typical C&I project better we are calculating an average project with the size of 500 kW PV and 300 kWh battery. In reality every project is different, some projects will be bigger and some will be smaller. The PV systems are always tailored to the needs of the customer. The price is calculated based on the system that the customer wants and based on the local market conditions. For an average project we calculate with €0.29 per kWh with a consumption of 1,850 kWh per day. This results in a monthly payment of €16.36.

#### 11.4.2 Profit & Loss

Looking at the C&I average project from a P&L perspective over a 15-year period, it becomes apparent that the largest part of the turnover is used for investments. Furthermore, with 35 % of the total cost, the OpEx accounts for the second largest cost share. Thereof 39 % of the operating cost are related to staff cost. Finally, assuming that the debt ratio is 75 %, with an interest rate of 7 % and a grace period of two years the financing costs represent on average only 10 % of the total cost.

Average CAPEX	1	Costs
PV System		€515,000
Batteries		€167,000
Inverter	3	€35,00
Grid		€12,000
Support Services		€55,000



	Total
Income Statement	
Operating Income	2.952.285
Revenues	2.952.285
Service Revenues	2.952.285
Change in inventory	-
Other operating income (e.g. grants)	× -
Total operating income	2.952.285
Gross profit	2.952.285
Product costs (service parts)	(102.492)
Personal expenses	(267.642)
Marketing expenses	
Other Admin expenses	(43.973)
Operating Expenses	(414.107)
EBITDA	2.538.178
Depreciation	(922.010)
EBIT	1.616.168
EBIT Margin	
Financing costs	(222.241)
EBT	1.393.927
EBT Margin	
Tax	404,239
Profit after tax	989.688
Profit after tax	
Cashflow Statement	
Cash in bank bop	7.235.058
Operative cashflow	2.133.939
Investment cashflow	(922.010)
Finance cashflow	352.500
Total cashflow	1.564.429
Free cashflow	1.211.929
	1.211.525
Change in cash	1.564.429
Cash in bank eop	1,304.427
Balance Sheet	(0)
Non-current assets	
Fixed assets	(0)
Current assets	1.342.188
Cash & Cash equivalence	1.342.188
Accounts reveivable (from Leasing)	-
Prepaid expenses	-
Inventory	-
Total assets	1.342.188
Equity	1.342.188
Liabilities	-
Longterm debt	-
Accounts payable	-
Deferrals	-
Total equity & liabilities	1.342.188

In the following table you can see some exemplary CapEx for a C&I project. These generalized cost assumptions are also used for our financial model calculations. However, it is important to mention that every C&I project is different and thus costs can vary. Over the course of 15 years, the project yields a positive result of 1,168 before taxes. The operating cash flow reflects the total inflow of cash from sales, while the investment cash flow takes into account investments made. Moreover, the finance cash flow shows a positive figure of €200k as all loans have been fully repaid by the end of the reviewed period. The remaining €200k corresponds to the capital stock initially contributed as equity at the beginning of the period.

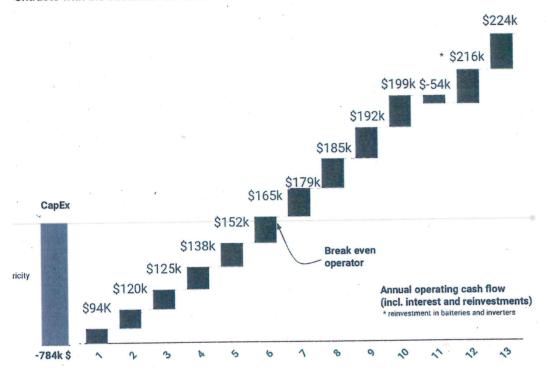
Turning our attention to the costs associated with the product, they encompass service parts required for maintaining the C&I project. Furthermore, the personal expenses for each project include three full-time employees. Alongside these, other administrative expenses primarily consist of insurance and fees.

In the calculation, it is crucial to note that after 15 years, the loan for the solar systems will be fully paid off. With proper maintenance, these systems can continue to generate electricity for another ten years. Considering the fact that sunlight is freely available, there is a significant upside potential.

#### 1.3 Cash Flow Over Time

ing at the cash flows on the time axis in the figure  $\nu$  (Figure 45), it can be seen that the cash flows inse from year to year. This is due to the inflation that odeled at 4 % per year. The increase is included in contracts with the customer and linked to the CPI.

Re-investments in the 11th year cause the cash flows to shrink in these years. The intersection of the staircase curve with the x-axis is in the sixth year, where the payback period is reached.



### 1.5 Unit Economics: Residential

#### .5.1 Revenues / ARPUs

our Residential products, several business models available to the customer. The first option entails traightforward sale of SolarUP's to the end user, a ategy that champions simplicity and immediacy. osequently, as mirrored in our C&I model, we can o explore financing options that allow the customer gradually acquire ownership of the product over a pulated term. Alternatively, we could venture into ering a perpetual leasing model, an alternative that uld potentially harmonize both flexibility and longm customer engagement. Here, the equipment does t become the property of the customer. Under such easing model, there is an opportunity to develop invative tariffs that include the cost of electricity in the ase rate, so that (a) from the customer's perspective, ere is a reliable and risk-free cost situation and (b) e electricity provider can deviate from the regulatory nitations on electricity tariffs. We assume that 60 % of e SolarUp's are being sold directly to the consumer or a a financing partner. 40 % are going to be leased to

customers. In our financial model we assume that the financing fee accounts for 25 % of the total leasing fee. The leasing time is set to 48 months.

The local market situation always plays a very important role in pricing. The availability of alternative offers, for example, is an important influencing factor. Prices are also driven by logistics costs and, in particular, import duties and taxes. The prices of Residential products must, therefore, always be determined on a country-specific basis.

System	Costs	Revenue	
Small	€11,111	€15,000	
Medium	€22,222	€30,000	
Large	€51,851	€70,000	



## 11.6 Sales Forecast and Project Pipeline

Depending on the realization horizon, the project pipeline is planned either (a) top-down via unit sales per country or (b) for the current and possibly also the following year of planning via bottom-up planning based on specific sales talks or deals. In the two following two paragraphs we illustrate both planning approaches.

#### 11.6.1 Short-Term Bottom-Up Planning

The sales forecast for 2023 relies on specific contracts that have been finalized. If the customer is able to fully fund the construction of the plants, it can be considered that the sales are largely secured. However, in case of a contract where the financing of the contract is the responsibility of AGT, it is first necessary to raise capital before the project can go into implementation. The following projects are currently ready for implementation, i.e. LOIs have been signed, orders have been placed and/or tenders have been won.

The project with the Technical University of Cologne is a secure source of revenue and earnings. After a long initiation period of one year, the tender was won at the end of 2022. The project has a total volume of €4.2 million. The project involves two plants to be built in Niger. In one case, it is a village near the capital, which will be equipped with a solar plant and a drinking water supply. The second plant will be built on site of the university in the capital Niamey and consists of a solar plant with a battery storage and an electrolyzer. This plant will serve as a research facility for the Niamey University of Applied Sciences. The plant will be delivered on a turnkey basis by AGT AG as general contractor with the help of its local subsidiary, cooperation partners and component suppliers. The project is cash flow positive as the payment terms were planned accordingly with the customer. Completion of the project is scheduled for the end of 2023. From a group perspective, sales of €4.2 million are expected to be recorded and a significant contribution to earnings is also expected due to a margin of almost 40 %.

Another secured project is the order for three UNHCR refugee camps in Uganda and Kenya. AGT AG won a tender against very renowned competitors in autumn 2022. The total volume of the project is about €2.8

million. In contrast to the project of the Cologne University of Applied Sciences, the project requires external financing. However, this is about to be secured. On the revenue side, however, the entire project scope will not be recognized as revenue, as the equipment will remain in the possession of AGT AG and will then be earned back through fixed leasing fees over a term of 10 years (optionally longer). The IRR of the project is 12.1 %. In addition, we have secured another project with the UNHCR, aiming to electrify the village of Melkadida in Ethiopia. This undertaking has a project volume of €1.6 million.

With regard to the impact sites for Madagascar, financing is currently being coordinated by the OeEB and potential senior debt investors. This involves a total volume of €3.9 million, which is planned for the construction of seven impact sites. The interest on the capital is at a comparatively low level of 3.3 %, which is due to the high impact of the projects.

An acquisition activity initiated in 2022, which is expected to yield results in 2023, involves a grant received from the Middle East Green Initiative in collaboration with the OPEC Fund. The funds are provided by a program of the State of Saudi Arabia. The goal of the program is to develop and provide clean cooking solutions. The total volume of the measure is €5 million. There is a possibility that these funds will be provided in the form of non-repayable grants. The funds can be used to build eight full-scale ImpactSites in Madagascar, Niger and Senegal. Provided the sites generate income, the projects can be leveraged with debt. In this case, the €5 million can be accounted for as a 10 % grant to the projects, financing the implementation of up to 20 ImpactSites. Below you can find an excerpt from our current project pipeline:

No.	Country	Customer Type	Content	AGT's Roles	Volume in €k	Project Phase	Funding Status	2023 Revenue in €k
1	Mada- gascar	Rural Off-Grid	6 ImpactSites	Supplier, EPC, Asset Owner, Operator	4.200	LOI	Polarstern, OeeB.	57
2	Senegal, Niger, Mada- gascar	Rural Off-Grid: Middle East Green Initiative	3 ImpactSites & up to 20 ImpactSites later	Supplier, EPC, Asset Owner, Operator	1.500	LOI	OPEC, Middle East Green Initiative	0
3	Niger	C&I: TH Cologne Germany	2 solar plants, 1 water treatment, 1 Elektrolyseur	EPC	4.200	Engineering	Secured by Customer	2.990
4	Uganda, Kenya	NGO: UNHCR	3 PV plants, incl. battery, 2,146 kW	EPC, Asset Owner, Operator	2.800	Project Implemen- tation	Secured by EPC Partner, later DEG	100
5	13 countries	NGO: SOS Children's Village	46 energy audits in 13 countries. Based on them, offers to SOS for PV systems between €100k - €500k. + one Watertainer project	EPC, Operator	4.600 - 23.000	almost all audits are finalized and proposals are sent	-	160 (for the energy audits)
	Ethiopia	NGO: UNHCR	1 solar plant	EPC, Operator	1.700	Project Develop- ment	-	0
	Senegal	Senegalese Agency for Rural Elec- trification (ASER)	1 solar plant	EPC, Operator	350	Project Implemen- tation	-	23



# 11.6.2 Medium to Long-Term Top-Down Planning

As explained before, our calculations are structured based on business units, with each business case encompassing the respective operating countries. In the case of the ImpactSite business unit, we have projected sales figures until 2027, leveraging the GSIIF Fund Sales Plan as our foundation. As for the Residential and C&I

business units, we have applied a conservative growthrate over the upcoming years until 2030 to estimate the number of projects. This approach allows us to maintain a prudent outlook while forecasting the potential growth of these units.

· _		2023	2024	2025	2026	2027	2028	2029	2030
mpactCities				,				*	
PV in MW		-	-	-	-	-	-	-	
Batteries in MW		-	-	•	-	-	-		
mpactSite	*								
Sum of ImpactSites		4	20	27	33	41	43	47	5
mpactSite Products	,								
Amount per ImpactSite			10	10	10	10	10	10	1
ridge	100%	50	200	270	330	410	430	470	51
AC	60%	30	120	162	198	246	258	282	30
oc	35%	18	70	95	116	144	151	165	17
OC + Solar	5%	3	. 10	14	17	21	22	24	
Cooltainer	100%	2	20	27	66	82	86	94	10
Amount per ImpactSite			1	1	2	2	2	2	
KIT	70%	1	14	19	46	57	60	66	
PCM	30%	1	6	8	20	25	26	28	
SolarPump	100%	52	100	135	330	410	645	705	1.0
Amount per ImpactSite			5	5	10	, 10	15	15	
Without Watertank	100%	52	100	135	330	410	645	705	1.0
With Watertank	0%	•			-		-	-	
C&I				į.					
PV in MW		0,2	6,5	7,0	8,0	9,5	10,0	11,5	1:
Amount of C&I Projects		-	11	14	16	19	20	23	
Residential SolarUps	100%	4	11	20	35	60	90	120	1
Amount									
Small 7 kW & 14 kWh			4	8	14	24	36	48	
		0%	40%	40%	40%	40%	40%	40%	4
Medium 15 kW & 30 kWh		2	6	10	18	30	45	60	
		50%	50%	50%	50%	50%	50%	50%	5
Large 30 kW & 60 kWh		2	1	2	4	6	9	12	1
		50%	10%	10%	10%	10%	10%	10%	'
3rd Party Sales									
ImpactSites			2	2	4	4	6	6	
C&I in MW		0,29					4		
Amount of C&I Projects		1,0		-	-	-	-	-	
Average C&I Project Size in MW									
ImpactProducts		30,0	55,0	61,0	66,0	71,0	76,0	81,0	8
Fridge	100%	-	50	55	60	65	70	75	
AC	60%	-	30,0	33,0	36,0	39,0	42,0	45,0	4
DC	35%	_	17,5	19,3	21,0	22,8	24,5	26,3	2
DC + Solar	5%	-	2,5	2,8	3,0	3,3	3,5	3,8	
Cooltainer	100%	0	5	6	6	6	6	6	
KIT	70%	-	3,5	4,2	4,2	4,2	4,2	4,2	
PCM	30%	-	1,5	1,8	1,8	1,8	1,8	1,8	
SolarPump	100%								
Without Watertank	100%	-				-		-	
With Watertank	0%	-	-	· -	-	~-	-		

# 11.7 Consolidated Numbers

#### 11.7.1 Basic Structure

The financials of AGT AG, along with those of its subsidiaries in which AGT holds a stake of at least 50 %, are combined and consolidated into a single financial statement. Intercompany sales between the companies are eliminated accordingly. The historical data up to 2021 are entered as fixed values in the models. When looking at the future, a standard project size is assumed in the respective business units from 2024 onwards, which is then folded onto the time axis according to the sales planning. In the present or near future, i.e. in the years 2022 and 2023, a bottom-up approach is used to concretise the planning based on the current contract situation, ongoing contract negotiations and the sales pipeline.

### We have calculated an AGT Group Model for the following reason:

- AGT AG (holding company in Germany) is procuring all materials, is developing new products and solutions, is acquiring financing and projects. The AGT AG is selling its products with a margin to the local subsidiaries or to third parties.
- The subsidiaries purchase the products and services from AGT AG and implement the projects or sell the products.

3. In order to be internally able to see the profitability of all AGT activities and companies we needed to consolidate the different subsidiaries and their business units. To do so correctly, no internal revenues or costs are accounted for in the group model. This is also very important for investors to be able to see how AGT works and how profitable it is.

In order to keep the model lean, each business unit has a sales plan which includes all the countries (subsidiaries) that we are already operating in or are planning to operate in the short-term. In order to simplify the group model, we decided to calculate with average project values. Therefore, for each business unit values of an average project (see average project details in the unit economics chapters of each business unit) are multiplied by the sales plan according to the project start dates.

#### 11.7.2 Profit & Loss Planning

#### Overview

The table shows an excerpt of the basic figures of the AGT Group model from 2022 until 2028 (see the full model until 2038 in the "AGT\_Group Financial Model" file in the tab "AGT Group"). In this consolidated model the values of all business units are summed up together and listed per year.

Income Statement	Total	2022	2023	2024	2025	2026	202
Operating Income	1.467.917.794	4.414.310	8.106,852	12,692,785	20.304,867	32,375,702	
Revenues	1.465.093.053	2.852.925	6.843.496	12.692.785	20.304.867		44.340.17
Product Sales	604.813.287	1.190.312	1.411.641	6.187.687		32.375.702	44.340.17
3rd Party Sales	57.303.756		4.239.738	1.010.578	11.060.680	16.679.705	21.664.96
Leasing Fees	35,428,727	_	8.136		1.078.020	1.941.087	1.993.66
Service Revenues	767.547.283	1.662.613		41.212	102.812	225.574	416.79
Change in inventory	341.979	341.979	1.183.982	5.453.308	8.063.356	13.529.336	20.264.764
Other operating income (e.g. grants)	2.482.762		(0)	(0)	(0)	(0)	(0
Total operating income	1.467.917.794	1.263.356		•	•	•	
COGS - from product sales		4.414.310	8.106.852	12.692.785	20.304.867	32.375.702	44.340.177
COGS - Share of purchasing price in leasing fee	(462.473.169)	656.000	(1.188.649)	(4.555.921)	(8.614.656)	(12.832.032)	(16.723.745)
COGS - 3rd Party Sales	_	-	-	0		-	٠.,
Gross profit	(42.957.217)	-	(3.027.466)	(728.132)	(779.031)	(1.415.831)	(1.460.729)
Operating Expenses	962.487.408	5.070.310	3.890.737	7.408.733	10.911.179	18.127.839	26.155.703
EBITDA	(239.791.569)	(4.045.063)	(4.584.801)	(3.847.409)	(4.699.024)	(5.933.302)	(7.336.452)
	722.695.840	1.025.247	(694.064)	3.561.324	6.212.155	12.194.537	18.819.251
Depreciation	(189.651.273)	(1.786.479)	(991.588)	(1.357.467)	(2.455.067)	(3.709.467)	(5.199.067)
Group Correction	39.733.321	1.786.479	991.588	275.069	491.490	738.829	1.032.544
EBIT	572.777.888	1.025.247	(694.064)	2.478.926	4.248.579	9.223.900	14.652.728
BIT Margin	39%	23%	-9%	20%	21%	28%	33%
inancing costs	(68.554.957)	(524.326)	(791.911)	(824.560)	(1.474.667)	(2.161.813)	(2.883.600)
EBT	504.222.931	500.921	(1.485.975)	1.654.366	2.773.912	7.062.087	11.769.128
BT Margin	34%	11%	-18%	13%	14%	22%	
ax	(150.896.435)	(12.607)	(18.700)	(163.018)	(442.999)		27%
rofit after tax	353.326.496	488.314	(1.504.675)	1.491.348	2.330.913	(2.563.551)	(4.137.622)
Profit after tax (after minority shares)	758.896.440	472.037	(3.513.147)	2.878.282	4.246.990	4.498.536	7.631.506
					-x40.990	8,847,176	15,038.436



To exclude internal revenues and costs for consolidated figures, we have included a "group correction" cell in the calculations for revenues, cost of goods sold (COGS), depreciation, non-current assets, and equity. Within this cell, the internal revenues and costs are subtracted to ensure accurate consolidated numbers.

From a historical perspective, the figures express the company's start-up phase in terms of losses. This result in particular from the following measures:

(i) Market entries, (ii) expansion of marketing and sales activities, (iii) product development, (iv) business model development, (v) personnel and structural organizational development, and (vi) fundraising via crowdfunding, acquisition of additional shareholders, and capital market instruments (bond and fund).

In 2016, the company was established primarily as a mini-grid developer in Mali, and later expanded its operations to include Niger in 2017. In order to reduce the entrepreneurial risk, the company was first positioned more broadly geographically and, in particular, other more politically stable countries were approached, which included Senegal and Madagascar (both started operations in 2020).

With regard to the business model, the concept of the ImpactSite was introduced in 2020, an approach that was well received by the market environment with corresponding awards and prizes. With this concept, AGT provides a holistic solution for several sectors, with which the ecosystem as a whole is positively influenced by accelerating income development, creating jobs and

significantly improving the solvency and income opportunities of customers. As part of this approach, other products have been developed, including the Cooltainer, solar pumps, a water filtration system and a water desalination system. These products have already been successfully launched on the market and are taken into account in the planning.

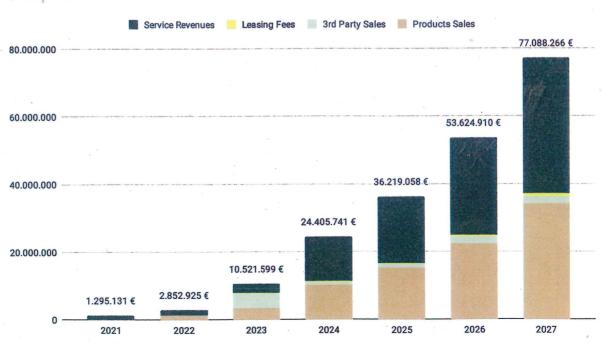
The expansion of activities to the C&I business field in 2021 was achieved through increased participation in tenders and applications, which led to a number of successes in 2022. In the meantime, activities have also been extended to East Africa, specifically Uganda and Kenya in connection with a UN project. Furthermore, SOS Children's Villages and a research project of the Technical University of Cologne were acquired.

Overall, the expansion and professionalization of AGT's work is also expressed in a loss in 2022. Nevertheless, it has become apparent in 2022 that the measures taken are having an effect and that a foundation has been laid for the sustainable growth of the AGT Group. Consequently, 50 % of the liquidity will already be used for the implementation of projects in 2023. From 2024 onwards, the structural expansion of the group of companies can increasingly take place in connection with profitable projects and thus lead the company as a whole into the profit zone.

#### Revenues

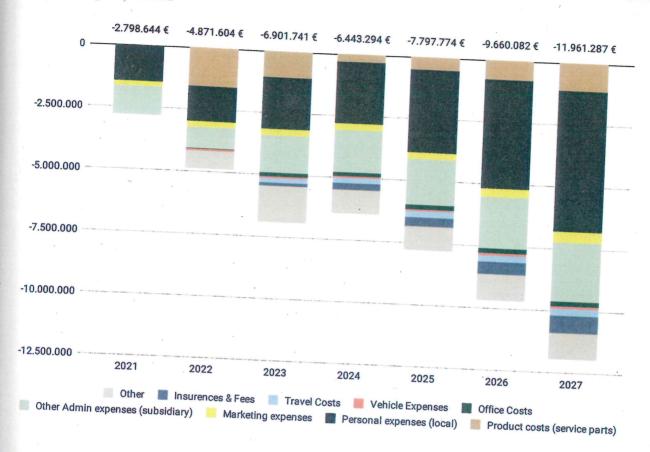
The revenues will increase strongly from €1.99 million in 2022 to €75.3 million in 2027. This translates into a CAGR of 83.2 %.

#### **Group Revenues**



The largest revenue driver is product sales. The main reference in the short-term here is to a contract with the BNDA

#### Operating expenses



#### Depreciation

Depreciation	Total (189.651.273)	2022	2023	2024	2025	2026	2007
15yrs	(8.704.073)	(1.786.479) (1.708.079)	(991.588)	(1.357.467)	(2.455.067)	(3.709.467)	(5.199.067)
10yrs	(180.947.200)	(78.400)	(913.188) (78.400)	(416.667)	(416.667)	(416.667)	(416.667)
7yrs		• .	-	(940.800)	(2.038.400)	(3.292.800)	(4.782.400)

#### **Financing Costs**

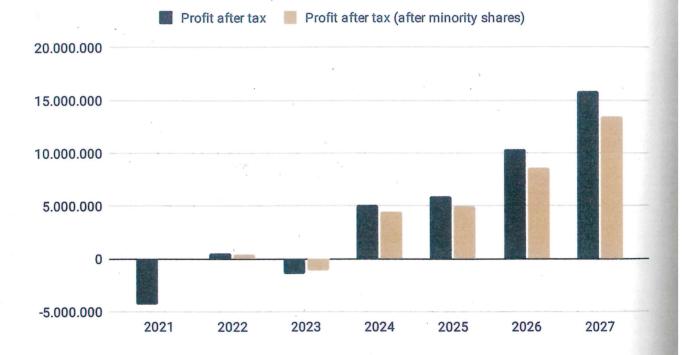
Financing costs Interest Fee (Disaggio) Withholding Tax	(68.554.957) (59.434.237) (8.736.000) (384.720)	(524.326) (500.326) (24.000)	(791.911) (791.911)	(824.560) (560.000) (264.000) (560)	(1.474.667) (1.137.500) (336.000) (1.167)	2026 (2.161.813) (1.771.000) (384.000) (6.813)	(2.883.600) (2.415.000) (456.000) (12.600)
---	--	------------------------------------	------------------------	--	--	--	---



#### **Profits**

Based on the current conservative sales plan and the current prices the AGT Group will generate net losses in 2022 (€-1.6 million) and 2023 (€-2 million). Then in 2024 and ongoing the AGT Group will start to generate profits.

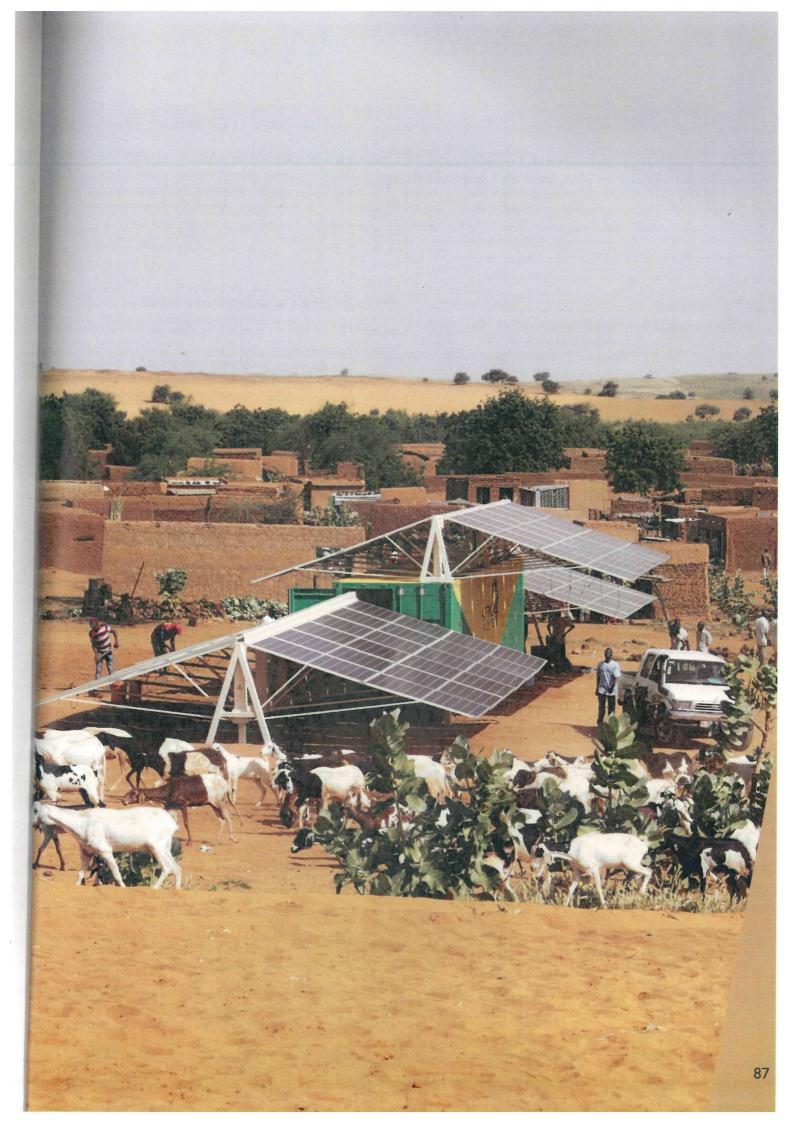
	2023	2024	2025	2026	2027
Profit after tax (after minority shares)	(3.513.147)	2.878.282	4.246.990	8.847.176	15.038.436
Mali		79.532	182.549	626.796	1.053.439
Niger	(225.701)	642.681	1.180.113	2.026.007	2.724.045
Senegal	(3.139.665)	755.356	1.163.329	2.390.055	4.958.612
Madagaskar	(147.781)	1.297.720	1.494.054	3.198.959	5.152.387
Zambia	4	98.874	226.945	605.359	1.142.486
Kenya		4.120	-		7.467
Uganda		ž.		-	
Ghana	· · · · · · · · · · · · · · · · · · ·	-		-	-



#### 11.7.3 Cash Flow Statement

The cash flow statement is generated independently and is not directly connected to the cash flow statements of individual business cases. Instead, it is derived from the consolidated P&L statement and the consolidated balance sheet.

Cash in bank bop	2.222.769.930	3.404.433	15.100.586	25.744.158	25.896.437	32.046.945	39.534.181
Operative cashflow	624.971.325	(2.354.303)	5.937.700	1.971.211	5.585.017	10.242.407	15.044.442
Investment cashflow	(253.167.679)	1.002.479	(2.988.412)	(10.618.931)	(10.484.510)	(11.805.171)	(13.863.456)
Finance cashflow	105.342.260	13.047.976	7.694.284	8.800.000	11.050.000	9.050.000	9.200.000
Total cashflow	477.145.906	11.696.153	10.643.572	152.280	6.150.507	7.487.236	10.380.986
Free cashflow	371.803.646	(1.351.823)	2.949.288	(8.647.720)	(4.899.493)	(1.562.764)	1.180.986
Discounted free cashflow	322.884.194	(1.338.439)	2.891.175	(8.393.392)	(4.708.316)	(1.486.916)	1.112.543
Change in cash		11.696.153	10.643.572	152.280	6.150.507	7.487.236	10.380.986
Cash in bank eop		15.100.586	25.744.158	25.896.437	32.046.945	39.534.181	49.915.167





#### 11.7.4 Balance Sheet

	2022	2023	2024	2025	2026	2027
Balance Sheet						
Non-current assets	11.127.918	12.512.375	13.651.887	21.956.398	30.543.593	39.946.811
Fixed assets	12.914.398	13.503.963	13.926.956	22.447.889	31.282.422	40.979.356
Group Correction	(1.786.479)	(991.588)	(275.069)	(491.490)	(738.829)	(1.032.544)
Current assets	9.383.535	2.256.060	(1.080.059)	854.382	10.000.008	10.719.002
Cash & Cash equivalence	3.773.120	2.148,521	(2.627.769)	(1.473.958)	6.959.260	6.768.522
Accounts reveivable (from Leasing)	4.279.629	111.005	41.040	64.736	128.344	173.007
Prepaid expenses	62.630	20.000	-	-	-	
Inventory	1.268.156	(23.466)	1.506.670	2.263.604	2.912.405	3.777.473
Total assets	20,511,453	14.768.435	12.571.827	22.810.781	40.543.601	50,665,813
Equity	7.696.611	4.904.315	4.271.827	6.155.781	14.253.601	14.935.813
Group Correction	1.268.400	704.027	195.299	348.958	524.569	733.107
Liabilities	11.770.664	9.864.120	8.300.000	16.655.000	26.290.000	35.730.000
Longterm debt	7.764.575	9.302.127	8.000.000	16.250.000	25.300.000	34.500.000
Accounts payable	405.993	561.993	300.000	405.000	990.000	1.230.000
Deferrals	1.044.179	-	-	-		
Total equity & liabilities	20.511.453	14.768.435	12.571.827	22,810,781	40.543.601	50.665.813

# 11.7.5 Capital Expenditure and Prizing per Business Units

As mentioned before we are calculating average project sizes. This results in an average financing need per project. The financing need calculations do not consider any cash on the bank to finance the project. The

estimated financing need is then linked back into the group financial model.

Most of the financing is needed for the C&I projects, especially after 2024.

Business U	Init		Interest	Rate for Deb	it				
AGT AG		•		ot needed, jus ated. Current			anced by debt.	Interest needs	to be
Residenti	al		7 %						
C&I			•	e average pro ed by 75 % de	- ·				
ImpactSit	es			ect financing B, afterwards			g (the first batc	ch 2023 / 2024	by the
Interest rate	2023	,	2024	2025	2026	2027	2028	2029	2030
10,0 %	€460.367	€-3.5	99.022	€2.550.679	€3.659.814	€7.805.550	€13.609.309	€17.069.135	€23.794.035
9,0 %	€465.185	€-3.5	70.397	€2.680.281	€3.880.004	€8.182.997	€14.121.664	€17.733.327	€24.574.976
8,0 %	€468.751	€-3.5	41.772	€2.782.360	€4.067.196	€8.519.649	€14.585.479	€18.343.496	€25.293.947
7,0 %	€472.036	€-3.5	13.147	€2.878.282	€4.246.990	€8.847.176	€15.038.436	€18.941.579	€25.999.056
6,0 %	€476.575	€-3.4	84.522	€3.001.727	€4.459.783	€9.215.498	€15.539.933	€19.593.687	€26.766.135
5,0 %	€481.113	€-3.4	55.897	€3.125.173	€4.672.858	€9.583.819	€16.041.430	€20.245.796	€27.533.215
4.0 %	€483.838	€-3.4	27.272	€3.208.781	€4.837.576	€9.893.095	€16.472.671	€20.819.710	€28.210.599

#### 11.8 Use of Funds

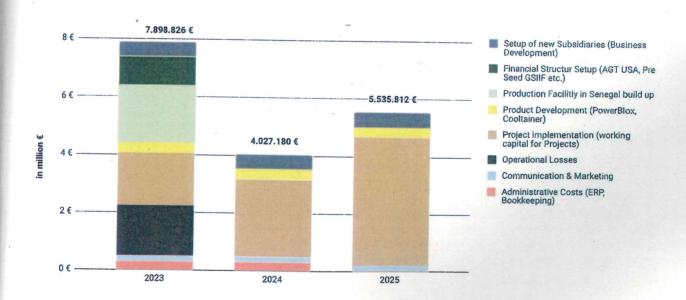
The use of funds was discussed with the C-level and stakeholders such as the local subsidiaries and the International Business Development (IBD) team. The IBD team is responsible for new and current projects. Based on this information the current use of funds was calculated.

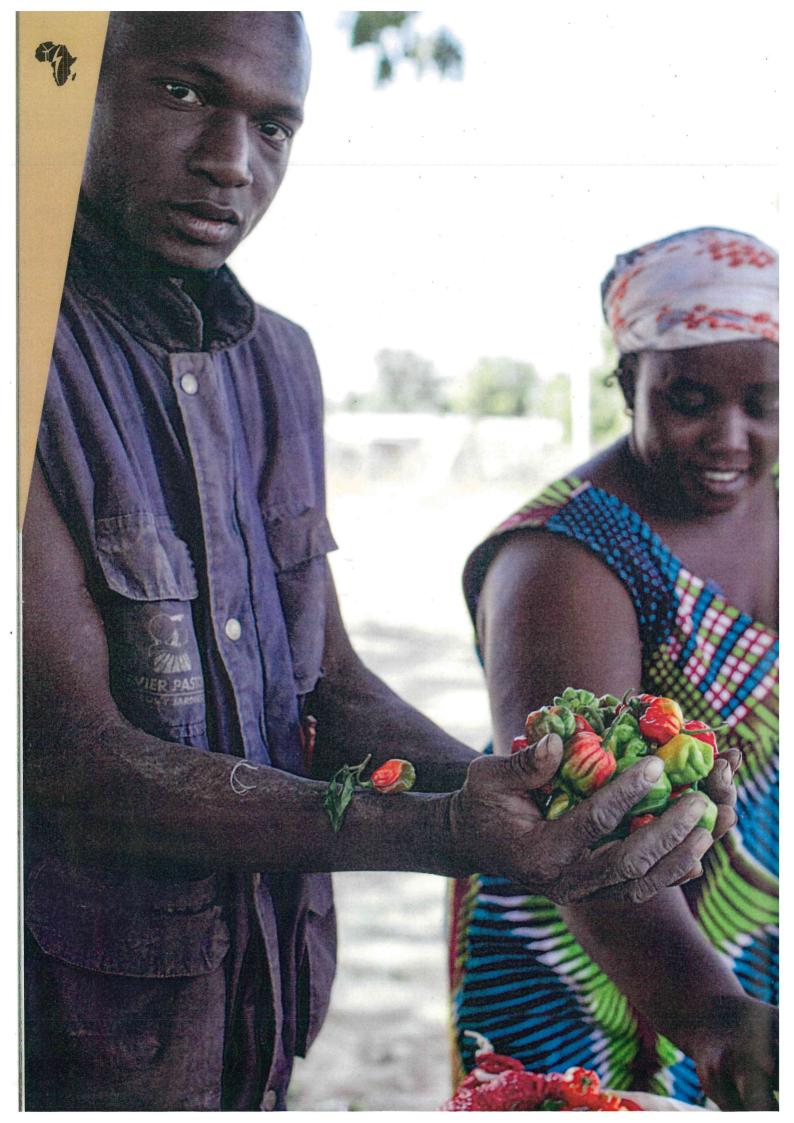
The majority of the Series B funding will go into project implementation, so that AGT can start new projects and is able to prefinance them. These projects will bring in the future cash flows of the AGT Group.

Another portion of the funding will go in the further development of the AGT Group to strengthen and expand the foundation. The majority of these structural investments will go into the build up of the production facility in Senegal. So AGT will be able to build its own Solartainer and Cooltainer in its own production facility. This vertical integration improves AGT's market posi-

tion, independence and will increase the margins. Other investments are going into product development to test and build further products that can be sold to our customers. In order to get access to further project funding opportunities AGT will set up new financial structures, as has been done in the USA and like the GSIIF Fund, as well as new subsidiaries in countries where AGT is not operating yet. These investments will strengthen and expand the AGT Group, its impact and cash flows.

The smallest part of the funding will go into OpEx like the implementation of a new ERP system. The implementation of the ERP system (Odoo) is ongoing right now. The project started in November 2022 and the first modules are already live. AGT is also going to develop an application for its customers, so that they can pay directly for the services via the application. The funding will also be used for further marketing and communication expenses and the last operational loss in 2023.





Equity	
Risk-free rate	2,267 %
Inflation Premium	4,00 %
Adjusted Risk free rate	6,27 %
Adjusted Not free fate	0,27 %
Beta (Global Industry Average-Green &	
Renewable Energy)	0,69
Debt ratio	42,52 %
Equity ratio	57,48 %
Beta relevered (peer group)	0,98
Expected Market Risk Premium	8,00 %
Country Risk Premium	7,67 %
Cost of Equity	21,68 %
Market value of Equity	115.156
Debt	
Interest rate (Cost of Debt before Tax)	7,00 %
Country Risk Premium	7,67 %
Tax rate	29,83 %
Tax shield	4,38 %
Cost of Debt (after Tax)	10,29 %
Book value of debt (Interest Bearing	
Liabilities)	94.429
Total capital	209.585
WACC	15,32 %
Perpetual Growth Rate	2,00 %

# 11.9 Valuation DCF-Model

Utilizing the Discounted Cash Flow (DCF) method, we calculate the enterprise value by considering the free cash flows from 2022 to 2036, taking into account the minority shares of the subsidiaries. The free cash flow after minority shares is then discounted for each year. The discount factor is calculated by the calculated WACC of 16.21 % and the discount rate based on the valuation date, that is calculating itself based on the current date and the last fiscal year. The WACC is calculated based on the beige inputs.

For the enterprise value we aggregate the discounted free cash flows. In a conservative scenario, assuming the terminal value being at 0, we come to an enterprise value of €85 million.

	2023 FC	2024 BP	2025 BP	2026 BP	2027 BP	2028 BP	2029 BP	2030 BP	2037 BF
Free Cash Flow	2.949.288	8.647.720	4.899.493	1.562.764	1.180.986	5.436.284	8.623.045	14,431,943	58.867.503
Free Cash Flow (after minority shares)	2.850.978	20.190.883	9.455.953	2.847.400	2.322.621	10.712.592	17.966.646	29.993.515	127.393.57
Discount Factor	0,95	0,82	0,71	0,61	0,53	0,46	0,40	0,34	0,13
Discounted Cash Flow	2.701.672	16.561.37	6.713.493	1.749.822	1.235.453	4.932.245	7.160.105	10.346.228	15.996.252
Sum of Discounted Cash Flows								~	112.234.921
Terminal Value (based on last projected CF)	*					The state of the s			120.585.623
Discounted Terminal Value	4								15.141.407
Enterprise Value (EV)	127.376.329								
Present Value Sum FCFs	112.234.921								
Present Value Terminal Value	15.141.407			1		,			Y
Terminal Value of EV	12%					* '		i.	
Cash 2023 in Mio	15.100.586								
Net Dept 2023 in Mio	11.770.664								
Equity Value (EqV)	130.706.251				*				



Our vision is to provide 3 million people with electricity from renewable energies, cooling, water treatment and internet access by 2030.

We empower people to achieve more self-determination and growth through sustainable energy solutions.

WE DO.